

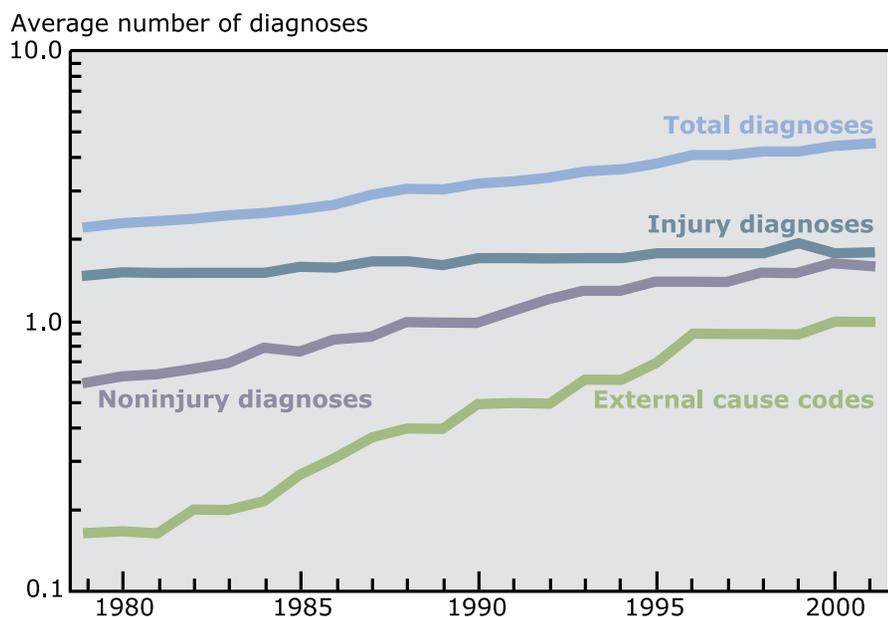
## Average Number of Diagnoses

Most of this report is based on hospitalizations with a first-listed injury diagnosis, but the National Hospital Discharge Survey (NHDS) also gathers data on up to six additional diagnoses. For this figure, average number of diagnoses was obtained by dividing the total number of diagnoses (all listed) by the number of discharges. From 1979 to 2001 the average number of total diagnoses for injury discharges doubled from 2.2 diagnoses to 4.5 diagnoses per discharge, as compared with the increase from 2.2 to 3.9 diagnoses per noninjury discharge.

Starting in the late 1980's the average number of total diagnoses for injury discharges was consistently higher than the average number of total diagnoses for noninjury discharges. This difference is due to increases in injury and noninjury diagnoses as well as to increases in external cause codes among injury discharges.

From 1979 to 2001 the average number of injury diagnoses per injury discharge increased on average 1.0 percent per year (for a total increase of 24 percent) from 1.5 to 1.8 diagnoses per injury discharge. There was also an increase in the average number of noninjury diagnoses (0.6 to 1.7 diagnoses) and in external cause codes (0.2 to 1.0 diagnoses) for injury discharges.

**Figure 23. Average number of diagnoses among injury hospital discharges, 1979-2001**



NOTES: Data are plotted on the log scale. Average number of diagnoses is age adjusted using the 2000 standard population ("[Appendix A,](#)" [Age adjustment](#)). See data table for data points graphed and additional notes. See "[Table 1](#)" for the ICD-9-CM codes in each category. External cause codes for this figure are all codes from E800-E999. Average number of total diagnoses among injury discharges include injury diagnoses codes, external cause codes, and noninjury codes.

SOURCE: Centers for Disease Control and Prevention, National Center for Health Statistics, National Hospital Discharge Survey.

**Data table for figure 23. Average number of diagnoses for injury and noninjury hospital discharges, 1979-2001**

Year	Total diagnoses for injury discharges		Injury only diagnoses for injury discharges		External cause codes for injury discharges (E800-E999)		Noninjury diagnoses for injury discharges		Total diagnoses for noninjury discharges	
	Mean	Mean SE	Mean	Mean SE	Mean	Mean SE	Mean	Mean SE	Mean	Mean SE
1979	2.2	0.18	1.5	0.12	0.2	0.02	0.6	0.05	2.2	0.12
1980	2.3	0.20	1.5	0.13	0.2	0.02	0.6	0.06	2.2	0.14
1981	2.3	0.18	1.5	0.12	0.2	0.02	0.6	0.06	2.3	0.13
1982	2.4	0.17	1.5	0.11	0.2	0.02	0.7	0.06	2.3	0.12
1983	2.4	0.15	1.5	0.10	0.2	0.02	0.7	0.05	2.4	0.11
1984	2.5	0.13	1.5	0.08	0.2	0.02	0.8	0.05	2.6	0.08
1985	2.6	0.13	1.6	0.09	0.3	0.02	0.8	0.05	2.6	0.09
1986	2.7	0.13	1.6	0.08	0.3	0.02	0.8	0.05	2.7	0.09
1987	2.9	0.20	1.7	0.12	0.4	0.03	0.9	0.07	2.8	0.14
1988	3.1	0.05	1.7	0.02	0.4	0.02	1.0	0.02	2.9	0.02
1989	3.1	0.05	1.6	0.02	0.4	0.02	1.0	0.03	3.0	0.03
1990	3.2	0.05	1.7	0.02	0.5	0.02	1.0	0.02	3.0	0.03
1991	3.3	0.06	1.7	0.02	0.5	0.03	1.1	0.03	3.1	0.03
1992	3.3	0.06	1.7	0.03	0.5	0.03	1.2	0.03	3.1	0.03
1993	3.5	0.06	1.7	0.03	0.6	0.03	1.3	0.03	3.2	0.04
1994	3.7	0.06	1.7	0.03	0.6	0.03	1.3	0.03	3.3	0.04
1995	3.9	0.07	1.8	0.04	0.7	0.03	1.4	0.03	3.4	0.04
1996	4.1	0.07	1.8	0.03	0.9	0.03	1.4	0.04	3.5	0.04
1997	4.1	0.07	1.8	0.03	0.9	0.03	1.4	0.03	3.6	0.03
1998	4.2	0.07	1.8	0.04	0.9	0.03	1.5	0.03	3.7	0.04
1999	4.2	0.08	1.9	0.04	0.9	0.04	1.5	0.04	3.7	0.04
2000	4.4	0.07	1.8	0.04	1.0	0.04	1.6	0.04	3.8	0.04
2001	4.5	0.07	1.8	0.03	1.0	0.04	1.7	0.03	3.9	0.04
Average annual percent change	3.3		1.0		9.2		4.6		2.4	
Average percent change	106.5		24.0		599.7		168.2		68.8	

SE is standard error.

NOTES: Average number of diagnoses is age adjusted using the 2000 standard population ("[Appendix A](#)," [Age adjustment](#)).

Dividing the total number of diagnoses (a maximum of seven are collected on the abstract form) by the number of discharges yields the average number of diagnoses for each patient.

See [table 1](#) for the ICD-9-CM codes in each category.

See "[Appendix A](#)," [External cause of injury code](#).

Average annual percent change is from 1979-2001 ("[Appendix A](#)," [Test of trend](#)).

Average percent change is for 1979-2001 ("[Appendix A](#)," [Average percent change over time](#)).

SOURCE: Centers for Disease Control and Prevention, National Center for Health Statistics, National Hospital Discharge Survey.

