Washington State
Vital Statistics and Induced Terminations of Pregnancy 2006

January 2009

For more information contact:

Center for Health Statistics
PO Box 47814
Olympia, WA 98504-7814

360 236-4321
Fax 360 753-4135

Mary C. Selecky
Secretary of Health

Center for Health Statistics, Vital Statistics Report staff*:*

Joe Campo, *Manager, Research Services (360) 236-4321*

Patricia Starzyk, *Research Investigator – Births (360) 236-4323*

Phyllis Reed, *Research Investigator - Deaths (360) 236-4324*

Ann Lima, *State Nosologist – (360) 236-4326*

John Sabel *IT Specialist – (360) 236-4332*

Design Consultation:

Office of Health Promotion

Acknowledgements:

We gratefully acknowledge the contributions of the many individuals who participate in the reporting of vital statistics and the maintenance of these very important public health indicators. We thank physicians, hospital staff, midwives, funeral directors, coroners/medical examiners, local registrars, and all staff of the Center for Health Statistics. Most importantly, we appreciate the role families and individuals play by providing information about the very personal events of their daily lives to promote the health of the population of Washington State.

Jude VanBuren DrPH, MPH, RN
Assistant Secretary
Epidemiology, Health Statistics & Public Health Laboratories

Teresa J. Jennings MPA
State Registrar and Director
Center for Health Statistics

DOH 422-078 January 2009

Table of Contents

Introduction

To provide more concise and actionable data, we have revised the format of the hard copy version of the *Washington State Vital Statistics, 2006* report.

For those interested in complete *Washington State Vital Statistics, 2006* report – with all the tables previously included in our past annual summaries – please visit our website at: http://www.doh.wa.gov/EHSPHL/CHS/CHS-Data/main.htm.

In this hard copy version, we have only included a subset of those tables. We believe this subset is of most interest to the typical users.

In addition, we have added a series of graphs and tables that highlight variations and disparities in selected mortality and natality measures by gender and race/ethnicity. These summary data were developed using a software package, VistaPHw[*], with the intent, in part, to make it easier for Local Health Jurisdictions to replicate comparative data for their own communities. We have also retained in this report the series of maps showing geographic variations for leading health indicators and their trends.

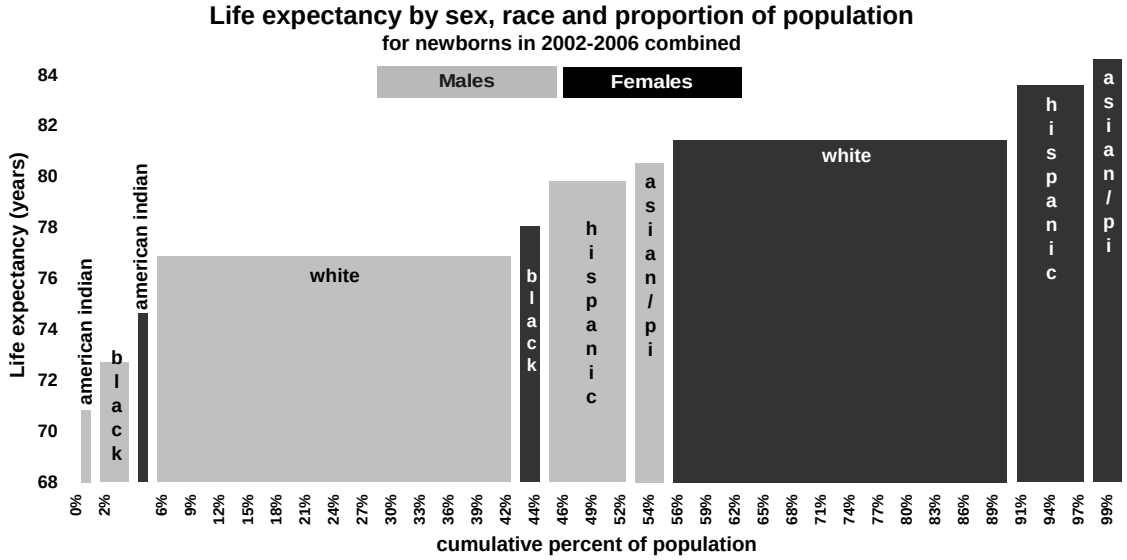
With this streamlined version of our Annual Report, we hope to better highlight those key vital statistics that can best support assessments, evaluations and prioritizations of pubic health initiatives.

[*] VistaPHw, a software tool for analyzing population-based health data, is provided through a partnership of the Washington State Department of Health, Public Health/Seattle and King County, and other local health jurisdictions

Highlights

For this year's annual report, we have chosen to highlight disparities seen within a selected set of death and birth measures by gender and race/ethnicity.

The life-expectancy chart, below, broadly summarizes some of these disparities. With the exception of Hispanic and Asian and Pacific Islander males, the differences between each of the remaining groups are statistically significant. That is, American Indian and Alaska Native males have the shortest life expectancy, and it is statistically significantly shorter than the Black male life expectancy, which, in turn is statistically significantly shorter than the American Indian and Alaska Native female life expectancy, and so on.



Within the report, we assess each of the ten leading causes of death in terms of differences by gender and by race and Hispanic ethnicity[1]. We also assess the four leading causes of cancer death (lung, colorectal, prostate and female breast), as well as key indicators pertaining to natality: infant mortality, prematurity, low birth weight, teenage mothers, late or no prenatal care, maternal obesity and mothers smoking during pregnancy. Collectively these mortality and natality measures help to better understand the variations seen in life expectancy.

One important limitation of these statistics pertains to our inability to disaggregate the Asian and Pacific Islander rates. While already constituting a broad array of peoples with varying needs and risks, we are well aware of the substantial differences that are particularly pronounced between Asians from the mainland, and Native Hawaiians and Pacific Islanders, with the latter group having health measures more similar to Blacks or

[1] Hispanic ethnicity in this report includes all people of Hispanic origin, regardless of race, and each race category includes all people reported in that race, regardless of Hispanic origin. Therefore an individual may be included in an individual race category and in the Hispanic ethnicity category.

Highlights (continued)

American Indians and Alaska Natives. Unfortunately, we only began collecting racial identifiers that distinguish Native Hawaiians and Pacific Islanders from mainland Asians in 2004, and, given the relatively small numbers associated with this population group, we need to wait until we have at least 5 years of data before assessing them separately. Please see Appendix A for a more detailed discussion of race and ethnicity coding.

Gender disparities

For each racial and ethnic group assessed, the age-adjusted mortality rate for males was significantly higher than females for:

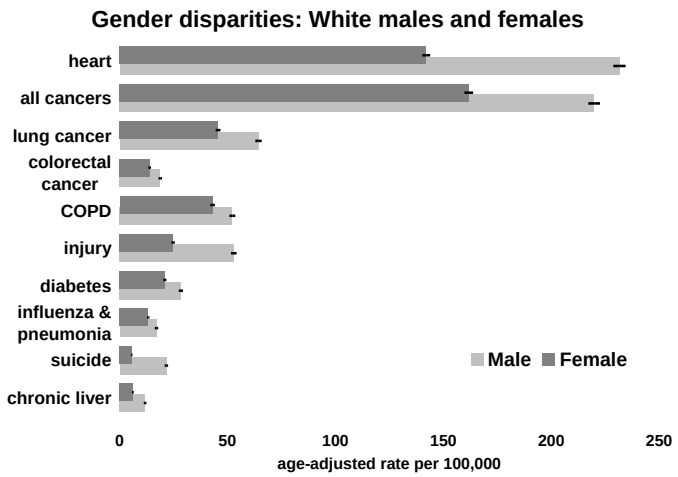
- *Total mortality*
- *Heart disease*
- *Unintentional injury*
- *Suicide*

In addition, except for American Indians and Alaska Natives, for each of the remaining racial and ethnic groups assessed the rates for males were significantly higher than the rates for female for:

- *All cancers combined*
- *Lung cancer*

Moreover, the age-adjusted mortality rate for White males was significantly higher than White females for:

- *Colorectal cancer*
- *COPD*
- *Diabetes*
- *Influenza and pneumonia*
- *Chronic liver disease*



Similarly, the age-adjusted COPD mortality rate for Asian and Pacific Islander males was significantly higher than females, as was the age-adjusted chronic liver disease rate for Hispanic males compared to Hispanic females. [2]

[2] For the two gender-specific causes of death assessed, prostate cancer and female breast cancer, comparisons were not made since the diseases differed; however, for Whites and Blacks the age-adjusted prostate mortality rate was significantly higher than the corresponding age-adjusted female breast cancer rate. Rates for the remaining groups did not significantly differ.

Highlights (continued)

In contrast, Alzheimer's disease was the only leading cause of death where females – specifically Whites and Asians and Pacific Islanders – had a significantly higher age-adjusted mortality rate than males.

Stroke was the only condition assessed where there was no significant difference between males and females.

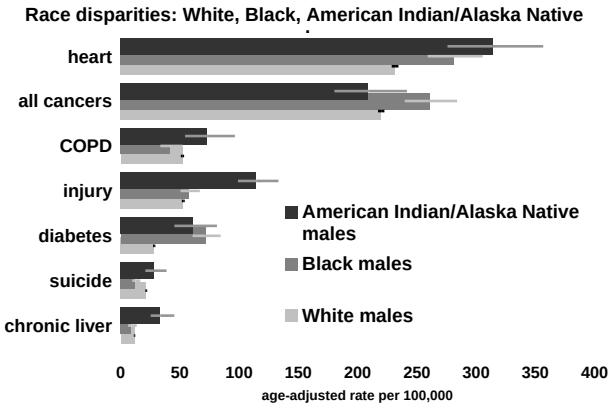
Race and ethnicity disparities

Among males, American Indians and Alaska Natives together with Blacks consistently had age-adjusted rates that exceeded every other group assessed. Specifically, while they did not significantly differ from each other, American Indian and Alaska Native males and Black males had significantly higher rates than all other groups for:

- *Total mortality*
- *Heart disease*

In addition, American Indian and Alaska Native males had significantly higher rates than all other groups, including Black males, for:

- *COPD*
- *Unintentional injury*
- *Chronic liver disease*



Moreover, with the exception of White males, American Indian and Alaska Native males had a significantly higher rate than all other males for suicide.

Similarly, Black males had significantly higher rates than all other males, including American Indian and Alaska Native males, for prostate cancer.

Excluding American Indian and Alaska Native males, Black males had significantly higher rates than all other males for:

- *All cancers*
- *Lung cancer*
- *Diabetes*

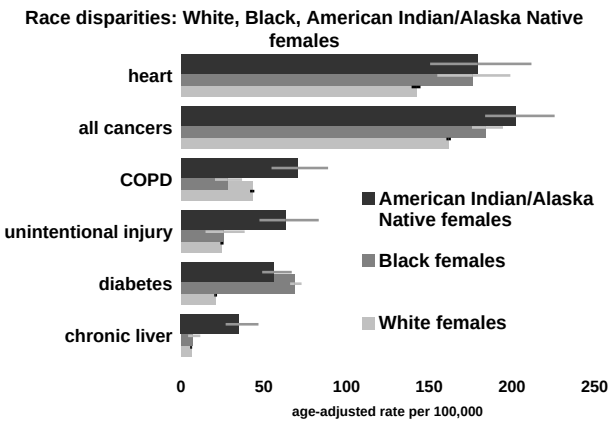
Highlights (continued)

Among females, American Indians and Alaska Natives had significantly higher rates than all other females for:

- *Total mortality*
- *COPD*
- *Unintentional injury*
- *Chronic liver disease*

Additionally, together with Black females, American Indian and Alaska Native females had significantly higher rates than all the remaining groups for:

- *Heart disease*
- *All cancers*



Excluding American Indian and Alaska Native females, Black females had significantly higher rates than all remaining groups for diabetes.

For measures pertaining to natality, the pattern of poorest outcomes for American Indians and Alaska Natives and Blacks persists. American Indians and Alaska Natives had significantly higher rates than all other groups, including Blacks, for:

- *Teenage mothers*
- *Late or no prenatal care*
- *Maternal obesity*
- *Smoking during pregnancy*

Similarly, Blacks had significantly higher rates than all other groups, including American Indians and Alaska Natives, for low birth weight newborns (all births and singletons only).

In addition, while they did not differ significantly from each other, American Indians and Alaska Natives and Blacks had significantly higher rates than all the remaining groups assessed for infant mortality and prematurity.

These findings show significant disparities between males and females, and between American Indians and Alaska Natives, together with Blacks, and all other races and people of Hispanic ethnicity.

Total mortality

Age-adjusted rates (2002-2006 combined)

Gender

- Within each racial and ethnic group assessed, the total age-adjusted mortality rates for males were significantly higher than females, e.g., the rate for White males (897.6 per 100,000) was significantly higher than the rate for White females (646.9), Black males (1094.3) higher than Black females (798.9), etc

Race and Hispanic ethnicity

Males

- American Indians and Alaska Natives' age-adjusted mortality rate (1187.5 per 100,000) exceeded all other groups and was significantly higher than Whites (897.6), Asians and Pacific Islanders (674.1), and Hispanics (698.5)
- Blacks had the second highest rate (1094.3) which was also significantly higher than Whites, Asians and Pacific Islanders, and Hispanics
- Asians and Pacific Islanders and Hispanics had the lowest rates, and while they didn't differ significantly from each other, they were significantly lower than all other groups.

Females

- American Indians and Alaska Natives' rate (995.4) was significantly higher than all other groups.
- Blacks had the second highest rate (798.9) and were significantly higher than Whites (646.9), Asians and Pacific Islanders (500.4), and Hispanics (540.3)
- Asians and Pacific Islanders and Hispanics had the lowest rates, and while they didn't differ significantly from each other, they were significantly lower than all other groups.

Time trends of age-adjusted rates (1990-2006)

Race and Hispanic ethnicity

Males

- For Blacks, rates decreased from 1990 to 2006 (-1.6% per year)
- For Asians and Pacific Islanders, rates decreased from 1990 to 2006 (-1.0% per year).
- For Whites, rates decreased from 1993 to 2006 (-1.7% per year); from 1990 to 1993 there was no significant trend.
- For Hispanics, rates increased from 1997 to 2006 (+3.1% per year); from 1990 to 1997 there was no significant trend.
- No significant trend was seen in the American Indians and Alaska Natives rates.

Females

- For American Indians and Alaska Natives, rates increased from 1990 to 2006 (+1.3% per year).
- For Blacks, rates decreased from 1990 to 2006 (-0.5% per year)
- For Hispanics rates deceased from 1990 to 1996 (-5.3% per) and then increased from 1999 to 2006 (+4.1% per year)
- For Asians and Pacific Islanders, rates decreased from 1990 to 1998 (-2.8% per year), then increased from 1998 to 2006 (+3.6% per year)
- For Whites, rates decreased from 2001 to 2006 (-2.1% per year); prior to 2001 there was no significant trend.

A guide to what's new . . .

Summary and highlights from the tables, charts and trends

Gender- and race/ethnicity-specific tables, charts and trends

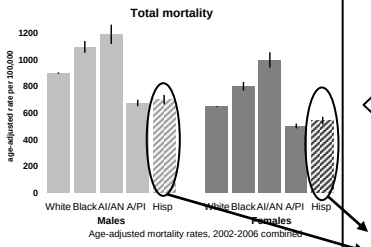
Age-adjusted rates per 100,000 and average annual deaths for 2002-2006 combined by gender and race/ethnicity

Bar chart of age-adjusted rates with 95% confidence intervals by gender & race/ethnicity

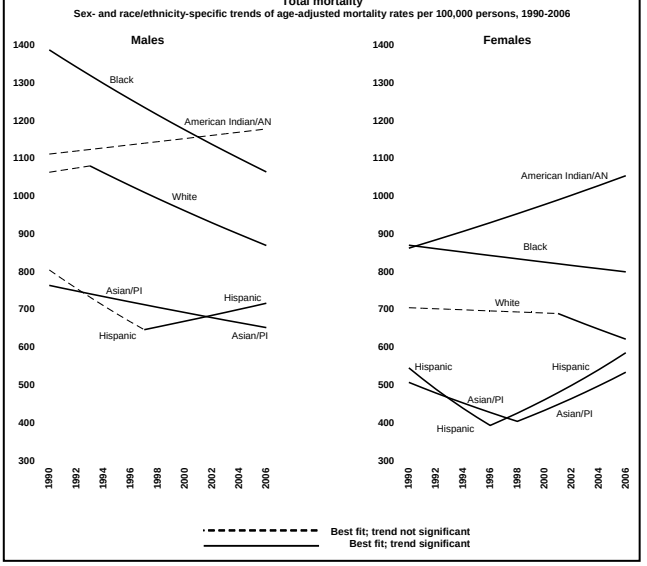
Total mortality

sex	race /ethnicity	age-adjusted rate	average annual deaths
Males	White	897.6	20867
	Black	1094.3	670
	AI/AN	1187.5	321
	A/PI	674.1	720
	Hisp	698.5	573
Females	White	646.9	21420
	Black	798.9	509
	AI/AN	995.4	288
	A/PI	500.4	684
	Hisp	540.3	382

2002 - 2006 combined



Hispanic ethnicity includes all people of Hispanic origin, regardless of race.



Trends of age-adjusted rates from 1990 to 2006 for males and female by race and ethnicity

Solid lines are statistically significant trends; dashed lines are "best fit" but trend is not significant.

Note: For a detailed guide on interpreting the maps and trends in this report, see the "What's New" section of the Washington State Vital Statistics 2004 report.

Assessing Disparities

Total mortality

Age-adjusted rates (2002-2006 combined)

Gender

- Within each racial and ethnic group assessed, the total age-adjusted mortality rates for males were significantly higher than females, e.g., the rate for White males (897.6 per 100,000) was significantly higher than the rate for White females (646.9), Black males (1094.3) higher than Black females (798.9), etc

Race and Hispanic ethnicity

Males

- American Indians and Alaska Natives' age-adjusted mortality rate (1187.5 per 100,000) exceeded all other groups and was significantly higher than Whites (897.6), Asians and Pacific Islanders (674.1), and Hispanics (698.5)
- Blacks had the second highest rate (1094.3) which was also significantly higher than Whites, Asians and Pacific Islanders, and Hispanics
- Asians and Pacific Islanders and Hispanics had the lowest rates, and while they didn't differ significantly from each other, they were significantly lower than all other groups.

Females

- American Indians and Alaska Natives' rate (995.4) was significantly higher than all other groups.
- Blacks had the second highest rate (798.9) and were significantly higher than Whites (646.9), Asians and Pacific Islanders (500.4), and Hispanics (540.3)
- Asians and Pacific Islanders and Hispanics had the lowest rates, and while they didn't differ significantly from each other, they were significantly lower than all other groups.

Time trends of age-adjusted rates (1990-2006)

Race and Hispanic ethnicity

Males

- For Blacks, rates decreased from 1990 to 2006 (-1.6% per year)
- For Asians and Pacific Islanders, rates decreased from 1990 to 2006 (-1.0% per year).
- For Whites, rates decreased from 1993 to 2006 (-1.7% per year); from 1990 to 1993 there was no significant trend.
- For Hispanics, rates increased from 1997 to 2006 (+3.1% per year); from 1990 to 1997 there was no significant trend.
- No significant trend was seen in the American Indians and Alaska Natives rates.

Females

- For American Indians and Alaska Natives, rates increased from 1990 to 2006 (+1.3% per year).
- For Blacks, rates decreased from 1990 to 2006 (-0.5% per year)
- For Hispanics rates deceased from 1990 to 1996 (-5.3% per) and then increased from 1999 to 2006 (+4.1% per year)
- For Asians and Pacific Islanders, rates decreased from 1990 to 1998 (-2.8% per year), then increased from 1998 to 2006 (+3.6% per year)
- For Whites, rates decreased from 2001 to 2006 (-2.1% per year); prior to 2001 there was no significant trend.

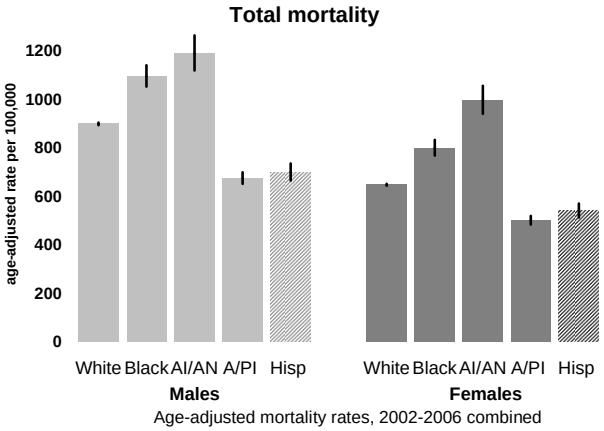
Disparities Figure 1.

Total mortality

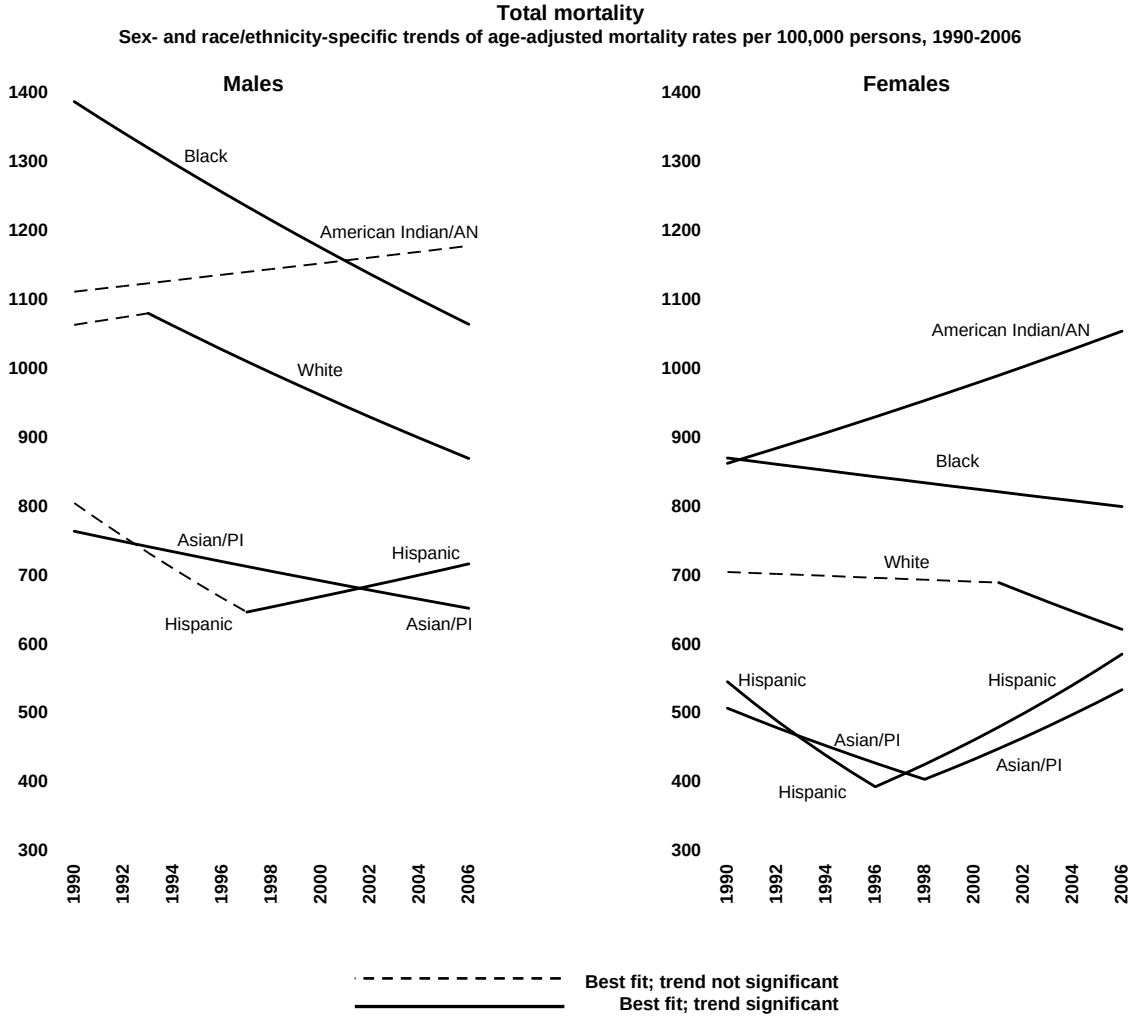
Total mortality

sex	race /ethnicity	age-adjusted rate	average annual deaths
Males	White	897.6	20867
	Black	1094.3	670
	AI/AN	1187.5	321
	A/PI	674.1	720
	Hisp	698.5	573
Females	White	646.9	21420
	Black	798.9	509
	AI/AN	995.4	288
	A/PI	500.4	684
	Hisp	540.3	382

2002 - 2006 combined



Age-adjusted mortality rates, 2002-2006 combined



Heart disease mortality

Age-adjusted rates (2002-2006 combined)

Gender

- Within each racial and ethnic group assessed, the heart disease age-adjusted mortality rates for males were significantly higher than females, e.g., the rate for White males (231.6 per 100,000) was significantly higher than the rate for White females (142.1), Black males (281.5) higher than Black females (176.1), etc.

