Washington State
Vital Statistics
2003

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Washington State Vital Statistics
Highlights for 2003

http://www.doh.wa.gov/EHSPHL/CHS/CHS-Data/main.htm

- **More babies were born in 2003**
  Washington women had 80,482 babies in 2003, an increase of nearly 1,500 births compared to 2002. Despite this change, the birth rate increased only slightly, from 13.1 births per 1,000 population in 2002 to 13.2 in 2003.

- **Multiple race data were tabulated for the first time**
  Nearly 3% of mothers reported belonging to more than one race group in 2003. The most common combinations were American Indian Alaska Native/White and Asian/White.

- **The percent low birth weight increased in 2003**
  Low birth weight (<2500 grams) had been steady at 5.6-5.9% of births for the past seven years (1996-2002). However, in 2003 it increased to 6.1% of births.

- **Births to unmarried mothers appears to be levelling off**
  The percent of births to unmarried mothers increased from 26.3% in 1993 to 28.7% in 2001 but has been steady over the past three years (2001-2003) at about 28.7% of births.

- **Over 45,000 residents died in 2003**
  There were 45,807 deaths of Washington State residents in 2003. Although the number of deaths has increased fairly steadily over the past decade, there has been a decline in the age-adjusted death rate since the state's population has also grown during this period.

- **Heart disease and cancer continued as the leading causes of death**
  Alzheimer's disease is again the 5th leading cause of death, with accidents and diabetes in 6th and 7th place respectively. However, the percent distribution of deaths among the leading causes has changed very little.

- **The infant death rate remains low**
  The infant death rate was 5.6 per 1,000 live births in 2003. For comparison, the infant death rate in 1994 was 6.2 per 1,000 live births.

- **The marriage and divorce rates showed little or no change**
  The marriage rate was 6.5 per 1,000 population in 2003. The divorce rate was 4.4 per 1,000 population in 2003.

- **Emma overtook Emily as the most popular name for girl babies, and Jacob regained the lead over Ethan for boy babies in 2003**
  The next most popular names are Olivia and Madison for girls and Joshua and Ryan for boys.

Washington State Vital Statistics
Highlights for 2003

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On an average day, these events occurred among Washington State Residents

- 220 births including:
  - 6 to teens <18
  - 7 to women aged 40+
  - 63 to unmarried women
  - 13 with low birth weight
  - 56 by Cesarean section
  - 24 to maternal smokers
- 109 marriages
- 125 deaths including:
  - 31 due to heart disease
  - 31 due to cancer
  - 6 due to unintentional injuries
  - (accidents)
  - 2 due to suicide
- 73 divorces

Washington State outperformed the nation[1] by experiencing a…

- lower percentage of low weight births
- lower proportion of Cesarean deliveries
- lower percentage of births to unmarried women
- lower infant mortality rate
- lower crude and age-adjusted death rate for heart disease, the leading cause of death
- higher life expectancy

Washington State fell below the nation[1] by experiencing a…

- higher percentage of women getting prenatal care after the first trimester
- higher crude and age-adjusted death rate from cerebrovascular disease (strokes)
- higher crude and age-adjusted death rate from suicide
- much higher crude and age-adjusted death rate from Alzheimer's Disease

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[1] National data reported in "Births: Preliminary Data for 2003" *National Vital Statistics Reports*, Vol 53 No 9 (November 23, 2004), available on the internet at http://www.cdc.gov/nchs/data/nvsr/nvsr53/nvsr53_09.pdf and "Deaths: Preliminary Data for 2003" *National Vital Statistics Reports*, Vol 53 No 15 (February 28, 2005), available on the internet at http://www.cdc.gov/nchs/data/nvsr/nvsr53/nvsr53_15.pdf

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Introduction

Washington Counties and County Seats

Introduction

Washington State Vital Statistics, 2003, published by the Center for Health Statistics of the Washington State Department of Health, contains tables on births, deaths, marriages and dissolutions of marriage (i.e., divorces, annulments) that occurred during calendar year 2003.

Publication of vital statistics supports the mission of the Department of Health to protect and improve the health of people in Washington State. Timely and wide-ranging health information, such as that presented in *Washington State Vital Statistics*, is crucial to accomplishing this mission. Vital statistics data are used by policy makers, health professionals, community-based organizations, researchers, and citizens to understand trends in vital statistics, identify high risk populations (and geographic areas), set prevention priorities, and plan targeted health promotion strategies. This report is often the first resource used to identify problems related to prenatal care, maternal and infant health, family planning, and mortality due to various causes.

Source of Vital Statistics

Data used to prepare this report come from Certificates of Live Birth, Certificates of Fetal Death, Certificates of Death, Certificates of Marriage, and Certificates of Dissolution. The forms for these certificates are provided by the Washington State Department of Health. The following table describes who completes the forms and where they are filed:

Filing of Washington State Vital Statistics

Certificate	Completed by	Initially Filed with
Live Birth	Hospital or Birth Attendant	State Dept. of Health
Fetal Death	Hospital or Birth Attendant	Local Health Jurisdiction
Death	Funeral Director and Physician, Coroner or Medical Examiner	Local Health Jurisdiction
Marriage	Person Performing the Marriage	County Auditor
Dissolution	Clerk of Court, Petitioner's Attorney	County Clerk

RCW 70.58 which governs the registration and reporting of vital statistics requires births, fetal deaths, deaths, marriages, and dissolutions of marriage to be reported within a timely fashion. Birth and death certificates are designed to gather information in a manner consistent with federal reporting requirements of the National Center for Health Statistics.

On October 1, 2002, the Department of Health adopted amendments to Washington Administrative Code (WAC) 246-491, sections 029,039 and 149. These changes assured that the state's birth, death and fetal death certificates will be consistent with the US Standard Certificates.

New Birth and Fetal Death Certificates have been in place since January 1, 2003. This 2003 Vital Statistics Report covers the first year's data collected under the new Birth and Fetal Death Certificates.

The new Death Certificate was in place on January 1, 2004. Death data in the Vital Statistics Report will not reflect this change until the 2004 data are published in the next report.

A formal interstate exchange agreement governs the mutual exchange of information on births, deaths and fetal deaths between states and other countries so that events occurring to Washington residents elsewhere are also reported to this state. Such an interstate exchange agreement does not exist, however, for marriages and divorces. Therefore, the Center for Health Statistics does not have the marriage and divorce records for all of the state's residents since some may have gone elsewhere to be married or divorced.

Between 1992 and 2002, hospitals or birth attendants used the Electronic Birth Certificate (EBC) system to send birth records directly to the Department of Health instead of to registrars of local health jurisdictions. On January, 1, 2003, hospitals and birth attendants began using the *Birth Record Realtime Registration (BR3)* system, a web-based reporting system that allows almost instantaneous registration of births directly to the Center for Health Statistics at the Department of Health.

See Appendix A, Section I for information on how to best use and interpret Vital Statistics.

How to Access Annual Statistical and other CHS Information

This annual report, which provides an overview of the vital statistics data collected from certificates, is available through the Washington State Center for Health Statistics. Birth, death, and fetal death data are also available as raw data files on the Center's CD-ROM *"Vital Registration System Annual*

Statistical Files, Washington State." The CD-ROM contains data in ASCII format, detailed technical documentation, and annual summary tables for 1980-2003 in Excel format. To order a copy of the CD-ROM, call (360) 236-4327.

All of the information in this report is available on the Internet. To access this information, go to the DOH web page at: http://www.doh.wa.gov/EHSPHL/CHS/CHS-Data/main.htm. At that point a list of subject topics appears (e.g., "births," "deaths"). Click on any of these topics to locate a table or tables of particular interest. Tables are available not only for the current year but for previous years as well. Click on "publications" to download a PDF copy of this report.

The Center for Health Statistics also works with data users on a variety of levels: 1) to help users formulate requests so they get the data they need; 2) to provide technical consultation about how to use or interpret data; 3) to perform special analyses to address a specific problem or need; and 4) to help users access data files. For more information, call the Manager of Research of the Center for Health Statistics at (360) 236-4321.

The Center for Health Statistics also houses data from the Behavioral Risk Factor Surveillance Survey (BRFSS) which is the largest, continuously conducted, telephone health survey in the world. It enables the state and local health departments, the Centers for Disease Control and Prevention (CDC), and other health agencies to monitor modifiable risk factors for chronic diseases and other leading causes of death.

The Center for Health Statistics also captures and publishes several types of hospital data, including the Comprehensive Hospital Abstract Reporting System (CHARS) which has all admissions and discharges to all hospitals in Washington State by year, as well as various financial reports on Washington State hospitals, including the *Charity Care in Washington Hospitals* report.

Annual Trends

Overview Table 1 provides a historical context for interpreting 2003 vital statistics in Washington State. The number of births and the number of deaths both increased in 2003, compared to 2002. However, the state's population also increased. As a result, there was no difference in the death rate and the birth rate increased only slightly (from 13.1 births/1,000 population to 13.2). The number and rate for infant deaths also showed little change between 2002 and 2003. The number and ratio for fetal deaths both had relatively large increases in 2003. This change could be due either to more complete reporting of fetal deaths or to a real increase in the fetal death ratio.

Trends in vital statistics since the early part of the last century have been dramatic. The state population increased more than five-fold from 1910-2003, while the number of fetal deaths is about 50% lower than it was and the number of infant deaths is about one-quarter what it was early in the century. The difference in rates is even more dramatic. The fetal death ratio had about a six-fold decrease while the infant death rate decreased more than 16-fold.

Notes on maternal death reporting: Maternal death rates are based on very small numbers (even the relatively large 2001 rate is only based on 9 deaths). These small numbers mean that the confidence intervals for the rates most likely overlap for the last several years at least. One reason for the large number of deaths in 2001 could be better reporting. Maternal deaths are known to be underreported on death certificates, so this higher number could actually represent improved reporting rather than a real increase in the death rate.

Overview Table 1. Live Births, Deaths, Infant Deaths, Maternal Deaths, and Fetal Deaths Washington Residents, 1910-2003

		Live Births		Deaths		Infant Deaths		Maternal Deaths		Fetal Deaths	
Year	Population[1]	Number	Rate[2]	Number	Rate[2]	Number	Rate[3]	Number[4]	Rate[5]	Number	Ratio[3]
1910	1,142,000	19,916	17.4	11,502	10.1	1,862	93.5	194	974.1	705	35.4
1911	1,168,800	20,728	17.7	10,845	9.3	1,531	73.9	177	853.9	699	33.7
1912	1,190,600	20,683	17.4	10,187	8.6	1,365	66.0	179	865.4	724	35.0
1913	1,212,400	21,200	17.5	11,397	9.4	1,566	73.9	178	839.6	688	32.5
1914	1,234,000	23,008	18.6	11,448	9.3	1,540	66.9	152	660.6	783	34.0
1915	1,256,000	24,046	19.1	11,895	9.5	1,461	60.8	156	648.8	779	32.4
1916	1,277,800	23,831	18.7	11,805	9.2	1,531	64.2	175	734.3	705	29.6
1917	1,299,600	23,464	18.1	12,137	9.3	1,625	69.3	173	737.3	691	29.4
1918	1,321,400	25,682	19.4	16,837	12.7	1,769	68.9	253	985.1	730	28.4
1919	1,343,200	25,112	18.7	14,370	10.7	1,584	63.1	216	860.1	730	29.1
1920	1,356,600	27,072	20.0	15,164	11.2	1,797	66.4	249	919.8	888	32.8
1921	1,385,700	27,267	19.7	13,254	9.6	1,512	55.5	192	704.1	852	31.2
1922	1,407,100	25,378	18.0	14,249	10.1	1,566	61.7	190	748.7	731	28.8
1923	1,427,300	25,259	17.7	13,856	9.7	1,428	56.5	159	629.5	680	26.9
1924	1,447,200	25,378	17.5	14,580	10.1	1,426	56.2	167	658.1	711	28.0
1925	1,467,600	24,741	16.9	15,280	10.4	1,395	56.4	140	565.9	667	27.0
1926	1,487,600	23,989	16.1	15,670	10.5	1,352	56.4	174	725.3	719	30.0
1927	1,507,800	23,315	15.5	15,950	10.6	1,162	49.8	151	647.7	650	27.9
1928	1,528,200	23,161	15.2	16,723	10.9	1,115	48.1	175	755.6	641	27.7
1929	1,548,400	22,685	14.7	16,413	10.6	1,110	48.9	150	661.2	572	25.2
1930	1,563,400	23,019	14.7	16,678	10.7	1,122	48.7	148	642.9	601	26.1
1931	1,585,000	22,028	13.9	16,524	10.4	1,064	48.3	141	640.1	591	26.8
1932	1,602,500	21,379	13.3	16,581	10.3	967	45.2	139	650.2	530	24.8
1933	1,619,700	20,882	12.9	16,705	10.3	811	38.8	140	670.4	446	21.4
1934	1,636,900	22,484	13.7	17,456	10.7	968	43.1	105	467.0	520	23.1
1935	1,654,000	22,378	13.5	18,046	10.9	998	44.6	120	536.2	469	21.0
1936	1,671,400	23,354	14.0	19,057	11.4	1,064	45.6	115	492.4	468	20.0
1937	1,689,100	24,882	14.7	18,771	11.1	978	39.3	118	474.2	495	19.9
1938	1,706,000	26,702	15.7	18,514	10.9	1,035	38.8	94	352.0	440	16.5
1939	1,723,400	26,471	15.4	18,528	10.8	977	36.9	97	366.4	450	17.0
1940	1,736,200	27,952	16.1	19,837	11.4	969	34.7	89	318.4	459	16.4
1941	1,816,700	30,916	17.0	19,359	10.7	1,065	34.4	66	213.5	445	14.4
1942	1,880,700	38,744	20.6	20,190	10.7	1,278	33.0	78	201.3	606	15.6
1943	1,945,000	44,258	22.8	22,017	11.3	1,534	34.7	72	162.7	575	13.0
1944	2,009,600	44,246	22.0	21,144	10.5	1,493	33.7	72	162.7	607	13.7
1945	2,073,600	44,296	21.4	21,292	10.3	1,523	34.4	79	178.3	672	15.2
1946	2,137,600	51,941	24.3	21,620	10.1	1,723	33.2	65	125.1	869	16.7
1947	2,202,400	58,230	26.4	21,763	9.9	1,630	28.0	59	101.3	907	15.6
1948	2,266,400	55,460	24.5	21,925	9.7	1,525	27.5	36	64.9	776	14.0
1949	2,331,000	56,433	24.2	22,420	9.6	1,526	27.0	36	63.8	850	15.1

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		Live Births		Deaths		Infant Deaths		Maternal Deaths		Fetal Deaths	
Year	Population[1]	Number	Rate[2]	Number	Rate[2]	Number	Rate[3]	Number[4]	Rate[5]	Number	Ratio[3]
1950	2,379,000	55,755	23.4	22,450	9.4	1,526	27.4	28	50.2	799	14.3
1951	2,424,000	57,994	23.9	23,300	9.6	1,412	24.3	23	39.7	852	14.7
1952	2,448,000	61,436	25.1	22,874	9.3	1,522	24.8	15	24.4	857	13.9
1953	2,466,000	61,571	25.0	23,279	9.4	1,556	25.3	18	29.2	834	13.5
1954	2,516,000	62,703	24.9	23,238	9.2	1,514	24.1	29	46.2	829	13.2
1955	2,604,000	62,290	23.9	24,410	9.4	1,520	24.4	16	25.7	806	12.9
1956	2,668,000	64,999	24.4	24,207	9.1	1,524	23.4	13	20.0	777	12.0
1957	2,724,000	65,982	24.2	25,140	9.2	1,596	24.2	20	30.3	793	12.0
1958	2,773,000	65,574	23.6	25,429	9.2	1,707	26.0	11	16.8	764	11.7
1959	2,821,000	65,729	23.3	26,229	9.3	1,570	23.9	9	13.7	749	11.4
1960	2,853,200	65,251	22.9	26,505	9.3	1,528	23.4	17	26.1	738	11.3
1961	2,897,000	65,013	22.4	26,353	9.1	1,467	22.6	19	29.2	756	11.6
1962	2,948,000	64,812	22.0	27,343	9.3	1,476	22.8	6	9.3	704	10.9
1963	2,972,000	61,013	20.5	27,550	9.3	1,339	21.9	10	16.4	657	10.8
1964	3,008,000	57,148	19.0	28,106	9.3	1,277	22.3	7	12.2	637	11.1
1965	3,065,000	52,806	17.2	27,379	8.9	1,130	21.4	15	28.4	639	12.1
1966	3,125,000	51,777	16.6	29,035	9.3	1,084	20.9	13	25.1	554	10.7
1967	3,229,000	54,875	17.0	29,302	9.1	1,050	19.1	12	21.9	573	10.4
1968	3,336,000	57,206	17.1	30,360	9.1	1,120	19.6	8	14.0	620	10.8
1969	3,397,000	59,354	17.5	30,504	9.0	1,118	18.8	12	20.2	651	11.0
1970	3,413,300	60,499	17.7	29,901	8.8	1,135	18.8	9	14.9	640	10.6
1971	3,436,300	55,304	16.1	30,318	8.8	1,008	18.2	5	9.0	574	10.4
1972	3,430,300	48,250	14.1	29,747	8.7	805	16.7	6	12.4	428	8.9
1973	3,444,300	47,636	13.8	30,751	8.9	781	16.4	3	6.3	430	9.0
1974	3,508,700	50,096	14.3	29,773	8.5	763	15.2	4	8.0	450	9.0
1975	3,567,900	50,821	14.2	29,778	8.3	798	15.7	5	9.8	421	8.3
1976	3,634,900	53,004	14.6	30,275	8.3	765	14.4	3	5.7	439	8.3
1977	3,715,400	57,256	15.4	29,789	8.0	696	12.2	5	8.7	426	7.4
1978	3,836,200	58,725	15.3	30,469	7.9	737	12.6	4	6.8	465	7.9
1979	3,979,200	64,377	16.2	30,418	7.6	737	11.4	5 (8)	12.4	466	7.2
1980	4,132,400	67,989	16.5	32,049	7.8	802	11.8	1 (10)	14.7	533	7.8
1981	4,229,300	69,987	16.5	32,035	7.6	735	10.5	4 (7)	10.0	487	7.0
1982	4,276,500	69,681	16.3	32,316	7.6	755	10.8	4 (8)	11.5	499	7.2
1983	4,307,200	68,794	16.0	32,653	7.6	656	9.5	6	8.7	473	6.9
1984	4,354,100	69,059	15.9	33,809	7.8	702	10.2	7	10.1	444	6.4
1985	4,415,800	70,357	15.9	34,478	7.8	749	10.6	5	7.1	403	5.7
1986	4,462,200	69,572	15.6	34,176	7.7	676	9.7	2	2.9	445	6.4
1987	4,527,100	70,409	15.6	34,983	7.7	683	9.7	1	1.4	411	5.8
1988	4,616,900	72,660	15.7	36,341	7.9	656	9.0	1	1.4	381	5.2
1989	4,728,100	75,595	16.0	36,130	7.6	694	9.2	2	2.6	388	5.1

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		Live Births		Deaths		Infant Deaths		Maternal Deaths		Fetal Deaths	
Year	Population[1]	Number	Rate[2]	Number	Rate[2]	Number	Rate[3]	Number[4]	Rate[5]	Number	Ratio[3]
1990	4,866,700	79,468	16.3	37,047	7.6	622	7.8	4 (5)	5.0	462	5.8
1991	5,021,335	79,962	15.9	37,028	7.4	603	7.5	3 (8)	3.8	426	5.3
1992	5,141,177	79,897	15.5	38,095	7.4	540	6.8	3 (6)	3.8	448	5.6
1993	5,265,688	78,771	15.0	40,380	7.7	495	6.3	6 (8)	7.6	396	5.0
1994	5,364,338	77,368	14.4	39,906	7.4	478	6.2	3 (4)	3.9	443	5.7
1995	5,470,104	77,240	14.1	40,729	7.4	449	5.8	0 (3)	0.0	419	5.4
1996	5,567,764	77,874	14.0	42,248	7.6	467	6.0	3 (6)	3.9	462	5.9
1997	5,663,763	78,141	13.8	41,429	7.3	440	5.6	2	2.6	457	5.8
1998	5,750,033	79,640	13.9	42,585	7.4	452	5.7	3	3.8	471	5.9
1999	5,830,835	79,577	13.6	43793	7.5	401	5.0	6	7.5	468	5.9
2000	5,894,121	81,004	13.7	43,904	7.4	423	5.2	3	3.7	437	5.4
2001	5,974,900	79,542	13.3	44,563	7.5	461	5.8	9	11.3	418	5.3
2002	6,041,710	79,003	13.1	45,244	8.0	452	5.7	7	8.9	434	5.5
2003	6,098,300	80,482	13.2	45,807	8.0	447	5.6	2	2.5	498	6.2

[1] Population figures for 1910-1950 ten year intervals and for 1950-2001 single years are from the Office of Financial Management, Forecasting Division, State of Washington 2000 Population Trends, October 2001.

[2] Rate per 1,000 population.

[3] Ratio per 1,000 live births.

[4] Numbers in parentheses include maternal deaths that are based on 1979-1998 studies using links from birth and death certificates and 1990-1996 links of deaths and hospitalizations with birth and fetal deaths; Maternal deaths in other years are based only on the death certificate and may undercount deaths due to complications of pregnancy.

[5] Rate per 100,000 live births (change from previous reports).

Note: Rates based on fewer than 20 events are likely to be unstable and imprecise.

Natality

Natality

A. Demographics

Demographics (such as education, marital status and race) provide basic data about the women who are having babies. Lack of money or cultural/language barriers may prevent women from getting the care and services they need so that they can have a safe pregnancy and a healthy baby. Demographic birth data help health programs understand and address these disparities.

Natality Table A1. Demographic Summary Indicators for Residents, 1994 - 2003

	Percent of Births[1] where Mother is…			
	A Teenager (<20)	Unmarried	Not a High School Graduate	A Woman of Color[2]
1994	11.1	26.0	18.5	23.3
1995	11.5	26.7	18.7	24.1
1996	11.2	27.2	18.3	24.8
1997	11.0	27.2	18.1	25.5
1998	10.9	27.9	18.1	26.1
1999	10.8	28.0	17.8	27.7
2000	10.2	28.3	17.4	29.5
2001	9.6	28.7	17.3	30.6
2002	9.0	28.8	17.0	31.8
2003	8.5	28.7	19.4	32.2

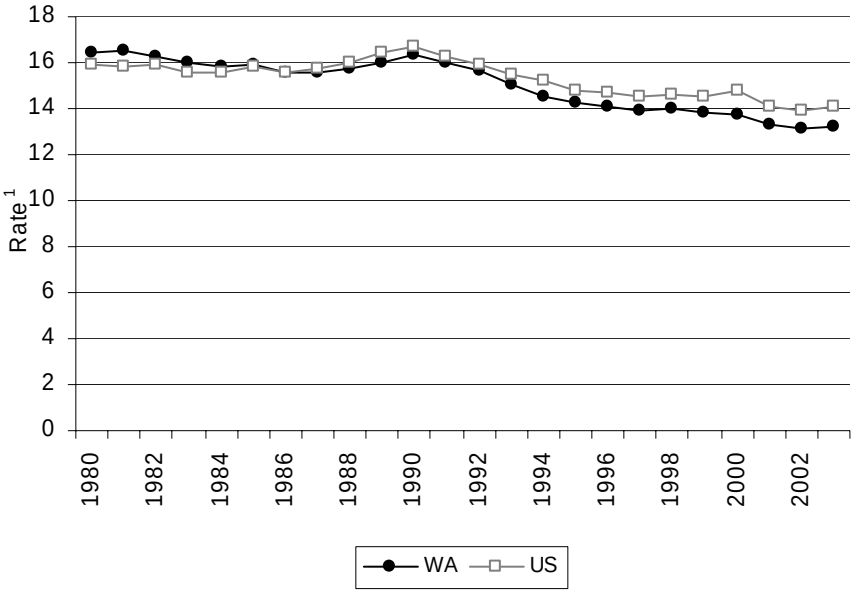
[1] Unknowns have been subtracted from total births in calculating percentages

[2] Includes all but White Non-Hispanic births.

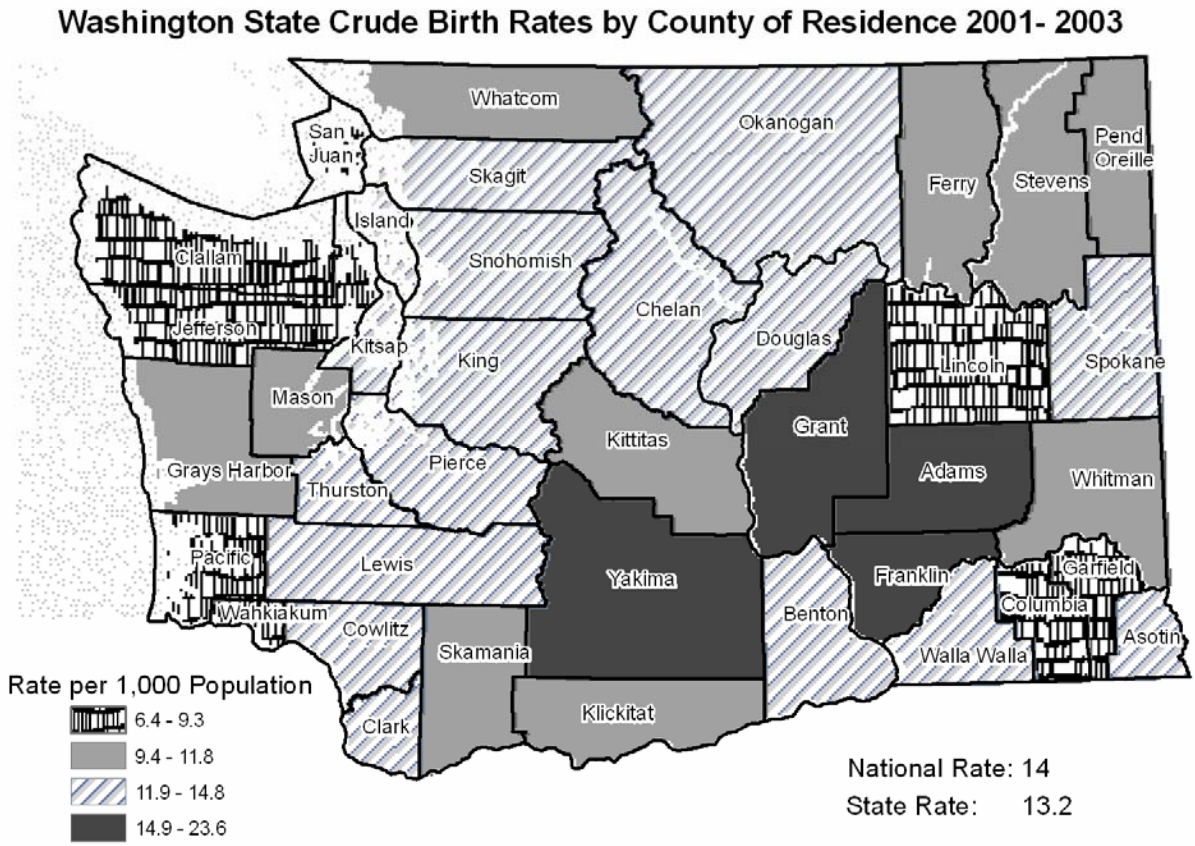
Trends for teenagers and women of color continue as they have over the decade. On the other hand, the percent of births to unmarried mothers has levelled off. The percent of births to women without a high school degree actually increased in 2003. However, the education item on the birth certificate changed substantially in 2003. High school graduation may have been overestimated in the past because of the way the data were collected (see 'Birth Data Notes' in the Technical Appendix).

Natality Figures 1 & 2

Crude Birth Rates[1], Washington State Residents Compared to National, 1980-2003



[1] Rate per 1,000 population



Natality Table A2a. Mother's Race/Ethnicity by Child's Sex[1] for Residents, 2003

	Total			
Race/Ethnicity	**Number**	**Percent[2]**	**Male**	**Female**
State Total	**80,482**	**100.0**	**41,020**	**39,462**
White	65,275	81.1	33,301	31,974
African American	3,414	4.2	1,706	1,708
Native American	1,746	2.2	891	855
Japanese	400	0.5	213	187
Chinese	834	1.0	427	407
Filipino	1,132	1.4	574	558
Other Asian	4,586	5.7	2,342	2,244
Other	0	0.0	0	0
Unknown	3,095	3.8	1,566	1,529
Hispanic[3]	13,206	16.4	6,752	6,454

[1] Total includes 0 births for which sex is unknown.

[2] Percents may not add to 100% due to rounding.

[3] Persons of Hispanic Origin may be of any race. See Appendix A, "Hispanic Origin."

NOTE: Uses bridged race, see Technical Appendix

Natality Table A2b. Mother's Multiple Race by Child's Sex[1] for Residents, 2003

	Total			
Race	**Number**	**Percent[2]**	**Male**	**Female**
State Total	**80,482**	**100.0**	**41,020**	**39,462**
Single Race				
White	64,453	80.1	32,873	31,580
African American	2,949	3.7	1,472	1,477
Native American	1,485	1.8	756	729
Asian	5,956	7.4	3,066	2,890
Pacific Islander	599	0.7	282	317
Multiple Race				
White/African American	411	0.5	200	211
White/Native American	767	1.0	401	366
White/Asian	589	0.7	299	290
White/Pacific Islander	103	0.1	52	51
Other mulitple race	387	0.5	209	178
Unknown	2,783	3.5	1,410	1,373

[1] Total includes 0 births for which sex is unknown.

[2] Percents may not add to 100% due to rounding.

NOTE: Includes all races reported by mother, see Technical Appendix.

Natality Table A3. Mother's Age Group by Child's Sex[1] for Residents, 2003

	Total			
Age	Number	Percent[2]	Male	Female
State Total	**80,482**	**100.0**	**41,020**	**39,462**
Under 15	86	0.1	44	42
15 - 17	1,976	2.5	1,033	943
18 - 19	4,759	5.9	2,416	2,343
20 - 24	19,532	24.3	9,972	9,560
25 - 29	21,849	27.1	11,252	10,597
30 - 34	19,965	24.8	10,092	9,873
35 - 39	9,876	12.3	5,000	4,876
40 - 44	2,233	2.8	1,106	1,127
45 and Over	154	0.2	80	74
Unknown	52	0.1	25	27

[1] Total includes 0 births for which sex is unknown.

[2] Percents may not add to 100% due to rounding.

Natality Table A4. Child's Birth Order by Mother's Age Group for Residents, 2003

Order at Birth	All Ages	Under 15	15-17	18-19	20-24	25-29	30-34	35-39	40-44	45 and Over	Age Unk
State Total	**80,482**	**86**	**1,976**	**4,759**	**19,532**	**21,849**	**19,965**	**9,876**	**2,233**	**154**	**52**
1st Child	33,233	83	1,798	3,667	9,668	8,157	6,517	2,735	535	47	26
2nd Child	25,482	2	150	895	6,549	7,231	6,778	3,223	609	34	11
3rd Child	12,219	0	11	132	2,311	3,931	3,595	1,813	401	19	6
4th Child	5,007	0	1	12	641	1,555	1,620	907	247	21	3
5th Child	1,890	0	0	7	131	491	670	450	136	3	2
6th Child	775	0	1	0	23	149	271	253	71	7	0
7th Child	395	0	0	0	8	65	136	125	53	6	2
8th Child	192	0	0	0	4	19	50	74	40	5	0
9th Child	105	0	0	0	1	7	31	39	25	2	0
10th or more	178	0	0	0	2	16	30	71	52	7	0
Unknown	1,006	1	15	46	194	228	267	186	64	3	2

Natality Table A5. Mother's Education by Mother's Age Group for Residents, 2003

Education	All Ages	Under 15	15-17	18-19	20-24	25-29	30-34	35-39	40-44	45 and Over	Age Unk
State Total	**80,482**	**86**	**1,976**	**4,759**	**19,532**	**21,849**	**19,965**	**9,876**	**2,233**	**154**	**52**
8th Grade or Less	3,937	48	198	271	1,089	1,112	752	366	93	7	1
Some High School	11,123	33	1,479	1,949	3,989	2,067	1,028	451	109	4	14
High School / GED	19,150	0	206	1,885	7,181	5,016	3,045	1,444	346	16	11
Some College	17,053	0	19	514	4,952	5,512	3,901	1,708	412	21	14
Associate Degree	6,525	0	1	33	1,090	2,266	1,943	918	251	22	1
Bachelor's Degree	13,662	0	0	1	665	4,036	5,593	2,765	549	45	8
Postgraduate Educ.	6,174	0	0	1	87	1,197	2,843	1,686	328	30	2
Unknown	2,858	5	73	105	479	643	860	538	145	9	1

Natality Table A6a. Top 100 Baby Names of Girls for Residents, 2003

Rank	First Name	N	%	Cumulative N	Cumulative %	Rank	First Name	N	%	Cumulative N	Cumulative %
1	EMMA	552	1.4	552	1.4	51	MARIA	113	0.3	10,358	26.2
2	EMILY	481	1.2	1,033	2.6	52	MORGAN	113	0.3	10,471	26.5
3	OLIVIA	390	1.0	1,423	3.6	53	TRINITY	109	0.3	10,580	26.8
4	MADISON	370	0.9	1,793	4.5	54	ALLISON	105	0.3	10,685	27.1
5	HANNAH	364	0.9	2,157	5.5	55	ISABELLE	104	0.3	10,789	27.3
6	GRACE	335	0.8	2,492	6.3	56	KAITLYN	103	0.3	10,892	27.6
7	ABIGAIL	318	0.8	2,810	7.1	57	MAYA	102	0.3	10,994	27.9
8	ELIZABETH	305	0.8	3,115	7.9	58	ANGELINA	100	0.3	11,094	28.1
9	ISABELLA	303	0.8	3,418	8.7	59	JORDAN	98	0.2	11,192	28.4
10	SAMANTHA	278	0.7	3,696	9.4	60	HALEY	95	0.2	11,287	28.6
11	ALEXIS	255	0.6	3,951	10.0	61	MAKAYLA	95	0.2	11,382	28.8
12	HAILEY	250	0.6	4,201	10.6	62	NICOLE	94	0.2	11,476	29.1
13	SOPHIA	243	0.6	4,444	11.3	63	REBECCA	93	0.2	11,569	29.3
14	ASHLEY	242	0.6	4,686	11.9	64	ISABEL	90	0.2	11,659	29.5
15	ANNA	239	0.6	4,925	12.5	65	STEPHANIE	90	0.2	11,749	29.8
16	SARAH	238	0.6	5,163	13.1	66	KATELYN	88	0.2	11,837	30.0
17	CHLOE	224	0.6	5,387	13.7	67	AMELIA	86	0.2	11,923	30.2
18	JESSICA	218	0.6	5,605	14.2	68	MARY	85	0.2	12,008	30.4
19	ALYSSA	217	0.5	5,822	14.8	69	RILEY	85	0.2	12,093	30.6
20	NATALIE	208	0.5	6,030	15.3	70	AVERY	84	0.2	12,177	30.9
21	SYDNEY	202	0.5	6,232	15.8	71	KATIE	84	0.2	12,261	31.1
22	LAUREN	199	0.5	6,431	16.3	72	ALEXA	83	0.2	12,344	31.3
23	TAYLOR	185	0.5	6,616	16.8	73	AMANDA	82	0.2	12,426	31.5
24	ELLA	169	0.4	6,785	17.2	74	DESTINY	80	0.2	12,506	31.7
25	AVA	164	0.4	6,949	17.6	75	JENNA	80	0.2	12,586	31.9
26	VICTORIA	152	0.4	7,101	18.0	76	ANDREA	79	0.2	12,665	32.1
27	RACHEL	149	0.4	7,250	18.4	77	EVELYN	79	0.2	12,744	32.3
28	ZOE	148	0.4	7,398	18.7	78	BAILEY	77	0.2	12,821	32.5
29	MEGAN	144	0.4	7,542	19.1	79	ELLIE	76	0.2	12,897	32.7
30	FAITH	142	0.4	7,684	19.5	80	SOFIA	76	0.2	12,973	32.9
31	JULIA	142	0.4	7,826	19.8	81	VANESSA	76	0.2	13,049	33.1
32	KAYLA	141	0.4	7,967	20.2	82	GABRIELLE	74	0.2	13,123	33.3
33	KATHERINE	140	0.4	8,107	20.5	83	SARA	74	0.2	13,197	33.4
34	JASMINE	139	0.4	8,246	20.9	84	GRACIE	73	0.2	13,270	33.6
35	MIA	137	0.3	8,383	21.2	85	MICHELLE	73	0.2	13,343	33.8
36	JENNIFER	136	0.3	8,519	21.6	86	ANGELA	72	0.2	13,415	34.0
37	BRIANNA	132	0.3	8,651	21.9	87	MELISSA	72	0.2	13,487	34.2
38	MADELINE	132	0.3	8,783	22.3	88	MARISSA	71	0.2	13,558	34.4
39	PAIGE	129	0.3	8,912	22.6	89	NAOMI	71	0.2	13,629	34.5
40	SAVANNAH	128	0.3	9,040	22.9	90	SHELBY	71	0.2	13,700	34.7
41	BROOKE	127	0.3	9,167	23.2	91	AMBER	70	0.2	13,770	34.9
42	ALEXANDRA	124	0.3	9,291	23.5	92	MOLLY	70	0.2	13,840	35.1
43	AUDREY	124	0.3	9,415	23.9	93	BROOKLYN	69	0.2	13,909	35.2
44	SIERRA	124	0.3	9,539	24.2	94	GABRIELLA	68	0.2	13,977	35.4
45	MACKENZIE	120	0.3	9,659	24.5	95	JOCELYN	68	0.2	14,045	35.6
46	LILY	119	0.3	9,778	24.8	96	NEVAEH	68	0.2	14,113	35.8
47	KYLIE	118	0.3	9,896	25.1	97	LEAH	67	0.2	14,180	35.9
48	KAYLEE	117	0.3	10,013	25.4	98	JADE	65	0.2	14,245	36.1
49	CLAIRE	116	0.3	10,129	25.7	99	KYLEE	65	0.2	14,310	36.3
50	LILLIAN	116	0.3	10,245	26.0	100	AMY	64	0.2	14,374	36.4

Natality Table A6b. Top 100 Baby Names of Boys for Residents, 2003

Rank	First Name	N	%	Cumulative N	Cumulative %	Rank	First Name	N	%	Cumulative N	Cumulative %
1	JACOB	544	1.3	544	1.3	51	KEVIN	163	0.4	14,297	34.9
2	ETHAN	498	1.2	1,042	2.5	52	OWEN	163	0.4	14,460	35.3
3	JOSHUA	428	1.0	1,470	3.6	53	AIDEN	159	0.4	14,619	35.6
4	RYAN	428	1.0	1,898	4.6	54	JASON	156	0.4	14,775	36.0
5	ALEXANDER	408	1.0	2,306	5.6	55	ALEX	155	0.4	14,930	36.4
6	ANDREW	397	1.0	2,703	6.6	56	ROBERT	153	0.4	15,083	36.8
7	DANIEL	381	0.9	3,084	7.5	57	CARSON	152	0.4	15,235	37.1
8	MICHAEL	379	0.9	3,463	8.4	58	IAN	151	0.4	15,386	37.5
9	TYLER	372	0.9	3,835	9.3	59	COLE	150	0.4	15,536	37.9
10	MATTHEW	362	0.9	4,197	10.2	60	CODY	148	0.4	15,684	38.2
11	SAMUEL	359	0.9	4,556	11.1	61	NATHANIEL	148	0.4	15,832	38.6
12	DAVID	356	0.9	4,912	12.0	62	LUCAS	146	0.4	15,978	39.0
13	BENJAMIN	342	0.8	5,254	12.8	63	ERIC	145	0.4	16,123	39.3
14	DYLAN	336	0.8	5,590	13.6	64	THOMAS	145	0.4	16,268	39.7
15	JOSEPH	317	0.8	5,907	14.4	65	ANGEL	137	0.3	16,405	40.0
16	ANTHONY	313	0.8	6,220	15.2	66	JAYDEN	135	0.3	16,540	40.3
17	NATHAN	312	0.8	6,532	15.9	67	HAYDEN	134	0.3	16,674	40.6
18	LOGAN	311	0.8	6,843	16.7	68	JESUS	131	0.3	16,805	41.0
19	WILLIAM	301	0.7	7,144	17.4	69	ADAM	129	0.3	16,934	41.3
20	NICHOLAS	299	0.7	7,443	18.1	70	WYATT	129	0.3	17,063	41.6
21	ZACHARY	294	0.7	7,737	18.9	71	JUAN	128	0.3	17,191	41.9
22	GABRIEL	282	0.7	8,019	19.5	72	BLAKE	125	0.3	17,316	42.2
23	CALEB	274	0.7	8,293	20.2	73	SEAN	120	0.3	17,436	42.5
24	NOAH	270	0.7	8,563	20.9	74	CHASE	118	0.3	17,554	42.8
25	JAMES	262	0.6	8,825	21.5	75	LIAM	117	0.3	17,671	43.1
26	EVAN	254	0.6	9,079	22.1	76	BRIAN	116	0.3	17,787	43.4
27	CHRISTOPHER	252	0.6	9,331	22.7	77	HENRY	116	0.3	17,903	43.6
28	CAMERON	248	0.6	9,579	23.4	78	JADEN	116	0.3	18,019	43.9
29	ISAAC	246	0.6	9,825	24.0	79	JESSE	116	0.3	18,135	44.2
30	ELIJAH	242	0.6	10,067	24.5	80	CHARLES	115	0.3	18,250	44.5
31	AUSTIN	241	0.6	10,308	25.1	81	MIGUEL	114	0.3	18,364	44.8
32	CONNOR	234	0.6	10,542	25.7	82	LUIS	113	0.3	18,477	45.0
33	JONATHAN	231	0.6	10,773	26.3	83	KADEN	112	0.3	18,589	45.3
34	BRANDON	230	0.6	11,003	26.8	84	SETH	111	0.3	18,700	45.6
35	AIDAN	228	0.6	11,231	27.4	85	TRISTAN	111	0.3	18,811	45.9
36	JOSE	227	0.6	11,458	27.9	86	TANNER	108	0.3	18,919	46.1
37	HUNTER	219	0.5	11,677	28.5	87	TIMOTHY	107	0.3	19,026	46.4
38	JOHN	212	0.5	11,889	29.0	88	BRAYDEN	105	0.3	19,131	46.6
39	JORDAN	212	0.5	12,101	29.5	89	TREVOR	105	0.3	19,236	46.9
40	JACK	205	0.5	12,306	30.0	90	ASHTON	103	0.3	19,339	47.1
41	MASON	202	0.5	12,508	30.5	91	CARTER	102	0.2	19,441	47.4
42	JUSTIN	199	0.5	12,707	31.0	92	SPENCER	98	0.2	19,539	47.6
43	CHRISTIAN	198	0.5	12,905	31.5	93	ADRIAN	96	0.2	19,635	47.9
44	JACKSON	186	0.5	13,091	31.9	94	CARLOS	96	0.2	19,731	48.1
45	KYLE	183	0.4	13,274	32.4	95	JOSIAH	96	0.2	19,827	48.3
46	GAVIN	182	0.4	13,456	32.8	96	JULIAN	96	0.2	19,923	48.6
47	LUKE	179	0.4	13,635	33.2	97	DOMINIC	94	0.2	20,017	48.8
48	ISAIAH	170	0.4	13,805	33.7	98	LEVI	91	0.2	20,108	49.0
49	RILEY	166	0.4	13,971	34.1	99	CONNER	90	0.2	20,198	49.2
50	AARON	163	0.4	14,134	34.5	100	PARKER	90	0.2	20,288	49.5

Natality Table A7. County/City of Residence, Sex[1], and County/City of Occurrence, 2003

	Residence				Occurrence
County and City	**Total**	**Rate[2]**	**Male**	**Female**	**Total**
State Total	**80,482**	**13**	**41,020**	**39,462**	**80,022**
Adams	339	20	192	147	498
Asotin	287	14	137	150	5
Benton	2,190	14	1,118	1,072	3,260
Kennewick	1,137	20	570	567	1,342
Richland	509	12	258	251	1,584
Chelan	888	13	439	449	1,352
Wenatchee	476	17	235	241	1,273
Clallam	609	9	313	296	566
Port Angeles	217	12	111	106	473
Clark	5,332	14	2,754	2,578	4,711
Vancouver	3,378	22	1,740	1,638	4,680
Columbia	37	9	17	20	0
Cowlitz	1,141	12	582	559	1,137
Longview	528	15	266	262	1,134
Douglas	432	13	214	218	0
Ferry	70	10	37	33	5
Franklin	1,322	25	695	627	640
Pasco	1,090	29	566	524	638
Garfield	16	7	11	5	0
Grant	1,431	19	734	697	1,046
Moses Lake	377	24	197	180	931
Grays Harbor	817	12	398	419	536
Aberdeen	271	17	139	132	520
Island	947	13	472	475	674
Oak Harbor	476	23	237	239	432
Jefferson	226	9	109	117	148
King	22,431	13	11,414	11,017	26,595
Auburn	929	21	480	449	1,001
Bellevue	1,378	12	711	667	4,012
Bothell part	315	19	168	147	2
Burien	285	9	137	148	1,357
Des Moines	356	12	191	165	1
Federal Way	1,172	14	614	558	1,223
Issaquah	431	29	218	213	2
Kenmore	199	10	89	110	2
Kent	1,617	19	832	785	6
Kirkland	832	18	424	408	4,252
Maple Valley	278	18	151	127	0
Mercer Island	126	6	59	67	1
Redmond	898	19	444	454	4
Renton	1,347	25	676	671	2,712
Sammamish	595	17	299	296	3
SeaTac	327	13	151	176	0
Seattle	7,245	13	3,653	3,592	11,719
Shoreline	441	8	245	196	26
Tukwila	258	15	125	133	0
Kitsap	3,014	13	1,575	1,439	2,715

Natality Table A7. (Continued) County/City of Residence, Sex[1], and County/City of Occurrence, 2003

	Residence				Occurrence
County and City	Total	Rate[2]	Male	Female	Total
Bainbridge Island	163	8	76	87	1
Bremerton	947	25	476	471	777
Kittitas	380	11	194	186	335
Ellensburg	167	11	74	93	333
Klickitat	232	12	123	109	161
Lewis	839	12	442	397	635
Centralia	277	18	141	136	587
Lincoln	84	8	41	43	0
Mason	569	11	288	281	318
Okanogan	485	12	228	257	470
Pacific	188	9	89	99	32
Pend Oreille	107	9	51	56	72
Pierce	10,085	14	5,113	4,972	10,277
Lakewood	954	16	470	484	269
Puyallup	959	27	485	474	1,815
Tacoma	3,796	19	1,948	1,848	7,872
University Place	223	7	102	121	4
San Juan	88	6	42	46	6
Skagit	1,356	13	664	692	1,501
Anacortes	139	9	70	69	301
Mount Vernon	515	19	265	250	1,193
Skamania	114	12	51	63	3
Snohomish	8,592	14	4,443	4,149	5,645
Edmonds	409	10	200	209	1,238
Everett	2,077	22	1,093	984	3,675
Lynnwood	903	26	501	402	11
Marysville	668	24	343	325	9
Monroe	307	20	178	129	369
Mountlake Terrace	248	12	120	128	0
Mukilteo	188	10	95	93	0
Spokane	5,455	13	2,797	2,658	6,340
Spokane (city)	3,238	16	1,664	1,574	6,333
Stevens	467	12	243	224	270
Thurston	2,619	12	1,351	1,268	2,795
Lacey	571	18	314	257	5
Olympia	959	22	489	470	2,772
Wahkiakum	29	8	16	13	1
Walla Walla	686	12	308	378	882
Walla Walla (city)	463	16	203	260	881
Whatcom	2,035	12	1,034	1,001	2,010
Bellingham	876	13	443	433	1,995
Whitman	410	10	194	216	367
Pullman	247	10	111	136	321
Yakima	4,133	18	2,097	2,036	4,014
Yakima (city)	1,660	21	836	824	2,887

[1] Total includes 0 births for which sex is unknown.

[2] Rate per 1,000 population.

Note: Occurrence represents all births which occur in Washington State regardless of the mother's residence.

Residence represents all births to residents of Washington State regardless of where the birth occurred.

Natality Table A8. Month of Birth by County of Residence, 2003

County	Total	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
State Total	**80,482**	**6,340**	**6,035**	**6,860**	**6,595**	**7,090**	**6,907**	**7,383**	**6,979**	**6,870**	**6,926**	**6,056**	**6,441**
Adams	339	31	25	33	30	23	25	26	18	24	34	38	32
Asotin	287	22	20	15	28	21	27	27	25	25	27	19	31
Benton	2,190	166	177	194	166	183	178	194	198	189	210	134	201
Chelan	888	52	51	82	92	87	66	91	67	77	88	61	74
Clallam	609	42	47	48	51	52	47	66	57	53	67	32	47
Clark	5,332	398	396	437	481	486	467	496	436	476	418	393	448
Columbia	37	4	3	3	1	6	0	2	3	7	1	7	0
Cowlitz	1,141	87	81	95	85	102	91	131	93	97	104	89	86
Douglas	432	38	34	40	34	39	44	37	32	36	34	29	35
Ferry	70	9	12	2	4	4	6	4	8	7	1	5	8
Franklin	1,322	104	92	117	103	125	128	136	108	113	92	96	108
Garfield	16	2	0	1	2	1	1	2	2	0	1	4	0
Grant	1,431	116	100	106	124	124	121	127	132	127	128	109	117
Grays Harbor	817	72	57	80	66	85	65	79	72	54	65	62	60
Island	947	82	62	81	89	82	97	85	62	77	85	70	75
Jefferson	226	12	23	14	22	18	25	17	23	18	13	21	20
King	22,431	1,793	1,717	1,895	1,831	1,920	1,952	2,038	1,985	1,902	2,017	1,669	1,712
Kitsap	3,014	266	240	263	224	273	257	259	253	268	266	211	234
Kittitas	380	23	27	29	49	37	28	29	27	32	40	29	30
Klickitat	232	32	13	23	21	19	13	25	13	23	13	22	15
Lewis	839	73	66	75	50	68	62	80	84	86	55	66	74
Lincoln	84	5	4	6	8	7	9	8	8	9	6	6	8
Mason	569	46	36	53	49	37	50	58	33	53	62	39	53
Okanogan	485	23	31	37	42	47	40	61	49	42	40	40	33
Pacific	188	16	8	12	15	20	20	23	16	22	10	12	14
Pend Oreille	107	5	4	9	11	10	8	16	7	4	15	9	9
Pierce	10,085	800	802	890	796	896	893	890	904	861	832	743	778
San Juan	88	9	5	12	7	6	3	6	10	11	8	2	9
Skagit	1,356	95	93	128	101	120	118	107	125	101	135	122	111
Skamania	114	6	11	12	10	10	7	18	5	6	12	8	9
Snohomish	8,592	679	631	765	681	764	733	791	748	726	711	691	672
Spokane	5,455	420	419	471	450	499	464	535	447	432	463	418	437
Stevens	467	29	43	23	40	35	48	37	49	44	37	37	45
Thurston	2,619	194	178	219	230	253	219	229	222	232	232	209	202
Wahkiakum	29	4	1	2	2	2	2	4	1	1	5	2	3
Walla Walla	686	56	43	61	63	66	55	51	50	54	66	56	65
Whatcom	2,035	151	153	168	178	189	175	164	192	163	161	154	187
Whitman	410	35	34	40	27	41	26	37	41	32	39	25	33
Yakima	4,133	343	296	319	332	333	337	397	374	386	333	317	366

Natality Table A9. Mother's Age Group by County of Residence, 2003

County	All Ages	Under 15	15-19	15-17	18-19	20-24	25-29	30-34	35-39	40-44	45 and Over	Age Unk
State Total	**80,482**	**86**	**6,735**	**1,976**	**4,759**	**19,532**	**21,849**	**19,965**	**9,876**	**2,233**	**154**	**52**
Adams	339	1	62	24	38	97	88	58	30	2	0	1
Asotin	287	1	39	14	25	102	70	51	20	4	0	0
Benton	2,190	7	222	75	147	642	635	435	203	44	2	0
Chelan	888	2	98	33	65	260	219	193	87	27	2	0
Clallam	609	0	72	15	57	199	156	124	39	18	1	0
Clark	5,332	2	408	81	327	1,331	1,583	1,330	540	125	12	1
Columbia	37	0	6	2	4	9	8	8	4	1	0	1
Cowlitz	1,141	4	143	49	94	358	316	221	76	21	2	0
Douglas	432	0	54	17	37	113	151	69	36	9	0	0
Ferry	70	0	7	2	5	26	15	13	9	0	0	0
Franklin	1,322	9	179	63	116	414	391	198	103	24	2	2
Garfield	16	0	4	1	3	6	5	0	1	0	0	0
Grant	1,431	3	202	74	128	459	377	265	105	19	1	0
Grays Harbor	817	1	106	37	69	274	219	135	68	11	3	0
Island	947	2	71	16	55	306	243	198	102	23	1	1
Jefferson	226	0	34	8	26	53	49	55	24	11	0	0
King	22,431	10	1,000	321	679	3,560	5,506	7,096	4,247	934	61	17
Kitsap	3,014	0	282	55	227	857	792	656	328	87	8	4
Kittitas	380	0	25	7	18	121	114	78	31	11	0	0
Klickitat	232	1	36	9	27	72	63	33	19	8	0	0
Lewis	839	0	127	31	96	262	233	140	61	15	1	0
Lincoln	84	0	6	1	5	21	35	12	7	3	0	0
Mason	569	1	77	24	53	211	144	97	27	9	3	0
Okanogan	485	1	68	19	49	160	131	77	39	9	0	0
Pacific	188	0	19	5	14	61	46	41	13	8	0	0
Pend Oreille	107	0	15	4	11	33	22	19	12	5	1	0
Pierce	10,085	4	923	241	682	2,854	2,884	2,237	964	198	11	10
San Juan	88	0	5	1	4	14	19	29	16	5	0	0
Skagit	1,356	2	172	66	106	390	359	283	127	22	0	1
Skamania	114	0	15	4	11	31	26	22	17	3	0	0
Snohomish	8,592	8	537	144	393	1,901	2,453	2,347	1,082	227	24	13
Spokane	5,455	5	529	143	386	1,548	1,574	1,195	463	137	4	0
Stevens	467	0	51	19	32	125	133	91	51	14	2	0
Thurston	2,619	2	204	60	144	658	745	645	296	63	6	0
Wahkiakum	29	0	2	1	1	15	8	2	2	0	0	0
Walla Walla	686	3	97	28	69	183	186	145	56	14	2	0
Whatcom	2,035	1	152	46	106	486	622	505	232	36	0	1
Whitman	410	0	21	5	16	96	145	100	36	11	1	0
Yakima	4,133	16	665	231	434	1,224	1,084	762	303	75	4	0

Natality Table A10. Age Specific Live Birth Rates[1] by County of Residence, 2003

County	All Ages	15-19	15-17	18-19	20-24	25-29	30-34	35-39	40-44
State Total	**62.0**	**31.5**	**15.3**	**55.9**	**93.9**	**114.1**	**92.6**	**44.3**	**9.1**
Adams	104.4	89.0	53.6	152.6	177.0	177.8	114.2	63.7	*
Asotin	71.4	49.8	27.9	89.0	169.2	128.2	82.9	28.9	*
Benton	70.2	37.0	19.4	69.2	139.5	149.4	89.0	37.8	7.2
Chelan	68.1	39.9	21.2	72.7	136.9	119.3	96.6	38.8	10.3
Clallam	59.1	35.1	11.3	78.7	148.3	125.2	87.6	20.7	7.6
Clark	67.5	31.6	9.9	68.7	113.7	135.4	98.1	38.4	8.3
Columbia	54.7	46.9	*	*	90.9	101.3	85.1	*	*
Cowlitz	62.1	43.2	23.4	77.1	129.2	120.1	74.6	24.3	5.9
Douglas	65.0	41.4	20.0	81.3	120.2	170.2	69.6	30.5	6.7
Ferry	55.1	24.3	*	55.6	159.5	97.4	72.6	42.3	*
Franklin	121.2	79.7	44.4	140.1	214.5	220.2	118.3	62.4	14.7
Garfield	41.6	*	*	*	166.7	135.1	*	*	*
Grant	94.5	64.8	37.1	114.1	185.8	165.0	112.8	44.8	7.4
Grays Harbor	64.0	42.0	23.0	75.7	151.9	129.7	70.0	31.1	4.2
Island	67.8	31.2	11.0	67.1	143.2	123.5	85.9	40.1	8.4
Jefferson	57.9	46.9	16.1	114.0	131.8	120.4	95.8	33.5	10.2
King	55.7	18.5	10.1	30.5	56.5	82.8	96.8	60.4	12.4
Kitsap	63.4	34.4	10.3	78.8	121.4	125.9	85.4	38.5	8.9
Kittitas	44.2	14.7	11.1	16.8	41.8	120.3	87.7	31.3	9.4
Klickitat	67.6	54.3	19.4	136.4	173.5	140.9	66.0	30.6	10.2
Lewis	64.9	48.8	18.4	104.3	134.6	139.6	74.5	27.4	5.7
Lincoln	51.0	17.0	*	51.5	123.5	201.1	48.2	23.0	*
Mason	66.7	46.2	21.6	95.8	191.6	136.0	77.9	17.2	4.8
Okanogan	67.1	45.2	19.0	96.5	174.7	137.7	71.8	32.4	5.7
Pacific	60.8	31.0	12.2	69.7	163.1	129.9	89.5	24.0	10.6
Pend Oreille	53.2	34.0	*	88.0	180.3	103.3	65.7	29.6	10.4
Pierce	63.0	34.4	14.8	64.2	112.1	124.5	83.2	34.7	6.6
San Juan	41.1	14.2	*	*	66.0	84.4	99.3	37.7	7.9
Skagit	65.8	44.3	27.1	73.2	125.8	125.9	87.3	36.7	5.4
Skamania	59.6	40.4	*	89.4	149.8	112.1	76.9	45.8	*
Snohomish	61.7	24.3	10.3	48.2	99.9	122.4	97.0	41.7	8.2
Spokane	60.0	32.0	15.2	53.9	94.6	124.8	87.7	31.1	8.1
Stevens	63.7	31.7	16.5	69.9	153.2	165.6	83.5	40.6	8.0
Thurston	57.6	25.9	12.3	47.8	90.0	118.8	91.6	38.0	6.9
Wahkiakum	49.9	*	*	*	250.0	119.4	*	*	*
Walla Walla	61.8	39.9	23.1	56.7	79.7	142.7	92.7	35.0	7.3
Whatcom	51.9	20.3	12.9	27.2	52.3	123.9	94.6	40.7	5.6
Whitman	34.6	7.9	7.6	7.9	20.5	113.3	90.3	36.4	10.0
Yakima	90.5	74.2	40.8	131.6	158.4	153.6	107.6	42.6	9.7

[1] The general fertility rate shown under "All Ages" equals total live births per 1,000 women of childbearing age (15-44). Age-Specific rate equal the number of live births to women in a specific age group per 1,000 women in the age group.