**Appendix table 23a. Total number of diagnoses coded for injury hospital discharges, 1979-2001**

Year	1-2 diagnoses			3-5 diagnoses			6-7 diagnoses		
	Number in thousands	Percent	Percent SE	Number in thousands	Percent	Percent SE	Number in thousands	Percent	Percent SE
1979	2,213	67.0	1.1	913	27.7	0.9	176	5.3	0.3
1980	2,125	65.5	1.1	918	28.3	0.9	201	6.2	0.4
1981	2,064	64.5	1.0	919	28.7	0.8	216	6.7	0.3
1982	1,998	63.0	1.0	936	29.5	0.8	237	7.5	0.4
1983	1,873	61.6	0.9	923	30.4	0.8	243	8.0	0.3
1984	1,767	58.3	0.7	972	32.1	0.6	290	9.6	0.3
1985	1,592	55.9	0.7	962	33.8	0.7	293	10.3	0.3
1986	1,460	53.2	0.7	958	34.9	0.7	325	11.9	0.4
1987	1,248	49.2	0.7	929	36.6	0.7	360	14.2	0.5
1988	1,044	45.0	1.2	917	39.5	0.9	360	15.5	0.7
1989	997	43.2	1.1	947	41.0	1.0	365	15.8	0.9
1990	867	39.2	1.0	964	43.5	0.9	383	17.3	0.8
1991	784	36.2	1.2	970	44.7	1.0	414	19.1	0.9
1992	745	35.8	1.1	911	43.8	1.0	423	20.3	1.1
1993	652	31.4	1.3	903	43.5	1.1	520	25.1	1.2
1994	559	28.4	1.0	845	43.0	0.8	561	28.6	1.0
1995	479	24.8	1.2	828	42.9	0.9	625	32.4	1.4
1996	392	20.8	1.3	807	42.8	1.0	686	36.4	1.3
1997	370	20.3	1.4	749	41.2	1.2	702	38.5	1.1
1998	338	18.9	1.2	728	40.6	1.0	726	40.5	1.1
1999	363	20.0	1.8	675	37.1	1.3	780	42.9	1.5
2000	272	15.5	1.3	689	39.2	1.1	795	45.2	1.3
2001	279	15.4	1.4	668	36.9	1.0	866	47.7	1.4
Average annual percent change		-5.8			1.9			10.7	
Average percent change		-72.8			51.0			841.2	

SE is standard error.

NOTES: Average annual percent change is from 1979-2001 ("Appendix A," Test of trend).  
Average percent change is for 1979-2001 ("Appendix A," Average percent change over time).

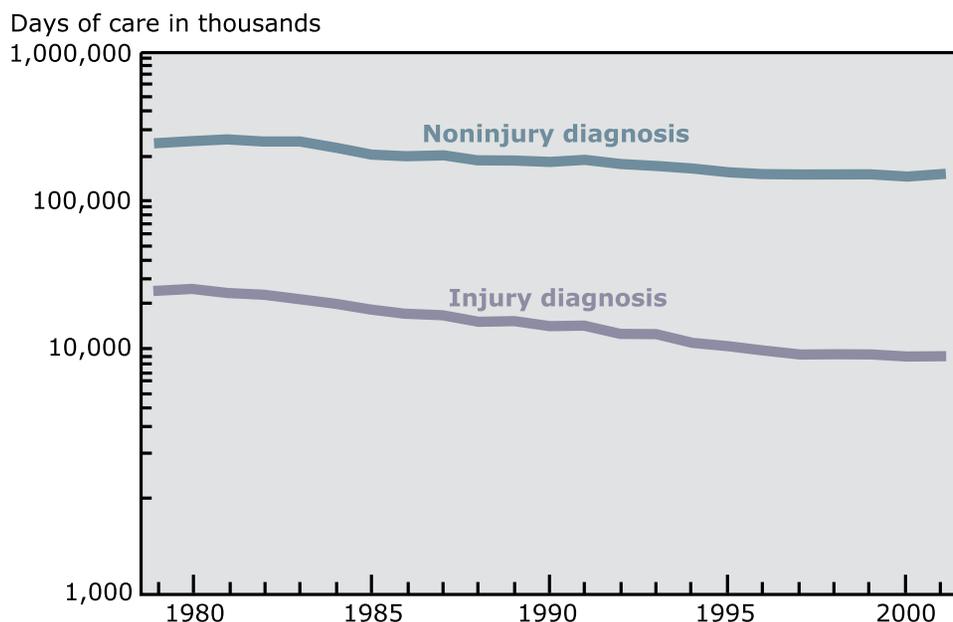
SOURCE: Centers for Disease Control and Prevention, National Center for Health Statistics, National Hospital Discharge Survey.

# Days of Care

## Data table for figure 24. Number of days of care for injury and noninjury hospital discharges, 1979-2001

From 1979 to 2001 the total number of days of hospital care decreased for both injury (24.8 to 9.0 million days of care per year) and noninjury discharges (239 to 150 million days of care per year) on average 5.2 and 2.8 percent per year, respectively (for total decreases of 69 and 46 percent). The total days of care for injury hospitalizations accounted for 9 percent of the total days of care for all hospitalizations in 1979 and for 6 percent in 2001.

**Figure 24. Number of days of care for injury and noninjury hospital discharges, 1979-2001**



NOTES: Data are plotted on the log scale. See data table for data points graphed and additional notes and "table 1" for the ICD-9-CM codes in each category.

SOURCE: Centers for Disease Control and Prevention, National Center for Health Statistics, National Hospital Discharge Survey.

Year	Noninjury		Injury diagnosis	
	Number in thousands	SE	Number in thousands	SE
1979	239,419	8,792	24,755	1,278
1980	249,473	11,421	25,036	1,479
1981	253,197	7,695	24,033	1,055
1982	249,424	7,996	23,203	1,074
1983	246,656	7,964	21,682	971
1984	224,301	4,409	20,351	663
1985	207,638	5,437	18,579	684
1986	201,186	4,680	17,310	582
1987	198,362	7,985	16,580	901
1988	188,456	6,528	15,221	676
1989	185,784	6,348	15,042	710
1990	183,017	5,180	14,405	559
1991	184,628	5,558	14,471	722
1992	177,768	5,341	12,618	628
1993	171,823	5,622	12,778	708
1994	166,198	5,429	10,981	520
1995	154,093	5,184	10,534	559
1996	150,064	4,929	9,819	494
1997	148,373	5,045	9,085	443
1998	151,763	5,223	9,151	477
1999	150,885	5,198	9,243	571
2000	146,852	6,396	9,005	514
2001	150,405	5,556	8,959	463
Average annual percent change	-2.8		-5.2	
Average percent change	-46.0		-69.3	

SE is standard error.

NOTES: See "table 1" for the ICD-9-CM codes in each category. Average annual percent change is from 1979-2001 ("Appendix A," Test of trend). Average percent change is for 1979-2001 ("Appendix A," Average percent change over time).

SOURCE: Centers for Disease Control and Prevention, National Center for Health Statistics, National Hospital Discharge Survey.

**Appendix table 24a. Number of days of care for injury hospital discharges by nature of injury diagnosis, 1979-2001**

Year	Fractures		Internal organ injuries		Sprains and strains		Open wounds		System wide injuries		All other injuries	
	Number in thousands	SE	Number in thousands	SE	Number in thousands	SE	Number in thousands	SE	Number in thousands	SE	Number in thousands	SE
1979	12,366	715	2,392	188	3,077	231	1,535	131	1,492	128	3,894	279
1980	12,583	819	2,500	209	2,845	233	1,505	137	1,489	136	4,114	318
1981	12,082	596	2,541	170	2,818	184	1,537	113	1,521	112	3,533	221
1982	11,403	596	2,575	179	2,861	195	1,594	121	1,621	123	3,149	211
1983	11,141	551	2,237	145	2,602	164	1,278	91	1,581	109	2,844	177
1984	10,373	393	2,128	118	2,245	123	1,278	80	1,617	95	2,710	141
1985	9,864	403	2,328	122	1,826	100	1,050	64	1,273	74	2,239	118
1986	9,410	353	2,191	107	1,477	78	1,132	63	1,173	65	1,927	97
1987	9,403	556	2,169	161	1,159	95	861	75	1,242	100	1,746	134
1988	8,558	414	1,962	171	771	53	811	89	1,279	98	1,841	170
1989	8,691	439	2,139	225	666	63	728	54	1,169	77	1,650	168
1990	8,435	384	1,894	144	599	55	857	63	1,030	62	1,590	193
1991	8,733	479	1,840	151	629	58	833	208	940	63	1,495	225
1992	7,842	461	1,512	134	495	53	576	54	1,039	86	1,154	128
1993	7,594	504	1,791	204	415	47	503	43	1,012	80	1,463	183
1994	6,908	393	1,437	114	326	31	424	33	973	75	914	77
1995	6,254	373	1,734	189	283	32	463	49	793	52	1,008	155
1996	5,952	307	1,596	167	279	45	362	32	914	86	717	71
1997	5,786	321	1,196	110	240	35	423	58	761	57	679	73
1998	5,561	296	1,139	88	183	22	336	33	798	95	1,134	229
1999	5,472	338	1,542	146	181	25	351	41	657	53	1,041	255
2000	5,658	370	1,164	98	154	17	300	33	724	67	1,004	199
2001	5,369	300	1,269	102	165	32	291	37	775	58	1,090	257
Average annual percent change	-4.1		-3.6		-14.8		-8.4		-4.1		-8.6	
Average percent change	-60.1		-55.5		-97.1		-85.4		-59.8		-86.1	

SE is standard error.