Race and Hispanic ethnicity

Males

- American Indians and Alaska Natives' age-adjusted mortality rate (314.0 per 100,000) exceeded all other groups and was significantly higher than Whites (231.6), Asians and Pacific Islanders (160.3), and Hispanics (164.4)
- Blacks had the second highest rate (281.5) which was also significantly higher than Whites, Asians and Pacific Islanders, and Hispanics
- Asians and Pacific Islanders and Hispanics had the lowest rates, and while they didn't differ significantly for each other, they were significantly lower than Whites and all other groups.

Females

- American Indians and Alaska Natives and Blacks had the highest rates (179.2 and 176.1) and while they didn't differ significantly for each other they were significantly higher than Whites (142.1), Asians and Pacific Islanders (101.0), and Hispanics (113.5).
- Asians and Pacific Islanders and Hispanics had the lowest rates, and while they didn't differ significantly for each other, they were significantly lower than all other groups.

Time trends of age-adjusted rates (1990-2006)

Race and Hispanic ethnicity

Males

- For Whites, rates decreased from 1990 to 2006 (-2.9% per year)
- For Blacks, rates decreased from 1990 to 2006 (-2.4% per year)
- For Asians and Pacific Islanders, rates decreased from 1990 to 2006 (-2.0% per year)
- For Hispanics, rates decreased from 1990 to 2006 (-1.9%).
- No significant trend was seen in the American Indians and Alaska Natives rates.

Females

- For Blacks, rates decreased from 1990 to 2006 (-2.7% per year)
- For Asians and Pacific Islanders, rates decreased from 1990 to 2006 (-1.2% per year)
- For Whites, rates decreased from 1990 to 2001 (-2.3% per year) and from 2001 to 2006 (-4.1% per year)
- For American Indians and Alaska Natives, no significant trends were seen
- For Hispanics, no significant trends were seen.

Disparities Figure 2.

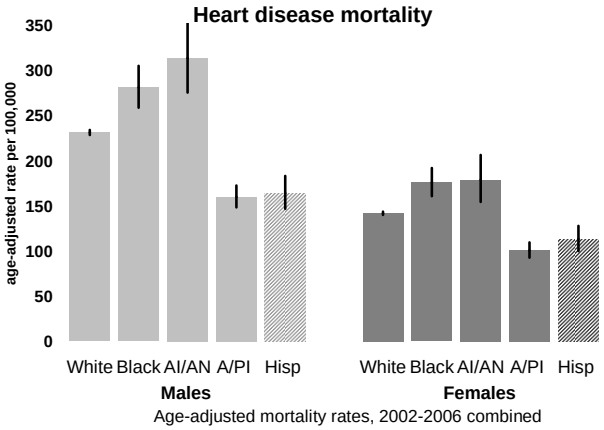
Heart disease mortality

(ICD-10 codes: I00-I09,I11,I13,I20-I51; ICD-9 codes: 390-398,402,404,410-429; Comparability Ratio: 0.9852)

Heart disease mortality

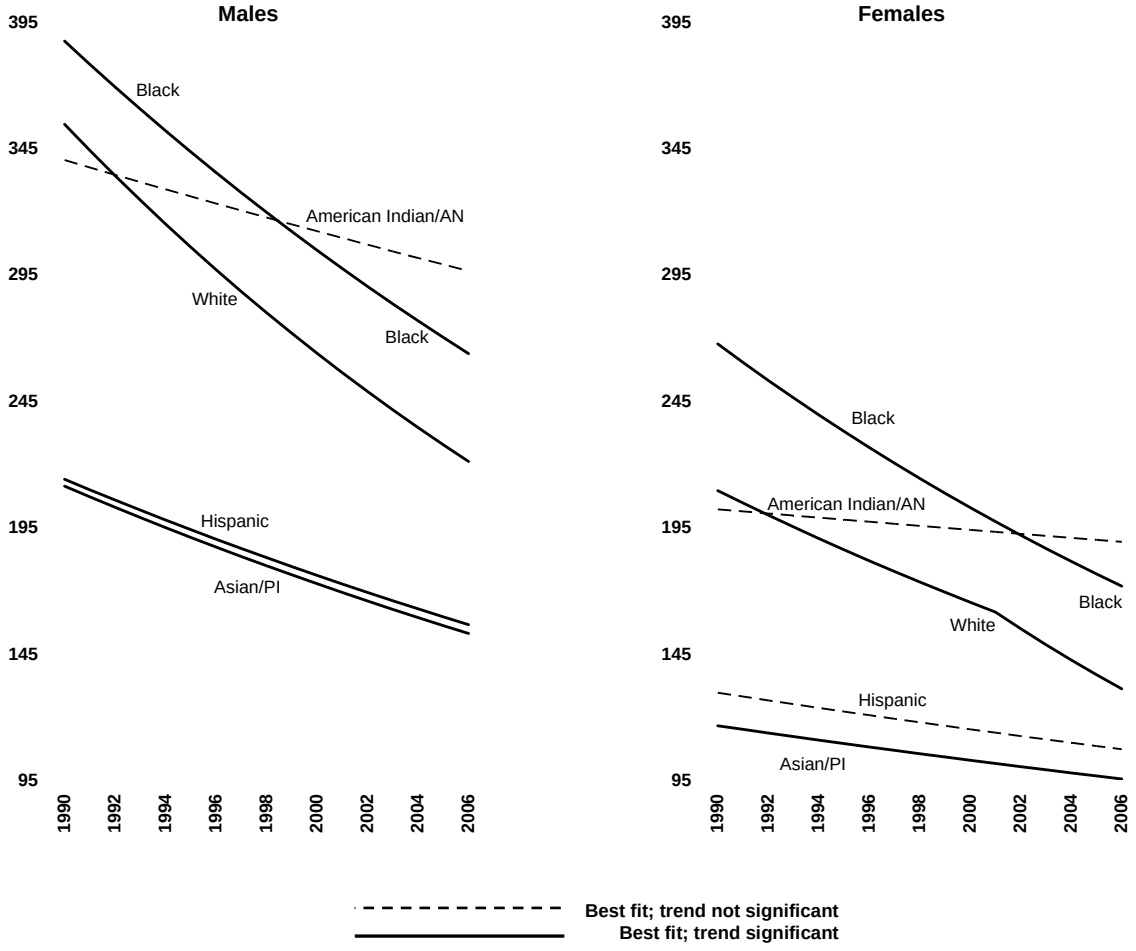
sex	race /ethnicity	age-adjusted rate	average annual deaths
Males	White	231.6	5264
	Black	281.5	154
	AI/AN	314.0	67
	A/PI	160.3	156
	Hisp	164.4	92
Females	White	142.1	4948
	Black	176.1	106
	AI/AN	179.2	45
	A/PI	101.0	121
	Hisp	113.5	60

2002 - 2006 combined



Heart disease mortality

Sex- and race/ethnicity-specific trends of age-adjusted mortality rates per 100,000 persons, 1990-2006



All cancer mortality

Age-adjusted rates (2002-2006 combined)

Gender

- Except for American Indians and Alaska Natives, within each of the remaining racial and ethnic group assessed, the age-adjusted all cancer mortality rates for males were significantly higher than females, e.g., the rate for White males (219.9 per 100,000) was significantly higher than the rate for White females (161.8), Black males (261.0) higher than Black females (184.3), etc
- For American Indians and Alaska Natives the rate for males (209.0) was not significantly different from the rate for females (202.4)

Race and Hispanic ethnicity

Males

- Blacks' age-adjusted all cancers mortality rate (261.0) exceeded all other groups and was significantly higher than Whites (219.9), Asians and Pacific Islanders (183.1), and Hispanics (154.8)
- Whites had the second highest rate which was also significantly higher than Asians and Pacific Islanders and Hispanics
- American Indians and Alaska Natives had the third highest rate (209.0); however, this rate only differs significantly from Hispanics who had the lowest rate.

Females

- American Indians and Alaska Natives all cancers mortality rate (202.4) exceeded all other groups and was significantly higher than Whites (161.8), Asians and Pacific Islanders (127.8), and Hispanics (113.2).
- Blacks had the second highest rate (184.3) which was also significantly higher than Whites, Asians and Pacific Islanders, and Hispanics.
- Asians and Pacific Islanders and Hispanics had the lowest rates, and while they did not differ significantly from each other, they were significantly lower than all other groups.

Time trends of age-adjusted rates (1990-2006)

Race and Hispanic ethnicity

Males

- For Blacks, rates decreased from 1990 to 2006 (-2.3% per year).
- For Whites, rates decreased from 1993 to 2004 (-1.4% per year) and from 2004 to 2006 (-4.0 % per year)
- For Asians and Pacific Islanders, rates increased from 1990 to 1992 (+13.9% per year), decreased from 1992 to 1997 (-7.6 % per year), and then increased from 1997 to 2006 (+2.1% per year).
- For Hispanics, rates decreased from 1990 to 1999 (-3.2% per year), then increased from 1999 to 2006 (+4.9% per year)
- No significant trend was seen in the American Indians and Alaska Natives rates.

Females

- For the American Indians and Alaska Natives, rates increased from 1990 to 2006, (+1.7% per year)
- For Whites, rates decreased from 1994 to 2003 (-0.8% per year) and from 2003 to 2006 (-2.5% per year); no significant trend was seen prior to 1994
- For Asians and Pacific Islanders, rates decreased from 1993 to 1997 (-11.5% per year), and then increased from 1997 to 2006 (+4.5% per year)
- For Blacks and Hispanics no significant trends were seen.

Disparities Figure 3.

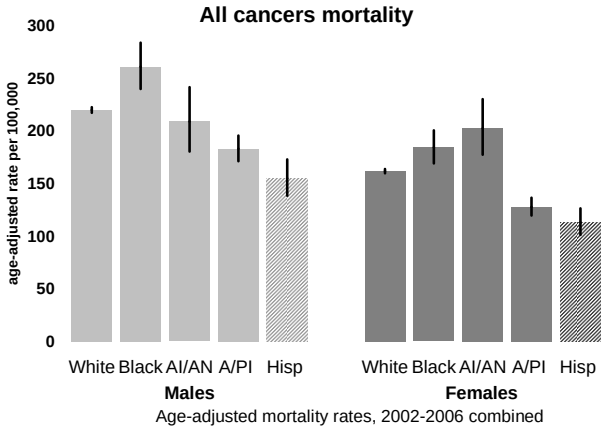
All cancer mortality

(ICD-10 codes: C00-C97; ICD-9 codes: 140-208; Comparability Ratio: 1.0093)

All cancers mortality

sex	race /ethnicity	age-adjusted rate	average annual deaths
Males	White	219.9	5215
	Black	261.0	140
	AI/AN	209.0	53
	A/PI	183.1	203
	Hisp	154.8	91
Females	White	161.8	4985
	Black	184.3	116
	AI/AN	202.4	55
	A/PI	127.8	202
	Hisp	113.2	81

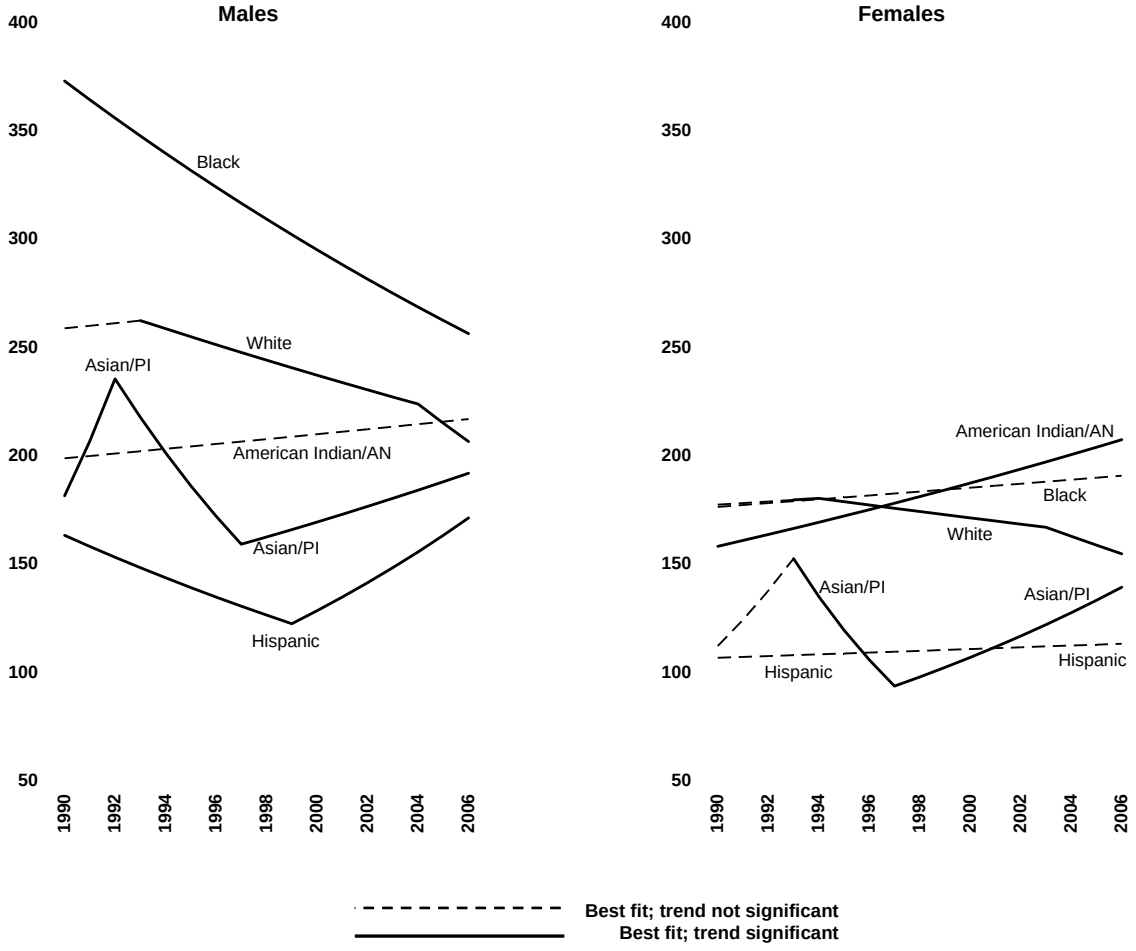
2002 - 2006 combined



Age-adjusted mortality rates, 2002-2006 combined

All cancers mortality

Sex- and race/ethnicity-specific trends of age-adjusted mortality rates per 100,000 persons, 1990-2006



Lung cancer mortality

Age-adjusted rates (2002-2006 combined)

Gender

- Except for American Indians and Alaska Natives, within each of the remaining racial and ethnic group assessed, the age-adjusted lung cancer mortality rates for males were significantly higher than females, e.g., the rate for White males (64.3 per 100,000) was significantly higher than the rate for White females (45.6), Black males (81.2) higher than Black females (44.0), etc
- For American Indians and Alaska Natives the rate for males (57.2) was not significantly different from the rate for females (53.5)

Race and Hispanic ethnicity

Males

- Blacks' age-adjusted lung cancer mortality rate (81.2) exceeded all other groups and was significantly higher than Whites (64.3), Asians and Pacific Islanders (49.7), and Hispanics (37.1)
- Whites had the second highest rate which was also significantly higher than Asians and Pacific Islanders and Hispanics

Females

- American Indians and Alaska Natives lung cancer mortality rate (53.5) exceeded all other groups and was significantly higher than Asians and Pacific Islanders (24.9), and Hispanics (15.5).
- Rates for Whites (45.6) and Blacks (44.0) were next highest, and while they did not differ significantly from each other, they were significantly higher than the rates for Asians and Pacific Islanders and Hispanics
- Hispanics had the lowest rate and it was significantly lower than all other groups.

Time trends of age-adjusted rates (1990-2006)

Race and Hispanic ethnicity

Males

- For Blacks, rates decreased from 1990 to 2006 (-2.6% per year)
- For Whites, rates decreased from 1990 to 2006 (-1.9% per year).
- No significant trends were seen in the remaining groups.

Females

- For Hispanics rates decreased from 1990 to 2006 (-3.1% per year).
- For Whites, rates increased from 1990 to 2000 (+1.5% per year) and then decreased from 2000 to 2006 (-1.9% per year).
- For Asians and Pacific Islanders, rates increased (+7.8% per year) from 1999 to 2006; prior to 1999 there was no significant trend
- For Blacks and American Indians and Alaska Natives no significant trends were seen.

Disparities Figure 4.

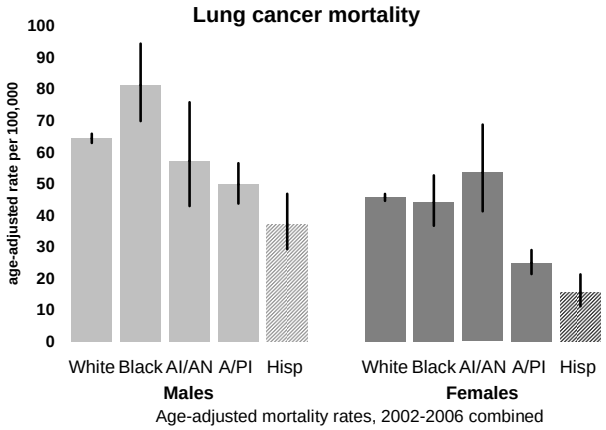
Lung cancer mortality

(ICD-10 codes: C33-C34; ICD-9 codes: 162; Comparability Ratio: 0.9844)

Lung cancer mortality

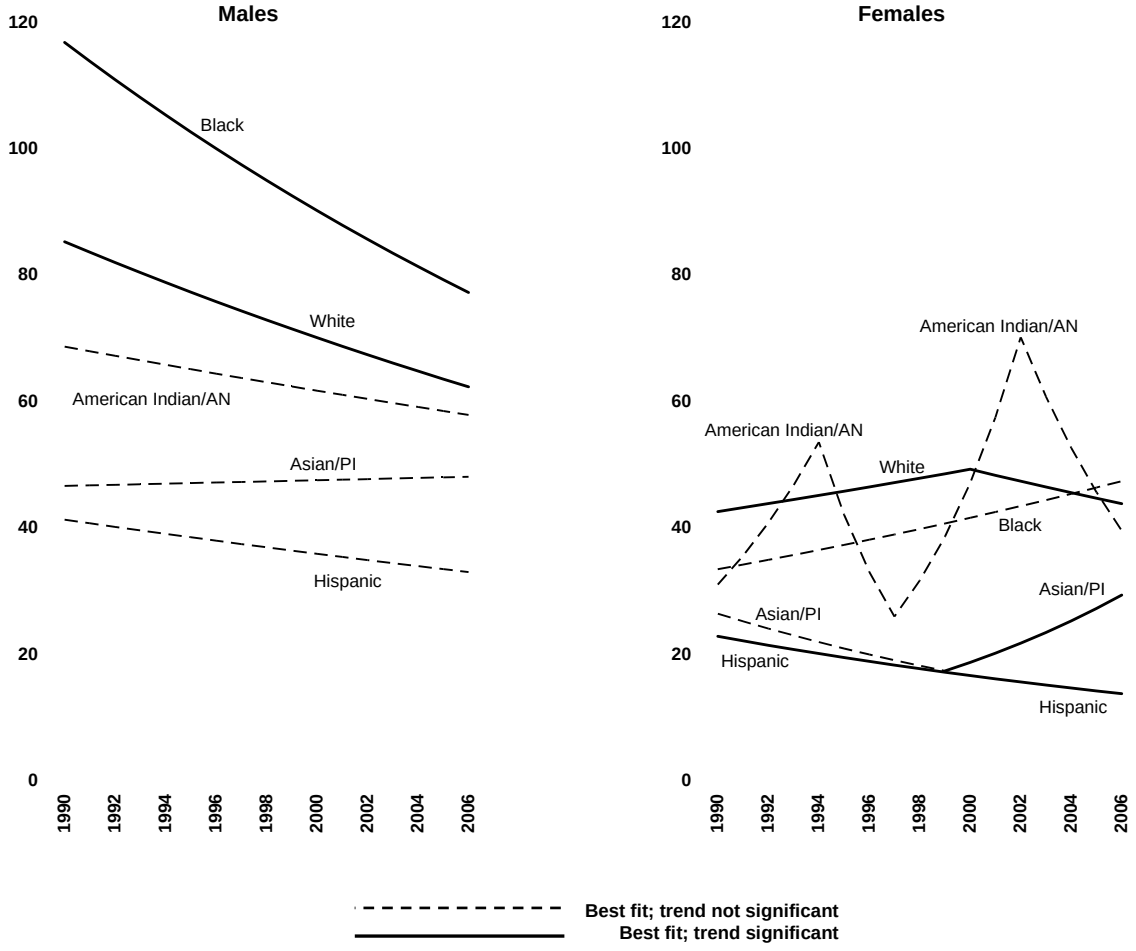
sex	race /ethnicity	age-adjusted rate	average annual deaths
Males	White	64.3	1536
	Black	81.2	44
	AI/AN	57.2	14
	A/PI	49.7	54
	Hisp	37.1	20
Females	White	45.6	1376
	Black	44.0	26
	AI/AN	53.5	15
	A/PI	24.9	39
	Hisp	15.5	9

2002 - 2006 combined



Lung cancer mortality

Sex- and race/ethnicity-specific trends of age-adjusted mortality rates per 100,000 persons, 1990-2006



Prostate & female breast cancer mortality

Age-adjusted rates (2002-2006 combined)

Gender

- Not applicable

.

Race and Hispanic ethnicity

Males/Prostate

- Blacks had the highest age-adjusted prostate cancer mortality rate (45.4 per 100,000) and it was significantly higher than all other groups.
- Whites had the second highest rate (26.7) and it was significantly higher than the rate for Asians and Pacific Islander (14.7).

Females/Breast

- American Indians and Alaska Natives had the highest age-adjusted breast cancer mortality rate (30.5) and it was significantly higher than the rate for Asians and Pacific Islander (14.3).
- Asians and Pacific Islanders had the lowest rate and it was significantly lower than the rates for American Indians and Alaska Natives, Blacks (27.2) and Whites (23.8)

Time trends of age-adjusted rates (1990-2006)

Race and Hispanic ethnicity

Males/Prostate

- For Whites, rates decreased from 1990 to 2006 (-3.1% per year).
- For Asians and Pacific Islanders, rates decreased from 1990 to 2004 (-5.5% per year); no significant trend was seen from 2004 to 2006.
- For American Indians and Alaska Natives, rates decreased from 1990 to 1995 (-25.1% per year); no significant trend was seen after 1996.
- No significant trends were seen in the remaining groups.

Females/Breast

- For Whites, rates decreased from 1990 to 2006 (2.4% per year).
- No significant trends were seen in the remaining groups.

Disparities Figure 5.

