

Traffic Safety Facts

Research Note



DOT HS 810 936

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Motor Vehicle Traffic Crashes As a Leading Cause of Death in the United States, 2005

Summary

In 2005, motor vehicle traffic crashes were the leading cause of death for every age 3 through 6 and 8 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 live had they not died, behind only cancer and diseases of the heart. The table (overleaf) shows the 10 leading causes of death by age group in 2005. The age groups reflect categories of interest to the National Highway Traffic Safety Administration in terms of Child-Restraint Programs (Toddlers, Infants, and Young Children), Novice 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 2005. This note reflects an update of a prior research note (DOT HS 810 742) that was based on the mortality data for 2004. 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 ninth 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 2004, National Center for Health Statistics).

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*.

If you have any questions regarding the information presented in this document, please contact Rajesh Subramanian at rajesh.subramanian@dot.gov.

Top 10 Leading Causes of Death in the United States for 2005, by Age Group¹

Rank	Cause and Number of Deaths										Years of Life Lost ²	
	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
1	Perinatal Period 14,423	Congenital Anomalies 462	MV Traffic Crashes 449	MV Traffic Crashes 1,398	MV Traffic Crashes 5,665	MV Traffic Crashes 4,587	MV Traffic Crashes 7,047	Malignant Neoplasms 14,566	Malignant Neoplasms 149,645	Heart Disease 530,926	Heart Disease 662,091	Malignant Neoplasms 23% (8,913,260)
2	Congenital Anomalies 5,552	Accidental Drowning 437	Malignant Neoplasms 391	Malignant Neoplasms 835	Homicide 2,571	Homicide 2,717	Suicide 4,990	Heart Disease 12,688	Heart Disease 103,311	Malignant Neoplasms 388,322	Malignant Neoplasms 559,312	Heart Disease 20% (7,876,528)
3	Heart Disease 358	MV Traffic Crashes 370	Congenital Anomalies 205	Suicide 459	Suicide 1,905	Suicide 2,120	Homicide 4,752	Accidental Poisoning 6,729	Diabetes 16,992	Stroke 123,881	Stroke 143,579	MV Traffic Crashes 5% (1,755,247)
4	Homicide 306	Homicide 328	Exposure to Smoke/Fire 140	Homicide 440	Accidental Poisoning 896	Accidental Poisoning 1,553	Accidental Poisoning 4,386	Suicide 6,550	Chronic Lwr. Resp. Dis. 16,724	Chronic Lwr. Resp. Dis. 112,716	Chronic Lwr. Resp. Dis. 130,933	Stroke 4% (1,579,544)
5	Septicemia 302	Malignant Neoplasms 279	Accidental Drowning 135	Congenital Anomalies 297	Malignant Neoplasms 764	Malignant Neoplasms 825	Malignant Neoplasms 3,601	MV Traffic Crashes 6,491	Stroke 16,409	Alzheimer's 70,858	Diabetes 75,119	Chronic Lwr. Resp. Dis. 4% (1,575,270)
6	Influenza/Pneumonia 265	Exposure to Smoke/Fire 160	Homicide 126	Heart Disease 259	Heart Disease 425	Heart Disease 624	Heart Disease 3,249	HIV 4,363	Chronic Liver Disease 14,643	Influenza/Pneumonia 55,453	Alzheimer's 71,599	Suicide 3% (1,155,478)
7	Nephritis/Nephrosis 159	Heart Disease 141	Heart Disease 73	Accidental Drowning 218	Accidental Drowning 353	Accidental Drowning 252	HIV 1,318	Homicide 3,109	Suicide 11,201	Diabetes 55,222	Influenza/Pneumonia 63,001	Perinatal Period 3% (1,130,784)
8	MV Traffic Crashes 140	MV Nontraffic Crashes ⁴ 113	MV Nontraffic Crashes ⁴ 52	Exposure to Smoke/Fire 137	Congenital Anomalies 257	Congenital Anomalies 201	Diabetes 617	Chronic Liver Disease 2,688	MV Traffic Crashes 10,466	Nephritis/Nephrosis 36,416	Nephritis/Nephrosis 43,901	Diabetes 3% (1,107,065)
9	Stroke 126	Influenza/Pneumonia 100	Stroke 42	MV Nontraffic Crashes ⁴ 105	MV Nontraffic Crashes ⁴ 142	Accidental Falls 138	Stroke 546	Stroke 2,260	Accidental Poisoning 8,990	Septicemia 26,243	MV Traffic Crashes 43,667	Accidental Poisoning 2% (917,659)
10	Malignant Neoplasms 75	Septicemia 75	Influenza/Pneumonia 41	Influenza/Pneumonia 87	Accidental Firearms 109	Pregnancy Childbirth 120	Congenital Anomalies 436	Diabetes 2,045	Nephritis/Nephrosis 6,169	Hypertension Renal Dis. 21,265	Septicemia 34,136	Homicide 2% (855,969)
ALL ³	28,440	4,034	2,484	6,354	16,048	16,672	41,925	84,785	458,831	1,788,189	2,448,017	All Causes 100% (38,441,580)

¹When ranked by specific ages, motor vehicle crashes are the leading cause of death for ages 3-6 and 8-34.

²Number of years calculated based on remaining life expectancy [2004 data from CDC] at time of death; percents calculated as a proportion of total years of life lost due to all causes of death.

³Not a total of top 10 causes of death.

⁴A 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 2005.

Note: The cause of death classification is based on the National Center for Statistics and Analysis (NCSA) Revised 68 Causes 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.