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SPECIAL REPORT

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Deaths in Custody Reporting Program

Mortality in Local Jails, 2000–2007

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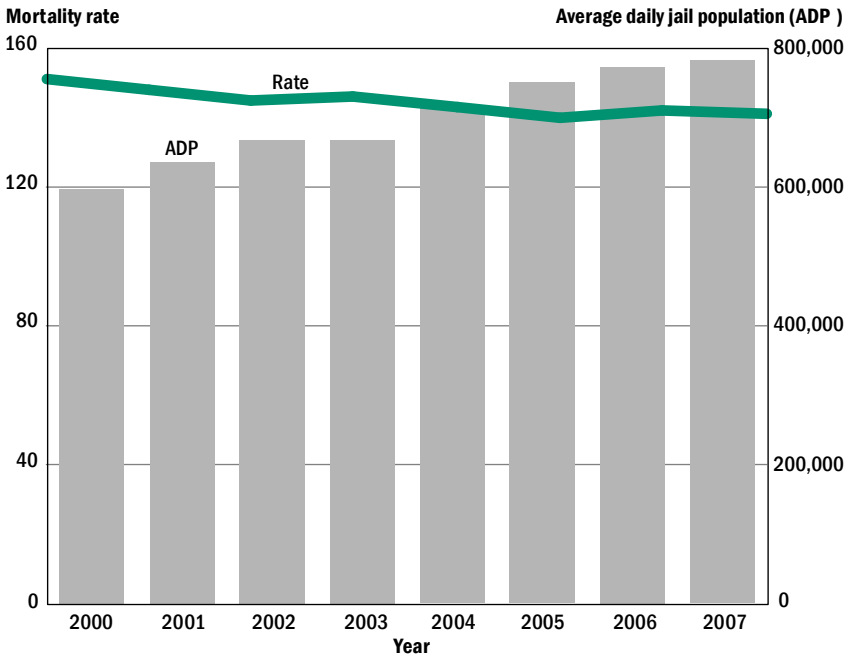
A total of 8,097 inmate deaths in local jails were reported to the Deaths in Custody Reporting Program (DCRP) from 2000 to 2007 (table 1). The program received data from at least 99% of the roughly 3,000 jail jurisdictions each year. Annually, more than 80% of the nation's jails reported no deaths in their custody. For the 8-year period between 2000-2007, 42% of the jails nationwide reported no deaths.

The number of deaths in local jails increased each year, from 904 in 2000 to 1,102 in 2007. During the same period, the growth in the average daily population of jail inmates (31%) outpaced the increase in inmate deaths (22%). This resulted in a decline in the mortality rate of jail inmates—from 151 deaths per 100,000 inmates to 141 per 100,000 between 2000 and 2007 (figure 1). (See *Methodology* for calculation of mortality rates).

Figure 1.

Mortality rate per 100,000 jail inmates and the average daily population, 2000–2007



Highlights

- From 2000 through 2007, local jail administrators reported 8,097 inmate deaths in custody. Deaths in jails increased each year, from 904 in 2000 to 1,102 in 2007.
- The mortality rate per 100,000 local jail inmates declined from 151 deaths per 100,000 inmates to 141 per 100,000 between 2000 and 2007, while the jail inmate population increased 31% from 597,226 to 782,595.
- Annually, more than 80% of the nation's jails reported no deaths in their custody.
- Deaths from any illness, including AIDS, accounted for more than half (53%) of all deaths in local jails.
- Heart disease was the leading cause among illness deaths in local jails (42%).
- Suicide was the single leading cause of unnatural deaths in local jails, accounting for 29% of all jail deaths between 2000 and 2007, but the suicide rate declined from 48 to 36 deaths per 100,000 inmates.
- Between 2000 and 2007, the suicide rates were higher in small jails than large jails. In jails holding 50 or fewer inmates, the suicide rate was 167 per 100,000; in the largest jails, the suicide rate was 27 per 100,000 inmates.
- After adjusting for differences associated with the age, sex, race, and Hispanic origin, suicide was the only cause of death that occurred at a higher rate in local jails than in the U.S. general population.

For a list of related publications go to http://bjs.ojp.usdoj.gov/content/dcrp/dictabs.cfm.

From 2000 to 2007, between 3,072 and 2,924 jail jurisdictions, reported data to the DCRP (table 2). In 2000, nearly 9 out of 10 jails (86%) reported zero deaths. By 2007, 8 out of 10 jails (81%) of jails reported zero deaths. For the eight-year period between 2000 and 2007, about 8 in 10 jails (83%) reported zero deaths. For the same period, about 1 in 10 jails (12%) reported a single death, and less than 1 in 10 jails (5%) reported 2 or more deaths. During this time, no more than 2% of jails reported more than 3 deaths (appendix table 1).

Between 2000 and 2007, suicides were the leading cause of death, but suicide rates continued to decline

Suicide was the single leading cause of death in local jails (29%), followed by deaths associated with heart disease (22%), intoxication (7%), and AIDS-related causes (5%) (figure 2). No other single known cause of death, including accidents (3%) and homicides (2%), accounted for at least 5% of deaths. Collectively, deaths from any illness, such as heart disease, AIDS, cancer, and liver disease, accounted for the majority (53%) of jail deaths during 2000 to 2007. (See *Methodology* for a discussion on the nature of illness deaths).

Table 1.

Number of deaths and mortality rate per 100,000 jail inmates, by cause, 2000–2007

	Jail inmate deaths		Average annual mortality rate
All causes	Number	Percent	per 100,000 jail inmates
Total	8,097	100 %	145
Suicide	2,361	29 %	42
Illness	4,281	53 %	77
Heart disease	1,788	22	32
AIDS	410	5	7
Cancer	274	3	5
Liver disease	235	3	4
All other illnesses*	1,574	19	28
Drug/alcohol intoxication	566	7 %	10
Accident	229	3 %	4
Homicide	171	2 %	3
Other/unknown	489	6 %	8

Note: Mortality rates are based on average daily population as reported to the Deaths in Custody Reporting Program.

*Includes other specified (such as influenza, septicemia, diabetes, and hepatitis) and unspecified or unknown illnesses. See appendix tables 2 and 3 of this report for a list of the more than 50 illnesses reported to the program. See *Methodology* for details on illness classifications.

Table 2.

Number and percent of jail jurisdictions, by number of deaths reported each year, 2000-2007

		Number of jail jurisdictions reporting deaths					
	Number reporting to the Deaths in Custody Reporting	0 deaths		1 death		2 or more deaths	
Year	Program (DCRP)	Number	Percent	Number	Percent	Number	Percent
2000	3,072	2,631	86%	293	10%	148	5%
2001	3,052	2,562	84	334	11	156	5
2002	3,036	2,543	84	339	11	154	5
2003	3,019	2,498	83	362	12	159	5
2004	3,003	2,478	83	371	12	154	5
2005	2,977	2,447	82	368	12	162	5
2006	2,946	2,395	81	381	13	170	6
2007	2,924	2,378	81	363	12	183	6
Annual average 2000-2007	3,004	2,492	83%	351	12%	161	5%

Note: Detail may not sum to total due to rounding. See *Methodology* of this report for response rates. Declining number of jails is documented in *Jail Inmates at Midyear, 2007*, BJS Web, 6 June 2008.

While suicide has been the leading cause of death in local jails since the 1980s, it has declined over time. The suicide rate among jail inmates was 129 per 100,000 inmates in 1983, but 10 years later the rate had declined by more than half to 54 per 100,000 inmates.[1] From 2000 to 2007, the suicide rate declined by about a quarter, from 48 to 36 suicide deaths per 100,000 jail inmates. (table 3).

Besides suicide, AIDS-related deaths were the only other leading cause of death that declined among jail inmates. Over the 8-year period, mortality due to AIDS declined by 50%, from 10 to 5 deaths per 100,000 inmates. The mortality rates for deaths from all other leading causes of illness in jails during this time period showed little variation.

Deaths due to accidents (4 per 100,000) and homicides (3 per 100,000) also remained relatively constant throughout 2000 to 2007. By comparison, the mortality rate for intoxication nearly doubled from 6 per 100,000 inmates in 2000 to 10 per 100,000 in 2007.

Ten types of medical conditions accounted for about 8 in 10 illness deaths in jail

Local jail administrators reported over 50 different medical conditions that led to an inmate's death between 2000 and 2007. Of these 50 fatal medical conditions, 10 accounted for 77% of all illness-related deaths in local jails (appendix table 4). Heart disease was the leading cause of illness-related deaths (42% of illness deaths), and was reported at least 3 times as frequently as any other death due to illness. Besides heart disease and AIDS, no single medical cause of death accounted for more than 5% of the illness-related deaths in jails between 2000 and 2007.