* Rate not calculated because number of events was less than 5.

Population Data: See Appendix A: Technical Appendix.

Natality Table A11. Single Mothers, Mother's Age Group by County of Residence, 2003

County	All Ages	Under 15	15-17	18-19	20-24	25-29	30-34	35-39	40-44	45 and Over	Age Unk
State Total	**23,022**	**83**	**1,747**	**3,482**	**8,898**	**4,756**	**2,495**	**1,178**	**341**	**22**	**20**
Adams	131	0	20	25	40	21	16	7	1	0	1
Asotin	132	1	12	22	62	21	10	3	1	0	0
Benton	702	7	68	105	277	159	53	27	6	0	0
Chelan	285	2	28	48	111	50	30	14	1	1	0
Clallam	241	0	14	39	104	43	28	9	4	0	0
Clark	1,334	2	71	237	529	281	150	50	13	0	1
Columbia	15	0	1	4	4	3	3	0	0	0	0
Cowlitz	467	4	47	69	198	79	49	18	2	1	0
Douglas	147	0	14	26	54	41	5	6	1	0	0
Ferry	36	0	2	3	17	6	4	4	0	0	0
Franklin	503	9	55	83	177	114	37	19	7	1	1
Garfield	6	0	0	3	2	1	0	0	0	0	0
Grant	524	3	70	86	184	107	55	16	3	0	0
Grays Harbor	351	1	31	49	146	76	33	11	3	1	0
Island	177	2	14	28	76	36	11	5	4	0	1
Jefferson	83	0	8	20	22	13	15	4	1	0	0
King	4,961	10	284	504	1,773	1,165	684	397	127	10	7
Kitsap	787	0	49	153	320	141	73	34	15	1	1
Kittitas	90	0	7	12	37	21	7	4	2	0	0
Klickitat	83	1	9	20	33	13	6	0	1	0	0
Lewis	328	0	30	78	118	59	25	15	3	0	0
Lincoln	15	0	1	5	4	3	2	0	0	0	0
Mason	252	1	24	41	112	41	24	7	1	1	0
Okanogan	193	1	16	33	76	43	14	8	2	0	0
Pacific	70	0	3	10	35	12	4	2	4	0	0
Pend Oreille	37	0	4	9	16	4	0	4	0	0	0
Pierce	3,165	4	217	505	1,256	642	334	157	45	2	3
San Juan	20	0	1	3	7	2	3	2	2	0	0
Skagit	385	1	40	65	146	68	42	22	1	0	0
Skamania	45	0	3	9	20	6	3	4	0	0	0
Snohomish	2,214	7	139	292	894	465	250	131	30	1	5
Spokane	1,728	5	125	293	752	321	164	49	19	0	0
Stevens	150	0	17	24	53	33	17	4	2	0	0
Thurston	750	2	53	106	298	152	81	40	16	2	0
Wahkiakum	11	0	1	0	6	2	1	1	0	0	0
Walla Walla	239	3	24	50	78	49	21	10	3	1	0
Whatcom	512	1	42	83	210	98	57	16	5	0	0
Whitman	62	0	5	14	25	11	3	3	1	0	0
Yakima	1,791	16	198	326	626	354	181	75	15	0	0

Natality Table A12. Father's Age Group by County of Residence, 2003

County	All Ages	Under 15	15-17	18-19	20-24	25-29	30-34	35-39	40-44	45 and Over	Age Unk
State Total	**80,482**	**6**	**418**	**1,631**	**12,562**	**18,776**	**20,418**	**12,456**	**5,361**	**2,140**	**6,714**
Adams	339	0	6	10	56	104	62	45	11	3	42
Asotin	287	0	2	8	70	63	63	22	11	7	41
Benton	2,190	2	14	57	423	532	450	297	106	52	257
Chelan	888	1	6	29	170	223	206	116	56	28	53
Clallam	609	0	2	19	138	157	123	66	40	10	54
Clark	5,332	0	13	54	720	1,275	1,344	708	338	121	759
Columbia	37	0	0	2	7	8	7	2	5	1	5
Cowlitz	1,141	0	13	36	219	307	246	104	58	24	134
Douglas	432	0	1	13	93	128	93	50	28	6	20
Ferry	70	0	0	2	13	15	9	13	3	2	13
Franklin	1,322	1	20	46	278	375	258	122	54	29	139
Garfield	16	0	0	0	4	5	2	2	1	0	2
Grant	1,431	0	14	66	294	381	289	151	73	29	134
Grays Harbor	817	0	7	42	177	213	156	82	41	24	75
Island	947	0	8	19	226	252	214	104	50	25	49
Jefferson	226	0	2	7	41	51	42	34	20	9	20
King	22,431	1	61	235	2,026	4,279	6,806	4,864	2,094	813	1,252
Kitsap	3,014	0	11	54	657	737	645	401	185	79	245
Kittitas	380	0	2	5	79	117	86	41	20	7	23
Klickitat	232	0	4	10	45	61	40	20	12	8	32
Lewis	839	0	4	31	154	197	169	88	20	20	156
Lincoln	84	0	1	0	14	24	28	7	4	2	4
Mason	569	0	3	18	139	157	98	47	26	11	70
Okanogan	485	0	4	23	102	141	93	52	22	13	35
Pacific	188	0	0	6	43	44	38	22	11	6	18
Pend Oreille	107	0	1	1	24	16	22	16	8	7	12
Pierce	10,085	0	54	223	1,863	2,518	2,427	1,307	495	198	1,000
San Juan	88	0	0	0	12	21	21	17	11	3	3
Skagit	1,356	0	14	33	256	306	289	181	60	30	187
Skamania	114	0	0	5	18	22	20	17	8	1	23
Snohomish	8,592	0	26	117	1,115	2,061	2,422	1,413	583	198	657
Spokane	5,455	1	44	135	1,071	1,455	1,291	670	315	124	349
Stevens	467	0	6	18	90	113	107	51	42	14	26
Thurston	2,619	0	9	56	450	613	634	410	156	77	214
Wahkiakum	29	0	0	1	7	6	7	0	1	2	5
Walla Walla	686	0	4	27	145	161	137	100	41	13	58
Whatcom	2,035	0	11	33	308	505	553	283	139	57	146
Whitman	410	0	0	6	71	125	110	61	18	10	9
Yakima	4,133	0	51	184	944	1,008	811	470	195	77	393

Natality Table A13a. Mother's Race/Ethnicity by County of Residence, 2003

County	Total	White	African American	Native American	Japa-nese	Chinese	Filipino	Other Asian	Other	Unk	Hispanic Origin[1]
State Total	**80,482**	**65,275**	**3,414**	**1,746**	**400**	**834**	**1,132**	**4,586**	**0**	**3,095**	**13,206**
Adams	339	329	1	7	0	0	0	1	0	1	250
Asotin	287	13	0	0	0	0	0	0	0	274	0
Benton	2,190	2,048	24	20	0	10	9	43	0	36	532
Chelan	888	866	3	3	0	1	3	7	0	5	388
Clallam	609	533	2	59	0	0	2	7	0	6	38
Clark	5,332	4,069	83	48	23	25	29	200	0	855	452
Columbia	37	36	0	0	0	0	0	0	0	1	6
Cowlitz	1,141	1,046	3	10	1	0	4	15	0	62	107
Douglas	432	417	0	7	0	1	1	2	0	4	175
Ferry	70	44	0	25	1	0	0	0	0	0	2
Franklin	1,322	1,170	19	6	1	1	4	17	0	104	860
Garfield	16	1	0	0	0	0	0	0	0	15	0
Grant	1,431	1,392	4	23	1	0	0	3	0	8	738
Grays Harbor	817	729	2	60	0	1	4	12	0	9	114
Island	947	815	45	8	6	1	33	24	0	15	77
Jefferson	226	207	0	8	0	2	2	1	0	6	15
King	22,431	15,833	1,744	252	268	626	550	2,435	0	723	2,689
Kitsap	3,014	2,587	116	61	16	8	93	100	0	33	249
Kittitas	380	363	3	2	0	0	0	7	0	5	53
Klickitat	232	125	0	5	0	0	0	1	0	101	25
Lewis	839	799	0	14	1	3	0	12	0	10	117
Lincoln	84	81	1	0	0	0	1	0	0	1	3
Mason	569	528	3	23	0	0	3	8	0	4	100
Okanogan	485	384	1	89	0	0	0	3	0	8	146
Pacific	188	99	1	1	0	0	0	3	0	84	21
Pend Oreille	107	100	0	5	0	0	0	0	0	2	5
Pierce	10,085	7,978	890	204	19	29	132	686	0	147	1,223
San Juan	88	85	0	0	0	0	1	0	0	2	3
Skagit	1,356	1,253	8	27	1	0	8	7	0	52	377
Skamania	114	77	1	1	0	0	0	0	0	35	4
Snohomish	8,592	7,088	211	178	37	67	168	613	0	230	995
Spokane	5,455	4,969	116	139	13	10	25	110	0	73	263
Stevens	467	406	0	52	1	0	1	2	0	5	19
Thurston	2,619	2,216	74	63	6	15	30	158	0	57	216
Wahkiakum	29	26	0	0	0	0	0	0	0	3	0
Walla Walla	686	661	9	3	0	1	2	4	0	6	217
Whatcom	2,035	1,824	8	97	1	7	10	49	0	39	244
Whitman	410	320	4	6	1	19	3	25	0	32	17
Yakima	4,133	3,758	38	240	3	7	14	31	0	42	2,466

[1]Persons of Hispanic Origin may of any race. See Appendix A, "Hispanic Origin."

NOTE: Uses bridged race, see Technical Appendix

Natality Table A13b. Mother's Multiple Race by County of Residence, 2003

County	Total	Single race					More than one race given	Race unknown
		White	African Amer.	Native Amer.	Asian	Pacific Islander		
State Total	**80,482**	**64,453**	**2,949**	**1,485**	**5,956**	**599**	**2,257**	**2,783**
Adams	339	329	0	6	0	1	2	1
Asotin	287	13	0	0	0	0	0	274
Benton	2,190	2,050	17	17	57	2	29	18
Chelan	888	863	2	3	11	0	4	5
Clallam	609	530	1	58	6	1	8	5
Clark	5,332	4,001	69	30	222	32	123	855
Columbia	37	35	0	0	0	0	1	1
Cowlitz	1,141	1,038	3	7	18	2	11	62
Douglas	432	415	0	5	3	1	4	4
Ferry	70	44	0	24	1	0	1	0
Franklin	1,322	1,261	18	5	20	2	8	8
Garfield	16	1	0	0	0	0	0	15
Grant	1,431	1,386	3	16	1	0	19	6
Grays Harbor	817	712	1	53	15	2	29	5
Island	947	799	38	8	52	5	31	14
Jefferson	226	204	0	8	3	0	7	4
King	22,431	15,626	1,585	199	3,489	258	637	637
Kitsap	3,014	2,524	95	56	153	34	123	29
Kittitas	380	359	2	2	5	1	6	5
Klickitat	232	124	0	5	1	0	1	101
Lewis	839	795	0	11	10	3	12	8
Lincoln	84	80	1	0	1	0	1	1
Mason	569	519	2	21	7	4	16	0
Okanogan	485	385	1	86	2	1	7	3
Pacific	188	98	0	1	3	0	3	83
Pend Oreille	107	98	0	5	0	0	2	2
Pierce	10,085	7,793	730	160	616	155	528	103
San Juan	88	85	0	0	1	0	0	2
Skagit	1,356	1,241	6	25	15	1	16	52
Skamania	114	75	0	1	0	0	3	35
Snohomish	8,592	6,980	189	162	785	49	210	217
Spokane	5,455	4,891	91	117	131	19	137	69
Stevens	467	404	0	46	2	2	8	5
Thurston	2,619	2,172	58	49	170	20	105	45
Wahkiakum	29	26	0	0	0	0	0	3
Walla Walla	686	659	8	1	7	0	9	2
Whatcom	2,035	1,795	7	80	59	0	57	37
Whitman	410	316	4	5	48	0	6	31
Yakima	4,133	3,727	18	213	42	4	93	36

NOTE: Includes all races reported by mother, see Technical Appendix

Natality Table A14. Mother's Education by County of Residence, 2003

County	Total	8th Grade or Less	Some High School	High School / GED	Some College	Associate Degree	Bachelor's Degree	Postgrad Educ	Unknown
State Total	**80,482**	**3,937**	**11,123**	**19,150**	**17,053**	**6,525**	**13,662**	**6,174**	**2,858**
Adams	339	81	104	75	36	15	17	11	0
Asotin	287	3	61	110	27	44	31	11	0
Benton	2,190	159	385	473	528	177	285	131	52
Chelan	888	176	162	221	108	74	96	39	12
Clallam	609	17	120	180	148	60	63	15	6
Clark	5,332	147	715	1,469	1,281	540	887	269	24
Columbia	37	0	10	8	7	6	3	3	0
Cowlitz	1,141	65	223	328	286	104	86	43	6
Douglas	432	65	81	127	46	38	48	20	7
Ferry	70	0	13	23	23	4	5	2	0
Franklin	1,322	315	358	254	183	75	90	24	23
Garfield	16	4	1	4	0	5	2	0	0
Grant	1,431	319	339	353	214	76	83	40	7
Grays Harbor	817	54	175	232	206	67	47	29	7
Island	947	10	99	276	295	74	139	43	11
Jefferson	226	6	35	70	48	9	36	15	7
King	22,431	671	2,091	3,890	3,560	1,679	5,792	2,958	1,790
Kitsap	3,014	35	324	832	867	273	458	182	43
Kittitas	380	17	35	87	97	21	88	30	5
Klickitat	232	21	48	74	39	19	20	9	2
Lewis	839	45	167	301	172	66	55	26	7
Lincoln	84	0	6	31	17	9	17	3	1
Mason	569	61	119	183	129	36	24	17	0
Okanogan	485	61	119	128	81	35	36	18	7
Pacific	188	11	38	59	37	19	18	6	0
Pend Oreille	107	2	17	36	26	7	9	10	0
Pierce	10,085	255	1,482	2,825	2,610	830	1,231	687	165
San Juan	88	0	11	33	17	8	11	5	3
Skagit	1,356	82	264	409	190	65	96	39	211
Skamania	114	2	18	38	23	9	19	5	0
Snohomish	8,592	252	1,007	2,034	2,168	727	1,628	510	266
Spokane	5,455	57	611	1,438	1,430	571	908	405	35
Stevens	467	8	67	164	114	42	48	19	5
Thurston	2,619	46	275	667	705	228	463	194	41
Wahkiakum	29	1	8	5	9	3	2	0	1
Walla Walla	686	66	137	157	151	65	72	37	1
Whatcom	2,035	76	247	486	472	217	365	143	29
Whitman	410	0	29	52	77	42	130	77	3
Yakima	4,133	747	1,122	1,018	626	186	254	99	81

B. Behavioral and Health Characteristics

Behaviors such as smoking during pregnancy and medical risk factors such as diabetes and hypertension may affect the health of both the mother and her infant. Birth data on these characteristics can identify problem areas and track changes over time, especially if new prevention programs have been started.

Natality Table B1. Behavioral and Health Summary Indicators for Residents, 1994 - 2003

	Percent of Births where Mother…		
	Smokes[1]	Has Gestational Diabetes	Has Pregnancy-Associated Hypertension
1994	17.0	2.4	4.3
1995	16.1	2.4	4.1
1996	16.0	2.6	4.2
1997	14.6	2.5	4.5
1998	14.6	2.6	4.5
1999	14.2	2.7	4.7
2000	13.5	3.1	5.1
2001	12.6	3.5	5.1
2002	12.0	3.6	4.8
2003	10.9	4.3	5.3

[1]Unknowns have been subtracted from total births in calculating percentages.

Trends of declining smoking and increasing diabetes and hypertension have continued over the decade. It is encouraging to note that even though the maternal smoking item was significantly revised in 2003 (see 'Birth Data Notes' in the Technical Appendix), the data are consistent with data from previous years.

Natality Table B2. Mother's Age Group by Maternal Smoking for Residents, 2003

Age	Total	Maternal Smoking	No Maternal Smoking	Unknown
State Total	**80,482**	**8,624**	**70,704**	**1,154**
Under 15	86	7	77	2
15 - 17	1,976	354	1,586	36
18 - 19	4,759	1,029	3,662	68
20 - 24	19,532	3,312	15,958	262
25 - 29	21,849	2,077	19,498	274
30 - 34	19,965	1,167	18,504	294
35 - 39	9,876	511	9,207	158
40 - 44	2,233	158	2,018	57
45 and Over	154	5	146	3
Unknown	52	4	48	0

Natality Table B3. Mother's Education by Maternal Smoking for Residents, 2003

Education	Total	Maternal Smoking	No Maternal Smoking	Unknown
State Total	**80,482**	**8,624**	**70,704**	**1,154**
8th Grade or Less	3,937	233	3,681	23
Some High School	11,123	2,665	8,276	182
High School / GED	19,150	3,276	15,614	260
Some College	17,053	1,746	15,095	212
Associate Degree	6,525	347	6,116	62
Bachelor's Degree	13,662	175	13,341	146
Postgraduate Educ.	6,174	37	6,079	58
Unknown	2,858	145	2,502	211

Natality Table B4. Maternal Smoking During Pregnancy by County of Residence, 2003

County	Total Births	No Smoking During Pregnancy	Smoking 3 Months Before	Maternal Smoking First Trimester	Maternal Smoking Second Trimester	Maternal Smoking Third Trimester	Unknown Maternal Smoking
State Total	**80,482**	**70,704**	**10,218**	**8,396**	**7,348**	**7,133**	**1,154**
Adams	339	324	15	14	12	13	0
Asotin	287	241	68	46	46	45	0
Benton	2,190	1,882	381	299	231	224	3
Chelan	888	838	52	48	46	44	2
Clallam	609	452	162	150	147	143	4
Clark	5,332	4,682	860	632	531	513	1
Columbia	37	32	7	5	5	5	0
Cowlitz	1,141	858	321	278	249	239	1
Douglas	432	410	21	18	18	18	4
Ferry	70	55	22	15	13	12	0
Franklin	1,322	1,254	82	60	49	47	1
Garfield	16	14	3	2	1	1	0
Grant	1,431	1,298	134	128	119	113	1
Grays Harbor	817	563	261	221	197	190	18
Island	947	833	148	104	89	89	2
Jefferson	226	188	39	36	30	29	2
King	22,431	20,682	1,499	1,181	1,015	994	537
Kitsap	3,014	2,568	470	426	381	363	17
Kittitas	380	332	59	46	39	35	2
Klickitat	232	204	37	26	24	25	0
Lewis	839	641	203	173	152	150	16
Lincoln	84	72	14	11	11	10	0
Mason	569	447	114	97	88	86	20
Okanogan	485	405	84	72	58	56	3
Pacific	188	166	25	22	19	19	0
Pend Oreille	107	82	30	24	22	23	0
Pierce	10,085	8,568	1,525	1,245	1,099	1,069	236
San Juan	88	80	8	7	7	7	1
Skagit	1,356	1,220	143	130	123	118	4
Skamania	114	91	24	23	14	14	0
Snohomish	8,592	7,669	985	849	774	747	61
Spokane	5,455	4,459	1,139	973	888	878	2
Stevens	467	358	129	108	98	93	1
Thurston	2,619	2,131	432	302	252	234	173
Wahkiakum	29	17	14	12	10	10	0
Walla Walla	686	604	94	79	70	67	0
Whatcom	2,035	1,822	183	171	116	117	37
Whitman	410	379	34	31	27	25	0
Yakima	4,133	3,783	397	332	278	268	5

Natality Table B5. Selected Medical Risk Factors[1] by County of Residence, 2003

County	Total Births	Diabetes		Hypertension		Previous Poor Pregnancy Outcome	Infertility Treatment	Group B Strep Culture Positive
		Gestational	Established	Gestational	Established			
State Total	**80,482**	**3,458**	**426**	**4,227**	**1,004**	**2,399**	**797**	**11,857**
Adams	339	30	3	23	1	9	1	29
Asotin	287	19	0	10	2	0	0	33
Benton	2,190	90	10	104	26	97	32	312
Chelan	888	22	2	9	3	8	0	75
Clallam	609	31	5	38	8	19	1	104
Clark	5,332	229	16	416	53	208	48	700
Columbia	37	2	0	2	1	1	0	3
Cowlitz	1,141	42	3	50	16	38	5	174
Douglas	432	12	2	6	2	2	0	28
Ferry	70	0	0	5	0	5	0	8
Franklin	1,322	79	7	37	7	52	7	135
Garfield	16	1	0	0	1	0	0	0
Grant	1,431	80	6	59	11	36	9	190
Grays Harbor	817	35	5	44	17	26	2	130
Island	947	29	6	65	20	30	8	135
Jefferson	226	7	1	14	2	5	1	35
King	22,431	954	92	916	231	543	332	3,389
Kitsap	3,014	112	18	195	51	61	17	610
Kittitas	380	25	1	47	7	12	3	72
Klickitat	232	22	1	16	2	5	1	15
Lewis	839	30	1	72	11	29	5	182
Lincoln	84	7	1	6	1	3	0	19
Mason	569	16	2	49	13	30	4	105
Okanogan	485	18	5	38	8	37	3	49
Pacific	188	8	0	8	4	4	0	10
Pend Oreille	107	6	0	9	0	5	0	17
Pierce	10,085	308	61	452	116	234	65	1,351
San Juan	88	2	0	0	3	1	0	6
Skagit	1,356	65	18	75	34	44	10	173
Skamania	114	5	0	9	0	0	0	12
Snohomish	8,592	386	52	523	176	245	84	1,441
Spokane	5,455	273	26	390	46	222	52	871
Stevens	467	10	1	37	5	20	1	64
Thurston	2,619	105	13	102	34	95	39	392
Wahkiakum	29	2	0	2	1	1	0	1
Walla Walla	686	33	3	42	11	33	13	59
Whatcom	2,035	53	14	134	31	59	15	294
Whitman	410	27	2	32	9	9	17	68
Yakima	4,133	283	49	191	40	171	22	566

[1]Numbers may be underestimated by about 6% because of missing medical risk factor data.

Natality Table B6. Body Mass Index[1] by County of Residence, 2003

County	Total Births	Underweight (<18.5)	Normal (18.5-24.9)	Overweight (25.0-29.9)	Obese (30.0+)	Unknown
State Total	**80,482**	**2,138**	**31,389**	**16,202**	**13,561**	**17,192**
Adams	339	6	139	93	77	24
Asotin	287	0	6	0	1	280
Benton	2,190	68	961	530	443	188
Chelan	888	29	304	154	113	288
Clallam	609	8	273	154	147	27
Clark	5,332	171	2,312	1,043	895	911
Columbia	37	3	13	9	8	4
Cowlitz	1,141	34	435	311	273	88
Douglas	432	8	131	84	75	134
Ferry	70	3	31	18	17	1
Franklin	1,322	34	539	381	280	88
Garfield	16	0	1	0	0	15
Grant	1,431	36	583	384	320	108
Grays Harbor	817	23	298	179	213	104
Island	947	30	439	240	170	68
Jefferson	226	7	110	60	40	9
King	22,431	538	8,652	3,859	2,638	6,744
Kitsap	3,014	79	1,436	715	611	173
Kittitas	380	9	178	90	84	19
Klickitat	232	4	51	37	29	111
Lewis	839	21	327	184	225	82
Lincoln	84	2	46	15	19	2
Mason	569	14	139	84	85	247
Okanogan	485	10	173	128	124	50
Pacific	188	3	38	23	30	94
Pend Oreille	107	7	37	34	26	3
Pierce	10,085	276	3,353	1,856	1,728	2,872
San Juan	88	2	46	16	14	10
Skagit	1,356	26	391	246	228	465
Skamania	114	3	34	24	14	39
Snohomish	8,592	204	3,250	1,714	1,476	1,948
Spokane	5,455	230	2,780	1,284	1,079	82
Stevens	467	18	211	126	104	8
Thurston	2,619	54	921	510	515	619
Wahkiakum	29	0	11	7	7	4
Walla Walla	686	22	323	154	159	28
Whatcom	2,035	51	898	407	348	331
Whitman	410	11	183	81	68	67
Yakima	4,133	94	1,336	968	878	857

[1]Body Mass Index=(703.1xwt in lb)/square of ht in inches; classifications are from the Centers for Disease Control.

C. Health Service Utilization

The health service utilization data in this section describe the prenatal care and delivery services the mother received. Prenatal care data are used to assess whether women are receiving timely prenatal care. Data on the birth attendant, birth facility, and method of delivery help to assure that appropriate delivery services are available, including both 'low tech' and 'high tech' services.

Natality Table C1. Health Service Utilization Summary Indicators for Residents, 1994 - 2003

	Percent of Births[1] where Mother has…		
	1st Trimester Prenatal Care	Late/No Prenatal Care[2]	Primary C-Section Delivery
1994	82.5	3.4	11.1
1995	82.6	3.5	11.2
1996	83.3	3.6	11.2
1997	83.3	3.4	11.3
1998	83.0	3.2	12.2
1999	82.8	3.1	12.3
2000	82.6	3.3	13.1
2001	83.2	3.0	14.0
2002	83.4	3.1	14.8
2003	81.5	3.7	18.6

[1]Unknowns have been subtracted from total births in calculating percentages.

[2]Includes no care or care beginning in third trimester.

C-section delivery continues to increase, following a national trend. In 2003, mothers were less likely to have timely prenatal care than they had been for the past decade. However, these numbers should be viewed with caution because the data collection method for this item changed significantly (see 'Birth Data Notes' in the Technical Appendix) and the unknowns were very high (nearly 20%).

Natality Table C2. Month Prenatal Care Began by Mother's Age Group for Residents, 2003

Month Care Began	All Ages	Under 15	15-17	18-19	20-24	25-29	30-34	35-39	40-44	45 and Over	Unk
State Total	**80,482**	**86**	**1,976**	**4,759**	**19,532**	**21,849**	**19,965**	**9,876**	**2,233**	**154**	**52**
First	11,059	6	131	446	2,378	3,325	3,075	1,395	283	18	2
Second	27,141	6	455	1,307	6,166	7,771	7,203	3,436	747	38	12
Third	14,683	11	453	1,010	3,843	3,825	3,423	1,698	380	34	6
Fourth	5,374	10	231	483	1,657	1,370	984	511	115	8	5
Fifth	2,634	10	157	270	846	625	435	213	71	5	2
Sixth	1,609	5	92	164	540	365	266	136	33	4	4
Seventh	1,115	4	65	125	343	281	182	89	19	5	2
Eighth	696	8	38	70	207	175	131	51	12	3	1
Ninth +	222	3	10	26	69	45	44	22	3	0	0
No Care	374	5	17	34	110	89	67	39	11	2	0
Unknown	15,575	18	327	824	3,373	3,978	4,155	2,286	559	37	18

Natality Table C3. Number of Prenatal Visits by Month Prenatal Care Began for Residents, 2003

Number of Prenatal Visits	Total	1 - 3	4 - 6	7 - 9+	No Care	Unk
State Total	**80,482**	**52,883**	**9,617**	**2,033**	**374**	**15,575**
9 or More	52,923	42,412	4,639	300	2	5,570
5 - 8	13,023	7,227	3,786	787	0	1,223
1 - 4	2,552	563	794	855	1	339
No Visits	728	8	4	1	337	378
Unknown	11,256	2,673	394	90	34	8,065

Natality Table C4. Month Prenatal Care Began by County of Residence, 2003

County	Total	1st	2nd	3rd	4th	5th	6th	7th	8th	9th+	No Care	Unk
State Total	**80,482**	**11,059**	**27,141**	**14,683**	**5,374**	**2,634**	**1,609**	**1,115**	**696**	**222**	**374**	**15,575**
Adams	339	47	154	60	27	13	14	11	3	1	0	9
Asotin	287	19	109	98	32	10	7	2	0	1	1	8
Benton	2,190	270	751	513	219	117	76	48	28	18	40	110
Chelan	888	48	409	225	75	30	16	13	9	2	5	56
Clallam	609	71	255	149	44	20	18	12	5	5	3	27
Clark	5,332	531	2,274	1,465	479	242	125	78	38	11	16	73
Columbia	37	1	11	11	7	2	2	0	0	0	0	3
Cowlitz	1,141	135	503	266	104	45	17	21	16	3	8	23
Douglas	432	40	195	105	38	12	11	3	2	0	2	24
Ferry	70	14	18	15	6	3	4	0	1	2	1	6
Franklin	1,322	107	400	303	182	87	69	36	36	16	12	74
Garfield	16	3	4	5	4	0	0	0	0	0	0	0
Grant	1,431	168	534	345	144	70	53	28	15	3	35	36
Grays Harbor	817	126	270	128	63	39	34	14	6	2	7	128
Island	947	111	464	152	55	31	28	23	11	2	0	70
Jefferson	226	22	89	54	23	13	4	4	1	0	0	16
King	22,431	2,795	6,857	3,239	1,088	524	293	239	180	61	74	7,081
Kitsap	3,014	228	1,055	930	250	126	93	65	48	14	14	191
Kittitas	380	84	190	60	21	7	3	5	1	0	0	9
Klickitat	232	29	94	55	23	13	7	2	2	0	2	5
Lewis	839	175	277	120	69	37	20	11	12	4	6	108
Lincoln	84	24	31	13	4	4	0	2	1	0	0	5
Mason	569	83	159	115	35	44	21	5	5	1	8	93
Okanogan	485	82	196	94	53	16	10	7	1	0	3	23
Pacific	188	24	71	43	15	7	6	5	3	1	0	13
Pend Oreille	107	20	44	17	10	3	4	1	1	1	0	6
Pierce	10,085	1,607	2,916	1,501	559	292	199	128	85	23	33	2,742
San Juan	88	5	28	27	8	2	1	4	3	2	0	8
Skagit	1,356	113	554	282	101	56	44	31	17	2	3	153
Skamania	114	8	54	26	13	4	3	2	0	0	1	3
Snohomish	8,592	1,069	2,646	1,316	487	228	126	107	58	14	24	2,517
Spokane	5,455	1,488	2,177	866	306	128	69	48	20	6	16	331
Stevens	467	107	179	88	38	14	12	7	6	0	2	14
Thurston	2,619	605	652	242	103	33	34	24	8	8	29	881
Wahkiakum	29	4	14	4	3	3	0	0	0	0	0	1
Walla Walla	686	58	252	190	69	38	14	15	8	3	1	38
Whatcom	2,035	122	844	533	224	99	44	39	14	4	2	110
Whitman	410	67	171	109	16	10	9	3	5	1	3	16
Yakima	4,133	549	1,240	919	377	212	119	72	47	11	23	564

Natality Table C5. Birth Facility by County of Occurrence, 2003

County	Total	Hospital	Birth Center	Federal Facility	Home	Born On Arrival	Other	Unknown
State Total	**80,022**	**75,307**	**715**	**3,060**	**883**	**38**	**17**	**2**
Adams	498	496	0	0	1	1	0	0
Asotin	5	1	0	0	4	0	0	0
Benton	3,260	3,218	23	0	19	0	0	0
Chelan	1,352	1,331	19	0	1	0	1	0
Clallam	566	552	0	0	13	1	0	0
Clark	4,711	4,668	0	0	41	2	0	0
Columbia	0	0	0	0	0	0	0	0
Cowlitz	1,137	1,131	0	0	6	0	0	0
Douglas	0	0	0	0	0	0	0	0
Ferry	5	2	0	0	3	0	0	0
Franklin	640	631	0	0	9	0	0	0
Garfield	0	0	0	0	0	0	0	0
Grant	1,046	1,037	0	0	9	0	0	0
Grays Harbor	536	515	0	0	20	1	0	0
Island	674	200	38	430	6	0	0	0
Jefferson	148	123	0	0	25	0	0	0
King	26,595	26,095	276	0	213	9	2	0
Kitsap	2,715	1,897	6	747	59	6	0	0
Kittitas	335	322	0	0	13	0	0	0
Klickitat	161	160	0	0	1	0	0	0
Lewis	635	604	1	0	27	3	0	0
Lincoln	0	0	0	0	0	0	0	0
Mason	318	313	0	0	4	1	0	0
Okanogan	470	467	0	0	3	0	0	0
Pacific	32	19	0	0	13	0	0	0
Pend Oreille	72	71	0	0	1	0	0	0
Pierce	10,277	8,095	214	1,883	80	5	0	0
San Juan	6	0	0	0	4	0	2	0
Skagit	1,501	1,477	0	0	24	0	0	0
Skamania	3	0	0	0	3	0	0	0
Snohomish	5,645	5,518	57	0	68	2	0	0
Spokane	6,340	6,229	68	0	34	0	7	2
Stevens	270	256	0	0	14	0	0	0
Thurston	2,795	2,713	0	0	79	3	0	0
Wahkiakum	1	0	0	0	1	0	0	0
Walla Walla	882	862	13	0	1	1	5	0
Whatcom	2,010	1,936	0	0	73	1	0	0
Whitman	367	362	0	0	5	0	0	0
Yakima	4,014	4,006	0	0	6	2	0	0

Natality Table C6. Method of Delivery[1] by County of Occurrence, 2003

County	Total	Vaginal Deliveries				Primary C-Section	Repeat C-Section		Unk
		Sponta-neous	Forceps	Vacuum	VBAC		With Labor	No Labor	
State Total	**80,022**	**52,988**	**727**	**4,743**	**1,217**	**14,826**	**520**	**4,994**	**7**
Adams	498	317	7	50	2	66	0	56	0
Asotin	5	5	0	0	0	0	0	0	0
Benton	3,260	2,042	31	247	89	549	24	278	0
Chelan	1,352	1,004	2	7	17	234	23	65	0
Clallam	566	408	1	11	1	83	11	51	0
Clark	4,711	3,429	10	174	138	620	41	299	0
Columbia	0	0	0	0	0	0	0	0	0
Cowlitz	1,137	771	7	42	10	227	11	69	0
Douglas	0	0	0	0	0	0	0	0	0
Ferry	5	4	0	0	0	0	0	0	1
Franklin	640	471	3	23	13	101	7	22	0
Garfield	0	0	0	0	0	0	0	0	0
Grant	1,046	640	3	111	6	179	3	104	0
Grays Harbor	536	348	1	5	11	110	4	57	0
Island	674	426	28	33	7	118	10	52	0
Jefferson	148	111	0	6	0	22	2	7	0
King	26,595	16,414	322	2,066	370	5,701	145	1,576	1
Kitsap	2,715	1,865	29	149	26	437	33	175	1
Kittitas	335	231	1	9	3	53	6	32	0
Klickitat	161	99	0	13	2	32	0	15	0
Lewis	635	422	2	56	1	115	2	37	0
Lincoln	0	0	0	0	0	0	0	0	0
Mason	318	227	0	21	9	40	5	16	0
Okanogan	470	309	1	14	1	99	4	42	0
Pacific	32	26	0	4	0	2	0	0	0
Pend Oreille	72	49	0	1	0	15	0	7	0
Pierce	10,277	7,068	116	440	129	1,920	51	553	0
San Juan	6	5	0	0	1	0	0	0	0
Skagit	1,501	1,032	4	58	14	329	5	59	0
Skamania	3	3	0	0	0	0	0	0	0
Snohomish	5,645	3,858	19	260	82	936	40	450	0
Spokane	6,340	4,221	79	294	70	1,173	27	474	2
Stevens	270	201	1	7	3	40	1	16	1
Thurston	2,795	1,913	27	139	33	511	25	147	0
Wahkiakum	1	1	0	0	0	0	0	0	0
Walla Walla	882	629	5	47	18	145	3	35	0
Whatcom	2,010	1,338	17	65	29	445	12	103	1
Whitman	367	232	0	39	3	62	2	29	0
Yakima	4,014	2,869	11	352	129	462	23	168	0

[1]Based on first or second methods given. See Appendix A for details.

Natality Table C7. Birth Attendant by County of Occurrence, 2003

County	Total	MD	DO	Cert Midwife	Lic Midwife	Other Midwife	Nurse	Hosp Admin	Father	Other	Unk
State Total	**80,022**	**69,767**	**893**	**6,879**	**1,285**	**49**	**709**	**3**	**64**	**315**	**58**
Adams	498	497	0	0	0	0	0	0	0	1	0
Asotin	5	1	0	0	0	0	0	0	4	0	0
Benton	3,260	2,531	174	513	14	0	25	0	2	0	1
Chelan	1,352	1,287	0	44	19	0	0	0	0	2	0
Clallam	566	411	0	142	4	2	0	0	3	4	0
Clark	4,711	3,196	11	1,455	15	15	15	0	3	1	0
Columbia	0	0	0	0	0	0	0	0	0	0	0
Cowlitz	1,137	1,104	5	22	4	0	0	0	0	0	2
Douglas	0	0	0	0	0	0	0	0	0	0	0
Ferry	5	2	0	0	0	1	0	0	1	0	1
Franklin	640	611	0	21	7	0	0	0	1	0	0
Garfield	0	0	0	0	0	0	0	0	0	0	0
Grant	1,046	834	63	140	0	0	0	0	6	3	0
Grays Harbor	536	402	1	120	11	0	1	0	0	1	0
Island	674	630	0	0	43	0	0	0	1	0	0
Jefferson	148	108	15	0	24	0	0	0	0	1	0
King	26,595	23,890	218	1,963	412	1	79	0	5	14	13
Kitsap	2,715	2,288	7	50	54	0	37	0	3	274	2
Kittitas	335	296	1	24	0	0	1	0	10	1	2
Klickitat	161	156	2	0	1	0	1	0	0	1	0
Lewis	635	388	164	55	28	0	0	0	0	0	0
Lincoln	0	0	0	0	0	0	0	0	0	0	0
Mason	318	314	0	0	3	0	0	0	0	0	1
Okanogan	470	353	9	85	2	0	20	0	0	0	1
Pacific	32	3	16	0	13	0	0	0	0	0	0
Pend Oreille	72	71	0	0	0	0	0	0	1	0	0
Pierce	10,277	8,986	49	927	242	0	63	0	3	5	2
San Juan	6	0	0	2	2	0	0	0	1	1	0
Skagit	1,501	1,321	0	152	23	0	0	0	0	1	4
Skamania	3	0	0	0	1	0	1	0	1	0	0
Snohomish	5,645	5,233	0	267	122	0	1	0	1	1	20
Spokane	6,340	5,703	5	506	79	24	9	3	7	2	2
Stevens	270	236	20	0	2	6	0	0	5	1	0
Thurston	2,795	2,426	0	288	77	0	0	0	0	0	4
Wahkiakum	1	0	0	0	1	0	0	0	0	0	0
Walla Walla	882	800	1	76	4	0	0	0	0	1	0
Whatcom	2,010	1,907	1	25	68	0	1	0	5	0	3
Whitman	367	352	5	0	5	0	5	0	0	0	0
Yakima	4,014	3,430	126	2	5	0	450	0	1	0	0

Natality Table C8 County of Residence by County of Occurrence, 2003

County of Residence	County of Occurrence																		
	Adams	Asotin	Benton	Chelan	Clallam	Clark	Columbia	Cowlitz	Douglas	Ferry	Franklin	Garfield	Grant	Grays Harbor	Island	Jefferson	King	Kitsap	Kittitas
Adams	239		16								3		50						
Asotin		5																	
Benton			2,009			1					110						7	1	
Chelan			2	852									1				18		
Clallam					555									1		8	28	5	
Clark						4,451		17									6		
Columbia			1																
Cowlitz						122		946									2	1	
Douglas				364									2				9		
Ferry										3			4	1					
Franklin	42		758			2		1			504		1				5		
Garfield																			
Grant	214		24	113							2		931				8		8
Grays Harbor														485			8	2	
Island															638		59	1	
Jefferson					8									1		139	17	57	
King			2	3	1										1		21,675	9	
Kitsap					1			1									220	2,492	
Kittitas				1													26		318
Klickitat			7			3													
Lewis								34			1					1	9	1	
Lincoln	1												11				1		
Mason														1			4	89	
Okanogan				12									42					1	
Pacific								5						41			2		
Pend Oreille																			
Pierce					1	1		1						1	1		1,122	40	1
San Juan															5		8		
Skagit													1		20		53		
Skamania						39													
Snohomish			2	4		1								1	5		3,116	3	
Spokane				1									1		1		3		
Stevens																	1		
Thurston			1					2						2	1		34	3	1
Wahkiakum						1		24											
Walla Walla			59								17						3		
Whatcom						1									1		52		
Whitman			1			1											1		
Yakima	2		252								1						23		4
Out of State			126	2		88		106		2	2		2	2	1		75	10	3
Occurrence Total	498	5	3,260	1,352	566	4,711	0	1,137	0	5	640	0	1,046	536	674	148	26,595	2,715	335

Note: Diagonal numbers are shaded where county of occurrence and county of residence are the same.

Natality Table C8 (Continued) County of Residence by County of Occurrence, 2003

County of Occurrence																					
Klickitat	Lewis	Lincoln	Mason	Okanogan	Pacific	Pend Oreille	Pierce	San Juan	Skagit	Skamania	Snohomish	Spokane	Stevens	Thurston	Wahkiakum	Walla Walla	Whatcom	Whitman	Yakima	Out-of-State	Residence Total
												30								1	339
												5						3		274	287
							2					5							46	9	2,190
				11								3								1	888
							7				1			1						3	609
	1						6				1			1						849	5,332
												2				32		1		1	37
	6						3													61	1,141
				48								6							1	2	432
				3								19	40								70
							1					2							4	2	1,322
													1							15	16
									1			43						6	77	4	1,431
	12				3		31				1	1		274							817
							27		119		92						2	1		8	947
			3				1														226
							542		3		139	4		8		1	4		5	34	22,431
			3				287				2			1						7	3,014
							1				1					1			31	1	380
116											1								6	99	232
	538						24							227					1	3	839
							1					70									84
	2		306				33							134							569
				404								25					1				485
	4				28		3							23						82	188
						46	1					52	6							2	107
	8		1				8,814		2		2	2		58		2	1	1	2	24	10,085
								6	62		2						4			1	88
							2		1,205		32						42			1	1,356
36										3									1	35	114
							14		74		5,349						7		3	13	8,592
				2		3	2				1	5,404	5						1	31	5,455
							1				1	247	216							1	467
	63		5		1		426				3		1	2,068			2			6	2,619
															1					3	29
												9				595			1	2	686
				1			2		33		9						1,933			3	2,035
							1					55				1		319		31	410
				1			2					1					1		3,831	15	4,133
9	1					23	43		2		8	355	1			250	13	36	4		1,164
161	635	0	318	470	32	72	10,277	6	1,501	3	5,645	6,340	270	2,795	1	882	2,010	367	4,014	1,624	81,646

D. Infant Health

The items in this section are used to assess the health of infants born in Washington State and their chances for survival. The data are also used to track progress towards reducing infant health problems and to identify areas where more work is still needed.

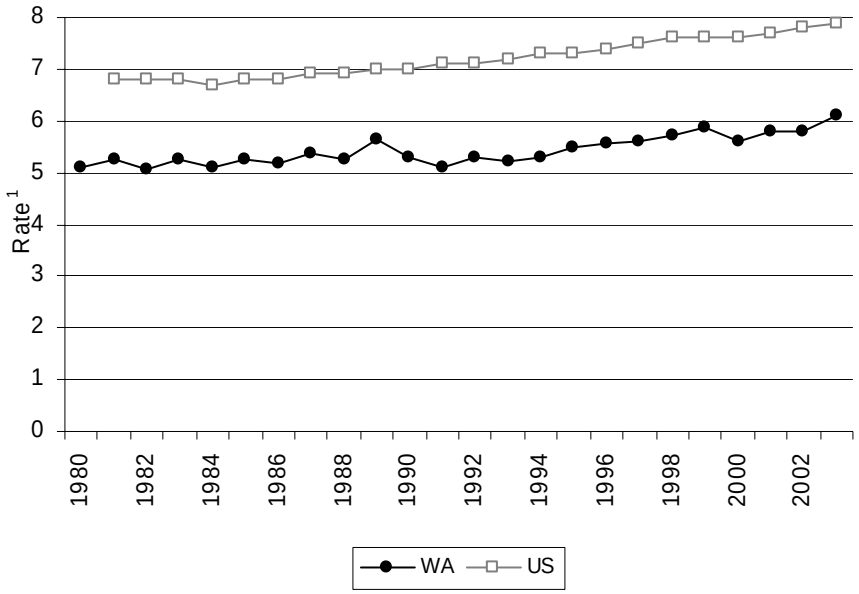
Natality Table D1. Infant Health Summary Indicators for Residents, 1994 - 2003

	Percent of Births[1] that are…		
	Low Birth Weight	Low Birth Weight - Singletons	Plural (Twins+)
1994	5.3	4.3	2.2
1995	5.5	4.4	2.3
1996	5.6	4.4	2.5
1997	5.6	4.5	2.5
1998	5.7	4.5	2.6
1999	5.9	4.5	2.8
2000	5.6	4.3	2.8
2001	5.8	4.5	2.9
2002	5.8	4.4	3.0
2003	6.1	4.6	3.0

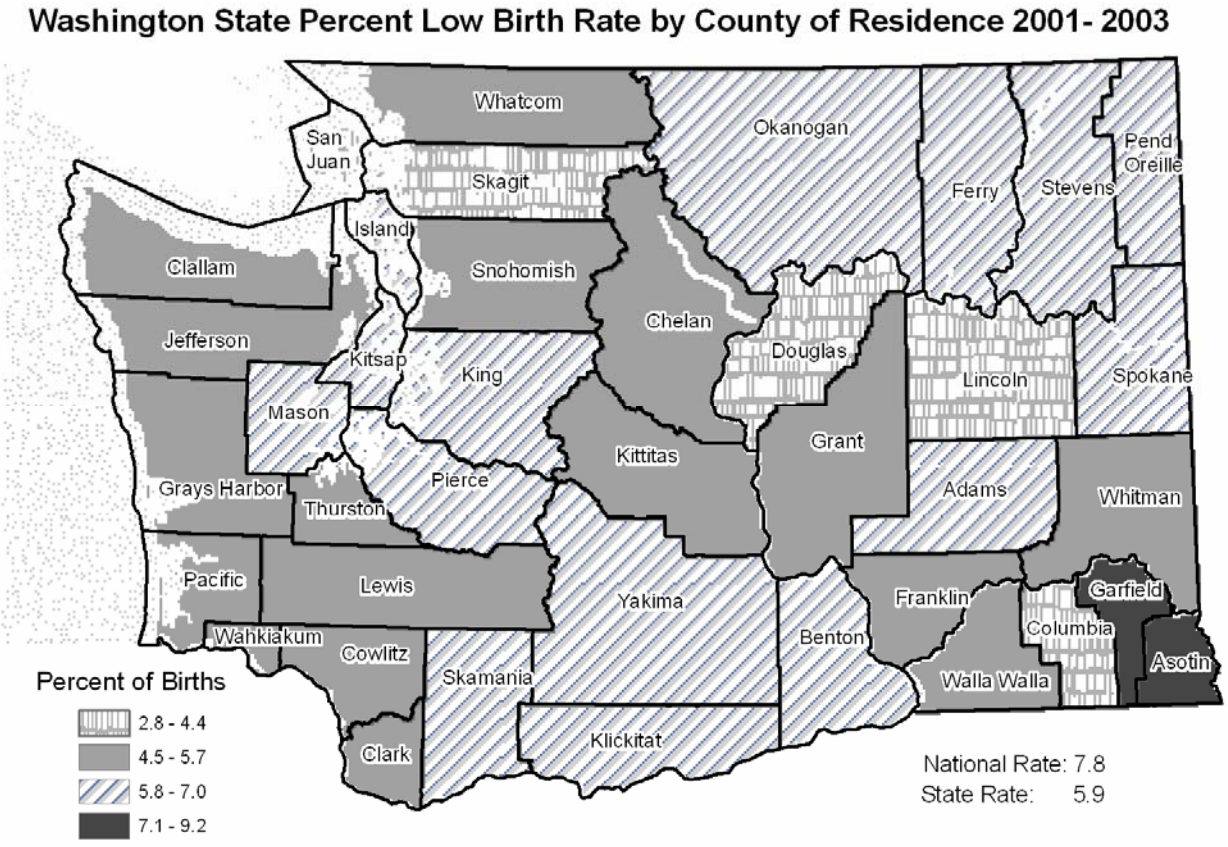
[1]Unknowns have been subtracted from total births in calculating percentages.

After a seven-year period of relatively little change, the percent low birth weight increased in 2003. Nationally, the percent low birth weight has been increasing for several years. Birth weight is strongly related to plurality. However, low birth weight increased even for singletons.

Percent Low Birth Weight[1], Washington State Residents compared to National, 1980-2003



[1] Number of births per 100 births for which birth weight status is known.



Natality Table D2a. Birth Weight in Grams by Mother's Race/Ethnicity for Residents, 2003

Birth Weight in Grams	Total	White	African Amer.	Native Amer.	Japanese	Chinese	Filipino	Other Asian	Other	Unk	Hispanic Origin[1]
State Total	**80,482**	**65,275**	**3,414**	**1,746**	**400**	**834**	**1,132**	**4,586**	**0**	**3,095**	**13,206**
Under 1,000	399	272	39	13	1	1	5	24	0	44	60
1,000 - 1,499	410	293	25	15	1	4	8	22	0	42	61
1,500 - 1,999	960	706	69	23	8	4	15	49	0	86	142
2,000 - 2,499	3,088	2,268	240	78	22	26	73	211	0	170	463
2,500 - 2,999	11,396	8,628	659	239	75	164	222	947	0	462	2,012
3,000 - 3,499	29,410	23,605	1,237	614	168	368	467	1,860	0	1,091	5,340
3,500 - 3,999	25,111	21,193	841	528	98	200	259	1,127	0	865	3,883
4,000 - 4,499	7,934	6,869	229	184	18	52	65	268	0	249	1,038
4,500 and Over	1,484	1,274	46	46	4	10	10	47	0	47	174
Unknown	290	167	29	6	5	5	8	31	0	39	33

[1]Persons of Hispanic Origin may be of any race. See Appendix A, "Hispanic Origin."
NOTE: Uses bridged race, see Technical Appendix

Natality Table D2b. Birth Weight in Grams by Mother's Multiple Race for Residents, 2003

Birth Weight in Grams	Total	Single race White	African Amer.	Native Amer.	Asian	Pacific Islander	More than one race given	Race unknown
State Total	**80,482**	**64,453**	**2,949**	**1,485**	**5,956**	**599**	**2,257**	**2,783**
Under 1,000	399	267	38	13	25	6	6	44
1,000 - 1,499	410	289	24	14	32	2	8	41
1,500 - 1,999	960	695	62	21	64	7	28	83
2,000 - 2,499	3,088	2,233	209	65	293	24	105	159
2,500 - 2,999	11,396	8,515	582	202	1,246	87	357	407
3,000 - 3,499	29,410	23,295	1,060	512	2,519	205	861	958
3,500 - 3,999	25,111	20,948	725	448	1,391	175	642	782
4,000 - 4,499	7,934	6,786	186	164	292	77	203	226
4,500 and Over	1,484	1,256	38	40	49	14	41	46
Unknown	290	169	25	6	45	2	6	37

NOTE: Includes all races reported by mother, see Technical Appendix.

Natality Table D3. Birth Weight in Grams by Mother's Age Group for Residents, 2003

Birth Weight in Grams	Total	Under 15	15-17	18-19	20-24	25-29	30-34	35-39	40-44	45 and Over	Age Unk
State Total	**80,482**	**86**	**1,976**	**4,759**	**19,532**	**21,849**	**19,965**	**9,876**	**2,233**	**154**	**52**
Under 1,000	399	2	13	23	113	99	91	39	19	0	0
1,000 - 1,499	410	1	13	28	91	105	94	64	13	1	0
1,500 - 1,999	960	4	35	64	215	220	219	147	46	10	0
2,000 - 2,499	3,088	0	87	225	750	777	751	388	89	20	1
2,500 - 2,999	11,396	21	375	823	3,082	2,876	2,595	1,248	339	31	6
3,000 - 3,499	29,410	39	823	1,918	7,465	8,048	6,966	3,342	742	37	30
3,500 - 3,999	25,111	16	516	1,286	5,818	7,037	6,458	3,228	704	38	10
4,000 - 4,499	7,934	2	93	333	1,667	2,220	2,244	1,150	211	12	2
4,500 and Over	1,484	0	14	51	264	405	464	224	57	4	1
Unknown	290	1	7	8	67	62	83	46	13	1	2

Natality Table D4. Birth Weight in Grams by Calculated Gestational Age[1] for Residents, 2003

Birth Weight in Grams	Total	Preterm (<37 wks)	Term (37-41 wks)	Postterm (42+ wks)	Unknown
State Total	80,482	7,966	65,996	5,732	788
Under 1,000	399	371	19	0	9
1,000 - 1,499	410	375	18	6	11
1,500 - 1,999	960	752	123	13	72
2,000 - 2,499	3,088	1,548	1,315	73	152
2,500 - 2,999	11,396	2,125	8,563	525	183
3,000 - 3,499	29,410	1,730	25,510	2,038	132
3,500 - 3,999	25,111	793	22,128	2,128	62
4,000 - 4,499	7,934	181	6,976	765	12
4,500 and over	1,484	33	1,267	180	4
Unknown	290	58	77	4	151

[1]New method of calculating gestational age, see Appendix A.