NOTES: See "Appendix B" for the ICD-9-CM diagnosis codes in each category.

System wide injuries include poisoning, toxic effects, foreign bodies, early complications of trauma, other and unspecified effects of external causes, late effects of injury, poisoning, toxic effects, other external causes, and child and adult maltreatment.

Average annual percent change is from 1979-2001 ("Appendix A," Test of trend).

Average percent change is for 1979-2001 ("Appendix A," Average percent change over time).

SOURCE: Centers for Disease Control and Prevention, National Center for Health Statistics, National Hospital Discharge Survey.

**Appendix table 24b. Number of days of care for injury hospital discharges by body region of injury, 1979-2001**

Year	Extremities		Head and neck		Torso		Spine and back		Other and unspecified	
	Number in thousands	SE	Number in thousands	SE						
1979	12,408	717	3,325	246	4,139	294	2,045	166	1,345	118
1980	12,957	840	3,289	263	4,124	318	1,838	162	1,338	124
1981	12,028	594	3,374	213	3,951	242	1,882	133	1,277	98
1982	11,485	600	3,053	205	4,039	257	1,779	133	1,226	98
1983	10,763	536	2,864	178	3,430	207	1,843	124	1,201	87
1984	10,179	388	2,615	138	3,140	158	1,629	96	1,170	75
1985	9,295	383	2,576	132	2,800	142	1,872	102	762	49
1986	8,727	332	2,552	121	2,631	124	1,461	77	767	46
1987	8,209	496	2,462	178	2,618	188	1,453	114	596	55
1988	7,970	394	2,126	168	2,003	127	1,142	100	700	109
1989	7,802	394	2,307	246	2,220	179	984	98	560	143
1990	7,705	380	1,933	148	2,254	197	981	87	502	97
1991	7,986	454	2,028	191	1,946	117	1,136	136	435	164
1992	6,743	378	1,742	170	1,839	132	881	79	374	84
1993	6,755	435	1,969	236	1,692	129	857	99	493	160
1994	5,977	322	1,589	139	1,375	90	788	94	281	46
1995	5,388	329	1,690	175	1,682	150	622	62	361	109
1996	5,093	264	1,597	145	1,438	125	610	60	168	34
1997	4,974	280	1,329	126	1,229	92	698	77	94	16
1998	4,784	269	1,426	135	1,218	90	590	69	*	*
1999	4,616	267	1,469	165	1,525	137	620	77	*	*
2000	4,860	344	1,303	114	1,381	117	484	44	*	*
2001	4,569	256	1,469	140	1,184	101	614	71	*	*
Average annual percent change	-4.9		-4.5		-6.1		-6.8		-11.1	
Average percent change	-67.2		-63.4		-74.9		-78.5		-92.5	

SE is standard error.

\* Figure does not meet standard of reliability or precision ("Appendix A," Standards of reliability).

NOTES: See "Appendix B" for the ICD-9-CM diagnosis codes in each category.

"Other and unspecified" does not include system wide injuries. Those estimates are in appendix table 24a.

Average annual percent change is from 1979-2001 ("Appendix A," Test of trend).

Average percent change is for 1979-2001 ("Appendix A," Average percent change over time).

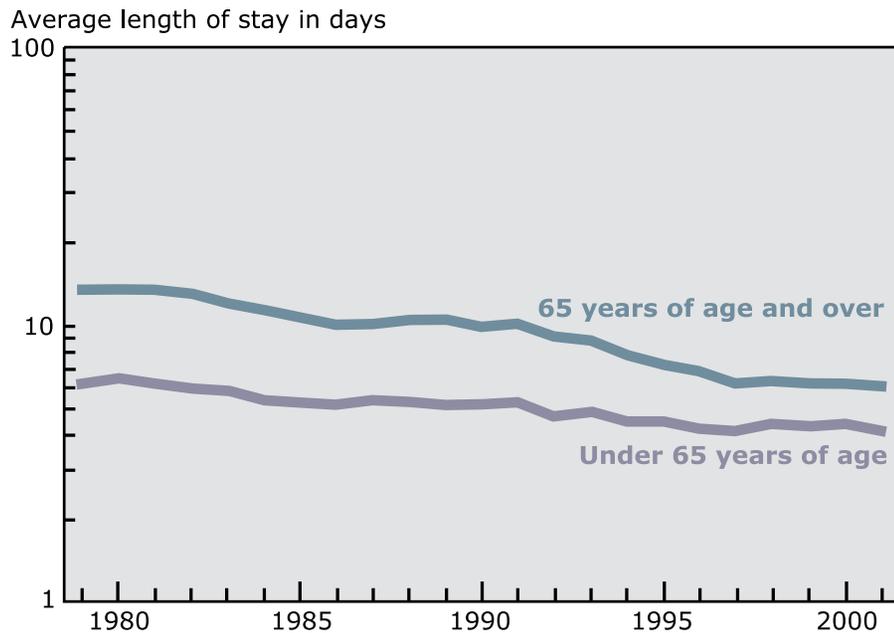
SOURCE: Centers for Disease Control and Prevention, National Center for Health Statistics, National Hospital Discharge Survey.

## Average Length of Stay by Age and Sex

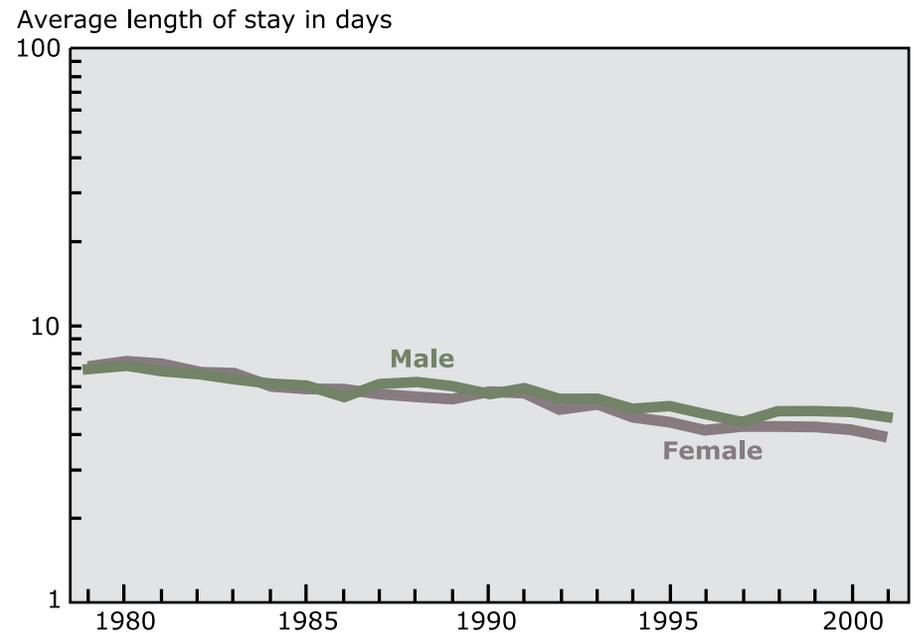
From 1979 to 2001 the average length of stay (ALOS) for patients hospitalized for injury was longer for those 65 years and over compared with those under 65 years of age. The ALOS for those 65 years and over decreased on average 4.4 percent per year (for a total decline of 63 percent) to 6.1 days in 2001, and the ALOS for those under 65 decreased on average only 1.9 percent per year (for a total decrease of 34 percent) to 4.2 days.