Overall, 95% of deaths reported to DCRP during the 8-year period indicated that an autopsy was completed. A definitive cause of death could not be determined for 6% (or 489) of deaths in local jails, and an autopsy was conducted in the majority (93%) of these unresolved cases (not shown in a table). No additional information was provided in about two-thirds of all undetermined deaths. In the remaining cases, either the information given was insufficient to determine the manner of death or the autopsy was inconclusive.

[1]See *Suicide and Homicide in State Prisons and Local Jails*, BJS Web, 21 August 2005.

Figure 2.

Top four causes of death in local jails, 2000-2007

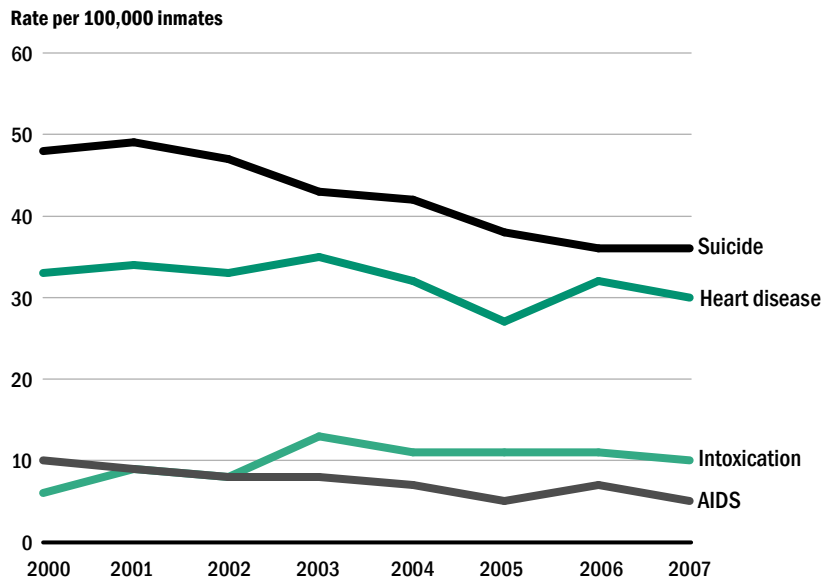


Table 3.

Mortality rate per 100,000 jail inmates, by cause and year, 2000–2007

All causes	2000	2001	2002	2003	2004	2005	2006	2007
Total	151	148	145	146	143	140	142	141
Suicide	48	49	47	43	42	38	36	36
Illness	86	77	76	75	74	67	79	78
Heart disease	33	34	33	35	32	27	32	30
AIDS	10	9	8	8	7	5	7	5
Cancer	5	4	6	5	4	5	5	5
Liver disease	4	4	4	4	5	4	3	5
All other illnesses*	34	25	26	23	27	26	31	32
Drug/alcohol intoxication	6	9	8	13	11	11	11	10
Accident	4	5	5	4	4	3	4	2
Homicide	3	3	3	2	3	3	5	3
Other/unknown	3	5	6	9	8	17	7	12

Note: Mortality rates are based on the average daily population as reported to the Deaths in Custody Reporting Program.

*Includes other specified (such as influenza, septicemia, diabetes, and hepatitis) and unspecified or unknown illnesses. See appendix tables 2 and 3 of this report for a list of the more than 50 illnesses reported to the program. See *Methodology* for details on illness classifications.

Over half of deaths occurred within 1 month of admission

Nearly a quarter (24%) of deaths occurred within 2 days of admission (not shown in table). Overall, more than a third (38%) of deaths took place within the first 7 days (table 4). Over half (56%) of inmate deaths occurred within 30 days of admission.

The distribution of inmate deaths occurring in the first month varied by cause. The majority of suicides (64%), intoxication (80%), and accidental deaths (62%) occurred in the first month. Deaths due to other illness-related causes were more frequently observed among inmates serving longer sentences. Over a third of cancer deaths (36%) and a fifth (21%) of AIDS-related deaths occurred more than 180 days after admission.

The pattern of deaths since admission generally corresponds with the length of stay in jail and whether an inmate has been detained long enough to be at risk of dying during a certain time period. The number of deaths occurring within the first month of admission generally corresponds with the number of inmates who spend less than one month in jail. The Annual Survey of Jails (ASJ) found local jails admitted an estimated 13 million inmates during the 12 months ending June 29, 2007, with an estimated 80% (10.4 million) serving their time within one month. Data from the 2004 Survey of Large Jails (SLJ), which collected discharge data from the largest jail jurisdictions (1,000 or more inmates), found that more than two-thirds (46%) of jail inmates were released within two days of admission, and a majority (80%) served less than a month (figure 3). Between 3 and 6% of jail inmates served past day 31. While the survey was limited to the largest jails, these facilities held more than half of the U.S. jail inmate population (52%). These facilities' turnover rates (54%) were half the turnover rate for the smallest jails (110%). If the sample included all jails, the inverse relationship between expected length of stay and facility size would likely increase the frequency of inmates serving less than 30 days and reduce the pool of inmates at risk of dying during lengthier stays.

Figure 3.

Estimated distribution of time served by jail inmates, 2000-2007

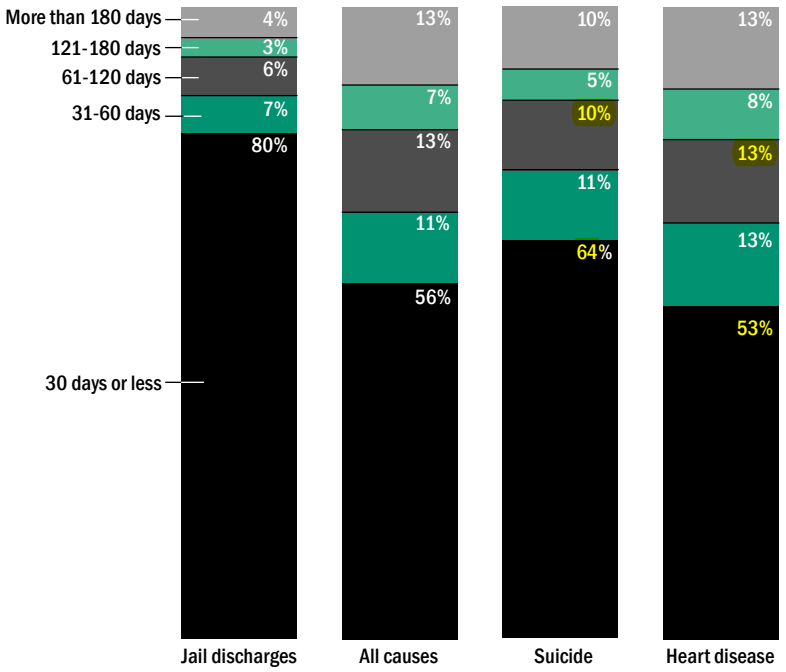


Table 4.

Distribution of deaths, by time served (days) since admission and cause of death, 2000-2007

		Percent of jail deaths										
Time served	Percent of jail discharges*	All causes	Suicide	Illness	Heart disease	AIDS	Cancer	Liver disease	All other illnesses	Drug/alcohol intoxication	Accident	Homicide
7 or less days	62%	38%	47%	27%	32%	7%	4%	24%	31%	74%	51%	27%
8-30 days	18	18	16	21	21	20	12	18	22	7	11	25
31-60 days	6	11	11	13	13	13	14	16	12	3	8	10
61-120 days	6	13	11	15	13	23	18	18	14	5	10	16
121-180 days	3	7	5	9	8	16	16	9	8	3	5	8
More than 180 days	4	13	10	15	13	21	36	16	13	8	15	14

Note: Details may not sum to total due to rounding.

*The percent of jail discharges are based on unpublished BJS data from the 2004 Survey of Large Jails. See *Methodology*.

Suicide rates in the nation's smallest jails were 6 times higher than in the largest facilities

Suicide rates were higher in smaller facilities than in larger facilities. According to the 2005 Census of Jails, large jails—holding an average daily population (ADP) of 1,000 or more inmates—made up about 6% of all jails, and in 2007 these jails held 52% of the nation's jail population. About 40% of all jails held fewer than 50 inmates on an average day, and in 2007 these jails held about 3% of all jail inmates. The smallest jails had the highest average annual suicide rate (167 per 100,000 inmates), while the 50 largest jails had the lowest average annual suicide rate (27 per 100,000 inmates) (table 5).

The lower rate of suicide in large jails may reflect the capacity of these jails to provide a variety of suicide prevention measures. According to the most recent data available in the 1999 Census of Jails, over half (54%) of jails holding fewer than 50 inmates provided staff training in suicide prevention, compared to 91% of the largest jails. Fewer than half (41%) of the smallest jails provided inmate counseling or psychiatric services, while such services were provided by over 90% of the largest facilities (table 6). Overall, the availability of various suicide prevention measures increased with facility size.

