

# Traffic Safety Facts

## Research Note

DOT HS 810 568

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## Motor Vehicle Traffic Crashes as a Leading Cause of Death in the United States, 2003

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### Summary

In 2003, motor vehicle traffic crashes were the leading cause of death for the age group 4 through 34. Because of the young lives consumed, motor vehicle traffic crashes ranked third overall in terms of the years of life lost, i.e., the number of remaining years that the person is expected to have lived had they not died, behind only cancer and diseases of the heart. The table (overleaf) shows the ten leading causes of death by age group in 2003. The age groups reflect categories of interest to the National Highway Traffic Safety Administration (NHTSA) in terms of Child-Restraint Programs (Toddlers, Infants, and Young Children), New Drivers (Youth and Young Adults), Other Adults, and the Elderly.

### Background

This Research Note examines the status of motor vehicle traffic crashes as a leading cause of death in the United States in 2003. This note reflects an update of a prior research note (DOT HS 809 831) that was based on the mortality data for 2002. It is based on a study of the ranking of 68 causes of death, which have been adopted by NHTSA's National Center for Statistics and Analysis (NCSA). 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. Although the National Center for Health Statistics (NCHS), in its annual report on mortality, publishes detailed tabulations of the leading causes of death, the fatalities due to motor vehicle traffic crashes are "lumped" into the very general category of *Unintentional Injuries*. Fatalities due to motor vehicle traffic crashes comprise a significant proportion of all fatalities due to unintentional injuries, especially at younger ages, and this has prompted NHTSA to separate motor vehicle crashes as an individual cause of death in this report. NCSA added the computation of the years of lost life to the conventional rank ordering of the causes of death in order to highlight the tremendous toll that motor vehicle traffic crashes have on the younger population. In fact, while motor vehicle traffic

crashes ranked eighth overall as a cause of death, they were ranked as high as third in terms of the years of life lost.

### Methodology

**Years of Life Lost:** This is the number of remaining years that the person is expected to have lived had they not died. The number of years of life lost due to a particular cause is the aggregate of years of life lost for all persons that died due to that cause. The expected years of remaining life is calculated using standard tables of life expectancy by age (Life expectancy at selected ages for 2002, NCHS).

The NCSA-adopted listing of 68 causes of death is comprehensive in that all underlying causes are represented. Fifty-one of these 68 adopted causes reflect the underlying causes based on internal morbid bodily conditions, while 16 NCSA-adopted causes reflect the underlying causes based on external factors such as crashes and acts of violence, and the remaining cause reflects all other diseases. This 68-cause listing is 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. The latter differs from the NCSA listing primarily in causal areas related to unintentional injuries (accidental death). While NCHS uses the combined cause of *unintentional injuries* in its reports of leading causes of death, this study separates out the various causes that comprise unintentional injuries like fatalities in motor vehicle traffic crashes, accidental falls, poisoning, motor vehicle non-traffic crashes, etc. Accordingly, the rank of some causes of death will differ from those reported by NCHS. The NCSA cause listing also differs from the NCHS listing for causes of infant mortality. While NCHS, for reasons of public health interest, uses a detailed 130-cause listing, the NCSA list combines it into one major cause – conditions originating in the *perinatal period*.

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National Highway Traffic Safety Administration's  
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## Top 10 Leading Causes of Death in the United States for 2003, By Age Group<sup>1</sup>