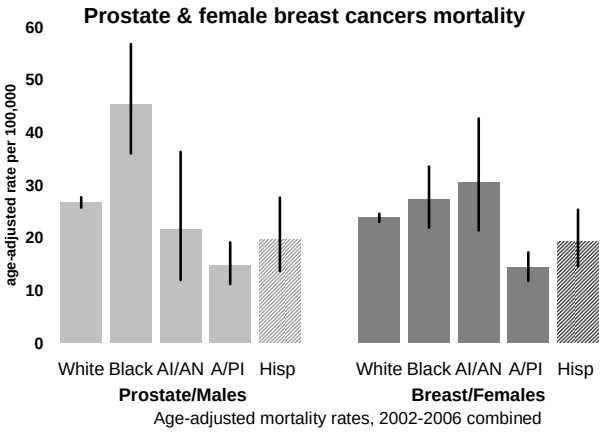
Prostate & female breast cancer mortality

(Prostate: ICD-10 codes: C61; ICD-9 codes: 185; Comparability Ratio: 1.0144)
(Breast: ICD-10 codes: C50; ICD-9 codes: 174-175; Comparability Ratio: 1.0073)

Prostate & female breast cancers mortality

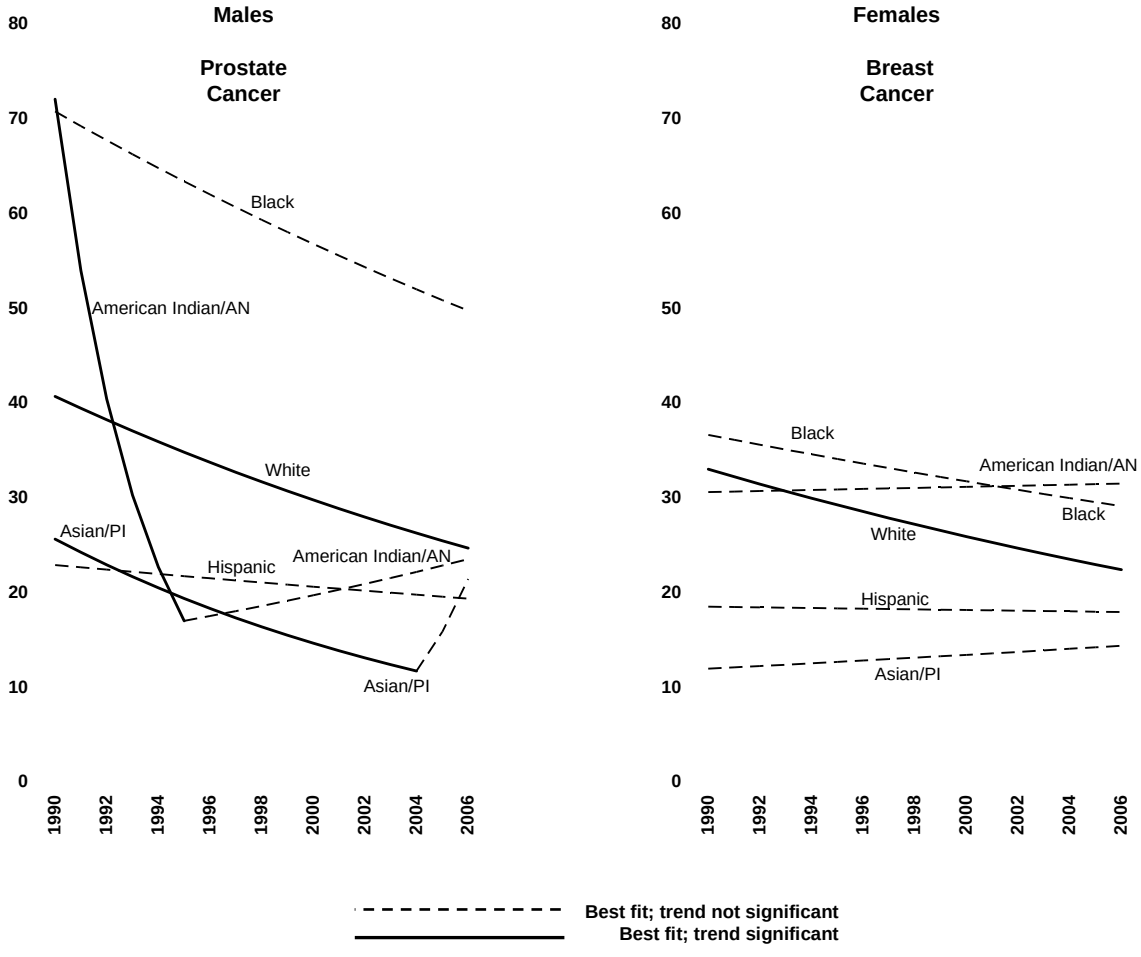
sex	race /ethnicity	age-adjusted rate	average annual deaths
Prostate /Males	White	26.7	576
	Black	45.4	19
	AI/AN	21.6	4
	A/PI	14.7	12
	Hisp	19.7	8
Breast/ Females	White	23.8	730
	Black	27.2	20
	AI/AN	30.5	9
	A/PI	14.3	26
	Hisp	19.3	14

2002 - 2006 combined



Age-adjusted mortality rates, 2002-2006 combined

Prostate & female breast cancer mortality
Sex- and race/ethnicity-specific trends of age-adjusted mortality rates per 100,000 persons, 1990-2006



Colorectal cancer mortality

Age-adjusted rates (2002-2006 combined)

Gender

- Except for Whites, within each of the remaining racial and ethnic group assessed, the male age-adjusted colorectal cancer mortality rates did not differ significantly from the female age-adjusted colorectal cancer mortality rates
- For Whites, the rate for males (18.8 per 100,000) was significantly higher than the rate for females (13.9)

Race and Hispanic ethnicity

Males

- While the American Indians and Alaska Natives' age-adjusted mortality rate (25.8) exceeded all other groups, it did not differ significantly from any of them.
- Blacks had the second highest rate (25.6) and it was significantly higher than Whites (18.8), and Asians and Pacific Islanders (14.7)
- Hispanics had the lowest rate (14.4) but it did not differ significantly from any other group.

Females

- Blacks had the highest rate (21.1) and it was significantly higher than the rate for Whites (13.9)
- Hispanics had the lowest rate (11.9) but it did not differ significantly from any other group.

Time trends of age-adjusted rates (1990-2006)

Race and Hispanic ethnicity

Males

- For Whites, rates decreased from 1990 to 2006 (-2.2% per year)
- For Asians and Pacific Islanders, rates decreased from 1990 to 2006 (-3.1% per year).
- No significant trends were seen in the rates of the remaining groups.

Females

- For Whites, rates decreased from 1990 to 2006 (-2.2% per year)
- No significant trends were seen in the rates of the remaining groups.

Disparities Figure 6.

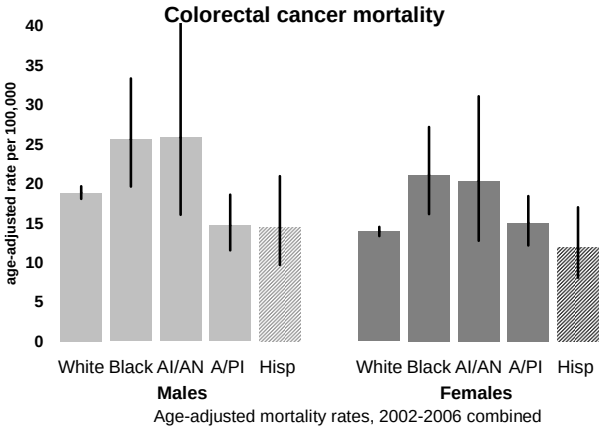
Colorectal cancer mortality

(ICD-10 codes: C18-C21; ICD-9 codes: 153-154; Comparability Ratio: 0.9998)

Colorectal cancer mortality

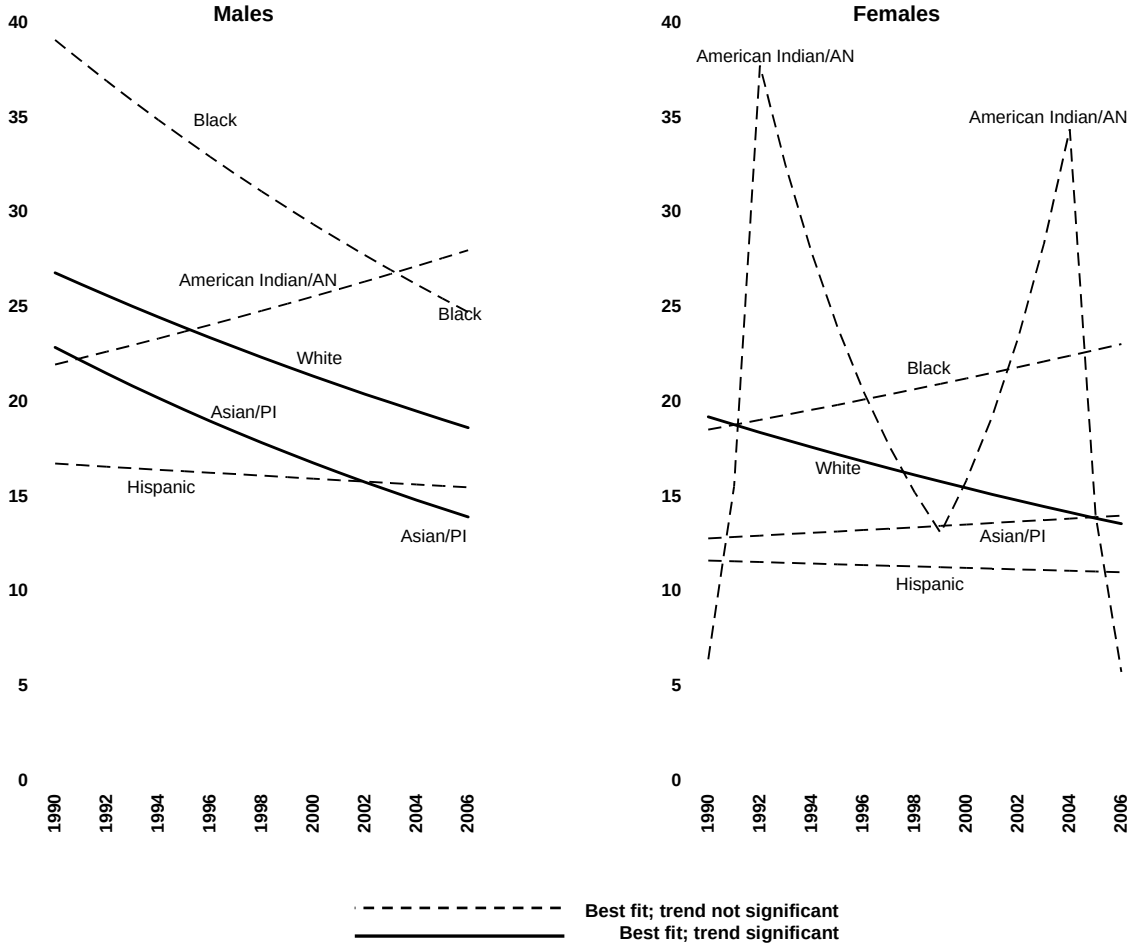
sex	race /ethnicity	age-adjusted rate	average annual deaths
Males	White	18.8	448
	Black	25.6	15
	AI/AN	25.8	6
	A/PI	14.7	17
	Hisp	14.4	8
Females	White	13.9	446
	Black	21.1	13
	AI/AN	20.3	5
	A/PI	15.0	22
	Hisp	11.9	7

2002 - 2006 combined



Colorectal cancers mortality

Sex- and race/ethnicity-specific trends of age-adjusted mortality rates per 100,000 persons, 1990-2006



Cerebrovascular disease mortality

Age-adjusted rates (2002-2006 combined)

Gender

- Within each racial and ethnic group assessed, the age-adjusted cerebrovascular disease mortality rates for males and females did not significantly differ

Race and Hispanic ethnicity

Males

- While Blacks had the highest age-adjusted mortality rate (63.9 per 100,000), and Hispanics had the lowest rate (44.8) none of the rates assessed significantly differed from each other.

Females

- American Indians and Alaska Natives had the highest rate (77.8) and it was significantly higher than the rate for Whites (52.4)
- Blacks had the second highest rate (72.8); it was significantly higher than the rate for Whites and for Asians and Pacific Islanders (56.2)
- Whites had the lowest rate and it differed significantly from the rates for American Indians and Alaska Natives and for Blacks.

Time trends of age-adjusted rates (1990-2006)

Race and Hispanic ethnicity

Males

- For Blacks, rates decreased from 1990 to 2006 (-4.5% per year)
- For American Indians and Alaska Natives, rates decreased from 1990 to 2006 (-3.9% per year)
- For Asians and Pacific Islanders, rates decreased from 1990 to 2006 (-2.2% per year).
- For Hispanics, rates decreased from 1990 to 2006 (-2.9% per year).
- For Whites, rates decreased from 2002 to 2006 (-12.6% per year); between 1990 and 2002 no significant trend was seen.

Females

- For Whites, rates decreased from 1995 to 2002 (-1.7% per year) and from 2002 to 2006 (-10.4% per year); between 1990 and 1995 no significant trend was seen
- No significant trends were seen in the rates of the remaining groups.

Disparities Figure 7.

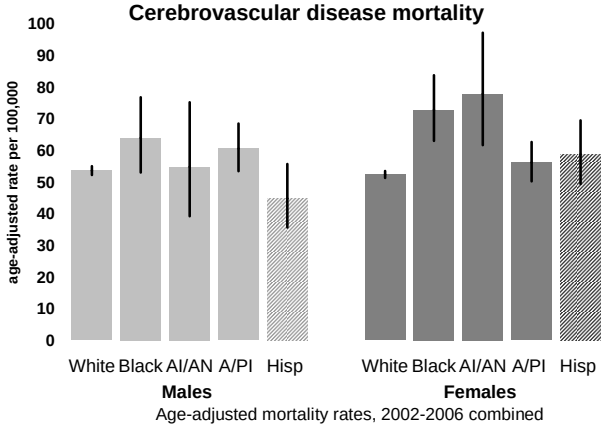
Cerebrovascular disease mortality

(ICD-10 codes: I60-I69*; ICD-9 codes: 430-434,436-438; Comparability Ratio: 1.0502)

Cerebrovascular disease mortality

sex	race /ethnicity	age-adjusted rate	average annual deaths
Males	White	53.6	1166
	Black	63.9	31
	AI/AN	54.8	10
	A/PI	60.6	58
	Hisp	44.8	22
Females	White	52.4	1838
	Black	72.8	41
	AI/AN	77.8	18
	A/PI	56.2	72
	Hisp	58.7	32

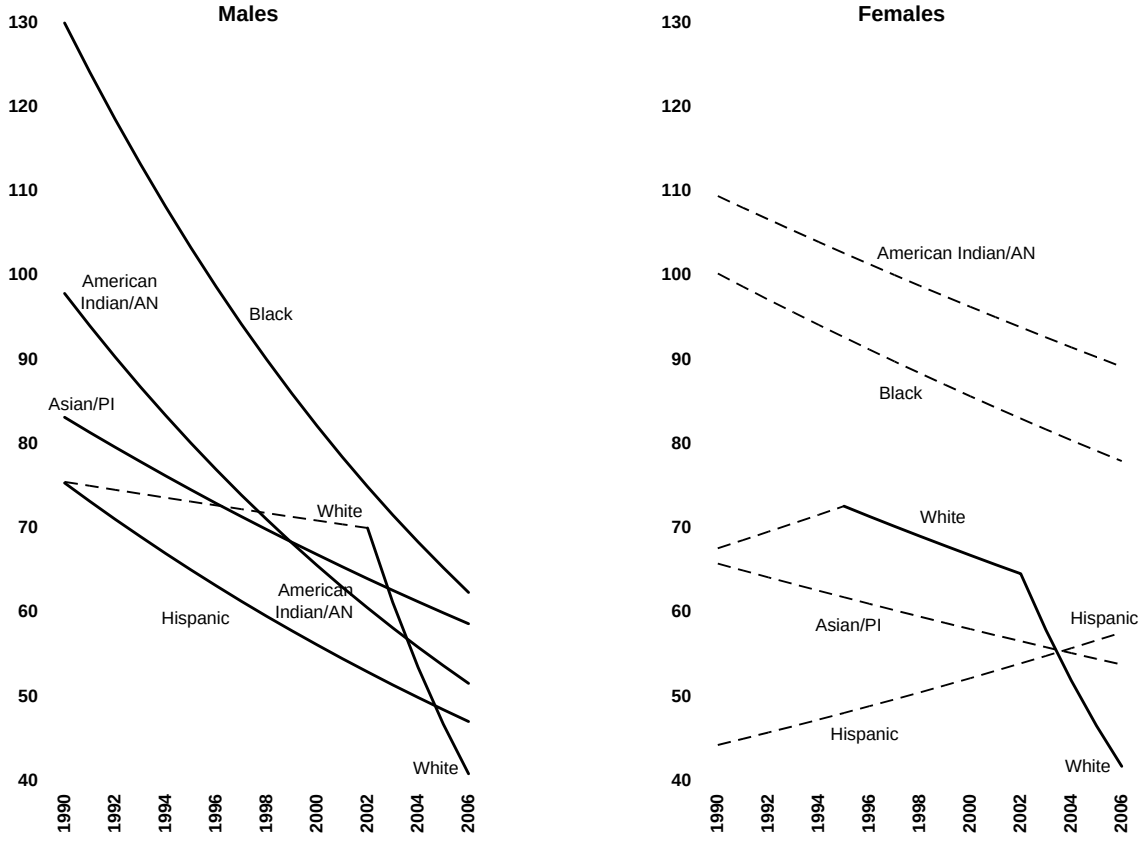
2002 - 2006 combined



Age-adjusted mortality rates, 2002-2006 combined

Cerebrovascular disease mortality

Sex- and race/ethnicity-specific trends of age-adjusted mortality rates per 100,000 persons, 1990-2006



Best fit; trend not significant

Best fit; trend significant

*** Beginning in 2005, ICD-10 code I69 includes multi-infarct dementia and vascular dementia**

Chronic obstructive pulmonary disease (COPD) mortality

Age-adjusted rates (2002-2006 combined)

Gender

- The age-adjusted COPD mortality rate for White males (52.2 per 100,000) was significantly higher than the rate for White females (43.1).
- The age-adjusted COPD mortality rate for Asian and Pacific Islander males (27.6) was significantly higher than the rate for Asian and Pacific Islander females (14.5)
- Within each of the remaining groups, the age-adjusted COPD mortality rate for males and females did not significantly differ

Race and Hispanic ethnicity

Males

- American Indians and Alaska Natives had the highest rate (73.0) and it was significantly higher than all remaining groups
- Whites had the second highest rate (52.2) and it was significantly higher the rates for Asians and Pacific Islanders (27.6) and Hispanics (25.4)
- Asians and Pacific Islanders and Hispanics had the lowest rates, and while they did not differ significantly from each other, they were significantly lower than the rates for American Indians and Alaska Natives, Whites and Blacks (42.0)

Females

- American Indians and Alaska Natives had the highest rate (70.2) and it was significantly higher than all remaining groups
- Whites had the second highest rate (43.1) and it was significantly higher than the remaining groups
- Asians and Pacific Islanders (14.5) and Hispanics (17.5) had the lowest rates, and while they did not differ significantly from each other they were significantly lower than the rates for American Indians and Alaska Natives, Whites and Blacks (28.0)

Time trends of age-adjusted rates (1990-2006)

Race and Hispanic ethnicity

Males

- For Whites, rates decreased from 2002 to 2006 (-3.2% per year); prior to 2002 no significant trend was seen.
- For Blacks, rates decreased from 1990 to 2006 (-2.8% per year).
- For Asians and Pacific Islanders, rates increased from 1990 to 1993 (+49.3% per year); after 1993 no significant trend was seen.
- No significant trends were seen in the rates of the remaining groups.

Females

- For American Indians and Alaska Natives, rates increased from 1990 to 2006 (+3.8% per year)
- For Whites, rates increased from 1990 to 2000 (+1.7% per year); after 2000 no significant trend was seen
- No significant trends were seen in the rates of the remaining groups.

Disparities Figure 8.

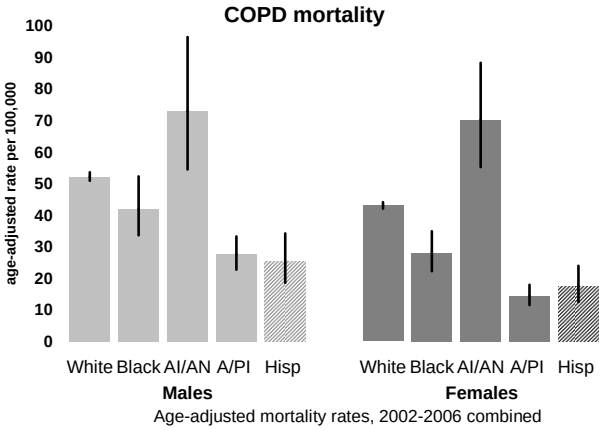
Chronic obstructive pulmonary disease (COPD) mortality

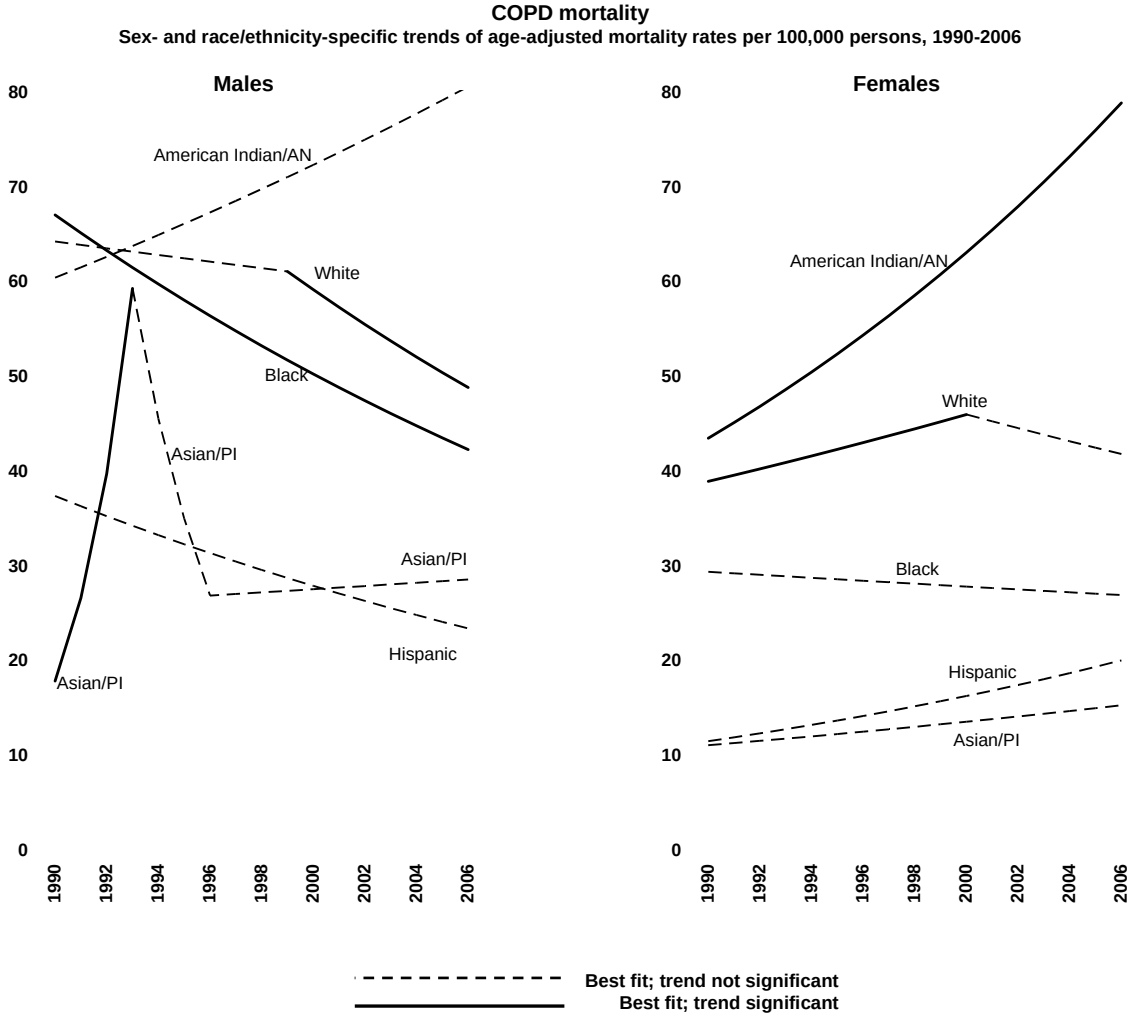
(ICD-10 codes: J40-J47; ICD-9 codes: 490-494,496; Comparability Ratio: 1.0411)

COPD mortality

sex	race /ethnicity	age-adjusted rate	average annual deaths
Males	White	52.2	1168
	Black	42.0	22
	AI/AN	73.0	13
	A/PI	27.6	24
	Hisp	25.4	10
Females	White	43.1	1368
	Black	28.0	17
	AI/AN	70.2	17
	A/PI	14.5	18
	Hisp	17.5	9

2002 - 2006 combined





Unintentional injury mortality

Age-adjusted rates (2002-2006 combined)

Gender

- Within each racial and ethnic group assessed, the age-adjusted unintentional injury mortality rates for males were significantly higher than females, e.g., the rate for White males (52.9 per 100,000) was significantly higher than the rate for White females (24.8), Black males (58.0) higher than Black females (25.8), etc.