This comparatively high suicide rate may be due in part to the high turnover rate and the resulting shorter inmate stays in small facilities. [2]

[2]Turnover rate is calculated by taking the sum of admissions plus releases, and dividing by the average daily population. For more information on frequency of turnover, see *Jail Inmates at Mid-year 2007*, BJS Web, 6 June 2008.

The mortality rate for jails holding more than 50 but fewer than 500 inmates decreased as facility size increased. The mortality rate of facilities with an ADP of fewer than 50 inmates (282 per 100,000) was at least 1.5 times higher than that of any other facility size category. Medium-sized jails, holding between 100 and 499 inmates, had the lowest overall mortality rate (114 and 115 per 100,000). Larger jails (those holding more than 500 inmates) generally had higher mortality rates from illness deaths, such as AIDS, cancer, and liver disease.

Small jails, holding fewer than 50 inmates, had an intoxication mortality rate (31 per 100,000) that was three times higher than the 50 largest jails (8 per 100,000). Also, the smallest jails had the highest accident mortality rate (11 per 100,000), and the highest rate of deaths without a known cause (13 per 100,000). However, homicide rates were highest in the 50 largest jails with 6 per 100,000 inmates, compared to 1 per 100,000 for the smallest jails.

Table 6.

Special inmate counseling and psychiatric services, by size of jail jurisdiction, 1999

	Size of jail*				
Service provided	Less than 50	50 to 99	100 to 499	500 to 999	1,000 or more
Staff suicide risk-assessment training					
Yes	54.4 %	65.2 %	76.5 %	88.4 %	90.8 %
No	37.4	26.4	18.3	7.2	8.3
Don't know	8.2	8.3	5.3	4.3	0.8
Counseling					
Yes	41.1 %	62.1 %	74.2 %	89.9 %	93.3 %
No	50.6	29.6	20.5	5.8	5.8
Don't know	8.2	8.3	5.3	4.3	0.8

Note: Data are the most recent available from the *Census of Jails 1999*, BJS Web, 1 September 2001. Suicide prevention program items were not included in the more recent 2006 Census of Jails.
*Based on the average daily population (ADP) in 12 months ending June 30, 1999.

Table 5.

Average annual mortality rate per 100,000 jail inmates, by cause of death and size of jail, 2000–2007

Size of jurisdiction	Average annual mortality rate, 2000–2007	Suicide	Heart disease	AIDS	Cancer	Liver disease	All other illnesses*	Drug/alcohol intoxication	Accident	Homicide	Other/ unknown
All jails	145	42	32	7	5	4	28	10	4	3	8
Less than 50 inmates	282	167	33	1	1	2	22	31	11	1	13
50 to 99	158	69	33	1	1	3	18	17	6	2	8
100 to 249	115	49	22	1	1	1	16	12	3	2	7
250 to 499	114	44	25	1	2	3	19	10	3	1	6
500 to 999	119	37	28	4	4	3	22	7	3	2	8
1,000 or more (excluding 50 largest jails)	140	33	33	11	5	5	28	10	4	2	9
50 largest jails	170	27	41	15	10	7	43	8	5	6	10

Note: Detail may not sum to total because some jails did not report an average daily population. The largest jails were the 50 largest jails as of June 30, 2006.
*Includes other specified (such as influenza, septicemia, diabetes, and hepatitis) and unspecified or unknown illnesses. See appendix tables 2 and 3 of this report for a list of the more than 50 illnesses reported to the program. See *Methodology* for details on illness classifications.

Despite the higher mortality rates experienced by the nation's smallest jails, these facilities accounted for a small percentage of all jail deaths (7%) (table 7). Jails holding at least 1,000 inmates accounted for 4,240 (52%) of deaths reported over the 8-year period. Between 2000 to 2007, with the exception of one jail in 2002, no jails holding fewer than 500 inmates reported more than 3 deaths.

The 50 largest jail jurisdictions accounted for a third of all jail deaths in the United States

The 50 largest jails accounted for about a third of the jail population in the United States and 35% of all jail deaths. These large urban jails accounted for about 60% of the jail deaths from cancer, AIDS, and homicide. In contrast, 19% of jail suicides and 23% of jail intoxication deaths occurred in the 50 largest jurisdictions.

Heart disease was the leading cause of death in the 50 largest jail jurisdictions (41 per 100,000), followed by suicide (27 per 100,000). For all other jails, suicide was the leading cause of death, followed by heart disease. The death rate from AIDS in the 50 largest jails (15 per 100,000) was 7.5 times higher than the rate in jails holding less than 1,000 inmates (2 per 100,000) (not shown in a table). The homicide rate in the 50 largest jails was 3 times that of all other jails. The rate of intoxication deaths was 4 times higher in the smallest jails (31 per 100,000), compared to the 50 largest jails (8 per 100,000).

Table 7.

Number of jail inmate deaths, by cause and size of jail jurisdiction, 2000–2007

Size of jurisdiction[a]	Total number of deaths, 2000–2007	Suicide	Heart disease	AIDS	Cancer	Liver disease	All other illnesses[b]	Drug/alcohol intoxication	Accident	Homicide	Other/ unknown
All deaths	8,097	2,361	1,788	410	274	235	1,574	566	229	171	489
Less than 50 inmates	555	332	66	2	2	5	42	59	21	2	24
50 to 99	512	224	108	2	2	8	60	55	19	8	26
100 to 249	855	362	163	11	9	8	121	88	25	13	55
250 to 499	873	335	194	11	17	23	145	74	22	6	46
500 to 999	1,060	335	250	33	32	31	192	65	28	21	73
1,000 or more (excluding 50 largest jails)	1,399	324	328	104	49	50	286	96	37	24	101
50 largest jails	2,841	448	678	247	163	110	728	129	77	97	164

Note: Details may not sum to the total due to missing data.

[a]Number of inmates is based on the average daily population (ADP) for the years 2002 through 2007. In 2000 and 2001, ADP was estimated by taking the average of January 1 and December 31 one-day inmate population counts.

[b]Includes other specified (such as influenza, septicemia, diabetes, and hepatitis) and unspecified or unknown illnesses. See appendix tables 2 and 3 of this report for a list of the more than 50 illnesses reported to the program. See *Methodology* for details on illness classifications.

Mortality differs among prison and jail populations

Local jails and state prisons differ in their general purposes, populations housed, and terms of confinement.[3] Jails are locally operated facilities that confine persons before or after adjudication. In addition to convicted inmates, jails also hold inmates awaiting arraignment, trial, and conviction or sentencing. The annual volume of admissions into jails is about 17 times the size of the jail population at midyear. The mean time served in local jails is about 21 days.

State prisons typically only house sentenced felons, with annual admissions that amount to just over half of their yearend population. In 2006 the mean time served by offenders released from state prison was 32 months.

As a result of the differences between jails and state prisons, the number, rate, and pattern of deaths differed. Between 2001 and 2007, an average of 3,134 state prisoner deaths occurred each year, compared to 1,028 jail inmate deaths each year (table 8).

The overall mortality rate in state prisons (251 per 100,000 prisoners) was 1.7 times higher than that of local jails (144 per 100,000 inmates) for the same period.[4] In both jails (22%) and state prisons (27%), heart disease accounted for about a quarter of all deaths. The rate of heart disease deaths in state prisons (69 per 100,000) was twice that reported by local jails (32 per 100,000).

In state prisons, cancer also accounted for a quarter of all deaths (23%), while cancer accounted for 3% of jail fatalities. The cancer mortality rate in state prison (58 per 100,000) was 12 times that observed in jails (5 per 100,000). The suicide mortality rate in jails (42 per 100,000) was 2.6 times that in state prisons (16 per 100,000).

[3]For details on the differences between prison and jail populations, see page 6 of *Prison and Jail Inmates at Midyear 2000*, BJS Web, 25 March 2001.

[4]The DCRP began collecting death data from state prisons starting in 2001. Prior to 2001, data was limited to counts of deaths by manner of death and sex. For more information, See *Medical Causes of Death in State Prisons, 2001-2004*, BJS Web, 21 January 2007.

Table 8.

Number and mortality rate per 100,000 state prison and jail inmate deaths, by cause, 2001–2007

All causes	Number of state prisoner deaths, 2001–2007	Average annual mortality rate per 100,000 state prisoners, 2001–2007	Number of jail inmate deaths, 2001–2007	Average annual mortality rate per 100,000 jail inmates
Total	21,936	251	7,193	144
Illness	19,467	223	3,765	75
Heart disease	5,995	69	1,590	32
Cancer	5,098	58	243	5
AIDS	1,274	15	353	7
All liver diseases	2,227	26	211	4
All other illnesses	4,874	56	1,368	27
Suicide	1,386	16	2,072	42
Homicide	356	4	154	3
Drug/alcohol intoxication	254	3	529	11
Accident	208	2	204	4
Other/unknown	265	3	469	9

Note: Executions are not included; for data on executions, see *Capital Punishment, 2005*, BJS Web, 10 December 2006. Mortality rates are based on average daily population as reported to the Deaths in Custody Reporting Program. Prisons began collection of death records under the Deaths in Custody Reporting Act in 2001. See *Methodology* for more information. Prison mortality rates are based on a June 30 custody count.