For most years the average length of stay for males and females was similar. From 1979 to 2001 the ALOS decreased a total of 38 percent for males and 46 percent for females.

**Figure 25. Average length of stay in days for injury hospital discharges by age, 1979-2001**



**Figure 26. Average length of stay in days for injury hospital discharges by sex, 1979-2001**



NOTES: Data are plotted on the log scale. See data table for data points graphed and additional notes. In figure 26 average length of stay in days is age adjusted using the 2000 standard population ("Appendix A", Age adjustment).

SOURCE: Centers for Disease Control and Prevention, National Center for Health Statistics, National Hospital Discharge Survey.

**Data table for figures 25 and 26. Average length of stay in days for injury hospital discharges by age and sex, 1979-2001**

Year	Under 65 years of age		65 years of age and over		Male		Female	
	Mean	Mean SE	Mean	Mean SE	Mean	Mean SE	Mean	Mean SE
1979	6.2	0.4	13.6	1.2	7.0	0.5	7.2	0.6
1980	6.4	0.5	13.5	1.3	7.1	0.6	7.5	0.6
1981	6.1	0.5	13.5	1.1	6.8	0.5	7.3	0.6
1982	5.9	0.4	12.9	1.0	6.7	0.5	6.9	0.5
1983	5.8	0.3	12.1	0.8	6.4	0.4	6.7	0.4
1984	5.4	0.3	11.3	0.6	6.2	0.3	6.1	0.3
1985	5.3	0.3	10.7	0.6	6.0	0.3	5.9	0.3
1986	5.2	0.2	10.1	0.5	5.6	0.3	5.8	0.3
1987	5.4	0.4	10.2	0.5	6.1	0.4	5.6	0.4
1988	5.3	0.1	10.5	0.2	6.2	0.2	5.5	0.2
1989	5.2	0.2	10.4	0.3	6.1	0.2	5.5	0.1
1990	5.2	0.1	9.9	0.3	5.7	0.2	5.8	0.2
1991	5.3	0.2	10.0	0.3	5.9	0.2	5.6	0.3
1992	4.7	0.2	9.2	0.3	5.4	0.2	5.0	0.2
1993	4.9	0.2	8.8	0.3	5.4	0.2	5.2	0.2
1994	4.5	0.1	7.8	0.2	5.0	0.2	4.7	0.2
1995	4.5	0.2	7.2	0.2	5.1	0.2	4.5	0.2
1996	4.3	0.1	6.8	0.2	4.7	0.2	4.2	0.2
1997	4.2	0.1	6.2	0.2	4.5	0.1	4.3	0.2
1998	4.4	0.2	6.3	0.2	4.9	0.2	4.3	0.2
1999	4.4	0.2	6.2	0.2	4.8	0.3	4.3	0.3
2000	4.4	0.2	6.2	0.3	4.9	0.2	4.2	0.2
2001	4.2	0.2	6.1	0.2	4.7	0.2	4.0	0.1
Average annual percent change	-1.9		-4.4		-2.1		-2.7	
Average percent change	-34.0		-63.0		-37.6		-45.5	

SE is standard error.

NOTES: Data by sex is age adjusted using the 2000 standard population ("[Appendix A,](#)" [Age adjustment](#))

Average annual percent change is from 1979-2001 ("[Appendix A,](#)" [Test of trend](#)).

Average percent change is for 1979-2001 ("[Appendix A,](#)" [Average percent change over time](#)).

SOURCE: Centers for Disease Control and Prevention, National Center for Health Statistics, National Hospital Discharge Survey.

**Appendix table 25a. Average length of stay in days among injury and noninjury hospital discharges, 1979-2001**

Year	Injury discharge		Noninjury discharge	
	Mean	Mean SE	Mean	Mean SE
1979	7.1	0.5	6.4	0.3
1980	7.3	0.6	6.3	0.4
1981	7.1	0.5	6.3	0.4
1982	6.8	0.4	6.2	0.3
1983	6.6	0.4	6.1	0.2
1984	6.1	0.3	5.8	0.2
1985	5.9	0.3	5.8	0.2
1986	5.8	0.3	5.7	0.2
1987	6.0	0.4	5.7	0.3
1988	6.0	0.1	5.8	0.1
1989	5.9	0.2	5.7	0.1
1990	5.8	0.1	5.6	0.1
1991	5.9	0.2	5.6	0.1
1992	5.3	0.2	5.4	0.1
1993	5.3	0.2	5.3	0.1
1994	4.9	0.1	5.1	0.1
1995	4.9	0.2	4.7	0.1
1996	4.5	0.1	4.7	0.1
1997	4.4	0.1	4.5	0.1
1998	4.6	0.2	4.5	0.1
1999	4.6	0.2	4.4	0.1
2000	4.6	0.2	4.4	0.1
2001	4.4	0.2	4.4	0.1
Average annual percent change	-2.6		-2.0	
Average percent change	-44.5		-36.3	

SE is standard error.

NOTES: Average length of stay in days is age adjusted using the 2000 standard population ("Appendix A," [Average length of stay and Age adjustment](#)).

See [table 1](#) for the ICD-9-CM codes in each category.

Average annual percent change is from 1979-2001 ("Appendix A," [Test of trend](#)).

Average percent change is for 1979-2001 ("Appendix A," [Average percent change over time](#)).

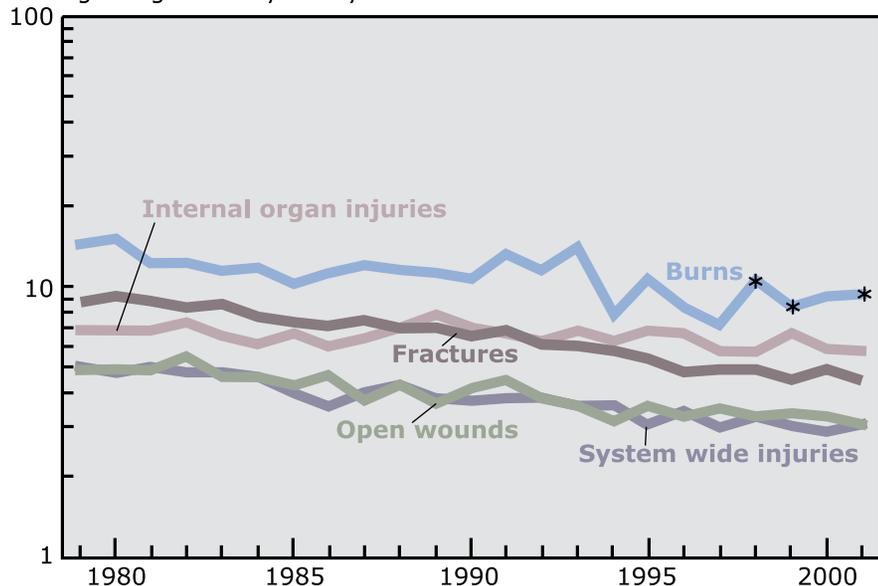
SOURCE: Centers for Disease Control and Prevention, National Center for Health Statistics, National Hospital Discharge Survey.

## Average Length of Stay by Injury Diagnosis

The length of stay for each injury type decreased over the time period. From 1979 to 2001 the length of stay for internal organ injuries and open wounds decreased on average 0.7 and 2.3 percent per year, respectively (for total decreases of 14 and 40 percent). Fractures decreased on average 3.4 percent per year (for a total decrease of 54 percent), and system wide injuries decreased on average 2.4 percent per year (for a total decrease of 42 percent).

**Figure 27. Average length of stay in days for injury hospital discharges by diagnosis, 1979-2001**

Average length of stay in days



\*Figure does not meet standard of reliability or precision ("Appendix A," Standards of reliability).