Natality Table D5. Birth Weight in Grams by Plurality for Residents, 2003

Birth Weight in Grams	Total	Single	Twin	Triplet	Quadruplet+	Unknown
State Total	80,482	78,029	2,365	76	0	12
Under 1,000	399	303	82	14	0	0
1,000 - 1,499	410	293	104	13	0	0
1,500 - 1,999	960	659	280	21	0	0
2,000 - 2,499	3,088	2,339	725	24	0	0
2,500 - 2,999	11,396	10,621	772	3	0	0
3,000 - 3,499	29,410	29,084	320	1	0	5
3,500 - 3,999	25,111	25,064	46	0	0	1
4,000 - 4,499	7,934	7,929	3	0	0	2
4,500 and over	1,484	1,483	1	0	0	0
Unknown	290	254	32	0	0	4

Natality Table D6. Mother's Age Group by Plurality for Residents, 2003

Age	Total	Single	Twin	Triplet	Quadruplet+	Unknown
State Total	80,482	78,029	2,365	76	0	12
Under 15	86	84	2	0	0	0
15 - 17	1,976	1,955	21	0	0	0
18 - 19	4,759	4,700	59	0	0	0
20 - 24	19,532	19,062	464	3	0	3
25 - 29	21,849	21,226	604	17	0	2
30 - 34	19,965	19,252	677	32	0	4
35 - 39	9,876	9,459	397	18	0	2
40 - 44	2,233	2,119	107	6	0	1
45 and Over	154	120	34	0	0	0
Unknown	52	52	0	0	0	0

Natality Table D7. Birth Weight in Grams by County of Residence, 2003

County	Total	Under 1000	1000-1499	1500-1999	2000-2499	2500-2999	3000-3499	3500-3999	4000-4499	4500+	Unk
State Total	**80,482**	**399**	**410**	**960**	**3,088**	**11,396**	**29,410**	**25,111**	**7,934**	**1,484**	**290**
Adams	339	2	3	8	11	59	149	84	20	3	0
Asotin	287	0	1	5	11	42	114	84	27	3	0
Benton	2,190	25	13	34	80	327	782	670	215	43	1
Chelan	888	6	3	6	28	142	338	277	75	13	0
Clallam	609	5	2	4	14	69	211	207	85	10	2
Clark	5,332	29	24	64	168	712	1,881	1,799	544	108	3
Columbia	37	0	0	0	2	8	12	8	6	1	0
Cowlitz	1,141	2	8	17	35	153	425	352	119	28	2
Douglas	432	2	0	1	11	70	154	149	37	8	0
Ferry	70	0	0	1	7	9	27	19	7	0	0
Franklin	1,322	5	3	15	40	198	546	384	109	22	0
Garfield	16	0	0	0	2	5	3	5	1	0	0
Grant	1,431	10	4	19	47	220	604	396	107	22	2
Grays Harbor	817	5	4	5	26	130	302	254	70	20	1
Island	947	2	3	15	28	103	327	349	91	25	4
Jefferson	226	3	1	6	6	28	76	74	23	8	1
King	22,431	108	109	254	926	3,194	8,198	6,906	2,170	404	162
Kitsap	3,014	14	14	30	135	406	1,038	940	352	81	4
Kittitas	380	2	3	6	11	54	135	118	45	6	0
Klickitat	232	3	5	0	12	31	96	67	16	2	0
Lewis	839	3	5	11	27	113	294	275	91	20	0
Lincoln	84	0	0	0	2	18	31	21	12	0	0
Mason	569	1	3	8	23	95	218	159	50	12	0
Okanogan	485	0	3	7	13	88	198	138	35	2	1
Pacific	188	1	1	2	8	25	62	59	26	4	0
Pend Oreille	107	1	1	3	2	8	38	42	11	1	0
Pierce	10,085	62	63	140	419	1,391	3,601	3,196	1,008	200	5
San Juan	88	0	0	0	4	9	35	30	7	2	1
Skagit	1,356	1	6	9	54	175	505	438	138	25	5
Skamania	114	0	1	1	3	10	38	44	11	6	0
Snohomish	8,592	38	43	101	302	1,124	3,112	2,650	959	172	91
Spokane	5,455	25	26	81	223	826	2,035	1,675	496	66	2
Stevens	467	1	4	3	15	66	172	143	52	11	0
Thurston	2,619	8	14	29	102	369	901	865	272	57	2
Wahkiakum	29	0	0	0	3	5	12	8	0	1	0
Walla Walla	686	2	2	6	23	121	251	211	62	8	0
Whatcom	2,035	3	11	19	79	239	701	683	254	45	1
Whitman	410	2	4	7	17	55	157	141	27	0	0
Yakima	4,133	28	23	43	169	699	1,631	1,191	304	45	0

Natality Table D8. Calculated Gestational Age[1] by County of Residence, 2003

County	Total	Preterm (<37 wks)	Term (37-41 wks)	Postterm (42+ wks)	Unknown
State Total	**80,482**	**7,966**	**65,996**	**5,732**	**788**
Adams	339	38	279	22	0
Asotin	287	39	212	34	2
Benton	2,190	266	1,781	134	9
Chelan	888	79	764	43	2
Clallam	609	58	488	60	3
Clark	5,332	541	4,367	412	12
Columbia	37	5	26	6	0
Cowlitz	1,141	123	907	110	1
Douglas	432	34	379	19	0
Ferry	70	10	51	9	0
Franklin	1,322	147	1,049	124	2
Garfield	16	5	9	2	0
Grant	1,431	143	1,209	76	3
Grays Harbor	817	87	647	77	6
Island	947	80	780	76	11
Jefferson	226	24	180	19	3
King	22,431	1,992	18,608	1,479	352
Kitsap	3,014	284	2,574	144	12
Kittitas	380	30	320	27	3
Klickitat	232	30	182	20	0
Lewis	839	82	675	77	5
Lincoln	84	9	74	1	0
Mason	569	61	451	53	4
Okanogan	485	64	390	31	0
Pacific	188	20	149	18	1
Pend Oreille	107	9	88	10	0
Pierce	10,085	1,105	8,189	711	80
San Juan	88	7	71	7	3
Skagit	1,356	116	1,090	96	54
Skamania	114	11	88	15	0
Snohomish	8,592	770	7,119	585	118
Spokane	5,455	594	4,454	383	24
Stevens	467	36	387	40	4
Thurston	2,619	231	2,140	216	32
Wahkiakum	29	3	23	2	1
Walla Walla	686	68	553	62	3
Whatcom	2,035	206	1,653	161	15
Whitman	410	45	352	13	0
Yakima	4,133	514	3,238	358	23

[1]New method of calculating gestational age, see Appendix A.

Natality Table D9. Plurality by County of Residence, 2003

County	Total	Single	Twin	Triplet	Quadruplet+	Unknown
State Total	**80,482**	**78,029**	**2,365**	**76**	**0**	**12**
Adams	339	329	10	0	0	0
Asotin	287	275	12	0	0	0
Benton	2,190	2,128	62	0	0	0
Chelan	888	876	12	0	0	0
Clallam	609	597	12	0	0	0
Clark	5,332	5,171	152	8	0	1
Columbia	37	35	2	0	0	0
Cowlitz	1,141	1,120	18	3	0	0
Douglas	432	427	5	0	0	0
Ferry	70	70	0	0	0	0
Franklin	1,322	1,298	24	0	0	0
Garfield	16	16	0	0	0	0
Grant	1,431	1,401	30	0	0	0
Grays Harbor	817	802	14	0	0	1
Island	947	927	16	3	0	1
Jefferson	226	220	6	0	0	0
King	22,431	21,636	771	24	0	0
Kitsap	3,014	2,915	99	0	0	0
Kittitas	380	367	12	0	0	1
Klickitat	232	224	8	0	0	0
Lewis	839	807	32	0	0	0
Lincoln	84	84	0	0	0	0
Mason	569	561	8	0	0	0
Okanogan	485	481	4	0	0	0
Pacific	188	182	6	0	0	0
Pend Oreille	107	105	2	0	0	0
Pierce	10,085	9,785	295	5	0	0
San Juan	88	83	4	0	0	1
Skagit	1,356	1,324	32	0	0	0
Skamania	114	112	2	0	0	0
Snohomish	8,592	8,279	290	21	0	2
Spokane	5,455	5,293	156	3	0	3
Stevens	467	451	14	0	0	2
Thurston	2,619	2,558	61	0	0	0
Wahkiakum	29	27	2	0	0	0
Walla Walla	686	678	8	0	0	0
Whatcom	2,035	1,968	64	3	0	0
Whitman	410	394	16	0	0	0
Yakima	4,133	4,023	104	6	0	0

Mortality

Mortality

A. Demographics

Demographics provide basic data (such as gender and age) about people who have died. Information about patterns of mortality by demographic characteristics is important for understanding the health of the citizens of Washington State. As such, they help health programs assess risks or needs in certain areas. For example, age at death is used to compute life expectancy. Life expectancy combines rates of mortality at different age groups and determines how long a person of a specified age is expected to live.

In addition, demographic death data are used in conjunction with birth and migration data to provide population estimates used in resource allocation and planning as well as denominators of population-based rates.

Mortality Table A1. Age-Adjusted Mortality Rates and Life Expectancy by Sex for Residents, 1994-2003.

	Age-Adjusted Rate[1]						Infant Life Expectancy[2]					
	Washington State			United States[3]			Washington State			United States[3]		
Year	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female
1994	845.3	1,044.6	694.1	920.2	1160.9	745.0	77.4	74.5	80.4	75.7	72.4	79.0
1995	842.0	1,030.4	699.8	918.5	1150.3	748.2	77.6	74.7	80.3	75.8	72.5	78.9
1996	850.0	1,043.3	704.6	902.4	1117.5	742.8	77.5	74.8	80.3	76.1	73.1	79.1
1997	813.7	992.5	681.1	887.3	1090.5	736.3	78.1	75.5	80.6	76.5	73.6	79.4
1998	815.0	990.4	684.7	875.8	1064.6	732.7	78.2	75.6	80.6	76.7	73.8	79.5
1999	818.4	988.7	692.1	881.9	1061.8	743.6	78.2	75.6	80.6	76.7	73.9	79.4
2000	803.6	960.5	683.2	872.4	1042.7	739.8	78.4	76.0	80.7	76.9	74.1	79.5
2001	797.7	943.2	684.7	854.5	1029.1	721.8	78.5	76.2	80.7	77.2	74.4	79.8
2002	790.3	946.3	671.2	846.8	1015.3	716.7	78.6	76.1	80.9	77.3	74.5	79.9
2003	782.4	924	671.4				78.7	76.4	80.9			

[1]Rate per 100,000 age-adjusted to U.S. 2000 population.

[2]Life expectancy is the average number of years an infant is expected to live.

[3]Sources for United States mortality are:

Anderson RN. United States Life Tables, 1998: National Vital Statistics Reports; Vol 48 No. 18. Hyattsville, Maryland: National Center for Health Statistics, 2001

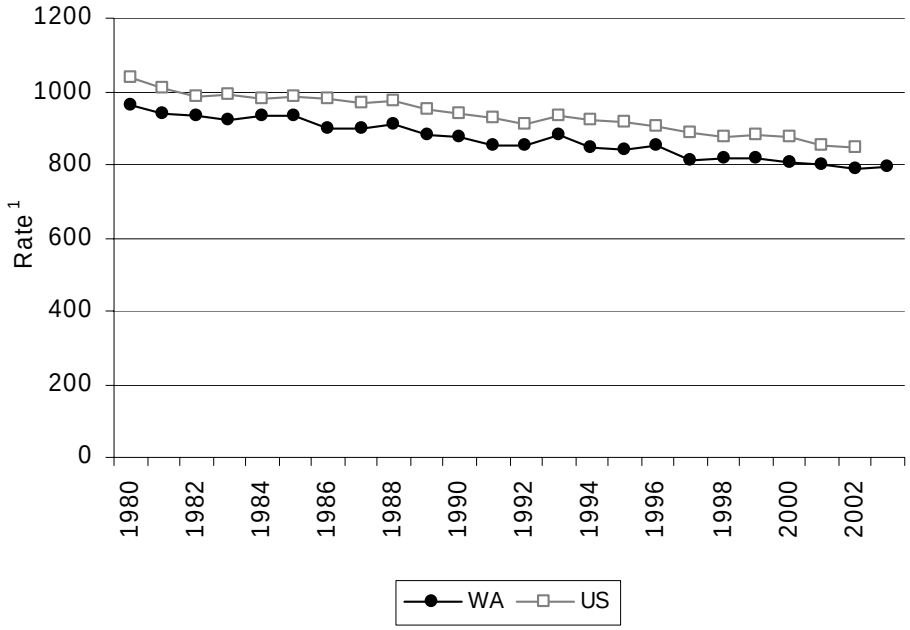
Hoyert DL, Anderson RN. Age-Adjusted Death Rates: Trend Data Based on the Year 2000 Standard Population: National Vital Statistics Reports; Vol 49 No 9. Hyattsville, Maryland: National Center for Health Statistics. 2001.

Minino AM, Smith BL. Deaths: Preliminary Data for 2000. National Vital Statistics Reports; Vol 49 No 12. Hyattsville, Maryland: National Center for Health Statistics. 2001.

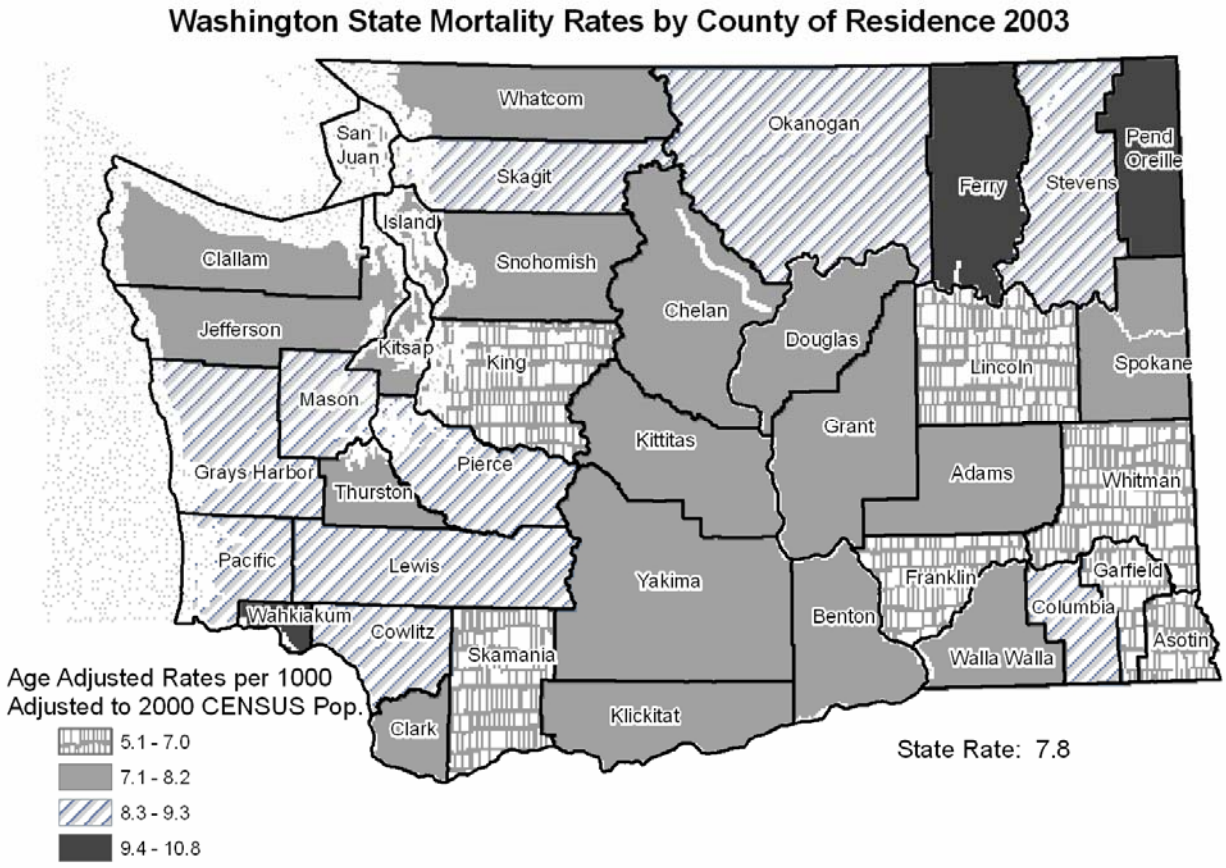
The mortality rate of 782.4 in 2003 is the lowest mortality rate ever reported in Washington State and continues an almost steady decline in mortality over time. Mortality rates for males are much higher than females. This results in life expectancies of 76.4 years for males and 80.9 for females. The differences between male and female life expectancies are decreasing over time, however. Mortality rates in Washington State are considerably lower than the U.S. as a whole.

Mortality Figures 1 & 2

Mortality Rates[1], Washington State Residents Compared to United States 1980-2003



[1] Rate per 100,000 age-adjusted to U.S. 2000 Population



Mortality Table A2. Age by Race/Ethnicity for Residents, 2003

Age Group	Total	White	African American	Native American	Japa-nese	Chi-nese	Filipino	Other Asian	Other	Unk	Hispanic Origin[1]
State Total	**45,807**	**42,545**	**1,204**	**633**	**236**	**182**	**304**	**665**	**1**	**37**	**957**
Under 1	447	357	40	18	0	0	4	22	1	5	79
1-4	79	67	5	3	0	1	0	3	0	0	19
5-14	139	120	10	2	0	0	0	7	0	0	15
15-19	236	203	12	12	0	0	1	8	0	0	33
20-24	328	272	25	15	0	0	3	12	0	1	43
25-34	679	550	50	31	1	3	7	35	0	2	66
35-44	1,552	1,314	87	72	5	4	21	46	0	3	86
45-54	3,281	2,858	179	108	9	16	14	93	0	4	102
55-64	4,795	4,363	191	83	16	12	36	86	0	8	110
65-74	7,342	6,742	204	116	47	36	60	135	0	2	133
75-84	13,264	12,552	240	106	96	52	74	140	0	4	172
85-94	11,522	11,073	143	55	57	49	72	67	0	6	82
95 and over	2,141	2,074	18	12	5	9	12	10	0	1	17
Unknown	2	0	0	0	0	0	0	1	0	1	0

[1] Persons of Hispanic Origin may be of any race. See Appendix A, "Hispanic Origin."

Mortality Table A3. Age by Sex for Residents, 2003

	Total			
Age Group	Number	Percent[1]	Male	Female
State Total	**45,807**	**100.0**	**22,627**	**23,180**
Under 1	447	1.0	248	199
1 - 4	79	0.2	40	39
5 - 14	139	0.3	80	59
15 - 19	236	0.5	165	71
20 - 24	328	0.7	245	83
25 - 34	679	1.5	478	201
35 - 44	1,552	3.4	963	589
45 - 54	3,281	7.2	2,026	1,255
55 - 64	4,795	10.5	2,892	1,903
65 - 74	7,342	16.0	4,146	3,196
75 - 84	13,264	29.0	6,467	6,797
85 - 94	11,522	25.2	4,364	7,158
95 and Over	2,141	4.7	511	1,630
Unknown	2	0.0	2	0

[1] Percents may not add to 100% due to rounding.

Mortality Table A4. Life Expectancy[1] by Age and Sex for Residents, 2003

Age Group	Total	Male	Female
Under 1	78.7	76.4	80.9
1-5	78.1	75.9	80.3
5-10	74.2	71.9	76.4
10-15	69.3	67.0	71.5
15-20	64.3	62.1	66.5
20-25	59.5	57.3	61.6
25-30	54.7	52.6	56.7
30-35	49.9	47.8	51.9
35-40	45.1	43.1	47.0
40-45	40.4	38.4	42.2
45-50	35.8	33.9	37.5
50-55	31.3	29.5	32.9
55-60	26.9	25.2	28.4
60-65	22.7	21.1	24.0
65-70	18.8	17.3	20.0
70-75	15.2	13.9	16.2
75-80	12.0	10.8	12.8
80-85	9.2	8.2	9.8
85 and Over	7.0	6.2	7.4

[1] Persons of Hispanic Origin may be of any race. See Appendix A, "Hispanic Origin."

Mortality Table A5. Marital Status by Sex for Residents, 2003

Marital Status	Total		Male	Female
	Number	Percent[1]		
State Total	**45,807**	**100.0**	**22,627**	**23,180**
Single	4,192	9.2	2,766	1,426
Married	17,928	39.1	11,909	6,019
Divorced	6,647	14.5	3,526	3,121
Widowed	16,873	36.8	4,293	12,580
Unknown	167	0.4	133	34

[1] Percents may not add to 100% due to rounding.

Mortality Table A6. Education by Age for Residents, 2003

Age	Total	No Education	8th Grade or Less	Some High School	High School Grad	Some College	College Grad	Postgrad Education	Unknown
State Total	**45,807**	**870**	**4,955**	**4,504**	**18,503**	**8,959**	**4,338**	**2,922**	**756**
Under 1	447	446	0	0	0	0	0	0	1
1-4	79	79	0	0	0	0	0	0	0
5-14	139	21	102	6	0	1	0	0	9
15-19	236	0	13	121	77	19	0	0	6
20-24	328	6	14	69	143	75	15	2	4
25-34	679	6	30	102	285	143	70	29	14
35-44	1,552	23	62	187	681	348	131	72	48
45-54	3,281	39	87	307	1,315	898	341	210	84
55-64	4,795	41	212	463	1,869	1,203	502	392	113
65-74	7,342	56	633	775	3,051	1,475	687	538	127
75-84	13,264	86	1,434	1,261	5,637	2,474	1,334	860	178
85-94	11,522	58	1,829	1,047	4,727	1,981	1,052	692	136
95 and over	2,141	9	539	166	718	342	206	126	35
Unknown	2	0	0	0	0	0	0	1	1

Mortality Table A7-a. Residence and Occurrence by County and City, 2003

County and City	Residence			Occurrence
	Total	Crude Rate[1]	Age-Adj Rate[2]	Total
State Total	**45807**	**7.5**	**7.8**	**45923**
Adams	113	6.8	7.9	102
Asotin	196	9.5	7	164
Benton	1042	6.9	8	1019
Kennewick	479	8.3	.	562
Richland	301	7.2	.	348
Chelan	595	8.8	7.6	761
Wenatchee	282	9.9	.	540
Clallam	811	12.4	8	707
Port Angeles	248	13.4	.	420
Clark	2492	6.7	8.1	2321
Vancouver	1418	9.4	.	1945
Columbia	51	12.4	9	42
Cowlitz	936	9.9	8.9	1019
Longview	457	12.9	.	858
Douglas	271	8.1	8	170
Ferry	72	9.9	10.8	49
Franklin	260	4.9	6.8	229
Pasco	202	5.4	.	215
Garfield	21	8.7	5.1	17
Grant	579	7.5	8.2	480
Moses Lake	165	10.5	.	257
Grays Harbor	756	11	9.2	596
Aberdeen	174	10.7	.	341
Island	620	8.4	7.9	484
Oak Harbor	157	7.6	.	167
Jefferson	314	11.8	8	231
King	11592	6.5	7	13018
Auburn	428	9.8	.	554
Bellevue	697	6	.	863
Bothell part	149	9.2	.	136
Burien	189	6	.	406
Des Moines	330	11.3	.	311
Federal Way	508	6.1	.	571
Issaquah	166	11	.	211
Kenmore	107	5.6	.	45
Kent	519	6.2	.	296
Kirkland	399	8.7	.	868
Maple Valley	55	3.5	.	38
Mercer Island	166	7.6	.	101
Redmond	267	5.7	.	286
Renton	427	7.8	.	696
Sammamish	97	2.7	.	50
SeaTac	118	4.7	.	64
Seattle	4592	8	.	6491
Shoreline	440	8.3	.	441
Tukwila	61	3.5	.	100
Kitsap	1781	7.5	8.2	1701

Mortality Table A7-a. Residence and Occurrence by County and City, 2003

County and City	Residence			Occurrence
	Total	Crude Rate[1]	Age-Adj Rate[2]	Total
Bainbridge Island	153	7.2	.	133
Bremerton	418	10.8	.	896
Kittitas	249	7.1	7.1	220
Ellensburg	116	7.3	.	176
Klickitat	167	8.7	7.5	132
Lewis	809	11.5	9.1	756
Centralia	281	18.6	.	513
Lincoln	94	9.3	6.3	62
Mason	528	10.5	8.9	397
Okanogan	371	9.4	8.5	321
Pacific	288	13.8	9	199
Pend Oreille	132	11.2	10.4	109
Pierce	5510	7.5	8.7	5564
Lakewood	482	8.2	.	483
Puyallup	376	10.6	.	934
Tacoma	1964	10	.	3127
University Place	216	7	.	147
San Juan	119	8	5.7	76
Skagit	1093	10.2	8.6	1089
Anacortes	194	12.8	.	229
Mount Vernon	259	9.6	.	460
Skamania	58	5.9	6.4	33
Snohomish	4257	6.7	8.2	3755
Edmonds	392	9.9	.	559
Everett	957	10	.	1413
Lynnwood	377	10.9	.	316
Marysville	333	11.7	.	292
Monroe	98	6.5	.	158
Mountlake Terrace	136	6.7	.	46
Mukilteo	71	3.7	.	30
Spokane	3658	8.5	8	4148
Spokane (city)	2394	12.1	.	3615
Stevens	401	9.9	9.3	307
Thurston	1691	7.9	8.1	1749
Lacey	350	10.9	.	278
Olympia	522	12.2	.	1281
Wahkiakum	56	14.7	10.8	31
Walla Walla	535	9.6	7.6	613
Walla Walla (city)	322	10.8	.	488
Whatcom	1307	7.5	7.6	1315
Bellingham	641	9.2	.	988
Whitman	214	5.2	6.6	179
Pullman	56	2.2	.	67
Yakima	1768	7.8	8.1	1758
Yakima (city)	836	10.6	.	1224

[1] Rate per 1,000 population.

[2] Rate per 1,000 age-adjusted to U.S. 2000 population. Does not include deaths where age is unknown.

[*] Age by city population not available.

Note: Occurrence represents all deaths which occur in Washington State regardless of the decedent's residence.

Residence represents all deaths to residents of Washington State regardless of where the death occurred.

Mortality Table A7-b. Residence and Occurrence by County Listed by Age-Adjusted Rates for 2001-2003.

County	2001 - 2003 Total	2001 - 2003 Crude Rate[1]	2001 - 2003 Age-Adj[2]		2003 Total	2003 Crude Rate[1]	2003 Age-Adj[2]
San Juan	367	8.4	**5.9**		119	8	5.7
Garfield	75	10.4	**6.3**		21	8.7	5.1
Whitman	656	5.4	**6.9**		214	5.2	6.6
Lincoln	310	10.2	**6.9**		94	9.3	6.3
Skamania	189	6.4	**7.1**		58	5.9	6.4
King	34,694	6.5	**7.1**		11,592	6.5	7.0
Jefferson	845	10.6	**7.2**		314	11.8	8.0
Asotin	604	9.7	**7.4**		196	9.5	7.0
Chelan	1,732	8.5	**7.5**		595	8.8	7.6
Kittitas	767	7.4	**7.5**		249	7.1	7.1
Douglas	742	7.5	**7.5**		271	8.1	8.0
Island	1,751	8.0	**7.6**		620	8.4	7.9
Whatcom	3,840	7.4	**7.6**		1,307	7.5	7.6
Walla Walla	1,595	9.6	**7.6**		535	9.6	7.6
Klickitat	498	8.6	**7.7**		167	8.7	7.5
State Total	(135,614)	(8)	**(8)**		(45,807)	(8)	(8)
Clallam	2,414	12.4	**8.0**		811	12.4	8.0
Franklin	872	5.6	**8.0**		260	4.9	6.8
Thurston	**4,956**	**7.8**	**8.1**		**1,691**	**7.9**	**8.1**
Snohomish	12,216	6.5	**8.1**	**Mean**	4,257	6.7	8.2
Skagit	3,020	9.6	**8.1**	**and**	1,093	10.2	8.6
Benton	3,059	6.9	**8.1**	**Median**	1,042	6.9	8.0
Clark	7,274	6.7	**8.2**		2,492	6.7	8.1
Grant	1,691	7.4	**8.2**		579	7.5	8.2
Spokane	11,050	8.7	**8.2**		3,658	8.5	8.0
Yakima	5,294	7.8	**8.2**		1,768	7.8	8.1
Adams	350	7.0	**8.3**		113	6.8	7.9
Kitsap	5,383	7.6	**8.4**		1,781	7.5	8.2
Columbia	145	11.8	**8.5**		51	12.4	9.0
Ferry	170	7.8	**8.5**		72	9.9	10.8
Mason	1,518	10.1	**8.6**		528	10.5	8.9
Okanogan	1,146	9.6	**8.8**		371	9.4	8.5
Pierce	16,326	7.5	**8.8**		5,510	7.5	8.7
Lewis	2,310	11.0	**8.9**		809	11.5	9.1
Stevens	1,142	9.4	**9.0**		401	9.9	9.3
Cowlitz	2,785	9.8	**9.0**		936	9.9	8.9
Pacific	905	14.4	**9.3**		288	13.8	9.0
Grays Harbor	2,390	11.6	**9.8**		756	11.0	9.2
Pend Oreille	367	10.4	**9.9**		132	11.2	10.4
Wahkiakum	166	14.6	**11.1**		56	14.7	10.8

[1] Rate per 1,000 population.

[2] Rate per 1,000 age-adjusted to U.S. 2000 population. Does not include deaths where age is unknown.

Note: Mean 2001-2003 age-adjusted rate is 8.1; Median 2001-2003 age-adjusted rate is 8.2. State Total is not included in calculation of mean and median.

Mortality Table A8. Sex and Race/Ethnicity by County/City of Residence, 2003

County & City	Total	Male	Female	White	African Amer.	Native Amer.	Japa-nese	Chi-nese	Fili-pino	Other Asian	Other	Unk	Hispanic[1]
State Total	**45,807**	**22,627**	**23,180**	**42,545**	**1,204**	**633**	**236**	**182**	**304**	**665**	**1**	**37**	**957**
Adams	113	56	57	113	0	0	0	0	0	0	0	0	27
Asotin	196	88	108	195	0	1	0	0	0	0	0	0	0
Benton	1,042	507	535	1,023	8	5	1	1	0	4	0	0	38
Kennewick	479	224	255	468	4	3	0	1	0	3	0	0	12
Richland	301	135	166	293	4	2	1	0	0	1	0	0	4
Chelan	595	290	305	591	0	3	0	0	0	1	0	0	17
Wenatchee	282	140	142	282	0	0	0	0	0	0	0	0	10
Clallam	811	418	393	787	3	19	0	1	0	1	0	0	3
Port Angeles	248	116	132	242	1	4	0	1	0	0	0	0	0
Clark	2,492	1,255	1,237	2,410	25	11	6	4	9	20	0	7	32
Vancouver	1,418	697	721	1,359	24	7	5	2	6	11	0	4	17
Columbia	51	21	30	51	0	0	0	0	0	0	0	0	0
Cowlitz	936	472	464	919	6	6	0	0	0	4	0	1	4
Longview	457	204	253	447	5	2	0	0	0	2	0	1	1
Douglas	271	126	145	269	0	0	1	0	1	0	0	0	8
Ferry	72	49	23	58	0	14	0	0	0	0	0	0	2
Franklin	260	136	124	239	16	0	1	0	0	4	0	0	36
Pasco	202	98	104	183	15	0	1	0	0	3	0	0	29
Garfield	21	12	9	21	0	0	0	0	0	0	0	0	0
Grant	579	324	255	560	11	5	2	0	1	0	0	0	53
Moses Lake	165	93	72	158	6	1	0	0	0	0	0	0	18
Grays Harbor	756	400	356	718	2	32	0	0	2	2	0	0	3
Aberdeen	174	87	87	169	0	4	0	0	0	1	0	0	0
Island	620	293	327	600	2	3	3	1	10	1	0	0	5
Oak Harbor	157	76	81	148	2	0	1	0	6	0	0	0	2
Jefferson	314	178	136	301	3	9	1	0	0	0	0	0	4
King	11,592	5,607	5,985	10,026	650	113	136	150	167	340	1	9	204
Auburn	428	206	222	402	9	3	0	0	3	11	0	0	13
Bellevue	697	346	351	644	10	0	12	13	3	15	0	0	13
Bothell part	149	64	85	140	4	0	2	1	1	1	0	0	2
Burien	189	87	102	164	10	6	2	1	4	2	0	0	6
Des Moines	330	150	180	300	10	2	4	1	3	9	0	1	4
Federal Way	508	235	273	433	31	2	3	3	4	32	0	0	12
Issaquah	166	82	84	159	1	2	0	2	1	1	0	0	1
Kenmore	107	59	48	100	1	0	0	4	0	2	0	0	0
Kent	519	248	271	449	38	2	2	1	3	24	0	0	13
Kirkland	399	165	234	372	7	1	1	3	4	11	0	0	4
Maple Valley	55	33	22	53	1	0	0	0	0	1	0	0	2
Mercer Island	166	74	92	152	6	0	1	3	0	4	0	0	1
Redmond	267	113	154	250	4	1	3	1	1	7	0	0	1
Renton	427	213	214	348	36	4	5	7	6	21	0	0	7
Sammamish	97	44	53	88	1	0	1	3	1	3	0	0	0
SeaTac	118	68	50	109	6	1	1	0	0	1	0	0	3
Seattle	4,592	2,254	2,338	3,629	439	64	89	100	116	147	1	7	97
Shoreline	440	196	244	418	4	0	1	1	4	12	0	0	5
Tukwila	61	32	29	46	9	0	0	0	2	4	0	0	2
Kitsap	1,781	864	917	1,686	23	19	9	2	18	22	0	2	20

Mortality Table A8. (Continued) Sex and Race/Ethnicity by County/City of Residence, 2003

County & City	Total	Male	Female	White	African Amer.	Native Amer.	Japa-nese	Chi-nese	Fili-pino	Other Asian	Other	Unk	Hispanic[1]
Bainbridge Island	153	70	83	147	0	2	1	0	2	1	0	0	0
Bremerton	418	189	229	386	16	2	1	1	8	3	0	1	5
Kittitas	249	132	117	247	0	1	0	0	0	0	0	1	1
Ellensburg	116	56	60	116	0	0	0	0	0	0	0	0	0
Klickitat	167	85	82	160	2	2	2	0	0	1	0	0	0
Lewis	809	392	417	798	0	9	1	0	0	1	0	0	2
Centralia	281	105	176	278	0	2	0	0	0	1	0	0	1
Lincoln	94	45	49	92	0	0	0	0	1	0	0	1	2
Mason	528	259	269	514	0	14	0	0	0	0	0	0	10
Okanogan	371	189	182	327	0	43	0	0	0	1	0	0	10
Pacific	288	150	138	281	0	3	1	0	1	2	0	0	1
Pend Oreille	132	83	49	130	0	2	0	0	0	0	0	0	0
Pierce	5,510	2,750	2,760	4,924	312	57	40	9	39	123	0	6	96
Lakewood	482	256	226	384	49	3	5	1	14	25	0	1	13
Puyallup	376	166	210	363	3	3	3	0	3	0	0	1	4
Tacoma	1,964	941	1,023	1,647	188	31	10	6	10	71	0	1	43
University Place	216	91	125	195	13	1	1	0	2	3	0	1	1
San Juan	119	51	68	117	1	0	0	0	0	1	0	0	1
Skagit	1,093	532	561	1,070	1	16	1	1	1	2	0	1	24
Anacortes	194	94	100	190	0	4	0	0	0	0	0	0	1
Mount Vernon	259	123	136	255	0	1	0	1	0	1	0	1	10
Skamania	58	31	27	58	0	0	0	0	0	0	0	0	2
Snohomish	4,257	2,087	2,170	4,046	44	45	8	8	26	78	0	2	55
Edmonds	392	190	202	380	3	2	0	0	1	6	0	0	4
Everett	957	439	518	897	20	4	2	3	10	20	0	1	15
Lynnwood	377	190	187	342	6	1	1	4	8	15	0	0	8
Marysville	333	153	180	317	3	6	0	1	2	3	0	1	3
Monroe	98	52	46	93	2	2	0	0	0	1	0	0	4
Mountlake Terrace	136	70	66	124	2	2	0	0	1	7	0	0	0
Mukilteo	71	34	37	68	1	0	0	0	0	2	0	0	0
Spokane	3,658	1,758	1,900	3,543	44	36	11	3	6	12	0	3	33
Spokane (city)	2,394	1,087	1,307	2,308	36	23	10	3	3	10	0	1	21
Stevens	401	219	182	383	2	14	1	0	1	0	0	0	5
Thurston	1,691	821	870	1,622	10	18	2	1	8	26	0	4	26
Lacey	350	176	174	328	5	4	0	0	3	10	0	0	7
Olympia	522	228	294	503	1	2	1	0	4	10	0	1	6
Wahkiakum	56	35	21	55	0	1	0	0	0	0	0	0	1
Walla Walla	535	272	263	529	3	3	0	0	0	0	0	0	14
Walla Walla (city)	322	162	160	319	1	2	0	0	0	0	0	0	12
Whatcom	1,307	661	646	1,243	11	34	3	1	3	12	0	0	23
Bellingham	641	289	352	617	8	6	1	0	1	8	0	0	6
Whitman	214	116	98	210	1	0	1	0	0	2	0	0	2
Pullman	56	30	26	54	0	0	0	0	0	2	0	0	1
Yakima	1,768	863	905	1,629	24	95	5	0	10	5	0	0	193
Yakima (city)	836	386	450	808	19	7	0	0	0	2	0	0	46

[1] Persons of Hispanic Origin may be of any race. See Appendix A, "Hispanic Origin."

Mortality Table A9. Age Group by County of Residence, 2003

County	Total	< 1	1-4	5-14	15-19	20-24	25-34	35-44	45-54	55-64	65-74	75-84	85 and Over	Age Unk
State Total	**45,807**	**447**	**79**	**139**	**236**	**328**	**679**	**1,552**	**3,281**	**4,795**	**7,342**	**13,264**	**13,663**	**2**
Adams	113	1	2	2	1	1	5	7	5	9	15	32	33	0
Asotin	196	1	0	0	0	1	1	4	13	20	30	61	65	0
Benton	1,042	13	5	7	13	6	13	30	89	109	183	294	280	0
Chelan	595	6	2	1	2	4	10	21	40	54	84	169	202	0
Clallam	811	2	1	3	2	1	12	17	42	77	129	240	285	0
Clark	2,492	26	7	8	14	18	27	94	176	288	397	736	701	0
Columbia	51	1	0	1	0	0	0	1	3	6	5	15	19	0
Cowlitz	936	9	0	5	4	2	9	28	74	90	177	254	284	0
Douglas	271	1	0	1	1	0	5	9	14	26	45	87	82	0
Ferry	72	0	0	0	3	3	3	5	7	5	17	13	16	0
Franklin	260	6	0	1	1	3	5	11	24	33	51	67	58	0
Garfield	21	0	0	0	0	0	0	0	1	2	3	5	10	0
Grant	579	6	2	5	2	8	14	22	48	62	94	162	154	0
Grays Harbor	756	6	1	1	1	8	11	21	46	89	163	212	197	0
Island	620	4	0	2	2	5	7	14	36	63	97	194	196	0
Jefferson	314	2	0	0	2	3	4	5	18	33	54	105	88	0
King	11,592	114	15	27	54	75	199	395	895	1,163	1,652	3,348	3,654	1
Kitsap	1,781	19	1	1	14	10	33	46	116	198	275	536	532	0
Kittitas	249	4	0	0	1	2	1	5	9	27	49	67	84	0
Klickitat	167	3	0	0	1	0	0	2	13	26	26	40	56	0
Lewis	809	3	1	1	1	2	8	18	41	89	135	246	264	0
Lincoln	94	1	1	0	0	0	0	3	5	10	16	29	29	0
Mason	528	1	1	2	0	6	7	30	31	60	112	154	124	0
Okanogan	371	4	0	0	4	4	4	10	36	39	55	107	108	0
Pacific	288	1	0	0	0	2	3	11	18	36	43	94	80	0
Pend Oreille	132	1	0	0	0	1	1	3	6	24	29	35	32	0
Pierce	5,510	64	6	19	38	52	85	227	428	630	965	1,602	1,394	0
San Juan	119	0	0	1	1	0	2	3	8	13	15	30	46	0
Skagit	1,093	7	1	4	6	9	15	31	52	97	168	346	357	0
Skamania	58	0	0	0	2	0	2	4	6	9	7	17	11	0
Snohomish	4,257	40	10	20	25	35	75	150	326	485	682	1,213	1,196	0
Spokane	3,658	33	6	6	14	23	43	119	252	359	613	1,047	1,143	0
Stevens	401	2	0	3	5	2	6	19	31	49	66	99	119	0
Thurston	1,691	14	5	7	9	10	19	58	129	169	274	485	511	1
Wahkiakum	56	0	0	0	1	2	0	0	6	6	12	17	12	0
Walla Walla	535	3	0	1	0	1	3	12	35	45	78	162	195	0
Whatcom	1,307	6	4	2	3	14	23	53	92	112	189	383	426	0
Whitman	214	4	0	0	0	2	2	5	8	19	43	62	69	0
Yakima	1,768	39	8	8	9	13	22	59	102	164	294	499	551	0

Mortality Table A10. Month of Death by County of Residence, 2003

County	Total	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
State Total	**45,807**	**4,055**	**3,533**	**4,001**	**3,740**	**3,862**	**3,632**	**3,628**	**3,529**	**3,426**	**3,847**	**4,013**	**4,541**
Adams	113	6	7	8	7	6	15	5	6	4	21	11	17
Asotin	196	19	16	13	18	24	11	14	14	11	18	19	19
Benton	1,042	82	73	99	82	81	77	86	94	76	97	94	101
Chelan	595	53	37	54	49	47	50	32	53	46	56	53	65
Clallam	811	72	53	81	65	79	64	58	55	64	70	66	84
Clark	2,492	252	191	220	170	199	192	196	200	206	201	210	255
Columbia	51	2	4	3	4	6	3	10	4	2	5	3	5
Cowlitz	936	79	90	65	92	72	71	67	76	67	86	89	82
Douglas	271	28	16	30	23	21	24	14	23	20	22	19	31
Ferry	72	5	5	8	3	3	3	16	8	7	8	4	2
Franklin	260	20	21	22	25	21	26	21	10	17	21	28	28
Garfield	21	3	2	1	2	0	3	1	0	0	2	5	2
Grant	579	61	41	52	47	60	43	52	37	33	54	51	48
Grays Harbor	756	64	55	56	65	67	61	65	65	49	61	63	85
Island	620	47	45	66	53	54	41	47	39	49	49	57	73
Jefferson	314	36	21	28	27	21	20	23	22	25	32	30	29
King	11,592	1,009	889	1,035	975	966	918	943	875	881	979	994	1,128
Kitsap	1,781	165	125	164	133	145	155	141	130	137	159	163	164
Kittitas	249	27	15	22	12	24	20	13	20	14	29	25	28
Klickitat	167	11	16	18	15	12	10	16	17	12	12	15	13
Lewis	809	64	62	57	55	70	70	67	73	50	68	77	96
Lincoln	94	8	5	7	11	6	6	6	6	8	5	12	14
Mason	528	39	40	52	41	54	46	43	34	38	48	45	48
Okanogan	371	29	33	34	41	37	25	31	34	25	22	28	32
Pacific	288	33	17	21	24	26	22	29	30	21	26	15	24
Pend Oreille	132	8	9	16	9	9	12	12	9	13	13	9	13
Pierce	5,510	524	444	479	430	494	446	411	416	429	447	450	540
San Juan	119	12	12	10	10	8	7	11	11	10	7	11	10
Skagit	1,093	88	91	109	93	99	92	91	74	79	102	70	105
Skamania	58	2	4	4	10	5	6	4	1	10	5	3	4
Snohomish	4,257	367	338	379	366	349	333	314	331	314	342	376	448
Spokane	3,658	304	292	305	290	317	302	294	315	253	289	327	370
Stevens	401	29	36	36	32	32	38	29	33	27	26	36	47
Thurston	1,691	154	115	155	118	118	131	146	125	157	134	177	161
Wahkiakum	56	6	2	4	7	3	6	3	5	5	9	4	2
Walla Walla	535	50	55	42	41	42	35	45	33	39	39	50	64
Whatcom	1,307	125	100	98	129	125	98	113	112	80	97	123	107
Whitman	214	18	13	16	26	25	18	11	17	13	15	25	17
Yakima	1,768	154	143	132	140	135	132	148	122	135	171	176	180

Mortality Table A11. Place Where Death Occurred by County of Occurrence, 2003

County	Total	General Hospital	Nursing Home	Home	Federal Facility	Psychiatric Hospital	State Facility	Dead on Arrival	Other and Unk
State Total	**45,923**	**15,821**	**12,892**	**13,832**	**481**	**43**	**2**	**44**	**2,808**
Adams	102	24	44	24	0	0	0	0	10
Asotin	164	56	57	47	0	0	0	0	4
Benton	1,019	507	149	320	0	0	0	0	43
Chelan	761	366	181	159	0	0	0	0	55
Clallam	707	187	221	270	0	0	0	0	29
Clark	2,321	568	470	1,014	3	0	0	1	265
Columbia	42	11	13	16	0	0	0	0	2
Cowlitz	1,019	586	198	186	0	0	0	0	49
Douglas	170	0	74	82	0	0	0	0	14
Ferry	49	15	0	23	0	0	0	0	11
Franklin	229	71	46	94	0	0	0	0	18
Garfield	17	8	7	2	0	0	0	0	0
Grant	480	176	114	150	0	0	0	0	40
Grays Harbor	596	218	131	206	0	0	0	2	39
Island	484	72	153	229	0	0	0	0	30
Jefferson	231	37	51	121	0	0	0	0	22
King	13,018	5,094	3,604	3,258	227	2	0	6	827
Kitsap	1,701	509	609	487	17	0	0	3	76
Kittitas	220	31	92	75	0	0	0	0	22
Klickitat	132	32	0	83	0	0	0	0	17
Lewis	756	238	209	260	0	0	0	1	48
Lincoln	62	27	14	15	0	0	0	0	6
Mason	397	105	106	156	0	0	0	0	30
Okanogan	321	81	111	101	0	0	0	1	27
Pacific	199	53	50	79	0	0	0	0	17
Pend Oreille	109	30	31	36	0	0	0	0	12
Pierce	5,564	1,813	1,639	1,657	166	19	0	3	267
San Juan	76	0	22	40	0	0	0	0	14
Skagit	1,089	322	388	313	0	0	0	0	66
Skamania	33	0	1	22	0	0	0	0	10
Snohomish	3,755	999	1,146	1,336	0	0	1	4	269
Spokane	4,148	1,666	1,171	1,115	29	22	0	0	145
Stevens	307	76	75	121	0	0	0	1	34
Thurston	1,749	573	494	564	0	0	0	21	97
Wahkiakum	31	0	9	17	0	0	0	0	5
Walla Walla	613	238	179	137	39	0	0	0	20
Whatcom	1,315	338	447	440	0	0	0	0	90
Whitman	179	47	70	59	0	0	0	0	3
Yakima	1,758	647	516	518	0	0	1	1	75

B. Autopsy and Disposition

Death certificates collect information on whether or not an autopsy was performed and also collect information on the type of disposition. The use of an autopsy provides information about the quality of cause-of-death information on death certificates.

Mortality Table B1. Percent Autopsy and Cremation for Residents, 1994-2003

Year	Percent Autopsy	Percent Cremation
1994	11.4	49.4
1995	11.1	50.5
1996	10.7	52.0
1997	10.1	53.8
1998	10.0	55.0
1999	10.1	56.1
2000	9.9	57.6
2001	9.7	59.5
2002	9.8	60.6
2003	9.3	61.2

The percent of deaths with an autopsy has steadily decreased since 1990. Rates of autopsy vary by age and by manner of death. Table B2 provides more detailed information on autopsies for 2003. The percent of total deaths with cremation as a disposition type has increased substantially since 1990.

Mortality Table B2. Autopsy by Age and Manner of Death for Residents, 2003

	Total Deaths			Natural or Disease			External Causes (e.g., Accident, Suicide, Homicide, etc.)		
Age Group	**Total**	**Autopsy**	**Percent[1]**	**Total**	**Autopsy**	**Percent[1]**	**Total**	**Autopsy**	**Percent[1]**
State Total	**45,807**	**4,278**	**9.3**	**42,447**	**2,127**	**5.0**	**3,360**	**2,151**	**64.0**
Under 1	447	166	37.1	427	148	34.7	20	18	90.0
1-4	79	45	57.0	46	17	37.0	33	28	84.8
5-14	139	65	46.8	73	18	24.7	66	47	71.2
15-19	236	166	70.3	56	23	41.1	180	143	79.4
20-24	328	216	65.9	98	37	37.8	230	179	77.8
25-34	679	431	63.5	265	96	36.2	414	335	80.9
35-44	1,552	738	47.6	970	277	28.6	582	461	79.2
45-54	3,281	937	28.6	2,693	475	17.6	588	462	78.6
55-64	4,795	628	13.1	4,458	412	9.2	337	216	64.1
65-74	7,342	362	4.9	7,136	263	3.7	206	99	48.1
75-84	13,264	344	2.6	12,920	231	1.8	344	113	32.8
85 and over	13,663	178	1.3	13,305	130	1.0	358	48	13.4
Unknown	0	0	0.0	0	0	0.0	0	0	0.0

[1] Percents may not add to 100% due to rounding.

Note: Source for manner of death is the International Classification of Diseases (Tenth Revision):

Natural or Disease (A00-R99); External Causes (V00-Y99).

Mortality Table B3. Type of Disposition by County of Residence, 2003

County	Total	Burial	Cremation	Removal	Medical Research	Body Not Recovered	Unknown
State Total	**45,807**	**15,975**	**28,016**	**1,179**	**196**	**2**	**439**
Adams	113	74	36	3	0	0	0
Asotin	196	59	93	42	1	0	1
Benton	1,042	447	552	34	2	0	7
Chelan	595	229	358	8	0	0	0
Clallam	811	169	624	10	4	0	4
Clark	2,492	859	1,345	98	13	0	177
Columbia	51	22	28	0	0	0	1
Cowlitz	936	340	550	7	1	0	38
Douglas	271	111	158	2	0	0	0
Ferry	72	34	37	1	0	0	0
Franklin	260	117	133	8	0	0	2
Garfield	21	15	5	1	0	0	0
Grant	579	254	313	9	0	0	3
Grays Harbor	756	238	505	6	4	0	3
Island	620	156	441	18	4	0	1
Jefferson	314	51	251	5	6	0	1
King	11,592	3,736	7,345	381	92	1	37
Kitsap	1,781	520	1,205	47	5	0	4
Kittitas	249	80	164	5	0	0	0
Klickitat	167	51	76	8	2	0	30
Lewis	809	309	478	13	4	0	5
Lincoln	94	44	48	2	0	0	0
Mason	528	135	386	5	2	0	0
Okanogan	371	155	206	8	1	0	1
Pacific	288	78	170	0	1	0	39
Pend Oreille	132	40	88	3	0	0	1
Pierce	5,510	2,071	3,274	136	9	0	20
San Juan	119	21	95	3	0	0	0
Skagit	1,093	382	693	14	2	0	2
Skamania	58	11	30	1	0	0	16
Snohomish	4,257	1,288	2,828	106	21	0	14
Spokane	3,658	1,317	2,234	92	5	1	9
Stevens	401	140	244	15	1	0	1
Thurston	1,691	528	1,114	33	11	0	5
Wahkiakum	56	19	36	1	0	0	0
Walla Walla	535	239	291	1	0	0	4
Whatcom	1,307	501	784	15	3	0	4
Whitman	214	104	102	7	0	0	1
Yakima	1,768	1,031	696	31	2	0	8

C. Leading Causes of Death, Overview, and Selected Causes of Death

Leading causes of death are used to determine the relative ranking of specific causes of death. The rankings depend on how causes of death are categorized into groups. Leading causes of death for this report follow the guidelines established by the National Center for Health Statistics. See the first part of Appendix A for more information about how changes in the classification of diseases (from ICD-9 to ICD-10) affects trends.

Mortality Table C1. Age-Adjusted Rates[1] for 10 Leading Causes of Death for Residents, 1994-2003

Year	Heart Disease	Cancer	Strokes	COPD	Uninten- tional or Accident	Alzheimer's	Diabetes	Flu & Pneumonia	Inten- tional or Suicide	Liver Disease
1994	242.1	205.2	69.1	48.2	33.0	11.3	21.4	33.1	14.5	9.6
1995	239.4	205.0	70.5	45.2	34.2	10.8	22.2	33.4	14.6	8.8
1996	241.4	202.9	73.0	45.8	34.8	11.5	23.9	34.3	14.2	9.2
1997	221.2	196.6	67.6	46.5	34.0	11.6	21.8	33.0	13.0	9.6
1998	222.0	196.0	66.3	46.5	33.9	11.9	23.2	33.5	12.3	8.5
1998 Comparability Modified										
	218.9	197.3	70.2	48.7	34.9	18.6	23.4	23.4	12.2	8.8
1999	216.4	198.9	70.2	51.4	33.5	30.0	24.5	23.8	14.2	9.5
2000	209.3	195.6	68.6	49.3	35.5	33.4	24.5	18.6	12.4	8.7
2001	202.1	194.0	67.8	48.2	35.1	37.0	25.3	17.2	11.9	9.8
2002	194.8	190.6	66.1	48.5	36.5	39.2	26.4	15.8	13.4	8.9
2003	190.4	190.1	61.5	46.4	36.4	40.5	26.0	18.5	13.0	9.2

[1]Rate per 100,000 age-adjusted to U.S. 2000 population.

Note:

Causes of death were coded with International Classification of Diseases, Ninth Revision (ICD-9) in 1990-1998 and with the Tenth Revision (ICD-10) during 1999-2000. Rates during 1998 have been multiplied by a comparability ratio (CR).

ICD codes and comparability ratios are:

Heart Disease: ICD-9: 390-398,402,404,410-429; ICD-10: I00-I09,I11,I13,I20-I51; CR=0.9858

Cancer: ICD-9: 140-208; ICD-10: C00-C97; CR=1.0068

Strokes or Cerebrovascular Disease: ICD-9: 430-434,436-438; ICD-10: I60-I69; CR=1.0588

COPD or Chronic Lower Respiratory Disease: ICD-9: 490-494,496; ICD-10: J40-J47; CR=1.0478

Unintentional Injury or Accident: ICD-9: E800-E869,E880-E929; ICD-10: V01-X59,Y85-Y86; CR=1.0305

Alzheimer's Disease: ICD-9: 331.0; ICD-10: G30; CR=1.5536

Diabetes Mellitus: ICD-9: 250; ICD-10: E10-E14; CR=1.0082

Influenza and Pneumonia: ICD-9: 480-487; ICD-10: J10-J18; CR=0.6982

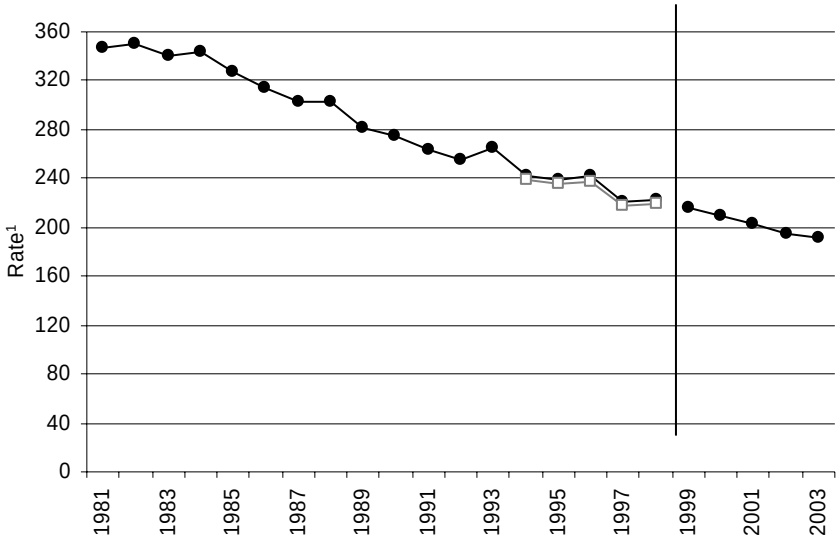
Intentional or Suicide: ICD-9: E950-E959; ICD-10: X60-X84,Y87.0; CR=0.9962

Chronic Liver Disease: ICD-9: 571; ICD-10: K70,K73-K74; CR=1.0367

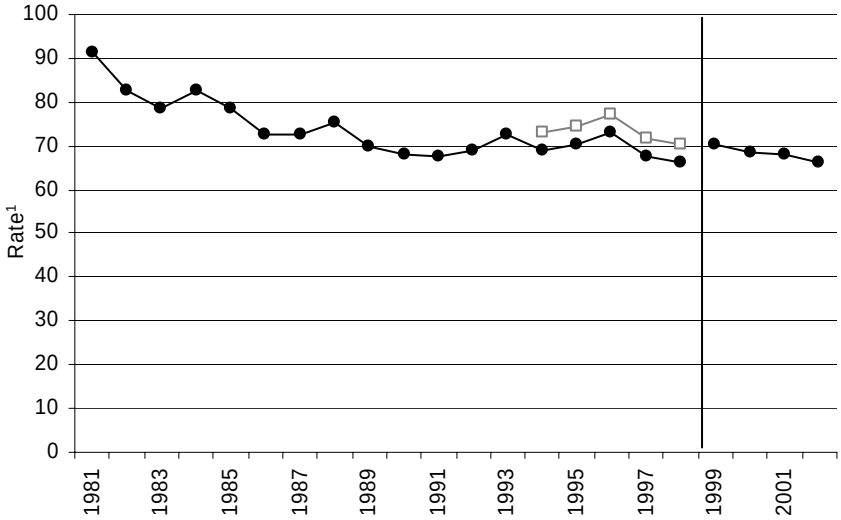
The ten leading causes of death accounted for 80.7% of all deaths to residents of Washington State in 2003. Heart disease and cancer alone account for 48.5% of all deaths. Alzheimer's disease and heart disease have the largest changes over time with heart disease decreasing and Alzheimer's disease increasing. There have been smaller increases in mortality due to diabetes during the last decade.