Mortality rate for males was slightly higher than females

Males were slightly more likely than females to die in local jails. The mortality rate for males was 146 per 100,000 compared to 136 per 100,000 for female jail inmates (table 9). Males (33 per 100,000) were 1.3 times more likely than females to die of heart disease (25 per 100,000), while females were 1.4 times more likely to die from all other illnesses (table 10) than males. Also, males (45 per 100,000) were 1.6 times more likely to commit suicide than females (28 per 100,000), and nearly half as likely as females to die from intoxication (9 and 17 per 100,000, respectively).

The overall mortality rate increased dramatically with age, although older inmates accounted for a small proportion of the total population. Inmates age 55 and older accounted for 2% of jail inmates, but 14% of jail deaths. The mortality rate of inmates age 55 and older (893 per 100,000) was more than twice the rate for inmates age 45 to 54 (383 per 100,000), and 10 times higher than the rate for inmates age 25 to 34 (88 per 100,000), which was the largest age group of inmates.[5] AIDS and intoxication were the only causes of death for which inmates age 55 and older did not die at the highest rate of all age groups.

[5]See *Profile of Jail Inmates*, 2002, BJS Web, 18 July 2004, and *Jail Inmates at Midyear 2007*, BJS Web, 6 June 2008.

Table 9.

Percent of the total jail population, percent of jail inmate deaths, and average annual mortality rate per 100,000 jail inmates by selected inmate characteristics, 2000–2007

Characteristic	Percent of total population	Percent of deaths in jails	Average annual mortality rate
Total	100 %	100 %	145
Sex			
Male	88 %	89 %	146
Female	12	11	136
Race/Hispanic origin			
White, non-Hispanic	44 %	52 %	172
Black, non-Hispanic	40	34	123
Hispanic	15	12	115
Other/multiple race[a]	2	2	187
Age			
Under 18	2 %	1 %	49
18-24	28	10	52
25-34	32	20	88
35-44	26	29	163
45-54	10	27	383
55 or older	2	14	893
Legal Status			
Convicted	40 %	24 %	88
Unconvicted[b]	60	76	179
Offense			
Violent	25 %	35 %	191
Property	24	19	106
Drugs	25	18	107
Public order	25	28	185

Note: Mortality rates are based on the average daily population (ADP). In 2000 and 2001, ADP was estimated by taking the average of January 1 and December 31 one-day inmate population counts. Inmate populations for age and offense are estimates based on the 2002 Survey of Inmates in Local Jails. Inmate populations for sex, race/Hispanic origin and legal status are estimates based on the 2000 through 2007 Annual Survey of Jails. Detail may not sum to total due to rounding.

[a]Includes American Indians, Alaska Natives, Asians, Native Hawaiians, other Pacific Islanders, and persons of two or more races.

[b]Includes inmates who were returned to jail on a probation or parole violation.

Inmates age 45 or older died at a rate nearly 5 times higher than younger inmates

The overall mortality rate of inmates age 45 and older (475 per 100,000) was nearly 5 times that of younger inmates (98 per 100,000). For all age groups under 45 years old, suicide was the leading cause of death. Older inmates were 9 times more likely to die due to an illness. Specifically, older inmates were 11 times more likely to die from heart disease and 19 times more likely to die of cancer than inmates younger than 45. Among causes unrelated to illness, older inmates were between 1.5 times (suicide) and 2.9 times (accident) more likely to die than younger inmates.

Hispanic inmates were less likely than whites or blacks to die in jail; blacks were less likely to commit suicide

White inmates, accounting for nearly half of all jail inmates, died in local jails at a higher rate (172 per 100,000) than black (123 per 100,000) or Hispanic inmates (115 per 100,000). Whites (68 per 100,000) committed suicide at 4 times the rate of black inmates (16 per 100,000) and twice the rate of Hispanic inmates (34 per 100,000). Whites and blacks died of heart disease at comparable rates (34 and 35 per 100,000, respectively). Each group was nearly twice as likely as Hispanics (18 per 100,000) to die of heart disease.

Heart disease was the leading cause of death for black inmates (35 per 100,000), and accounted for more than twice as many deaths as suicide among blacks (16 per 100,000). Blacks (13 per 100,000) were 4 times as likely to die from AIDS-related causes as white inmates (3 per 100,000) and about twice as likely as Hispanic inmates (6 per 100,000). Suicide was the single leading cause of death among Hispanic inmates (34 per 100,000).

Table 10.

Mortality rate per 100,000 jail inmates, by selected inmate characteristics and leading cause of death, 2000–2007

Characteristic	All causes	All illnesses	Heart disease	AIDS	Cancer	All other illnesses[a]	Suicide	Drug/alcohol intoxication	Accidental	Homicide
Total	145	77	32	7	5	32	42	10	4	3
Sex										
Male	146	76	33	7	5	31	45	9	4	3
Female	136	78	25	7	3	44	28	17	3	1
Race/Hispanic origin										
White, non-Hispanic	172	73	34	3	5	31	68	14	6	3
Black, non-Hispanic	123	87	35	13	6	33	16	6	3	3
Hispanic	115	59	18	6	3	31	34	8	3	4
Age										
Under 18	49	6	2	1	0	3	37	2	1	1
18-24	52	9	3	1	0	5	31	5	2	3
25-34	88	28	10	5	1	12	41	10	3	2
35-44	163	85	33	12	3	36	50	12	5	3
45-54	383	268	113	22	17	117	57	20	9	6
55 or older	893	731	358	20	86	267	71	14	12	9
Legal Status										
Convicted	88	55	25	5	4	22	18	4	3	2
Unconvicted[b]	179	90	36	9	6	39	58	14	5	4

Note: Mortality rates are based on the average daily population (ADP). In 2000 and 2001, ADP was estimated by taking the average of January 1 and December 31 one-day inmate population counts. Inmate populations for age and offense are estimates based on the 2002 Survey of Inmates in Local Jails. Inmate populations for sex, race/Hispanic origin and legal status are estimates based on the 2000 through 2007 Annual Survey of Jails. Detail may not sum to total due to rounding. All causes of death are included in the calculations of the total mortality rate.

[a]Includes other specified (such as influenza, septicemia, diabetes, and hepatitis) and unspecified or unknown illnesses. See appendix tables 2 and 3 of this report for a list of the more than 50 illnesses reported to the program. See *Methodology* for details on illness classifications.

[b]Includes inmates who were returned to jail on a probation or parole violation.

Violent offenders had the highest overall mortality, suicide and homicide rates

Overall, violent offenders (191 per 100,000) and public order offenders (152 deaths per 100,000) were more likely to die in local jails than other offenders (table 11). Violent offenders (80 per 100,000) and public-order offenders (35 per 100,000) were the most likely to commit suicide. Specifically, offenders serving time for homicide, kidnapping, and rape (200, 195, and 194 per 100,000, respectively) had the highest suicide rates. Violent offenders also had the highest rates of cancer and homicide mortality. In particular, offenders serving time for homicide or kidnapping were the most likely to be killed (13 per 100,000) while in jail.

Property (106 per 100,000) and drug offenders (102 per 100,000) had the lowest overall mortality rates. Drug offenders had the lowest mortality rates from suicide (19 per 100,000) and homicide (1 per 100,000).

Public-order offenders had the second highest overall mortality rate (152 per 100,000), but the mortality rate for most categories of public-order offenders were below the overall average. The mortality rate for public order offenders varied from a high of 431 per 100,000 for probation/parole violators to a low of 61 per 100,000 for offenders held on weapons charges. The mortality rates for all other public-order offenders were equal to or less than 147 per 100,000.

Table 11.