Race and Hispanic ethnicity

Males

- American Indians and Alaska Natives had the highest rate (114.5 per 100,000) and it was significantly higher than all remaining groups.
- Asians and Pacific Islanders had the lowest rate (28.5) and it was significantly lower than all remaining groups.
- The rates for Whites (52.9), Blacks (58.0) and Hispanics (56.3) did not significantly differ from each other.

Females

- American Indians and Alaska Natives had the highest rate (63.1) and it was significantly higher than all remaining groups
- Hispanics and Asians and Pacific Islanders had the lowest rates (17.8 and 16.6 respectively), and while they did not differ significantly from each other they were significantly lower than the rates for American Indians and Alaska Natives, Whites (24.8); the rate for Asians and Pacific Islanders was also significantly lower than the rate for Blacks (25.8)

Time trends of age-adjusted rates (1990-2006)

Race and Hispanic ethnicity

Males

- For Asians and Pacific Islanders, rates decreased from 1990 to 2006 (-1.7% per year).
- For Whites, rates increased from 1999 to 2006 (+2.1% per year); between 1990 and 1999 no significant trend was seen.
- No significant trends were seen in the rates of the remaining groups.

Females

- For Blacks, rates increased from 1990 to 2006 (+2.4% per year)
- For Whites, rates increased from 1990 to 2006 (+1.8 per year)
- No significant trends were seen in the rates of the remaining groups.

Disparities Figure 9.

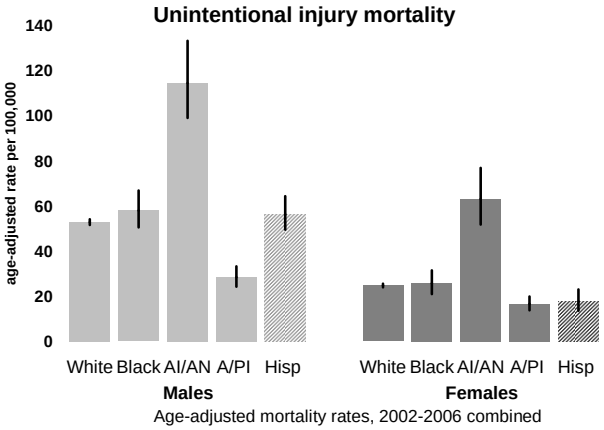
Unintentional injury mortality

(ICD-10 codes: V01-X59,Y85-Y86; ICD-9 codes: E800-E869,E880-E929; Comparability Ratio: 1.0251)

Unintentional injury mortality

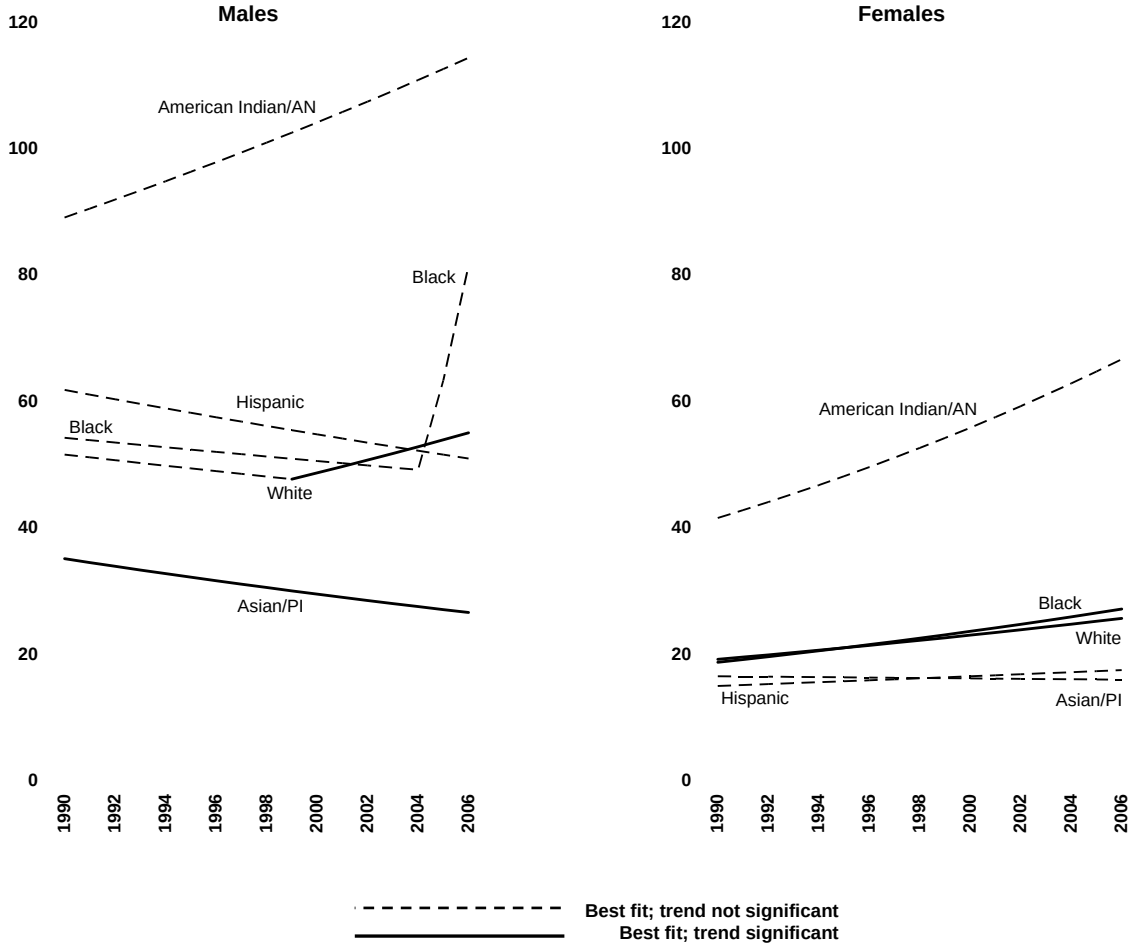
sex	race /ethnicity	age-adjusted rate	average annual deaths
Males	White	52.9	1373
	Black	58.0	61
	AI/AN	114.5	54
	A/PI	28.5	43
	Hisp	56.3	117
Females	White	24.8	759
	Black	25.8	23
	AI/AN	63.1	28
	A/PI	16.6	29
	Hisp	17.8	25

2002 - 2006 combined



Unintentional injury mortality

Sex- and race/ethnicity-specific trends of age-adjusted mortality rates per 100,000 persons, 1990-2006



Alzheimer's disease mortality

Age-adjusted rates (2002-2006 combined)

Gender

- The age-adjusted Alzheimer's disease mortality rate for White females (41.8 per 100,000) was significantly higher than the rate for White males (33.5)
- The age-adjusted Alzheimer's disease mortality rate for Asian and Pacific Islander females (24.2) was significantly higher than the rate for Asian and Pacific Islander males (12.3)
- Within each of the remaining groups, the age-adjusted Alzheimer's disease mortality rate for males and females did not significantly differ

Race and Hispanic ethnicity

Males

- Blacks had the highest rate (37.3) and it was significantly higher than Hispanics (17.3) and Asians and Pacific Islanders (12.3) who had the lowest rate.
- Whites had the second highest rate (33.5) and it was significantly higher than Hispanics and Asians and Pacific Islanders.

Females

- Whites had the highest rate (41.8) and it was significantly higher than Hispanics (17.3) and Asians and Pacific Islanders (12.3)
- Blacks had the second highest rate (25.8) and it, too, was significantly higher than the rate for Hispanics

Time trends of age-adjusted rates (1990-2006)

Race and Hispanic ethnicity

Males

- For American Indians and Alaska Natives*, rates increased from 1990 to 2006 (+9.4% per year).
- For Blacks*, rates increased from 1990 to 2006 (+14.2% per year)
- For Asians and Pacific Islanders, rates increased from 1990 to 2006 (+5.2% per year)
- For Whites, rates increased from 1997 to 2000 (+24.3% per year); prior to 1997 and after 2000 no significant trends were seen
- No significant trends were seen in the rates for Hispanics.*

Females

- For Whites, rates increased from1997 to 2001 (+22.2% per year); prior to 1997 and after 2001 no significant trends were seen
- For Blacks, rates increased from 1990 to 2006 (+8.9% per year)
- For American Indians and Alaska Natives*, rates increased from 1990 to 2006 (+8.8% per year)
- For Hispanics*, rates increased from 1990 to 2006 (8.6% per year)
- For Asians and Pacific Islanders*, rates increased from 1990 to 2006 (+15.4% per year)

*** Because this population had no deaths during one or more years, trends were estimated by adding 0.001 to all rates.**

Disparities Figure 10.

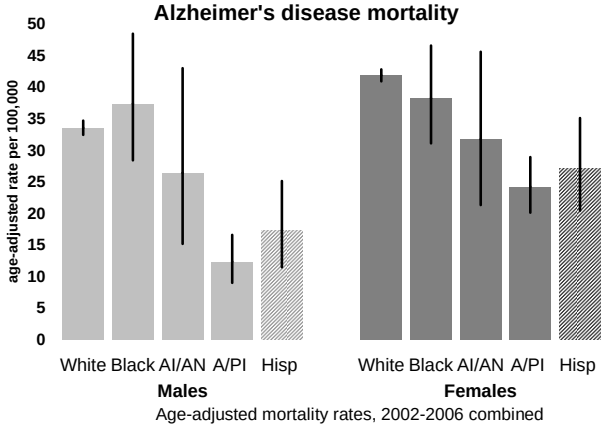
Alzheimer's disease mortality

(ICD-10 codes: G30; ICD-9 codes: 331.0; Comparability Ratio: 1.5812)

Alzheimer's disease mortality

sex	race /ethnicity	age-adjusted rate	average annual deaths
Males	White	33.5	688
	Black	37.3	13
	AI/AN	26.4	3
	A/PI	12.3	9
	Hisp	17.3	6
Females	White	41.8	1560
	Black	38.2	20
	AI/AN	31.7	6
	A/PI	24.2	25
	Hisp	27.0	11

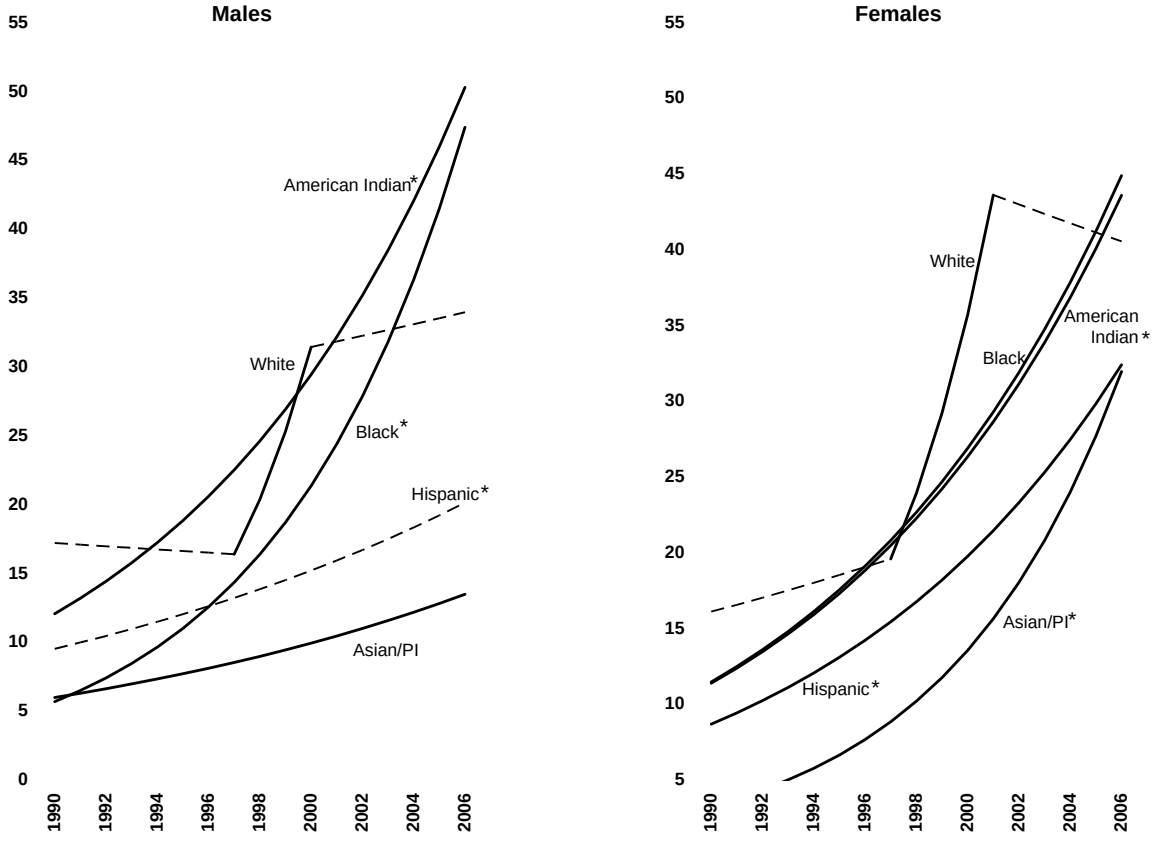
2002 - 2006 combined



Age-adjusted mortality rates, 2002-2006 combined

Alzheimer's disease mortality

Sex- and race/ethnicity-specific trends of age-adjusted mortality rates per 100,000 persons, 1990-2006



Best fit; trend not significant

Best fit; trend significant

*** Because this population had no deaths during one or more years, trends were estimated by adding 0.001 to all rates.**

Diabetes mortality

Age-adjusted rates (2002-2006 combined)

Gender

- The age-adjusted diabetes mortality rate for White males (28.4 per 100,000) was significantly higher than the rate for White females (21.0).
- Within each of the remaining groups, the age-adjusted diabetes mortality rate for males and females did not significantly differ

Race and Hispanic ethnicity

Males

- Blacks had the highest rate (71.7) and it was significantly higher than Hispanics (39.6), Asians and Pacific Islanders (33.4) and Whites (28.4),
- American Indians and Alaska Natives had the second highest rate (61.1) and it was significantly higher than the rates for Asians and Pacific Islanders and Whites
- Whites had the lowest rate and it was significantly lower than the rates for Blacks, American Indians and Alaska Natives, and Hispanics

Females

- Blacks had the highest rate (68.7) and it was significantly higher than Hispanics (45.8), Asians and Pacific Islanders (28.0) and Whites (21.0)
- American Indians and Alaska Natives had the second highest rate (56.2) and it was significantly higher the rates for Asians and Pacific Islanders and Whites
- Whites had the lowest rate and it differed significantly from the rates for all other groups

Time trends of age-adjusted rates (1990-2006)

Race and Hispanic ethnicity

Males

- For Blacks, rates increased from 1990 to 2006 (+2.5% per year).
- For American Indians and Alaska Natives, rates increased from 1990 to 2006 (+5.3% per year).
- For Asians and Pacific Islanders, rates increased from 1990 to 2006 (+4.7% per year).
- For Whites, rates increased from 1990 to 1996 (+5.7% per year), and from 1996 to 2006 (+1.1% per year).
- No significant trends were seen in the rates for Hispanics.

Females

- For Asians and Pacific Islanders, rates increased from 1990 to 2006 (+5.0% per year)
- For Whites, rates increased from 1990 to 1994 (+5.6% per year); from 1994 to 2006 no significant trend was seen
- No significant trends were seen in the rates of the remaining groups.

Disparities Figure 11.

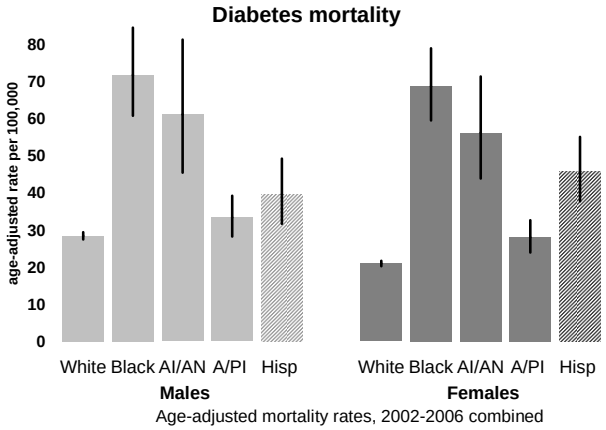
Diabetes mortality

(ICD-10 codes: E10-E14; ICD-9 codes: 250; Comparability Ratio: 1.0193)

Diabetes mortality

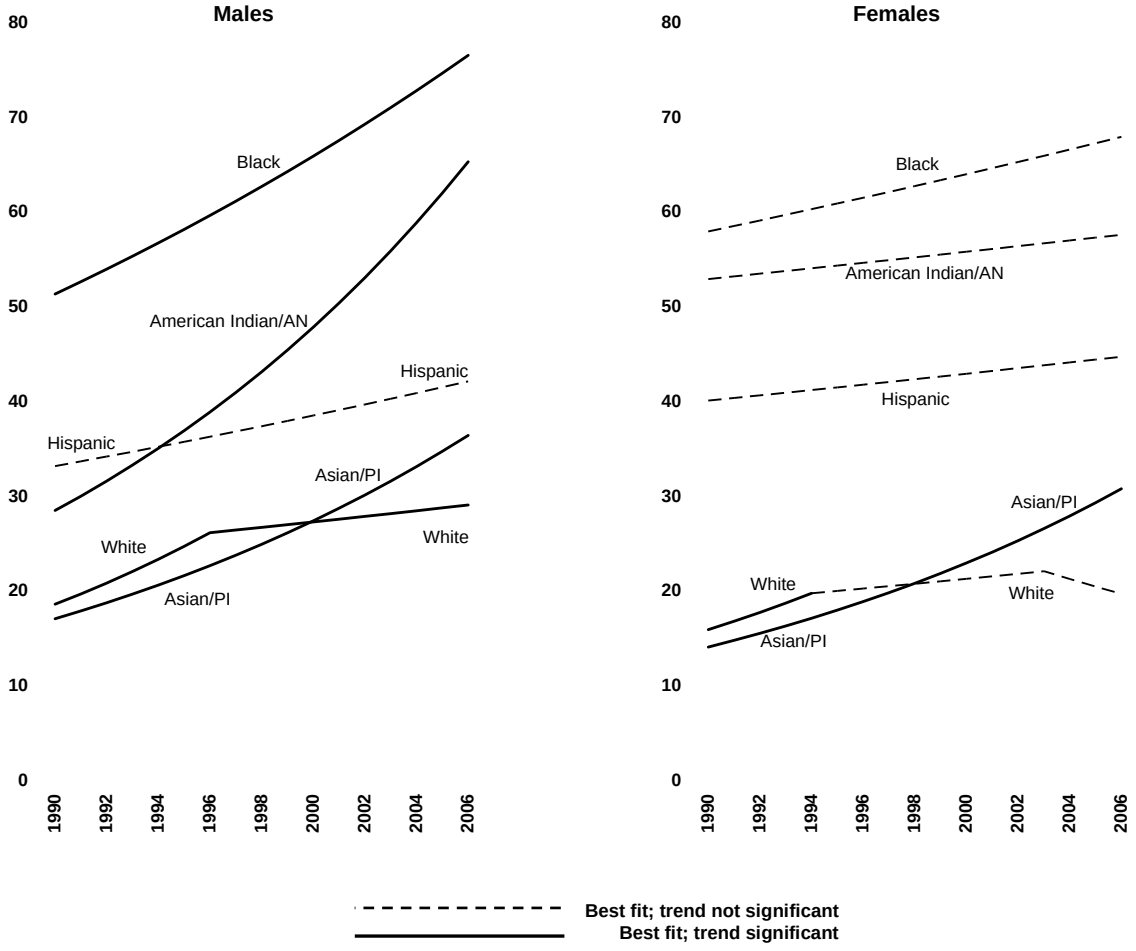
sex	race /ethnicity	age-adjusted rate	average annual deaths
Males	White	28.4	670
	Black	71.7	39
	AI/AN	61.1	14
	A/PI	33.4	34
	Hisp	39.6	23
Females	White	21.0	668
	Black	68.7	42
	AI/AN	56.2	17
	A/PI	28.0	37
	Hisp	45.8	26

2002 - 2006 combined



Diabetes mortality

Sex- and race/ethnicity-specific trends of age-adjusted mortality rates per 100,000 persons, 1990-2006



Influenza and pneumonia mortality

Age-adjusted rates (2002-2006 combined)

Gender

- The age-adjusted influenza and pneumonia mortality rate for White males (17.1 per 100,000) was significantly higher than the rate for White females (13.3).
- Within each of the remaining groups, the age-adjusted influenza and pneumonia mortality rate for males and females did not significantly differ

Race and Hispanic ethnicity

Males

- While American Indians and Alaska Natives had the highest rate (20.2) there was no significant difference in the rates of any of the groups assessed.

Females

- American Indians and Alaska Natives had the highest rate (22.8) and it was significantly higher than Whites (13.3) and Asians and Pacific Islanders (9.8)
- There was no significant difference in the rates of any of the remaining groups

Time trends of age-adjusted rates (1990-2006)

Race and Hispanic ethnicity

Males

- For Blacks, rates decreased from 1990 to 2006 (-6.1% per year).
- For Whites, rates decreased from 1998 to 2006 (-8.1% per year); prior to 1998 no significant trend was seen.
- No significant trends were seen in the rates of the remaining groups.

Females

- For Whites, rates decreased from 1990 to 2006 (-3.6% per year)
- No significant trends were seen in the rates of the remaining groups.

Disparities Figure 12.

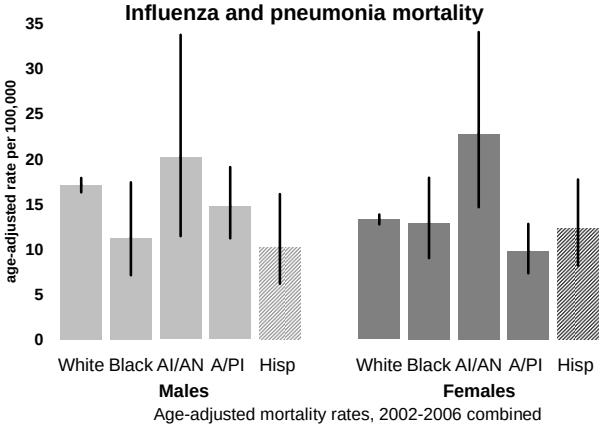
Influenza and pneumonia mortality

(ICD-10 codes: J10-J18; ICD-9 codes: 480-487; Comparability Ratio: 0.6974)

Influenza and pneumonia mortality

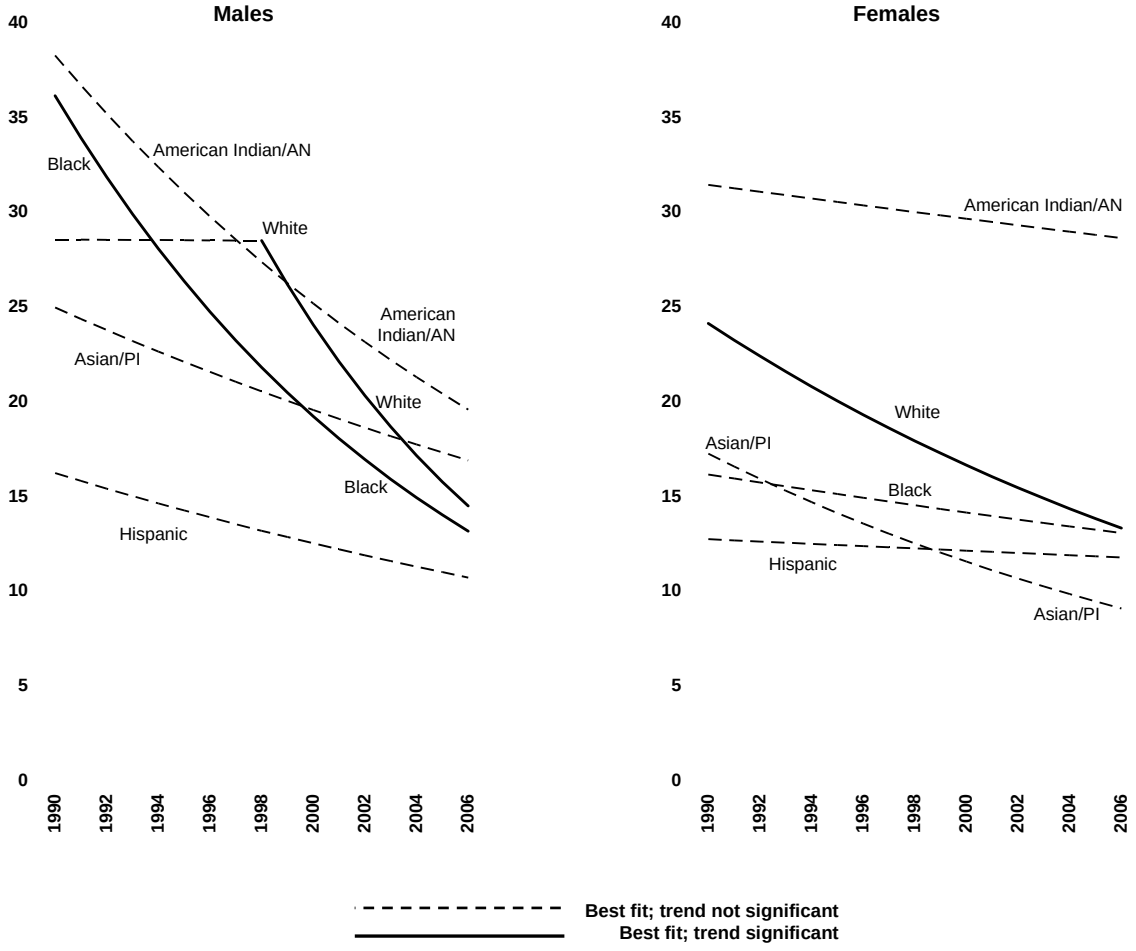
sex	race /ethnicity	age-adjusted rate	average annual deaths
Males	White	17.1	369
	Black	11.3	6
	AI/AN	20.2	5
	A/PI	14.7	13
	Hisp	10.2	6
Females	White	13.3	473
	Black	12.9	8
	AI/AN	22.8	6
	A/PI	9.8	12
	Hisp	12.3	7

2002 - 2006 combined



Influenza and pneumonia mortality

Sex- and race/ethnicity-specific trends of age-adjusted mortality rates per 100,000 persons, 1990-2006



Suicide mortality

Age-adjusted rates (2002-2006 combined)

Gender

- Within each racial and ethnic group assessed, the age-adjusted suicide mortality rate for males was significantly higher than females, e.g., the rate for White males (21.7 per 100,000) was significantly higher than the rate for White females (5.6), Black males (12.5) higher than Black females (1.8), etc.