NOTES: Data are plotted on the log scale. See data table for data points graphed and additional notes. System wide injuries include poisoning, toxic effects, foreign bodies, early complications of trauma, other and unspecified effects of external cause, late effects of injury, poisoning, toxic effects, and other external causes, and child and adult maltreatment. Average length of stay in days is age adjusted using the 2000 standard population ("Appendix A," Age adjustment). See "Appendix B" for the ICD-9-CM diagnosis codes in each category.

SOURCE: Centers for Disease Control and Prevention, National Center for Health Statistics, National Hospital Discharge Survey.

**Data table for figure 27. Average length of stay in days for injury hospital discharges by diagnosis, 1979-2001**

Year	All injuries		Burns		Fractures		Internal organ injuries		Open wounds		System wide injuries		All other injuries	
	Mean	Mean SE	Mean	Mean SE	Mean	Mean SE	Mean	Mean SE	Mean	Mean SE	Mean	Mean SE	Mean	Mean SE
1979	7.1	0.5	14.1	1.8	8.8	0.7	6.8	0.7	4.9	0.5	5.0	0.5	5.7	0.5
1980	7.3	0.6	15.0	1.9	9.2	0.8	6.9	0.7	4.9	0.6	4.8	0.6	5.6	0.5
1981	7.1	0.5	12.3	1.4	8.8	0.7	6.9	0.7	4.9	0.5	5.0	0.5	5.6	0.5
1982	6.8	0.4	12.1	1.4	8.3	0.6	7.3	0.7	5.5	0.5	4.8	0.5	5.3	0.5
1983	6.6	0.4	11.5	1.2	8.6	0.6	6.6	0.5	4.6	0.4	4.8	0.4	4.9	0.4
1984	6.1	0.3	11.8	1.1	7.7	0.4	6.1	0.4	4.6	0.4	4.6	0.3	4.6	0.3
1985	5.9	0.3	10.2	0.9	7.3	0.4	6.7	0.5	4.3	0.3	4.0	0.3	4.4	0.3
1986	5.8	0.3	11.1	0.9	7.1	0.4	6.0	0.4	4.7	0.3	3.6	0.3	4.1	0.3
1987	6.0	0.4	12.0	1.3	7.5	0.5	6.4	0.6	3.8	0.4	4.0	0.4	4.1	0.4
1988	6.0	0.1	11.5	1.1	7.0	0.2	7.0	0.5	4.3	0.3	4.3	0.3	4.1	0.2
1989	5.9	0.2	11.2	1.8	7.0	0.2	7.8	0.7	3.7	0.2	3.9	0.2	3.9	0.3
1990	5.8	0.1	10.8	1.5	6.6	0.2	7.0	0.5	4.2	0.2	3.8	0.2	4.2	0.4
1991	5.9	0.2	12.9	2.7	6.8	0.2	6.7	0.4	4.5	0.6	3.9	0.2	3.7	0.2
1992	5.3	0.2	11.4	1.3	6.2	0.2	6.3	0.4	3.9	0.4	3.9	0.3	3.0	0.2
1993	5.3	0.2	13.9	1.7	6.0	0.2	6.8	0.6	3.6	0.2	3.6	0.2	3.2	0.2
1994	4.9	0.1	7.8	0.7	5.8	0.2	6.3	0.4	3.2	0.2	3.6	0.2	2.9	0.2
1995	4.9	0.2	10.6	2.0	5.4	0.2	6.8	0.5	3.6	0.3	3.1	0.1	2.9	0.2
1996	4.5	0.1	8.4	0.9	4.8	0.2	6.7	0.5	3.3	0.2	3.4	0.2	2.9	0.2
1997	4.4	0.1	7.2	0.6	4.9	0.2	5.7	0.3	3.5	0.3	3.0	0.2	3.0	0.2
1998	4.6	0.2	*	*	4.9	0.2	5.7	0.3	3.3	0.2	3.3	0.4	3.2	0.3
1999	4.6	0.2	*	*	4.5	0.2	6.7	0.4	3.4	0.2	3.0	0.2	2.8	0.2
2000	4.6	0.2	9.2	1.0	4.9	0.2	5.9	0.3	3.3	0.2	2.9	0.2	2.9	0.2
2001	4.4	0.2	*	*	4.5	0.2	5.7	0.3	3.1	0.2	3.1	0.2	2.8	0.2
Average annual percent change	-2.6		-2.2		-3.4		-0.7		-2.3		-2.4		-3.5	
Average percent change	-43.7		-38.4		-53.7		-13.7		-39.9		-41.8		-54.1	

SE is standard error.

\* Figure does not meet standard of reliability or precision ("[Appendix A,](#)" [Standards of reliability](#)).

NOTES: Average length of stay in days is age adjusted using the 2000 standard population ("[Appendix A,](#)" [Average length of stay and Age adjustment](#)). System wide injuries include poisoning, toxic effects, foreign bodies, early complications of trauma, other and unspecified effects of external causes, late effects of injury, poisoning, toxic effects, and other external causes, and child and adult maltreatment.

See "[Appendix B](#)" for the ICD-9-CM diagnosis codes in each category.

Average annual percent change is from 1979-2001 ("[Appendix A,](#)" [Test of trend](#)).

Average percent change is for 1979-2001 ("[Appendix A,](#)" [Average percent change over time](#)).

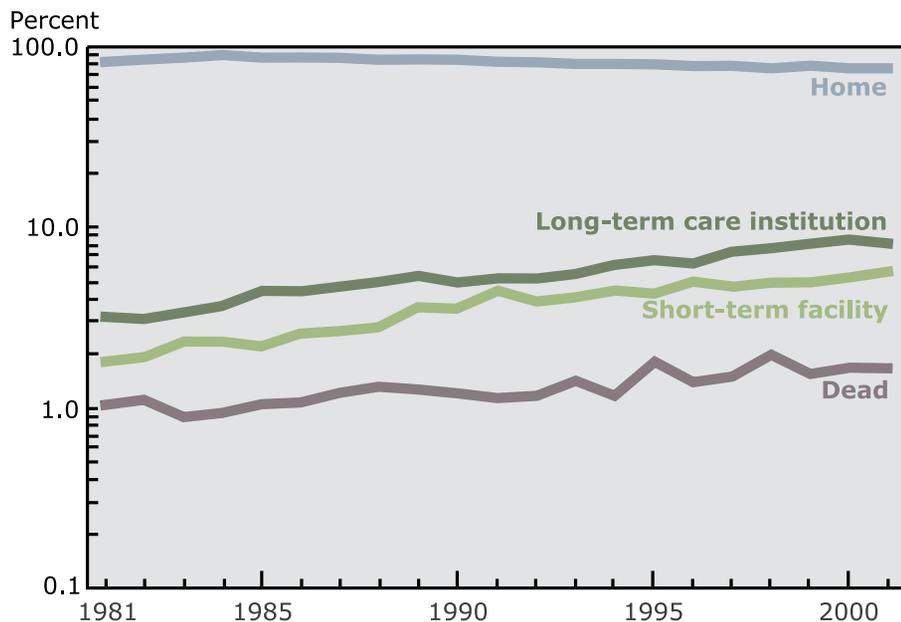
SOURCE: Centers for Disease Control and Prevention, National Center for Health Statistics, National Hospital Discharge Survey.

# Discharge Disposition

Most patients hospitalized for an injury are discharged home. From 1981 to 2001 the percent of injury hospitalizations that were discharged home decreased from 83 percent to 75 percent. Discharges to long-term care institutions increased from 3 to 8 percent and discharges to short-term facilities increased from 2 to 6 percent. Injury hospitalizations that ended with death increased from 1.0 to 1.7 percent.

From 1981 to 2001 the proportion discharged home decreased on average 0.8 percent per year (for a total decline of 15 percent) while the proportion discharged to a short-term facility increased on average 5.9 percent per year (for a total increase of 216 percent) and the proportion discharged to a long-term care institution increased on average 4.9 percent per year (for a total increase of 162 percent).