Average annual mortality rate per 100,000 jail inmates, by most serious current offense and cause of death, 2000–2007

Current offense[a]	All causes	Suicide	Heart disease	AIDS	Cancer	Liver disease	All other illnesses	Drug/alcohol intoxication	Accident	Homicide	Other/ unknown
All offenses	145	42	32	7	5	4	28	10	4	3	8
Violent offenses	191	80	35	8	9	4	30	7	4	5	10
Homicide[b]	406	200	65	15	24	9	47	10	6	13	17
Kidnapping	284	195	31	0	5	0	23	0	3	13	15
Rape	392	194	67	18	21	3	47	8	3	3	26
Other sexual assault	244	90	58	5	25	4	43	3	1	2	13
Robbery	101	40	19	9	4	1	13	2	3	4	6
Assault	158	56	31	7	4	5	29	11	3	4	9
Property offenses	106	30	21	9	3	3	22	6	3	2	6
Burglary	112	38	17	13	4	2	21	5	2	2	8
Larceny/theft	138	34	33	10	4	5	31	7	3	3	8
Auto theft	44	14	7	4	2	0	8	7	1	2	0
Arson	233	94	36	18	0	7	48	0	12	0	18
Fraud	66	19	13	6	1	2	13	4	2	1	5
Stolen property	44	19	8	0	3	1	10	1	0	1	1
Drug offenses	102	19	23	7	3	4	25	12	3	1	5
Possession	162	29	34	11	6	5	39	22	4	3	8
Trafficking	49	9	12	4	2	2	12	4	2	0	2
Public order offenses	152	35	42	5	4	5	29	13	7	3	10
Weapons	61	20	16	2	1	2	5	4	4	2	5
Obstruction of justice	147	39	41	2	3	6	26	8	6	5	10
Trafficking	125	30	37	3	3	2	22	16	2	2	8
Driving while intoxicated[c]	100	18	30	1	3	7	19	13	6	0	5
Public intoxication/morals[d]	292	61	83	13	3	11	45	33	17	7	19
Violation of parole/probation[e]	431	94	114	23	13	10	99	23	16	10	29

[a]Includes other offense categories not shown in detail.

[b]Includes murder and manslaughter.

[c]Includes driving while intoxicated and driving under the influence of drugs or alcohol.

[d]Includes public intoxication, vagrancy, disorderly conduct, unlawful assembly, morals, and commercialized vice.

[e]Includes parole or probation violations, escape, AWOL, and flight to avoid prosecution.

Leading causes of death in the jail population differed from the U.S. resident population

Mortality in local jails differed from mortality in the U.S. resident population in both prevalence and leading causes of death. In the resident population, heart disease was the leading cause and suicide was the tenth leading cause of death between 2000 and 2006 (the most recent year finalized mortality data were available) (table 12). By comparison, suicide was the leading cause of jail deaths, followed by heart disease (table 13). Among both jail inmates

Table 12.

Average annual mortality rate, by the 15 leading causes of death in the U.S. general population by age, 2000–2006

	Average annual mortality rate per 100,000 U.S. residents, age 15-64, 2000–2006[a]						Average annual mortality rate per 100,000 local jail inmates, 2000–2006[b]					
	Total[c]	15–24	25–34	35–44	45–54	55–64	Total	15–24	25–34	35–44	45–54	55–64
Total	835	81	104	198	429	937	145	53	90	165	379	731
Diseases of heart	233	3	8	30	92	232	32	3	10	33	112	288
Malignant neoplasms	191	4	9	35	122	346	5	0	0	3	7	66
Cerebrovascular diseases	53	0.5	1	5	15	37	3	0	0	3	10	21
Chronic lower respiratory diseases	43	0.5	1	2	9	43	1	0	1	2	3	7
Accidents[d]	38	37	32	37	39	32	4	2	3	5	10	13
Diabetes mellitus	25	0	2	5	14	38	1	0	1	1	4	3
Influenza and pneumonia	22	0	1	2	5	11	2	0	1	1	6	10
Alzheimer's disease	21	*	*	*	0	2	0	0	0	0	0	0
Nephritis	14	0	1	2	5	13	1	0	0	1	1	7
Suicide	11	10	13	15	16	13	43	32	42	50	55	69
Septicemia	11	0	1	2	5	13	1	0	0	2	6	9
Chronic liver disease, cirrhosis	9	0	1	7	18	23	2	0	0	2	11	14
Essential (primary) hypertension and hypertensive renal disease	7	0	0	1	3	6	0	0	0	0	1	3
Parkinson's disease	6	*	*	*	0	1	0	0	0	0	0	0
Homicide	6	13	12	7	5	3	3	3	2	3	6	9

Note: Age is limited to ages 15 to 64 because this range represents more than 99% of the jail population and 96% of all deaths in jails. The 15 leading causes of death are the most common causes of death in the U.S. resident population as determined by the Center for Disease Control's National Vital Statistics System. For more information, see <http://www.cdc.gov/nchs/deaths.htm>.

*Number does not meet standards of reliability or precision according to the *Technical Notes* of National Vital Statistic Reports *Deaths: Final Data for 2006* <http://www.cdc.gov/nchs/data/nvsr/nvsr57/nvsr57_14.pdf>.

[a]Source: Vital Statistics Cooperative Program of the Centers for Disease Control and Prevention's National Center for Health Statistics.

[b]The general population and jail mortality rates were based on CDC classification for cause of death. As a result, the mortality rates for jail inmates in this table may differ from rates in other tables.

[c]Includes all causes of death for all age groups.

[d]Includes transportation and intoxication deaths.

Table 13.

Average annual mortality rate, by the 10 leading causes of death in jails, by age, 2000–2006

	Mortality rate per 100,000 U.S. residents (by age)						Mortality rate per 100,000 local jail inmates					
Cause of death	Total[a]	15-24	25-34	35-44	45-54	55-64	Total[a]	15-24	25-34	35-44	45-54	55-64
All causes	835	81	104	198	429	937	145	53	90	165	379	731
Illness[b]	...	...	...	...	...	...	52	4	17	58	185	423
Heart disease	233	3	8	30	92	232	32	3	10	33	115	292
AIDS	5	0	4	12	11	5	8	1	5	13	21	19
Cancer	191	4	9	35	122	343	5	0	1	3	17	66
Liver diseases	9	0	1	7	18	23	4	0	0	5	22	24
Cerebrovascular diseases	53	0	1	5	15	36	3	0	1	3	10	21
Suicide	11	10	13	15	16	14	43	32	42	50	55	69
Drug/alcohol intoxication	7	5	9	14	13	5	10	5	10	11	21	13
Accidental	31	32	24	24	26	28	4	2	3	5	10	13
Homicide	6	13	12	7	5	3	3	3	2	3	6	9
Other/unknown	...	...	...	...	...	...	8	3	4	9	20	45

Note: Age is limited to ages 15 to 64 because this range represents more than 99% of the jail population and 96% of all deaths in jails.

[a]Includes deaths for ages not shown in table. The detailed age categories is limited to ages 15 to 64 because this range represents more than 99% of the jail population and 96% of all deaths in jails. Source: Vital Statistics Cooperative Program of the Centers for Disease Control and Prevention's National Center for Health Statistics.

[b]Total for the top 5 illness deaths in local jails.

...Not available.

and the U.S. resident population, the rates of heart disease deaths increased with age. Similar rates of death from heart disease were observed for persons under 45 years old in both groups. Among persons age 45 and older, the heart disease mortality rate in jails was higher than in the resident population.

Cancer was the fifth known leading cause of death in jails, but the second leading cause of death in the resident population. Across all age groups, death rates from cancer in jails were consistently lower than in the resident population. The largest difference was observed among persons age 45 to 54. The U.S. resident population rate of cancer deaths (122 per 100,000 residents) in this age group was 7 times that of jail inmates (17 per 100,000 inmates).

Jail suicide rates are consistently higher than suicide rates in the general U.S. population

Suicide rates for all age groups were at least 3 times higher among local jail inmates than the general population. The largest differences were seen among persons age 55 and older. These jail inmates had a rate of suicide (69 per 100,000 inmates) that was 5 times higher than U.S. residents (14 per 100,000 residents).

For violent deaths, such as suicide, specific data collected by the Centers for Disease Control and Prevention (CDC) allow for standardized comparisons between jail and U.S. resident mortality rates (table 14). Standardizing these rates accounts for variations in the age, race, and sex composition of the two groups. For example, males make up 88% of jail inmates, but 49% of the adult resident population.

The jail population was adjusted through a direct standardization so that it would reflect the composition of the general population. For all groups, the adjusted jail suicide rates remain consistently higher than that of U.S. residents. The standardized jail suicide rate was 4.4 times higher than the suicide rate in the general population, and the standardized jail suicide rate was higher for both males and females. Males were 2.8 times more likely to commit suicide in jail. White males (126 per 100,000) had the highest standardized jail suicide rate, which was 5.7 times higher than the suicide rate of white males in the general population (22 per 100,000). The standardized suicide rate for Hispanic males was about three times as high as the general population. Black males in local jails had the lowest standardized suicide rate (20 per 100,000), which was about 1.5 times higher than in the general population (12 per 100,000 residents).

Table 14.

Suicide rates in U.S. population and local jails, by sex, race, and Hispanic origin, 2000–2006

	Average annual suicide rate per 100,000		
	Jail inmates		U.S. resident population
	Unadjusted	Age-adjusted[a]	
All[b]	42	57	13
Male[b]	45	59	21
White	83	126	22
Black	18	20	12
Hispanic	30	32	11
Female[b]	28	27	5
White	55	45	6
Black	9	7	2
Hispanic	26	21	2

[a]Adjustment based on age distribution in U.S. resident population by sex, race, and Hispanic origin. See *Methodology* for more information on calculation of age-adjusted rates.