Mortality Figure 3. Mortality Rates for Residents, 1980-2003

a. Heart Disease



b. Strokes



[1] Rate per 100,000 age-adjusted to U.S. 2000 population.

● Unmodified Rates

□ Comparability-Modified Rates

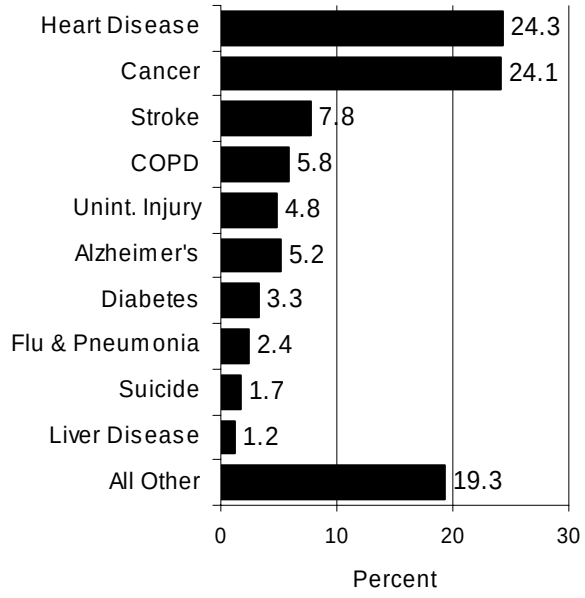
Note:
Causes of death were coded with ICD-9 in 1990-1998 and with ICD-10 in 1999-2001. Rates for years 1994-1998 have been multiplied by a comparability ration (CR). ICD codes and comparability rations are:
Heart Disease: ICD-9: 390-398,402,404,410-429; ICD-10: I00-I09,I11,I13,I20-I51; CR=0.9858
Strokes: ICD-9: 430-434,436-438; ICD-10: I60-I69; CR=1.0588

Mortality Table C2. Leading Causes of Death for Residents, 2003

Rank	Causes of Death and ICD-10 Codes	Number	Percent[1]	Cumulative Percent
	All Causes	**45,807**	**100.0**	
1	Diseases of the Heart (I00-I09,I11,I13,I20-I51)	11,154	24.3	24.3
2	Malignant Neoplasms (C00-C97)	11,043	24.1	48.5
3	Cerebrovascular Diseases (I60-I69)	3,588	7.8	56.3
4	Chronic Lower Respiratory Diseases (J40-J47)	2,648	5.8	62.1
5	Alzheimer's Disease (G30)	2,380	5.2	67.3
6	Unintentional Injury (Accident) (V01-X59,Y85-Y86)	2,210	4.8	72.1
7	Diabetes Mellitus (E10-E14)	1,509	3.3	75.4
8	Influenza and Pneumonia (J10-J18)	1,082	2.4	77.7
9	Intentional Self-Harm (Suicide) (X60-X84,Y87.0)	801	1.7	79.5
10	Chronic Liver Disease & Cirrhosis (K70,K73-K74)	565	1.2	80.7
	All Other Causes	8,827	19.3	100.0

[1] Percents may not add to 100% due to rounding.

Mortality Figure 4. Leading Causes of Death for Residents, 2003



Mortality Table C3. Leading Causes by Age Group and Sex for Residents, 2003

Age Group with Causes and ICD-10 Codes	Total			Male			Female		
	No.	Rate[1]	Pct[2]	No.	Rate[1]	Pct[2]	No.	Rate[1]	Pct[2]
All Ages									
All Causes	45,807	751.1	100.0	22,627	745.0	100.0	23,180	757.2	100.0
Diseases of the Heart (I00-I09,I11,I13,I20-I51)	11,154	182.9	24.3	5,780	190.3	25.5	5,374	175.6	23.2
Malignant Neoplasms (C00-C97)	11,043	181.1	24.1	5,641	185.7	24.9	5,402	176.5	23.3
Cerebrovascular Diseases (I60-I69)	3,588	58.8	7.8	1,407	46.3	6.2	2,181	71.2	9.4
Chronic Lower Respiratory Diseases (J40-J47)	2,648	43.4	5.8	1,243	40.9	5.5	1,405	45.9	6.1
Alzheimer's Disease (G30)	2,380	39.0	5.2	730	24.0	3.2	1,650	53.9	7.1
Unintentional Injury (Accident) (V01-X59,Y85-Y86)	2,210	36.2	4.8	1,410	46.4	6.2	800	26.1	3.5
Diabetes Mellitus (E10-E14)	1,509	24.7	3.3	709	23.3	3.1	800	26.1	3.5
Influenza and Pneumonia (J10-J18)	1,082	17.7	2.4	451	14.8	2.0	631	20.6	2.7
Intentional Self-Harm (Suicide)(X60-X84,Y87.0)	801	13.1	1.7	640	21.1	2.8	161	5.3	0.7
Chronic Liver Disease & Cirrhosis (K70,K73-K74)	565	9.3	1.2	362	11.9	1.6	203	6.6	0.9
All Other Causes	8,827	144.7	19.3	4,254	140.1	18.8	4,573	149.4	19.7
Under 1									
All Causes	447	555.4	100.0	248	604.6	100.0	199	504.3	100.0
Congenital Malformations (Q00-Q99)	116	144.1	26.0	70	170.6	28.2	46	116.6	23.1
Short Gestation & Low Birth Weight (P07)	61	75.8	13.6	35	85.3	14.1	26	65.9	13.1
Sudden Infant Death Syndrome (R95)	48	59.6	10.7	26	63.4	10.5	22	55.7	11.1
Maternal Complications of Pregnancy (P01)	26	32.3	5.8	16	39.0	6.5	10	25.3	5.0
Complic. of Placenta, Cord & Membranes (P02)	23	28.6	5.1	10	24.4	4.0	13	32.9	6.5
All Other Causes	173	215.0	38.7	91	221.8	36.7	82	207.8	41.2
1-4									
All Causes	79	24.8	100.0	40	24.5	100.0	39	25.1	100.0
Unintentional Injury (Accident) (V01-X59,Y85-Y86)	23	7.2	29.1	16	9.8	40.0	7	4.5	17.9
Malignant Neoplasms (C00-C97)	10	3.1	12.7	3	.	7.5	7	4.5	17.9
Congenital Anomalies (Q00-Q99)	9	2.8	11.4	2	.	5.0	7	4.5	17.9
Assault (Homicide) (X85-Y09,Y87.1)	8	2.5	10.1	6	3.7	15.0	2	.	5.1
Conditions Originating in Perinatal Period (P00-P96)	3	.	3.8	2	.	5.0	1	.	2.6
All Other Causes	26	8.2	32.9	11	6.7	27.5	15	9.7	38.5
5-14									
All Causes	139	16.2	100.0	80	18.2	100.0	59	14.1	100.0
Unintentional Injury (Accident) (V01-X59,Y85-Y86)	52	6.1	37.4	35	8.0	43.8	17	4.1	28.8
Malignant Neoplasms (C00-C97)	24	2.8	17.3	7	1.6	8.8	17	4.1	28.8
Congenital Anomalies (Q00-Q99)	8	0.9	5.8	4	.	5.0	4	.	6.8
Diseases of the Heart (I00-I09,I11,I13,I20-I51)	8	0.9	5.8	7	1.6	8.8	1	.	1.7
Intentional Self-Harm (Suicide)(X60-X84,Y87.0)	6	0.7	4.3	4	.	5.0	2	.	3.4
All Other Causes	41	4.8	29.5	23	5.2	28.8	18	4.3	30.5
15 - 19									
All Causes	236	53.7	100.0	165	73.2	100.0	71	33.2	100.0
Unintentional Injury (Accident) (V01-X59,Y85-Y86)	111	25.3	47.0	78	34.6	47.3	33	15.4	46.5
Intentional Self-Harm (Suicide)(X60-X84,Y87.0)	42	9.6	17.8	32	14.2	19.4	10	4.7	14.1
Assault (Homicide) (X85-Y09,Y87.1)	21	4.8	8.9	15	6.7	9.1	6	2.8	8.5
Malignant Neoplasms (C00-C97)	16	3.6	6.8	9	4.0	5.5	7	3.3	9.9
Congenital Anomalies (Q00-Q99)	6	1.4	2.5	4	.	2.4	2	.	2.8
All Other Causes	40	9.1	16.9	27	12.0	16.4	13	6.1	18.3
20 - 24									
All Causes	328	76.5	100.0	245	111.0	100.0	83	39.9	100.0
Unintentional Injury (Accident) (V01-X59,Y85-Y86)	135	31.5	41.2	103	46.7	42.0	32	15.4	38.6
Intentional Self-Harm (Suicide)(X60-X84,Y87.0)	58	13.5	17.7	50	22.7	20.4	8	3.8	9.6
Assault (Homicide) (X85-Y09,Y87.1)	28	6.5	8.5	25	11.3	10.2	3	.	3.6
Malignant Neoplasms (C00-C97)	25	5.8	7.6	13	5.9	5.3	12	5.8	14.5
Diseases of the Heart (I00-I09,I11,I13,I20-I51)	13	3.0	4.0	11	5.0	4.5	2	.	2.4
All Other Causes	69	16.1	21.0	43	19.5	17.6	26	12.5	31.3
25 - 34									
All Causes	679	81.3	100.0	478	111.7	100.0	201	49.4	100.0
Unintentional Injury (Accident) (V01-X59,Y85-Y86)	233	27.9	34.3	176	41.1	36.8	57	14.0	28.4
Intentional Self-Harm (Suicide)(X60-X84,Y87.0)	123	14.7	18.1	98	22.9	20.5	25	6.1	12.4
Malignant Neoplasms (C00-C97)	78	9.3	11.5	37	8.6	7.7	41	10.1	20.4
Diseases of the Heart (I00-I09,I11,I13,I20-I51)	47	5.6	6.9	36	8.4	7.5	11	2.7	5.5
Assault (Homicide) (X85-Y09,Y87.1)	42	5.0	6.2	36	8.4	7.5	6	1.5	3.0
All Other Causes	156	18.7	23.0	95	22.2	19.9	61	15.0	30.3

Mortality Table C3. Leading Causes by Age Group and Sex for Residents, 2003

Age Group with Causes and ICD-10 Codes	Total			Male			Female		
	No.	Rate[1]	Pct[2]	No.	Rate[1]	Pct[2]	No.	Rate[1]	Pct[2]
35 - 44									
All Causes	1,552	163.8	100.0	963	201.6	100.0	589	125.4	100.0
Unintentional Injury (Accident) (V01-X59,Y85-Y86)	341	36.0	22.0	226	47.3	23.5	115	24.5	19.5
Malignant Neoplasms (C00-C97)	261	27.6	16.8	98	20.5	10.2	163	34.7	27.7
Diseases of the Heart (I00-I09,I11,I13,I20-I51)	218	23.0	14.0	155	32.4	16.1	63	13.4	10.7
Intentional Self-Harm (Suicide)(X60-X84,Y87.0)	171	18.1	11.0	138	28.9	14.3	33	7.0	5.6
HIV (B20-B24)	67	7.1	4.3	60	12.6	6.2	7	1.5	1.2
All Other Causes	494	52.1	31.8	286	59.9	29.7	208	44.3	35.3
45 - 54									
All Causes	3,281	359.2	100.0	2,026	446.0	100.0	1,255	273.3	100.0
Malignant Neoplasms (C00-C97)	1,009	110.5	30.8	519	114.3	25.6	490	106.7	39.0
Diseases of the Heart (I00-I09,I11,I13,I20-I51)	582	63.7	17.7	449	98.8	22.2	133	29.0	10.6
Unintentional Injury (Accident) (V01-X59,Y85-Y86)	353	38.6	10.8	247	54.4	12.2	106	23.1	8.4
Intentional Self-Harm (Suicide)(X60-X84,Y87.0)	162	17.7	4.9	118	26.0	5.8	44	9.6	3.5
Chronic Liver Disease & Cirrhosis (K70,K73-K74)	161	17.6	4.9	105	23.1	5.2	56	12.2	4.5
All Other Causes	1,014	111.0	30.9	588	129.4	29.0	426	92.8	33.9
55 - 64									
All Causes	4,795	810.5	100.0	2,892	987.1	100.0	1,903	637.2	100.0
Malignant Neoplasms (C00-C97)	1,798	303.9	37.5	956	326.3	33.1	842	281.9	44.2
Diseases of the Heart (I00-I09,I11,I13,I20-I51)	1,072	181.2	22.4	785	267.9	27.1	287	96.1	15.1
Chronic Lower Respiratory Diseases (J40-J47)	243	41.1	5.1	123	42.0	4.3	120	40.2	6.3
Diabetes Mellitus (E10-E14)	225	38.0	4.7	131	44.7	4.5	94	31.5	4.9
Unintentional Injury (Accident) (V01-X59,Y85-Y86)	207	35.0	4.3	150	51.2	5.2	57	19.1	3.0
All Other Causes	1,250	211.3	26.1	747	255.0	25.8	503	168.4	26.4
65 - 74									
All Causes	7,342	2,125.2	100.0	4,146	2,543.9	100.0	3,196	1,751.3	100.0
Malignant Neoplasms (C00-C97)	2,721	787.6	37.1	1,494	916.7	36.0	1,227	672.3	38.4
Diseases of the Heart (I00-I09,I11,I13,I20-I51)	1,617	468.1	22.0	1,060	650.4	25.6	557	305.2	17.4
Chronic Lower Respiratory Diseases (J40-J47)	607	175.7	8.3	300	184.1	7.2	307	168.2	9.6
Cerebrovascular Diseases (I60-I69)	420	121.6	5.7	226	138.7	5.5	194	106.3	6.1
Diabetes Mellitus (E10-E14)	366	105.9	5.0	183	112.3	4.4	183	100.3	5.7
All Other Causes	1,611	466.3	21.9	883	541.8	21.3	728	398.9	22.8
75-84									
All Causes	13,264	5,392.9	100.0	6,467	6,418.7	100.0	6,797	4,681.2	100.0
Malignant Neoplasms (C00-C97)	3,378	1,373.4	25.5	1,709	1,696.2	26.4	1,669	1,149.5	24.6
Diseases of the Heart (I00-I09,I11,I13,I20-I51)	3,286	1,336.0	24.8	1,746	1,733.0	27.0	1,540	1,060.6	22.7
Cerebrovascular Diseases (I60-I69)	1,178	479.0	8.9	505	501.2	7.8	673	463.5	9.9
Chronic Lower Respiratory Diseases (J40-J47)	1,043	424.1	7.9	480	476.4	7.4	563	387.7	8.3
Alzheimer's Disease (G30)	736	299.2	5.5	280	277.9	4.3	456	314.1	6.7
All Other Causes	3,643	1,481.2	27.5	1,747	1,733.9	27.0	1,896	1,305.8	27.9
85 and Over									
All Causes	13,663	14,381.0	100.0	4,875	16,052.0	100.0	8,788	13,597.0	100.0
Diseases of the Heart (I00-I09,I11,I13,I20-I51)	4,296	4,521.9	31.4	1,524	5,018.1	31.3	2,772	4,288.8	31.5
Malignant Neoplasms (C00-C97)	1,721	1,811.5	12.6	794	2,614.4	16.3	927	1,434.2	10.5
Cerebrovascular Diseases (I60-I69)	1,605	1,689.4	11.7	475	1,564.0	9.7	1,130	1,748.3	12.9
Alzheimer's Disease (G30)	1,508	1,587.3	11.0	387	1,274.3	7.9	1,121	1,734.4	12.8
Chronic Lower Respiratory Diseases (J40-J47)	646	680.0	4.7	278	915.4	5.7	368	569.4	4.2
All Other Causes	3,887	4,091.4	28.4	1,417	4,665.8	29.1	2,470	3,821.5	28.1

[1] Rate per 100,000 population in each age-sex group.

[2] Percent of total deaths in each age-sex group. Percents may not add to 100% due to rounding.

[*] Rate not calculated because number of deaths was less than 5.

Mortality Table C4. Crude Rates for Selected Causes by Sex for Residents, 2003

Cause with ICD-10 Code	Total		Male		Female	
	Number	Crude Rate[2]	Number	Crude Rate[2]	Number	Crude Rate[2]
All Causes[1]	(45,807)	(751.1)	(22,627)	(745.0)	(23,180)	(757.2)
Certain Infectious & Parasitic Disease (A00-B99)	(848)	(13.9)	(476)	(15.7)	(372)	(12.2)
Tuberculosis (A16-A19)	9	0.1	5	0.2	4	*
Septicemia (A40-A41)	340	5.6	141	4.6	199	6.5
Viral Hepatitis (B15-B19)	153	2.5	96	3.2	57	1.9
HIV (B20-B24)	146	2.4	133	4.4	13	0.4
Other (A00-A15,A20-A39,A42-B14,B25-B99)	200	3.3	101	3.3	99	3.2
Neoplasms (C00-D48)	(11,280)	(185.0)	(5,754)	(189.5)	(5,526)	(180.5)
Malignant Neoplasms (C00-C97)	11,043	181.1	5,641	185.7	5,402	176.5
In Situ & Benign Neoplasms (D00-D48)	237	3.9	113	3.7	124	4.1
Diseases of Blood & Blood-Forming Organs (D50-D89)	(146)	(2.4)	(59)	(1.9)	(87)	(2.8)
Anemias (D50-D64)	65	1.1	23	0.8	42	1.4
Other (D65-D89)	81	1.3	36	1.2	45	1.5
Endocrine, Nutritional & Metabolic Diseases (E00-E90)	(1,977)	(32.4)	(920)	(30.3)	(1,057)	(34.5)
Diabetes Mellitus (E10-E14)	1,509	24.7	709	23.3	800	26.1
Nutritional Diseases (E40-E64)	57	0.9	24	0.8	33	1.1
Other (E00-E09,E15-E39,E65-E90)	411	6.7	187	6.2	224	7.3
Mental & Behavioral Disorders (F01-F99)	(578)	(9.5)	(269)	(8.9)	(309)	(10.1)
Diseases of the Nervous System (G00-G98)	(3,477)	(57.0)	(1,281)	(42.2)	(2,196)	(71.7)
Meningitis (G00-G03)	23	0.4	11	0.4	12	0.4
Amyotrophic Lateral Sclerosis (G12.2)	177	2.9	83	2.7	94	3.1
Parkinson's Disease (G20-G21)	482	7.9	262	8.6	220	7.2
Alzheimer's Disease (G30)	2,380	39.0	730	24.0	1,650	53.9
Multiple Sclerosis (G35)	117	1.9	46	1.5	71	2.3
Other (G04-G12.1,G12.3-G19,G22-G29,G31-G34,G36-G98)	298	4.9	149	4.9	149	4.9
Diseases of the Eye & Ear (H00-H93)	(0)	(*)	(0)	(*)	(0)	(*)
Diseases of the Circulatory System (I00-I99)	(16,049)	(263.2)	(7,773)	(255.9)	(8,276)	(270.4)
Major Cardiovascular Diseases (I00-I78)	(15,960)	(261.7)	(7,739)	(254.8)	(8,221)	(268.6)
Diseases of the Heart (I00-I09,I11,I13,I20-I51)	(11,154)	(182.9)	(5,780)	(190.3)	(5,374)	(175.6)
Acute & Chronic Rheumatic Disease (I00-I09)	96	1.6	31	1.0	65	2.1
Hypertensive Heart Disease (I11)	615	10.1	250	8.2	365	11.9
Hypertensive Heart & Renal Disease (I13)	61	1.0	20	0.7	41	1.3
Ischemic Heart Diseases (I20-I25)	(8,240)	(135.1)	(4,530)	(149.2)	(3,710)	(121.2)
Acute Myocardial Infarction (I21-I22)	2,658	43.6	1,452	47.8	1,206	39.4
Other Acute Ischemic Heart Disease (I24)	11	0.2	3	*	8	0.3
Other Chronic Ischemic Heart Disease (I20,I25)	(5,571)	(91.4)	(3,075)	(101.2)	(2,496)	(81.5)
Atherosclerotic Cardiovascular Disease (I25.0)	1,885	30.9	1,008	33.2	877	28.6
All Other Chronic Disease (I20,I25.1-I25.9)	3,686	60.4	2,067	68.1	1,619	52.9
Other Heart Diseases (I26-I51)	(2,142)	(35.1)	(949)	(31.2)	(1,193)	(39.0)
Acute & Subacute Endocarditis (I33)	15	0.2	9	0.3	6	0.2
Disease Pericardium & Acute Myocarditis (I30-I31,I40)	12	0.2	9	0.3	3	*
Heart Failure (I50)	369	6.1	148	4.9	221	7.2
All Other Heart disease (I26-I28,I34-I38,I42-I49,I51)	1,746	28.6	783	25.8	963	31.5
Hypertension & Hypertensive Renal Disease (I10,I12)	355	5.8	124	4.1	231	7.5
Cerebrovascular Diseases (I60-I69)	3,588	58.8	1,407	46.3	2,181	71.2
Atherosclerosis (I70)	343	5.6	132	4.3	211	6.9
Other Diseases of Circulatory System (I71-I78)	(520)	(8.5)	(296)	(9.7)	(224)	(7.3)
Aortic Aneurysm & Dissection (I71)	317	5.2	202	6.7	115	3.8
Other Disease of Arteries (I72-I78)	203	3.3	94	3.1	109	3.6
Other (I80-I99)	89	1.5	34	1.1	55	1.8

Mortality Table C4. Crude Rates for Selected Causes by Sex for Residents, 2003

Cause with ICD-10 Code	Total		Male		Female	
	Number	Crude Rate[2]	Number	Crude Rate[2]	Number	Crude Rate[2]
Diseases of the Respiratory System (J00-J98)	(4,636)	(76.0)	(2,192)	(72.2)	(2,444)	(79.8)
Influenza and Pneumonia (J10-J18)	(1,082)	(17.7)	(451)	(14.8)	(631)	(20.6)
Influenza (J10-J11)	66	1.1	29	1.0	37	1.2
Pneumonia (J12-J18)	1,016	16.7	422	13.9	594	19.4
Other Acute Lower Respiratory Infections (J20-J22)	4	*	1	*	3	*
Chronic Lower Respiratory Disease (J40-J47)	(2,648)	(43.4)	(1,243)	(40.9)	(1,405)	(45.9)
Bronchitis, Chronic and Unspecified (J40-J42)	11	0.2	7	0.2	4	*
Emphysema (J43)	263	4.3	130	4.3	133	4.3
Asthma (J45-J46)	84	1.4	30	1.0	54	1.8
Other Chronic Lower Respiratory Disease (J44,J47)	2,290	37.6	1,076	35.4	1,214	39.7
Pneumoconioses & Chemical Effects (J60-J66,J68)	29	0.5	29	1.0	0	*
Pneumonitis Due to Solids & Liquids (J69)	414	6.8	226	7.4	188	6.1
Other (J00-J06,J30-J39,J67,J70-J98)	459	7.5	242	8.0	217	7.1
Diseases of the Digestive System (K00-K92)	(1,704)	(27.9)	(863)	(28.4)	(841)	(27.5)
Peptic Ulcer (K25-K28)	108	1.8	54	1.8	54	1.8
Diseases of Appendix (K35-K38)	13	0.2	8	0.3	5	0.2
Hernia (K40-K46)	35	0.6	17	0.6	18	0.6
Chronic Liver Disease & Cirrhosis (K70,K73-K74)	(565)	(9.3)	(362)	(11.9)	(203)	(6.6)
Alcoholic Liver Disease (K70)	439	7.2	298	9.8	141	4.6
Other (K73-K74)	126	2.1	64	2.1	62	2.0
Cholelithiasis & Other Gallbladder Disease (K80-K82)	54	0.9	25	0.8	29	0.9
Other (K00-K24,K29-K34,K39,K47-K69,K71-K72,K75-K79,K83-K92)	929	15.2	397	13.1	532	17.4
Diseases of Skin & Subcutaneous Tissue (L00-L98)	(65)	(1.1)	(23)	(0.8)	(42)	(1.4)
Diseases Musculoskeletal & Connective Tissue (M00-M99)	(344)	(5.6)	(86)	(2.8)	(258)	(8.4)
Diseases of the Genitourinary System (N00-N98)	(662)	(10.9)	(284)	(9.4)	(378)	(12.3)
Nephritis (N00-N07,N17-N19,N25-N27)	(305)	(5.0)	(157)	(5.2)	(148)	(4.8)
Acute Nephrotic Syndrome (N00-N01,N04)	2	*	1	*	1	*
Chronic Nephritis & Unsp. Nephritis(N02-N03,N05-N07,N26)	17	0.3	12	0.4	5	0.2
Renal Failure (N17-N19)	286	4.7	144	4.7	142	4.6
Other Disorders of Kidney (N25,N27)	0	*	0	*	0	*
Infections of Kidney (N10-N12,N13.6,N15.1)	26	0.4	11	0.4	15	0.5
Hyperplasia of Prostate (N40)	n/a	n/a	9	0.3	n/a	n/a
Other(N13.0-N13.5,N13.7-N15.0,N15.8-N16,N20-N23,N28-N39,N41-N99)	322	5.3	107	3.5	215	7.0
Pregnancy, Childbirth & Puerperium (O00-O99)	n/a	n/a	n/a	n/a	(2)	(*)
Conditions Originating in Perinatal Period (P00-P96)	(205)	(3.4)	(110)	(3.6)	(95)	(3.1)
Congenital Anomalies (Q00-Q99)	(243)	(4.0)	(136)	(4.5)	(107)	(3.5)
Symptoms & Signs Not Elsewhere Classified (R00-R99)	(231)	(3.8)	(107)	(3.5)	(124)	(4.1)
Sudden Infant Death Syndrome (R95)	48	0.8	26	0.9	22	0.7
Other (R00-R94,R96-R99)	183	3.0	81	2.7	102	3.3
External Causes of Mortality (V01-Y89)	(3,360)	(55.1)	(2,294)	(75.5)	(1,066)	(34.8)
Unintentional Injury or Accident (V01-X59,Y85-Y86)	(2,210)	(36.2)	(1,410)	(46.4)	(800)	(26.1)
Transport Accidents (V01-V99,Y85)	794	13.0	561	18.5	233	7.6
Nontransport Accidents (W00-X59,Y86)	1,416	23.2	849	28.0	567	18.5
Intentional Self-Harm (Suicide) (X60-X84,Y87.0)	801	13.1	640	21.1	161	5.3
Assault (Homicide) (X85-Y09,Y87.1)	212	3.5	160	5.3	52	1.7
Legal Intervention (Y35,Y89.0)	6	0.1	6	0.2	0	*
Events of Undetermined Intent (Y10-Y34,Y87.2,Y89.9)	108	1.8	69	2.3	39	1.3
Operations of War & Sequelae (Y36,Y89.1)	0	*	0	*	0	*
Complications of Medical & Surgical Care (Y40-Y84,Y88)	23	0.4	9	0.3	14	0.5

[1] Group totals are shown in parentheses.

[2] Rates per 100,000 population.

[*] Rate not calculated because number of deaths was less than 5.

Note: Rates based on fewer than 20 deaths are likely to be unstable and imprecise.

Mortality Table C5. Age-Adjusted Rates for Selected Causes by Sex for Residents, 2003

Cause with ICD-10 Code	Total		Male		Female	
	Number	Age-Adj Rate[2]	Number	Age-Adj Rate[2]	Number	Age-Adj Rate[2]
All Causes[1]	(45,807)	(782.4)	(22,627)	(924.0)	(23,180)	(671.4)
Certain Infectious & Parasitic Disease (A00-B99)	(848)	(14.1)	(476)	(17.3)	(372)	(11.2)
Tuberculosis (A16-A19)	9	0.2	5	0.2	4	*
Septicemia (A40-A41)	340	5.8	141	5.9	199	5.8
Viral Hepatitis (B15-B19)	153	2.4	96	3.0	57	1.7
HIV (B20-B24)	146	2.4	133	4.3	13	0.4
Other (A00-A15,A20-A39,A42-B14,B25-B99)	200	3.4	101	3.9	99	3.0
Neoplasms (C00-D48)	(11,280)	(194.2)	(5,754)	(231.4)	(5,526)	(169.2)
Malignant Neoplasms (C00-C97)	11,043	190.1	5,641	226.6	5,402	165.6
In Situ & Benign Neoplasms (D00-D48)	237	4.1	113	4.8	124	3.5
Diseases of Blood & Blood-Forming Organs (D50-D89)	(146)	(2.5)	(59)	(2.4)	(87)	(2.5)
Anemias (D50-D64)	65	1.1	23	1.0	42	1.2
Other (D65-D89)	81	1.4	36	1.4	45	1.4
Endocrine, Nutritional & Metabolic Diseases (E00-E90)	(1,977)	(34.0)	(920)	(36.7)	(1,057)	(31.8)
Diabetes Mellitus (E10-E14)	1,509	26.0	709	28.3	800	24.2
Nutritional Diseases (E40-E64)	57	1.0	24	1.1	33	0.9
Other (E00-E09,E15-E39,E65-E90)	411	6.9	187	7.3	224	6.6
Mental & Behavioral Disorders (F01-F99)	(578)	(9.7)	(269)	(10.9)	(309)	(8.5)
Diseases of the Nervous System (G00-G98)	(3,477)	(59.5)	(1,281)	(57.6)	(2,196)	(59.9)
Meningitis (G00-G03)	23	0.4	11	0.4	12	0.4
Amyotrophic Lateral Sclerosis (G12.2)	177	3.1	83	3.3	94	3.0
Parkinson's Disease (G20-G21)	482	8.5	262	11.9	220	6.3
Alzheimer's Disease (G30)	2,380	40.5	730	34.7	1,650	43.5
Multiple Sclerosis (G35)	117	1.9	46	1.6	71	2.2
Other (G04-G12.1,G12.3-G19,G22-G29,G31-G34,G36-G98)	298	5.1	149	5.7	149	4.5
Diseases of the Eye & Ear (H00-H93)	(0)	(*)	(0)	(*)	(0)	(*)
Diseases of the Circulatory System (I00-I99)	(16,049)	(274.4)	(7,773)	(329.8)	(8,276)	(230.0)
Major Cardiovascular Diseases (I00-I78)	(15,960)	(272.9)	(7,739)	(328.5)	(8,221)	(228.3)
Diseases of the Heart (I00-I09,I11,I13,I20-I51)	(11,154)	(190.4)	(5,780)	(242.4)	(5,374)	(149.4)
Acute & Chronic Rheumatic Disease (I00-I09)	96	1.7	31	1.3	65	1.9
Hypertensive Heart Disease (I11)	615	10.3	250	10.0	365	9.9
Hypertensive Heart & Renal Disease (I13)	61	1.1	20	0.9	41	1.2
Ischemic Heart Diseases (I20-I25)	(8,240)	(141.0)	(4,530)	(190.4)	(3,710)	(103.3)
Acute Myocardial Infarction (I21-I22)	2,658	45.5	1,452	60.4	1,206	33.9
Other Acute Ischemic Heart Disease (I24)	11	0.2	3	*	8	0.2
Other Chronic Ischemic Heart Disease (I20,I25)	(5,571)	(95.3)	(3,075)	(129.8)	(2,496)	(69.1)
Atherosclerotic Cardiovascular Disease (I25.0)	1,885	31.9	1,008	40.3	877	24.4
All Other Chronic Disease (I20,I25.1-I25.9)	3,686	63.4	2,067	89.5	1,619	44.7
Other Heart Diseases (I26-I51)	(2,142)	(36.4)	(949)	(39.8)	(1,193)	(33.2)
Acute & Subacute Endocarditis (I33)	15	0.2	9	0.3	6	0.2
Disease Pericardium & Acute Myocarditis (I30-I31,I40)	12	0.2	9	0.3	3	*
Heart Failure (I50)	369	6.3	148	6.7	221	5.9
All Other Heart disease (I26-I28,I34-I38,I42-I49,I51)	1,746	29.7	783	32.5	963	27.0
Hypertension & Hypertensive Renal Disease (I10,I12)	355	6.1	124	5.5	231	6.3
Cerebrovascular Diseases (I60-I69)	3,588	61.5	1,407	62.0	2,181	60.5
Atherosclerosis (I70)	343	5.8	132	6.1	211	5.6
Other Diseases of Circulatory System (I71-I78)	(520)	(9.0)	(296)	(12.5)	(224)	(6.5)
Aortic Aneurysm & Dissection (I71)	317	5.5	202	8.5	115	3.4
Other Disease of Arteries (I72-I78)	203	3.5	94	4.1	109	3.0
Other (I80-I99)	89	1.5	34	1.3	55	1.7

Mortality Table C5. Age-Adjusted Rates for Selected Causes by Sex for Residents, 2003

Cause with ICD-10 Code	Total		Male		Female	
	Number	Age-Adj Rate[2]	Number	Age-Adj Rate[2]	Number	Age-Adj Rate[2]
Diseases of the Respiratory System (J00-J98)	(4,636)	(80.4)	(2,192)	(95.5)	(2,444)	(71.1)
Influenza and Pneumonia (J10-J18)	(1,082)	(18.5)	(451)	(20.0)	(631)	(17.1)
Influenza (J10-J11)	66	1.1	29	1.3	37	1.0
Pneumonia (J12-J18)	1,016	17.3	422	18.7	594	16.1
Other Acute Lower Respiratory Infections (J20-J22)	4	*	1	*	3	*
Chronic Lower Respiratory Disease (J40-J47)	(2,648)	(46.4)	(1,243)	(53.3)	(1,405)	(42.2)
Bronchitis, Chronic and Unspecified (J40-J42)	11	0.2	7	0.3	4	*
Emphysema (J43)	263	4.7	130	5.4	133	4.1
Asthma (J45-J46)	84	1.4	30	1.2	54	1.6
Other Chronic Lower Respiratory Disease (J44,J47)	2,290	40.1	1,076	46.3	1,214	36.4
Pneumoconioses & Chemical Effects (J60-J66,J68)	29	0.5	29	1.3	0	*
Pneumonitis Due to Solids & Liquids (J69)	414	7.1	226	10.5	188	5.2
Other (J00-J06,J30-J39,J67,J70-J98)	459	7.9	242	10.4	217	6.4
Diseases of the Digestive System (K00-K92)	(1,704)	(28.8)	(863)	(33.7)	(841)	(24.8)
Peptic Ulcer (K25-K28)	108	1.8	54	2.3	54	1.5
Diseases of Appendix (K35-K38)	13	0.2	8	0.3	5	0.1
Hernia (K40-K46)	35	0.6	17	0.7	18	0.5
Chronic Liver Disease & Cirrhosis (K70,K73-K74)	(565)	(9.2)	(362)	(12.4)	(203)	(6.3)
Alcoholic Liver Disease (K70)	439	7.0	298	9.9	141	4.4
Other (K73-K74)	126	2.2	64	2.5	62	1.9
Cholelithiasis & Other Gallbladder Disease (K80-K82)	54	1.0	25	1.1	29	0.8
Other (K00-K24,K29-K34,K39,K47-K69,K71-K72,K75-K79,K83-K92)	929	16.0	397	16.9	532	15.4
Diseases of Skin & Subcutaneous Tissue (L00-L98)	(65)	(1.1)	(23)	(1.0)	(42)	(1.2)
Diseases Musculoskeletal & Connective Tissue (M00-M99)	(344)	(5.8)	(86)	(3.7)	(258)	(7.5)
Diseases of the Genitourinary System (N00-N98)	(662)	(11.4)	(284)	(12.6)	(378)	(10.7)
Nephritis (N00-N07,N17-N19,N25-N27)	(305)	(5.2)	(157)	(6.8)	(148)	(4.3)
Acute Nephrotic Syndrome (N00-N01,N04)	2	*	1	*	1	*
Chronic Nephritis & Unsp. Nephritis(N02-N03,N05-N07,N26)	17	0.3	12	0.5	5	0.2
Renal Failure (N17-N19)	286	4.9	144	6.3	142	4.2
Other Disorders of Kidney (N25,N27)	0	*	0	*	0	*
Infections of Kidney (N10-N12,N13.6,N15.1)	26	0.4	11	0.5	15	0.5
Hyperplasia of Prostate (N40)	n/a	n/a	9	0.4	n/a	n/a
Other(N13.0-N13.5,N13.7-N15.0,N15.8-N16,N20-N23,N28-N39,N41-N99)	322	5.5	107	4.9	215	5.9
Pregnancy, Childbirth & Puerperium (O00-O99)	n/a	n/a	n/a	n/a	(2)	(*)
Conditions Originating in Perinatal Period (P00-P96)	(205)	(3.5)	(110)	(3.7)	(95)	(3.3)
Congenital Anomalies (Q00-Q99)	(243)	(4.1)	(136)	(4.6)	(107)	(3.5)
Symptoms & Signs Not Elsewhere Classified (R00-R99)	(231)	(3.9)	(107)	(4.0)	(124)	(3.6)
Sudden Infant Death Syndrome (R95)	48	0.8	26	0.9	22	0.8
Other (R00-R94,R96-R99)	183	3.0	81	3.2	102	2.8
External Causes of Mortality (V01-Y89)	(3,360)	(55.0)	(2,294)	(79.0)	(1,066)	(32.6)
Unintentional Injury or Accident (V01-X59,Y85-Y86)	(2,210)	(36.4)	(1,410)	(49.6)	(800)	(24.2)
Transport Accidents (V01-V99,Y85)	794	13.0	561	18.9	233	7.5
Nontransport Accidents (W00-X59,Y86)	1,416	23.3	849	30.7	567	16.7
Intentional Self-Harm (Suicide) (X60-X84,Y87.0)	801	13.0	640	21.5	161	5.1
Assault (Homicide) (X85-Y09,Y87.1)	212	3.4	160	5.1	52	1.7
Legal Intervention (Y35,Y89.0)	6	0.1	6	0.2	0	*
Events of Undetermined Intent (Y10-Y34,Y87.2,Y89.9)	108	1.7	69	2.1	39	1.2
Operations of War & Sequelae (Y36,Y89.1)	0	*	0	*	0	*
Complications of Medical & Surgical Care (Y40-Y84,Y88)	23	0.4	9	0.4	14	0.4

[1] Group totals are shown in parentheses.

[2] Rates per 100,000 age-adjusted to U.S. 2000 population. Does not include deaths where age is unknown

[*] Rate not calculated because number of deaths was less than 5.

Note: Rates based on fewer than 20 deaths are likely to be unstable and imprecise.

Mortality Table C6. Diabetes, Alzheimer's Disease, and Major Cardiovascular Disease by County of Residence, 2003

County	Diabetes (E10-E14)			Alzheimer's Disease (G30)			Major Cardiovascular Disease (I00-I78)		
	Number	Crude Rate[1]	Age-Adj Rate[2]	Number	Crude Rate[1]	Age-Adj Rate[2]	Number	Crude Rate[1]	Age-Adj Rate[2]
State Total	**1,509**	**24.7**	**26.0**	**2,380**	**39.0**	**40.5**	**15,960**	**261.7**	**272.9**
Adams	5	30.1	37.6	5	30.1	37.3	40	240.9	285.3
Asotin	6	29.1	19.5	12	58.3	37.5	61	296.1	217.7
Benton	40	26.4	30.5	38	25.1	31.5	353	232.8	277.0
Chelan	12	17.7	16.0	40	58.9	46.2	219	322.5	270.2
Clallam	19	29.1	17.7	53	81.2	47.2	294	450.2	275.3
Clark	77	20.7	24.3	123	33.0	42.4	870	233.7	288.6
Columbia	1	*	*	2	*	*	17	414.9	280.9
Cowlitz	29	30.6	27.3	53	55.8	49.2	323	340.4	302.0
Douglas	6	17.9	17.7	11	32.7	32.7	80	238.1	235.3
Ferry	3	*	*	0	*	*	17	232.9	270.1
Franklin	11	20.5	27.6	5	9.3	14.9	89	166.0	246.5
Garfield	1	*	*	0	*	*	8	333.1	188.7
Grant	19	24.6	26.7	11	14.3	16.9	210	272.4	303.3
Grays Harbor	31	45.1	37.0	32	46.5	37.6	254	369.2	301.0
Island	20	27.0	24.9	52	70.3	69.7	202	273.0	258.3
Jefferson	11	41.2	26.4	13	48.7	32.8	107	400.7	261.7
King	356	20.0	21.7	655	36.8	38.9	3,967	223.0	239.3
Kitsap	61	25.7	28.7	139	58.6	65.1	567	239.2	262.1
Kittitas	4	*	*	11	31.3	30.1	81	230.1	227.5
Klickitat	12	62.2	57.6	4	*	*	54	279.8	238.9
Lewis	47	66.8	53.3	45	63.9	46.5	288	409.1	317.0
Lincoln	4	*	*	4	*	*	39	386.1	240.6
Mason	12	23.9	18.8	10	19.9	17.3	177	352.6	296.9
Okanogan	9	22.7	20.8	14	35.4	32.6	127	320.7	285.5
Pacific	11	52.6	34.4	8	38.3	23.0	108	516.8	319.3
Pend Oreille	7	59.3	45.7	4	*	*	38	322.0	305.4
Pierce	194	26.4	30.5	245	33.4	40.7	1,967	268.1	315.8
San Juan	3	*	*	6	40.5	27.0	38	256.7	175.7
Skagit	39	36.6	30.8	67	62.8	48.9	372	348.7	284.3
Skamania	1	*	*	3	*	*	22	222.2	250.7
Snohomish	125	19.6	24.2	231	36.2	47.2	1,475	231.4	292.7
Spokane	120	28.0	27.4	163	38.0	33.1	1,321	308.2	282.3
Stevens	14	34.5	29.7	22	54.2	50.3	147	362.1	337.8
Thurston	61	28.4	29.0	102	47.5	49.0	547	254.7	262.1
Wahkiakum	3	*	*	2	*	*	23	605.1	441.9
Walla Walla	17	30.5	27.1	24	43.0	28.1	208	372.8	279.2
Whatcom	38	21.8	22.2	83	47.6	47.4	502	287.7	288.8
Whitman	7	17.1	21.5	9	22.0	24.6	82	200.0	247.6
Yakima	73	32.3	35.0	79	35.0	33.7	666	294.7	301.9

[1] Rate per 100,000 population.

[2] Rate per 100,000 age-adjusted to U.S. 2000 population. Does not include deaths where age is unknown.

* Rate not calculated because number of deaths was less than 5.

Note: Codes for International Classification of Diseases, Tenth Revision (ICD-10) are in parentheses after each group heading.

Rates based on fewer than 20 deaths are likely to be unstable and imprecise.

Mortality Table C7. Diseases of the Heart, Ischemic Heart Diseases, and Cerebrovascular Diseases by County of Residence, 2003

County	Diseases of the Heart (I00-I09,I11,I13,I20-I51)			Ischemic Heart Disease (I20-I25)			Cerebrovascular Disease (I60-I69)		
	Number	Crude Rate[1]	Age-Adj Rate[2]	Number	Crude Rate[1]	Age-Adj Rate[2]	Number	Crude Rate[1]	Age-Adj Rate[2]
State Total	**11,154**	**182.9**	**190.4**	**8,240**	**135.1**	**141.0**	**3,588**	**58.8**	**61.5**
Adams	26	156.6	186.5	20	120.5	142.1	10	60.2	70.8
Asotin	37	179.6	134.4	26	126.2	95.5	19	92.2	67.3
Benton	263	173.5	205.4	192	126.6	149.8	69	45.5	55.2
Chelan	152	223.9	187.7	114	167.9	141.8	56	82.5	68.8
Clallam	197	301.7	186.1	143	219.0	133.8	81	124.0	74.2
Clark	590	158.5	194.6	396	106.4	131.1	208	55.9	69.9
Columbia	12	292.9	196.0	10	244.1	163.4	3	*	*
Cowlitz	227	239.2	212.3	173	182.3	161.1	69	72.7	64.5
Douglas	61	181.5	178.7	43	128.0	126.0	16	47.6	47.7
Ferry	11	150.7	167.4	9	123.3	138.2	3	*	*
Franklin	68	126.9	186.8	52	97.0	142.1	13	24.3	34.6
Garfield	6	249.8	137.2	3	*	*	0	*	*
Grant	149	193.3	213.5	130	168.6	186.1	53	68.7	78.0
Grays Harbor	190	276.2	225.8	132	191.9	155.9	45	65.4	53.1
Island	134	181.1	170.6	88	118.9	111.0	54	73.0	69.7
Jefferson	77	288.4	184.9	49	183.5	116.6	24	89.9	60.0
King	2,714	152.5	163.7	2,005	112.7	121.5	946	53.2	57.1
Kitsap	415	175.1	190.6	301	127.0	137.9	109	46.0	51.2
Kittitas	54	153.4	151.3	33	93.8	94.8	21	59.7	56.9
Klickitat	34	176.2	152.1	20	103.6	89.7	12	62.2	52.9
Lewis	204	289.8	224.8	161	228.7	178.8	70	99.4	77.1
Lincoln	26	257.4	164.5	20	198.0	130.0	6	59.4	39.0
Mason	132	262.9	223.2	94	187.3	156.1	29	57.8	48.7
Okanogan	88	222.2	195.8	67	169.2	149.3	27	68.2	61.7
Pacific	69	330.2	208.9	49	234.5	147.5	24	114.8	67.8
Pend Oreille	26	220.3	199.3	21	178.0	159.3	9	76.3	84.0
Pierce	1,379	188.0	220.4	1,074	146.4	171.8	435	59.3	70.5
San Juan	26	175.7	120.5	12	81.1	56.3	8	54.0	37.4
Skagit	238	223.1	183.2	178	166.8	136.7	104	97.5	78.3
Skamania	15	151.5	162.0	7	70.7	74.9	5	50.5	62.7
Snohomish	1,064	166.9	210.6	814	127.7	161.2	301	47.2	60.3
Spokane	913	213.0	196.5	683	159.4	147.8	284	66.3	59.7
Stevens	117	288.2	265.0	95	234.0	213.3	24	59.1	58.5
Thurston	375	174.6	179.5	260	121.0	124.5	138	64.2	65.7
Wahkiakum	20	526.2	382.6	17	447.3	329.6	2	*	*
Walla Walla	139	249.1	190.6	95	170.2	132.7	51	91.4	65.3
Whatcom	348	199.4	200.2	231	132.4	133.8	115	65.9	65.8
Whitman	59	143.9	181.6	47	114.6	145.0	19	46.3	53.7
Yakima	499	220.8	226.7	376	166.4	171.6	126	55.8	56.9

[1] Rate per 100,000 population.

[2] Rate per 100,000 age-adjusted to U.S. 2000 population. Does not include deaths where age is unknown.

* Rate not calculated because number of deaths was less than 5.

Note: Codes for International Classification of Diseases, Tenth Revision (ICD-10) are in parentheses after each group heading.

Rates based on fewer than 20 deaths are likely to be unstable and imprecise.

Mortality Table C8. Influenza & Pneumonia, Chronic Lower Respiratory Disease, and Chronic Liver Disease & Cirrhosis by County of Residence, 2003

County	Pneumonia and Influenza (J10-J18)			Chronic Lower Resp. Dis. (J40-J47)			Chronic Liver Disease & Cirrhosis (K70,K73-K74)		
	Number	Crude Rate[1]	Age-Adj Rate[2]	Number	Crude Rate[1]	Age-Adj Rate[2]	Number	Crude Rate[1]	Age-Adj Rate[2]
State Total	**1,082**	**17.7**	**18.5**	**2,648**	**43.4**	**46.4**	**565**	**9.3**	**9.2**
Adams	5	30.1	35.8	4	*	*	0	*	*
Asotin	9	43.7	29.3	11	53.4	42.3	6	29.1	24.2
Benton	24	15.8	19.6	67	44.2	53.1	16	10.6	10.1
Chelan	9	13.3	10.7	38	56.0	48.3	8	11.8	10.8
Clallam	19	29.1	18.5	40	61.3	36.1	12	18.4	13.8
Clark	37	9.9	12.5	145	38.9	49.0	32	8.6	9.6
Columbia	1	*	*	4	*	*	0	*	*
Cowlitz	26	27.4	23.8	70	73.8	67.7	10	10.5	9.6
Douglas	9	26.8	26.4	17	50.6	50.5	2	*	*
Ferry	2	*	*	6	82.2	91.3	1	*	*
Franklin	4	*	*	20	37.3	57.8	4	*	*
Garfield	0	*	*	2	*	*	0	*	*
Grant	10	13.0	15.2	43	55.8	62.2	4	*	*
Grays Harbor	19	27.6	23.0	47	68.3	56.2	14	20.3	16.9
Island	14	18.9	17.8	37	50.0	47.3	6	8.1	7.4
Jefferson	7	26.2	19.2	11	41.2	25.7	4	*	*
King	334	18.8	20.0	520	29.2	32.4	154	8.7	8.7
Kitsap	29	12.2	13.6	112	47.3	53.5	23	9.7	9.7
Kittitas	16	45.5	43.9	15	42.6	43.9	7	19.9	21.4
Klickitat	1	*	*	14	72.5	66.9	0	*	*
Lewis	22	31.3	23.9	52	73.9	57.5	7	9.9	8.2
Lincoln	2	*	*	4	*	*	1	*	*
Mason	15	29.9	25.7	37	73.7	58.2	10	19.9	17.0
Okanogan	9	22.7	20.8	20	50.5	44.2	9	22.7	21.8
Pacific	7	33.5	20.0	20	95.7	55.4	3	*	*
Pend Oreille	4	*	*	9	76.3	63.9	0	*	*
Pierce	89	12.1	14.3	366	49.9	59.4	67	9.1	9.7
San Juan	2	*	*	5	33.8	23.0	0	*	*
Skagit	31	29.1	23.7	74	69.4	57.9	10	9.4	8.1
Skamania	0	*	*	3	*	*	0	*	*
Snohomish	92	14.4	18.7	238	37.3	49.0	53	8.3	9.1
Spokane	75	17.5	15.8	254	59.3	56.4	37	8.6	8.4
Stevens	9	22.2	21.5	20	49.3	46.8	2	*	*
Thurston	43	20.0	20.4	92	42.8	45.0	20	9.3	8.8
Wahkiakum	0	*	*	4	*	*	1	*	*
Walla Walla	21	37.6	25.6	31	55.6	45.6	4	*	*
Whatcom	29	16.6	16.4	83	47.6	49.1	14	8.0	8.6
Whitman	10	24.4	32.0	15	36.6	49.2	0	*	*
Yakima	47	20.8	20.1	98	43.4	45.6	24	10.6	11.4

[1] Rate per 100,000 population.

[2] Rate per 100,000 age-adjusted to U.S. 2000 population. Does not include deaths where age is unknown.

* Rate not calculated because number of deaths was less than 5.

Note: Codes for International Classification of Diseases, Tenth Revision (ICD-10) are in parentheses after each group heading.

Rates based on fewer than 20 deaths are likely to be unstable and imprecise.

D. Cancer

Cancer is the second leading cause of death for residents of Washington State and comprised 24% of all deaths in 2003. Cancer may occur in many different sites and has many different risk factors, some of which include smoking, diet, exercise, and sun exposure.

Mortality Table D1. Age-Adjusted Rates[1] for Leading Causes of Cancer for Residents, 1994-2003

Year	All Sites	Lung[2]	Colo-Rectal[2]	Breast	Prostate	Pancreas
1994	205.2	58.7	21.4	28.1	37.2	10.6
1995	205.0	59.2	20.9	30.2	34.2	10.5
1996	202.9	58.6	20.7	28.3	33.8	11.3
1997	196.6	56.1	18.8	27.9	30.9	10.6
1998	196.0	58.1	18.6	25.8	29.1	11.1
1998 Comparability Modified						
	197.3	57.2	18.6	26.0	29.5	11.1
1999	198.9	57.4	18.6	24.0	29.8	10.5
2000	195.6	57.4	18.3	24.4	27.5	10.9
2001	194.0	55.4	18.5	24.2	27.9	11.6
2002	190.6	54.8	16.9	23.8	28.7	10.7
2003	190.1	55.4	17.7	24.0	27.4	11.0

[1]Rate per 100,000 age-adjusted to U.S. 2000 population.

[2]The ICD-10 codes selected for these groups differ slightly from Cancer Registry groups. See http://www3.doh.wa.gov/WSCR/ to obtain reports of the Washington State Cancer Registry or to obtain information about other cancer sites.

Note:

Causes of death were coded with ICD-9 in 1990-1998 and with ICD-10 during 1999-2000. Rates during 1998 have been multiplied by a comparability ratio (CR). ICD codes and comparability ratios are:

All Sites: ICD-9: 140-208; ICD-10: C00-C97; CR=1.0068

Lung: ICD-9: 162; ICD-10: C33-C34; CR=0.9837

Colorectal: ICD-9: 153-154; ICD-10: C18-C21; CR=0.9993

Female Breast: ICD-9: 174; ICD-10: C50; CR=1.0056

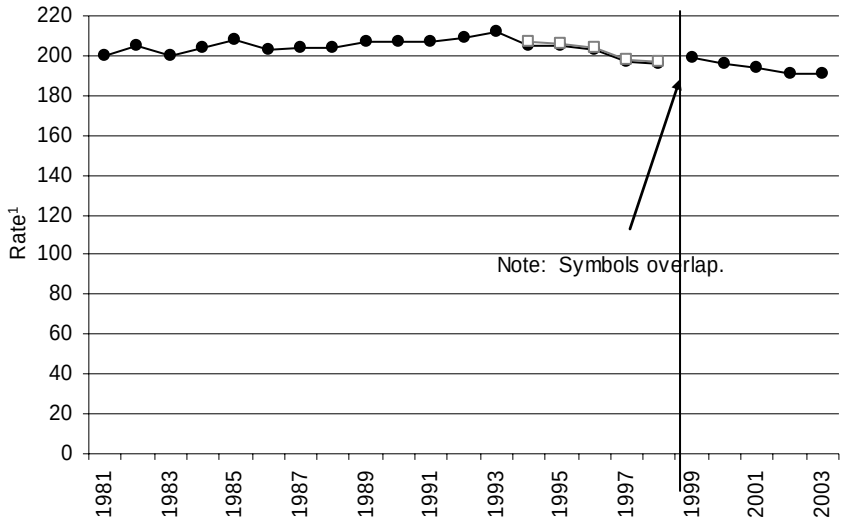
Prostate: ICD-9: 185; ICD-10: C61; CR=1.0134

Pancreas: ICD-9: 157; ICD-10: C25; CR=0.9980

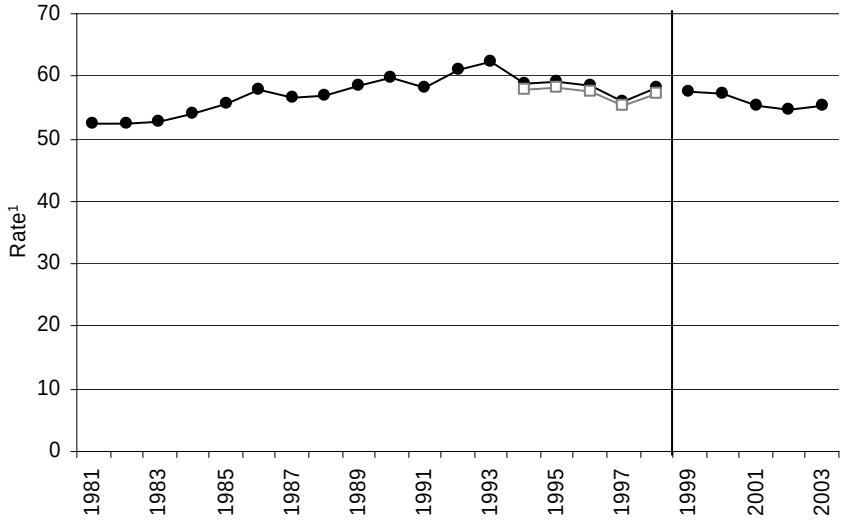
Mortality rates for all sites observed in Mortality Table D1 were lower in 2003 than 1994. Deaths due to female breast cancer and prostate cancer have had the largest decreases over time.