**Figure 28. Percent distribution of injury hospital discharges by selected discharge disposition, 1981-2001**



NOTES: 1981 was the first year the National Hospital Discharge Survey collected discharge disposition data. Percents are plotted on the log scale. See data table for data points graphed and additional notes. Percent distributions are age adjusted using the 2000 standard population "[Appendix A, Age adjustment](#)". Discharge disposition is defined in "[Appendix A, Discharge disposition](#)".

SOURCE: Centers for Disease Control and Prevention, National Center for Health Statistics, National Hospital Discharge Survey.

**Data table for figure 28. Injury hospital discharges by selected discharge disposition, 1981-2001**

Year	Home			Long-term care institution			Short-term facility			Dead		
	Number in thousands	Percent	Percent SE	Number in thousands	Percent	Percent SE	Number in thousands	Percent	Percent SE	Number in thousands	Percent	Percent SE
1981	2,603	82.7	0.9	135	3.2	0.2	64	1.8	0.1	39	1.0	0.1
1982	2,679	86.0	0.8	138	3.1	0.2	66	1.9	0.1	40	1.1	0.1
1983	2,593	87.2	0.7	150	3.3	0.2	75	2.3	0.2	33	0.9	0.1
1984	2,611	88.6	0.5	171	3.6	0.1	74	2.3	0.1	35	0.9	0.1
1985	2,425	88.2	0.6	191	4.4	0.2	74	2.2	0.1	36	1.1	0.1
1986	2,311	87.3	0.6	190	4.4	0.2	79	2.6	0.1	38	1.1	0.1
1987	2,115	87.0	0.7	187	4.7	0.2	78	2.7	0.1	39	1.2	0.1
1988	1,897	86.0	0.8	183	4.9	0.3	74	2.8	0.3	36	1.3	0.1
1989	1,840	84.6	0.9	200	5.3	0.5	93	3.6	0.5	36	1.3	0.2
1990	1,732	83.9	0.8	193	5.0	0.3	94	3.6	0.7	35	1.2	0.1
1991	1,661	83.3	1.0	204	5.2	0.3	119	4.5	0.8	34	1.1	0.1
1992	1,584	83.4	0.7	204	5.2	0.3	101	3.9	0.3	31	1.2	0.1
1993	1,510	81.4	0.9	236	5.5	0.3	106	4.1	0.4	40	1.4	0.2
1994	1,425	81.4	0.8	249	6.2	0.3	106	4.4	0.4	30	1.2	0.1
1995	1,346	80.7	0.7	274	6.5	0.3	108	4.3	0.4	44	1.8	0.2
1996	1,264	78.7	0.8	269	6.3	0.3	130	4.9	0.5	39	1.4	0.2
1997	1,209	78.6	0.7	297	7.3	0.4	111	4.7	0.4	35	1.5	0.2
1998	1,153	76.9	0.8	292	7.6	0.4	126	5.0	0.4	39	2.0	0.3
1999	1,168	77.4	0.8	316	8.0	0.6	119	4.9	0.4	37	1.5	0.2
2000	1,086	75.9	0.8	331	8.6	0.4	119	5.3	0.5	37	1.6	0.2
2001	1,114	75.3	0.7	325	8.2	0.5	139	5.7	0.5	40	1.7	0.4
Average annual percent change		-0.8			4.9			5.9			2.8	
Average percent change		-14.7			161.5			216.2			74.4	

SE is standard error.

NOTES: 1981 was the first year the National Hospital Discharge Survey collected discharge disposition data. All discharge dispositions are not shown in this table, see ["Appendix A" for discharge disposition definition](#). Percent distributions are age adjusted using the 2000 standard population (["Appendix A," Age adjustment](#)). Average annual percent change is from 1981-2001 (["Appendix A," Test of trend](#)). Average percent change is for 1981-2001 (["Appendix A," Average percent change over time](#)).

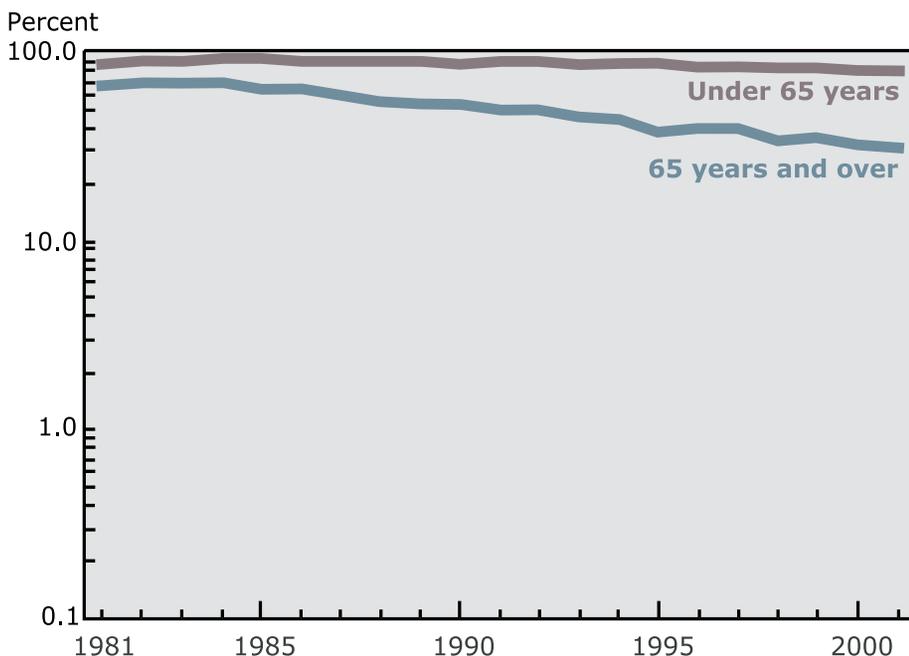
SOURCE: Centers for Disease Control and Prevention, National Center for Health Statistics, National Hospital Discharge Survey.

## Discharge Disposition by Age

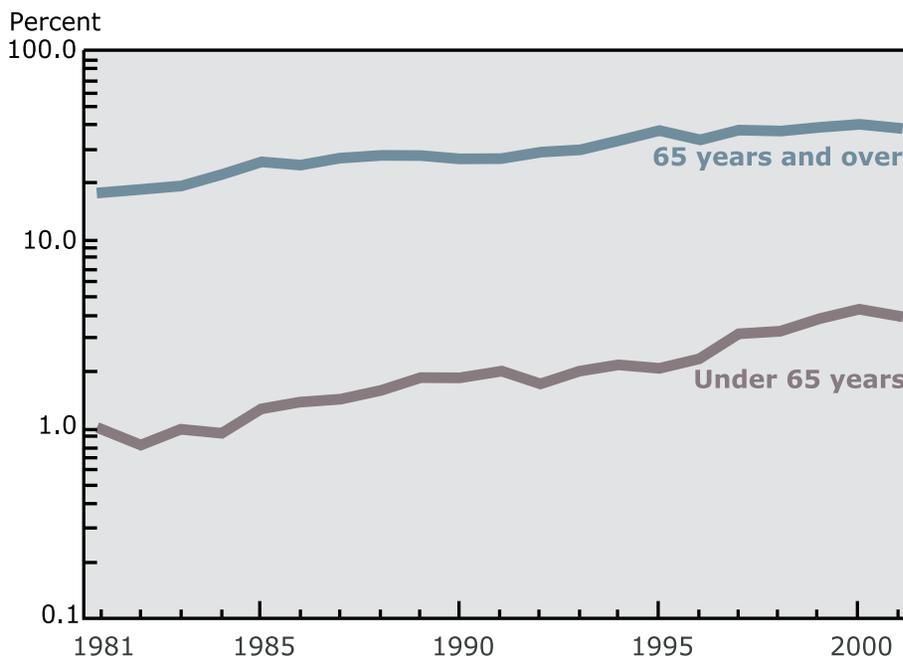
From 1981 to 2001 the decline in injury hospitalizations discharged home was greater for those 65 years and over than for those younger. The decline among those 65 years and over was on average 4 percent per year (for a total decline of 56 percent) compared with those under 65 years of age with a decline on average of 0.5 percent per year (for a total decline of 10 percent).