[b]Includes other racial groups not shown in detail.

The suicide rate of females in jail was five times that of the suicide rate of females in the general population

Females account for 51% of the general population and 12% of the jail population, so adjusting the jail population to reflect the general population would deflate the standardized suicide rate for females. White females had the highest standardized jail suicide rate at 45 per 100,000 inmates. The standardized suicide rate for Hispanic females (21 per 100,000), but suicide among Hispanic females in jail occurred 10.5 times more than in the general population (2 per 100,000) post-standardization. Blacks had the lowest standardized suicide rate among females (7 per 100,000), but it was 3.5 times higher than the suicide rate of black females (2 per 100,000) in the general population.

The actual suicide rate in jail varies from the standardized jail suicide rate based on race and sex

Overall, the standardized jail suicide rate (57 per 100,000 inmates) was about about 1.5 times the actual (observed) suicide rate (42 per 100,000 inmates) in jails. Female suicide rates in jails are nearly equal regardless of the standardization, while the male suicide rate is 1.3 times higher post-standardization. With the exception of whites, the jail suicide rates both before and after standardization show little variation. Among females, the standardized suicide rate was lower for every race or ethnic group.

Methodology

Update to the Mortality in Local Jails, 2000-2007 Report

As part of data processing review, BJS and the Census Bureau identified duplicate records by providing jail reporting units, the entities that submit records to BJS for the Deaths in Custody Reporting Program (DCRP) with a summary annual form at the close of a collection year to record the total number of deaths occurring within the jail facilities for which a reporting unit reported deaths. BJS and Census Bureau staff compared the aggregate count of individual death records received to the annual summary number reported by a jail reporting unit. If discrepancies were noted, the reporting unit was contacted about it by either BJS or Census Bureau staff and the discrepancy was resolved. After the annual accounting, the dataset containing the individual death records was again reviewed to identify duplicates via a visual inspection of names and dates.

BJS' review of death records received between 2000 and 2007 initially excluded 51 deaths deemed to be duplicates or out of scope. A death was out of scope if the inmate was outside of the jail's jurisdiction when he/she died. Inmates on escape status, out on probation or parole or on home-electronic monitoring were considered outside of the jail's jurisdiction for the purposes of this collection, and were therefore out of scope and excluded. A death was a duplicate if the death had either been reported by two different reporting units, one of which had custody of the inmate at the time of death or if the death had been reported to a different collection within the DCRP. Deaths occurring in the process of arrest were the most common example of a duplicate death reported to a different DCRP collection. Of these 51 exclusions, 34 records were duplicates and 17 were out of scope.

Two jail jurisdictions contacted BJS after the report was released and asked for a review of their data. BJS used this opportunity to do a stringent assessment of the cases submitted by expanding the duplication identifying code to include cases that matched on state in which the death occurred; the gender of the inmate; and the date of birth or date of death of the inmate. Over a hundred potential duplicates were identified, thirteen of which were identified as true duplicates.

The thirteen duplicate cases escaped detection during the earlier quality control process because the summary totals and number of death records within each reporting unit matched, and the information reported on names, admission date, charges against the deceased, and facility holding the inmate at death differed slightly between reporting units that submitted the same death records. Consequently, BJS efforts to match records on these variables in order to identify duplicate records did not flag these 13 records.

The duplicate records reduced the total number of deaths occurring in local jails during the 2000 through 2007 period to from 8,110 to 8,097. These duplicate records were spread across the eight year period. In 2000, 2001, 2002 and 2006, one duplicate death was reported. In 2001 and 2005, two duplicate deaths were reported, and 2004 five duplicate deaths were reported. No duplicate deaths were reported in 2003.

These additional cases increased number of exclusions to a total of 64 deaths.

BJS anticipates there will be some level of duplication as we advise respondents to report deaths of uncertain eligibility with the assurance that BJS will exclude ineligible cases.

DCRP mortality data are always based on information available to BJS at the time of publication. If addition information about a death occurring in custody comes to the attention of BJS, we incorporate updates into the data. As a result, findings may differ from earlier published reports.

Deaths in Custody Reporting Program

The local jail portion of the Deaths in Custody Reporting Program began in 2000 after the passage of the Deaths in Custody Reporting Act of 2000. The Governments Division of the U.S. Census Bureau, as an agent for BJS, collected facility-level information, death counts, and information surrounding the death from local jails. Data on inmate deaths were requested at the end of each calendar quarter. At yearend, jails submitted a reconciled annual count that summed to the quarterly count. Additionally, jail administrators submitted data on inmate population and admission counts, which were the basis for the calculation of inmate mortality rates.

Jail respondents were instructed to report the death of any inmate in their custody, even if the inmate was held for other jurisdictions. Respondents were also instructed to include the death of any inmate in transit or sent outside the jail facility for medical, mental health, or substance abuse treatment services. Inmates who died while on or traveling to or from work-release programs were also included. Deaths of jail inmates who were released on temporary furloughs or who had escaped the jail facility were excluded.

Medical cause of death information was collected for illness deaths, but not for other manners of death. The illness category is a heterogeneous category for natural causes of death associated with an underlying illness. Due to the variation within the illness category, each illness death was discussed in terms of the known medical cause of death as determined by the autopsy. For each death marked as illness/natural cause, respondents were directed to specify a medical cause of death based on an autopsy review, if available.

These text entries were later coded by clinical data specialists according to the World Health Organization's International Statistical Classification of Diseases and Related Health Problems, Tenth Revision (ICD-10). BJS analysis of causes of death used categories of disease published by the National Center for Health Statistics (NCHS). For this report, accidents, suicides, and homicides were discussed in terms of cause of death. While there is a clear distinction between manner and cause of death from a medical-legal standpoint, no such distinction was made in this report.

More information on state prison death data and the Deaths in Custody Reporting Program is available on the BJS Website at <http://bjs.ojp.usdoj.gov/index.cfm?ty=dcdetail&iid=243#Methodology>.

Average daily population used in calculating mortality rates

Mortality rates were calculated as the number of deaths per year divided by the annual average daily population (ADP) of jail inmates and expressed in terms of deaths per 100,000 jail inmates. The measure of ADP was for the 12-month period ending December 31.

The ADP implicitly measures the number of jail inmate days per year, thereby annualizing the mortality rates. The ADP reflects the number of admissions and their length of stay and can be expressed as the product of the number of admissions times mean length of stay. When mean length of stay is expressed in years, the ADP is equivalent to the number of person-years spent by jail inmates during a given year. This allows for reporting annualized mortality rates that are comparable in concept to the annual mortality rates reported by the National Center on Health Statistics. NCHS calculates (crude) mortality rates as the number of events for a period (e.g., year) divided by the population estimated at the midpoint of the period. For general population mortality statistics the use of the population at the midpoint of a year is employed as an approximation to the average population exposed to risk of death during the year. (See, e.g., Jacob S. Siegal and David Swanson (2004). The Methods and Materials of Demography, Second Edition, San Diego, CA: Elsevier Academic Press, p. 269.)

Because length of stay in jail is comparatively short (i.e., about 21 days) the ADP is preferred over the midyear jail population count in the estimation of the average population exposed to risk of dying in jail. The average daily population is an appropriate measure because it is the closest measure of the accepted epidemiology model of "person years," or the number of years the person lives in the population prior to death (Gaswirth, J.L. (2006) "Case Comment-Buncher v. Brown County: the need for an appropriate comparison of suicide rates." Law, Probability and Risk (2005) 4, 257-263). Unless otherwise specified, the jail mortality rate was expressed in terms of the number of jail inmate days throughout the report.

For 2000 and 2001, data on ADP were not collected by the DCRP. To estimate each jail's ADP for these two years, an average of the inmate custody population on January 1st of the reference year and on December 31st of the year was used. From 2002-forward, the ADP was collected by the DCRP and was as the estimate of the population at risk of dying in jail. To estimate the ADP of the characteristics of jail inmates-such as age, race, and gender-population proportions from BJS' 2002 Survey of Inmates in Local Jails were generated and applied to the average of each year's ADP. These were the most recently available data for selected jail inmate population characteristics nationwide. Data from BJS' Annual Survey of Jails indicate that the distribution of inmate characteristics such as gender and race have changed slowly over time. See *Jail Inmates at Midyear 2008 - Statistical Tables*, BJS Web, 31 March 2009 for more information. Using the 2002 inmate survey data to estimate the distributions of inmate characteristics and applying these distributions to the average ADP over the period results in a reasonable estimate of the ADP of inmate characteristics.