Mortality Figure 6. Malignant Neoplasm (Cancer) Mortality Rates for Residents, 1980-2003

a. Cancer, All Sites Combined



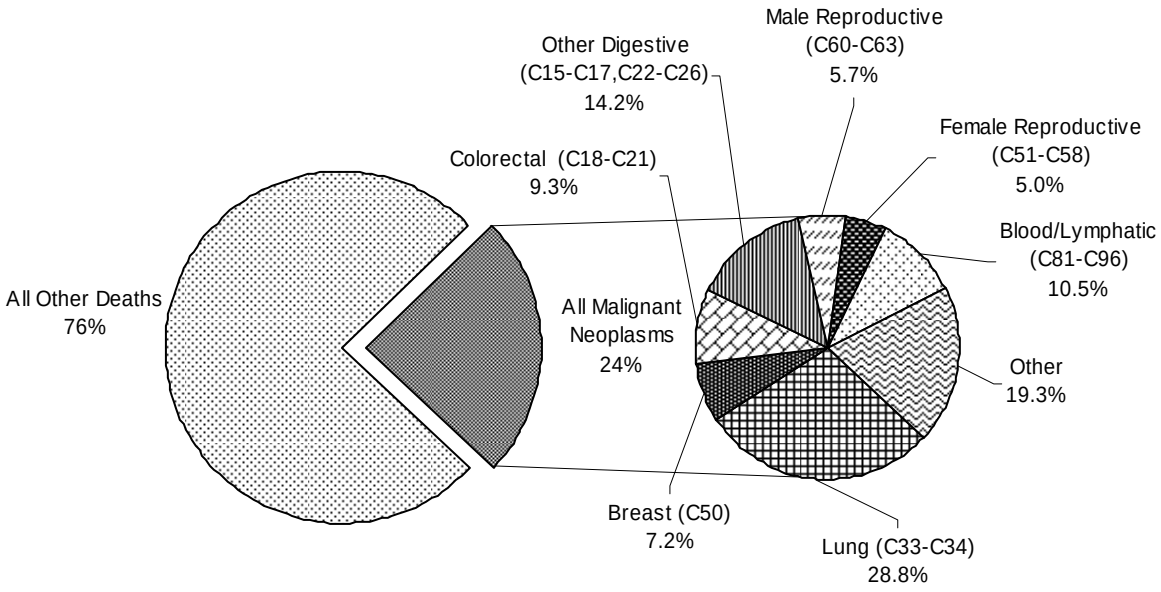
b. Lung Cancer



[1]Rate per 100,000 age-adjusted to U.S. 2000 population.
- Unmodified Rates
- Comparability-Modified Rates

Note:
Causes of death were coded with ICD-9 in 1990-1998 and with ICD-10 in 1999-2000. Rates for 1994-1998 have been multiplied by a comparability ration (CR). ICD codes and comparability rations are:
All Sites: ICD-9: 140-208; ICD-10: C00-C97; CR=1.0068
Lung: ICD-9: 162; ICD-10: C33-C34; CR=0.9837

Mortality Figure 7. Percent of Deaths Due to Malignant Neoplasms (Cancer) for Washington State Residents, 2003



Note:
Percents may not add to 100% due to rounding.
International Classification of Diseases, Tenth Revision (ICD-10) codes are provided in parentheses.

Mortality Table D2. Cancer by Primary Site by Sex for Residents, 2003

Cause with ICD-10 Codes	Total			Male			Female		
	No.	Crude Rate[1]	Age-Adj. Rate[2]	No.	Crude Rate[1]	Age-Adj. Rate[2]	No.	Crude Rate[1]	Age-Adj. Rate[2]
All Sites Combined (C00-C97)	**11,043**	**181.1**	**190.1**	**5,641**	**185.7**	**226.6**	**5,402**	**176.5**	**165.6**
Bladder (C67)	269	4.4	4.7	171	5.6	7.4	98	3.2	2.9
Brain, Meninges, & CNS (C70-C72)[3]	338	5.5	5.7	187	6.2	6.9	151	4.9	4.8
Brain (C71)	334	5.5	5.6	187	6.2	6.9	147	4.8	4.6
Breast (C50)	797	13.1	13.4	11	0.4	0.5	786	25.7	24.0
Cervix (C53)	n/a	n/a	n/a	n/a	n/a	n/a	63	2.1	2.0
Colorectal (C18-C21)[3]	1,026	16.8	17.7	501	16.5	19.8	525	17.2	15.6
Colorectal (C18-C20,C26.0)	1,017	16.7	17.5	502	16.5	19.9	515	16.8	15.3
Endometrium & Uterus (C54-C55)[3]	n/a	n/a	n/a	n/a	n/a	n/a	133	4.3	4.1
Endometrium (C54)	n/a	n/a	n/a	n/a	n/a	n/a	64	2.1	2.0
Esophagus (C15)	271	4.4	4.7	214	7.0	8.3	57	1.9	1.8
Hodgkin's Disease (C81)	31	0.5	0.5	19	0.6	0.7	12	0.4	0.4
Kidney & Renal Pelvis (C64-C65)	234	3.8	4.0	151	5.0	5.7	83	2.7	2.5
Larynx (C32)	59	1.0	1.0	48	1.6	1.9	11	0.4	0.4
Leukemia (C91-C95)[3]	435	7.1	7.6	261	8.6	10.5	174	5.7	5.4
Leukemia (C90.1,C91-C95)	436	7.1	7.6	261	8.6	10.5	175	5.7	5.4
Liver (C22)[3]	317	5.2	5.3	195	6.4	7.3	122	4.0	3.7
Liver (C22.0,C22.2-C22.4,C22.7,C22.9)	239	3.9	4.0	161	5.3	6.0	78	2.5	2.4
Lung, Bronchus & Trachea (C33-C34)[3]	3,184	52.2	55.4	1,664	54.8	66.7	1,520	49.7	47.6
Lung & Bronchus (C34)	3,183	52.2	55.4	1,664	54.8	66.7	1,519	49.6	47.5
Melanoma of Skin (C43)	177	2.9	2.9	108	3.6	4.0	69	2.3	2.1
Multiple Myeloma & Immunoproliferative (C88,C90)[3]	234	3.8	4.1	128	4.2	5.2	106	3.5	3.2
Multiple Myeloma (C90.0,C90.2)	229	3.8	4.0	124	4.1	5.1	105	3.4	3.2
Non-Hodgkin's Lymphoma (C82-C85)	454	7.4	7.8	262	8.6	10.6	192	6.3	5.8
Oral Cavity & Pharynx (C00-C14)	181	3.0	3.1	133	4.4	5.0	48	1.6	1.5
Ovary (C56)	n/a	n/a	n/a	n/a	n/a	n/a	328	10.7	10.2
Pancreas (C25)	638	10.5	11.0	321	10.6	12.6	317	10.4	9.6
Prostate (C61)	n/a	n/a	n/a	613	20.2	27.4	n/a	n/a	n/a
Stomach (C16)	215	3.5	3.7	123	4.0	5.1	92	3.0	2.8
Testis (C62)	n/a	n/a	n/a	8	0.3	0.3	n/a	n/a	n/a
Thyroid & Endocrine Glands (C73-C75)[3]	44	0.7	0.7	16	0.5	0.6	28	0.9	0.9
Thyroid (C73)	22	0.4	0.4	9	0.3	0.3	13	0.4	0.4
Site Unspecified (C80)	417	6.8	7.1	192	6.3	7.8	225	7.4	6.7
All Other Sites[4]	569	9.3	9.7	310	10.2	12.3	259	8.5	7.9

[1] Rate per 100,000 population.

[2] Rate per 100,000 age-adjusted to U.S. 2000 population. Does not include deaths where age is unknown.

[3] The ICD-10 codes selected for these groups differ slightly from Cancer Registry groups. See http://www3.doh.wa.gov/WSCR/ to obtain reports of the Washington State Cancer Registry or to obtain information about other cancer sites.

[4] ICD-10 Codes:C17,C23-C24,C26.1-C31,C37-C42,C44-C49,C51-C52,C57-C60,C63,C66,C68-C69,C76-C79,C88,C96-C97.

Note: Rates based on fewer than 20 deaths are likely to be unstable and imprecise.

Mortality Table D3. Cancer for Total All Sites, Lung, and Colo-Rectal by County of Residence, 2003

	All Sites (C00-C97)			Lung[1] (C33-C34)			Colo-Rectal[1] (C18-C21)		
County	Number	Crude Rate[2]	Age-Adj Rate[3]	Number	Crude Rate[2]	Age-Adj Rate[3]	Number	Crude Rate[2]	Age-Adj Rate[3]
State Total	**11,043**	**181.1**	**190.1**	**3,184**	**52.2**	**55.4**	**1,026**	**16.8**	**17.7**
Adams	26	156.6	185.8	8	48.2	57.4	3	*	*
Asotin	45	218.5	161.4	12	58.3	42.7	3	*	*
Benton	267	176.1	200.8	68	44.9	51.4	27	17.8	20.9
Chelan	140	206.2	182.7	37	54.5	49.8	14	20.6	17.9
Clallam	194	297.1	187.5	49	75.0	45.8	22	33.7	20.7
Clark	636	170.8	204.1	188	50.5	60.7	57	15.3	18.8
Columbia	13	317.3	213.8	6	146.4	96.8	3	*	*
Cowlitz	212	223.4	204.7	59	62.2	57.4	21	22.1	19.9
Douglas	77	229.2	223.6	16	47.6	45.5	8	23.8	23.7
Ferry	14	191.8	201.8	3	*	*	2	*	*
Franklin	67	125.0	178.7	23	42.9	65.0	8	14.9	20.7
Garfield	7	291.4	181.9	3	*	*	0	*	*
Grant	151	195.9	212.2	40	51.9	56.1	16	20.8	22.6
Grays Harbor	194	282.0	231.1	84	122.1	99.8	22	32.0	26.0
Island	156	210.8	187.6	46	62.2	53.4	13	17.6	16.3
Jefferson	99	370.8	233.6	30	112.4	68.8	5	18.7	11.6
King	2,816	158.3	172.1	806	45.3	50.5	233	13.1	14.4
Kitsap	433	182.7	199.1	118	49.8	55.1	27	11.4	12.4
Kittitas	62	176.1	184.0	14	39.8	40.8	9	25.6	27.9
Klickitat	42	217.6	181.2	13	67.4	56.4	6	31.1	24.0
Lewis	195	277.0	223.0	65	92.3	74.0	14	19.9	16.0
Lincoln	18	178.2	128.5	3	*	*	2	*	*
Mason	128	255.0	202.8	41	81.7	62.2	11	21.9	17.2
Okanogan	89	224.7	198.4	23	58.1	53.1	11	27.8	24.2
Pacific	81	387.6	243.0	27	129.2	78.2	10	47.9	31.7
Pend Oreille	44	372.9	315.5	9	76.3	58.3	4	*	*
Pierce	1,313	179.0	204.7	386	52.6	60.5	127	17.3	19.9
San Juan	41	277.0	189.8	5	33.8	26.2	1	*	*
Skagit	252	236.2	203.2	64	60.0	51.5	20	18.7	15.8
Skamania	10	101.0	99.9	4	*	*	1	*	*
Snohomish	1,016	159.4	195.0	307	48.2	60.3	87	13.6	16.7
Spokane	864	201.6	194.7	249	58.1	56.9	92	21.5	20.2
Stevens	91	224.1	205.9	28	69.0	64.5	6	14.8	13.6
Thurston	435	202.5	208.1	140	65.2	68.1	47	21.9	22.2
Wahkiakum	14	368.3	248.3	6	157.9	106.6	2	*	*
Walla Walla	114	204.3	171.0	22	39.4	34.4	17	30.5	23.7
Whatcom	280	160.5	165.0	68	39.0	40.5	36	20.6	21.2
Whitman	50	122.0	159.0	9	22.0	28.9	8	19.5	24.1
Yakima	357	158.0	170.8	105	46.5	50.5	31	13.7	14.1

[1] The ICD-10 codes selected for these groups differ slightly from Cancer Registry groups. See http://www3.doh.wa.gov/WSCR/ to obtain reports of the Washington State Cancer Registry or to obtain information about other cancer sites.

[2] Rate per 100,000 population.

[3] Rate per 100,000 age-adjusted to U.S. 2000 population. Does not include deaths where age is unknown.

* Rate not calculated because number of deaths was less than 5.

Note: Codes for International Classification of Diseases, Tenth Revision (ICD-10) are in parentheses after each group heading.

Rates based on fewer than 20 deaths are likely to be unstable and imprecise.

Mortality Table D4. Cancer for Female Breast, Prostate, and Pancreas by County of Residence, 2003

County	Female Breast (C50)			Prostate (C61)			Pancreas (C25)		
	Number	Crude Rate[1]	Age-Adj Rate[2]	Number	Crude Rate[1]	Age-Adj Rate[2]	Number	Crude Rate[1]	Age-Adj Rate[2]
State Total	**786**	**25.7**	**24.0**	**613**	**20.2**	**27.4**	**638**	**10.5**	**11.0**
Adams	1	*	*	0	*	*	0	*	*
Asotin	2	*	*	4	*	*	4	*	*
Benton	15	19.7	19.4	20	26.5	38.5	15	9.9	11.1
Chelan	4	*	*	11	32.5	33.9	11	16.2	13.9
Clallam	13	39.4	22.6	7	21.7	14.3	13	19.9	12.0
Clark	38	20.3	21.4	33	17.9	29.1	31	8.3	9.8
Columbia	0	*	*	0	*	*	1	*	*
Cowlitz	19	39.7	33.1	11	23.4	27.9	13	13.7	12.8
Douglas	6	35.4	33.2	5	30.0	35.3	11	32.7	32.7
Ferry	0	*	*	0	*	*	1	*	*
Franklin	3	*	*	9	32.1	58.8	1	*	*
Garfield	0	*	*	1	*	*	0	*	*
Grant	16	42.5	42.7	14	35.5	44.7	7	9.1	9.6
Grays Harbor	8	23.1	17.6	3	*	*	9	13.1	10.7
Island	15	40.6	34.2	11	29.7	32.3	11	14.9	13.7
Jefferson	4	*	*	9	67.9	51.6	5	18.7	11.8
King	220	24.6	23.2	158	17.8	25.8	154	8.7	9.4
Kitsap	33	28.2	27.0	26	21.6	31.6	22	9.3	10.1
Kittitas	2	*	*	2	*	*	6	17.0	17.8
Klickitat	1	*	*	2	*	*	0	*	*
Lewis	17	47.9	36.6	7	20.0	19.4	10	14.2	11.6
Lincoln	1	*	*	1	*	*	2	*	*
Mason	9	37.1	28.1	6	23.1	23.0	7	13.9	10.8
Okanogan	9	45.3	36.3	4	*	*	7	17.7	15.8
Pacific	3	*	*	2	*	*	5	23.9	13.7
Pend Oreille	2	*	*	3	*	*	3	*	*
Pierce	97	26.3	26.6	66	18.1	28.5	74	10.1	11.6
San Juan	3	*	*	3	*	*	2	*	*
Skagit	23	42.7	35.0	12	22.7	22.3	22	20.6	17.7
Skamania	2	*	*	0	*	*	0	*	*
Snohomish	64	20.1	21.3	53	16.6	28.3	51	8.0	9.5
Spokane	64	29.3	24.8	50	23.8	29.1	68	15.9	15.6
Stevens	10	49.1	41.6	10	49.4	55.6	4	*	*
Thurston	27	24.6	22.6	20	19.0	25.4	29	13.5	13.7
Wahkiakum	0	*	*	2	*	*	0	*	*
Walla Walla	4	*	*	8	28.2	27.6	4	*	*
Whatcom	19	21.5	20.2	15	17.4	21.7	15	8.6	8.6
Whitman	4	*	*	3	*	*	2	*	*
Yakima	28	24.7	25.2	22	19.5	25.4	18	8.0	8.7

[1] Rate per 100,000 population.

[2] Rate per 100,000 age-adjusted to U.S. 2000 population. Does not include deaths where age is unknown.

* Rate not calculated because number of deaths was less than 5.

Note: Codes for International Classification of Diseases, Tenth Revision (ICD-10) are in parentheses after each group heading.

Rates based on fewer than 20 deaths are likely to be unstable and imprecise.

E. External Causes or Injuries

A single event that causes a large number of deaths, such as the Alaska Airlines plane crash in 2000 or the 1980 eruption of Mt. Saint Helens may generate large annual variations in mortality due to unintentional injury.

Injuries do not "just happen" because of bad luck - many can be prevented. Information about the distribution of deaths due to injuries can be used to plan prevention strategies. External causes of death can be categorized by the intent (e.g., unintentional, suicide, homicide, undetermined) and by the mechanism (e.g., drowning, poisoning, cut/pierce, etc.).

The Injury Prevention Program (http://www.doh.wa.gov/cfh/Injury/Default.htm) develops and maintains programs designed to reduce injuries. There are three program units: Unintentional Injury, Intentional Injury, and Data Analysis. The focus areas in unintentional injury are injuries among children, fire injury prevention, and falls among older adults. Intentional injury focuses on youth suicide prevention, sexual assault, and safe storage of firearms. The data analysis section provides injury data by age group, county, year (for the past 10 years), and emergency medical service region for all mechanisms and intent of injury.

Mortality Table E1. Age-Adjusted Rates[1] for External Causes for Residents, 1994-2003

Year	Uninten-tional Injury (Accident)	Inten-tional Self-Harm (Suicide)	Assault (Homicide)	Undeter-mined	Drug-Induced[2]	Alcohol-Induced[2]	Motor Vehicle Traffic Accidents	Falls	Drowning, Accidental
1994	33.0	14.5	5.8	1.9	6.9	11.0	12.9	6.3	1.9
1995	34.2	14.6	5.3	1.8	8.2	10.4	13.1	6.6	2.1
1996	34.8	14.2	4.5	1.9	8.8	11.0	13.7	7.2	1.8
1997	34.0	13.0	4.6	1.7	7.8	10.8	13.0	5.9	2.1
1998	33.9	12.3	4.0	1.7	8.1	10.0	12.8	6.4	1.9
1998 Comparability Modified									
***1998	34.9	12.2	4.0	na	9.7	9.7	na	na	na
1999	33.5	14.2	3.2	1.7	10.0	9.9	12.2	6.2	2.0
2000	35.5	12.4	3.4	2.2	9.9	9.0	11.8	8.4	1.6
2001	35.1	11.9	3.2	1.8	9.0	10.3	12.0	8.4	1.8
2002	36.5	13.4	3.5	1.7	11.1	9.6	12.0	8.4	2.0
2003	36.4	13.0	3.4	1.7	11.7	10.0	11.1	8.9	1.7

[1]Rate per 100,000 age-adjusted to U.S. 2000 population.

[2]These categories include some causes that are classified as "natural" deaths (e.g., alcoholic cirrhosis of the liver).

na: Comparability ratio not available.

Note:

Causes of death were coded with ICD-9 in 1990-1998 and with ICD-10 during 1999-2000. Rates during 1998 have been multiplied by a comparability ratio (CR). ICD codes and comparability ratios are:

Unintentional Injury (Accident): ICD-9: E800-E869,E880-E929; ICD-10: V01-X59,Y85-Y86; CR=1.0305

Intentional Self-Harm (Suicide): ICD-9: E950-E959; ICD-10: X60-X84,Y87.0; CR=0.9962

Assault (Homicide): ICD-9: E960-E969; ICD-10: X85-Y09,Y87.1; CR=0.9983

Undetermined: ICD-9: E980-E989; ICD-10: Y10-Y34,Y87.2,Y89.9; CR is not available.

Drug-Induced: ICD-9: 292,304,305.2-305.9,E850-E858,E950.0-E950.5,E962.0,E980.0-E980; ICD-10: F11.0-11.5, F11.7-F11.9,F12.0-F12.5,F12.7-F12.9,F13.0-F13.5,F13.7-F13.9,F14.0-F14.5,F14.7-F14.9,F15.0-F15.5,F15.7-F15.9, F16.0-F16.5,F16.7-F16.9,F17.0,F17.3-F17.5,F17.7-F17.9,F18.0-F18.5,F18.7-F18.9,F19.0-F19.5,F19.7-F19.9, X40-X44,X60-X64,X85,Y10-Y14; CR=1.1950

Alcohol-Induced: ICD-9: 291,303,305.0,357.5,425.5,535.3,571.0-571.3,790.3,E860; ICD-10: F10,G31.2,G62.1, I42.6,K29.2,K70,R78.0,X45,X65,Y15; CR=0.9682

Motor Vehicle Traffic Accidents: ICD-9: E810-E819; ICD-10: V02-V04(.1,.9),V09.2,V12-V14(.3-.9), V19(.4-.6), V20-V28(.3-.9),V29-V79(.4-.9),V80(.3-.5),V81.1,V82.1,V83-V86(.0-.3),V87(.0-.8),V89.2; CR is not available.

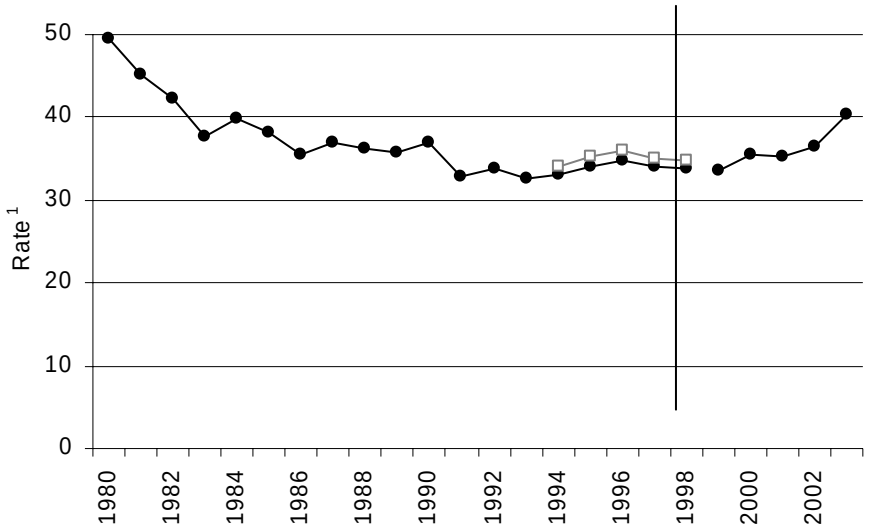
Falls: ICD-9 E880-E886,E888; ICD-10 W00-W19; CR is not available.

Drowning, Accidental: ICD-9 E830,E832,E910; ICD-10 V90,V92,W65-W74; CR is not available.

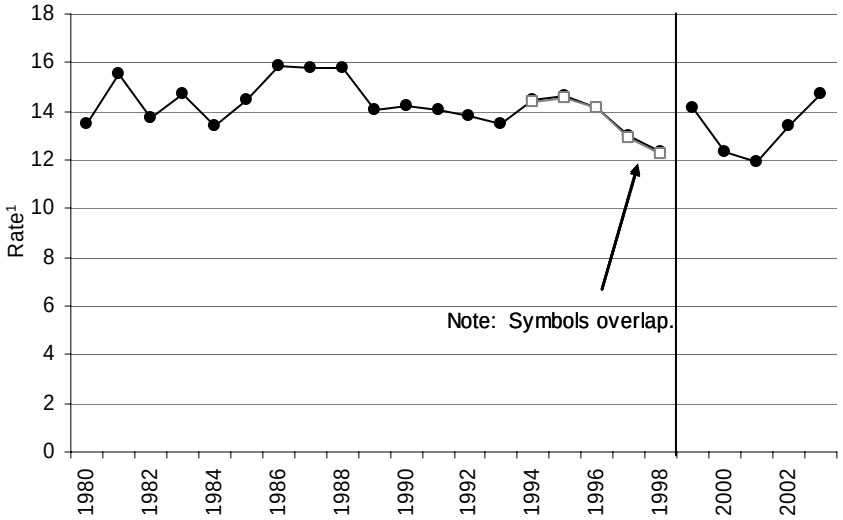
Mortality from both drug- and alcohol-induced causes has both increased during the past decade while assaults and motor vehicle traffic accidents have declined during this time period.

Mortality Figure 8. Mortality Rates for Residents, 1980-2003

a. Unintentional Injury (Accident)



b. Intentional Self-harm (Suicide)



[1]Rate per 100,000 age-adjusted to U.S. 2000 population.

- Unmodified Rates
- Comparability-Modified Rates

Note:
Causes of death were coded with ICD-9 in 1990-1998 and with ICD-10 in 1999-2000. Rates for 1994-1998 have been multiplied by a comparability ration (CR). ICD codes and comparability ratios are:
Unintentional Injury (Accident):ICD-9: I800-E869,E880-929; ICD-10: V01-X59,Y85-Y86; CR=1.0305
Intentional Self-Harm (Suicide): ICD-9: E950-E959; ICD-10: X60-X84,Y87.0; CR-0.9962

Mortality Table E2-a. External Causes of Injury With Crude Rates for Residents, 2003

Cause	Total		Unintentional or Accident		Suicide		Homicide		Undeter- mined		Legal Intervention & War[1]	
	No.	Rate[2]	No.	Rate[2]	No.	Rate[2]	No.	Rate[2]	No.	Rate[2]	No.	Rate[2]
All Injuries[3]	**(3,337)**	**(54.7)**	**(2,210)**	**(36.2)**	**(801)**	**(13.1)**	**(212)**	**(3.5)**	**(108)**	**(1.8)**	**(6)**	**(0.1)**
Cut/Pierce	58	1.0	2	*	13	0.2	43	0.7	0	*	0	*
Drowning	(119)	(2.0)	(106)	(1.7)	(4)	(*)	(0)	(*)	(9)	(0.1)	--	--
Boating-Related	21	0.3	21	0.3	--	--	--	--	--	--	--	--
Other	98	1.6	85	1.4	4	*	0	*	9	0.1	--	--
Fall/Jump/Push	550	9.0	523	8.6	23	0.4	0	*	4	*	--	--
Fire/Hot Object or Substance	(45)	(0.7)	(38)	(0.6)	(3)	(*)	(1)	(*)	(3)	(*)	(0)	(*)
Fire/Flame	42	0.7	35	0.6	3	*	1	*	3	*	--	--
Hot Object/Substance	3	*	3	*	0	*	0	*	0	*	--	--
Firearm	561	9.2	6	0.1	436	7.1	107	1.8	6	0.1	6	0.1
Machinery	14	0.2	14	0.2	--	--	--	--	--	--	--	--
All Transport	(767)	(12.6)	(754)	(12.4)	(11)	(0.2)	(2)	(*)	(0)	(*)	(0)	(*)
Motor Vehicle Traffic	(676)	(11.1)	(676)	(11.1)	--	--	--	--	--	--	--	--
Occupant	482	7.9	482	7.9	--	--	--	--	--	--	--	--
Motorcyclist	74	1.2	74	1.2	--	--	--	--	--	--	--	--
Pedal Cyclist	10	0.2	10	0.2	--	--	--	--	--	--	--	--
Pedestrian	86	1.4	86	1.4	--	--	--	--	--	--	--	--
Other	0	*	0	*	--	--	--	--	--	--	--	--
Unspecified	24	0.4	24	0.4	--	--	--	--	--	--	--	--
Pedal Cyclist, Other	4	*	4	*	--	--	--	--	--	--	--	--
Pedestrian, Other	23	0.4	23	0.4	--	--	--	--	--	--	--	--
Other Land Transport	32	0.5	19	0.3	11	0.2	2	*	0	*	--	--
Watercraft/Air/Space	32	0.5	32	0.5	--	--	--	--	--	--	0	*
Natural/Environmental	(23)	(0.4)	(23)	(0.4)	--	--	--	--	--	--	--	--
Bites/Stings	4	*	4	*	--	--	--	--	--	--	--	--
Other	19	0.3	19	0.3	--	--	--	--	--	--	--	--
Overexertion	0	*	0	*	--	--	--	--	--	--	--	--
Poisoning	765	12.5	539	8.8	160	2.6	0	*	66	1.1	0	*
Struck By or Against	15	0.2	12	0.2	1	*	2	*	0	*	0	*
Suffocation	257	4.2	91	1.5	147	2.4	18	0.3	1	*	--	--
Other Specified, Classifiable	(28)	(0.5)	(26)	(0.4)	(0)	(*)	(2)	(*)	(0)	(*)	(0)	(*)
Sequelae (Late Effects)	19	0.3	19	0.3	--	--	--	--	--	--	--	--
Other	9	0.1	7	0.1	0	*	2	*	0	*	0	*
Other Specified, NEC[4]	(45)	(0.7)	(32)	(0.5)	(2)	(*)	(6)	(0.1)	(5)	(0.1)	(0)	(*)
Sequelae (Late Effects)	40	0.7	32	0.5	2	*	4	*	2	*	--	--
Other	5	0.1	0	*	0	*	2	*	3	*	0	*
Unspecified	90	1.5	44	0.7	1	*	31	0.5	14	0.2	0	*
Adverse Effects[3]	(23)	(0.4)	--	--	--	--	--	--	--	--	--	--
Drugs	2	*	--	--	--	--	--	--	--	--	--	--
Medical Care	21	0.3	--	--	--	--	--	--	--	--	--	--

[1] The war-related categories include deaths due to late effects of injuries from war. Deaths occurring overseas during military activities are registered with the U.S. Department of State and are not reported to the Center for Health Statistics.

[2] Rate per 100,000 population.

[3] Group totals are shown in parentheses. Adverse Effects are not included in the total of All Injuries.

[4] NEC: Not elsewhere classified.

* Rate not calculated because number of deaths was less than 5.

-- No ICD-10 codes available for this category.

Note: Rates based on fewer than 20 deaths are likely to be unstable and imprecise.

With the exception of drowning, bites/stings, all transport, and sequelae, cause-of-death categories for this table follow the guidelines of National Center for Health Statistics (NCHS) International Collaborative Effort (ICE) on Injury Statistics. These groupings differ from previously published Vital Statistics reports and from other NCHS groupings.

More injury tables can be obtained from Injury Prevention Program, Washington State Department of Health web site: http://www.doh.wa.gov/cfh/Injury/Default.htm.

Mortality Table E2-b. External Causes of Injury With Age-Adjusted Rates for Residents, 2003

Cause	Total		Unintentional or Accident		Suicide		Homicide		Undetermined		Legal Intervention & War[1]	
	No.	Rate[2]	No.	Rate[2]	No.	Rate[2]	No.	Rate[2]	No.	Rate[2]	No.	Rate[2]
All Injuries[3]	**(3,337)**	**(54.6)**	**(2,210)**	**(36.4)**	**(801)**	**(13.0)**	**(212)**	**(3.4)**	**(108)**	**(1.7)**	**(6)**	**(0.1)**
Cut/Pierce	58	0.9	2	*	13	0.2	43	0.7	0	*	0	*
Drowning	(119)	(1.9)	(106)	(1.7)	(4)	(*)	(0)	(*)	(9)	(0.1)	--	--
Boating-Related	21	0.3	21	0.3	--	--	--	--	--	--	--	--
Other	98	1.6	85	1.4	4	*	0	*	9	0.1	--	--
Fall/Jump/Push	550	9.3	523	8.9	23	0.4	0	*	4	*	--	--
Fire/Hot Object or Substance	(45)	(0.7)	(38)	(0.6)	(3)	(*)	(1)	(*)	(3)	(*)	(0)	(*)
Fire/Flame	42	0.7	35	0.6	3	*	1	*	3	*	--	--
Hot Object/Substance	3	*	3	*	0	*	0	*	0	*	--	--
Firearm	561	9.1	6	0.1	436	7.2	107	1.7	6	0.1	6	0.1
Machinery	14	0.2	14	0.2	--	--	--	--	--	--	--	--
All Transport	(767)	(12.6)	(754)	(12.4)	(11)	(0.2)	(2)	(*)	(0)	(*)	(0)	(*)
Motor Vehicle Traffic	(676)	(11.1)	(676)	(11.1)	--	--	--	--	--	--	--	--
Occupant	482	7.9	482	7.9	--	--	--	--	--	--	--	--
Motorcyclist	74	1.2	74	1.2	--	--	--	--	--	--	--	--
Pedal Cyclist	10	0.2	10	0.2	--	--	--	--	--	--	--	--
Other	86	1.4	86	1.4	--	--	--	--	--	--	--	--
Pedestrian	0	*	0	*	--	--	--	--	--	--	--	--
Unspecified	24	0.4	24	0.4	--	--	--	--	--	--	--	--
Pedal Cyclist, Other	4	*	4	*	--	--	--	--	--	--	--	--
Pedestrian, Other	23	0.4	23	0.4	--	--	--	--	--	--	--	--
Other Land Transport	32	0.5	19	0.3	11	0.2	2	*	0	*	--	--
Watercraft/Air/Space	32	0.5	32	0.5	--	--	--	--	--	--	0	*
Natural/Environmental	(23)	(0.4)	(23)	(0.4)	--	--	--	--	--	--	--	--
Bites/Stings	4	*	4	*	--	--	--	--	--	--	--	--
Other	19	0.3	19	0.3	--	--	--	--	--	--	--	--
Overexertion	0	*	0	*	--	--	--	--	--	--	--	--
Poisoning	765	12.2	539	8.6	160	2.6	0	*	66	1.0	0	*
Struck By or Against	15	0.2	12	0.2	1	*	2	*	0	*	0	*
Suffocation	257	4.2	91	1.5	147	2.4	18	0.3	1	*	--	--
Other Specified, Classifiable	(28)	(0.5)	(26)	(0.4)	(0)	(*)	(2)	(*)	(0)	(*)	(0)	(*)
Sequelae (Late Effects)	19	0.3	19	0.3	--	--	--	--	--	--	--	--
Other	9	0.1	7	0.1	0	*	2	*	0	*	0	*
Other Specified, NEC[4]	(45)	(0.7)	(32)	(0.5)	(2)	(*)	(6)	(0.1)	(5)	(0.1)	(0)	(*)
Sequelae (Late Effects)	40	0.7	32	0.5	2	*	4	*	2	*	--	--
Other	5	0.1	0	*	0	*	2	*	3	*	0	*
Unspecified	90	1.5	44	0.7	1	*	31	0.5	14	0.2	0	*
Adverse Effects[3]	(23)	(0.4)	--	--	--	--	--	--	--	--	--	--
Drugs	2	*	--	--	--	--	--	--	--	--	--	--
Medical Care	21	0.3	--	--	--	--	--	--	--	--	--	--

[1] The war-related categories include deaths due to late effects of injuries from war. Deaths occurring overseas during military activities are registered with the U.S. Department of State and are not reported to the Center for Health Statistics.

[2] Rate per 100,000 population age-adjusted to U.S. 2000 population.

[3] Group totals are shown in parentheses. Adverse Effects are not included in the total of All Injuries.

[4] NEC: Not elsewhere classified.

* Rate not calculated because number of deaths was less than 5.

-- No ICD-10 codes available for this category.

Note: Rates based on fewer than 20 deaths are likely to be unstable and imprecise.

With the exception of drowning, bites/stings, all transport, and sequelae, cause-of-death categories for this table follow the guidelines of National Center for Health Statistics (NCHS) International Collaborative Effort (ICE) on Injury Statistics. These groupings differ from previously published Vital Statistics reports and from other NCHS groupings.

More injury tables can be obtained from Injury Prevention Program, Washington State Department of Health web site: http://www.doh.wa.gov/cfh/Injury/Default.htm.

Mortality Table E2-c. ICD-10 Codes for External Causes

Cause	Unintentional or Accident	Suicide	Homicide	Undeter-mined	Legal Intervention & War
All Injuries	V01-X59,Y85-Y86	X60-X84,Y87.0	X85-Y09, Y87.1	Y10-Y34, Y87.2,Y89.9	Y35-Y36, Y89(.0,.1)
Cut/Pierce	W25-W29,W45	X78	X99	Y28	Y35.4
Drowning	W65-W74,V90,V92	X71	X92	Y21	
Boating-Related	V90,V92				
Other	W65-W74	X71	X92	Y21	
Fall/Jump/Push	W00-W19	X80	Y01	Y30	
Fire/Hot Object or Substance	X00-X19	X76-X77	X97-X98	Y26-Y27	Y36.3
Fire/Flame	X00-X09	X76	X97	Y26	
Hot Object/Substance	X10-X19	X77	X98	Y27	
Firearm	W32-W34	X72-X74	X93-X95	Y22-Y24	Y35.0
Machinery	W24,W30-W31				
All Transport	V01-V89,V91,V93-V99	X82	Y03	Y32	Y36.1
Motor Vehicle Traffic	Codes from 5 groups below				
Occupant	V30-V39(.4-.9),V40-V49(.4-.9), V50-V59(.4-.9),V60-V69(.4-.9), V70-V79(.4-.9), V81.1,V82.1, V83-V86(.0-.3)				
Motorcyclist	V20-V28(.3-.9), V29(.4-.9)				
Pedal Cyclist	V12-V14(.3-.9), V19(.4-.6)				
Pedestrian	V02-V04(.1,.9), V09.2				
Other	V80(.3-.5)				
Unspecified	V87(.0-.8), V89.2				
Pedal Cyclist, Other	V10-V11,V12-V14(.0-.2), V15-V18,V19(.0-.3,.8,.9)				
Pedestrian, Other	V01,V02-V04(.0),V05,V06, V09(.0,.1,.3,.9)				
Other Land Transport	V20-V28 (.0-.2), V29(.0-.3), V30-V39(.0-.3), V40-V49(.0-.3), V50-V59(.0-.3), V60-V69(.0-.3), V70-V79(.0-.3), V80(.0-.2,.6-.9), V81-V82(.0,.2-.9),V83-V86(.4-.9) V83-V86(.4-.9),V87.9,V88(.0-.9), V89(.0,.1,.3,.9)	X82	Y03	Y32	Y36.1
Water/Air/Space	V91,V93-V99				
Natural/Environmental	W42,W43,W53-W64, W92-W99,X20-X39,X51-X57				
Bites/Stings	W53-W59, X20-X29				
Other	Residual, Natural/Environmental				
Overexertion	X50				
Poisoning	X40-X49	X60-X69	X85-X90	Y10-Y19	Y35.2
Struck By or Against	W20-W22,W50-W52	X79	Y00,Y04	Y29	Y35.3
Suffocation	W75-W84	X70	X91	Y20	
Other Specified, Classifiable	W23,W35-W41,W44, W49,W85-W91,Y85	X75,X81	X96,Y02, Y05-Y07	Y25,Y31	Y35(.1,.5), Y36(.0,.2,.4-.8)
Sequelae (Late Effects)	Y85				
Other	W49,W85-W91	X75,X81	X86,Y02 Y05-Y07	Y25,Y31	Y35(.1,.5), Y36(.0,.2,.4-.8)
Other Specified, NEC	X58,Y86	X83,Y87.0	Y08,Y87.1	Y33,Y87.2	Y35.6, Y89(.0,.1)
Sequelae (Late Effects)	Y86	Y87.0	Y87.1	Y87.2	
Other	X58	X83	Y08	Y33	Y35.6,Y89(.0,.1)
Unspecified	X59	X84	Y09	Y34,Y89.9	Y35.7,Y36.9
Adverse Effects: Y40-Y59,Y60-Y84,Y88					
Drugs: Y40-Y59,Y88.0					
Medical Care: Y60-Y84,Y88(.1-.3)					

Mortality Table E3. External Causes by Place of Injury for Residents, 2003

Place of Injury[1]	Total	Unintentional Injury (Accident), Non-Transport	Unintentional Injury (Accident), Transport	Intentional Self-Harm (Suicide)	Assault (Homicide)	Undetermined	Other
State Total	**3,360**	**1,416**	**794**	**801**	**212**	**108**	**29**
Home	1,591	830	12	589	92	68	0
Nursing Home	113	109	0	4	0	0	0
Agriculture	20	8	3	7	0	2	0
Industry	83	51	5	19	7	0	1
Prison	8	2	0	3	1	2	0
Public	1,302	252	756	163	96	29	6
Unknown	243	164	18	16	16	7	22

[1] National Safety Council place of injury category definitions.

Note:

Source for groups is the International Classification of Diseases, Tenth Revision (ICD-10): Unintentional Injury (Accident), Non-Transport (ICD-10: W00-X59,Y86); Unintentional Injury (Accident), Transport (ICD-10: V01-V99,Y85); Intentional Self-Harm (Suicide) (ICD-10: X60-X84,Y87.0); Assault (Homicide) (ICD-10: X85-Y09,Y87.1); Undetermined (ICD-10: Y10-Y34,Y87.2,Y89.9); Other (ICD-10: Y35,Y36,Y40-Y84,Y88, Y89.0,Y89.1)..

Mortality Table E4. Type of Firearm by Intent for Residents, 2003

	Total			Handgun			Rifle or Shotgun			Other & Unspecified		
Intent	No.	Crude Rate[1]	Age-Adj Rate[2]	No.	Crude Rate[1]	Age-Adj Rate[2]	No.	Crude Rate[1]	Age-Adj Rate[2]	No.	Crude Rate[1]	Age-Adj Rate[2]
Total	**561**	**9.2**	**9.1**	**322**	**5.3**	**5.3**	**148**	**2.4**	**2.4**	**91**	**1.5**	**1.5**
Unintentional Injury (Accident)	6	0.1	0.1	5	0.1	0.1	0	*	*	1	*	*
Self-Harm (Suicide)	436	7.1	7.2	294	4.8	4.8	131	2.1	2.1	11	0.2	0.2
Assault (Homicide)	107	1.8	1.7	21	0.3	0.3	15	0.2	0.2	71	1.2	1.1
Undetermined	6	0.1	0.1	2	*	*	2	*	*	2	*	*
Legal Intervention	6	0.1	0.1	0	*	*	0	*	*	6	0.1	0.1

[1] Rate per 100,000 population.

[2] Rate per 100,000 age-adjusted to U.S. 2000 population. Does not include deaths where age is unknown.

[*] Rate not calculated because number of deaths was less than 5.

Note:

Source for groups is the International Classification of Diseases, Tenth Revision (ICD-10): Unintentional Injury (Accident), (Accident) (ICD-10: W32-W34); Self-Harm (Suicide) (ICD-10: X72-X74); Assault (Homicide) (ICD-10: X93-X95); Undetermined (ICD-10: Y22-Y24); Legal Intervention (ICD-10: Y35.0).

Rates based on fewer than 20 deaths are likely to be unstable and imprecise.

Mortality Table E5. Poisoning by Intent and Substance for Residents, 2003

Substance and ICD-10 Code	Total			Unintentional Injury (Accident)			Self-Harm (Suicide)			Undetermined		
	No.	Crude Rate[1]	Age-Adj Rate[2]	No.	Crude Rate[1]	Age-Adj Rate[2]	No.	Crude Rate[1]	Age-Adj Rate[2]	No.	Crude Rate[1]	Age-Adj Rate[2]
Total	**765**	**12.5**	**12.2**	**539**	**8.8**	**8.6**	**160**	**2.6**	**2.6**	**66**	**1.1**	**1.0**
Drugs (X40-X44,X60-X64,Y10-Y14)[3]	(685)	(11.2)	(10.9)	(519)	(8.5)	(8.3)	(105)	(1.7)	(1.7)	(61)	(1.0)	(1.0)
Non-Opioid Analgesics, Anti-Pyretics & Anti-Rheumatics (e.g., nonsteroidal anti-inflammatory drugs, salicylates, etc.) (X40, X60, Y10)	7	0.1	0.1	1	*	*	3	*	*	3	*	*
Anti-Epileptic, Sedative-Hypnotic, Anti-Parkinson & Psychotropic (e.g., antidepressants, barbiturates, psychostimulants, etc.) (X41, X61, Y11)	100	1.6	1.6	62	1.0	1.0	31	0.5	0.5	7	0.1	0.1
Narcotics & Psychodysleptics (e.g., cannabis, cocaine, heroin, etc.) (X42, X62, Y12)	247	4.1	3.9	223	3.7	3.6	11	0.2	0.2	13	0.2	0.2
Other Drugs Acting on Autonomic Nervous System (e.g., anticholinergics, cholinergics, antiadrenergics, etc.) (X43, X63, Y13)	1	*	*	1	*	*	0	*	*	0	*	*
Other, Unspecified, or Mixtures of Any of the Above (e.g., anaesthetics, hormones, antibiotics, etc.) (X44, X64, Y14)	330	5.4	5.2	232	3.8	3.7	60	1.0	1.0	38	0.6	0.6
Alcohol (X45, X65, Y15)	14	0.2	0.2	12	0.2	0.2	2	*	*	0	*	*
Organic Solvents, Halogenated Hydrocarbons, Vapors (e.g., benzene, petroleum, etc.) (X46, X66, Y16)	4	*	*	1	*	*	2	*	*	1	*	*
Other Gases & Vapors(e.g., carbon monoxide, nitrogen oxides, etc.) (X47, X67, Y17)	57	0.9	0.9	7	0.1	0.1	47	0.8	0.8	3	*	*
Pesticides (e.g., fumigants, herbicides, insecticides, wood preservatives, etc.) (X48, X68, Y18)	2	*	*	0	*	*	2	*	*	0	*	*
Other & Unspecified Chemicals & Noxious Substances (e.g., acids, glues, paints, soaps, etc.) (X49, X69, Y19)	3	*	*	0	*	*	2	*	*	1	*	*

[1] Rate per 100,000 population.

[2] Rate per 100,000 age-adjusted to U.S. 2000 population. Does not include deaths where age is unknown.

[3] Group totals are shown in parentheses.

* Rate not calculated because number of deaths was less than 5.

Note: Rates based on fewer than 20 deaths are likely to be unstable and imprecise.

Poisoning due to homicides are not included in this table.

Mortality Table E6. Suicide, Homicide, and Undetermined by County of Residence, 2003

County	Intentional Self-Harm (Suicide) (X60-X84,Y87.0)			Assault (Homicide) (X85-Y09,Y87.1)			Undetermined (Y10-Y34,Y87.2,Y89.9)		
	Number	Crude Rate[1]	Age-Adj Rate[2]	Number	Crude Rate[1]	Age-Adj Rate[2]	Number	Crude Rate[1]	Age-Adj Rate[2]
State Total	**801**	**13.1**	**13.0**	**212**	**3.5**	**3.4**	**108**	**1.8**	**1.7**
Adams	2	*	*	0	*	*	0	*	*
Asotin	2	*	*	0	*	*	0	*	*
Benton	23	15.2	15.4	4	*	*	2	*	*
Chelan	10	14.7	15.3	4	*	*	2	*	*
Clallam	19	29.1	28.0	0	*	*	1	*	*
Clark	44	11.8	12.1	8	2.1	2.2	5	1.3	1.4
Columbia	2	*	*	0	*	*	1	*	*
Cowlitz	13	13.7	14.5	4	*	*	2	*	*
Douglas	7	20.8	22.5	0	*	*	0	*	*
Ferry	1	*	*	0	*	*	2	*	*
Franklin	6	11.2	12.9	3	*	*	2	*	*
Garfield	0	*	*	0	*	*	0	*	*
Grant	9	11.7	12.6	2	*	*	1	*	*
Grays Harbor	8	11.6	11.5	2	*	*	4	*	*
Island	9	12.2	11.5	0	*	*	0	*	*
Jefferson	3	*	*	2	*	*	0	*	*
King	213	12.0	11.5	75	4.2	3.9	42	2.4	2.2
Kitsap	30	12.7	12.4	5	2.1	2.2	3	*	*
Kittitas	2	*	*	0	*	*	0	*	*
Klickitat	2	*	*	0	*	*	0	*	*
Lewis	18	25.6	24.5	0	*	*	0	*	*
Lincoln	1	*	*	0	*	*	0	*	*
Mason	4	*	*	3	*	*	2	*	*
Okanogan	3	*	*	1	*	*	0	*	*
Pacific	3	*	*	3	*	*	1	*	*
Pend Oreille	3	*	*	2	*	*	0	*	*
Pierce	99	13.5	13.6	33	4.5	4.5	4	*	*
San Juan	0	*	*	0	*	*	0	*	*
Skagit	17	15.9	15.7	1	*	*	3	*	*
Skamania	3	*	*	0	*	*	0	*	*
Snohomish	78	12.2	12.4	16	2.5	2.5	17	2.7	2.5
Spokane	64	14.9	14.8	18	4.2	4.2	6	1.4	1.4
Stevens	4	*	*	6	14.8	17.8	1	*	*
Thurston	37	17.2	16.8	1	*	*	2	*	*
Wahkiakum	1	*	*	0	*	*	0	*	*
Walla Walla	7	12.5	11.9	0	*	*	0	*	*
Whatcom	29	16.6	16.8	5	2.9	3.1	5	2.9	2.8
Whitman	5	12.2	14.6	0	*	*	0	*	*
Yakima	20	8.8	9.2	14	6.2	6.5	0	*	*

[1] Rate per 100,000 population.

[2] Rate per 100,000 age-adjusted to U.S. 2000 population. Does not include deaths where age is unknown.

[*] Rate not calculated because number of deaths was less than 5.

Note: Codes for International Classification of Diseases, Tenth Revision (ICD-10) are in parentheses after each group heading.

Rates based on fewer than 20 deaths are likely to be unstable and imprecise.

Mortality Table E7. Drug and Alcohol-Induced Causes for Residents, 2003

County	Drug-Induced			Alcohol-Induced		
	Number	Crude Rate[1]	Age-Adj Rate[2]	Number	Crude Rate[1]	Age-Adj Rate[2]
State Total	**736**	**12.1**	**11.7**	**619**	**10.2**	**10.0**
Adams	0	*	*	0	*	*
Asotin	3	*	*	6	29.1	24.0
Benton	12	7.9	8.0	14	9.2	8.7
Chelan	11	16.2	16.5	8	11.8	11.0
Clallam	9	13.8	17.0	17	26.0	19.0
Clark	41	11.0	10.8	37	9.9	10.5
Columbia	1	*	*	0	*	*
Cowlitz	14	14.8	15.2	13	13.7	12.7
Douglas	2	*	*	3	*	*
Ferry	5	68.5	85.4	1	*	*
Franklin	2	*	*	5	9.3	12.6
Garfield	0	*	*	0	*	*
Grant	8	10.4	11.4	4	*	*
Grays Harbor	10	14.5	15.5	18	26.2	22.1
Island	4	*	*	7	9.5	8.5
Jefferson	4	*	*	3	*	*
King	198	11.1	10.3	159	8.9	8.8
Kitsap	30	12.7	12.2	30	12.7	12.6
Kittitas	1	*	*	5	14.2	16.5
Klickitat	1	*	*	2	*	*
Lewis	7	9.9	10.3	10	14.2	11.9
Lincoln	0	*	*	1	*	*
Mason	9	17.9	19.4	11	21.9	19.8
Okanogan	4	*	*	10	25.3	23.8
Pacific	5	23.9	22.5	4	*	*
Pend Oreille	0	*	*	2	*	*
Pierce	93	12.7	12.6	76	10.4	10.8
San Juan	1	*	*	0	*	*
Skagit	17	15.9	16.3	12	11.2	9.6
Skamania	1	*	*	0	*	*
Snohomish	87	13.6	13.1	58	9.1	9.6
Spokane	80	18.7	18.7	45	10.5	10.2
Stevens	6	14.8	17.0	3	*	*
Thurston	24	11.2	10.5	19	8.8	8.1
Wahkiakum	1	*	*	1	*	*
Walla Walla	5	9.0	10.2	4	*	*
Whatcom	24	13.8	14.5	14	8.0	8.5
Whitman	1	*	*	0	*	*
Yakima	15	6.6	7.4	17	7.5	8.2

[1] Rate per 100,000 population.

[2] Rate per 100,000 age-adjusted to U.S. 2000 population. Does not include deaths where age is unknown.

* Rate not calculated because number of deaths was less than 5.

Note: Source for Selected Disease Conditions is International Classification of Diseases, Tenth Revision, (ICD-10): Drug-Induced: F11.0-11.5,F11.7-F11.9,F12.0-F12.5,F12.7-F12.9,F13.0-F13.5,F13.7-F13.9,F14.0-F14.5,F14.7-F14.9,F15.0-F15.5,F15.7-F15.9,F16.0-F16.5,F16.7-F16.9, F17.0,F17.3,F16.9,F17.0,F17.3-F17.5,F17.7-F17.9,F18.0-F18.5,F18.7-F18.9,F19.0-F19.5,F19.7-F19.9,X40-X44,X60-X64,X85,Y10-Y14; Alcohol-Induced: F10,G31.2,G62.1,I42.6, K29.2,K70, R78.0,X45,X65,Y15.

Rates based on fewer than 20 deaths are likely to be unstable and imprecise.

Mortality Table E8. Unintentional Injury (Accident), Motor Vehicle Traffic, and Falls by County of Residence, 2003

County	Unintentional Injury (Accident)(V01-X59,Y85-Y86)			Motor Vehicle Traffic[1]			Falls (W00-W19)		
	Number	Crude Rate[2]	Age-Adj Rate[3]	Number	Crude Rate[2]	Age-Adj Rate[3]	Number	Crude Rate[2]	Age-Adj Rate[3]
State Total	**2,210**	**36.2**	**36.4**	**676**	**11.1**	**11.1**	**523**	**8.6**	**8.9**
Adams	11	66.3	68.5	8	48.2	50.0	2	*	*
Asotin	11	53.4	52.7	5	24.3	23.8	1	*	*
Benton	48	31.7	32.5	23	15.2	14.8	6	4.0	4.8
Chelan	35	51.5	50.5	9	13.3	13.6	9	13.3	11.3
Clallam	37	56.7	50.1	13	19.9	22.2	8	12.3	8.2
Clark	105	28.2	30.2	30	8.1	8.4	25	6.7	8.1
Columbia	4	*	*	2	*	*	1	*	*
Cowlitz	39	41.1	38.5	8	8.4	7.9	12	12.6	11.2
Douglas	21	62.5	64.3	7	20.8	22.8	9	26.8	26.6
Ferry	14	191.8	209.8	7	95.9	92.2	1	*	*
Franklin	13	24.3	30.3	3	*	*	4	*	*
Garfield	0	*	*	0	*	*	0	*	*
Grant	44	57.1	60.8	22	28.5	30.1	4	*	*
Grays Harbor	34	49.4	46.2	11	16.0	14.7	8	11.6	10.8
Island	26	35.1	36.4	8	10.8	11.2	10	13.5	14.1
Jefferson	15	56.2	56.3	7	26.2	29.0	3	*	*
King	478	26.9	26.5	134	7.5	7.4	124	7.0	7.3
Kitsap	77	32.5	33.9	19	8.0	8.3	16	6.8	7.6
Kittitas	13	36.9	33.1	6	17.0	14.8	3	*	*
Klickitat	6	31.1	26.5	1	*	*	0	*	*
Lewis	30	42.6	39.3	12	17.0	16.5	4	*	*
Lincoln	6	59.4	37.1	1	*	*	3	*	*
Mason	34	67.7	65.4	11	21.9	22.8	8	15.9	13.2
Okanogan	29	73.2	68.8	12	30.3	29.4	10	25.3	21.8
Pacific	16	76.6	67.8	7	33.5	30.4	3	*	*
Pend Oreille	8	67.8	73.6	5	42.4	48.2	0	*	*
Pierce	275	37.5	39.3	81	11.0	11.1	57	7.8	9.3
San Juan	10	67.6	74.0	4	*	*	2	*	*
Skagit	57	53.4	50.3	18	16.9	16.9	15	14.1	11.0
Skamania	7	70.7	73.2	3	*	*	0	*	*
Snohomish	228	35.8	38.4	59	9.3	9.8	54	8.5	10.6
Spokane	202	47.1	45.4	40	9.3	9.3	67	15.6	14.0
Stevens	29	71.4	73.0	14	34.5	34.9	4	*	*
Thurston	83	38.6	38.1	28	13.0	12.8	15	7.0	7.1
Wahkiakum	2	*	*	1	*	*	0	*	*
Walla Walla	29	52.0	45.7	8	14.3	12.5	9	16.1	13.1
Whatcom	49	28.1	28.7	13	7.4	7.2	8	4.6	4.4
Whitman	4	*	*	2	*	*	0	*	*
Yakima	81	35.8	36.6	34	15.0	15.3	18	8.0	7.9

[1] ICD-10 codes are V02-V04(.1,.9),V09.2,V12-V14(.3-.9), V19(.4-.6),V20-V28(.3-.9),V29-V79(.4-.9),V80(.3-.5),V81.1,V82.1, V83-V86(.0-.3),V87(.0-.8),V89.2

[2] Rate per 100,000 population.