Discharges to long-term care institutions among those 65 years and over more than doubled from 1981 to 2001 rising to nearly 40 percent of this age group's injury hospital discharges. Discharges to short-term facilities for this age group increased from 3 percent in 1981 to 11 percent in 2001.

**Figure 29. Percent of injury hospitalizations discharged home by age, 1981-2001**



**Figure 30. Percent of injury hospitalizations discharged to a long-term care institution by age, 1981-2001**



NOTES: 1981 was the first year the National Hospital Discharge Survey collected discharge disposition data. Percents are plotted on the log scale. See data table for data points graphed and additional notes. [Discharge disposition is defined in "Appendix A."](#)

SOURCE: Centers for Disease Control and Prevention, National Center for Health Statistics, National Hospital Discharge Survey.

**Data table for figures 29 and 30. Injury hospital discharges among selected discharge dispositions by age, 1981-2001**

Year	Home						Long-term care institution						Short-term facility					
	Under 65 years			65 years and over			Under 65 years			65 years and over			Under 65 years			65 years and over		
	Number in thousands	Percent	Percent SE	Number in thousands	Percent	Percent SE	Number in thousands	Percent	Percent SE	Number in thousands	Percent	Percent SE	Number in thousands	Percent	Percent SE	Number in thousands	Percent	Percent SE
1981	2,205	85.0	0.8	398	65.9	1.4	26	1.0	0.1	109	18.1	0.9	46	1.8	0.1	18	2.9	0.2
1982	2,244	88.3	0.7	435	69.3	1.3	21	0.8	0.1	117	18.6	0.9	49	1.9	0.1	17	2.7	0.3
1983	2,140	89.6	0.6	452	69.6	1.2	24	1.0	0.1	127	19.5	0.9	54	2.2	0.2	21	3.3	0.3
1984	2,160	91.3	0.5	451	67.9	1.0	22	0.9	0.1	148	22.3	0.8	54	2.3	0.1	20	3.0	0.2
1985	2,025	91.5	0.5	399	63.0	1.1	29	1.3	0.1	162	25.6	0.9	47	2.1	0.1	26	4.2	0.3
1986	1,911	90.6	0.5	400	63.0	1.0	29	1.4	0.1	161	25.4	0.8	54	2.6	0.1	25	3.9	0.3
1987	1,759	90.5	0.5	356	60.2	1.3	28	1.4	0.1	159	26.8	0.9	51	2.6	0.2	27	4.6	0.3
1988	1,589	90.1	0.8	308	55.2	1.8	28	1.6	0.2	155	27.9	1.4	47	2.7	0.3	27	4.9	0.8
1989	1,525	88.9	0.9	315	53.1	2.0	32	1.9	0.4	168	28.2	1.9	58	3.4	0.5	35	5.9	0.9
1990	1,403	87.7	0.9	330	53.6	1.2	30	1.9	0.2	163	26.4	1.3	53	3.3	0.7	41	6.6	1.0
1991	1,349	87.8	1.0	312	49.4	1.6	32	2.1	0.3	172	27.3	1.4	63	4.1	0.8	56	8.9	1.2
1992	1,280	88.1	0.7	304	48.5	1.4	25	1.7	0.3	179	28.6	1.5	51	3.5	0.4	51	8.1	0.9
1993	1,191	85.7	0.9	319	46.5	1.5	28	2.0	0.2	209	30.4	1.4	52	3.7	0.4	54	7.8	1.1
1994	1,138	86.3	0.8	287	44.5	1.5	29	2.2	0.3	220	34.1	1.6	52	4.0	0.4	54	8.3	1.1
1995	1,094	86.1	0.8	252	38.1	1.3	26	2.1	0.3	248	37.4	1.8	47	3.7	0.3	61	9.1	1.0
1996	987	83.6	0.9	277	39.3	1.5	28	2.4	0.2	241	34.2	1.6	52	4.4	0.5	78	11.1	1.3
1997	941	83.5	0.8	268	38.6	1.3	36	3.2	0.3	262	37.8	1.7	48	4.3	0.4	63	9.0	1.1
1998	922	82.2	0.9	231	34.5	1.1	37	3.3	0.4	255	38.1	1.7	48	4.2	0.4	79	11.8	1.3
1999	917	82.5	1.0	251	35.5	1.4	42	3.8	0.6	274	38.7	1.5	49	4.4	0.5	70	9.9	1.3
2000	854	81.2	1.0	232	32.9	1.3	44	4.2	0.5	286	40.6	1.6	52	4.9	0.5	67	9.5	1.0
2001	885	80.7	0.9	229	31.9	1.3	44	4.0	0.5	282	39.3	1.7	56	5.1	0.5	82	11.5	1.3
Average annual percent change	-0.5			-4.0			7.8			3.8			5.2			8.1		
Average percent change	-10.4			-56.1			347.3			111.3			175.2			371.8		

SE is standard error.

NOTES: 1981 was the first year the National Hospital Discharge Survey collected discharge disposition data.

All discharge dispositions are not shown in this table, see ["Appendix A" for discharge disposition definition](#).

Average annual percent change is from 1981-2001 (["Appendix A," Test of trend](#)).

Average percent change is for 1981-2001 (["Appendix A," Average percent change over time](#)).

SOURCE: Centers for Disease Control and Prevention, National Center for Health Statistics, National Hospital Discharge Survey.

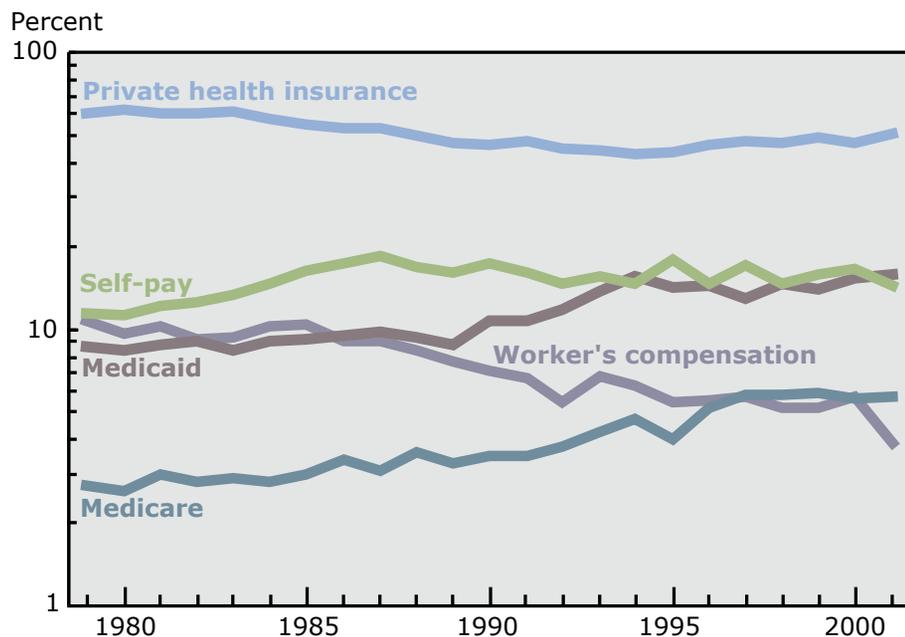
## Expected Source of Payment

For persons under 65 years of age, private health insurance was the most common expected source of payment for injury hospital discharges throughout 1979 to 2001. Private health insurance declined as the expected source of payment on average 1.6 percent per year (for a total decrease of 30 percent) to 50 percent in 2001. The proportion of injury discharges under 65 with Medicare<sup>§</sup>, Medicaid, and self-pay as the principal expected payment source increased to 6, 16 and 14 percent, respectively in 2001. Worker's compensation declined on average 3.9 percent per year (for a total decline of 58 percent) to 4 percent in 2001.

The vast majority of injury hospital discharges for those 65 years and over indicated Medicare<sup>§</sup> as the principal expected payor, 85 percent in 2001 (appendix table 31a).

<sup>§</sup> The number of Medicare discharges may be underestimated in recent years because of increased enrollment of Medicare patients in health maintenance organizations (HMOs) or other forms of managed care. These plans may be listed on medical records as the principal expected source of payment even though Medicare remains the primary payor.