U.S. resident population sources

The NCHS's vital statistics program provided the U.S. resident population mortality data and rates presented in this report. See the NCHS website for mmortality data for the U.S. resident population at <http://www.cdc.gov/nchs/deaths.htm>. The Center for Disease Control's (CDC) Web-based Injury Statistics Query and Reporting System was the source for age-specific suicide data in the U.S. resident population. See <http://www.cdc.gov/injury/wisqars/index.html> for more information.

Medical cause of death in state prisons

2004 was the last year finalized clinical ICD data was available for state prisons. ICD distributions from 2001-2004 were applied to prison data reported to the DCRP for 2005-2007. More information on state prison death data and the Deaths in Custody Reporting Program is available on the BJS Website at <http://bjs.ojp.usdoj.gov/index.cfm?ty=dcdetail&iid=243#Methodology>.

Discharge data

Inmates are typically discharged from jail through bail, release by a court order, community supervision, time served or death. Estimates of time served by inmates discharged from jail are based on unpublished BJS data.

Direct standardization of suicide rates in jail and U.S. resident populations

The method of direct standardization was used to compare suicide rates in the jail inmate population with suicide rates in the general population. Because the characteristics of the jail inmate population differ from the characteristics of the general population, and as some characteristics are associated with suicide rates, a direct comparison of the crude suicide mortality rates between jail inmates and the general population can be misleading. For example, in jails, older white males are more likely to commit suicide than other groups, but older white males comprise a smaller fraction of the jail population than they comprise of the general population.

In order to compare the jail and U.S. resident population suicide rates, the differences in these two populations' gender, race, and age distributions were taken into account by method of direct standardization. The jail population was adjusted to the age distribution of the general population, creating the standardized population; this was done within race and gender groups. The age-specific jail suicide rates were applied to the standardized population to produce an estimate of the expected number of suicides that would occur in jail if the age distribution of the jail population were the same as that of the general population. Again, this was done within race and gender groups. The expected numbers of suicides across age groups were summed and the total divided by the ADP of jail population to produce the standardized suicide rates that were compared to the general population rates.

Appendix Table 1.

Number of reported deaths by size of jail jurisdiction, 2000–2007

Number of deaths	Percent of unique facilities in all 8 years	Number of deaths reported by facilities reporting in all 8 years, by size of jail jurisdiction						
		Total	Fewer than 50	50 to 99	250 to 499	250 to 499	500 to 999	1,000 or more
0	42 %	1,219	780	253	160	22	2	1
1	48	1,371	362	303	376	192	93	32
2	6	181	8	12	43	43	48	26
3	2	47	0	0	0	11	12	24
4 or more	2	58	0	0	0	1	3	54
Total	100 %	2,876	1,150	568	579	269	158	137

Note: Unique facilities are jail facilities or jurisdictions that reported in all 8 years of the reporting period. Detail may not sum to total due to missing cases.

Appendix Table 2.

Number of jail inmate deaths, by cause of death, 2000–2007

Cause of death	2000–2007	2000	2001	2002	2003	2004	2005	2006	2007
All causes	8,097	904	944	972	1,004	1,024	1,049	1,098	1,102
Suicide	2,361	289	314	314	296	299	286	278	285
Heart disease	1,788	198	216	221	241	227	203	250	232
Drug/alcohol intoxication	566	37	58	55	89	77	84	87	79
Illness, specific cause missing[a]	480	79	47	53	35	58	70	59	79
AIDS	410	57	59	51	54	52	40	54	43
Unknown/other cause	489	20	30	42	62	59	129	56	91
Accidental	229	25	35	35	28	32	24	32	18
Cancer	274	31	25	39	34	28	37	38	42
Liver disease	235	24	27	25	30	33	32	25	39
Homicide	171	17	19	18	15	24	22	36	20
Cebrovascular diseases	165	15	18	22	18	19	16	30	27
Respiratory diseases[b]	129	19	10	12	12	20	14	16	26
Digestive diseases[c]	125	15	16	8	12	16	14	22	22
Influenza/pneumonia	103	13	9	11	11	16	8	12	23
Chronic substance abuse[d]	84	3	10	14	7	11	9	17	13
Septicemia	84	14	9	11	12	5	6	16	11
Aortic aneurysm	52	4	5	7	6	6	7	8	9
Diabetes	48	4	3	5	6	6	10	7	7
Kidney disorders	39	3	1	7	7	4	7	8	2
Other central nervous system diseases	23	1	6	3	4	1	1	6	1
Inflammation of the central nervous system	22	2	2	1	3	5	0	5	4
Atherosclerosis	17	2	1	3	2	1	2	3	3
Episodic paroxysm	16	1	4	0	1	3	1	3	3
Viral hepatitis	16	1	3	0	1	1	6	2	3
Surgical complications	12	4	1	1	1	2	0	3	0
Essential hypertension and hypertensive renal disease	11	1	3	0	1	0	2	3	1
Benign neoplasm	10	1	1	0	2	1	2	1	2
Other bacterial	9	2	1	0	1	0	3	0	2
Congrenital malformation	8	2	1	2	1	1	1	0	0
Tuberculosis	7	1	1	0	1	1	2	1	0
Anemia	6	0	1	0	0	1	1	1	2
Mycoses	6	0	0	2	0	1	1	2	0
Pregnancy/birth	6	1	0	1	1	2	0	1	0
Soft tissue disorders	6	2	1	1	0	1	0	1	0
Disorders of veins/lymph nodes	5	0	0	1	0	1	0	2	1
Thyroid disorders	5	1	0	0	1	0	1	0	2
Blood disorders	4	0	0	1	1	0	0	0	2
Mental disorder	4	1	0	1	0	0	1	1	0
Metabolic disorders	4	2	0	0	1	0	0	1	0
Unspecified circulatory disorders	4	2	0	0	0	0	1	1	0
Appendicitis	3	1	2	0	0	0	0	0	0

Continued on the next page

Appendix table 2 (cont.)

Number of jail inmate deaths, by cause of death, 2000–2007

Cause of death	2000–2007	2000	2001	2002	2003	2004	2005	2006	2007
Hernia	3	0	0	0	1	0	0	0	2
Other viral disorders	3	0	0	0	1	0	1	0	1
Arthritis	2	1	0	1	0	0	0	0	0
Endocrine disorders	2	0	0	1	1	0	0	0	0
Immune system disorders	2	0	0	1	0	1	0	0	0
Multiple sclerosis	2	0	1	0	0	1	0	0	0
Connective tissue disorder	2	0	0	0	1	0	1	0	0
Protozoal disorders	2	1	0	0	1	0	0	0	0
Other urinary tract disorders	2	0	1	0	1	0	0	0	0
Glucose disorders	2	0	0	0	0	0	0	1	1
Atrophy of the central nervous system	2	0	0	1	0	0	0	0	1
Infectious diseases, other	1	0	0	0	0	0	0	0	1
Nerve or nerve root disorders	1	0	0	0	0	0	0	0	1
Nutrition deficiencies	1	0	0	0	0	0	1	0	0
Obesity	1	0	0	0	0	0	0	1	0
Salmonella poisoning	1	0	0	0	0	0	0	1	0
Skin disorders	1	0	0	0	0	0	0	1	0
Spirochetal other	1	0	1	0	0	0	0	0	0
Viral infections of the central nervous system	1	0	0	0	0	0	0	0	1
Multiple illnesses[e]	29	7	2	1	1	8	3	7	0

[a]The manner of death was marked as "illness," but a medical cause of death was not given.

[b]Excludes influenza and pneumonia.

[c]Excludes diseases of the liver.

[d]Excludes acute intoxication deaths.

[e]Such cases included a text description of the illness, but the information was insufficient to classify the death to a single cause.

Appendix Table 3.

Mortality rate of jail inmates, by cause of death, per 100,000 jail inmates 2000-2007

Cause of death	Average annual mortality rate per 100,000 jail inmates, 2000-2007	Mortality rate per 100,000 jail inmates							
		2000	2001	2002	2003	2004	2005	2006	2007
All causes	145	151	148	145	146	143	140	142	141
Illness	77	86	77	76	75	74	67	79	78
Heart disease	32	33	34	33	35	32	27	32	30
AIDS	7	10	9	8	8	7	5	7	5
Cancer	5	5	4	6	5	4	5	5	5
Liver disease	4	4	4	4	4	5	4	3	5
Cebrovascular diseases	3	3	3	3	3	3	2	4	3
Respiratory diseases[a]	2	3	2	2	2	3	2	2	3
Digestive diseases[b]	2	3	3	1	2	2	2	3	3
Septicemia	2	2	1	2	2	1	1	2	1
Influenza/pneumonia	2	2	1	2	2	2	1	2	3
Aortic aneurysm	1	1	1	1	1	1	1	1	1
Chronic substance abuse[c]	1	1	2	2	1	2	1	2	2
Diabetes mellitus	1	1	0	1	1	1	1	1	1
Kidney disease	1	1	0	1	1	1	1	1	0
All other illness[d]	13	19	13	11	9	13	13	14	14
Suicide	42	48	49	47	43	42	38	36	36
Drug/alcohol intoxication	10	6	9	8	13	11	11	11	10
Accidental	4	4	5	5	4	4	3	4	2
Homicide	3	3	3	3	2	3	3	5	3
Unknown/other cause	8	3	5	6	9	8	17	7	12

Note: Mortality rates are based on the average daily population (ADP). In 2000 and 2001, ADP was estimated by taking the average of the January 1 and December 31 one-day inmate population counts. See appendix table 1 for the number of deaths by cause.