[3] Rate per 100,000 age-adjusted to U.S. 2000 population. Does not include deaths where age is unknown.

[*] Rate not calculated because number of deaths was less than 5.

Note: Codes for International Classification of Diseases, Tenth Revision (ICD-10) are in parentheses after each group heading unless otherwise noted.

Rates based on fewer than 20 deaths are likely to be unstable and imprecise.

Mortality Table E9. Drowning, Fires, and Other Unintentional Injury (Accident) by County of Residence, 2003

County	Drownings (V90,V92,W65-W74)			Fires (X00-X09)			Other Inintentional Injury (Accident) (remainder)		
	Number	Crude Rate[1]	Age-Adj Rate[2]	Number	Crude Rate[1]	Age-Adj Rate[2]	Number	Crude Rate[1]	Age-Adj Rate[2]
State Total	**106**	**1.7**	**1.7**	**35**	**0.6**	**0.6**	**870**	**14.3**	**14.1**
Adams	0	*	*	0	*	*	1	*	*
Asotin	0	*	*	0	*	*	5	24.3	25.2
Benton	2	*	*	0	*	*	17	11.2	11.7
Chelan	1	*	*	0	*	*	16	23.6	24.1
Clallam	1	*	*	0	*	*	15	23.0	18.7
Clark	6	1.6	1.6	2	*	*	42	11.3	11.4
Columbia	0	*	*	0	*	*	1	*	*
Cowlitz	2	*	*	0	*	*	17	17.9	17.1
Douglas	0	*	*	1	*	*	4	*	*
Ferry	0	*	*	0	*	*	6	82.2	96.9
Franklin	1	*	*	0	*	*	5	9.3	11.9
Garfield	0	*	*	0	*	*	0	*	*
Grant	6	7.8	7.8	0	*	*	12	15.6	17.0
Grays Harbor	1	*	*	3	*	*	11	16.0	15.5
Island	2	*	*	0	*	*	6	8.1	8.5
Jefferson	0	*	*	0	*	*	5	18.7	20.3
King	30	1.7	1.7	5	0.3	0.3	185	10.4	9.8
Kitsap	5	2.1	2.1	1	*	*	36	15.2	15.4
Kittitas	1	*	*	1	*	*	2	*	*
Klickitat	0	*	*	1	*	*	4	*	*
Lewis	0	*	*	2	*	*	12	17.0	16.0
Lincoln	0	*	*	0	*	*	2	*	*
Mason	3	*	*	0	*	*	12	23.9	22.2
Okanogan	2	*	*	1	*	*	4	*	*
Pacific	0	*	*	1	*	*	5	23.9	26.2
Pend Oreille	0	*	*	0	*	*	3	*	*
Pierce	9	1.2	1.2	4	*	*	124	16.9	17.2
San Juan	0	*	*	0	*	*	4	*	*
Skagit	4	*	*	0	*	*	20	18.7	18.9
Skamania	2	*	*	1	*	*	1	*	*
Snohomish	9	1.4	1.4	5	0.8	0.8	101	15.8	15.8
Spokane	8	1.9	1.8	0	*	*	87	20.3	20.3
Stevens	1	*	*	1	*	*	9	22.2	23.8
Thurston	2	*	*	3	*	*	35	16.3	16.1
Wahkiakum	0	*	*	0	*	*	1	*	*
Walla Walla	0	*	*	0	*	*	12	21.5	20.2
Whatcom	3	*	*	1	*	*	24	13.8	14.6
Whitman	0	*	*	0	*	*	2	*	*
Yakima	5	2.2	2.2	2	*	*	22	9.7	10.2

[1] Rate per 100,000 population.

[2] Rate per 100,000 age-adjusted to U.S. 2000 population. Does not include deaths where age is unknown.

* Rate not calculated because number of deaths was less than 5.

Note: Codes for International Classification of Diseases, Tenth Revision (ICD-10) are in parentheses after each group heading. Rates based on fewer than 20 deaths are likely to be unstable and imprecise.

Mortality Table E10. Suicide, Homicide, and Undetermined to Residents by County of Injury, 2003

County of Injury	Intentional Self-Harm (Suicide) (X60-X84, Y87.0)	Assault (Homicide) (X85-Y09,Y87.1)	Undetermined (Y10-Y34, Y87.2, Y89.9)
State Total	**801**	**212**	**108**
Adams	1	0	0
Asotin	2	0	0
Benton	23	6	2
Chelan	10	4	1
Clallam	16	0	1
Clark	43	6	2
Columbia	2	0	0
Cowlitz	12	4	2
Douglas	7	0	0
Ferry	2	0	1
Franklin	5	1	1
Garfield	0	0	0
Grant	9	2	1
Grays Harbor	9	2	4
Island	7	1	0
Jefferson	5	2	0
King	201	73	41
Kitsap	28	3	2
Kittitas	2	0	0
Klickitat	2	0	0
Lewis	16	0	0
Lincoln	2	0	0
Mason	5	3	2
Okanogan	5	0	0
Pacific	3	2	1
Pend Oreille	3	1	0
Pierce	100	31	5
San Juan	0	0	0
Skagit	17	1	2
Skamania	2	0	0
Snohomish	73	14	15
Spokane	58	17	7
Stevens	6	6	1
Thurston	37	2	2
Wahkiakum	1	0	0
Walla Walla	6	0	0
Whatcom	29	4	6
Whitman	4	0	0
Yakima	19	10	0
Unknown	18	5	5
Out of State	11	12	4

Note: Codes for International Classification of Diseases, Tenth Revision (ICD-10) are in parentheses after each group heading.

Mortality Table E11. Unintentional Injury (Accident) to Residents by County of Injury, 2003

County of Injury	All Unintentional Injury (Accident)	Motor Vehicle Traffic	Falls	Drownings	Fires	Other Accidents
State Total	**2,210**	**676**	**523**	**106**	**35**	**870**
Adams	10	8	1	0	0	1
Asotin	6	1	1	0	0	4
Benton	25	7	5	0	0	13
Chelan	44	12	14	1	1	16
Clallam	30	10	8	1	0	11
Clark	69	12	20	4	2	31
Columbia	3	2	0	0	0	1
Cowlitz	30	6	8	1	0	15
Douglas	18	10	5	0	1	2
Ferry	8	4	0	0	0	4
Franklin	13	5	3	1	0	4
Garfield	0	0	0	0	0	0
Grant	40	23	3	7	0	7
Grays Harbor	34	11	7	4	3	9
Island	18	4	7	1	0	6
Jefferson	14	7	1	1	0	5
King	413	106	118	23	7	159
Kitsap	58	15	15	3	1	24
Kittitas	19	11	0	3	1	4
Klickitat	11	7	0	1	1	2
Lewis	29	20	1	0	2	6
Lincoln	4	1	2	0	0	1
Mason	31	13	6	2	0	10
Okanogan	28	11	10	2	1	4
Pacific	11	3	2	2	0	4
Pend Oreille	7	5	0	0	0	2
Pierce	234	67	55	4	3	105
San Juan	9	4	1	1	0	3
Skagit	56	23	13	4	0	16
Skamania	2	1	0	0	0	1
Snohomish	195	49	56	7	3	80
Spokane	174	32	62	8	0	72
Stevens	23	12	3	0	1	7
Thurston	72	26	16	1	3	26
Wahkiakum	4	3	0	0	0	1
Walla Walla	24	6	11	0	0	7
Whatcom	44	12	6	3	1	22
Whitman	4	2	0	0	0	2
Yakima	72	31	13	6	2	20
Unknown	122	65	14	8	1	34
Out of State	202	29	36	7	1	129

Note: Source for Selected Accidents is International Classification of Diseases (Tenth): All Unintentional Injury (Accident) (ICD-10: V01-X59,Y85-Y86); Motor Vehicle Traffic (ICD-10: V02-V04(.1,.9),V09.2,V12-V14(.3-.9), V19(.4-.6),V20-V28(.3-.9),V29-V79(.4-.9),V80(.3-.5),V81.1,V82.1,V83-V86(.0-.3),V87(.0-.8),V89.2; Falls (ICD-10: W00-W19); Drownings (ICD-10: V90,V92,W65-W74); Fires (ICD-10: X00-X09); Other Accidents (remainder).

F. Infant Mortality

Infant mortality data include all infants who died at less than one year of age. Information on the causes of infant death helps identify areas where special care or preventive measures may be needed.

To provide more information about infant death, the death data are linked to data about the infant's birth. This linkage provides demographic data such as the mother's age and race/ethnicity, behavioral data such as smoking during pregnancy, health service data such as prenatal care, and outcome data such as birth weight. Using this linked file, analysts can compare birth characteristics of infants who died to those of infants who survived to identify risk factors for infant mortality. Health care providers use this knowledge to help their patients have a healthy baby.

Mortality Table F1. Selected Causes for Infants (< 1 Year) Residents, 1994-2003

	Total All Causes		Perinatal Conditions		Congenital Malformations		SIDS		External Causes	
Year	Number	Rate[1]	Number	Rate[1]	Number	Rate[1]	Number	Rate[1]	Number	Rate[1]
1994	478	6.2	161	2.1	130	1.7	115	1.5	18	0.2
1995	449	5.8	173	2.2	118	1.5	101	1.3	19	0.2
1996	467	6.0	175	2.2	144	1.8	80	1.0	9	0.1
1997	440	5.6	156	2.0	117	1.5	84	1.1	18	0.2
1998	452	5.7	175	2.2	120	1.5	91	1.1	13	0.2
1998 Comparability Modified										
	452	5.7	185	2.3	109	1.4	94	1.1	13	0.2
1999	401	5.0	172	2.2	102	1.3	69	0.9	13	0.2
2000	423	5.2	172	2.1	92	1.1	76	0.9	27	0.3
2001	461	5.8	200	2.5	119	1.5	60	0.8	32	0.4
2002	452	5.7	200	2.5	105	1.3	70	0.9	24	0.3
2003	447	5.6	200	2.5	116	1.4	48	0.6	20	0.2

[1]Rate per 1,000 live births.

Note:

Causes of death were coded with ICD-9 in 1990-1998 and with ICD-10 during 1999-2000. Rates during 1998 have been multiplied by a comparability ratio (CR). ICD codes and comparability ratios are:

Perinatal Conditions: ICD-9: 760-771.2,771.4-779; ICD-10: P00-P96; CR=1.0581

Congenital Mallformations: ICD-9: 740-759; ICD-10: Q00-Q99; CR=0.9064

SIDS: ICD-9: 798.0; ICD-10: R95; CR=1.0362

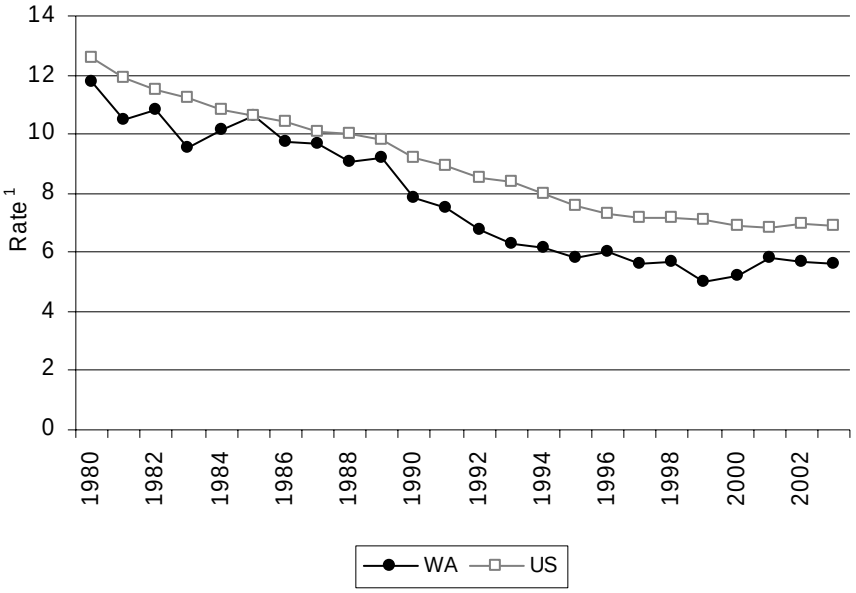
External Causes: ICD-9: E800-E999; ICD-10: V01-Y89; CR=0.9932

Total infant mortality has dramatically decreased since 1990. During this time period, SIDS deaths have declined and deaths from other causes have also decreased. Possible reasons for the change include emphasis on preventive measures such as proper sleep position (the 'Back to Sleep' campaign), use of folic acid before and during pregnancy to prevent neural tube defects, and smoking cessation.

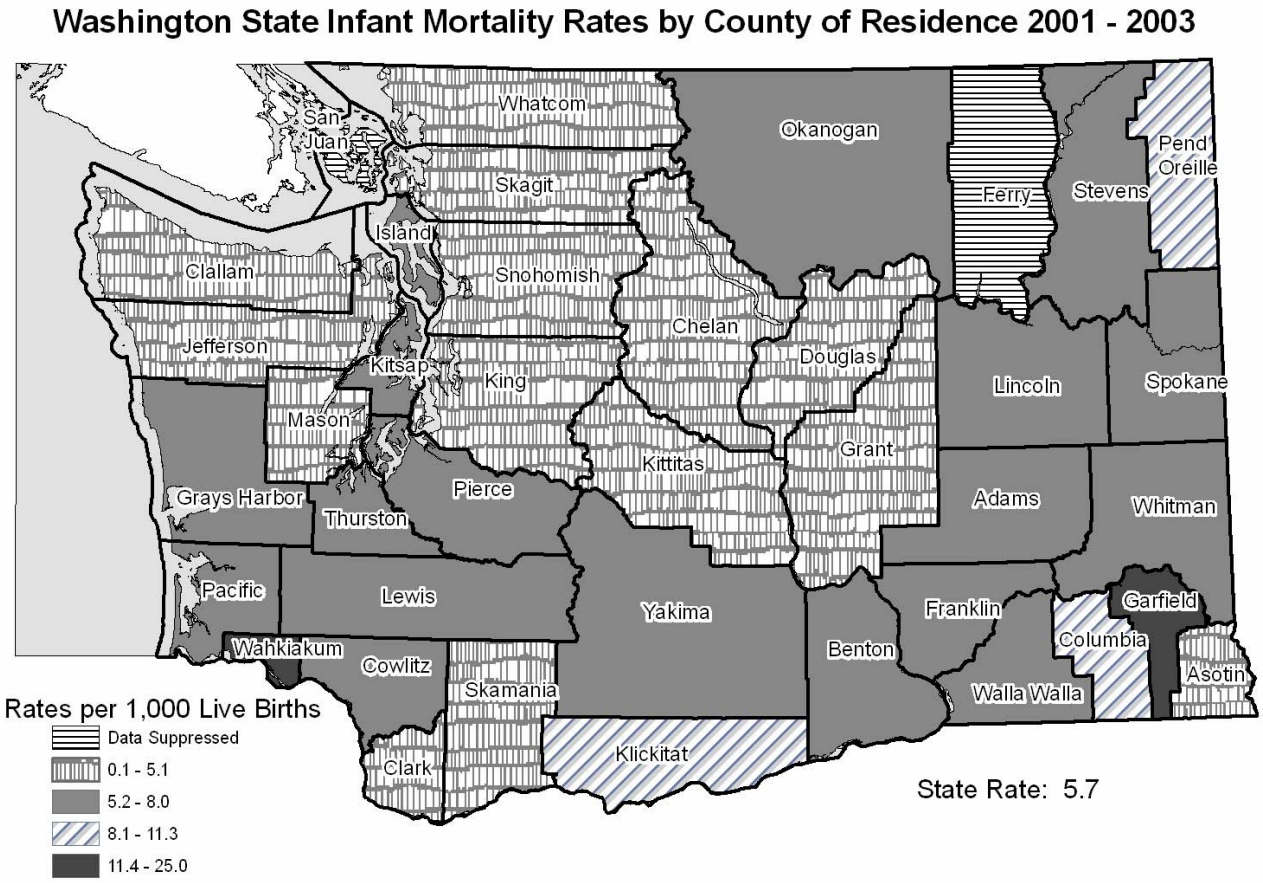
However, when interpreting this table if a sudden change in the SIDS number or rate is evident, the category "unexplained infant death" should be considered to see if that has also changed. Since neither of these conditions is very well-defined, the designation of a particular infant death as SIDS (ICD-10 R95) vs. unexplained death (ICD-10 R99) may be a matter of personal preference on the part of the coroner/ME.

Mortality Figure 9 & 10

Infant Mortality Rates[1], Washington State Residents Compared to National, 1980-2003



[1] Rate per 1,000 live births

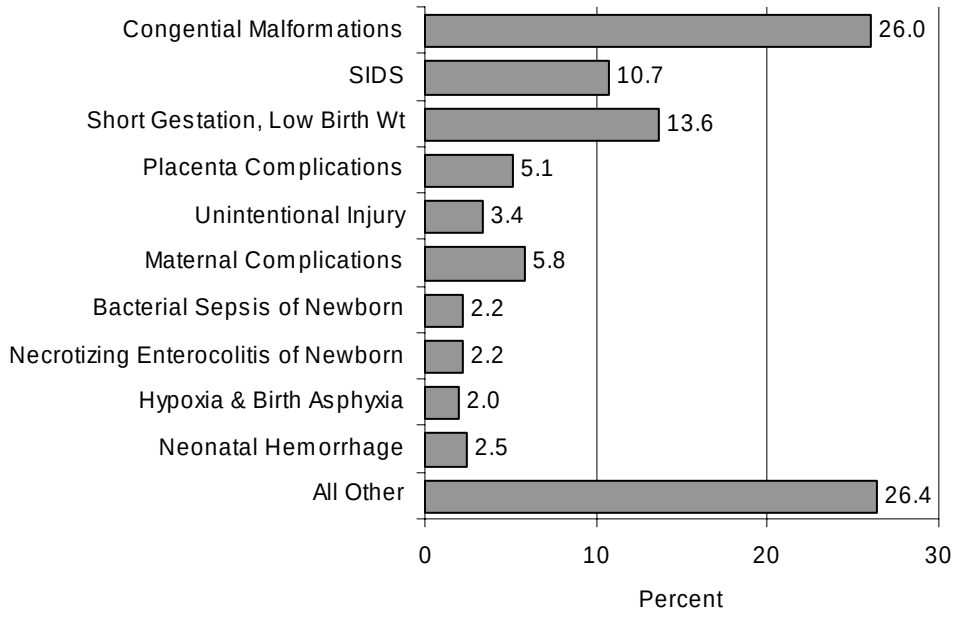


Mortality Table F2. Leading Causes of Infant (Age < 1 Year) Death for Residents, 2003

Rank	Causes of Death and ICD-10 Codes	Number	Percent[1]	Cumulative Percent
	State Total	**447**	**100.0**	.
1	Congenital Malformations (Q00-Q99)	116	26.0	26.0
2	Short Gestation & Low Birth Weight (P07)	61	13.6	39.6
3	Sudden Infant Death Syndrome (R95)	48	10.7	50.3
4	Maternal Complications of Pregnancy (P01)	26	5.8	56.2
5	Complic. of Placenta, Cord & Membranes (P02)	23	5.1	61.3
6	Unintentional Injury (Accident) (V01-X59,Y85-Y86)	15	3.4	64.7
7	Neonatal Hemorrhage (P50-P52,P54)	11	2.5	67.1
8	Bacterial Sepsis of Newborn (P36)	10	2.2	69.4
9	Necrotizing Enterocolitis of Newborn (P77)	10	2.2	71.6
10	Intrauterine Hypoxia & Birth Asphyxia (P20-P21)	9	2.0	73.6
	All Other Causes	118	26.4	100.0

[1] Percents may not add to 100% due to rounding.

Mortality Figure 11. Leading Causes of Infant (Age <1 Year) Death for Residents, 2003



Mortality Table F3. Birth Weight and Age for Infant (Age < 1 Year) Residents, 2003

Birth Weight in Grams	Total		< 1 Day	1 Day to < 7 Days	7 Days to <28 Days	28 Days to < 6 Months	6 Months to < 12 Months
	Number	Rate[1]					
State Totals	**447**	**5.6**	**164**	**72**	**66**	**112**	**33**
Under 500	63	700.0	57	2	1	3	0
500 - 749	84	531.6	56	13	7	6	2
750 - 999	23	152.3	5	4	8	5	1
1,000 - 1,499	24	58.5	8	4	6	3	3
1,500 - 1,999	29	30.2	12	7	6	4	0
2,000 - 2,499	37	12.0	11	5	6	14	1
2,500 - 2,999	54	4.7	5	8	13	18	10
3,000 - 3,499	62	2.1	2	15	7	33	5
3,500 - 3,999	37	1.5	1	6	5	17	8
4,000 - 4,499	10	1.3	1	2	2	3	2
4,500 and over	2	*	0	0	0	2	0
Unknown	22	75.9	6	6	5	4	1

[1] Rate per 1,000 live births.

* Rate not calculated because number of deaths was less than 5.

Mortality Table F4-a. Selected Causes by Age and Sex for Infant (Age < 1 Year) Residents, 2003

Cause and ICD-10 Code	Total			Under 1 Day			1 Day to Under 7 Days		
	Total	Male	Fem.	Total	Male	Fem.	Total	Male	Fem.
Total All Causes[1]	**(447)**	**(248)**	**(199)**	**(164)**	**(88)**	**(76)**	**(72)**	**(38)**	**(34)**
Infectious & Parasitic Diseases (A00-B99)	5	3	2	0	0	0	0	0	0
Diseases of the Nervous System (G00-G98)	9	4	5	0	0	0	0	0	0
Diseases of the Circulatory System (I00-I99)	8	3	5	0	0	0	1	0	1
Diseases of the Respiratory System (J00-J98)	8	4	4	0	0	0	1	1	0
Conditions Originating in Perinatal Period(P00-P96)	(200)	(106)	(94)	(124)	(66)	(58)	(41)	(19)	(22)
Newborn Affected by Maternal Factors (P00-P04)	(56)	(28)	(28)	(50)	(26)	(24)	(6)	(2)	(4)
Incompetent Cervix (P01.0)	8	3	5	8	3	5	0	0	0
Premature Rupture of Membranes (P01.1)	12	9	3	12	9	3	0	0	0
Other Maternal Complic. of Pregnancy (P01.2-P01.9)	6	4	2	4	3	1	2	1	1
Complications Involving Placenta (P02.0-P02.3)	9	6	3	8	5	3	1	1	0
Complications of Cord & Membranes (P02.4-P02.9)	14	4	10	13	4	9	1	0	1
Other (P00,P03,P04)	7	2	5	5	2	3	2	0	2
Short Gestation & Low Birth Weight (P07)	61	35	26	52	31	21	8	4	4
Intrauterine Hypoxia & Birth Asphyxia (P20-P21)	9	5	4	0	0	0	5	2	3
Respiratory Distress of Newborn (P22)	8	3	5	3	2	1	3	1	2
Other Respiratory Conditions (P23-P28)	8	5	3	4	3	1	2	1	1
Infections Specific to Perinatal Period (P35-P39)	12	10	2	2	2	0	1	1	0
Neonatal Hemorrhage (P50-P52,P54)	11	2	9	1	0	1	9	2	7
Necrotizing Enterocolitis of Newborn (P77)	10	7	3	0	0	0	1	1	0
Hydrops Fetalis Not Due to Hemolytic Disease (P83.2)	6	2	4	3	0	3	2	2	0
Other (Residual)	19	9	10	9	2	7	4	3	1
Congenital Malformations (Q00-Q99)	(116)	(70)	(46)	(40)	(22)	(18)	(24)	(14)	(10)
Anencephaly and Similar Malformations (Q00)	8	4	4	7	3	4	1	1	0
Malformations of Heart (Q20-Q24)	39	22	17	5	1	4	11	8	3
Other Malformations of Circulatory System (Q25-Q28)	4	3	1	0	0	0	3	2	1
Malformations of Respiratory System (Q30-Q34)	12	8	4	6	4	2	2	1	1
Malformations of Genitourinary System (Q50-Q64)	7	5	2	5	4	1	1	0	1
Malform. of Musculoskeletal Sys. & Skin (Q65-Q85)	18	13	5	7	6	1	2	1	1
Down's Syndrome (Q90)	0	0	0	0	0	0	0	0	0
Edward's Syndrome (Q91.0-Q91.3)	9	2	7	6	2	4	1	0	1
Patau's Syndrome (Q91.4-Q91.7)	3	0	3	1	0	1	1	0	1
Other (Q01-Q18,Q35-Q45,Q86-Q89)	12	9	3	3	2	1	1	0	1
Other Chromosomal Abnormalities (Q92-Q99)	4	4	0	0	0	0	1	1	0
Sudden Infant Death Syndrome (R95)	48	26	22	0	0	0	0	0	0
Other(C00-F99,H00-H99,K00-N99,R00-R94,R96-R99)	33	23	10	0	0	0	5	4	1
External Causes of Mortality (V01-Y89)	(20)	(9)	(11)	(0)	(0)	(0)	(0)	(0)	(0)
Accidents (V01-X59, Y85-Y86)	(15)	(7)	(8)	(0)	(0)	(0)	(0)	(0)	(0)
Suffocation & Strangulation (W75-W77,W81-W84)	9	3	6	0	0	0	0	0	0
Other (V00-W74,W78-W80,W85-X59,Y85-Y86)	6	4	2	0	0	0	0	0	0
Assault (homicide) (X85-Y09, Y87.1)	4	2	2	0	0	0	0	0	0
Other (X60-X84,Y10-Y84,Y87.0,Y87.2-Y89)	1	0	1	0	0	0	0	0	0

[1] Group totals are shown in parentheses.

Total includes 1 death for which sex is unknown.

Mortality Table F4-b. Selected Causes by Age and Sex for Infant (Age < 1 Year) Residents, 2003

Cause and ICD-10 Code	7 Days to Under 28 Days			28 Days to Under 6 Months			6 Months to Under 12 Months		
	Total	Male	Fem.	Total	Male	Fem.	Total	Male	Fem.
Total All Causes[1]	**(66)**	**(41)**	**(25)**	**(112)**	**(64)**	**(48)**	**(33)**	**(17)**	**(16)**
Infectious & Parasitic Diseases (A00-B99)	1	0	1	4	3	1	0	0	0
Diseases of the Nervous System (G00-G98)	2	2	0	6	2	4	1	0	1
Diseases of the Circulatory System (I00-I99)	2	0	2	2	1	1	3	2	1
Diseases of the Respiratory System (J00-J98)	0	0	0	5	3	2	2	0	2
Conditions Originating in Perinatal Period(P00-P96)	(31)	(19)	(12)	(4)	(2)	(2)	(0)	(0)	(0)
Newborn Affected by Maternal Factors (P00-P04)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
Incompetent Cervix (P01.0)	0	0	0	0	0	0	0	0	0
Premature Rupture of Membranes (P01.1)	0	0	0	0	0	0	0	0	0
Other Maternal Complic. of Pregnancy (P01.2-P01.9)	0	0	0	0	0	0	0	0	0
Complications Involving Placenta (P02.0-P02.3)	0	0	0	0	0	0	0	0	0
Complications of Cord & Membranes (P02.4-P02.9)	0	0	0	0	0	0	0	0	0
Other (P00,P03,P04)	0	0	0	0	0	0	0	0	0
Short Gestation & Low Birth Weight (P07)	1	0	1	0	0	0	0	0	0
Intrauterine Hypoxia & Birth Asphyxia (P20-P21)	4	3	1	0	0	0	0	0	0
Respiratory Distress of Newborn (P22)	1	0	1	1	0	1	0	0	0
Other Respiratory Conditions (P23-P28)	2	1	1	0	0	0	0	0	0
Infections Specific to Perinatal Period (P35-P39)	8	7	1	1	0	1	0	0	0
Neonatal Hemorrhage (P50-P52,P54)	1	0	1	0	0	0	0	0	0
Necrotizing Enterocolitis of Newborn (P77)	8	5	3	1	1	0	0	0	0
Hydrops Fetalis Not Due to Hemolytic Disease (P83.2)	1	0	1	0	0	0	0	0	0
Other (Residual)	5	3	2	1	1	0	0	0	0
Congenital Malformations (Q00-Q99)	(21)	(16)	(5)	(26)	(15)	(11)	(5)	(3)	(2)
Anencephaly and Similar Malformations (Q00)	0	0	0	0	0	0	0	0	0
Malformations of Heart (Q20-Q24)	9	6	3	12	6	6	2	1	1
Other Malformations of Circulatory System (Q25-Q28)	1	1	0	0	0	0	0	0	0
Malformations of Respiratory System (Q30-Q34)	2	1	1	2	2	0	0	0	0
Malformations of Genitourinary System (Q50-Q64)	1	1	0	0	0	0	0	0	0
Malform. of Musculoskeletal Sys. & Skin (Q65-Q85)	4	4	0	3	1	2	2	1	1
Down's Syndrome (Q90)	0	0	0	0	0	0	0	0	0
Edward's Syndrome (Q91.0-Q91.3)	0	0	0	2	0	2	0	0	0
Patau's Syndrome (Q91.4-Q91.7)	1	0	1	0	0	0	0	0	0
Other (Q01-Q18,Q35-Q45,Q86-Q89)	2	2	0	5	4	1	1	1	0
Other Chromosomal Abnormalities (Q92-Q99)	1	1	0	2	2	0	0	0	0
Sudden Infant Death Syndrome (R95)	4	2	2	36	20	16	8	4	4
Other(C00-F99,H00-H99,K00-N99,R00-R94,R96-R99)	3	1	2	15	12	3	10	6	4
External Causes of Mortality (V01-Y89)	(2)	(1)	(1)	(14)	(6)	(8)	(4)	(2)	(2)
Accidents (V01-X59, Y85-Y86)	(2)	(1)	(1)	(11)	(5)	(6)	(2)	(1)	(1)
Suffocation & Strangulation (W75-W77,W81-W84)	2	1	1	6	1	5	1	1	0
Other (V00-W74,W78-W80,W85-X59,Y85-Y86)	0	0	0	5	4	1	1	0	1
Assault (homicide) (X85-Y09, Y87.1)	0	0	0	2	1	1	2	1	1
Other (X60-X84,Y10-Y84,Y87.0,Y87.2-Y89)	0	0	0	1	0	1	0	0	0

[1] Group totals are shown in parentheses.

Total includes 1 death for which sex is unknown.

Mortality Table F5. Selected Causes for Infant (Age < 1 Year) County of Residence, 2003

County	Total All Causes	Maternal Factors	Hypoxia & Respiratory Conditions	Other Perinatal Conditions	Congenital Malforma-tions	Sudden Infant Death	External Causes	All Other Causes
State Total	**447**	**56**	**25**	**119**	**116**	**48**	**20**	**63**
Adams	1	0	0	1	0	0	0	0
Asotin	1	0	0	0	0	0	0	1
Benton	13	2	1	5	1	0	2	2
Chelan	6	1	0	1	2	1	0	1
Clallam	2	0	0	0	1	0	1	0
Clark	26	2	3	6	9	0	2	4
Columbia	1	0	0	0	1	0	0	0
Cowlitz	9	1	0	2	4	0	1	1
Douglas	1	1	0	0	0	0	0	0
Ferry	0	0	0	0	0	0	0	0
Franklin	6	2	0	2	2	0	0	0
Garfield	0	0	0	0	0	0	0	0
Grant	6	0	0	0	5	1	0	0
Grays Harbor	6	2	0	0	3	1	0	0
Island	4	0	1	0	2	1	0	0
Jefferson	2	0	0	0	1	1	0	0
King	114	18	9	35	21	14	2	15
Kitsap	19	3	5	1	4	3	0	3
Kittitas	4	0	0	2	1	0	0	1
Klickitat	3	0	0	1	0	2	0	0
Lewis	3	0	0	1	1	1	0	0
Lincoln	1	0	0	0	0	1	0	0
Mason	1	0	0	1	0	0	0	0
Okanogan	4	0	0	0	1	2	0	1
Pacific	1	1	0	0	0	0	0	0
Pend Oreille	1	1	0	0	0	0	0	0
Pierce	64	6	0	23	15	1	3	16
San Juan	0	0	0	0	0	0	0	0
Skagit	7	1	1	1	1	2	1	0
Skamania	0	0	0	0	0	0	0	0
Snohomish	40	6	1	8	13	6	3	3
Spokane	33	2	1	6	10	5	2	7
Stevens	2	0	0	1	1	0	0	0
Thurston	14	2	0	2	4	2	1	3
Wahkiakum	0	0	0	0	0	0	0	0
Walla Walla	3	0	0	2	1	0	0	0
Whatcom	6	1	1	1	2	0	1	0
Whitman	4	1	1	0	1	1	0	0
Yakima	39	3	1	17	9	3	1	5

Note: Source for Selected Causes is International Classification of Diseases, Tenth Revision (ICD-10):
Maternal Factors (ICD-10: P00-P04); Hypoxia, and Respiratory Conditions (ICD-10: P20-P28);
Other Perinatal Conditions (ICD-10: P05-P15, P29-P96); Congenital Malformations (ICD-10: Q00-Q99);
Sudden Infant Death Syndrome (ICD-10: R95); External Causes (ICD-10: V01-Y89)

Mortality Table F6. Mother's Race/Ethnicity[1] by Infant (Age < 1 Year) County of Residence[2], 2003

County	Total	White	African American	Native American	Asian	Other	Unk	Hispanic[4]
State Total	**447**	**317**	**29**	**17**	**27**	**0**	**57**	**68**
State Rate[3]	**5.6**	**4.9**	**8.5**	**9.7**	**3.9**	*****	**n/a**	5.1
Adams	1	1	0	0	0	0	0	1
Asotin	1	0	0	0	0	0	1	0
Benton	13	13	0	0	0	0	0	3
Chelan	6	4	0	0	1	0	1	3
Clallam	2	2	0	0	0	0	0	0
Clark	26	13	0	0	0	0	13	2
Columbia	1	1	0	0	0	0	0	0
Cowlitz	9	6	0	0	0	0	3	0
Douglas	1	1	0	0	0	0	0	1
Ferry	0	0	0	0	0	0	0	0
Franklin	6	4	2	0	0	0	0	2
Garfield	0	0	0	0	0	0	0	0
Grant	6	5	0	0	0	0	1	3
Grays Harbor	6	3	0	0	0	0	3	1
Island	4	3	0	0	0	0	1	0
Jefferson	2	0	0	1	0	0	1	0
King	114	66	20	5	15	0	8	12
Kitsap	19	12	1	0	1	0	5	0
Kittitas	4	1	0	0	1	0	2	0
Klickitat	3	0	0	1	0	0	2	0
Lewis	3	3	0	0	0	0	0	0
Lincoln	1	1	0	0	0	0	0	0
Mason	1	1	0	0	0	0	0	1
Okanogan	4	3	0	1	0	0	0	1
Pacific	1	0	0	0	0	0	1	0
Pend Oreille	1	1	0	0	0	0	0	0
Pierce	64	53	3	2	3	0	3	6
San Juan	0	0	0	0	0	0	0	0
Skagit	7	6	0	0	0	0	1	1
Skamania	0	0	0	0	0	0	0	0
Snohomish	40	30	2	0	3	0	5	8
Spokane	33	30	0	2	0	0	1	1
Stevens	2	1	0	1	0	0	0	1
Thurston	14	11	0	0	1	0	2	1
Wahkiakum	0	0	0	0	0	0	0	0
Walla Walla	3	3	0	0	0	0	0	0
Whatcom	6	5	0	0	0	0	1	1
Whitman	4	3	0	0	1	0	0	0
Yakima	39	31	1	4	1	0	2	19

[1] Infant deaths are matched with births to find mother's race/ethnicity.

[2] Residence is the infant's at the time of death.

[3] Rate per 1,000 live births.

[4] Persons of Hispanic Origin may be of any race. See Appendix A, "Hispanic Origin."

[*] Rate not calculated because number of deaths was less than 5.

Mortality Table F7. Mother's Age Group[1] by Infant (Age < 1 Year) by Place of Residence[2], 2003

County	All Ages	Under 15	15-17	18-19	20-24	25-29	30-34	35-39	40-44	45 and Over	Age Unk
State Total	**447**	**4**	**15**	**42**	**117**	**119**	**91**	**31**	**22**	**0**	**6**
State Rate[3]	**5.6**	*****	**7.6**	**8.8**	**6.0**	**5.4**	**4.6**	**3.1**	**9.9**	*****	**n/a**
Adams	1	0	0	0	0	0	1	0	0	0	0
Asotin	1	0	0	1	0	0	0	0	0	0	0
Benton	13	2	0	2	2	5	1	1	0	0	0
Chelan	6	0	0	1	4	0	0	1	0	0	0
Clallam	2	0	0	0	1	0	0	1	0	0	0
Clark	26	0	1	4	4	5	7	4	1	0	0
Columbia	1	0	0	0	0	0	0	0	1	0	0
Cowlitz	9	0	2	0	2	2	1	2	0	0	0
Douglas	1	0	0	0	1	0	0	0	0	0	0
Ferry	0	0	0	0	0	0	0	0	0	0	0
Franklin	6	0	1	0	2	0	1	2	0	0	0
Garfield	0	0	0	0	0	0	0	0	0	0	0
Grant	6	0	1	1	3	1	0	0	0	0	0
Grays Harbor	6	0	0	0	0	3	1	0	0	0	2
Island	4	0	0	0	3	1	0	0	0	0	0
Jefferson	2	0	0	1	0	0	0	0	1	0	0
King	114	0	2	8	24	33	28	9	8	0	2
Kitsap	19	0	0	0	4	6	5	1	2	0	1
Kittitas	4	0	0	2	2	0	0	0	0	0	0
Klickitat	3	0	0	0	1	1	0	0	0	0	1
Lewis	3	0	1	1	0	0	0	0	1	0	0
Lincoln	1	0	0	0	0	1	0	0	0	0	0
Mason	1	0	0	0	1	0	0	0	0	0	0
Okanogan	4	0	0	2	1	1	0	0	0	0	0
Pacific	1	0	0	0	0	0	1	0	0	0	0
Pend Oreille	1	0	0	0	0	1	0	0	0	0	0
Pierce	64	0	3	4	18	20	13	1	5	0	0
San Juan	0	0	0	0	0	0	0	0	0	0	0
Skagit	7	0	0	1	3	0	2	1	0	0	0
Skamania	0	0	0	0	0	0	0	0	0	0	0
Snohomish	40	0	1	1	13	11	9	2	3	0	0
Spokane	33	0	1	7	7	9	6	3	0	0	0
Stevens	2	0	0	0	1	0	1	0	0	0	0
Thurston	14	0	1	0	5	5	2	1	0	0	0
Wahkiakum	0	0	0	0	0	0	0	0	0	0	0
Walla Walla	3	0	0	1	1	1	0	0	0	0	0
Whatcom	6	0	0	0	2	2	2	0	0	0	0
Whitman	4	0	0	0	0	1	3	0	0	0	0
Yakima	39	2	1	5	12	10	7	2	0	0	0

[1] Infant deaths are matched with births to find mother's age.

[2] Residence is the infant's at the time of death.

[3] Rate per 1,000 live births.

[*] Rate not calculated because number of deaths was less than 5.

Mortality Table F8. Fetal Deaths, Perinatal, Neonatal, and Infant Mortality by County/City of Residence, 2003

County and City	Fetal Deaths		Perinatal Mortality		Neonatal Mortality		Infant Mortality	
	Number	Ratio[1]	Number	Rate[2]	Number	Rate[3]	Number	Rate[4]
State Total	**498**	**6.2**	**734**	**9.1**	**302**	**3.8**	**447**	**5.6**
Adams	1	*	2	*	1	*	1	*
Asotin	1	*	1	*	0	*	1	*
Benton	18	8.2	26	11.8	9	4.1	13	5.9
Kennewick	9	7.9	10	8.7	2	*	4	*
Richland	3	*	6	11.7	3	*	3	*
Chelan	8	9.0	9	10.0	4	*	6	6.8
Wenatchee	4	*	4	*	1	*	2	*
Clallam	7	11.5	8	13.0	1	*	2	*
Port Angeles	4	*	5	22.6	1	*	1	*
Clark	22	4.1	36	6.7	19	3.6	26	4.9
Vancouver	16	4.7	21	6.2	9	2.7	12	3.6
Columbia	0	*	1	*	1	*	1	*
Cowlitz	6	5.3	11	9.6	8	7.0	9	7.9
Longview	2	*	6	11.3	6	11.4	7	13.3
Douglas	2	*	3	*	1	*	1	*
Ferry	0	*	0	*	0	*	0	*
Franklin	5	3.8	10	7.5	6	4.5	6	4.5
Pasco	4	*	8	7.3	5	4.6	5	4.6
Garfield	0	*	0	*	0	*	0	*
Grant	4	*	8	5.6	6	4.2	6	4.2
Moses Lake	1	*	2	*	2	*	2	*
Grays Harbor	6	7.3	10	12.2	4	*	6	7.3
Aberdeen	1	*	1	*	0	*	1	*
Island	4	*	5	5.3	2	*	4	*
Oak Harbor	2	*	2	*	0	*	1	*
Jefferson	2	*	3	*	1	*	2	*
King	152	6.8	206	9.1	77	3.4	114	5.1
Auburn	6	6.5	9	9.6	3	*	4	*
Bellevue	8	5.8	11	7.9	5	3.6	5	3.6
Bothell part	2	*	3	*	2	*	2	*
Burien	3	*	3	*	0	*	3	*
Des Moines	0	*	0	*	0	*	2	*
Federal Way	7	6.0	9	7.6	5	4.3	9	7.7
Issaquah	2	*	2	*	0	*	0	*
Kenmore	1	*	1	*	0	*	0	*
Kent	14	8.7	19	11.6	7	4.3	9	5.6
Kirkland	2	*	3	*	1	*	3	*
Maple Valley	1	*	3	*	2	*	2	*
Mercer Island	2	*	2	*	0	*	0	*
Redmond	6	6.7	9	10.0	3	*	5	5.6
Renton	8	5.9	10	7.4	6	4.5	9	6.7
Sammamish	4	*	5	8.3	1	*	1	*
SeaTac	2	*	2	*	0	*	1	*
Seattle	62	8.6	82	11.2	26	3.6	37	5.1
Shoreline	2	*	2	*	1	*	1	*
Tukwila	1	*	2	*	1	*	1	*
Kitsap	15	5.0	26	8.6	12	4.0	19	6.3

Mortality Table F8. (Continued) Fetal Deaths, Perinatal, Neonatal, and Infant Mortality by County/City of Residence, 2003

County and City	Fetal Deaths		Perinatal Mortality		Neonatal Mortality		Infant Mortality	
	Number	Ratio[1]	Number	Rate[2]	Number	Rate[3]	Number	Rate[4]
Bainbridge Island	2	*	4	*	2	*	2	*
Bremerton	5	5.3	8	8.4	4	*	6	6.3
Kittitas	6	15.8	9	23.3	3	*	4	*
Ellensburg	4	*	5	29.2	1	*	2	*
Klickitat	0	*	1	*	1	*	3	*
Lewis	4	*	6	7.1	3	*	3	*
Centralia	2	*	2	*	1	*	1	*
Lincoln	2	*	2	*	0	*	1	*
Mason	5	8.8	6	10.5	1	*	1	*
Okanogan	4	*	4	*	0	*	4	*
Pacific	1	*	2	*	1	*	1	*
Pend Oreille	1	*	2	*	1	*	1	*
Pierce	84	8.3	122	12.0	42	4.2	64	6.3
Lakewood	9	9.4	16	16.6	8	8.4	11	11.5
Puyallup	10	10.4	11	11.4	2	*	2	*
Tacoma	27	7.1	41	10.7	15	4.0	21	5.5
University Place	2	*	2	*	0	*	0	*
San Juan	0	*	0	*	0	*	0	*
Skagit	7	5.2	11	8.1	4	*	7	5.2
Anacortes	0	*	0	*	0	*	0	*
Mount Vernon	2	*	6	11.6	4	*	5	9.7
Skamania	0	*	0	*	0	*	0	*
Snohomish	42	4.9	62	7.2	25	2.9	40	4.7
Edmonds	3	*	5	12.1	2	*	2	*
Everett	8	3.9	14	6.7	8	3.9	15	7.2
Lynnwood	4	*	4	*	1	*	3	*
Marysville	4	*	6	8.9	3	*	3	*
Monroe	3	*	4	*	1	*	1	*
Mountlake Terrace	1	*	1	*	0	*	0	*
Mukilteo	0	*	0	*	0	*	0	*
Spokane	35	6.4	49	8.9	17	3.1	33	6.0
Spokane (city)	24	7.4	34	10.4	13	4.0	23	7.1
Stevens	2	*	4	*	2	*	2	*
Thurston	14	5.3	19	7.2	8	3.1	14	5.3
Lacey	3	*	3	*	1	*	3	*
Olympia	3	*	6	6.2	5	5.2	6	6.3
Wahkiakum	1	*	1	*	0	*	0	*
Walla Walla	3	*	6	8.7	3	*	3	*
Walla Walla (city)	1	*	3	*	2	*	2	*
Whatcom	13	6.4	17	8.3	5	2.5	6	2.9
Bellingham	7	8	9	10.2	2	*	2	*
Whitman	0	*	2	*	2	*	4	*
Pullman	0	*	1	*	1	*	1	*
Yakima	21	5.1	44	10.6	32	7.7	39	9.4
Yakima (city)	10	6	18	10.8	10	6	13	7.8

[1] Fetal death ratio = fetal deaths per 1,000 live births.

[2] Perinatal mortality rate = fetal deaths plus deaths to infants within first 6 days of life per 1,000 live births plus fetal deaths.

[3] Neonatal mortality rate = deaths to infants within first 27 days of life per 1,000 live births.

[4] Infant mortality rate = deaths to infants under one year of age per 1,000 live births.

[*] Rate or ratio not calculated because number of deaths was less than 5.

G. Fetal Death

Fetal death data includes cases where the fetus shows no sign of life at delivery. Fetal death has also been called 'stillbirth.' Only fetal deaths of 20 or more weeks' gestation are required to be reported to the state. Thus, data for early fetal losses are not included in this report. Fetal deaths complete the picture: together with births and early infant deaths they are used to describe the perinatal period (i.e., the period surrounding the delivery).

Mortality Table G1. Selected Causes of Fetal Deaths for Residents, 1994-2003

	Total All Causes		Fetus Affected by Maternal Complications of Pregnancy		Complications of Placenta, Cord, & Membrane		Other Perinatal Conditions		Congenital Anomalies	
Year	Number	Ratio[1]	Number	Ratio[1]	Number	Ratio[1]	Number	Ratio[1]	Number	Ratio[1]
1994	443	5.7	41	0.5	156	2.0	176	2.3	66	0.9
1995	419	5.4	44	0.6	145	1.9	171	2.2	59	0.8
1996	462	5.9	51	0.7	142	1.8	208	2.7	58	0.7
1997	457	5.8	43	0.6	144	1.8	186	2.4	80	1.0
1998	471	5.9	57	0.7	148	1.9	209	2.6	55	0.7
1999	468	5.9	52	0.7	125	1.6	213	2.7	77	1.0
2000	437	5.4	53	0.7	141	1.7	191	2.4	51	0.6
2001	418	5.3	52	0.7	116	1.5	185	2.3	62	0.8
2002	434	5.5	56	0.7	134	1.7	180	2.3	63	0.8
2003	498	6.2	74	0.9	149	1.9	184	2.3	84	1.0

[1]Ratio per 1,000 live births.

Note:

Causes of death were coded with ICD-9 through 1998 and with ICD-10 beginning 1999. Comparabiliy ratios to adjust for the change in classification are not available for fetal death causes. ICD codes are:

Maternal Complications of Pregnancy: ICD-9: 761; ICD-10: P01

Complications of Placenta, Cord, & Membranes: ICD-9: 762; ICD-10: P02

Other Perinatal Conditions: ICD-9: 760,763-771.2,771.4-779; ICD-10: P00,P03-P96

Congenital Anomalies: ICD-9: 740-759; ICD-10: Q00-Q99

Fetal death ratios have fluctuated overtime. The most recent ratio (2003) is higher than the past decade. Data for future years will show if this is just another fluctuation or part of an upward trend. Trends in *cause-specific* fetal death ratios generally parallel the *all-cause* trend.

Mortality Table G2. Fetal Deaths by Mother's Age Group by Place of Residence, 2003

County	All Ages	Under 15	15-17	18-19	20-24	25-29	30-34	35-39	40-44	45 and Over	Unk
State Total	**498**	**0**	**17**	**28**	**116**	**136**	**109**	**63**	**17**	**3**	**9**
State Ratio[1]	**6.2**	**.**	**8.6**	**5.9**	**5.9**	**6.2**	**5.5**	**6.4**	**7.6**	**.**	**n/a**
Adams	1	0	0	0	0	1	0	0	0	0	0
Asotin	1	0	0	0	1	0	0	0	0	0	0
Benton	18	0	0	1	4	6	6	0	1	0	0
Chelan	8	0	3	1	2	2	0	0	0	0	0
Clallam	7	0	0	1	4	0	0	2	0	0	0
Clark	22	0	0	1	7	5	6	3	0	0	0
Columbia	0	0	0	0	0	0	0	0	0	0	0
Cowlitz	6	0	0	1	1	1	2	1	0	0	0
Douglas	2	0	0	0	1	1	0	0	0	0	0
Ferry	0	0	0	0	0	0	0	0	0	0	0
Franklin	5	0	0	0	1	1	1	1	1	0	0
Garfield	0	0	0	0	0	0	0	0	0	0	0
Grant	4	0	0	0	1	3	0	0	0	0	0
Grays Harbor	6	0	1	1	0	3	0	1	0	0	0
Island	4	0	0	0	1	0	2	0	0	1	0
Jefferson	2	0	0	0	2	0	0	0	0	0	0
King	152	0	4	5	26	40	35	25	8	1	8
Kitsap	15	0	1	0	4	4	4	1	1	0	0
Kittitas	6	0	1	1	0	4	0	0	0	0	0
Klickitat	0	0	0	0	0	0	0	0	0	0	0
Lewis	4	0	0	0	3	1	0	0	0	0	0
Lincoln	2	0	0	0	0	0	2	0	0	0	0
Mason	5	0	0	0	3	0	1	1	0	0	0
Okanogan	4	0	0	0	0	1	3	0	0	0	0
Pacific	1	0	0	0	0	0	0	1	0	0	0
Pend Oreille	1	0	0	0	1	0	0	0	0	0	0
Pierce	84	0	1	5	25	22	15	11	4	1	0
San Juan	0	0	0	0	0	0	0	0	0	0	0
Skagit	7	0	0	1	2	1	1	1	0	0	1
Skamania	0	0	0	0	0	0	0	0	0	0	0
Snohomish	42	0	3	1	7	12	11	8	0	0	0
Spokane	35	0	2	2	7	12	5	5	2	0	0
Stevens	2	0	0	0	1	1	0	0	0	0	0
Thurston	14	0	0	1	1	5	6	1	0	0	0
Wahkiakum	1	0	0	0	0	0	1	0	0	0	0
Walla Walla	3	0	1	0	2	0	0	0	0	0	0
Whatcom	13	0	0	1	2	6	3	1	0	0	0
Whitman	0	0	0	0	0	0	0	0	0	0	0
Yakima	21	0	0	5	7	4	5	0	0	0	0

[1] Ratio of fetal deaths per 1,000 live births.

[*] Ratio not calculated because number of deaths was less than 5.

Mortality Table G3. Fetal Deaths for Residents by Cause, 2003

Cause with ICD-10 Code	Number
All causes[1]	**498**
Perinatal conditions (P00-P96)	**407**
Fetus Affected by Maternal Conditions (P00)[2]	(36)
Maternal Hypertensive Disorders (P00.0)	27
Maternal Injury (P00.5)	1
Other Maternal Conditions (P00.1-P00.4,P00.6-P00.9)	8
Fetus Affected by Maternal Complications of Pregnancy (P01)	(74)
Incompetent Cervix (P01.0)	27
Premature Rupture of Membranes (P01.1)	32
Multiple Pregnancy (P01.5)	6
Other (P01.2-P01.4,P01.6-P01.9)	9
Fetus Affected by Complications of Placenta, Cord & Membrane (P02)	(149)
Other Forms of Placental Separation & Hemorrhage (P02.1)	42
Other Morphological & Functional Abnormalities of Placenta (P02.2)	18
Placental Transfusion Syndrome (P02.3)	12
Other Compression of Umbilical Cord (P02.5)	34
Other & Unspecified Conditions of Umbilical Cord (P02.6)	20
Chorioamnionitis (P02.7)	15
Other (P02.0,P02.4,P02.8-P02.9)	8
Fetus Affected by Complications of Labor & Delivery (P03)	3
Fetus Affected by Noxious Influences Via Placenta (P04)	2
Slow Fetal Growth & Fetal Malnutrition (P05)	3
Disorders Related to Short Gestation, Low Birth Weight (P07)	17
Disorders Related to Long Gestation & High Birth Weight (P08)	0
Birth Trauma (P10-P15)	0
Intrauterine Hypoxia and Birth Asphyxia (P20-P21)	1
Fetal Hemorrhage (P50-P54)	1
Hydrops Fetalis Due to Hemolytic Disease (P56)	0
Transitory Endocrine & Metabolic Disorders (P70-P74)	8
Fetal Death of Unspecified Cause (P95)	102
All other (P22-P26,P28,P30-P49,P55,P57-P69,P75-P94,P96)	11
Congenital Malformations & Chromosomal Abnormalities (Q00-Q99)	**84**
Congenital Malformations of Nervous System (Q00-Q07)	(16)
Anencephaly & Similar Malformations (Q00)	3
Other (Q01-Q07)	13
Congenital Malformations of Heart (Q20-Q24)	9
Congenital Malformations of Urinary System (Q60-Q64)	5
Congenital Malformations Musculoskeletal & Integument (Q65-Q85)	12
Chromosomal Abnormalities Not Elsewhere Classified, (Q90-Q99)	(30)
Down's Syndrome (Q90)	9
Edward's Syndrome (Q91.0-Q91.3)	8
Other (Q91.4-Q99)	13
Other (Q08-Q18,Q25-Q56,Q86-Q89)	12
All Other Causes (A00-O00,R00-R99,V01-V84)	**7**

[1] Group totals are shown in bold.

[2] Sub-group totals are shown in parentheses.

Mortality Table G4. Fetal Deaths by Weight and Sex for Residents, 2003

Weight in Grams	Total	Male	Female	Unknown
State Totals	**498**	**250**	**244**	**4**
Under 250	19	12	7	0
250 - 499	113	49	64	0
500 - 749	70	40	29	1
750 - 999	35	14	21	0
1,000 - 1,499	36	19	17	0
1,500 - 1,999	38	19	19	0
2,000 - 2,499	42	25	17	0
2,500 - 2,999	27	11	16	0
3,000 - 3,499	20	11	9	0
3,500 - 3,999	8	4	4	0
4,000 - 4,499	4	4	0	0
4,500 and over	1	0	1	0
Unknown	85	42	40	3

Marriage

Marriage

The Washington State Marriage Certificate System gathers information about each marriage that occurs in Washington State. The information on the marriage certificate is provided by the couple themselves and the officiant. The filing of marriage certificates at the state level began in 1968.

The main purposes of the marriage system are: 1) to provide a legal record of the marriage; and 2) to collect information on population trends, especially in regards to the age and location of the participants.