**Figure 31. Percent distribution of injury hospital discharges among those under 65 years of age by principal expected source of payment, 1979-2001**



NOTES: Data are plotted on the log scale. See data table for data points graphed and additional notes. [Expected source of payment is defined in "Appendix A."](#)

SOURCE: Centers for Disease Control and Prevention, National Center for Health Statistics, National Hospital Discharge Survey.

**Data table for figure 31. Injury hospital discharges among those under 65 years of age by principal expected source of payment, 1979-2001**

Year	Worker's compensation			Medicare			Medicaid			Private health insurance			Self-pay		
	Number in thousands	Percent	Percent SE	Number in thousands	Percent	Percent SE	Number in thousands	Percent	Percent SE	Number in thousands	Percent	Percent SE	Number in thousands	Percent	Percent SE
1979	293	10.8	0.5	74	2.7	0.2	233	8.6	0.4	1,631	60.2	1.1	308	11.4	0.5
1980	254	9.6	0.5	69	2.6	0.2	222	8.4	0.5	1,636	62.0	1.2	296	11.2	0.6
1981	264	10.2	0.5	78	3.0	0.2	227	8.8	0.4	1,571	60.6	1.0	314	12.1	0.5
1982	235	9.2	0.4	70	2.8	0.2	229	9.0	0.4	1,530	60.2	1.0	318	12.5	0.5
1983	222	9.3	0.4	69	2.9	0.2	201	8.4	0.4	1,456	61.0	0.9	324	13.5	0.5
1984	244	10.3	0.4	67	2.8	0.2	212	9.0	0.3	1,365	57.7	0.8	349	14.7	0.4
1985	230	10.4	0.4	65	3.0	0.2	204	9.2	0.3	1,216	54.9	0.8	358	16.2	0.5
1986	190	9.0	0.3	73	3.4	0.2	198	9.4	0.3	1,126	53.4	0.8	368	17.4	0.5
1987	175	9.0	0.3	61	3.1	0.2	191	9.8	0.4	1,026	52.8	0.8	356	18.3	0.6
1988	146	8.3	0.6	63	3.6	0.4	164	9.3	0.6	884	50.2	1.2	293	16.6	1.2
1989	132	7.7	0.6	57	3.3	0.6	149	8.7	0.5	816	47.6	1.4	273	15.9	0.9
1990	114	7.1	0.5	55	3.5	0.4	171	10.7	0.6	746	46.6	1.0	278	17.4	0.9
1991	103	6.7	0.5	53	3.5	0.3	167	10.8	0.7	746	48.6	1.1	247	16.0	0.9
1992	78	5.4	0.4	56	3.8	0.3	173	11.9	0.9	662	45.6	1.3	214	14.8	1.0
1993	95	6.8	0.7	59	4.3	0.3	193	13.9	0.8	621	44.8	1.2	214	15.4	1.0
1994	83	6.3	0.6	62	4.7	0.4	204	15.4	1.0	572	43.3	1.2	194	14.7	1.0
1995	69	5.4	0.5	51	4.0	0.3	180	14.2	0.8	562	44.2	1.4	227	17.9	1.1
1996	65	5.5	0.5	61	5.2	0.5	171	14.5	0.9	554	46.9	1.3	174	14.8	0.8
1997	64	5.7	0.5	65	5.8	0.5	147	13.0	0.8	542	48.1	1.3	193	17.1	0.8
1998	58	5.2	0.5	65	5.8	0.5	166	14.8	0.9	533	47.5	1.4	165	14.7	0.9
1999	57	5.2	0.4	66	5.9	0.5	157	14.1	0.9	541	48.7	1.6	174	15.7	0.7
2000	60	5.7	0.6	59	5.6	0.5	158	15.1	1.1	498	47.4	1.4	172	16.4	1.0
2001	43	3.9	0.5	62	5.7	0.5	173	15.7	1.1	553	50.4	1.5	158	14.4	0.8
Average annual percent change		-3.9			4.0			3.3			-1.6			1.0	
Average percent change		-57.8			136.2			102.1			-29.8			25.4	

SE is standard error.

NOTES: See "Appendix A," [Expected source of payment](#) for definitions.

For years 1979-97 private health insurance includes Blue Cross/Blue Shield, and other private insurance.

For years 1998-2001 private health insurance includes Blue Cross/Blue Shield, HMO/PPO, and other private insurance.

The number and percent of discharges with principal expected sources of payment of "other government," "other," "no charge," or "not stated" are not shown in this table.

Average annual percent change is from 1979-2001 ("[Appendix A," Test of trend](#)").

Average percent change is for 1979-2001 ("[Appendix A," Average percent change over time](#)").

SOURCE: Centers for Disease Control and Prevention, National Center for Health Statistics, National Hospital Discharge Survey.

**Appendix table 31a. Injury hospital discharges among those 65 years of age and over by principal expected source of payment, 1979-2001**

Year	Medicare <sup>1</sup>			Private health insurance <sup>1</sup>			All other		
	Number in thousands	Percent	Percent SE	Number in thousands	Percent	Percent SE	Number in thousands	Percent	Percent SE
1979	553	93.2	0.8	18	3.0	0.3	23	3.8	0.4
1980	561	92.6	0.9	19	3.2	0.3	26	4.3	0.4
1981	563	93.2	0.8	20	3.2	0.3	21	3.6	0.3
1982	594	94.7	0.7	16	2.6	0.2	17	2.8	0.3
1983	612	94.2	0.7	19	2.9	0.3	19	2.9	0.3
1984	624	93.9	0.5	21	3.2	0.2	19	2.8	0.2
1985	595	93.9	0.6	19	3.0	0.2	20	3.2	0.2
1986	588	92.7	0.6	25	4.0	0.3	21	3.3	0.2
1987	543	91.8	0.6	30	5.1	0.3	19	3.1	0.3
1988	499	89.6	1.1	25	4.6	0.6	33	5.8	0.9
1989	521	87.8	1.6	25	4.2	0.6	48	8.0	1.5
1990	542	88.1	1.3	33	5.3	0.8	40	6.5	1.0
1991	546	86.6	1.3	36	5.7	0.9	49	7.7	1.1
1992	530	84.6	1.8	27	4.4	0.5	69	11.1	1.8
1993	600	87.3	1.1	41	6.0	0.7	46	6.7	0.9
1994	547	84.8	1.8	64	9.9	1.8	35	5.4	0.8
1995	555	83.8	2.0	62	9.3	1.4	46	6.9	1.0
1996	578	82.0	2.0	88	12.4	1.9	39	5.6	0.8
1997	581	83.8	1.1	83	12.0	1.0	29	4.1	0.5
1998	562	83.9	1.2	79	11.8	0.9	29	4.3	0.6
1999	596	84.3	1.3	84	11.9	1.2	27	3.8	0.5
2000	593	84.0	1.4	79	11.2	1.1	33	4.7	0.8
2001	611	85.3	1.2	78	10.9	1.0	27	3.8	0.6
Average annual percent change		-0.6			8.2			2.7	
Average percent change		-13.2			462.5			78.8	

SE is standard error.

<sup>1</sup>The number of Medicare discharges may be underestimated in recent years because of increased enrollment of Medicare patients in health maintenance organizations (HMOs) or other forms of managed care. These plans may be listed on medical records as the principal expected source of payment even though Medicare remains the primary payor.

NOTES: See "Appendix A," [Expected source of payment](#) for definitions.

"All other" includes worker's compensation, Medicaid, self-pay, other government, no charge, other, and not stated.

For years 1979-1997 private health insurance includes Blue Cross/Blue Shield and other private insurance.

For years 1998-2001 private health insurance includes Blue Cross/Blue Shield, HMO/PPO, and other private insurance.

Average annual percent change is from 1979-2001 ("[Appendix A," Test of trend](#)").

Average percent change is for 1979-2001 ("[Appendix A," Average percent change over time](#)").

SOURCE: Centers for Disease Control and Prevention, National Center for Health Statistics, National Hospital Discharge Survey.