RANK	Cause and Number of Deaths										Years of Life Lost <sup>2</sup>	
	Infants Under 1	Toddlers 1-3	Young Children 4-7	Children 8-15	Youth 16-20	Young Adults 21-24	Other Adults			Elderly 65+		All Ages
							25-34	35-44	45-64			
1	Perinatal Period 14,254	Congenital Anomalies 480	MV Traffic Crashes 479	MV Traffic Crashes 1,582	MV Traffic Crashes 5,988	MV Traffic Crashes 4,312	MV Traffic Crashes 6,675	Malignant Neoplasms 15,509	Malignant Neoplasms 145,535	Heart Disease 563,390	Heart Disease 685,089	Malignant Neoplasms 23%(8,672,799)
2	Congenital Anomalies 5,621	Accidental Drowning 401	Malignant Neoplasms 444	Malignant Neoplasms 859	Homicide 2,489	Homicide 2,744	Suicide 5,065	Heart Disease 13,600	Heart Disease 102,792	Malignant Neoplasms 388,911	Malignant Neoplasms 556,902	Heart Disease 21%(8,027,887)
3	Heart Disease 439	MV Traffic Crashes 385	Congenital Anomalies 166	Suicide 412	Suicide 1,813	Suicide 2,012	Homicide 4,516	MV Traffic Crashes 6,780	Diabetes 16,389	Stroke 138,134	Stroke 157,689	MV Traffic Crashes 5%(1,725,870)
4	Homicide 341	Homicide 333	Accidental Drowning 149	Homicide 389	Accidental Poisoning 752	Accidental Poisoning 1,221	Malignant Neoplasms 3,741	Suicide 6,602	Stroke 16,073	Chronic Lwr. Resp. Dis. 109,139	Chronic Lwr. Resp. Dis. 126,382	Stroke 5%(1,641,883)
5	Influenza/Pneumonia 322	Malignant Neoplasms 272	Exposure to Smoke/Fire 145	Congenital Anomalies 320	Malignant Neoplasms 749	Malignant Neoplasms 795	Accidental Poisoning 3,435	Accidental Poisoning 6,230	Chronic Lwr. Resp. Dis. 15,614	Alzheimer's 62,814	Diabetes 74,219	Chronic Lwr. Resp. Dis. 4%(1,486,130)
6	Septicemia 278	Exposure to Smoke/Fire 169	Homicide 113	Heart Disease 248	Heart Disease 450	Heart Disease 633	Heart Disease 3,250	HIV 5,340	Chronic Liver Disease 13,894	Influenza/Pneumonia 57,670	Influenza/Pneumonia 65,163	Perinatal Period 3%(1,110,448)
7	Nephritis/Nephrosis 181	Heart Disease 159	Heart Disease 93	Accidental Drowning 209	Accidental Drowning 309	Accidental Drowning 223	HIV 1,588	Homicide 3,110	Suicide 10,324	Diabetes 54,919	Alzheimer's 63,457	Suicide 3%(1,104,339)
8	MV Traffic Crashes 144	Influenza/Pneumonia 141	MV Nontraffic Crashes <sup>4</sup> 79	Exposure to Smoke/Fire 140	Congenital Anomalies 241	Congenital Anomalies 171	Diabetes 657	Chronic Liver Disease 3,020	MV Traffic Crashes 9,700	Nephritis/Nephrosis 35,254	MV Traffic Crashes 43,340	Diabetes 3%(1,067,600)
9	Stroke 101	MV Nontraffic Crashes <sup>4</sup> 101	MV Nontraffic Crashes <sup>4</sup> 43	MV Nontraffic Crashes <sup>4</sup> 120	MV Nontraffic Crashes <sup>4</sup> 108	HIV 131	Stroke 583	Stroke 2,460	Accidental Poisoning 6,804	Septicemia 26,445	Nephritis/Nephrosis 42,453	Homicide 2%(827,103)
10	Meningitis 77	Septicemia 77	Septicemia 35	Chronic Lwr. Resp. Dis. 114	Accidental Falls 106	MV Nontraffic Crashes <sup>4</sup> 117	Congenital Anomalies 426	Diabetes 2,049	HIV 5,959	Hypertension Renal Dis. 18,657	Septicemia 34,069	Accidental Poisoning 2%(749,593)
ALL <sup>3</sup>	28,025	4,205	2,556	6,555	16,141	16,030	41,300	89,461	439,300	1,804,373	2,448,288	All Causes 100%(37,488,508)

**1 When ranked by specific ages, motor vehicle crashes are the leading cause of death for age 3 and each age 5 through 33.**

**2** Number of years calculated based on remaining life expectancy [2002 data from CDC] at time of death; percents calculated as a proportion of total years of life lost due to all causes of death.

**3** Not a total of top 10 causes of death.

**4** A motor vehicle nontraffic crash is any vehicle crash that occurs entirely in any place other than a public highway.

**Source:** National Center for Health Statistics (NCHS) CDC, Mortality Data 2003.

**Note:** The cause of death classification is based on the National Center for Statistics and Analysis (NCSA) Revised 68 Cause of Death Listing. This listing differs from the one used by the NCHS for its reports on leading causes of death by separating out unintentional injuries into separate causes of death, i.e., motor vehicle traffic crashes, accidental falls, motor vehicle nontraffic crashes, etc. Accordingly, the rank of some causes of death will differ from those reported by the NCHS. This difference will mostly be observed for minor causes of death in smaller age groupings.