Table 1. Marriages by County of Occurrence and County of Residence[1], 2003

	Occurrence		*Wife's Residence*		*Husband's Residence*	
County	**Number**	**Rate[2, 3]**	**Number**	**Rate[2]**	**Number**	**Rate[2]**
State Total	**39,679**	**6.5**	**36,584**	**6.0**	**36,049**	**5.9**
Adams	93	5.6	78	4.7	83	5.0
Asotin	91	5.5	45	2.7	48	2.9
Benton	949	6.3	867	5.7	836	5.5
Chelan	710	10.5	383	5.6	371	5.5
Clallam	461	7.1	392	6.0	373	5.7
Clark	2,263	6.1	1,869	5.0	1,798	4.8
Columbia	23	5.6	18	4.4	20	4.9
Cowlitz	651	6.9	572	6.0	546	5.8
Douglas	111	3.3	177	5.3	162	4.8
Ferry	33	4.5	22	3.0	28	3.8
Franklin	334	6.2	323	6.0	304	5.7
Garfield	15	6.3	10	4.2	8	3.3
Grant	410	5.3	408	5.3	401	5.2
Grays Harbor	495	7.2	421	6.1	415	6.0
Island	611	8.3	479	6.5	502	6.8
Jefferson	298	11.2	137	5.1	138	5.2
King	11,250	6.3	10,918	6.1	10,692	6.0
Kitsap	1,758	7.4	1,597	6.7	1,593	6.7
Kittitas	195	5.5	235	6.7	241	6.8
Klickitat	120	6.2	79	4.1	76	3.9
Lewis	528	7.5	472	6.7	456	6.5
Lincoln	46	4.6	36	3.6	43	4.3
Mason	296	5.9	287	5.7	278	5.5
Okanogan	263	6.6	178	4.5	184	4.6
Pacific	211	10.1	114	5.5	123	5.9
Pend Oreille	75	3.6	51	2.4	50	2.4
Pierce	5,538	7.5	4,991	6.8	5,140	7.0
San Juan	400	27.0	60	4.1	68	4.6
Skagit	832	7.8	704	6.6	704	6.6
Skamania	116	11.7	43	4.3	38	3.8
Snohomish	3,435	5.4	3,921	6.2	3,875	6.1
Spokane	2,197	5.1	2,075	4.8	1,976	4.6
Stevens	222	5.5	175	4.3	181	4.5
Thurston	1,499	7.0	1,437	6.7	1,361	6.3
Wahkiakum	28	7.4	19	5.0	20	5.3
Walla Walla	358	6.4	299	5.4	297	5.3
Whatcom	1,268	7.3	1,227	7.0	1,174	6.7
Whitman	142	3.5	167	4.1	176	4.3
Yakima	1,354	6.0	1,298	5.7	1,270	5.6
Tribal Authority	*	*	*	*	*	*
	–	–	–	–	–	–
Out of State	*	*	3,095	*	3,629	*
Unknown	*	* *		*	1	*

[1] Does not include marriages to Washington residents performed in other states or countries.

[2] Rates per 1,000 population.

[3] Exceptionally high rates by county of occurrence may reflect unique local circumstances, such as highly desirable locations for weddings. See pages 5-6 for a discussion of occurrence rates.

Table 2. Marriages by Woman's Age and County where Ceremony was Performed, 2003

County	Total	Under 20	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65 and Over	Unk
State Total	**39,679**	**2,939**	**10,919**	**8,196**	**5,650**	**3,542**	**2,847**	**2,280**	**1,420**	**837**	**424**	**508**	**117**
Adams	93	19	37	8	11	5	4	5	2	1	1	0	0
Asotin	91	8	33	11	11	6	5	9	4	3	0	1	0
Benton	949	124	337	165	98	53	48	59	23	12	11	11	8
Chelan	710	51	190	154	101	56	57	39	25	17	6	9	5
Clallam	461	58	107	63	51	36	42	44	22	12	13	11	2
Clark	2,263	188	617	404	300	206	191	133	104	55	28	37	0
Columbia	23	1	8	1	2	3	4	2	1	0	0	1	0
Cowlitz	651	61	209	112	80	59	38	46	19	7	13	7	0
Douglas	111	7	37	18	13	7	1	9	6	3	3	6	1
Ferry	33	6	4	9	5	2	2	3	0	0	2	0	0
Franklin	334	45	119	69	26	24	19	7	12	2	3	4	4
Garfield	15	2	4	2	2	1	1	2	1	0	0	0	0
Grant	410	55	151	53	52	27	21	25	12	6	5	2	1
Grays Harbor	495	40	112	85	74	42	47	36	18	19	5	8	9
Island	611	57	172	118	79	47	49	33	23	16	8	9	0
Jefferson	298	13	45	61	50	41	26	22	16	9	4	10	1
King	11,250	457	2,470	2,840	2,113	1,201	766	560	408	215	105	104	11
Kitsap	1,758	184	568	327	212	120	109	111	54	40	13	17	3
Kittitas	195	17	60	40	26	11	16	10	8	5	1	1	0
Klickitat	120	16	22	15	16	14	9	7	9	5	0	5	2
Lewis	528	49	164	87	47	43	45	40	17	11	9	15	1
Lincoln	46	4	14	12	3	1	3	3	2	2	0	2	0
Mason	296	26	76	43	27	22	30	25	20	14	4	7	2
Okanogan	263	25	63	45	44	24	25	14	8	8	3	2	2
Pacific	211	18	39	23	33	16	28	16	12	13	5	5	3
Pend Oreille	75	8	26	4	10	8	4	5	2	4	1	3	0
Pierce	5,538	479	1,702	1,094	681	490	403	305	176	96	40	52	20
San Juan	400	3	35	102	93	58	32	35	20	6	6	4	6
Skagit	832	79	217	154	97	79	59	62	34	22	10	18	1
Skamania	116	6	15	27	21	13	12	13	3	4	1	1	0
Snohomish	3,435	239	996	654	451	300	291	213	118	86	41	43	3
Spokane	2,197	171	796	432	250	151	104	127	66	47	25	25	3
Stevens	222	28	63	33	23	19	21	11	8	7	2	6	1
Thurston	1,499	123	427	289	174	114	130	87	61	31	16	22	25
Wahkiakum	28	2	10	2	2	3	2	2	3	0	0	2	0
Walla Walla	358	46	111	58	43	20	21	25	12	9	2	11	0
Whatcom	1,268	73	373	276	164	97	91	71	50	28	16	26	3
Whitman	142	5	62	39	14	8	4	4	2	2	1	1	0
Yakima	1,354	146	428	267	151	115	87	60	39	20	21	20	0
Tribal Authority	0	0	0	0	0	0	0	0	0	0	0	0	0

Table 3. Marriages by Man's Age and County where Ceremony was Performed, 2003

County	Total	Under 20	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65 and Over	Unk
State Total	**39,679**	**1,049**	**9,047**	**8,854**	**6,300**	**4,121**	**3,189**	**2,487**	**1,780**	**1186**	**684**	**901**	**81**
Adams	93	9	29	22	10	8	3	6	2	1	2	1	0
Asotin	91	3	29	15	11	10	5	5	5	1	4	2	1
Benton	949	46	315	204	107	60	63	54	35	25	16	21	3
Chelan	710	18	155	162	128	59	55	43	31	21	14	17	7
Clallam	461	19	105	81	49	42	38	37	30	24	13	21	2
Clark	2,263	74	516	455	319	225	197	154	128	77	51	65	2
Columbia	23	2	6	2	3	5	0	1	2	0	1	1	0
Cowlitz	651	19	183	136	99	65	46	36	26	17	12	12	0
Douglas	111	3	30	21	12	8	6	6	7	5	6	5	2
Ferry	33	2	5	9	3	3	4	2	2	1	1	1	0
Franklin	334	15	111	79	38	32	21	9	13	8	1	7	0
Garfield	15	0	4	4	1	1	0	2	0	1	1	0	1
Grant	410	20	140	82	49	33	27	19	21	11	4	3	1
Grays Harbor	495	17	97	90	78	51	45	38	37	18	8	14	2
Island	611	17	150	143	83	67	41	35	30	12	14	18	1
Jefferson	298	4	43	55	39	41	31	28	19	17	8	13	0
King	11,250	131	1,797	2,776	2,282	1,459	966	670	455	319	175	204	16
Kitsap	1,758	63	561	339	227	155	121	102	73	47	27	38	5
Kittitas	195	5	59	38	26	14	13	14	9	11	4	0	2
Klickitat	120	5	19	21	17	13	11	6	9	7	5	7	0
Lewis	528	11	141	111	67	47	46	33	26	12	10	21	3
Lincoln	46	0	12	8	6	2	4	5	1	3	0	4	1
Mason	296	13	58	49	34	34	24	23	23	20	9	9	0
Okanogan	263	13	55	46	41	29	25	21	13	8	5	7	0
Pacific	211	5	28	34	35	14	22	25	16	10	12	10	0
Pend Oreille	75	5	19	13	8	8	7	5	1	4	1	4	0
Pierce	5,538	192	1,491	1,170	778	548	445	348	241	123	72	115	15
San Juan	400	0	28	72	94	58	45	37	28	18	10	10	0
Skagit	832	33	179	196	107	70	69	57	43	33	15	30	0
Skamania	116	4	9	27	16	16	8	15	9	7	1	4	0
Snohomish	3,435	83	789	748	521	347	304	246	155	118	58	64	2
Spokane	2,197	59	662	542	291	164	145	111	84	57	36	45	1
Stevens	222	11	58	35	32	22	19	12	9	9	4	10	1
Thurston	1,499	34	369	343	203	132	122	107	63	46	35	36	9
Wahkiakum	28	2	4	6	4	3	2	2	2	0	0	3	0
Walla Walla	358	19	107	72	41	22	18	30	18	9	10	12	0
Whatcom	1,268	26	270	316	195	124	92	67	76	49	15	35	3
Whitman	142	3	44	37	25	12	3	5	6	2	2	3	0
Yakima	1,354	64	370	295	221	118	96	71	32	35	22	29	1
Tribal Authority	0	0	0	0	0	0	0	0	0	0	0	0	0

Divorce

Divorce

The Washington State Divorce Certificate System gathers information about each dissolution, annulment, or legal separation that is finalized in Washington State. These certificates may come from any superior court or tribal court in the state. The clerk of the court forwards the divorce certificate to the Center upon finalization of the decree. The clerk of the court or the legal counsel for the person requesting the divorce can complete the information on the certificate. The filing of divorce certificates at the state level began in 1968.

The main purposes of the divorce system are 1) to provide a brief, legal record of the event; and 2) to collect information on population trends.

Table 1. Divorces and Annulments by County of Decree and County of Residence[1], 2003

	Occurrence		*Wife's Residence*		*Husband's Residence*	
County	**Number**	**Rate[2, 3]**	**Number**	**Rate[2]**	**Number**	**Rate[2]**
State Total	26,710	4.4	24,672	4	23,695	3.9
Adams	57	3.4	56	3.4	53	3.2
Asotin	96	5.8	83	5	76	4.6
Benton	732	4.8	710	4.7	621	4.1
Chelan	377	5.6	288	4.2	261	3.8
Clallam	272	4.2	265	4.1	266	4.1
Clark	1,632	4.4	1,608	4.3	1,535	4.1
Columbia	17	4.1	15	3.7	23	5.6
Cowlitz	441	4.6	471	5	437	4.6
Douglas	14	0.4	121	3.6	108	3.2
Ferry	14	1.9	29	4	27	3.7
Franklin	179	3.3	169	3.2	187	3.5
Garfield	8	3.3	8	3.3	7	2.9
Grant	242	3.1	248	3.2	241	3.1
Grays Harbor	340	4.9	323	4.7	346	5
Island	284	3.8	330	4.5	315	4.3
Jefferson	136	5.1	126	4.7	131	4.9
King	5,637	3.2	6,359	3.6	6,135	3.4
Kitsap	940	4	995	4.2	955	4
Kittitas	76	2.2	83	2.4	94	2.7
Klickitat	76	3.9	72	3.7	62	3.2
Lewis	335	4.8	333	4.7	316	4.5
Lincoln	3,865	382.7	42	4.2	38	3.8
Mason	206	4.1	236	4.7	231	4.6
Okanogan	135	3.4	152	3.8	131	3.3
Pacific	76	3.6	90	4.3	91	4.4
Pend Oreille	46	2.2	45	2.2	51	2.4
Pierce	2,616	3.6	3,225	4.4	3,130	4.3
San Juan	63	4.3	64	4.3	58	3.9
Skagit	513	4.8	490	4.6	473	4.4
Skamania	39	3.9	32	3.2	36	3.6
Snohomish	2,530	4	2,791	4.4	2,683	4.2
Spokane	1,690	3.9	1,841	4.3	1,715	4
Stevens	145	3.6	153	3.8	170	4.2
Thurston	1,027	4.8	1,051	4.9	981	4.6
Wahkiakum	17	4.5	16	4.2	14	3.7
Walla Walla	213	3.8	202	3.6	222	4
Whatcom	611	3.5	662	3.8	614	3.5
Whitman	90	2.2	85	2.1	79	1.9
Yakima	851	3.8	803	3.6	782	3.5
Tribal Authority	72	*	*	*	*	*
	–	–	–	–	–	–
Out-of-State	*	*	1,501	*	2,233	*
Unknown	*	*	537	*	782	*

[1] Does not include divorces to Washington residents obtained in other states or countries.

[2] Rates per 1,000 population.

[3] Exceptionally high rates may reflect unique local circumstances, such as administrative procedures that make divorces for non-county residents easy. See pages 5-6 for a discussion of occurrence rates.

Table 2. Divorces, Annulments, and Legal Separations by County of Decree, 2003

County	Total	Divorce	Annulment	Legal Separation[1]
State Total	**27,470**	**26,566**	**143**	**761**
Adams	57	56	1	0
Asotin	98	96	0	2
Benton	742	729	3	10
Chelan	384	375	2	7
Clallam	278	271	1	6
Clark	1,659	1,630	2	27
Columbia	17	17	0	0
Cowlitz	448	440	1	7
Douglas	14	14	0	0
Ferry	14	14	0	0
Franklin	186	177	2	7
Garfield	8	8	0	0
Grant	245	241	1	3
Grays Harbor	341	337	3	1
Island	290	281	3	6
Jefferson	142	136	0	6
King	5,835	5,597	39	199
Kitsap	984	938	2	44
Kittitas	77	76	0	1
Klickitat	78	76	0	2
Lewis	339	334	1	4
Lincoln	3,962	3,835	30	97
Mason	211	205	1	5
Okanogan	138	134	1	3
Pacific	78	74	2	2
Pend Oreille	48	45	1	2
Pierce	2,707	2,605	11	91
San Juan	63	62	1	0
Skagit	522	513	0	9
Skamania	39	39	0	0
Snohomish	2,623	2,522	8	93
Spokane	1,752	1,677	13	62
Stevens	150	145	0	5
Thurston	1,065	1,021	6	38
Wahkiakum	17	17	0	0
Walla Walla	217	213	0	4
Whatcom	620	611	0	9
Whitman	92	89	1	2
Yakima	858	844	7	7
Tribal Authority	72	72	0	0

[1]Since legal separations are not final dissolutions of marriage they are excluded from the total.

Table 3. Divorces and Annulments by Wife's Age and County of Decree, 2003

County	Total	Under 20	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65 and Over	Unk
State Total	**26,710**	**124**	**2,123**	**3,857**	**4,459**	**4,295**	**4,227**	**3,277**	**2,016**	**1007**	**458**	**339**	**528**
Adams	57	0	7	11	9	9	6	7	2	4	0	1	1
Asotin	96	0	8	14	16	25	7	13	6	4	0	2	1
Benton	732	7	69	115	133	131	107	85	40	22	10	6	7
Chelan	377	2	33	55	57	61	48	50	32	15	8	9	7
Clallam	272	3	23	26	41	51	50	36	15	15	5	3	4
Clark	1,632	8	105	254	274	243	259	202	142	62	27	26	30
Columbia	17	0	1	3	2	2	2	4	0	1	2	0	0
Cowlitz	441	0	49	67	67	72	76	47	27	12	14	8	2
Douglas	14	0	1	0	1	7	0	1	2	1	1	0	0
Ferry	14	0	1	0	1	0	2	5	2	0	1	2	0
Franklin	179	1	15	47	33	21	27	18	5	3	4	0	5
Garfield	8	0	2	1	1	0	1	0	2	1	0	0	0
Grant	242	5	26	47	40	30	29	33	13	8	3	2	6
Grays Harbor	340	1	36	45	50	58	54	47	22	12	6	2	7
Island	284	2	39	40	45	46	40	34	16	11	5	2	4
Jefferson	136	1	5	13	14	22	24	22	13	9	10	2	1
King	5,637	9	262	700	1,018	938	955	767	484	243	86	77	98
Kitsap	940	5	114	152	162	136	125	101	57	44	18	12	14
Kittitas	76	0	5	10	11	10	18	10	7	2	0	1	2
Klickitat	76	0	5	8	16	18	13	5	5	3	1	1	1
Lewis	335	4	27	45	64	46	67	28	22	7	8	6	11
Lincoln	3,865	17	338	636	677	582	586	444	291	136	65	42	51
Mason	206	1	18	41	28	32	33	16	14	11	5	3	4
Okanogan	135	2	11	21	20	20	18	11	14	8	5	5	0
Pacific	76	0	6	11	10	13	9	7	8	6	3	2	1
Pend Oreille	46	0	1	5	4	9	7	8	8	2	2	0	0
Pierce	2,616	20	237	393	433	448	435	278	174	77	30	27	64
San Juan	63	0	3	4	8	12	9	9	11	3	3	1	0
Skagit	513	2	49	74	64	74	79	73	42	23	12	9	12
Skamania	39	0	1	4	4	9	5	7	4	2	1	1	1
Snohomish	2,530	8	172	315	416	418	442	310	195	92	32	28	102
Spokane	1,690	11	172	262	257	261	254	218	120	71	26	17	21
Stevens	145	2	11	27	19	22	19	15	7	10	9	2	2
Thurston	1,027	5	104	150	165	170	142	131	70	38	16	11	25
Wahkiakum	17	1	1	0	1	4	5	4	0	0	1	0	0
Walla Walla	213	1	19	39	40	34	32	23	15	6	1	1	2
Whatcom	611	1	41	81	91	103	83	85	70	23	14	11	8
Whitman	90	0	9	13	16	14	13	10	9	2	3	1	0
Yakima	851	5	87	122	140	136	127	105	46	18	21	15	29
Tribal Authority	72	0	10	6	11	8	19	8	4	0	0	1	5

Table 4. Divorces and Annulments by Husband's Age and County of Decree, 2003

County	Total	Under 20	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65 and Over	Unk
State Total	**26,710**	**17**	**1,236**	**3,182**	**4,282**	**4,303**	**4,330**	**3,606**	**2,459**	**1,455**	**756**	**673**	**411**
Adams	57	0	4	9	8	7	9	7	4	4	2	3	0
Asotin	96	0	4	7	14	17	23	10	7	4	3	4	3
Benton	732	0	47	99	110	135	108	98	75	33	14	10	3
Chelan	377	0	17	50	63	60	49	45	45	23	13	11	1
Clallam	272	0	12	24	34	43	50	39	27	16	11	8	8
Clark	1,632	0	60	197	264	257	272	226	157	103	41	35	20
Columbia	17	0	0	2	2	2	4	2	1	0	0	4	0
Cowlitz	441	0	35	59	51	69	85	58	32	25	16	10	1
Douglas	14	0	0	1	0	3	3	2	2	2	0	1	0
Ferry	14	0	0	1	2	0	2	2	2	0	1	4	0
Franklin	179	0	13	27	38	27	25	29	10	2	4	2	2
Garfield	8	0	1	1	1	1	1	0	0	1	2	0	0
Grant	242	0	23	37	35	42	30	30	19	11	3	8	4
Grays Harbor	340	1	14	39	62	54	62	39	30	17	12	9	1
Island	284	1	28	44	41	48	49	27	19	15	6	5	1
Jefferson	136	1	4	7	14	16	18	26	12	14	16	7	1
King	5,637	2	111	504	921	1,003	920	832	587	351	175	144	87
Kitsap	940	2	75	138	147	145	138	100	86	45	26	24	14
Kittitas	76	0	1	6	14	8	16	15	10	1	4	0	1
Klickitat	76	0	3	6	20	9	15	10	3	8	1	1	0
Lewis	335	1	13	50	55	51	53	42	25	19	8	12	6
Lincoln	3,865	3	202	527	687	584	614	470	328	203	116	92	39
Mason	206	0	9	23	41	26	33	28	16	8	5	12	5
Okanogan	135	0	5	17	20	11	30	12	8	9	9	11	3
Pacific	76	0	5	5	11	15	9	5	10	7	2	5	2
Pend Oreille	46	0	2	4	2	3	6	10	9	2	4	1	3
Pierce	2,616	4	171	339	429	433	414	362	189	122	60	51	42
San Juan	63	0	1	2	9	9	12	10	6	7	2	3	2
Skagit	513	0	30	64	54	88	87	69	57	25	15	22	2
Skamania	39	0	0	4	1	6	12	8	2	2	3	1	0
Snohomish	2,530	0	84	284	377	401	456	346	250	129	55	52	96
Spokane	1,690	0	109	227	257	272	249	238	152	85	41	41	19
Stevens	145	0	8	22	22	11	23	23	11	12	8	5	0
Thurston	1,027	0	58	140	172	157	169	135	95	52	24	18	7
Wahkiakum	17	0	1	1	1	1	5	4	1	1	1	1	0
Walla Walla	213	0	8	30	44	32	32	28	17	8	9	3	2
Whatcom	611	0	20	62	98	97	80	89	70	52	18	20	5
Whitman	90	0	6	8	13	13	16	14	4	7	3	4	2
Yakima	851	2	49	107	136	139	136	105	78	27	23	28	21
Tribal Authority	72	0	3	8	12	8	15	11	3	3	0	1	8

Table 5. Divorces and Annulments by Number of Children[1] and County of Wife's Residence[2], 2003

County	Total	0	1	2	3	4 +	Unknown[3]
State Total	**26,710**	**12,242**	**5,567**	**5,617**	**1,899**	**722**	**663**
Adams	56	17	9	15	5	6	4
Asotin	83	34	15	24	8	2	0
Benton	710	293	153	175	57	19	13
Chelan	288	125	62	63	21	12	5
Clallam	265	89	62	61	27	15	11
Clark	1,608	688	341	378	118	46	37
Columbia	15	6	0	5	2	2	0
Cowlitz	471	194	111	103	37	9	17
Douglas	121	49	22	31	12	4	3
Ferry	29	15	5	2	3	1	3
Franklin	169	76	24	37	20	10	2
Garfield	8	7	0	1	0	0	0
Grant	248	103	40	53	28	11	13
Grays Harbor	323	127	76	76	15	14	15
Island	330	147	70	77	23	5	8
Jefferson	126	57	24	25	14	2	4
King	6,359	3,236	1,206	1,242	397	144	134
Kitsap	995	421	225	220	73	29	27
Kittitas	83	41	18	10	7	4	3
Klickitat	72	27	12	21	5	4	3
Lewis	333	124	76	76	33	16	8
Lincoln	42	18	7	9	6	2	0
Mason	236	103	47	51	16	10	9
Okanogan	152	63	36	26	13	5	9
Pacific	90	41	22	14	7	2	4
Pend Oreille	45	21	8	6	5	3	2
Pierce	3,225	1,406	729	742	239	70	39
San Juan	64	36	14	9	3	1	1
Skagit	490	203	110	109	47	17	4
Skamania	32	15	4	9	2	2	0
Snohomish	2,791	1,204	629	649	192	61	56
Spokane	1,841	828	418	392	129	50	24
Stevens	153	66	27	34	16	9	1
Thurston	1,051	458	248	221	65	26	33
Wahkiakum	16	9	1	4	2	0	0
Walla Walla	202	80	50	47	15	8	2
Whatcom	662	305	130	138	49	15	25
Whitman	85	41	17	18	8	1	0
Yakima	803	287	180	175	82	43	36
Out-of-State	1,501	941	248	181	62	31	38
Unknown	537	241	91	88	36	11	70

[1]Certificate of dissolution records, "Children born alive of this marriage." All children are counted regardless of age.

[2]Does not include residents who obtain divorces or annulments outside of Washington State.

[3]Unknowns are higher and divorces with no children appear lower in 1999 than in prior years since cases in which the number of children was not reported were previously entered as "none" rather than "unknown."

Appendices

Appendix A. Technical Appendix

Interpreting Vital Statistics

Washington State Vital Statistics presents commonly used vital statistics data. These data are intended for a variety of users ranging from the beginner to the sophisticated analyst. This section is intended primarily to help those who may not entirely understand how to use vital statistics data or are not aware of data limitations, especially limitations due to small numbers. Reading this section may help beginning users avoid drawing incorrect conclusions from the data**.** For other users, this section may serve as a review.

Vital statistics pertain to basic events of life collected from mandated certificates: birth, fetal death, death, marriage, and divorce. They provide powerful indicators of health problems and, therefore, can help track progress toward health improvement goals. They can also provide information on what health problems occur, who may have these problems, and when and where they occur. Unfortunately, vital statistics cannot usually tell us why health problems occur, which is what prevention programs really need to know. It is a common mistake to think that if two data items are associated or correlated (such as age of mother and low birth weight), then one causes the other. In reality, this could be a chance association (if you look at enough variables you usually find some relationship) or both items could be associated with a third, unmeasured factor (such as poverty or poor nutrition).

Mortality statistics are sometimes used as indicators of disease conditions within the population. They are very limited in this capacity, however, especially for illnesses that are not usually classified as the underlying cause of death. Hospital inpatient data from the Comprehensive Hospital Abstract Reporting System (CHARS) provide a somewhat better measure of morbidity, but even these data are limited to conditions that result in a hospital admission.

Frequently asked Questions:

Residence vs. Occurrence

What's the difference between *residence* and *occurrence?* Users may notice that tables contain tabulations in two ways: 1) by residence (where the person lived) or 2) by occurrence (where the event occurred). For example, a woman who lived in Olympia (Thurston County) but had her baby in Seattle (King County) would be counted in Thurston County on a residence

table and in King County on an occurrence table. The Center for Health Statistics actually registers only those vital events occurring in Washington State. However, because of an interstate exchange agreement, we receive data on Washington residents who have babies in another state, or who die in another state. Thus we have complete records on births, deaths and fetal deaths for residents of Washington State regardless of where the event took place.

Some users may be tempted to add residence and occurrence figures together to get a total for an area, but this would not be correct. There is a great deal of overlap between these two ways of counting, as most residents of a county have their babies or die in the same county. Other users try to subtract residence and occurrence data to figure out how many residents are born or die outside of their county, but this is also incorrect. The only way to determine where county residents are having babies or dying is to tabulate births or deaths by place of residence relative to place of occurrence. For births, one may use *Natality Table C8* of this report which cross-tabulates the mother's county of residence by the county in which the birth occurred. For deaths, please refer to *Mortality Table A7-a*, which shows deaths by residence and occurrence by county and city.

When should residence or occurrence data be used? Users generally need data about the residents of an area. Residents would be the target audience for any local health assessment or health promotion programs. Population figures, commonly used to calculate rates, are also based on a person's residence. Hospital planners might want to know both (where births occurred to residents of their area) so they can assess possible markets.

For certain events, particularly external causes of death such as motor vehicle accidents or drowning, prevention programs might instead want to know where the event occurred so they can identify potentially hazardous situations or areas. Unfortunately, there is no population base to use for calculating occurrence rates, which might tell if the numbers are unusually high or low. For example, a rural road might have a high number of motor vehicle accidents relative to the number of people living there, but there may be many more people driving that road on their way to work, so there would be more people at risk of getting in accidents. The size of particular events and occurrences vary, so population must always be considered when looking at occurrence data.

Numbers vs. Crude or Age-Adjusted Rates

When should numbers or rates be used? All tables in this report give the number of events (e.g., the number of Washington residents dying of cancer). These numbers are used to determine the size of a problem in any area (e.g., how many people die of cancer) or to estimate population changes

due to birth and death. But, using just numbers, we cannot readily compare two areas or two time periods. Such comparisons should take the size of the population into account to avoid erroneous conclusions.

To eliminate the effect of different sized populations, we compare rates. A rate is the number of vital events (such as deaths) in a specified time period divided by the number of people at risk of these events in that period (typically, a state or county population, or the number of births in the case of infant death). This figure is generally multiplied by a constant such as 1,000 or 100,000 to get a number that is easy to read and compare and is reported as "per 1,000" or "per 100,000."

Rates calculated in this manner are called ***crude rates***. They adjust for differences in population size but not differences in population characteristics. These population characteristics also need to be considered in interpreting comparisons. For example, since death rates increase with increasing age, a county with an older population may have higher death rates just because its population is older.

To compare rates and see if a particular county's death rate is high just because of its older population, we need to use ***age-adjusted death rates***. These rates are computed by taking a county's death rates for each age group and applying them to a standard population. The traditional standard has been the 1940 US population. However, in 1999 the standard changed and is now the 2000 US population (see Anderson, RN, and Rosenberg, HM. *Age standardization of death rates: implementation of the year 2000 standard.* National Center for Health Statistics. National Vital Statistics Report 3 (47), 1998, or Klein,RJ and Schoenborn, CA. *Age Adjustment Using the 2000 Projected U.S. Population*. CDC Statistical Notes, No.20, January, 2001.). The year 2000 population has a higher concentration of population in the age groups between 35 to 44 years and 65 and over. The population of age 65 years and over almost doubled during this period. Since age-adjusted rates using 2000 population give more weight to older age groups, the magnitude of age-adjusted rates using this standard will change considerably.

Age-adjusted death rates describe what a particular county's death rate would be if it had the same age distribution as the standard population. The major use of age-adjusted death rates is to allow comparisons among different areas and/or over various periods of time. Users should be aware that an age-adjusted death rate has no absolute meaning; it is an artificial number based on a hypothetical population and is only useful for comparing with other rates calculated in the same manner. While age adjustment is the most common method for adjusting rates, a similar process can be used to adjust for other characteristics such as sex, education, or birth weight.

Although reports often focus on which population has the highest rate, one should remember that rates can mask differences in numbers that may be needed for policy decisions. For example, the infant mortality rate is considerably higher for many people of color than for whites. However, due to the state's racial composition, most infants who die in this state are white and examining the rate for all infants might mask information of a particular race or ethnicity. To reduce racial disparity, one would focus on reducing infant mortality among people of color. Such a reduction, however, would not necessarily have much effect on the state's overall infant mortality rate. So, to determine the burden of a health problem in a community, numbers rather than rates are usually the most appropriate measure.

Standards for Comparison of Rates

What are good standards for comparison of rates? To help interpret a particular rate, one may choose to compare it to rates for another county or similar geographical area, national or state data, or an independent goal or standard. Such issues as comparability of population characteristics and stability of rates from year to year for the standard population should be considered when choosing a base for comparison.

In comparing rates from different sources, users should be sure that the same methods and definitions were used to calculate the rates. Otherwise, the rates are not truly comparable and may lead to incorrect conclusions. Some questions to ask might be: Are the rates crude or adjusted? Are they for the same time period? Is the definition of what constitutes an event the same? Are the same coding definitions used? Is the completeness of reporting events similar? Are the denominators taken from the same or similar data sources?

Unknowns

Most vital statistics data are not 100% complete. Sometimes the information is not (or cannot be) collected, and then the item is reported as unknown. How should unknowns be handled? When the number of unknowns for a particular characteristic is large, it can affect rates or percentage distributions based on that characteristic. For example, in 2003, father's education was missing for about 17% of the births.

How should unknowns be handled in calculating percentages? If we include unknowns in the total, the percent in any category is smaller than it would be if we subtract unknowns from the total. For example, in the case of 2003 births, the percent of fathers with less than a high school education is 13.4% if unknowns are included in the total, but is 16.3% if unknowns are excluded from the total.

In deciding which method offers a "truer" representation of the population as a whole one needs to consider whether the cases with an unknown characteristic are *similar to* or *different from* those cases in which the characteristic is known. If it appears likely that the cases with the unknown characteristic are similar to those with the known values, then "unknowns" should be excluded from the total and percentages should be based on the "known" population. To the extent that this assumption seems unlikely, then other methods could be invoked to distribute the cases with unknown values.

Assumptions about the probable characteristics of the population with a given unknown attribute could be based on: 1) greater familiarity with local situations by persons in the county or city health community; or 2) on more in-depth analysis of the source of the unknowns in the reporting system. For example, if only a few hospitals or medical facilities fail to report a particular variable, one might examine information about the population served by those particular facilities or those living in the nearby community.

Changes in Classification of Causes of Death (ICD-10)

Beginning with deaths occurring in January 1999, the United States began using International Classification of Diseases (ICD-10) to classify causes of death reported on death certificates. ICD-9 had been used during 1979-1998. Implementation of ICD-10 has had an important impact on the presentation and interpretation of mortality statistics by cause-of-death. The change to ICD-10 created a discontinuity in trends that must be accounted for when comparing mortality during 1999 and later to prior years. To put it another way, ***cause-of-death data for 1999 and later years are not comparable to prior years***, unless adjustments are made for the coding and classification changes. Without adjustment, it is impossible to know whether an observed increase or decrease in deaths due to a particular cause is "real" or merely the result of the changes in classification and coding.

Some of the differences between ICD-10 and ICD-9 are:

- ICD-10 is far more detailed and has about 8,000 categories compared to ICD-9 with about 5,000 categories.
- ICD-10 uses 4-digit alphanumeric codes that begin with a letter compared to ICD-9 which has 4-digit numeric codes.
- Additional chapters have been added and some have been rearranged. For example, myelodysplastic syndromes have been moved into the neoplasm chapter which has caused an increase in the number of benign neoplasms and neoplasms of uncertain or unknown behavior.
- Tabulation lists with groups of ICD codes have changed. More conditions are included in the lists used to determine leading causes of death and some of the groups of conditions have

changed. For example, accidents and adverse effects were combined in ICD-9 tabulation lists. With ICD-10, accidents and adverse effects are now in separate categories.

- Coding rules for causes of death have changed. For example, pneumonia is now considered a direct sequel of more conditions which has led to a 30% decrease in pneumonia as an underlying cause-of-death.

To enable comparisons across the ICD-9 to ICD-10 transition, a preliminary comparability study was carried out by the National Center for Health Statistics (NCHS). NCHS double-coded a large sample of the 1996 national mortality file, once by ICD-9, and again by ICD-10. A **comparability ratio** was then calculated by dividing the number of deaths for a selected cause of death classified by ICD-10 by the number of deaths classified to the most nearly comparable cause of death by ICD-9. The resulting ratio can be used to ***adjust*** counts and rates for a given cause of death classified by ICD-9 so they are comparable to those for the most similar cause classified by ICD-10. The ratio will also allow users to estimate the extent of the discontinuity of the change to ICD-10 by showing the net effect of coding and classification changes.

The National Center for Health Statistics (NCHS) has published its final comparability study based on the complete national mortality file to supercede the preliminary comparability study. The NCHS Study is published, and is noted on the CHS update website at http://www.doh.wa.gov/EHSPHL/CHS/CHS-Data/main.htm.

Calculations: In order to compare rates or counts coded by ICD-9 with rates or counts coded by ICD-10, multiply the ICD-9 count or rate by the cause specific comparability ratio. The Center for Health Statistics produced an additional report *Washington State Vital Statistics ICD-10 Supplement, 1990-1999 (*See: http://www.doh.wa.gov/ehsphl/chs/chs-data/public/sup90_99.pdf*)*. This report provides more information about ICD-10 and includes tables with comparability ratios and tables with counts and age-adjusted mortality rates for 1990-1999.

For example, there were 1,717 deaths due to pneumonia and influenza to residents of Washington State in 1998 (ICD-9 480-487). In 1999, 1,257 residents of Washington State died due to pneumonia and influenza (ICD-10 J10-J18). Comparing these counts leads to a conclusion that there was a very large drop in deaths due to pneumonia and influenza. This conclusion is incorrect: By multiplying the 1998 count of 1,717 by the comparability ratio of 0.70, the resulting comparability modified number of deaths in 1998 would be 1,202. Comparing the modified count in 1998 of 1,202 to the ICD-10 count in 1999 of 1,257 shows an increase of only 55 deaths from 1998 to 1999 instead of a large decrease.

Small Numbers

How should small numbers be handled? If the state collects all births and deaths in a year, then aren't the birth and death rates exactly as calculated? It's certainly true that vital statistics are not based on samples of the population, as many research data are. We do know the actual number of births, deaths, and population (assuming complete reporting of events), so we can calculate an exact birth or death rate for any one year. However, the data may still be affected by random fluctuations in the number of events between successive measurements (e.g., for different years).

The effect of such random fluctuations on birth or death rates is proportionately larger when the number of events is small. For example, one more infant death has a larger numerical impact on an area with three deaths than it does on an area with 300 deaths. Because of these random fluctuations, the rates based on small numbers may not be as reliable as those based on larger numbers in the sense that they may have limited predictive value. Specifically, knowing one year's rate in such instances may not allow one to reliably anticipate the rate for another year. This instability makes it difficult to use the rates for program planning or assessment purposes. In fact, considerable caution should be used in interpreting any data where the number of events is small.

There are no hard and fast rules as to when numbers are too small for rates to be stable predictors of what's happening. However, the Washington State Department of Health *Guidelines for Working with Small Numbers* call for suppressing calculation of rates when the number of events is less than five. In addition, tables should include a footnote indicating that rates based on fewer than 20 events are likely to be unstable and imprecise. To increase the stability of the rate, one can combine several years of data (as long as there is no strong temporal trend in rates) or one can group several counties in the same geographic area or with similar population characteristics. For more help in using small numbers consult the *Data Guidelines* at http://www.doh.wa.gov/Data/guidelines/SmallNumbers.htm.

Data Quality

How does data quality affect the use of the data? Conclusions and health policy decisions are only as good as the data that go into making them. Vital statistics data quality has three major components: completeness, accuracy, and timeliness. Are vital statistics ***complete***, i.e., do we have a record for each vital event? According to National Center for Health Statistics (NCHS) studies, registration of births and deaths is currently better than 99% complete. However, some records come in after the data files are prepared and thus are not included in the data presented in this report.

In addition to determining the completeness of a reporting system, researchers are often concerned with the degree to which people report what is actually happening. This characteristic of the data is called its ***validity.*** Studies of validity of reporting systems like the birth certificate system usually look for an independent source of the information and determine the consistency with data contained in the reporting system.

To improve data quality, both birth and death certificates are edited for accuracy of the data. Where possible, data are checked to see if they are within a reasonable range of values (e.g., mother's age must be 8-59, with warning notices for ages less than 14 or greater than 49). Data are also checked to see if there is internal consistency between items (e.g., a person is not expected to have more than one year of college education if he/she is less than 16 years old). Those who complete death certificates are queried if there is not enough information to establish an accurate and specific cause of death.

A factor that affects the completeness of the data is the number of ***unknowns*** among responses. Sometimes providers do not complete all items on a certificate. The information may be overlooked or refused by the informant, or the informant may not have been asked for the data. Missing data decrease the overall accuracy of an item because we don't know where they fit (e.g., are smokers less likely to respond to a question on smoking?). Periodic data quality analyses are done to help identify facilities with large amounts of missing data. These facilities are queried for more information. In order to help improve data completeness, the Center for Health Statistics recently developed a web-based method to provide feedback on data completeness to each birth hospital and also works intensively with the facilities throughout the year to help them improve their data collection procedures.

Finally, are vital statistics ***timely***, i.e., are they registered early enough so that the data are available when needed to be most useful for planning and program assessment purposes? There is often a tradeoff between timeliness and accuracy. For example, if birth certificates are filed quickly, there may not be enough time for malformations or complications to become evident. Similarly, if death certificates are filed quickly, there may not be time for autopsy results to be incorporated into the cause of death data. Despite the potential benefits of waiting for complete information, the main thrust, particularly for birth certificates, is to streamline the reporting process and to gather and report information as close to the event as possible. This has been accomplished by the Center for Health Statistics primarily by the development of the Electronic Birth Certificate System.

Confidentiality

How do we ensure confidentiality of the data? All of the data in this report are presented in aggregate form so that individuals are not likely to be identified from the tables. However, it is important for potential data users to be aware of confidentiality issues related to the data. The medical and health information on birth and fetal death certificates is confidential and is to be used only in aggregate statistics which do not enable the identification of specific individuals. Hence, such confidential data may not be linked to any identifying information except for research projects approved by the Washington State Institutional Review Board of the Department of Social and Health Services and the Department of Health. The sample birth and fetal death certificates in Appendix G delineate the portion that is confidential. Some death data (particularly causes of death such as suicide and AIDS), while not confidential by law, are extremely sensitive.
It is the responsibility of all data users to treat these data in such a way as to respect and protect the privacy of individuals who have provided information about their personal lives, to be used for the good of the public. To ensure continued reporting of important demographic, medical, and health information, data must be handled in a way that ensures the privacy of individuals as required by law.

Sources of Data

Collection Year

Data for *Washington State Vital Statistics, 2003* are compiled from items on birth, death, fetal death, marriage, and dissolution certificates received before extraction of the annual data files from the database files in 2004. The tables in this report will therefore not reflect any changes made to the database files after the extraction date. (See Appendix F for samples of certificate forms used.)

Population

Population estimates in this report are from the Washington State Office of Financial Management, Forecasting Division, *Intercensal and Postcensal Estimates of County Population by Age and Sex: 1980-2003*, October 2004.

Classification of Data

Classification and coding of data on Washington State vital records follow National Center for Health Statistics (NCHS) guidelines as defined in *Vital Statistics Instruction Manuals,* parts 1-20 (Published by U.S.

Department of Health and Human Services, Public Health Service, Centers for Disease Control and Prevention, National Center for Health Statistics, Hyattsville, Maryland).

Demographics

Age

The death certificate contains fields for reported age at death and also birth and death dates, which are used to calculate age at death. Where there is a discrepancy between the reported and calculated ages, the county (and ultimately the funeral director) is queried and most of the discrepancies are resolved. For the remaining discrepancies, where there is a difference of one year, the calculated age is used for age at death (which assumes that the informant made an arithmetic error). Where there is a difference of more than one year, the reported age is used.

For infant deaths (<1 year), age is measured in minutes, hours, days, or months. Some certificates may report a primary and secondary age, e.g., 1 month 2 weeks. This report uses only the primary age (e.g., 1 month). The secondary age (e.g., 2 weeks) is dropped off, so the infant's age is truncated at the primary age category.

Race

Race data collected on vital statistics follow the definition established by the Census Bureau, as follows:

> The concept of race as used by the Census Bureau reflects self-identification; it does not denote any clear-cut scientific definition of biological stock. The data for race represents self-classification by people according to the race with which they most closely identify. Furthermore, it is recognized that the categories of the race item include both racial and national origin or socio-cultural groups.

Until 2003, birth and death certificates used open-ended reporting of race, allowing for multiple racial entries. As of 2003, race on birth and fetal death certificates is collected by a series of check boxes, according to rules established by the US Office of Management and Budget and used in the collection of the 2000 Census Data. (See 'Birth Data Notes' for more discussion.) Beginning January 1, 2004, the same convention will be applied to race data captured by death certificates.

Reporting of race on birth certificates is based on information provided by the mother. Reporting of race on death certificates is sometimes based on observing the decedent, rather than questioning the next of kin. This procedure causes an underestimate of deaths for certain groups, particularly Native Americans, some of the Asian subgroups, and Hispanics. Thus, death rates based on death certificate data are lower than true death rates for these groups.

Because the denominator for infant mortality rates uses the race at birth, the most accurate race-specific infant mortality rates come from linked birth-infant death data files, where the mother's race can be used for both the numerator and the denominator. In this report, *Mortality Table F6* tabulates data by the mother's race/ethnicity.

Hispanic Origin

"Origin" as used by the Census Bureau refers to "the ancestry, nationality group, lineage, or country of birth of the person or the person's parents or ancestors before their arrival in the United States." Persons of Hispanic Origin have their origins in a Hispanic or Spanish-speaking country such as Mexico, Cuba, or Puerto Rico, or the Spanish-speaking countries of Central or South America. Persons of Hispanic Origin may be of any race.

The certificates for live births, deaths, and fetal deaths in Washington State capture Hispanic Origin under two separate items, one to measure ethnicity and another to measure race. The item measuring ethnicity asks, [Is the person] "Of Hispanic Origin or descent (Ancestry)?" and permits a "Yes/No" response. The item measuring race on the birth and fetal death certificates says, "Race (American Indian, White, Black, Asian/Pacific Islander (Specify subgroup), etc.). On the death certificate, the item reads, "Race (Specify)." Beginning in 1992, "Hispanic" was no longer listed as a sample response under "Race." Nonetheless, some people do report Hispanic Origin under the race item on birth, death, and fetal death certificates. To capture this information, separate codes are used to record Hispanic responses when provided under race, and this information is available on data files provided by the Center for Health Statistics.

The National Center for Health Statistics (NCHS), however, does not treat Hispanic Origin as a race and requires instead that persons reporting Hispanic as a race be counted as "White." Tables in this report use this NCHS convention for tabulations by race. In addition, at the end of each table on race, counts of persons identified as "Hispanic Origin" under the ethnicity item are provided as well.

County of Residence

The county of residence data reported by the informant was verified by a process called geocoding using software that identifies county based on street address. When the reported county differed from the one assigned through geocoding, the address was located on a base map and the correct county was assigned to the record. In the rare instances in which a post office box was given as the address, the reported county of residence was retained since the software cannot assign county without a street address. Geocoding has been done since 1987 for births, deaths, and fetal deaths. Geocoding could not be done prior to 1987 because address information was not available for many records in those years.

The county of residence assigned through geocoding matched the county originally reported by the informant in all but about 0.4% of the records. Most of the differences occurred in areas where zip codes cross county boundaries. It is likely that some informants in this situation may be less sure of whether an address is in one county or the other. In most instances where differences were found, the geocoded county was determined to be correct and, in these instances, it was used in place of the reported county. The differences amounted to very small proportions of births or deaths in the affected counties.

In the few instances when the county or city of residence or occurrence is unknown, the county/city is imputed using NCHS guidelines. For place of occurrence, if the county is known but the city is not, the place of occurrence is set to the rural county value (no defined city). If both county and city are unknown, the place of occurrence is set to the county and city of occurrence of the previous record. For place of residence, if the county is known but the city is not, the place of residence is set to the rural county value. If both county and city of residence are unknown but the event occurred in Washington, the place of residence is set to the county/city of occurrence. If both county and city of residence are unknown and the event occurred outside Washington, the place of residence is set to the largest city in the state (Seattle).

City of Residence

A city is given a separate code in the vital statistics system only if it has a population of at least 2,500. Vital events in cities smaller than 2,500 are assigned a place of residence code that represents other small and rural areas of a county, termed "balance of county." Because of space considerations, only vital statistics for cities of 15,000 population or more are published in this report. Population estimates and information on the incorporation of cities provided by the Washington State Office of Financial Management are used to establish which cities meet the 2,500 minimum population criteria for receiving a separate place of residence code. New codes are implemented in January of each year based on population estimates and municipal incorporations published in the preceding year. Thus, an area that was incorporated in 1990 with a population of at least 2,500 would be coded as a distinct place of residence and would have separate vital statistics beginning with 1991 published data.

The city of residence assigned for a record is based on whether or not the person lived within city limits using responses to an item on the certificate: "Inside city limits - yes/no." If the response to this item is "yes," "unknown," or blank, the place of residence is assigned to the reported city. If the response is "no," the place of residence is assigned a "balance of county" code. Reporting on this item has been found to be somewhat unreliable when compared to locating addresses within city boundaries using geocoding software. For city of occurrence there is no "inside city limits" item to use for coding. If a city is given on the certificate, the event is coded as occurring within city limits of that city. However, if the place of occurrence lists a rural road, state park, or other remote location, the place of occurrence is coded to "balance of county."

Birth Data Notes

Changes for 2003 data

The 2003 birth certificate changed considerably, compared to earlier certificates. These changes can affect comparability with data tables from previous years. The effect of the changes on specific items is discussed below.

Note on unknowns

Only two states adopted a new birth certificate in 2003. The other states continued to use the old certificate form. Therefore, items which were added or significantly revised in 2003will most likely not have data for

Washington residents who gave birth in another state. These unknowns will show up in residence data but not occurrence data.

Body Mass Index (BMI)

The 2003 certificate collected data on mother's height for the first time. This addition made calculation of the Body Mass Index (BMI) possible. The BMI is a measure of weight for height. The formula for calculating BMI is: BMI = 703.1 x (prepregnancy weight in lb / square of height in inches). For analysis, Body Mass Index is generally grouped as follows: Underweight (<18.5), Normal (18.5 – 24.9), Overweight (25.0 – 29.9), and Obese (30.0 and above). For the birth database, BMI is only calculated where both the prepregnancy weight and the height is given; otherwise it is unknown.

Education

Before 2003, the mother was asked to report the highest grade completed in years of education (e.g., 16 for college graduate). The 2003 certificate instead provided a series of check boxes for her to report the highest level of education completed at the time of delivery. The check boxes include degrees completed rather than years of schooling. The item is now clearer and easier to complete.

The previous format tended to overestimate high school graduation because the mother could not report that she had 12 years of education without getting a degree. Thus, the percent of mothers without a high school degree is expected to increase somewhat, as is seen in Natality Table A1.

Gestational Age, Calculated

The gestational age in weeks is calculated by subtracting the date of last normal menses from the birth date, dividing by 7 and truncating the result to eliminate decimal places. If the menses day is missing but the month and year are present, a value of '15' is used for the day. Prior to 2003, if the menses month and/or year were missing or the calculated gestational age was beyond a reasonable range (<18 or >45 weeks), the gestational age was estimated from the child's birth weight. Overall, about 18% of the 'calculated' gestational ages were actually estimated from the birth weight. This percentage varied by gestational age, from 34% for preterm births to 17% for term births to 0% for postterm births.

Starting in 2003, if the menses month and/or year is missing or the calculated age is out of range, the clinical estimate is used as the 'calculated' gestational age. If the clinical estimate is also out of range or

unknown, the calculated age is unknown. This change makes the Washington State data consistent with national data but not with data published in earlier versions of this report.

Maternal Smoking

This item has undergone wording and placement changes over time. Note that data may not be comparable before and after the change.

- 1984-88: Used wording 'Smoking at any time during the pregnancy' and placed in the middle section of the certificate, which the mother generally completes from a worksheet.
- 1989: Changed wording to 'Tobacco use during pregnancy' (which could include smokeless tobacco) and relocated to the bottom of the certificate, which is generally completed by the physician. The percentage of missing data increased from 4% in 1984 to 13% in 1989, possibly as a result of this change.
- 1992: Changed back to original wording and placement on the certificate
- 2003: Item revised to collect average number of cigarettes per day three months before pregnancy and by trimester during pregnancy, but placement not changed.

For Tables B1, B2, and B3 in this report, smoking is defined as smoking during any trimester. Past data tables used the item ‘smoking at any time during pregnancy’ which is likely to be fairly comparable to the 2003 data. Table B4 now reports the actual smoking data by trimester.

Method of Delivery

Before 2003, the method of delivery was selected by the data provider from a list of possible methods. This list just gave common methods with no hierarchy assumed by the order of the methods on the list. The data provider could check all methods that apply, although it was rare to have more than two methods given (<0.4% of births). For earlier reports, the method of delivery was determined by the following algorithm: If there was a second method given and it was a ‘higher technology’ or more invasive method, it was assigned as the method of delivery. Otherwise, the first method was used. Thus, for example, if both vaginal and forceps were reported, forceps was the method chosen.

In 2003, the method of delivery section was revised so that the data provider reports only the final route and method of delivery. This final route and method is used in Tables C1 and C6.

Month Prenatal Care Began

In previous years, the mother or prenatal care provider reported the month of pregnancy in which the mother began prenatal care (e.g., 1st, 2nd, etc). As of 2003, this item was replaced by the exact dates of first and last prenatal visit. Thus, the month prenatal care began is now calculated from the menses date and the date of first prenatal care visit. Unfortunately, because the exact dates are harder to get, the month prenatal care began now has high rates of missing data.

Race

As noted earlier, the race item was revised from an open-ended question to a check box format which allows multiple races to be reported. In this report, race is tabulated in two ways:
a. Single race data, which is used to compare with previous years' data. To get these data, the multiple race data are bridged back to a single race by the National Center for Health Statistics (NCHS). The bridging method uses National Health Interview Survey data to estimate what multiracial people are likely to report if they could only report a single race. See http://www.cdc.gov/nchs/about/major/dvs/popbridge/popbridge.htm for details on the bridging process. Single race data are used in Natality Tables A1, A2a, A13a, and D2a.
b. Multiple race data, which includes all races reported by the mother. The reported race data are edited by NCHS to remove duplicate entries. See http://www.cdc.gov/nchs/data/dvs/multiple_race_docu_5-10-04.pdf for details. The Center for Health Statistics (CHS) has done further recoding to group the races into the five basic groups and to create single fields for the mother's and father's races with a code for each possible race combination. Multiple race data are used in Tables A2b, A13b, and D2b.

Cause of Death

The causes of death presented in this report are classified in accordance with the International Classification of Diseases, Tenth Revision published by the World Health Organization. The State of Washington began using this revision on January 1, 1999. More information about the change to the new revision can be found in the introduction.

According to the National Center for Health Statistics, more than 99% of all deaths occurring in the United States are registered in the death certificate system. The accuracy of reporting specific causes of death may vary since classification of disease conditions is a medical-legal opinion subject to the best information available to the physician, medical examiner, or coroner certifying the cause of death.

Underlying Cause Of Death

Tabulated causes of death in this report are based on the underlying cause of death. The underlying cause of death is defined as "(a) the disease or injury which initiated the train of events leading directly to death or (b) the circumstances of the accident or violence which produced the fatal injury." International (World Health Organization) rules are used to determine the underlying cause of death using data supplied by the certifier in the "cause of death" and "other significant conditions" sections of the death certificate.

Information from other sources is used to supplement the cause of death data on the certificate to determine a more precise or more accurate cause of death. The following sources are used:

1. Queries: For about 8% of records, the certifier of the cause of death is asked for additional information because the cause of death data given are inaccurate, incomplete, or non-specific. About 93-98% of these queries are returned. The underlying cause of death may change minimally or substantially as a result of these queries. Query standards change over time, which can affect trends in cause of death and death rates for Washington compared to other states or to the United States.
2. State Patrol: The Washington State Patrol provides information on motor vehicle accidents which is used to refine or add a more complete cause of death for these deaths, particularly related to whether the decedent was the driver or a passenger.
3. Gun Surveillance: In many gun-related deaths, the gun is removed from the scene so the cause of death cannot be coded to the specific type of gun involved (such as handgun or rifle). Beginning in 1995, cause of death data have been supplemented with information on type of gun from a statewide reporting system for gun-related deaths operated by the Department of Health's Injury Prevention Program. Beginning in 1999, cause of death information for legal intervention was updated using the gun surveillance data.
4. Labor and Industries (L&I): For injury deaths, the death certificate asks whether the injury occurred at work or not. This item is sometimes open to interpretation as to whether the injury occurred in the course of the person's work or not. Beginning with 1996, death certificate data are supplemented with results of L&I investigations of work-related injuries.

Cause of Death Groupings

Due to the detailed nature of this classification system, it is common to group ICD codes into more general categories for analysis and comparison purposes. The National Center for Health Statistics (NCHS) provides one of the most commonly used classification systems in which causes of deaths for adults are grouped into 113 separate groups and deaths for infants into 130 groups. NCHS groupings were used throughout this report with the exception of Mortality Section E which follows guidelines from the NCHS International Collaborative Effort (ICE) on Injury Statistics.

Maternal Death

Maternal deaths are those for which a maternal condition (ICD-9 codes 630-676 and ICD-10 codes O00-O99) is given as the underlying cause of death. The World Health Organization defines a maternal death as:

> The death of a woman while pregnant or within 42 days of termination of pregnancy, irrespective of the duration and the site of the pregnancy, from any cause related to or aggravated by the pregnancy or its management but not from accidental or incidental causes.

With ICD-10, an additional category was added for late maternal death (>42 days and > 1 year after termination of pregnancy). A death will be coded as maternal only if the death certificate notes pregnancy or a maternal condition.

In 1979-1988, Washington State supplemented reported maternal deaths with results from a special study. Death certificates for women ages 15-44 were linked to birth/fetal death certificates to see if the woman had a delivery within 42 days of the death. If so, the cause of death was examined to see if the death could have been related to the pregnancy. This special study added an average of two maternal deaths per year, a substantial change because only about three deaths per year are reported as maternal.

In 1990-1996, deaths to Washington resident women were linked to births, fetal deaths and obstetric hospitalizations within 365 days prior to death. Information from the linkages was provided to the Department of Health Maternal and Child Health Office. Three perinatologists, an obstetrician and an epidemiologist reviewed the information available on each death from the death certificate, birth/fetal death certificate and hospitalization information. All linked deaths were considered pregnancy-associated deaths (deaths which occurred within 365 days of pregnancy regardless of cause) and were further classified as to pregnancy-related (deaths caused

by pregnancy or by condition exacerbated by pregnancy) or not. Deaths considered not pregnancy-related included all deaths due to cancer, injury, or deaths with a vague or indefinite cause. Deaths due to epilepsy or seizures, deep vein thrombosis, infection, or intracerebral hemorrhage if they occurred ≥ 42 days post delivery were also considered not pregnancy-related. Deaths considered pregnancy-related included deaths due to deep vein thrombosis, pneumonia or aneurysm that occurred during pregnancy or less than 42 days post delivery. Cardiovascular deaths within three months of delivery, and deaths due to epilepsy/seizures or infection that occurred within 42 days of delivery were considered on a case by case basis.

Underreporting of maternal deaths may exist in years for which this linkage procedure has not been done. Further investigation of maternal deaths is currently underway within the Department of Health.