Race and Hispanic ethnicity

Males

- American Indians and Alaska Natives' age-adjusted suicide mortality rate (28.0 per 100,000) exceeded all other groups and was significantly higher than Blacks (12.5), Asians and Pacific Islanders (11.4), and Hispanics (10.1)
- Whites had the second highest rate (21.7); it was also significantly higher than the rates for Blacks, Asians and Pacific Islanders, and Hispanics
- Rates for Blacks, Asians and Pacific Islanders and Hispanics did not differ significantly from each other.

Females

- American Indians and Alaska Natives had the highest rate (7.2) but it did not differ significantly from the rates for any of the remaining groups.
- Whites had the second highest rate (5.6) and it was significantly higher than the rates for Hispanics (2.6) and Blacks (1.8)

Time trends of age-adjusted rates (1990-2006)

Race and Hispanic ethnicity

Males

- For Whites, rates decreased from 1990 to 2006 (-1.2% per year)..
- No significant trends were seen in the rates of the remaining groups.

Females

- No significant trends were seen in the rates of any group.

Disparities Figure 13.

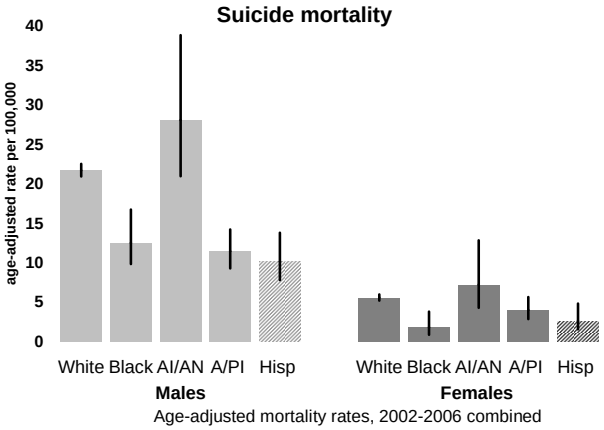
Suicide mortality

(ICD-10 codes: X60-X84,Y87.0; ICD-9 codes: E950-E959; Comparability Ratio: 1.0022)

Suicide mortality

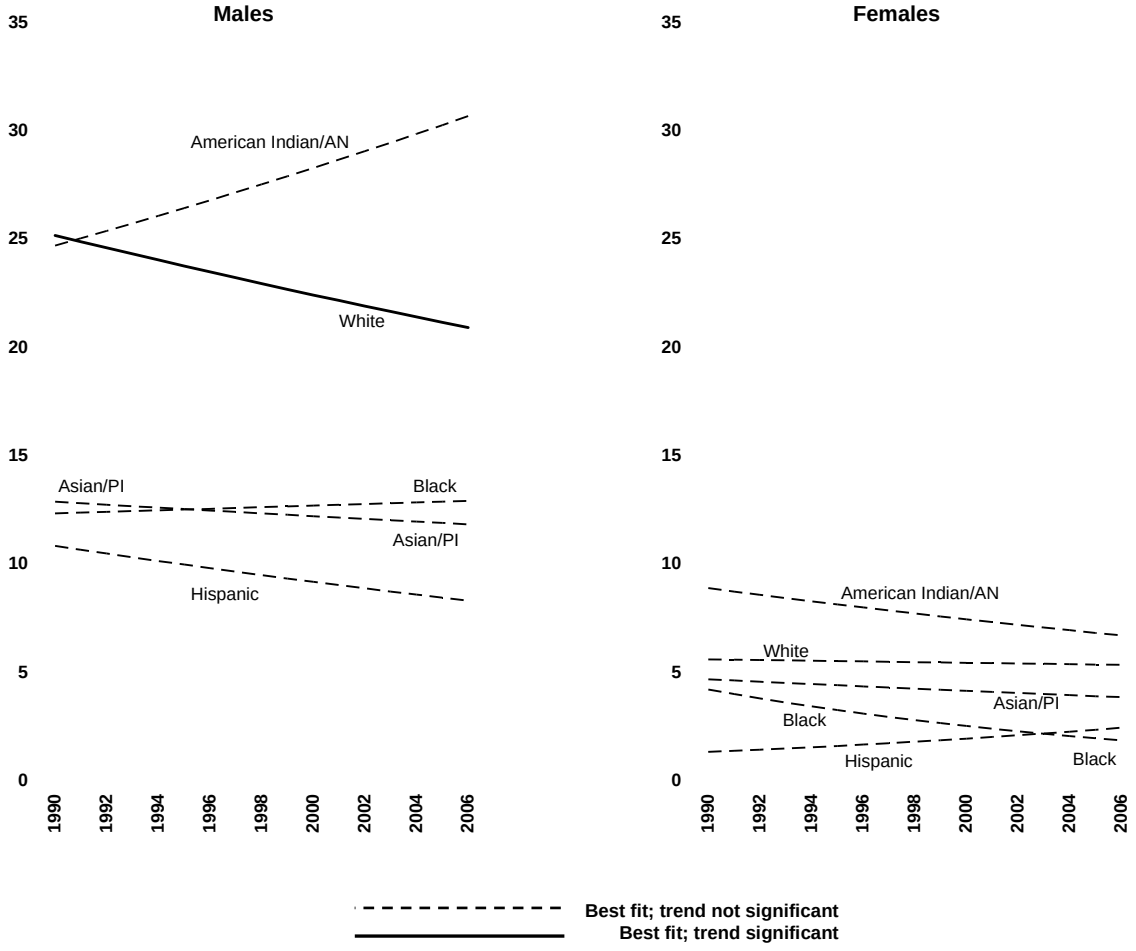
sex	race /ethnicity	age-adjusted rate	average annual deaths
Males	White	21.7	583
	Black	12.5	17
	AI/AN	28.0	14
	A/PI	11.4	22
	Hisp	10.1	22
Females	White	5.6	157
	Black	1.8	2
	AI/AN	7.2	4
	A/PI	4.0	9
	Hisp	2.6	5

2002 - 2006 combined



Suicide mortality

Sex- and race/ethnicity-specific trends of age-adjusted mortality rates per 100,000 persons, 1990-2006



Chronic liver disease mortality

Age-adjusted rates (2002-2006 combined)

Gender

- The age-adjusted chronic liver disease mortality rate for White males (11.8 per 100,000) was significantly higher than the rate for White females (6.2).
- The age-adjusted chronic liver disease mortality rate for Hispanic males (18.1) was significantly higher than the rate for Hispanic females (8.5).
- Within each of the remaining groups, the age-adjusted chronic liver disease mortality rate for males and females did not significantly differ.

Race and Hispanic ethnicity

Males

- American Indians and Alaska Natives' age-adjusted chronic liver disease mortality rate (33.6) was significantly higher than all other groups
- Hispanics had the second highest rate (18.1); it was significantly higher than the rates for Whites (11.8), Blacks (9.1), and Asians and Pacific Islanders (5.1)
- Asians and Pacific Islanders had the lowest rate and it differed significantly from all other groups except Blacks.

Females

- American Indians and Alaska Natives' age-adjusted chronic liver disease mortality rate (35.1) was significantly higher than all other groups.
- Asians and Pacific Islanders had the lowest rate (3.2) and it differ significantly from all other groups except Blacks (7.2)
- The rates for Whites (6.2), Blacks, and Hispanics (8.5) did not differ significantly from each other

Time trends of age-adjusted rates (1990-2006)

Race and Hispanic ethnicity

Males

- For Whites, rates decreased from 1990 to 2006 (-0.8% per year)
- For Asians and Pacific Islanders, rates decreased from 1990 to 1998 (-19.8% per year); after 1998, no significant trend was seen
- No significant trends were seen in the rates of the remaining groups.

Females

- For Asians and Pacific Islanders*, rates increased from 1990 to 2006 (+5.1% per year)
- No significant trends were seen in the rates of the remaining group.

*** Because this population had no deaths during one or more years, trends were estimated by adding 0.001 to all rates.**

Disparities Figure 14.

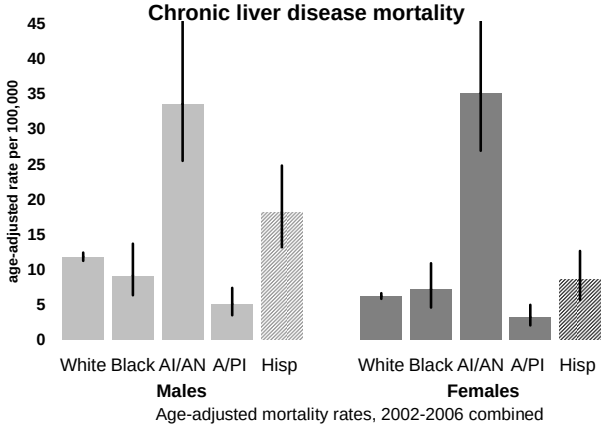
Chronic liver disease mortality

(ICD-10 codes: K70,K73-K74; ICD-9 codes: 571; Comparability Ratio: 1.0321)

Chronic liver disease mortality

sex	race /ethnicity	age-adjusted rate	average annual deaths
Males	White	11.8	322
	Black	9.1	8
	AI/AN	33.6	14
	A/PI	5.1	7
	Hisp	18.1	14
Females	White	6.2	184
	Black	7.2	5
	AI/AN	35.1	14
	A/PI	3.2	5
	Hisp	8.5	7

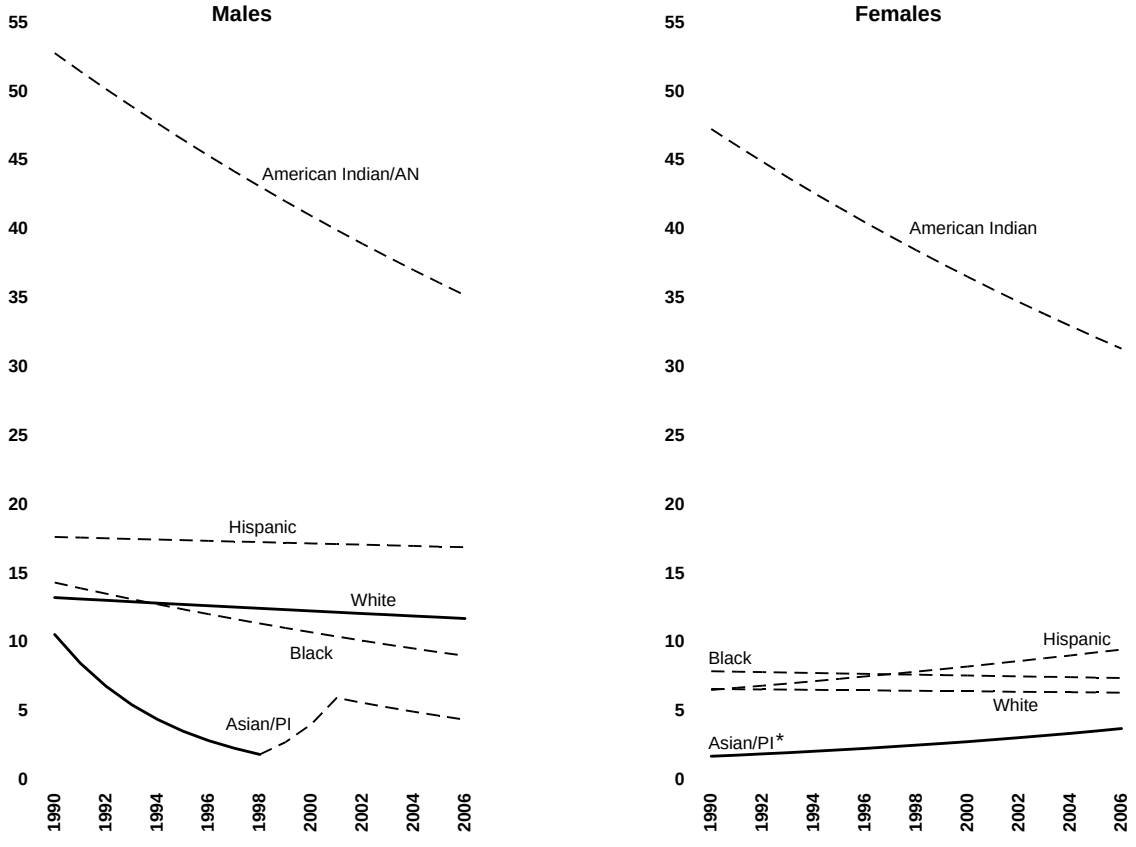
2002 - 2006 combined



Age-adjusted mortality rates, 2002-2006 combined

Chronic liver disease mortality

Sex- and race/ethnicity-specific trends of age-adjusted mortality rates per 100,000 persons, 1990-2006



Best fit; trend not significant

Best fit; trend significant

*** Because this population had no deaths during one or more years, trends were estimated by adding 0.001 to all rates.**

Infant mortality and prematurity

Rates (2002-2006 combined)

Infant mortality (per 1,000 births)

- American Indians and Alaska Natives' infant mortality rate (10.4 per 1,000 births) exceeded all other groups and was significantly higher than the rates for Hispanics (5.0), Whites (4.7) and Asians and Pacific Islanders (4.3)
- Blacks had the second highest rate (8.5) and it, too, was significantly higher than the rates for Hispanics, Whites, and Asians and Pacific Islanders

Prematurity based on calculated gestational age (per 100 births)

- American Indians and Alaska Natives' prematurity rate (14.6 per 100 births) was significantly higher than all other groups.
- Blacks had the second highest rate (13.0) and it was significantly higher than the rates for Hispanics (10.8), Asians and Pacific Islanders (10.2) and Whites (9.8).

Time trends of rates (1990-2006)

Infant mortality (per 1,000 births)

- For American Indians and Alaska Natives, rates decreased from 1990 to 1994 (-24.8% per year) and then increased from 1994 to 2006 (+3.7% per year)
- For Blacks, rates decreased from 1990 to 2006 (-3.7% per year)
- For Hispanics, rates decreased from 1990 to 1994 (-14.0% per year); after 1994 no significant trend was seen
- For Whites, rates decreased from 1993 to 2006 (-1.8% per year); prior to 1993, no significant trend was seen
- No significant trend was seen in the rates for Asians and Pacific Islanders.

Prematurity based on calculated gestational age (per 100 births)

- For American Indians and Alaska Natives, rates increased from 1990 to 2006 (+1.4% per year)
- For Blacks, rates decreased from 1990 to 2006 (-1.0% per year)
- For Asians and Pacific Islanders, rates decreased from 1990 to 1994 (-5.6% per year) and then increased from 1994 to 1999 (+3.6% per year); after 1999 no significant trend was seen.
- For Hispanics, rates increased from 1990 to 2006 (+0.9% per year)
- For Whites, rates increased from 1990 to 2006 (+1.7% per year).

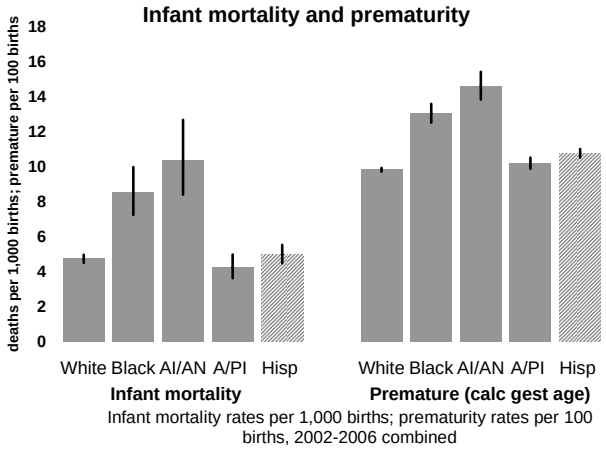
Disparities Figure 15.

Infant mortality and prematurity

Infant mortality and prematurity

	race /ethnicity	rate	average annual deaths
Infant mortality per 1,000 births	White	4.7	319
	Black	8.5	31
	AI/AN	10.4	19
	A/PI	4.3	32
	Hisp	5.0	70
			births
Pre-mature per 100 births	White	9.8	6555
	Black	13.0	462
	AI/AN	14.6	263
	A/PI	10.2	746
	Hisp	10.8	1502

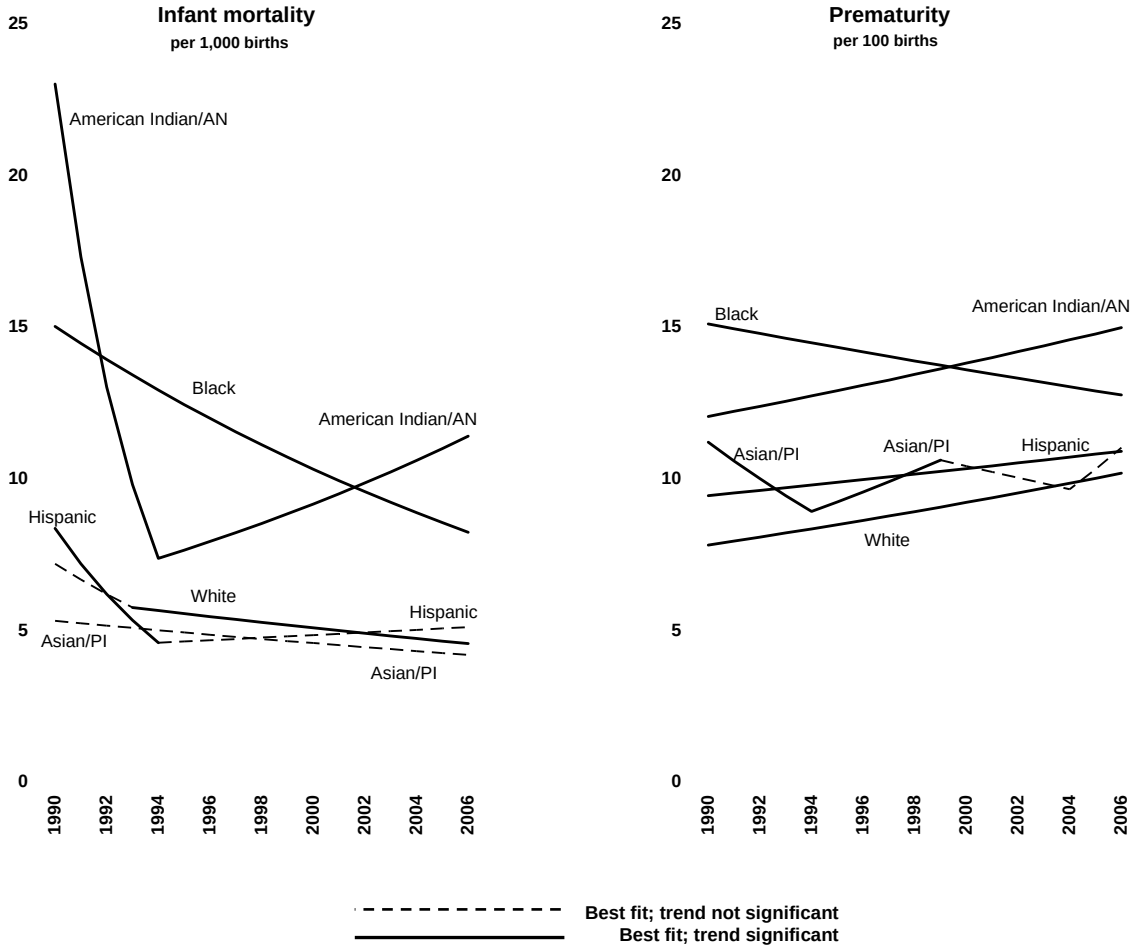
2002 - 2006 combined



Infant mortality rates per 1,000 births; prematurity rates per 100 births, 2002-2006 combined

Infant mortality and prematurity

Race/ethnicity trends of infant deaths per 1,000 births and calculated premature births per 100 live births, 1990-2006



All and singleton-only low birth weight* newborns

Rates (2002-2006 combined)

All low birth weight* newborns (per 100 births)

- Blacks' all low birth weight newborns rate (10.7 per 100 births) was significantly higher than the rates of all other groups
- Rates for American Indians and Alaska Natives and for Asians and Pacific Islanders (7.3 and 7.2 respectively) were essentially the same and were significantly higher than the rates for Hispanics (5.9) and Whites (5.7)

Singleton low birth weight* newborns (per 100 births)

- Blacks' singleton low birth weight newborns rate (8.8 per 100 births) was significantly higher than the rates of all other groups.
- Rates for American Indians and Alaska Natives and for Asians and Pacific Islanders were the same (5.9) and were significantly higher than the rates for Hispanics (4.9) and Whites (4.3).

Time trends of rates (1990-2006)

All low birth weight* newborns (per 100 births)

- For American Indians and Alaska Natives, rates increased from 1990 to 2006 (+2.1% per year)
- For Asians and Pacific Islanders, rates increased from 1990 to 2006 (+1.8% per year)
- For Hispanics, rates increased from 2002 to 2006 (+4.0% per year); prior to 2002 no significant trend was seen
- For Whites, rates increased from 1990 to 2006 (+1.2% per year)
- No significant trend was seen in the rates for Blacks.

Singleton low birth weight* newborns (per 100 births)

- For Blacks, rates decreased from 1990 to 2006 (-0.9% per year)
- For American Indians and Alaska Natives, rates increased from 1990 to 2006 (+1.5% per year)
- For Asians and Pacific Islanders, rates increased from 1990 to 2006 (+1.3% per year).
- For Hispanics, rates increased from 1990 to 1998 (+1.5% per year) and from 2001 to 2006 (+4.4% per year); no significant trend was seen between 1998 and 2001.
- For Whites, rates increased from 1990 to 2006 (+0.7% per year).