[a]Excludes influenza and pneumonia.

[b]Excludes diseases of the liver.

[c]Excludes acute intoxication deaths.

[d]Includes other specified and unspecified or unknown illnesses such as influenza, septicemia, diabetes, and hepatitis. See appendix tables 2 for a full display of the more than 50 illnesses reported to the program. Mortality rates for illnesses not shown were less than 1 per 100,000 jail inmates. See *Methodology* for details on illness classifications.

Appendix Table 4.

Percent of local jail inmate deaths, by cause and year, 2000–2007

Cause of death	Number of deaths 2000–2007	2000	2001	2002	2003	2004	2005	2006	2007
All causes	8,097	904	944	972	1,004	1,024	1,049	1,098	1,102
Suicide	2,361	32.0 %	33.3 %	32.3 %	29.5 %	29.2 %	27.3 %	25.3 %	25.9 %
Illness	4,281	57.1 %	51.7 %	52.3 %	51.2 %	52.1 %	48.0 %	55.5 %	55.3 %
Heart disease	1,788	21.9	22.9	22.7	24.0	22.2	19.4	22.8	21.1
AIDS	410	6.3	6.3	5.2	5.4	5.1	3.8	4.9	3.9
Cancer	274	3.4	2.6	4.0	3.4	2.7	3.5	3.5	3.8
Liver disease	235	2.7	2.9	2.6	3.0	3.2	3.1	2.3	3.5
Cebrovascular diseases	165	1.7	1.9	2.3	1.8	1.9	1.5	2.7	2.5
Respiratory diseases[a]	129	2.1	1.1	1.2	1.2	2.0	1.3	1.5	2.4
Digestive diseases[b]	125	1.7	1.7	0.8	1.2	1.6	1.3	2.0	2.0
Septicemia	84	1.5	1.0	1.1	1.2	0.5	0.6	1.5	1.0
Chronic substance abuse[c]	84	0.3	1.1	1.4	0.7	1.1	0.9	1.5	1.2
Influenza/pneumonia	103	1.4	1.0	1.1	1.1	1.6	0.8	1.1	2.1
All other illnesses[d]	884	14.0	9.4	9.7	8.3	10.4	11.9	11.7	11.9
Drug/alcohol intoxication	567	4.1	6.1	5.7	8.9	7.5	8.0	7.9	7.2
Accidental	229	2.8	3.7	3.6	2.8	3.1	2.3	2.9	1.6
Homicide	171	1.9	2.0	1.9	1.5	2.3	2.1	3.3	1.8
Other/unknown	489	2.2	3.2	4.3	6.2	5.8	12.3	5.1	8.3

Note: Mortality rates are based on the average daily population (ADP). In 2000 and 2001, ADP was estimated by taking the average of January 1 and December 31 one-day inmate population counts. See appendix table 2 for the number of deaths by cause.

[a]Excludes influenza and pneumonia.

[b]Excludes diseases of the liver.

[c]Excludes acute intoxication deaths.

[d]Includes other specified (such as diabetes and hepatitis) and unspecified or unknown illnesses. See appendix tables 2 and 3 of this report for a list of the more than 50 illnesses reported to the program. See *Methodology* for details on illness classifications.

Appendix Table 5.

Jail inmate mortality rate per 100,000 inmates, by the 50 largest jail jurisdictions and selected cause of death, 2000–2007

Jurisdiction	Average annual mortality rate, per 100,000 jail inmates, 2000–2007	Average annual mortality rate, per 100,000 jail inmates by cause of death, 2000–2007									
		Suicide	Heart disease	AIDS	Cancer	Liver disease	All other illnesses[a]	Drug/alcohol intoxication	Accident	Homicide	Other/ unknown
Total	167	26	40	15	10	6	43	7	5	6	9
Los Angeles County, CA	178	22	45	9	9	10	57	6	6	11	3
New York City, NY	218	22	63	29	9	11	49	9	4	7	14
Maricopa County, AZ	136	34	20	3	14	1	44	7	6	0	6
Cook County, IL	160	12	44	11	16	7	56	2	1	9	1
Harris County, TX	201	16	47	14	23	16	58	6	5	0	17
Philadelphia City, PA	230	31	56	34	20	5	55	11	1	16	2
Dallas County, TX	152	24	43	11	11	7	38	7	4	2	5
Dade County, FL	231	15	52	58	17	2	48	13	4	6	17
Orange County, CA	80	13	16	2	11	0	25	2	6	2	4
Broward County, FL	158	17	19	35	2	15	50	2	5	0	7
San Bernardino County, CA	129	28	18	0	10	0	33	11	0	5	24
San Diego County, CA	195	46	49	2	12	5	32	22	17	5	5
Shelby County, TN	153	17	39	22	14	0	43	2	5	3	7
Santa Clara County, CA	122	44	29	6	6	6	9	9	0	8	5
Hillsborough County, FL[b]	115	15	41	11	3	10	21	0	0	7	7
Baltimore City, MD	326	89	63	58	0	6	76	3	0	22	9
Sacramento County, CA	170	65	32	7	9	7	39	6	6	0	0
Bexar County, TX	246	27	65	10	14	3	71	13	3	11	30
Alameda County, CA	215	41	65	3	6	10	74	6	0	3	6
Orange County, FL	107	9	28	25	6	0	32	3	3	0	0
District of Columbia	315	19	72	37	36	4	36	11	7	18	75
Fresno County, CA	152	34	29	0	16	5	39	5	5	11	7
Pinellas County, FL	167	24	49	11	5	9	40	12	8	8	0
Tarrant County, TX	118	7	51	7	4	7	28	0	0	0	14
Jacksonville City, FL	226	20	44	13	7	22	52	9	4	9	47
Clark County, NV	187	53	45	14	8	0	52	0	10	0	5
Allegheny County, PA	207	66	40	0	15	0	59	8	8	0	9
Riverside County, CA	145	44	24	7	0	11	27	28	0	4	0
Davidson County, TN	228	32	63	25	8	16	45	13	17	9	0
De Kalb County, GA	126	23	27	21	0	0	40	0	5	5	4
Marion County, IN	176	39	29	21	10	10	38	10	5	5	10
Fulton County, GA	68	18	28	9	0	0	9	4	0	0	0
Milwaukee County, WI	96	4	31	0	0	0	25	17	15	4	0
Wayne County, MI	152	45	47	0	13	14	14	0	9	4	5
Oklahoma County, OK	184	38	40	6	12	0	42	23	0	24	0
Gwinnett County, GA	124	39	33	20	9	0	14	30	0	0	9
Palm Beach County, FL	168	0	49	43	5	19	43	4	5	0	0
Polk County, FL	80	11	21	0	0	0	27	0	10	0	12
Travis County, TX	139	24	28	10	10	14	33	9	0	0	10
Franklin County, OH	110	40	25	5	6	0	16	5	5	0	10
King County, WA	88	10	15	0	5	10	34	14	0	0	0
Cobb County, GA	116	38	26	0	6	5	16	15	5	5	0
Denver County, CO	140	46	26	20	0	0	12	5	5	11	16
Suffolk County, MA[c]	62	10	5	5	0	5	10	0	0	0	26
Hamilton County, OH	183	36	73	0	0	0	45	0	6	6	17
Mecklenburg County, NC	81	6	26	5	0	0	37	0	6	0	0
Bernalillo County, NM	211	29	11	0	0	18	52	38	0	9	54
Kern County, CA	128	30	37	6	0	0	38	5	0	11	0
El Paso County, TX	172	40	33	0	0	0	65	6	18	5	6
Hampden County, MA	128	22	8	15	27	6	44	0	0	0	6

Note: The 50 largest jurisdictions as of June 30, 2006; displayed from largest to smallest.

[a]Includes other specified and unspecified or unknown illnesses such as influenza, septicemia, diabetes, and hepatitis. See appendix tables 2 and 3 to see a full display of the more than 50 illnesses reported to the program. See *Methodology* for details on illness classifications.

[b]Hillsborough County data for 2003 cover the first calendar quarter; quarters 2 through 4 were not reported.

[c]Suffolk County data for 2000 excludes the Suffolk County House of Corrections.

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