Perinatal Death

The perinatal period covers times shortly before and after birth. Thus, perinatal death includes both fetal and infant deaths. Perinatal death rates are generally more consistent between different sources than infant or fetal death rates because they eliminate the effect of judgments as to whether the fetus was alive at time of delivery. However, there are at least four definitions of perinatal death, using different combinations of fetal death, gestational age, and infant age at death. This report uses the following definition from the National Center for Health Statistics: "fetal deaths of 20 or more weeks' gestation plus infant deaths of less than seven days." This definition gives the second largest number of perinatal deaths among the four common definitions. Caution should be used in comparing perinatal death rates in this report with rates from other sources unless it is certain that the same definition has been used.

Marriage and Divorce Data

Residence vs. Occurrence Data

Information on the number of marriages or divorces for all residents of Washington State is not available since residents may go elsewhere to have a marriage performed or to obtain a divorce. For marriage and divorce statistics, unlike other vital records such as births, deaths, or fetal deaths, there is no interstate agreement for the exchange of information on marriages or divorces for residents of Washington State that occur in other states or countries. Marriages are tabulated in this report according to the county in which the marriage was performed. Divorces, annulments and legal separations also include tabulations by the county in which the legal certificate was issued. Thus, statistics calculated with these data reflect the place of occurrence of the legal activity (e.g. marriage ceremony performed, divorce decree issued) rather than the place of residence of

the individuals involved. Please note that tabulations by occurrence include events that were issued in Washington State for residents of other states.

Divorces and annulments issued in Washington State are also tabulated by wife's county of residence (Divorce Tables 1 and 5) and husband's county of residence (Divorce Table1). These tables, unlike the other tables in this section, present information by place of residence rather than by the place (county) where the legal document was issued and recorded. As stated above, the data in these tables do not include divorces to Washington residents obtained in other states or countries.

Legal Separations

In annual summaries for years prior to 1992, legal separations were included in divorce totals. Because legal separations are not final dissolutions of marriage, they have been excluded from divorce totals in annual summary tables beginning with 1992 data. This change makes Washington State's tabulations consistent with those contained in national publications by the National Center for Health Statistics. The impact of the change on trends is small, since legal separations reported to this office equal only about 1 to 2% of total dissolutions.

Court Orders

Prior to 1996, a small number of divorces (between 32 and 145, see Vital Statistics 1994-95 – Table 50) were submitted to the Center for Health Statistics by county clerks as court orders without filing the certificate of dissolution with the Center as required by law (RCW 70.58.055(3)). The number of such court orders were reported in a footnote in those years but were not included in divorce totals. Beginning in 1996, this problem has been corrected through the cooperation of county clerks.

Number of Children

Data on the number of children reported on the certificate of dissolution are captured by an item on the form labeled, "Children born alive of the marriage." Divorce Table 5 in this report presents the number of divorces and annulments tabulated by the number of children born to the couple regardless of the child's age (i.e., some of the children may be over 18 years of age).

Prior to 1997, in some cases, when the number of children was unknown, the number was erroneously recorded as none due to a data entry problem. Beginning in 1997, this problem was corrected. As a result, divorces for which the number of children is recorded as unknown is somewhat higher than in prior years.

Definitions

Birth Weight - Weight of fetus or infant at time of delivery (normally recorded in pounds and ounces).

Fetal Death - Death prior to the complete expulsion or extraction from its mother of a product of human conception, irrespective of the duration of pregnancy. The death is indicated by the fact that after such expulsion or extraction the fetus does not breathe or show any other evidence of life such as beating of the heart, pulsation of the umbilical cord, or definite movement of voluntary muscles. Reporting of fetal deaths to the state is required only when the gestational period is twenty weeks or more.

Infant Death - Death of a child under one year of age.

Live Birth - The complete expulsion or extraction from its mother of a product of human conception, irrespective of the duration of pregnancy, which, after such expulsion or extraction, breathes, or shows any other evidence of life such as beating of the heart, pulsation of the umbilical cord, or definite movement of voluntary muscles, whether or not the umbilical cord has been cut or the placenta is attached.

Live Birth Order – Live birth order indicates what number the present birth represents; for example, a baby born to a mother who has had two previous live births (even if one or both are not now living) has a live birth order of three.

Maternal Death - Death attributed to complications of pregnancy, childbirth, or the puerperium (ICD-10 O00-O99) for women of childbearing age; includes abortion-related death.

Neonatal Death - Death of an infant within the first 27 days of life.

Nulliparous - Having never given birth to a live born infant.

Occurrence Data - Data allocated by place where the event occurred, regardless of the person's place of residence.

Parity - Total number of previous live births; does not include the current birth.

Perinatal Death - Fetal deaths plus deaths to infants within the first six days of life.

Plurality - The number of siblings born as the result of a single pregnancy (e.g., twins, triplets).

Postneonatal Death - Death of an infant of 28-364 days of age.

Premature Birth - A live birth weighing 2,500 grams (5-1/2 pounds) or less. If birth weight is not stated, length of gestation (under 37 weeks) is used.

Residence Data - Data allocated by place of residence of the child's mother (births, fetal deaths), or by place of residence of the decedent (deaths), regardless of where the event occurred.

Underlying Cause of Death - The disease or injury which initiated the train of morbid events leading directly or indirectly to death or the circumstances of the accident or violence which produced the fatal injury.

Rates and Ratios

Rounding of Rates - Rates are rounded to the nearest tenth. When the rate or percent is less than one-tenth, the entry is 0. Rates are not calculated when the number of events is less than 5.

Rates and Ratios Used in this Report - Rates and ratios are calculated by dividing the number of events of concern by the population at risk (or a related population) and multiplying by a standard constant (i.e., 1,000 or 10,000 or 100,000).

$$(Crude)\ Birth\ Rate = \frac{\#\ Live\ Births}{Total\ Population}\ x1{,}000$$

$$Age-Specific\ Birth\ Rate = \frac{\#\ Births\ for\ Specific\ Age\ Group}{Population\ for\ Same\ Age\ Group}\ x1{,}000$$

$$(Crude)\ Death\ Rate = \frac{\#\ Deaths}{Total\ Population}\ x1{,}000$$

$$Age-Specific\ Death\ Rate = \frac{\#\ Deaths\ for\ Specific\ Age\ Group}{Population\ for\ Same\ Age\ Group}\ x100{,}000$$

$$Cause-Specific\ Death\ Rate = \frac{\#\ Deaths\ for\ Specific\ Cause}{Total\ Population}\ x100{,}000$$

$$Age-adjusted\ \ Death\ \ Rate = \sum_i Wi \bullet \frac{\#\ Deaths_i}{Population_i}\ x100{,}000$$

$$where\ Wi = \frac{Standard\ \ Population_i}{Total\ \ Standard\ \ Population}$$

$$and\ \ _i = agegroup$$

$$Comparability\ Ratio = \frac{\#\ Deaths\ Classified\ \ with\ ICD-10}{\#\ Deaths\ Classified\ \ with\ ICD-9}$$

$$Comparability\ Modified\ Values = Rate\ or\ Count \times Comparability\ Ratio$$

$$Infant\ Death\ Rate = \frac{\#\ Infant\ Deaths}{Total\ Live\ Births}\ x1{,}000$$

$$Neonatal\ Death\ Rate = \frac{\#\ Neonatal\ Deaths}{Total\ Live\ Births}\ x1{,}000$$

$$Postneonatal\ Death\ Rate = \frac{\#\ Postneonatal\ Deaths}{Total\ Live\ Births}\ x1{,}000$$

$$Maternal\ Death\ Rate = \frac{\#\ Maternal\ Deaths}{Total\ Live\ Births}\ x10{,}000$$

$$Fetal\ Death\ Ratio = \frac{\#\ Fetal\ Deaths}{Total\ Live\ Births}\ x1{,}000$$

$$Perinatal\ Death\ Rate = \frac{\#\ Perinatal\ Deaths}{Live\ Births + Fetal\ Deaths}\ x1{,}000$$

Appendix B. Conversion of Birth Weight in Grams to Pounds and Ounces

Weight in Grams	Pounds and Ounces
Under 1,000	2lbs. 3 oz. and less
1,000 - 1,499	2 lbs. 4 oz. - 3 lbs. 4 oz.
1,500 - 1,999	3 lbs. 5 oz. - 4 lbs. 6 oz.
2,000 - 2,499	4 lbs. 7 oz. - 5 lbs. 8 oz.
2,500 - 2,999	5 lbs. 9 oz. - 6 lbs. 9 oz.
3,000 - 3,499	6 lbs. 10 oz. - 7 lbs. 11 oz.
3,500 - 3,999	7 lbs. 12 oz. - 8 lbs. 13 oz.
4,000 - 4,499	8 lbs. 14 oz. - 9 lbs. 14 oz.
4,500 and over	9 lbs. 15 oz. and over
One pound = 453.59 grams	

Appendix C. Estimated Population, State of Washington, by Age Group by Sex, April 1, 2003

Age Group	Total	Male	Female
Total	6,098,300	3,037,216	3,061,084
Under 1 Year[1]	80,482	41,020	39,462
1 - 4	318,701	163,352	155,349
5 - 14	857,263	439,866	417,397
15 - 19	439,282	225,309	213,973
20 - 24	428,605	220,640	207,965
25 - 34	834,709	427,796	406,913
35 - 44	947,274	477,668	469,606
45 - 54	913,464	454,246	459,218
55 - 64	591,650	293,004	298,646
65 - 74	345,558	163,034	182,524
75 - 84	246,126	100,842	145,284
85 and Over	95,186	30,439	64,747

[1]Population under 1 year is shown as births in current year, the denominator for infant mortality rates; other population estimates for children under 1 or aged 1-4 may differ.
Source: Washington State Office of Financial Management, Forecasting Division, Intercensal and Postcensal Estimates of County Population by Age and Sex: 1980-2003, October 2004.

Appendix D. Estimated Population of Counties and Cities of 15,000 Population and Over, April 1, 2003

Name	City	County	Name	City	County
State Total	6,098,300		Kenmore	19,200	
			Sammamish	35,930	
Adams		16,600	Kitsap		237,000
Asotin		20,600	Bremerton	38,730	
Benton		151,600	Bainbridge Island	21,350	
Kennewick	57,900		Kittitas		35,200
Richland	41,650		Ellensburg	15,940	
Chelan		67,900	Klickitat		19,300
Wenatchee	28,470		Lewis		70,400
Clallam		65,300	Lincoln		10,100
Port Angeles	18,470		Mason		50,200
Clark		372,300	Okanogan		39,600
Vancouver	150,700		Pacific		20,900
Columbia		4,100	Pend Oreille		11,800
Cowlitz		94,900	Pierce		733,700
Longview	35,290		Tacoma	196,300	
Douglas		33,600	Puyallup	35,490	
Ferry		7,300	Lakewood	58,940	
Franklin		53,600	University Place	30,720	
Pasco	37,580		San Juan		14,800
Garfield		2,400	Skagit		106,700
Grant		77,100	Mount Vernon	27,060	
Moses Lake	15,730		Skamania		9,900
Grays Harbor		68,800	Snohomish		637,500
Aberdeen	16,320		Everett	95,470	
Island		74,000	Edmonds	39,580	
Oak Harbor	20,570		Lynnwood	34,500	
Jefferson		26,700	Marysville	28,370	
King		1,779,300	Mountlake Terrace	20,380	
Seattle	571,900		Mukilteo	19,190	
Renton	54,900		Spokane		428,600
Auburn	43,890		Spokane (city)	197,400	
Kent	84,210		Stevens		40,600
Kirkland	45,630		Thurston		214,800
Bellevue	116,400		Olympia	42,860	
Mercer Island	21,840		Lacey	32,240	
Redmond	46,480		Wahkiakum		3,800
Bothell part	16,250		Walla Walla		55,800
Des Moines	29,120		Walla Walla (city)	29,710	
Tukwila	17,230		Whatcom		174,500
Federal Way	83,500		Bellingham	69,850	
SeaTac	25,100		Whitman		41,000
Burien	31480		Pullman	25,300	
Shoreline	52,730		Yakima		226,000
			Yakima (city)	79,220	

Source: Population estimates in this report are from the Washington State Office of Financial Management, Forecasting Division, Intercensal and Postcensal Estimates of County Population by Age and Sex: 1980-2003, October 2004.

Appendix E. Comparison Between Current and Previous Table Numbers

Table Numbers					
2003+	2000-2002	1999[1]	1980-1998[2]	Current Title	Comments
Natality A: Demographics					
A1	A1	---	---	Summary Indicators, Washington State Residents, 1990-2000	
A2a	A2	1A	2A	Mother's Race/Ethnicity by Child's Sex, Residence	
A2b	---	---	---	Mother's Multiple Race by Child's Sex, Residence	New Table
A3	A3	1C	2C	Mother's Age Group by Child's Sex, Residence	
A4	A4	---	---	Child's Birth Order by Mother's Age Group, Residence	
A5	A5	---	---	Mother's Education by Mother's Age Group, Residence	New Education Categories
A6a	A6a	Appendix E		Top 100 Baby Names of Girls, Residence	
A6b	A6b	Appendix E		Top 100 Baby Names of Boys, Residence	
A7	A7	7	8	Place of Residence, Sex, and Place of Occurrence	
A8	A8	12	13	Month of Birth by Place of Residence	
A9	A9	8	9	Mother's Age Group by Place of Residence	
A10	A10	---	---	Age-Specific Live Birth Rates by Place of Residence[3]	
A11	A11	9	10	Single Mothers, Mother's Age Group by Place of Residence	
A12	A12	---	---	Father's Age Group by Place of Residence	
A13a	A13	10	11	Mother's Race/Ethnicity by Place of Residence	
A13b	---	---	---	Mother's Multiple Race by County of Residence	New Table
A14	A14	---	---	Mother's Education by Place of Residence	New Education Categories
Natality B: Behavioral and Health Characteristics					
B1	B1	---	---	Summary Indicators, Washington State Residents, 1990-2000	
B2	B2	---	---	Mother's Age Group by Maternal Smoking, Residence	
B3	B3	---	---	Mother's Education by Maternal Smoking, Residence	New Education Categories
B4	B4	16	17	Maternal Smoking During Pregnancy by Place of Residence	New Smoking Categories
B5	B5	---	---	Selected Medical Risk Factors by Place of Residence	New Risk Factors
B6	---	---	---	Body Mass Index by County of Residence	New Table
Natality C: Health Service Utilization					
C1	C1	---	---	Summary Indicators, Washington State Residents, 1990-2000	
C2	C2	5	6	Month Prenatal Care Began by Mother's Age Group, Residence	
C3	C3	6	7	Number of Prenatal Visits by Month Care Began, Residence	
C4	C4	14	15	Month Prenatal Care Began by Place of Residence	
C5	C5	17	18	Birth Facility by Place of Occurrence	
C6	C6	---	---	Method of Delivery by Place of Occurrence	
C7	C7	---	---	Birth Attendant by Place of Occurrence	
C8	C8	18	19	County of Residence by County of Occurrence	
Natality D: Infant Health					
D1	D1	---	---	Summary Indicators, Washington State Residents, 1990-2000	
D2a	D2	2	3	Birth Weight in Grams by Mother's Race/Ethnicity, Residence	
D2b	---	---	---	Birth Weight in Grams by Mother's Multiple Race, Residence	New Table
D3	D3	4	5	Birth Weight in Grams by Mother's Age Group, Residence	
D4	D4	---	---	Birth Weight in Grams by Calculated Gestational Age, Residence	New Gestational Age Calculation
D5	D5	---	---	Birth Weight in Grams by Plurality, Residence	
D6	D6	---	---	Mother's Age Group by Plurality, Residence	
D7	D7	13	14	Birth Weight in Grams by Place of Residence	
D8	D8	---	---	Calculated Gestational Age by Place of Residence	New Gestational Age Calculation
D9	D9	---	---	Plurality by Place of Residence	

Table Numbers

2000	1999[1]	1980-1998[2]	Current Title	Comments
Old Natality Tables Not Included in Current Report				
---	1B	2B	Residence, Child's Race/Ethnicity by Sex	Mother's race has been the standard since 1980
---	1D	2D	Residence, Order of Birth to Mother	See 'All ages' column of Table A4
---	1E	2E	Residence, Attendant at Birth	See 'State total' row of Table C7
---	1F	2F	Residence, Maternal Smoking	See 'State total' row of Table B4
---	1G	2G	Residence and Occurrence, Birth Weight in Grams by Sex	See 'State total' row of Table A8 (births)
---	1H	2H	Residence and Occurrence, Live Births and Fetal Deaths by Month	See 'State total' row of Table D7 (residence data)
---	1I	2I	Occurrence, Primary Method of Birth Delivery by Obstetric Procedures	See 'State total' row of Table C6
---	1J	2J	Occurrence, Type of Place	See 'State total' row of Table C5
---	3	4	Live Births to Residents by Birth Weight in Grams by Child's Race/Ethnicity	Mother's race has been the standard since 1980
---	11	12	Live Births by Child's Race/Ethnicity by Place of Residence	Mother's race has been the standard since 1980
---	15	16	Live Births with Malformations by Place of Residence	Malformation data are not very reliable
Mortality A: Demographics				
A1	--	--	Age-Adjusted Mortality Rates and Life Expectancy by Sex for Residents, 1990-2000	New Table
A2	2	20B	Age by Race/Ethnicity for Residents	
A3	3	20C	Age by Sex for Residents	
A4	4	20D	Life Expectancy by Age and Sex for Residents	
A5	7	20H	Marital Status by Sex for Residents	
A6	--	--	Education by Age for Residents	New Table
A7-a	17A	25	Residence and Occurrence by County and City	
A7-b	17B	--	Residence and Occurrence by County Listed by Age-Adjusted Rates for 1998-2000	
A8	18	26	Sex and Race/Ethnicity by County/City of Residence	
A9	19	27	Age Group by County of Residence	
A10	20	28	Month of Death by County of Residence	
A11	28	37	Place Where Death Occurred by County of Occurrence	
Mortality B: Autopsy and Disposition				
B1	--	--	Percent Autopsy and Cremation for Residents, 1990-2000	New Table
B2	9	--	Autopsy by Age and Manner of Death for Residents	
B3	--	--	Type of Disposition by County of Residence	New Table
Mortality C: Leading Causes of Death, Overview and Selected Causes of Death				
C1	--	--	Age-Adjusted Rates[1] for 10 Leading Causes of Death for Residents, 1990-	New Table
C2	5A	20E	Leading Causes of Death for Residents	
C3	10	21	Leading Causes by Age Group and Sex for Residents	
C4	11A	22	Crude Rates for Selected Causes by Sex for Residents	
C5	11B	22	Age-Adjusted Rates for Selected Causes by Sex for Residents	
C6	21A	29	Diabetes, Alzheimer's Disease, and Major Cardiovascular Disease by County of Residence	
C7	21B	29	Diseases of the Heart, Ischemic Heart Diseases, and Cerebrovascular Diseases by County of Residence	
C8	21C	29	Influenza & Pnuemonia, Chronic Lower Respiratory Disease, and Chronic Liver Disease & Cirrhosis by County of Residence	

Table Numbers				
2000	1999[1]	1980-1998[2]	Current Title	Comments
Mortality D: Cancer				
D1	--	--	Age-Adjusted Rates for Leading Causes of Cancer for Residents, 1990-	New Table
D2	12	23	Cancer by Primary Site and Sex for Residents	
D3	23A	30A	Cancer for Total All Sites, Lung, and Colo-Rectal by County of Residence	
D4	23B	30B	Cancer for Female Breast, Prostate, and Pancreas by County of Residence	
Mortality E: External Causes or Injuries				
E1	--	--	Age-Adjusted Rates for External Causes for Residents, 1990-2000	New Table
E2-a	13	24	External Causes of Injury With Crude Rates for Residents	
E2-b	13	24	External Causes of Injury With Age-Adjusted Rates for Residents	
E2-c	13	24	ICD-10 Codes for External Causes	
E3	14	--	External Causes by Place of Injury for Residents	
E4	15	--	Type of Firearm by Intent for Residents	
E5	16	--	Poisoning by Intent and Substance	
E6	25	33	Suicide, Homicide, Undetermined by County of Residence	
E7	22	--	Drug and Alcohol-Induced Causes for Residents	
E8	24A	32A	Unintentional Injury (Accident), Motor Vehicle Traffic, and Falls by Place of Residence	
E9	24B	32B	Drowning Drowning, Fires, and Other Unintentional Injury (Accident) by County of Residence	
E10	27	36	Suicide, Homicide, and Undetermined for Residents by County of Injury	Tables prior to 1999 used county of occurrence
E11	26	35	Unintentional Injury (Accident) to Residents by County of Injury	Tables prior to 1999 used county of occurrence
Mortality F: Infant Deaths				
F1	--	--	Selected Causes for Infant (Age < 1 Year) Residents, 1990-2000	New Table
F2	5B	20F	Leading Causes of Infant (Age < 1 Year) Death for Residents	
F3	29	--	Birth Weight and Age for Infant (Age < 1 Year) Residents	
F4-a	30A	38A	Selected Causes by Age and Sex for Infant (Age < 1 Year) Residents	
F4-b	30B	38B	Selected Causes by Age and Sex for Infant (Age < 1 Year) Residents	
F5	31	39	Selected Causes for Infant (Age < 1 Year) County of Residence	
F6	32	40	Mother's Race/Ethnicity by Infant (Age < 1 Year) County of Residence	
F7	34	42	Mother's Age Group by Infant (Age <1 Year) County of Residence	
F8	35	26	Fetal Deaths, Perinatal, Neonatal, and Infant Mortality by County/City of Residence	
Mortality G: Fetal Deaths				
G1	--	--	Selected Causes of Fetal Death Residents	New Table
G2	36	45	Fetal Deaths by Mother's Age Group by Place of Residence	
G3	37	46	Fetal Deaths for Residents by Cause	
G4	38	47	Fetal Deaths by Weight in Grams and Sex for Residents	
Mortality Tables Not Included in Current Report				
--	1	20A	Deaths to Residents by Race/Ethnicity and Sex	See 'State Total' row of Table A8
--	6	20G	Deaths to Residents and by Occurrence by Month of Death	See 'State Total' row of Table A10
--	8	20I	Deaths by Occurrence by Type of Place	See 'State Total' row of Table A11

Table Numbers				
2000	1999[1]	1980-1998[2]	Current Title	Comments
continued Mortality Tables Not Included in Current Report				
--	--	31	Deaths Due to Human Immunodeficiency Virus by Sex by Place of Residence	Number of deaths have declined; Most cells are zero
--	--	34	Deaths Due to Human Immunodeficiency Virus by Sex by Place of Occurrence	Number of deaths have declined; Most cells are zero
--	--	44	Fetal Deaths, Perinatal, Neonatal and Infant Mortality by Place of Occurrence	Place of Residence is used more often
--	33	41	Infant (Age < 1 Year) Deaths by Child's Race/Ethnicity by Residence	Mother's race has been the standard since 1980

[1]From *Washington State Vital Statistics, 1999*

[2]From *Washington State Vital Statistics Reports, 1980-1998*

[3] *Also published as Table 19 in Washington State Pregnancy and Induced Abortion Statistics*

Appendix F. Sample Certificates

Washington State Birth Filing Form

Child's Information

*1. Child's Name
First
Middle
LAST

*2. Date of Birth (MM/DD/YYYY) / /

*3. Time of Birth (24 Hrs)

Suffix (Sr., Jr., II, III, etc.)

4a. Type of Birthplace (Specify Type)
1 ☐ Hospital 2 ☐ Enroute 3 ☐ Freestanding Birth Center
4 ☐ Clinic/Doctor's Office 5 ☐ Home–Planned ☐Yes ☐No
6 ☐ Other(Specify):

4b. Planned Birth Place, If different
Specify:

5. Sex ☐ Male ☐ Female

*6. Name of Facility (If not a facility, enter name of place and address)

*7. City, Town, or Location of Birth

*8. County of Birth

Mother's Information

*9. Mother's Name Before First Marriage
First
Middle
LAST

*10. Date of Birth (MM/DD/YYYY) / /

*11. Birthplace (State, Territory, or Foreign Country)

12. Mother's Social Security Number

13. Mother's Current Legal Last Name, if different from above

14. Social Security Number Requested for Child? ☐ Yes ☐ No

15. Is Mother Married to the Father? ☐ Yes ☐ No
If NO: Was Mother Married to anyone during this pregnancy? ☐ Yes ☐ No
Has the Paternity affidavit been signed? ☐ Yes ☐ No

16a. Residence: Number and Street (e.g., 624 SE 5th St.)
Apt No.

16b. City or Town

16c. County

16d. If you live on Tribal Reservation, give name

16e. State or Foreign Country

16f. Zip Code + 4

16g. Inside City Limits? ☐ Yes ☐ No ☐ Unk

17. Telephone Number ( ) -

18. How Long at Current Residence?
Years: Months:

19. Mother's Mailing Address, if different: Number & Street:
Apt No.
City or Town:
State:
Zip Code:

20. Mother's Education-(Check the box that best describes the highest degree or level of school completed at the time of delivery.)
1 ☐ 8th grade or less (Specify):
2 ☐ 9th – 12th grade; no diploma
3 ☐ High school graduate or GED completed
4 ☐ Some college credit, but no degree
5 ☐ Associate degree(e.g., AA, AS)
6 ☐ Bachelor's degree(e.g., BA, AB, BS)
7 ☐ Master's degree(e.g., MA, MS, MEng, MEd, MSW, MBA)
8 ☐ Doctorate(e.g., PhD, EdD) or Professional degree(e.g., MD, DDS, DVM, LLB, JD)

21. Mother of Hispanic Origin?
(Check the box that best describes whether the mother is Spanish/Hispanic/Latina or check the "No" box if mother is not Spanish/Hispanic/Latina.)
1 ☐ No, not Spanish/Hispanic/Latina
2 ☐ Yes, Mexican, Mexican American, Chicana
3 ☐ Yes, Puerto Rican
4 ☐ Yes, Cuban
5 ☐ Yes, other Spanish/Hispanic/Latina
(Specify):

22. Mother's Race (Check one or more races to indicate what the mother considers herself to be.)
☐ White ☐ Black or African American
☐ American Indian or Alaska Native
(Name of the enrolled or principal tribe)
☐ Asian Indian ☐ Chinese
☐ Filipino ☐ Japanese
☐ Korean ☐ Vietnamese
☐ Other Asian(Specify):
☐ Native Hawaiian ☐ Guamanian or Chamorro
☐ Samoan
☐ Other Pacific Islander(Specify):
☐ Other(Specify):

23. Occupation (Indicate type of work done during last year.)

24. Kind of Business/Industry (Do not use Company Name)

Father's Information

*25. Father's Current Legal Name
First
Middle
LAST

*26. Date of Birth (MM/DD/YYYY) / /

*27. Birthplace (State, Territory, or Foreign Country)

28. Father's Social Security Number

29. Father's Education-(Check the box that best describes the highest degree or level of school completed at the time of delivery.)
1 ☐ 8th grade or less (Specify):
2 ☐ 9th – 12th grade; no diploma
3 ☐ High school graduate or GED completed
4 ☐ Some college credit, but no degree
5 ☐ Associate degree(e.g., AA, AS)
6 ☐ Bachelor's degree(e.g., BA, AB, BS)
7 ☐ Master's degree(e.g., MA, MS, MEng, MEd, MSW, MBA)
8 ☐ Doctorate(e.g., PhD, EdD) or Professional degree(e.g MD, DDS, DVM, LLB, JD)

30. Father of Hispanic Origin?
(Check the box that best describes whether the father is Spanish/Hispanic/Latino or check the "No" box if father is not Spanish/Hispanic/Latino.)
1 ☐ No, not Spanish/Hispanic/Latino
2 ☐ Yes, Mexican, Mexican American, Chicano
3 ☐ Yes, Puerto Rican
4 ☐ Yes, Cuban
5 ☐ Yes, other Spanish/Hispanic/Latino
(Specify):

31. Father's Race (Check one or more races to indicate what the father considers himself to be)
☐ White ☐ Black or African American
☐ American Indian or Alaska Native
(Name of the enrolled or principal tribe)
☐ Asian Indian ☐ Chinese
☐ Filipino ☐ Japanese
☐ Korean ☐ Vietnamese
☐ Other Asian(Specify):
☐ Native Hawaiian ☐ Guamanian or Chamorro
☐ Samoan
☐ Other Pacific Islander(Specify):
☐ Other(Specify):

32. Occupation (Indicate type of work done during last year.)

33. Kind of Business/Industry (Do not use Company Name)

Optional Signature:

I agree that the above information is accurate: Date:

* *Only these items will be displayed on Legal Certificate. However all items are required by law* ***(RCW 70.58.080)***.

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Mother's Statistical Information

34. Mother's Medical Record Number

35. Mother's Prepregnancy Weight (Pounds)

36. Mother's Weight at Delivery (Pounds)

37. Mother's height Feet: Inches:

38. Did Mother get WIC food for herself during pregnancy? ☐ Yes ☐ No

39. Cigarette Smoking Before and During Pregnancy
If none enter "0"
Average number of cigarettes or packs per day:

	# of cigarettes		# of packs
Three months before pregnancy	______	OR	______
First three months of pregnancy	______	OR	______
Second three months of pregnancy	______	OR	______
Last three months of pregnancy	______	OR	______

40a. Number of Previous Live Births (Do not include this child)
Number Now Living ________ ☐ None
Number Now Dead ________ ☐ None

41a. Number of Other Pregnancy Outcomes (Spontaneous or induced losses or ectopic pregnancies)
Number of Other Outcomes________ ☐ None

40b. Date of Last Live Birth (MM/YYYY) (Do not include this child) /

41b. Date of Last Other Pregnancy Outcome (MM/YYYY) /

42a. Date of First Prenatal Care Visit (MM/DD/YYY... / / ☐ No Pre...

42b. D... Last ... al C... isi... YYY

4... nber of Prenatal Visits for this Pregnancy (... none, enter '0')

44. Date Last Normal Menses Began (MM/DD/YYYY) / /

45. ... ther tran... o hig... or ... ern... ed ... or ... fe... tions ... d... ery? ☐ Ye... No ... ye... ame ... f ... n ... er ... ferr... om:

4... incipal Source of Payment for this Delivery
☐ ... ☐ Self Pay ☐ Private Insurance
☐ ... ealth ☐ CHAMPUS ☐ Other Gov't
☐ ... her (Specify)

N... b... 's ... at... ca... formatio...

47. Newborn Medical Record Number

48. Birth ... lbs: ozs: or grams:

49. ... nt Head C... (cm)

50. Obstetric Estimate of Gestation (Completed weeks)

51. Apgar score at 5 minutes ________ If score is less than 6, score at 10 minutes ________

52. Plurality – Single, Twin, Triplet, etc. (Specify)

53. If not single birth – Born 1st, 2nd, 3rd, etc. (Specify)

54. Was infant transferred within 24 hours of delivery? ☐ Yes ☐ No
If yes, name of facility infant was transferred to:

55. Is infant living at the time of report? ☐ Yes ☐ No ☐ Transferred, Status Unknown

56. Is infant being breastfed? ☐ Yes ☐ No

Medical and Health Information

57. Risk Factors in this Pregnancy (Check all that apply):
1 ☐ Diabetes
☐ Prepregnancy (Diagnosis prior to this pregnancy)
☐ Gestational (Diagnosis in this pregnancy)
2 ☐ Hypertension
☐ Prepregnancy (Chronic)
☐ Gestational (PIH, preeclampsia, eclampsia)
3 ☐ Previous preterm births
4 ☐ Other previous poor pregnancy outcome (includes perinatal death, small-for-gestational age/intrauterine growth restricted birth)
5 ☐ Vaginal bleeding during this pregnancy prior to the onset of labor
6 ☐ Pregnancy resulted from infertility treatment
7 ☐ Mother had a previous cesarean delivery?
If Yes, how many______________
8 ☐ Group B Streptococcus culture positive
9 ☐ None of the above

58. Method of Delivery
A. Was delivery with forceps attempted but unsuccessful?
☐ Yes ☐ No
B. Was delivery with vacuum extraction attempted but unsuccessful?
☐ Yes ☐ No
C. Fetal presentation at birth
☐ Cephalic ☐ Breech ☐ Other
D. Final route and method of delivery (Check One)
Vaginal: ☐ Spontaneous
☐ Forceps
☐ Vacuum
Or,
Cesarean: ☐
If cesarean, was a trial of labor attempted?
☐ Yes
☐ No

59. Infections Present and/or Treated During this Pregnancy (Check all that apply):
1 ☐ Gonorrhea
2 ☐ Syphilis
3 ☐ Herpes Simplex Virus (HSV)
4 ☐ Chlamydia
5 ☐ Hepatitis B
6 ☐ Hepatitis C
7 ☐ HIV Infection
8 ☐ Other
Specify:______________________
9 ☐ None of the above

60. Obstetric procedures (Check all that apply):
1 ☐ Cervical cerclage
2 ☐ Tocolysis
3 ☐ External cephalic version:
☐ Successful
☐ Failed
4 ☐ None of the above

61. Abnormal Conditions of the Newborn (Occurring within 24 hours of delivery) (Check all that apply):
1 ☐ Assisted ventilation required immediately following delivery
2 ☐ Assisted ventilation required for more than s...
3 ☐ NICU admission
4 ☐ Newborn given surfactant replacement ther...
5 ☐ Antibiotics received by the newborn for susp... neonatal sepsis
6 ☐ Seizure or serious neurologic dysfunction
7 ☐ Significant birth injury (skeletal fracture(s), ... pher... nerve injury, soft tissue or solid organ hemo... which requires intervention)
8 ☐ None of the above

62. Characteristics of Labor and Delivery (Check all that apply):
1 ☐ Induction of labor
2 ☐ A... entatio... abo...
3 ☐ ... ertex ... tati...
4 ☐ ... al or s... ane... a ... g...
5 ☐ ... s (glu... ic... r f... un... itu... n
... e... by ... r to
☐ ... tib... s re... v... no... lab...
☐ ... hor... m... is... gn... during l... or
... en... ra... ≥ ... C (... 4°F)
... ode... he... r... ni... sta... g of the a...
... uid
9 ☐ Fetal intolerance of labor such that one or more of the following actions was taken: in-utero resuscitation measures, further fetal assessment, or operative delivery
10 ☐ None of the above

63. ... al Anomalies of the Newborn (... bserved within 24 hours of delivery) (Check all that apply)
1 ... ephaly
2 ... gomyelocele / Spina bifida
3 Cyanotic congenital heart disease
4 Congenital diaphragmatic hernia
5 ... locele
6 ... schisis
7 ☐ Limb reduction defect (excluding congenital amputation and dwarfing syndrome)
8 ☐ Cleft Lip with or without Cleft Palate
9 ☐ Cleft Palate alone
10 ☐ Down Syndrome
☐ Karyotype confirmed
☐ Karyotype pending
11 ☐ Chromosomal disorder
☐ Karyotype confirmed
☐ Suspected, Karyotype pending
12 ☐ Hypospadias
13 ☐ None of the above

64. Maternal Morbidity (complications associated with labor and delivery) (Check all that apply):
1 ☐ Maternal transfusion
2 ☐ Third or fourth degree perineal laceration
3 ☐ Ruptured uterus
4 ☐ Unplanned hysterectomy
5 ☐ Admission to intensive care unit
6 ☐ Unplanned operating room procedure following delivery
7 ☐ None of the above

65. Onset of Labor (Check all that apply):
1 ☐ Premature rupture of the membranes (prolonged, ≥ 12hr)
2 ☐ Precipitous Labor (< 3hr)
3 ☐ Prolonged Labor (≥ 20hr)
4 ☐ None of the above

Attendant and Certifier Information

66. Certifier – Name and Title

67. Date Certified (MM/DD/YYYY) / /

68. Attendant – Name and Title (If other than Certifier)

69. NPI of person delivering the baby:

DOH/CHS 001 Rev 10/3/2002

Certificate of Death

Certificate of Fetal Death

Washington State Fetal Death Certificate

Local File Number **State File Number**

Delivery Information

1. Name of Fetus - First | Middle | LAST | Suffix

2. Sex (M/F/Unk) | **3.** Date of Delivery (MM/DD/YYYY) / / | **4.** Time of Delivery (24 Hrs)

6a. Type of Birthplace (Specify Type)
1 ☐ Hospital 3 ☐ Freestanding Birth Center 5 ☐ Home - Planned ☐ Yes ☐ No
2 ☐ Enroute 4 ☐ Clinic/Doctor's Office 6 ☐ Other(Specify):

6b. Planned Birth Place, If different Specify:

6. Name of Facility (If not a facility enter name of place and address) | **7.** Facility ID. (NPI)

8. City, Town, or Location of Delivery | **9.** Zip Code of Delivery | **10.** County of Delivery

Parent's Information

11. Mother's Name Before First Marriage (First, Middle, Last) | **12.** Date of Birth (MM/DD/YYYY)

13. Mother's Current Legal Last Name, If different from above | **14.** Birthplace (State, Territory, or Foreign Country)

15a. Residence – Number and Street (e.g.,6 | **15b.**

15c. County | **15d.** If you l... | ... | **15f.** Zip Code + 4

15g. Inside City Limits? ☐ Yes ☐ N...

17. Father's Current Legal Name (First, Middle, Last, S... | Date of Bir... (MM/DD/YYYY) / | Birthplace (State, Territory, or Foreign County)

20. Name and Title of Person Completing C... | Signature X

SAMPLE

21. Date Signed (MM/DD/YYYY) / /

22. Name and Title of Person Delivering the Fetus | **23.** NPI of Person Delivering the Fetus:

24. Method of Disposition 1 ☐ Burial 2 ☐ Cremation 3 ☐ Removal from State 4 ☐ Donation 5 ☐ Hospital Disposition 6 ☐ Other(Specify): | **25.** Date of Disposition (MM/DD/YYYY) / /

26. Place of Disposition (Name of cemetery, crematory, other place) | **27.** Location-City/Town, and State

28. Name and Complete Address of Funeral Facility | **29. Funeral Director Signature** X

30. Initiating Cause/Condition
(Among the choices below, please select the ONE which most likely began the sequence of events resulting in the death of the fetus)

1 ☐ Maternal Conditions/Diseases (Specify)
2 ☐ Complications of Placenta, Cord or Membranes
☐ Rupture of membranes prior to onset of labor
☐ Abruptio placenta
☐ Placental insufficiency
☐ Prolapsed cord
☐ Chorioamnionitis
☐ Other(Specify)
3 ☐ Other Obstetrical or Pregnancy Complications (Specify)
4 ☐ Fetal Anomaly (Specify)
5 ☐ Fetal Injury (Specify)
6 ☐ Fetal Infection (Specify)
7 ☐ Other Fetal Conditions/Disorders (Specify)
8 ☐ Unknown

31. Other Significant Causes or Conditions
(Select or specify all other conditions contributing to death)

1 ☐ Maternal Conditions/Diseases (Specify)
2 ☐ Complications of Placenta, Cord or Membranes
☐ Rupture of membranes prior to onset of labor
☐ Abruptio placenta
☐ Placental insufficiency
☐ Prolapsed cord
☐ Chorioamnionitis
☐ Other(Specify)
3 ☐ Other Obstetrical or Pregnancy Complications (Specify)
4 ☐ Fetal Anomaly (Specify)
5 ☐ Fetal Injury (Specify)
6 ☐ Fetal Infection (Specify)
7 ☐ Other Fetal Conditions/Disorders (Specify)
8 ☐ Unknown

Washington State Department of Health

32. Estimated Time of Fetal Death
1 ☐ Dead at first assessment, no labor ongoing
2 ☐ Dead at first assessment, labor ongoing
3 ☐ Died during labor, after first assessment
4 ☐ Unknown time of fetal death

33. Was an autopsy performed? ☐ Yes ☐ No ☐ Planned

34. Was a histological placental examination performed? ☐ Yes ☐ No ☐ Planned

35. Were autopsy or histological placental examination results used in determining the cause of death? ☐ Yes ☐ No

36. Registrar Signature X | **37.** Date Received (MM/DD/YYYY) / /

DOH/CHS 002 Rev. 8/03/2004

Please complete side two →

Confidential Portion

38. Weight of Fetus

lbs: _____ ozs: _____ **or** grams: _____

39. Obstetric estimate of Gestation

(Completed Weeks)

40. Plurality – Single, Twin, Triplet, etc. (Specify)

41. If not Single Birth – Born First, Second, Third, etc.

Mother's Information

42. Mother's Education - Check the box that best describes the highest degree or level of school completed at the time of delivery.

1 ☐ 8th grade or less (Specify): _____
2 ☐ 9th – 12th grade; no diploma
3 ☐ High school graduate or GED completed
4 ☐ Some college credit, but no degree
5 ☐ Associate degree(e.g., AA, AS)
6 ☐ Bachelor's degree(e.g., BA, AB, BS)
7 ☐ Masters degree(e.g., MA, MS, MEng, MEd, MSW, MBA)
8 ☐ Doctorate(e.g., PhD EdD) or Professional degree(e.g., MD, DDS, DVM, LLB, JD)

43. Mother of Hispanic Origin?
Check the box that best describes whether the mother is Spanish/Hispanic/Latina or check the "No" box if mother is not Spanish/Hispanic/Latina.

0 ☐ No, not Spanish/Hispanic/Latina
1 ☐ Yes, Mexican, Mexican American, Chicana
2 ☐ Yes, Puerto Rican
3 ☐ Yes, Cuban
4 ☐ Yes, other Spanish/Hispanic/Latina
(Specify)

44. Mother's Race (Check one or more races to indicate what the mother considers herself to be)

1 ☐ White
2 ☐ Black or African American
3 ☐ American Indian or Alaska Native
(Name of the enrolled or principal tribe)
4 ☐ Asian Indian
5 ☐ Chinese
6 ☐ Filipino
7 ☐ Japanese
8 ☐ Korean
9 ☐ Vietnamese
10 ☐ Other Asian(Specify):
11 ☐ Native Hawaiian
12 ☐ Guamanian or Chamorro
13 ☐ Samoan
14 ☐ Other Pacific Islander(Specify):
15 ☐ Other(Specify):

45. Occupation (Indicate type of work done during last year.)

46. Kind of Business/Industry (Do not use Company Name)

47. Mother Married? (At delivery, conception, or any time between)
☐ Yes ☐ No

48. Mother's Height
Feet: Inches:

49. Did Mother get WIC food for herself during this Pregnancy?
☐ Yes ☐ No

50. Mother's Prepregnancy Weight
(Pounds)

52. Date Menses Began (MMDD/YYYY)
/ /

53. Date of First Prenatal Care Visit (MMDD/YYYY)
/ /

55. Total Number of Prenatal Visits for this Pregnancy

56a. Number of Previous Live Births
(Do not include this child)

Now Living
Number_____ ☐ None

Now Dead
Number_____ ☐ None

56b. Date of Last Live Birth (MMYYYY)
/

57b. Date of Last Other Pregnancy Outcome. (MMYYYY)
/

58. Cigarettes Before and During Pregnancy
If none, enter "0"
Average number of cigarettes or packs per day.

	# of cigarettes	# of packs
pregnancy	_____ OR	_____
First three months of pregnancy	_____ OR	_____
Second three months of pregnancy	_____ OR	_____
Last three months of pregnancy	_____ OR	_____

59. Was mother transferred to higher level care for maternal medical or fetal indications for delivery?
☐ Yes ☐ No If yes, name of facility mother was transferred from:

Father's Information

60. Father's Education-Check the box that best describes the highest degree or level of school completed at the time of delivery.

1 ☐ 8th grade or less (Specify): _____
2 ☐ 9th – 12th grade; no diploma
3 ☐ High school graduate or GED completed
4 ☐ Some college credit, but no degree
5 ☐ Associate degree(e.g., AA, AS)
6 ☐ Bachelor's degree(e.g., BA, AB, BS)
7 ☐ Masters degree(e.g., MA, MS, MEng, MEd, MSW, MBA)
8 ☐ Doctorate(e.g., PhD EdD) or Professional degree(e.g., MD, DDS, DVM, LLB, JD)

61. Father of Hispanic Origin?
Check the box that best describes whether the father is Spanish/Hispanic/Latino or check the "No" box if father is not Spanish/Hispanic/Latino

0 ☐ No, not Spanish/Hispanic/Latino
1 ☐ Yes, Mexican, Mexican American, Chicano
2 ☐ Yes, Puerto Rican
3 ☐ Yes, Cuban
4 ☐ Yes, other Spanish/Hispanic/Latino
(Specify):

62. Father's Race (Check one or more races to indicate what the father considers himself to be)

1 ☐ White
2 ☐ Black or African American
3 ☐ American Indian or Alaska Native
(Name of the enrolled or principal tribe)
4 ☐ Asian Indian
5 ☐ Chinese
6 ☐ Filipino
7 ☐ Japanese
8 ☐ Korean
9 ☐ Vietnamese
10 ☐ Other Asian(Specify):
11 ☐ Native Hawaiian
12 ☐ Guamanian or Chamorro
13 ☐ Samoan
14 ☐ Other Pacific Islander(Specify):
15 ☐ Other(Specify):

63. Occupation (Indicate type of work done during last year.)

64. Kind of Business/Industry (Do not use Company Name)

Medical and Health Information

65. Risk Factors in this Pregnancy (Check all that apply):

1 ☐ Diabetes
☐ Prepregnancy (Diagnosis prior to this pregnancy)
☐ Gestational (Diagnosis in this pregnancy)
2 ☐ Hypertension
☐ Prepregnancy (Chronic)
☐ Gestational (PIH, preeclampsia, eclampsia)
3 ☐ Previous preterm birth
4 ☐ Other previous poor pregnancy outcome (includes perinatal death, small-for-gestational age/intrauterine growth restricted birth)
5 ☐ Vaginal bleeding during this pregnancy prior to the onset of labor
6 ☐ Pregnancy resulted from infertility treatment
7 ☐ Mother had a previous cesarean delivery?
If Yes, how many_____
8 ☐ None of the above

66. Method of Delivery

A. Was delivery with forceps attempted but unsuccessful?
☐ Yes ☐ No

B. Was delivery with vacuum extraction attempted but unsuccessful?
☐ Yes ☐ No

C. Fetal presentation at birth
☐ Cephalic ☐ Breech ☐ Other

D. Final route and method of delivery (Check One)
Vaginal: ☐ Spontaneous
☐ Forceps
☐ Vacuum
Or,
Cesarean: ☐
If cesarean, was a trial of labor attempted?
☐ Yes
☐ No

E. Hysterotomy/Hysterectomy
☐ Yes ☐ No

67. Congenital Anomalies of the Fetus

1 ☐ Anencephaly
2 ☐ Meningomyelocele / Spina bifida
3 ☐ Cyanotic congenital heart disease
4 ☐ Congenital diaphragmatic hernia
5 ☐ Omphalocele
6 ☐ Gastroschisis
7 ☐ Limb reduction defect (excluding congenital amputation and dwarfing syndrome)
8 ☐ Cleft Lip with or without Cleft Palate
9 ☐ Cleft Palate alone
10 ☐ Down Syndrome
☐ Karyotype confirmed
☐ Karyotype pending
11 ☐ Suspected chromosomal disorder
☐ Karyotype confirmed
☐ Karyotype pending
12 ☐ Hypospadias
13 ☐ None of the above

68. Maternal Morbidity
(complication associated with labor and delivery)
(Check all that apply):

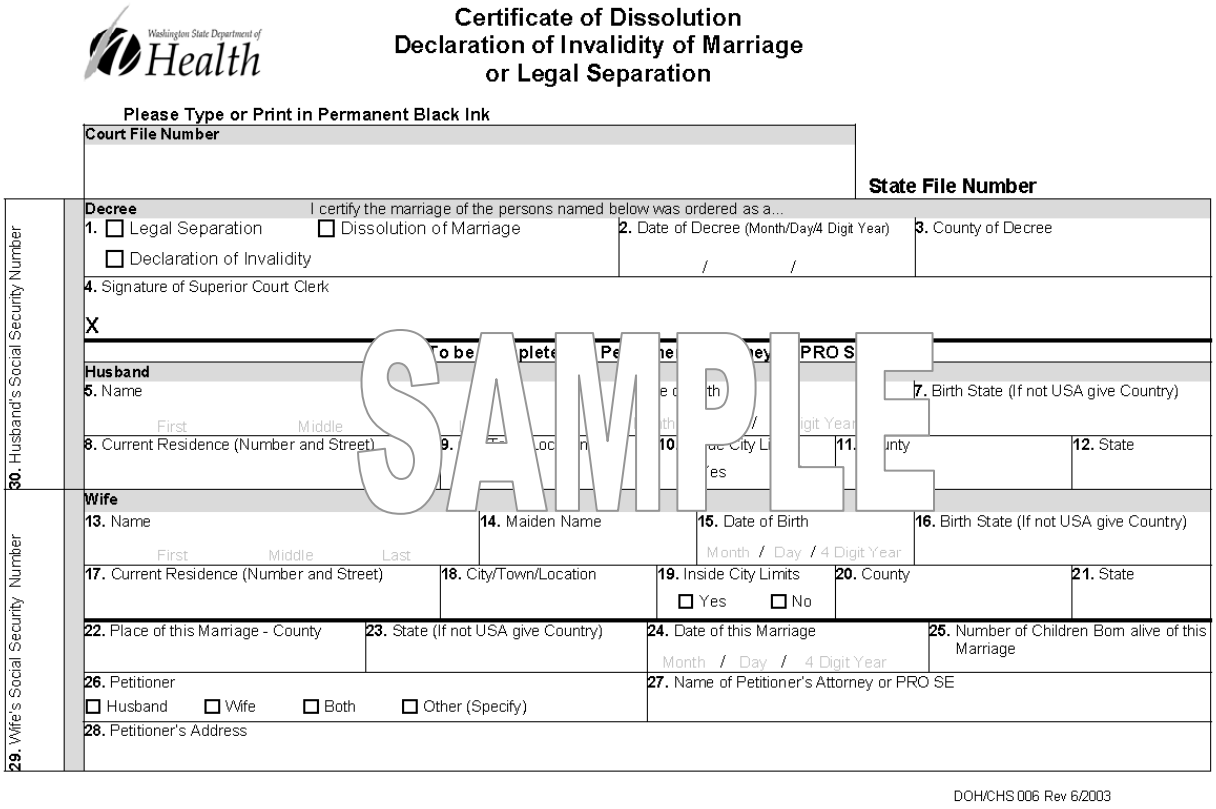
1 ☐ Maternal transfusion
2 ☐ Third or fourth degree perineal laceration
3 ☐ Ruptured uterus
4 ☐ Unplanned hysterectomy
5 ☐ Admission to intensive care unit
6 ☐ Unplanned operating room procedure following delivery
7 ☐ None of the above

69. Infections Present and/or Treated During this Pregnancy
(Check all that apply):

1 ☐ Gonorrhea
2 ☐ Syphilis
3 ☐ Herpes Simplex Virus (HSV)
4 ☐ Chlamydia
5 ☐ Listeria
6 ☐ Group B Streptococcus
7 ☐ Cytomegalovirus
8 ☐ Parvovirus
9 ☐ Toxoplasmosis
10 ☐ HIV Infection
11 ☐ Other
Specify:_____
12 ☐ None of the above

DOH/CHS 002 Rev. 8/03/2004

Certificate of Dissolution



Washington State Department of Health

Certificate of Dissolution
Declaration of Invalidity of Marriage
or Legal Separation

Please Type or Print in Permanent Black Ink

Court File Number

State File Number

Decree I certify the marriage of the persons named below was ordered as a...

1. ☐ Legal Separation ☐ Dissolution of Marriage ☐ Declaration of Invalidity

2. Date of Decree (Month/Day/4 Digit Year) / /

3. County of Decree

4. Signature of Superior Court Clerk

X

To be pleted Pe ne ey PRO S

Husband

5. Name First Middle

th / igit Year

7. Birth State (If not USA give Country)

8. Current Residence (Number and Street)

9. Loc n

10 e City Li Yes

11. unty

12. State

30. Husband's Social Security Number

Wife

13. Name First Middle Last

14. Maiden Name

15. Date of Birth Month / Day / 4 Digit Year

16. Birth State (If not USA give Country)

17. Current Residence (Number and Street)

18. City/Town/Location

19. Inside City Limits ☐ Yes ☐ No

20. County

21. State

22. Place of this Marriage - County

23. State (If not USA give Country)

24. Date of this Marriage Month / Day / 4 Digit Year

25. Number of Children Born alive of this Marriage

26. Petitioner ☐ Husband ☐ Wife ☐ Both ☐ Other (Specify)

27. Name of Petitioner's Attorney or PRO SE

28. Petitioner's Address

29. Wife's Social Security Number

SAMPLE

DOH/CHS 006 Rev 6/2003

Certificate of Marriage

Washington State Department of Health

CERTIFICATE OF MARRIAGE

Please type or print clearly in permanent black ink.

State File Number

COUNTY OF LICENSE		DATE VALID	NOT VALID AFTER

OFFICIANT - I certify the persons named below were married on . . . .

1.DATE OF MARRIAGE(MO/DAY/YR)	2. COUNTY OF CEREMONY	3. TYPE OF CEREMONY ☐ Religious ☐ Civil	4.DATE SIGNED(MO/DAY/YR)
5. OFFICIANT'S NAME (PRINT)		6. OFFICIANT'S SIGNATURE X	
7. OFFICIANT'S ADDRESS (STREET, CITY, STATE & ZIP)			

GROOM

8. **GROOM'S NAME** FIRST	MIDDLE	LAST	
9. CURRENT RESIDENCE ADDRESS (NUMBER AND STREET)	10.**DATE OF BIRTH**(MO/DAY/YR)	11.**BIRTHSTATE**(IF NOT USA GIVE COUNTRY)	
12. CITY/TOWN/LOCATION	13. INSIDE CITY LIMITS ☐ Yes ☐ No	14. COUNTY	15. STATE
16. FATHER'S NAME (FIRST/LAST)		17.BIRTHSTATE(IF NOT USA GIVE COUNTRY)	
18. MOTHER'S MAIDEN NAME (FIRST/LAST)		19.BIRTHSTATE(IF NOT USA GIVE COUNTRY)	
20. **GROOM'S SIGNATURE** X		21. **DATE SIGNED** (MO/DAY/YR)	

BRIDE

22. **BRIDE'S NAME** FIRST MIDDLE LAST		23. MAIDEN NAME	
24. CURRENT RESIDENCE ADDRESS (NUMBER AND STREET)	25.**DATE OF BIRTH**(MO/DAY/YR)	26.**BIRTHSTATE**(IF NOT USA GIVE COUNTRY)	
27. CITY/TOWN/LOCATION	28. INSIDE CITY LIMITS ☐ Yes ☐ No	29. COUNTY	30. STATE
31. FATHER'S NAME (FIRST/LAST)		32.BIRTHSTATE(IF NOT USA GIVE COUNTRY)	
33. MOTHER'S MAIDEN NAME (FIRST/LAST)		34.BIRTHSTATE(IF NOT USA GIVE COUNTRY)	
35. **BRIDE'S SIGNATURE** X		36. **DATE SIGNED** (MO/DAY/YR)	

37. WITNESS' SIGNATURE X	38. WITNESS' SIGNATURE X	
39. COUNTY AUDITOR'S SIGNATURE X		40. DATE RECEIVED (MO/DAY/YR)

DOH/CHS 005 REV 6/2003

SAMPLE

Social Security Number for Applicants	
Department of Health is required to collect your Social Security Number in order to assist in child support laws (Section 7, Chapter 160 Laws of 1998). If you do not have a Social Security Number, you are required to complete the Social Security Declaration.	
41. GROOM'S SOCIAL SECURITY NUMBER	42. BRIDE'S SOCIAL SECURITY NUMBER

*I have not furnished a ... because **I do not have** ... marriage certificate,*

I declare under penalty ... of Was... foregoing is true and correct.

Groom's Signature _____ Date _____

Bride's Signature _____ Date _____

Center for Health Statistics

MARRIAGE CERTIFICATE INSTRUCTIONS

(RCW 26.04.090)

Items 1 - 7 ---------- Completed by the Officiant. Signature and complete address required.
Items 8 -19 ---------- Completed at the time the application for marriage license is filed.
Items 20 - 21 --------- The signature of the groom and date signed is required.
Items 22 - 34 --------- Completed at the time the application for marriage license is filed.
Items 35 - 36 --------- The signature or the bride and date signed is required.
Items 37 - 38 --------- Signatures of two witnesses are required by law.
Items 39 - 40 --------- Completed by the county auditor when the certificate is filed.
Items 41 - 42 --------- Completed at the time the application for marriage license is filed.

NOTE: This form is to be transmitted to the county auditor for the county in which the license was obtained within thirty (30) days of the marriage.

DOH/CHS 005 REV 6/2003