*** Low birth weight defined as <2500 grams**

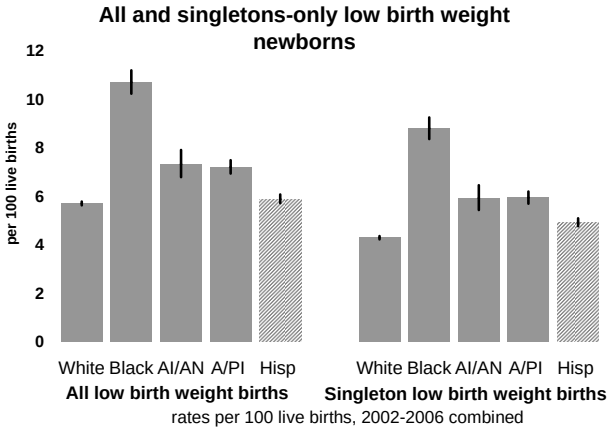
Disparities Figure 16.

All and singletons-only low birth weight* newborns

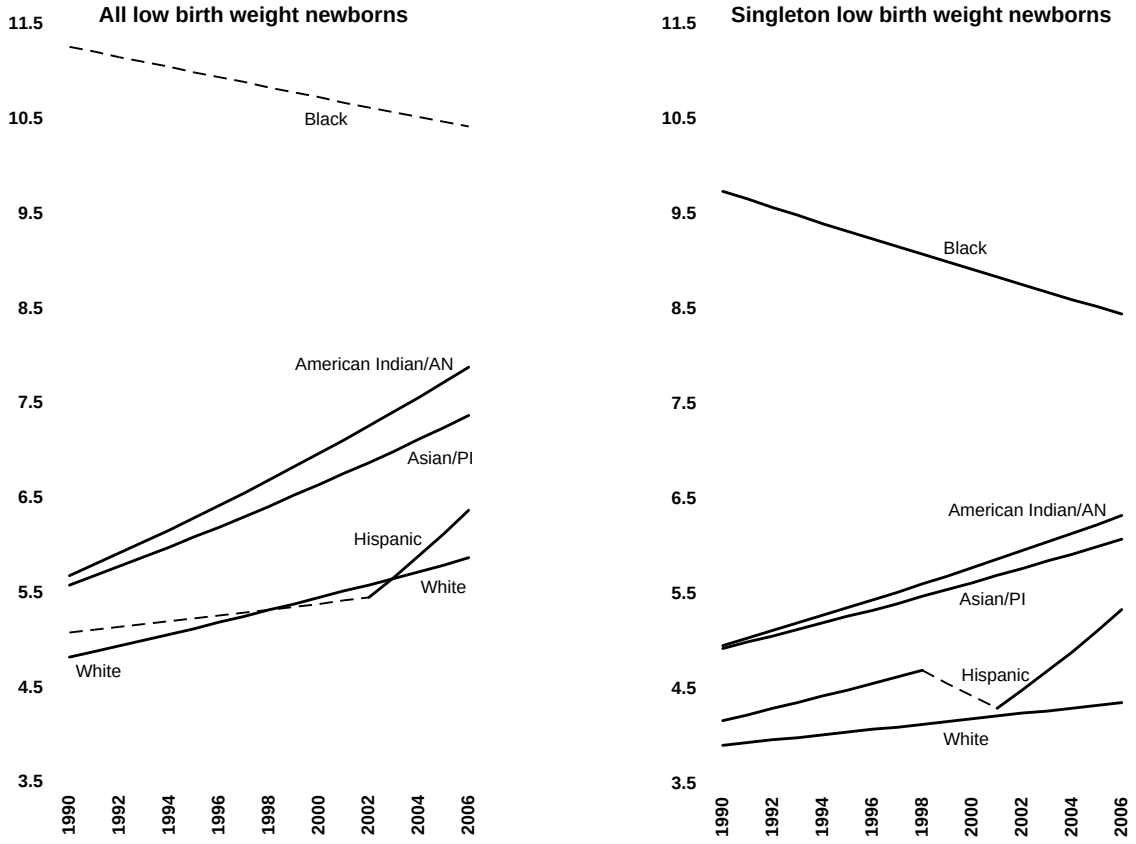
All & singleton low birth weight newborns

	race /ethnicity	rate per 100 live births	average annual births
All low birth weight births	White	5.7	3828
	Black	10.7	384
	AI/AN	7.3	134
	A/PI	7.2	530
	Hisp	5.9	828
Single-ton low birth weight births	White	4.3	2794
	Black	8.8	304
	AI/AN	5.9	105
	A/PI	5.9	427
	Hisp	4.9	679

2002 - 2006 combined



All & singletons-only low birth weight newborns
Race/ethnicity trends per 100 live births, 1990-2006



*** Low birth weight defined as <2500 grams**

Teenage* mothers & All births with late† or no prenatal care

Rates (2002-2006 combined)

Teenage* mothers (per 100 births)

- American Indians and Alaska Natives' teenage mother rate (6.7 per 100 births) was significantly higher than all other groups
- Hispanics had the second highest rate (5.7) and it was significantly higher than all the remaining groups.
- Blacks had the third highest rate (3.9) and it, too, was significantly higher than the rates for Whites (2.6) and Asians and Pacific Islanders (1.1)

Late† or no prenatal care (per 100 births)

- American Indians and Alaska Natives had the highest rate of late or no prenatal care (10.1 per 100 births) and it was significantly higher than all other groups.
- Hispanics and Black had essentially the same rates (6.8 and 6.9 respectively) making them the second highest with rates that were significantly higher than the remaining two groups, Asians and Pacific Islanders (5.2) and Whites (4.3).

Time trends of rates (1990-2006)

Teenage* mothers (per 100 births)

- For Blacks, rates decreased from 1995 to 2006 (-8.5% per year); prior to 1995 no significant trend was seen
- For Hispanics, rates decreased from 1995 to 2006 (-3.8% per year); prior to 1995 no significant trend was seen
- For Whites, rates increased from 1990 to 1995 (+4.0% per year), and deceased from 1999 to 2003 (-7.6% per year); between 1990 and 1995 and from 2003 to 2006 no significant trends were seen
- For Asians and Pacific Islanders, rates decreased from 1995 to 2006 (-10.2% per year); prior to 1995 no significant trend was seen.
- No significant trend was seen in the rates for American Indians and Alaska Natives.

Late† or no prenatal care (per 100 births)

- For Hispanics, rates decreased from 1992 to 1995 (-16.0% per year) and from 1995 to 2002 (-2.7% per year). From 2003 to 2006, there was no significant trend.
- For American Indians and Alaska Natives, rates decreased from 1990 to 2002 (-3.6% per year). From 2003 to 2006, the rates increased (+9.4% per year)
- For Blacks, rates decreased from 1990 to 2002 (-5.1% per year). From 2003 to 2006, there was no significant trend.
- For Asians and Pacific Islanders, rates decreased from 1990 to 2002 (-5.2% per year). From 2003 to 2006, there was no significant trend.
- For Whites, rates decreased from 1990 to 1994 (-5.1% per year) and from 1994 to 2002 (-1.5% per year). From 2003 to 2006, rates increased (+6.5% per year).

*** "Teenage" defined as <18 years old**

† Late defined as third trimester

Disparities Figure 17.

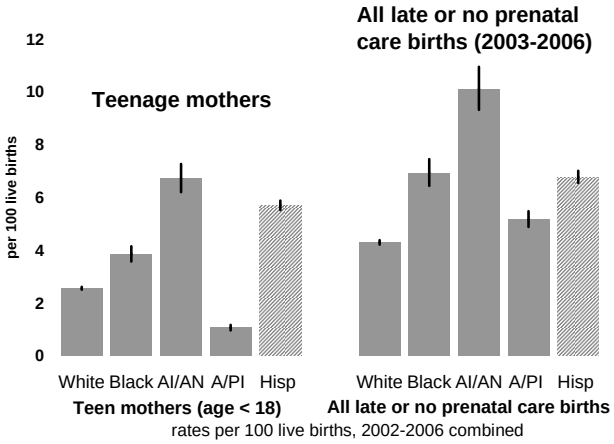
Teenage* mothers & All births with late† or no prenatal care

Teenage mothers (age<18) & All births with late or no prenatal care

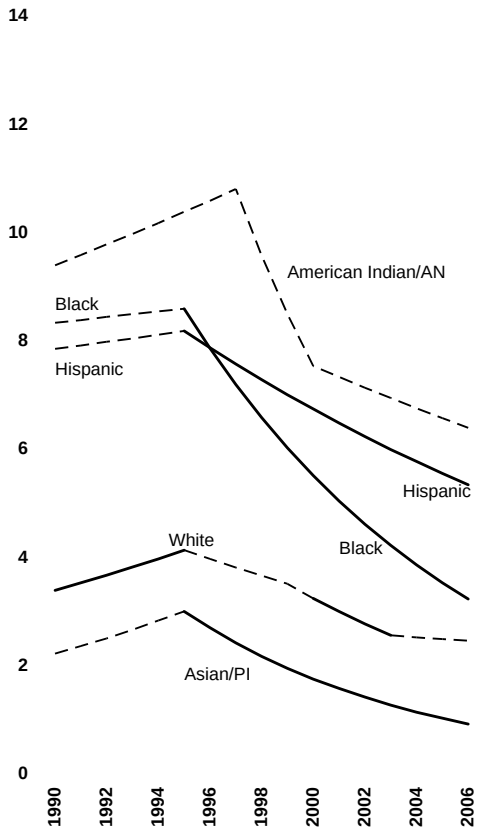
	race /ethnicity	rate per 100 live births	average annual births
Teenage (<18) mothers	White	2.6	1723
	Black	3.9	139
	AI/AN	6.7	123
	A/PI	1.1	79
	Hisp	5.7	804
All late or no prenatal care births*	White	4.3	2499
	Black	6.9	186
	AI/AN	10.1	149
	A/PI	5.2	299
	Hisp	6.8	850

2002 - 2006 combined

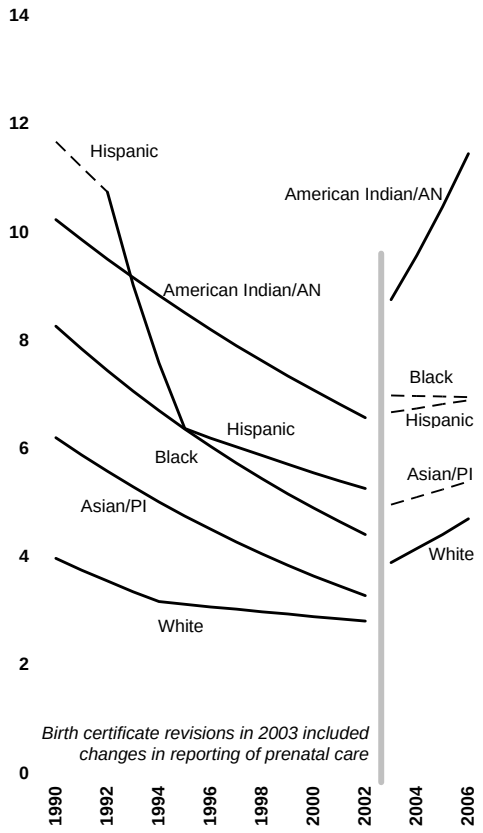
*2003 - 2006 combined



Teenage mothers (age<18)
Race/ethnicity trends per 100 live births, 1990-2006



All births with late (3rd) or no prenatal care
Race/ethnicity trends per 100 live births, 1990-2006



*** "Teenage" defined as <18 years old**

† Late defined as third trimester

Best fit; trend not significant

Best fit; trend significant

Maternal obesity* &
Mothers smoking during pregnancy

Rates (2002-2006 combined)

Maternal obesity* (per 100 births)

- American Indians and Alaska Natives' maternal obesity rate (34.0 per 100 births) was significantly higher than all other groups
- Blacks had the second highest rate (30.4) and it was significantly higher than all the remaining groups.
- Hispanics had the third highest rate (24.4) and it, too, was significantly higher than the rates for the two remaining groups, Whites (22.4), and Asians and Pacific Islanders (11.3) who also differed significantly from each other.

Mothers smoking during pregnancy (per 100 births)

- American Indians and Alaska Natives' had the highest maternal smoking rate (22.5 per 100 births) and it was significantly higher than all other groups.
- Whites had the second highest rate (11.2) and it was significantly higher than all the remaining groups.
- Blacks had the third highest rate (10.4) and it, too, was higher than the remaining two groups who had similar rates to each other, Asians and Pacific Islanders (3.6) and Hispanics (3.4)

Time trends of rates (1990-2006)

Maternal obesity* (per 100 births)

- Because only four years of data are available, we did not perform tests for trends in maternal obesity rates.

Mothers smoking during pregnancy (per 100 births)

- For American Indians and Alaska Natives, rates decreased from 1990 to 2006 (-3.0% per year)
- For Blacks, rates decreased from 1992 to 1996 (-9.8% per year) and increased from 1999 to 2006 (-7.9% per year); no significant trends were seen between 1990 and 1992 or between 1996 and 1999.
- For Whites, rates decreased from 1990 to 2006 (-4.3% per year)
- For Asians and Pacific Islanders, rates decreased from 1990 to 2000 (-2.5% per year) and from 2000 to 2006 (-8.6% per year).
- For Hispanics, rates decreased from 1990 to 2006 (-4.8% per year).

*** Maternal obesity defined as pre-pregnancy BMI>=30**

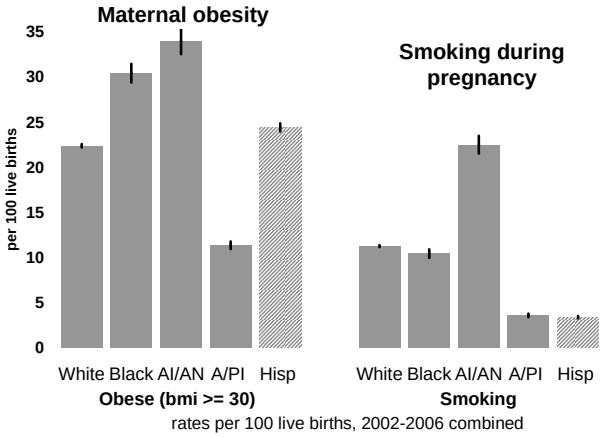
Disparities Figure 18.

Maternal obesity* &
Mothers smoking during pregnancy

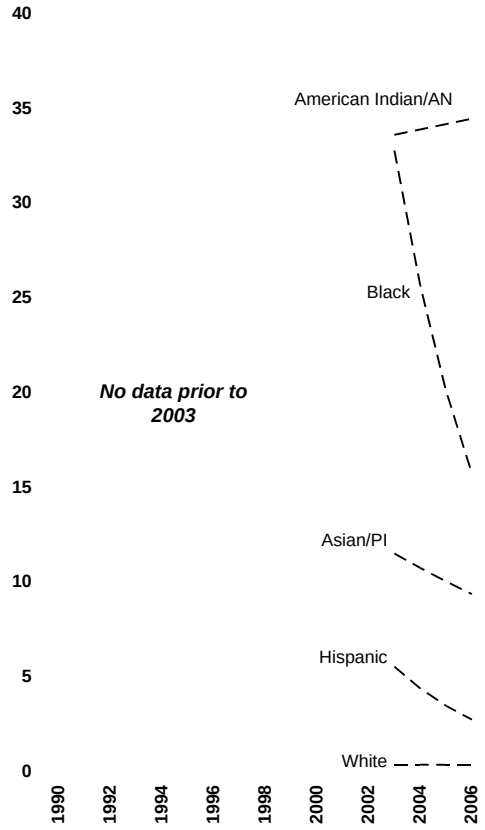
Maternal obesity (bmi>=30) &
Mothers smoking during pregnancy

	race /ethnicity	rate per 100 live births	average annual births
Maternal obesity (bmi >= 30)	White	22.4	10280
	Black	30.4	663
	AI/AN	34.0	406
	A/PI	11.3	547
	Hisp	24.4	2248
Smoking during pregnancy	White	11.2	7406
	Black	10.4	361
	AI/AN	22.5	402
	A/PI	3.6	258
	Hisp	3.4	466

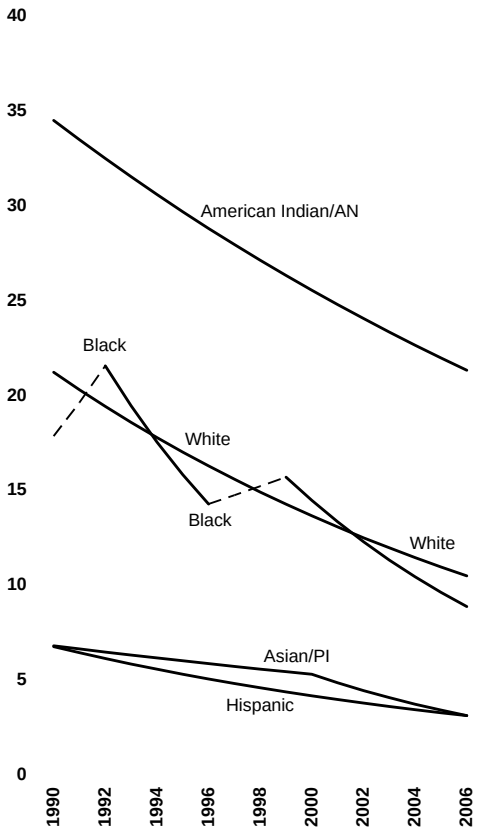
2002 - 2006 combined



Maternal obesity (bmi >= 30)
Race/ethnicity trends per 100 live births, 1990-2006



Mothers smoking during pregnancy
Race/ethnicity trends per 100 live births, 1990-2006



Best fit; trend not significant
Best fit; trend significant

*** Maternal obesity defined as pre-pregnancy BMI>=30**

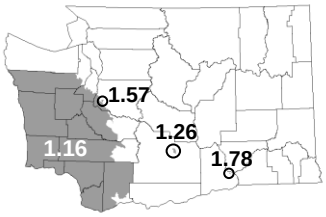
Geographic Variations and Statewide Trends

Note: For a detailed guide on interpreting the maps and trends in this report, see the "What's New" section of the Washington State Vital Statistics 2004 report.

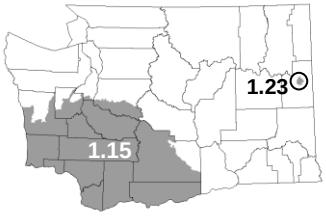
Figure 1. All Deaths

High relative risk regions by year

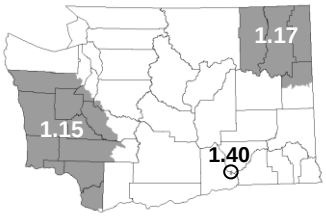
2002



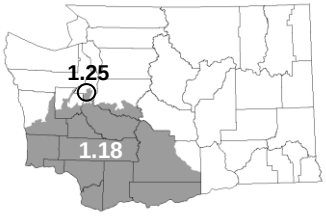
2003



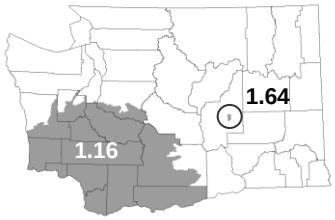
2004



2005



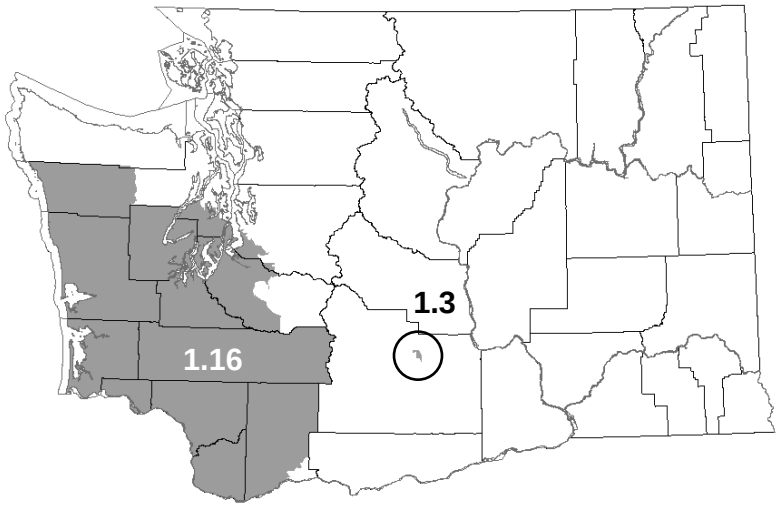
2006



Regions: While a large west-southwest region had higher than expected deaths for each year assessed, other areas also appear to be consistently high. These included portions of Yakima, Benton/Franklin, and Spokane counties. For 2002-2006 combined the west-southwest region had a relative risk of 1.16, equaling 16% more deaths than expected, or about 1448 excess deaths per year. A smaller region in Yakima County had 30% more deaths than expected or about 101 excess deaths per year.

Trends: From 1980 to 2002 the statewide death rate fell by 0.8% per year; from 2002 to 2006 the rate of decline increased to 2.2% per year.

All deaths: High relative risk regions 2002-2006 combined



All deaths: Statewide trends, 1980-2006

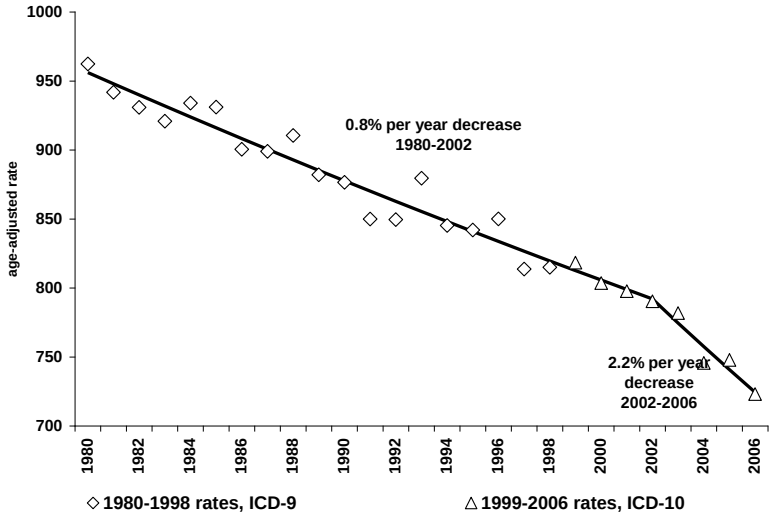
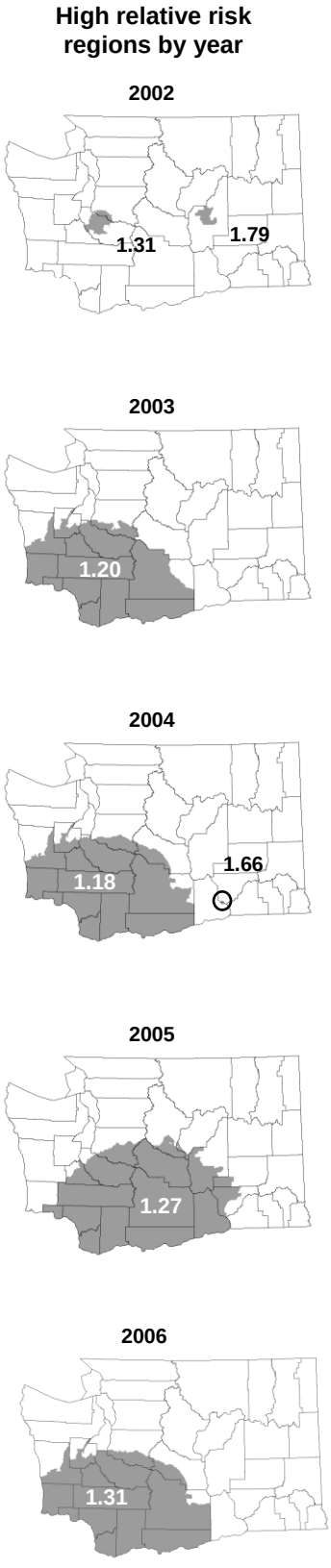


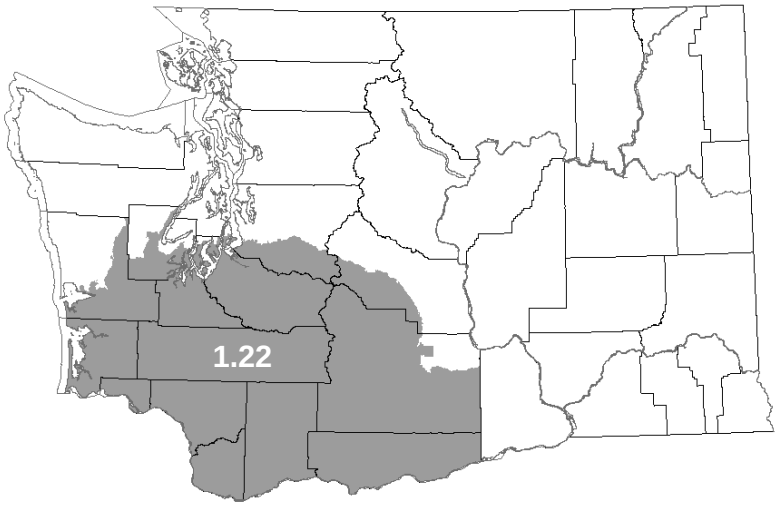
Figure 2. Heart disease deaths



Regions: For four of the five years analyzed, large sections of south and southwest Washington are identified as having higher than expected heart disease deaths. For 2002-2006 combined, this same general southwest region is found to have a relative risk of 1.22, equaling 22% more heart disease deaths than expected. Per year, this averages 491 more heart disease deaths than expected for the region.

Trends: Statewide heart disease mortality trends have been decreasing by 2.8% per year from 1980 to 1998, and by 3.7% from 1998 to 2006.

Heart disease deaths: High relative risk regions 2002-2006 combined



Heart disease deaths: Statewide trends, 1980-2006

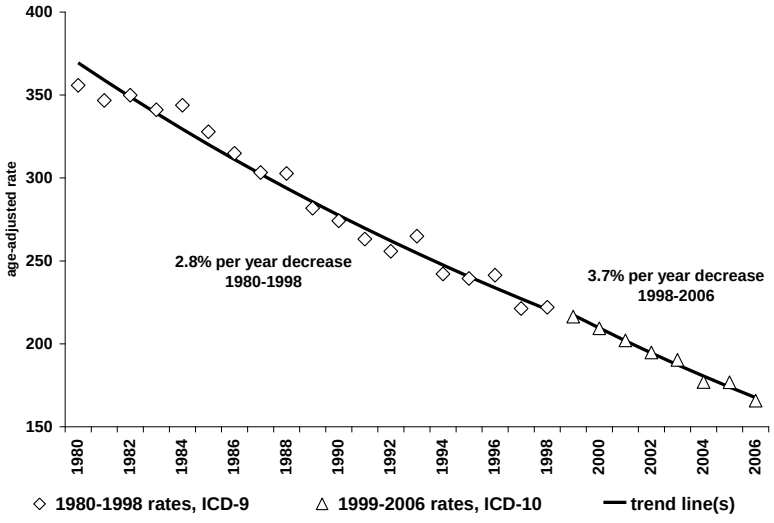
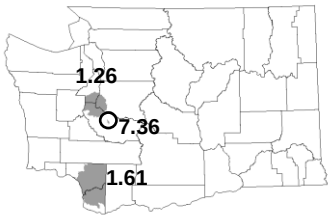


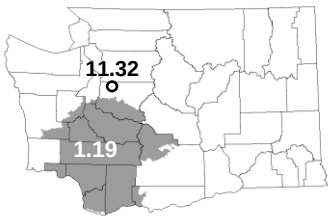
Figure 3. Stroke deaths

High relative risk regions by year

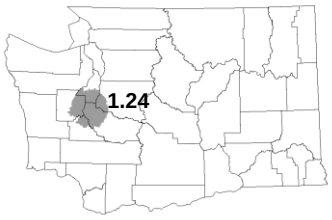
2002



2003



2004



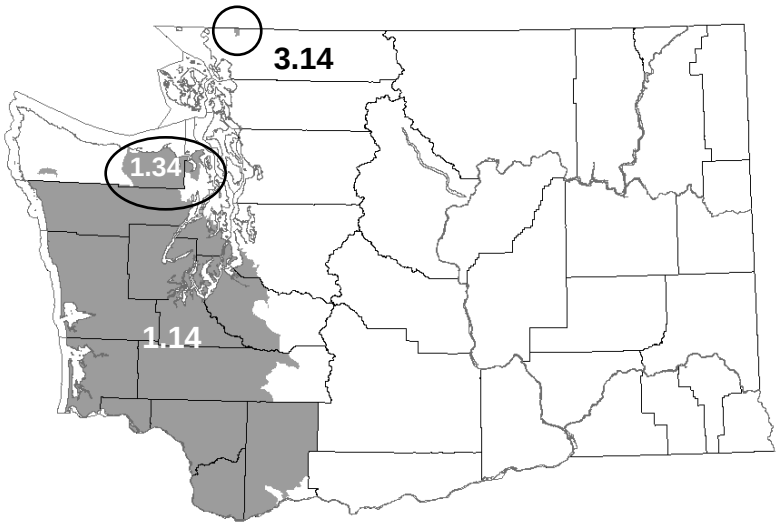
2005

2006

Regions: For three of the five years assessed, 2002-2004, varying size areas including portions of the south Puget Sound region showed higher than expected stroke deaths; in 2005 the case definition for stroke was revised by the National Center for Health Statistics (NCHS). For 2002-2006 combined a large south Puget Sound/western Washington region had a relative risk (RR) of 1.15 equaling about 97 excess stroke deaths per year. Two other regions also had high RR's but these were not consistently seen on a yearly basis.

Trends: From 1980 to 1987 the statewide stroke mortality rate decreased by 3.5% per year, then leveled off from 1987-1998, and began to decline again from 1999-2004 by 4.5% per year. The trends exclude 2005-2006.

Stroke deaths: High relative risk regions 2002-2006 combined



Stroke deaths: Statewide trends, 1980-2006

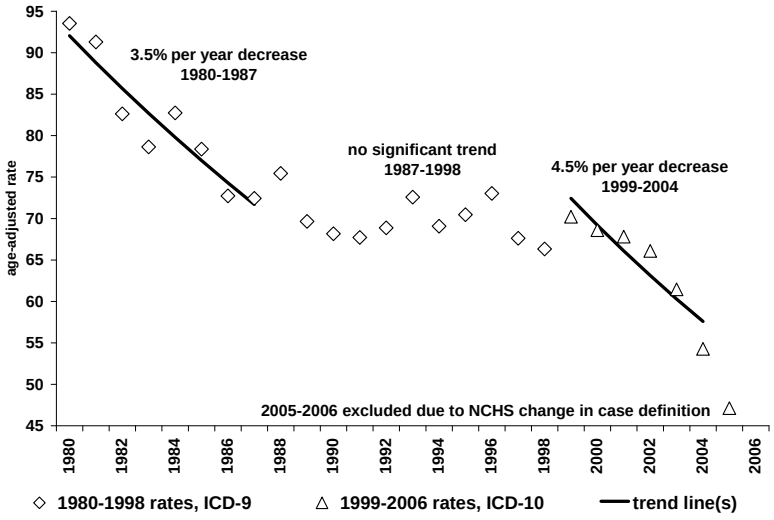
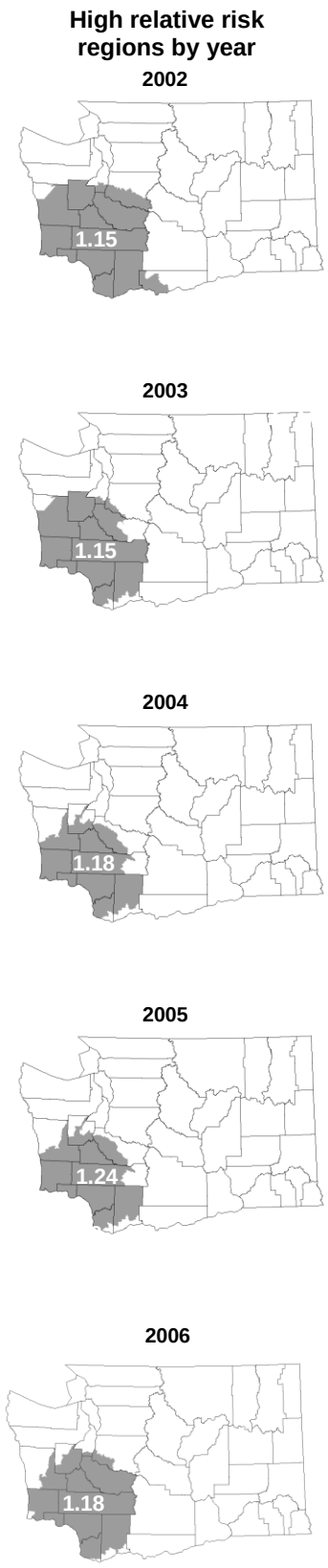


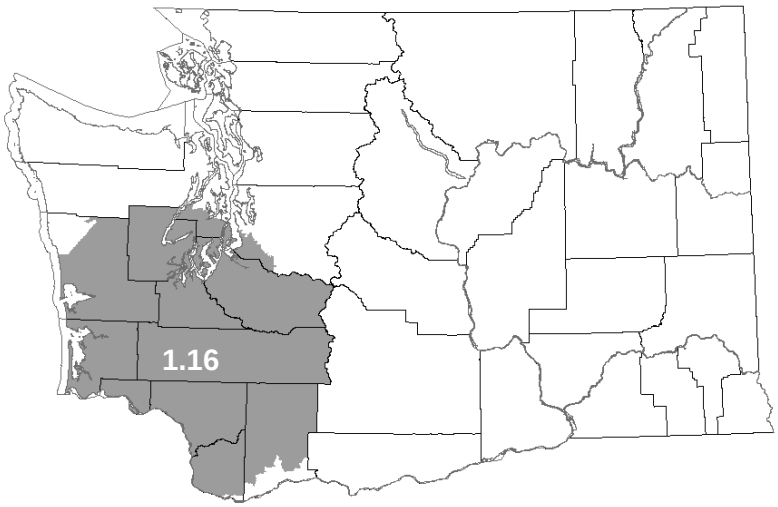
Figure 4. All cancer



Regions: For each year analyzed and for all years combined, a large section of southwest Washington is identified as having higher than expected cancer deaths. For 2002-2006 combined, this southwest region is found to have a relative risk of 1.16, equaling 16% more cancer deaths than expected. On average this equals 352 more cancer deaths per year than expected for the region.

Trends: From 1980 to 1993 the statewide cancer mortality rate was increasing by 0.3% per year; however, since 1993 the mortality rates have been declining: by 1.3% per year from 1993-1998, by 1.1% per year from 1998-2003, and by 2.4% per year from 2003-2006.

Cancer deaths: High relative risk regions 2002-2006 combined



Cancer deaths: Statewide trends, 1980-2006

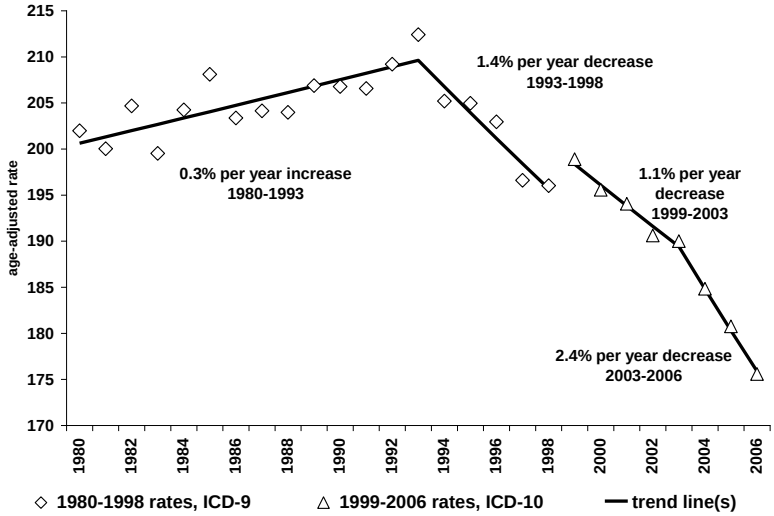
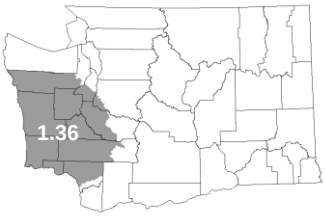


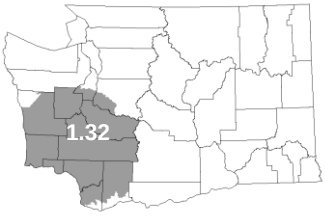
Figure 5. Lung cancer deaths

High relative risk regions by year

2002

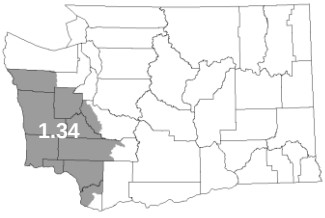


2003



2004

2005

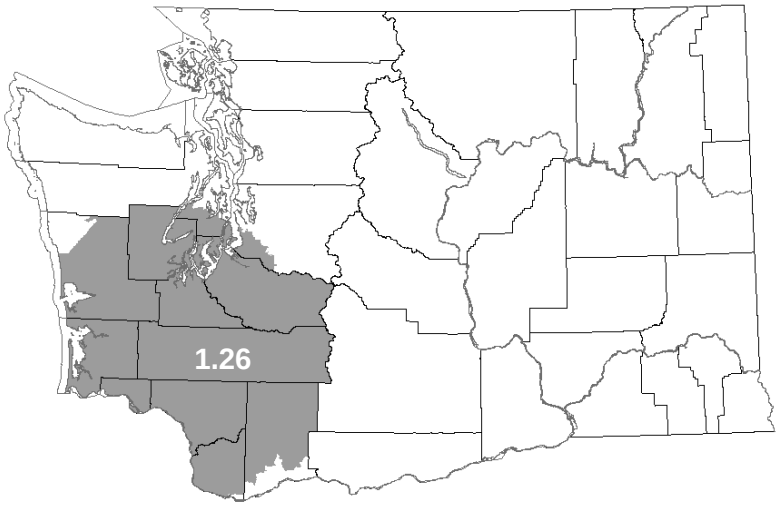


2006

Regions: For each year analyzed and for all years combined, regions in western or southwestern Washington are identified as having higher than expected lung cancer deaths. For 2004 only, a small area in Spokane County is also found to be higher than expected. For 2002-2006 combined, the southwest region has a relative risk of 1.26, equaling 26% more lung cancer deaths than expected, or about 163 more lung cancer deaths per year than expected.

Trends: From 1980 to 1993 the statewide cancer mortality rate was increasing by 1.3% per year; however, from 1993-1998 they declined by 1.5% per year, and from 1999-2006 by 2.0% per year.

Lung Cancer Deaths: High relative risk regions 2002-2006 combined



Lung cancer deaths: Statewide trends, 1980-2006

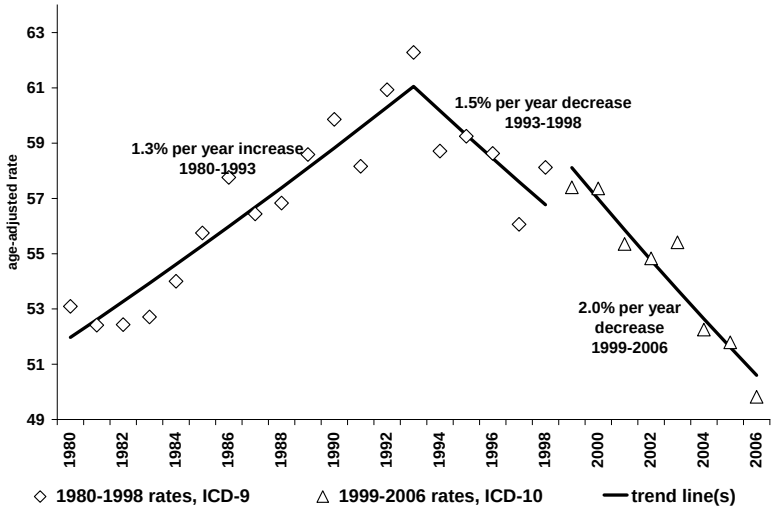
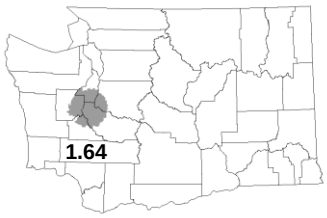


Figure 6. Infant mortality

High relative risk regions by year

2002



2003

2004

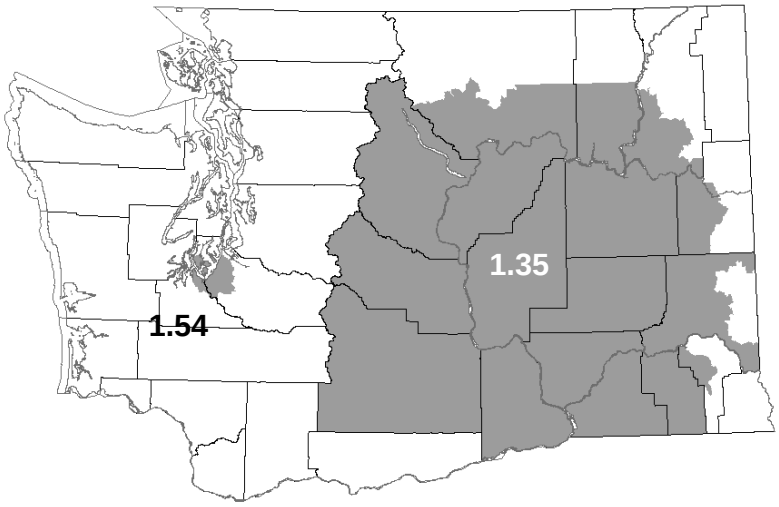
2005

2006

Regions: Although a significant cluster was identified in 2002, no such clusters were identified for the three subsequent years. For 2002-2006 combined, a region similar to that seen in 2002 was found to have a relative risk (RR) of 1.54, meaning that there were 54% more infant deaths than expected, equaling about 13 excess infant deaths per year.

Trends: Infant mortality rates decreased by 2.4% per year from 1980 to 1989, then took a sharper turn downward, decreasing by 9.3% from 1989 to 1993; since 1993, the rates have been decreasing by 1.6% per year

Infant Mortality: High relative risk regions 2002-2006 combined



Infant mortality: Statewide trends, 1980-2006

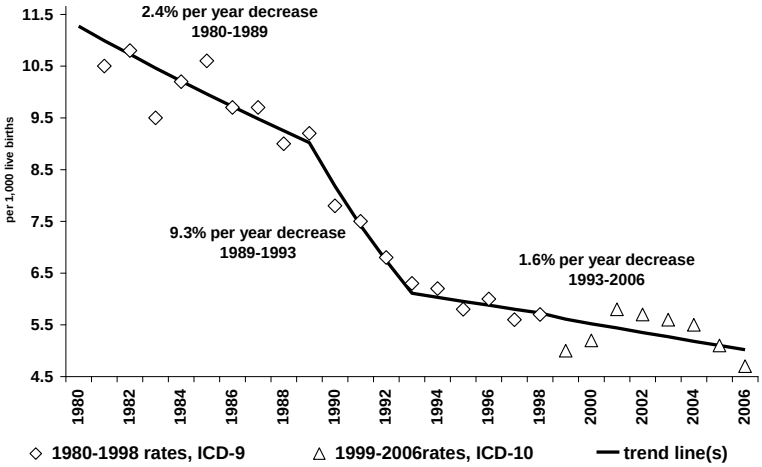
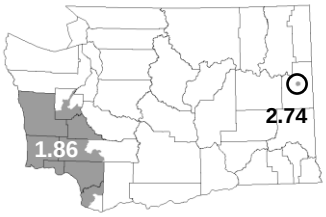


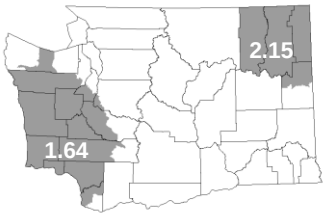
Figure 7. Maternal smoking

High relative risk regions by year

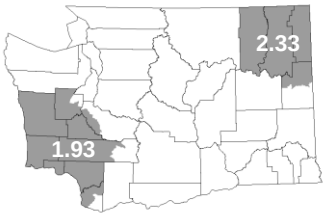
2002



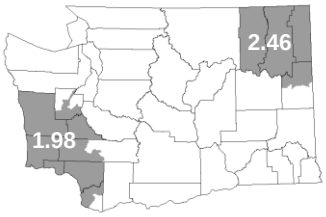
2003



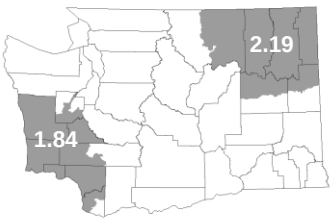
2004



2005



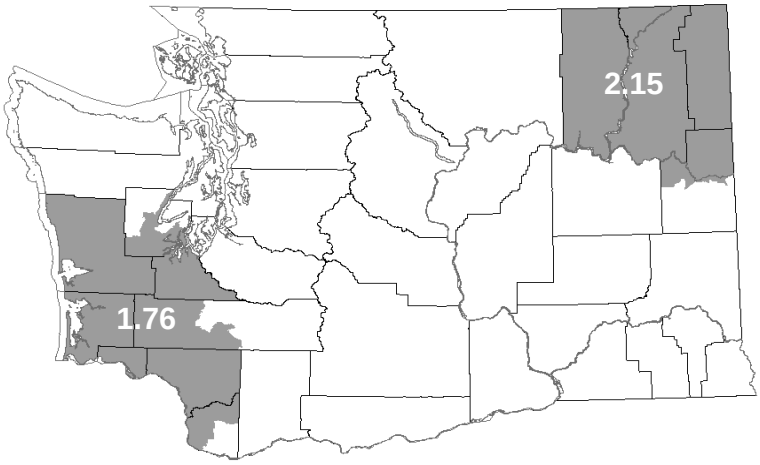
2006



Regions: For each of the five years assessed two regions, one in the southwest and another of varying size including Spokane and the northeast corner have had consistently higher than expected rates of maternal smoking. For 2002-2006 combined, the southwest region had a relative risk (RR) of 1.76 or a 76% higher maternal smoking rate than expected; this equals about 673 excess cases per year. In the northeast region the RR equals 2.15 – more than twice the expected – equaling 552 excess cases per year.

Trends: Beginning in 1986 there has been a steady 4.8% per year decline in the rate of maternal smoking.

Maternal smoking: High relative risk regions 2002-2006 combined



Maternal smoking: Statewide trends, 1980-2006

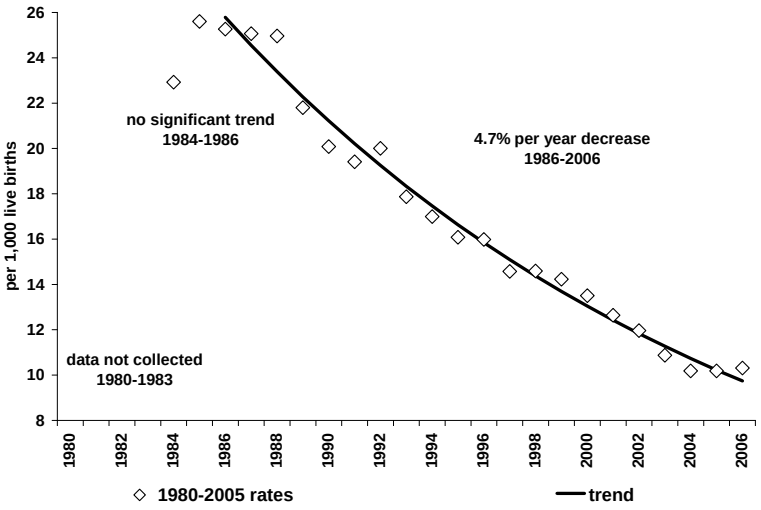
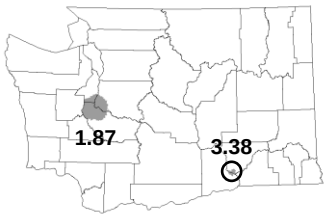


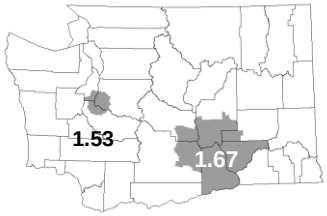
Figure 8. Late or no prenatal care

High relative risk regions by year

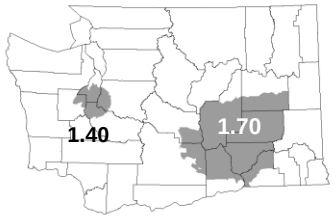
2002



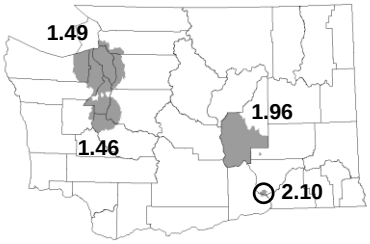
2003



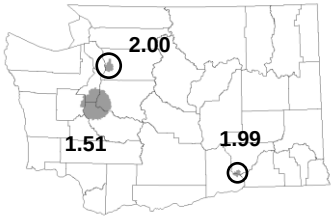
2004



2005



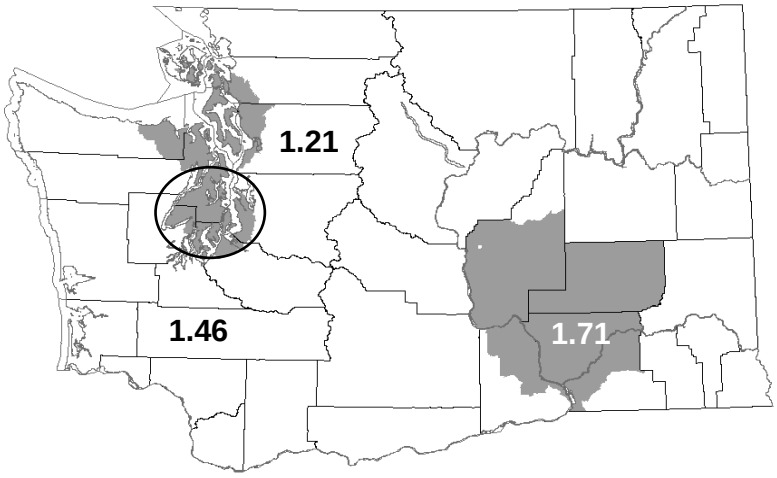
2006



Regions: Three regions had higher than expected rates of late or no prenatal care for the combined assessed years. For 2002-2006 combined the south Puget Sound environs had a relative risk (RR) of 1.46, equaling 46% more, or 190 excess, births per year receiving late or no prenatal care. In south central Washington, the RR was 1.71, equaling 71% more, or 121 excess, cases per year. A third region in northern Puget Sound showed elevated rates in 2002-2006 combined, with a RR of 1.21, equaling 21% more, or 49 excess, cases per year.

Trends: Births with late or no prenatal care rose by 7.1% per year from 1980 to 1983, leveled off, and began declining by 7.7% per year from 1989 to 1993, and by 2% per year from 1993 to 2002. From 2003 to 2006 the rates increased by 6.3% per year.

Late or no prenatal care: High relative risk regions 2002-2006 combined



Late or no prenatal care: Statewide trends, 1980-2006

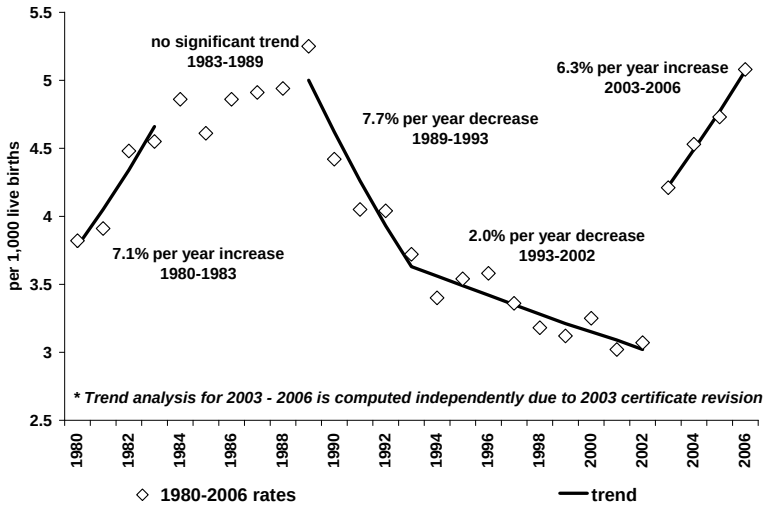
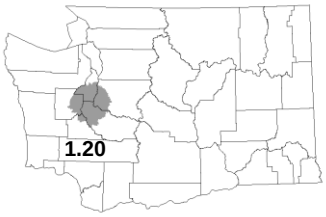


Figure 9. Low birth weight

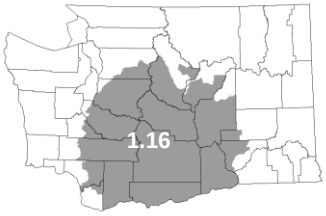
High relative risk regions by year

2002

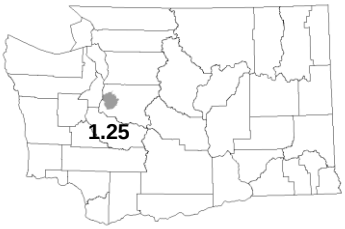
2003



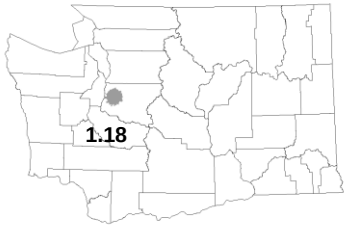
2004



2005



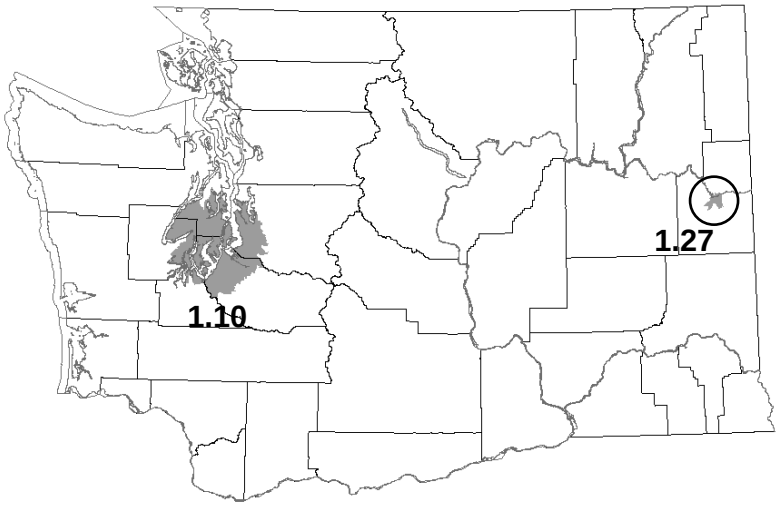
2006



Regions: Regions with more than expected low birth weight newborns varied year to year. For 2002-2006 combined, the south Puget Sound region had a relative risk of 1.15 meaning there were 15% more low birth weight births than expected, equaling 146 excess cases per year. Although not seen in the individual years assessed, for the 5 years combined the Spokane region had 27% more low weight newborns than expected, equaling 23 excess cases per year.

Trends: Statewide, the rate of low birth weight newborns was essentially flat from 1980 to 1993; however, from 1993 and on the rates have been increasing by 1.3% per year.

Low Birth Weight: High relative risk regions 2002-2006 combined



Low birth weight: Statewide trends, 1980-2006

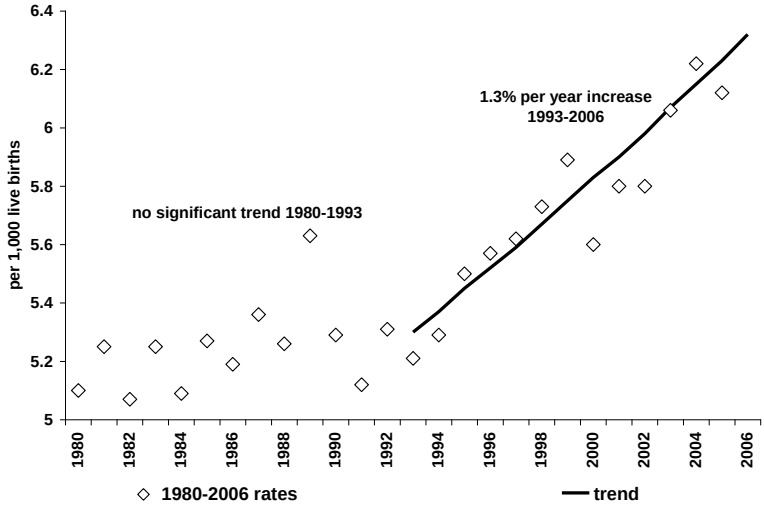
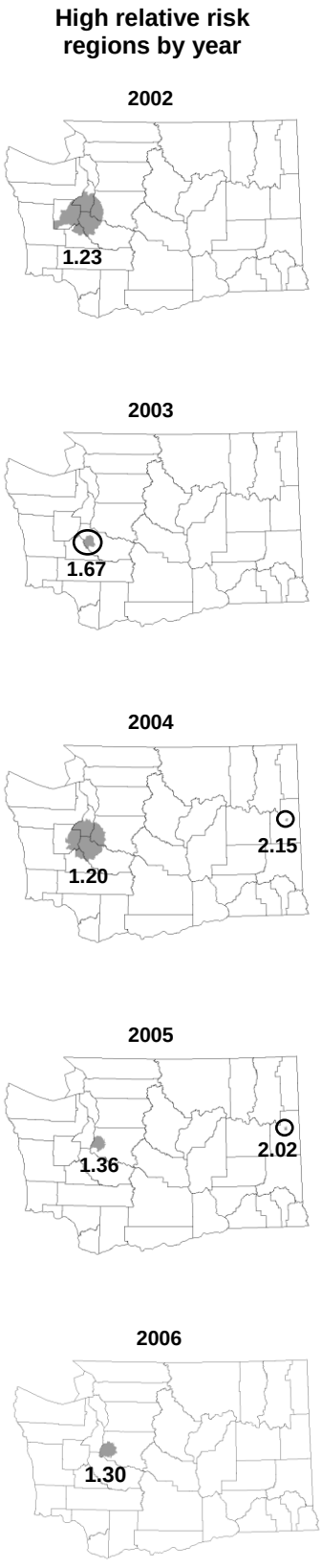


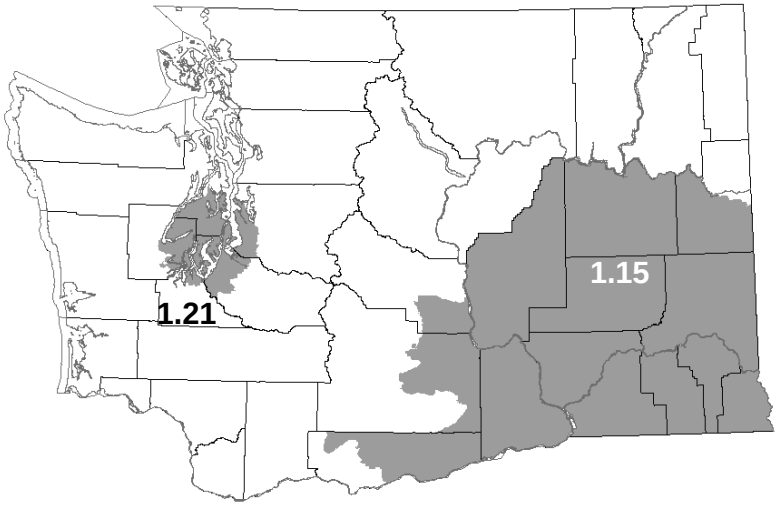
Figure 10. Singleton low birth weight



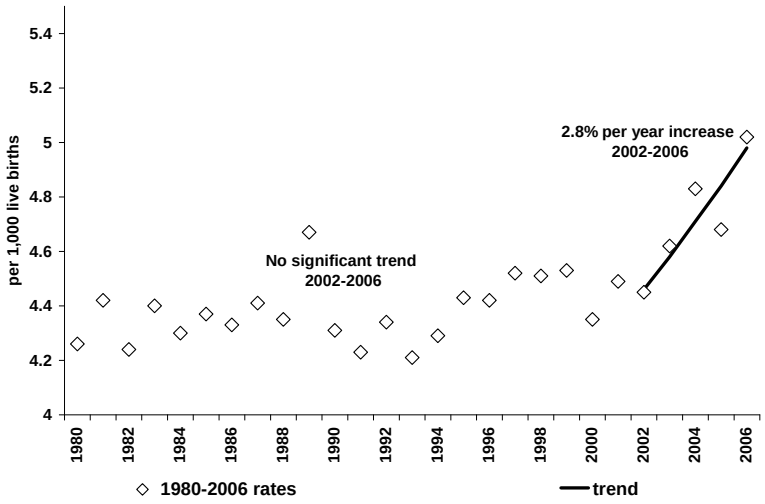
Regions: Varying portions of the south Puget Sound region generally including Seattle and/or Tacoma showed elevated rates of singleton low birth weight births for each of the years assessed. For 2004 and 2005 the Spokane City environs also had higher than expected rates. For 2002-2006 combined the south Puget Sound region had a relative risk of 1.21 meaning there were 21% more singleton low birth weight birth than expected, equaling about 138 excess cases per year. For the large southeast region, the RR was 1.15 – a 15% higher than expected number of singleton low birth weight births, equaling 66 excess cases per year.

Trends: From 2002 to 2006 there has be a 2.8% per year increase in singleton low birth weight births.

Singleton low birth weight: High relative risk regions 2002-2006 combined



Singleton low birth weight: Statewide trends, 1980-2006



Overview Table

Overview Table 1. Live Births, Deaths, Infant Deaths, Maternal Deaths, and Fetal Deaths Washington Residents, 1910-2006

		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

Overview Table 1. Live Births, Deaths, Infant Deaths, Maternal Deaths, and Fetal Deaths Washington Residents, 1910-2006

		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

Overview Table 1. Live Births, Deaths, Infant Deaths, Maternal Deaths, and Fetal Deaths Washington Residents, 1910-2006

		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
2004	6,167,800	81,715	13.2	44,703	7.2	451	5.5	*22	26.9	432	5.3
2005	6,256,400	82,625	13.2	46,015	7.3	420	5.1	*26	31.5	519	6.3
2006	6,375,600	86,845	13.6	45,878	7.2	406	4.7	20	23.0	490	5.6

[1] Population figures for 1910-1950 ten year intervals and for 1950-2006 single years are from the Office of Financial Management, Forecasting Division, State of Washington 2006 Population Trends, October 2007.

[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).

* The increase in maternal deaths should be interpreted with caution. The 2004 Death Certificate includes a new question which asks if the decedent is female was she pregnant. If the box is marked yes, then the death will be included in the maternal death category regardless of the actual underlying cause of death.

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, 1996-2006.

	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
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	924.0	671.4	831.2	991.7	705.4	78.7	76.4	80.9	77.6	74.8	80.1
2004	746.1	891.8	635.8	800.8	955.7	679.2	79.3	76.9	81.6	77.8	75.2	80.4
2005	746.1	882.7	638.3	798.8	951.1	677.6	79.3	76.9	81.6	77.8	75.2	80.4
2006	723.2	852.3	621.7	776.4	924.6	657.8	79.7	77.4	81.9	78.1	75.4	80.7

[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]Source for United States mortality and Life Expectancy are:

Heron MP, Hoyert DL, Xu J, Scott C, Tejada-Vera B. Deaths: Preliminary data for 2006. National vital statistics reports; vol 56 no 16. Hyattsville, MD: National Center for Health Statistics. 2008.

The mortality rate of 723.2 in 2006 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 77.4 years for males and 81.9 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 Table A4. Life Expectancy[1] by Age and Sex for Residents, 2006

Age Group	Total	Male	Female
Under 1	79.7	77.4	81.9
1-5	79.1	76.8	81.2
5-10	75.1	72.9	77.3
10-15	70.2	67.9	72.3
15-20	65.2	63.0	67.4
20-25	60.4	58.2	62.5
25-30	55.6	53.6	57.6
30-35	50.8	48.8	52.7
35-40	46.0	44.1	47.9
40-45	41.3	39.4	43.1
45-50	36.6	34.8	38.4
50-55	32.1	30.3	33.7
55-60	27.8	26.1	29.2
60-65	23.5	22.0	24.9
65-70	19.6	18.1	20.8
70-75	15.9	14.5	17.0
75-80	12.6	11.4	13.5
80-85	9.7	8.7	10.5
85 and Over	7.5	6.7	8.0

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

Mortality Table A7b. Residence and Occurrence by County Listed by Age-Adjusted Rates for 2004-2006

	2004 - 2006			2006		
County	Total	Crude Rate[1]	Age-Adj[2]	Total	Crude Rate[1]	Age-Adj[2]
San Juan	335	7.2	5.0	124	7.9	5.3
Whitman	640	5.0	6.2	214	5.0	6.1
King	34,151	6.3	6.5	11,542	6.3	6.4
Franklin	874	4.8	6.6	309	4.8	6.6
Kittitas	734	6.7	6.7	253	6.8	6.6
Chelan	1,704	8.2	6.8	557	7.9	6.6
Adams	314	6.2	7.0	94	5.4	6.1
Walla Walla	1,584	9.2	7.1	532	9.2	6.9
Island	1,771	7.8	7.1	588	7.6	6.9
Whatcom	3,955	7.3	7.2	1,310	7.1	6.9
Jefferson	891	10.8	7.2	304	10.8	7.2
Klickitat	493	8.4	7.2	156	7.9	6.7
Douglas	791	7.6	7.3	263	7.4	7.0
Asotin	616	9.8	7.3	202	9.6	7.3
Skagit	2,994	9.0	7.4	1,018	9.0	7.2
State Total	136,596	7.3	7.4	45,878	7.2	7.2
Lincoln	344	11.3	7.4	108	10.6	7.0
Benton	3,105	6.6	7.5	1,081	6.7	7.5
Snohomish	12,480	6.3	7.6	4,140	6.2	7.3
Garfield	83	11.5	7.6	28	11.7	7.1
Thurston	5,179	7.7	7.7	1,843	8.0	7.9
Spokane	11,047	8.4	7.7	3,719	8.4	7.6
Kitsap	5,303	7.3	7.8	1,733	7.1	7.5
Yakima	5,304	7.7	7.8	1,740	7.5	7.5
Grant	1,747	7.3	7.8	606	7.5	7.9
Clallam	2,514	12.5	7.9	864	12.7	8.0
Clark	7,992	6.8	8.0	2,653	6.6	7.6
Pierce	16,154	7.1	8.0	5,426	7.0	7.8
Wahkiakum	127	10.9	8.1	40	10.3	8.0
Okanogan	1,088	9.1	8.1	362	9.1	8.0
Columbia	142	11.5	8.2	55	13.4	9.5
Lewis	2,264	10.5	8.3	721	9.9	7.7
Skamania	237	7.6	8.4	81	7.6	8.3
Pacific	849	13.3	8.4	281	13.1	8.1
Stevens	1,188	9.6	8.9	406	9.6	8.9
Grays Harbor	2,273	10.9	8.9	731	10.4	8.4
Mason	1,708	11.0	9.0	583	11.0	8.9
Cowlitz	3,008	10.4	9.3	1,013	10.5	9.1
Pend Oreille	385	10.6	9.8	124	10.1	9.3
Ferry	228	10.3	10.9	74	9.9	10.4

[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 1998-2000 age-adjusted rate is 8.3; Median 1998-2000 age-adjusted rate is 8.2. State Total is not included in calculation of mean and median.

Source: Center for Health Statistics, Washington State Department of Health, 01/2008.

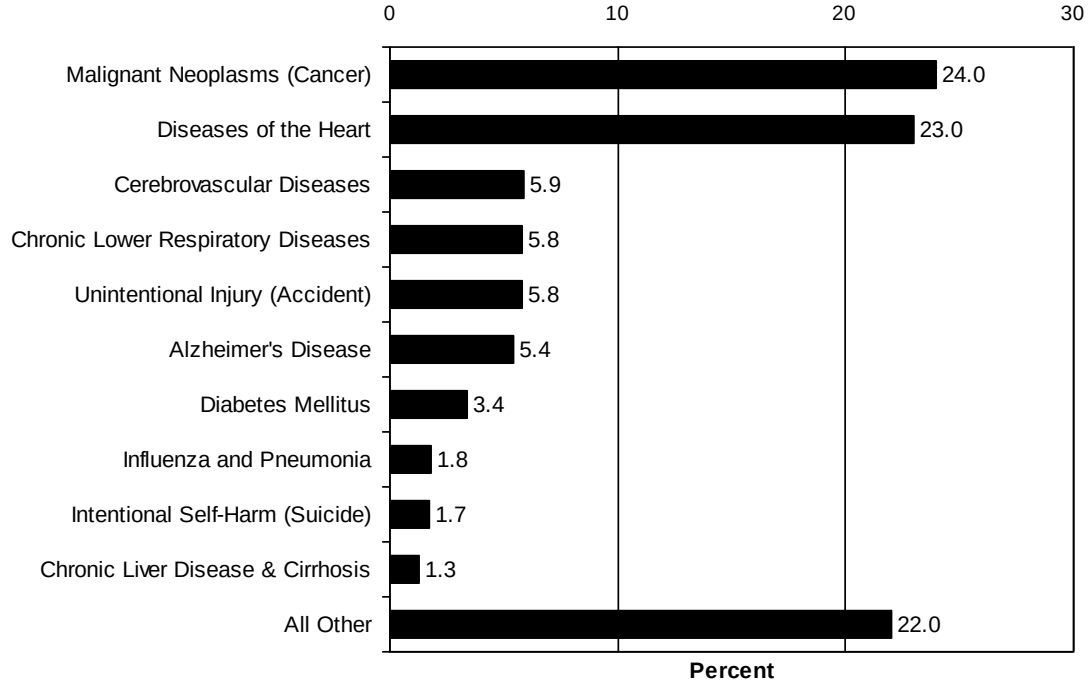
Mortality Table C2. Leading Causes of Death for Residents, 2006

Rank	Causes of Death and ICD-10 Codes	Number	Percent[1]	Cumulative Percent
	All Causes	**45,878**	**100.0**	
1	Malignant Neoplasms (C00-C97)	11,003	24.0	24.0
2	Diseases of the Heart (I00-I09,I11,I13,I20-I51)	10,551	23.0	47.0
3	Cerebrovascular Diseases (I60-I69)	2,711	5.9	52.9
4	Chronic Lower Respiratory Diseases (J40-J47)	2,648	5.8	58.7
5	Unintentional Injury (Accident) (V01-X59,Y85-Y86)	2,646	5.8	64.4
6	Alzheimer's Disease (G30)	2,466	5.4	69.8
7	Diabetes Mellitus (E10-E14)	1,539	3.4	73.2
8	Influenza and Pneumonia (J10-J18)	810	1.8	74.9
9	Intentional Self-Harm (Suicide) (X60-X84,Y87.0)	796	1.7	76.7
10	Chronic Liver Disease & Cirrhosis (K70,K73-K74)	592	1.3	78.0
	All Other Causes	10,116	22.0	100.0

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

Source: Center for Health Statistics, Washington State Department of Health, 01/2008.

Figure 11. Leading Causes of Death for Residents, 2006



Mortality Table C3. Leading Causes by Age Group and Sex for Residents, 2006

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	45,878	719.6	100.0	22,674	713.6	100.0	23,204	725.5	100.0
Malignant Neoplasms (C00-C97)	11,003	172.6	24.0	5,606	176.4	24.7	5,397	168.7	23.3
Diseases of the Heart (I00-I09,I11,I13,I20-I51)	10,551	165.5	23.0	5,418	170.5	23.9	5,133	160.5	22.1
Cerebrovascular Diseases (I60-I69)	2,711	42.5	5.9	1,050	33.0	4.6	1,661	51.9	7.2
Chronic Lower Respiratory Diseases (J40-J47)	2,648	41.5	5.8	1,198	37.7	5.3	1,450	45.3	6.2
Unintentional Injury (Accident) (V01-X59,Y85-Y86)	2,646	41.5	5.8	1,681	52.9	7.4	965	30.2	4.2
Alzheimer's Disease (G30)	2,466	38.7	5.4	765	24.1	3.4	1,701	53.2	7.3
Diabetes Mellitus (E10-E14)	1,539	24.1	3.4	800	25.2	3.5	739	23.1	3.2
Influenza and Pneumonia (J10-J18)	810	12.7	1.8	372	11.7	1.6	438	13.7	1.9
Intentional Self-Harm (Suicide)(X60-X84,Y87.0)	796	12.5	1.7	621	19.5	2.7	175	5.5	0.8
Chronic Liver Disease & Cirrhosis (K70,K73-K74)	592	9.3	1.3	363	11.4	1.6	229	7.2	1.0
All Other Causes	10,116	158.7	22.0	4,800	151.1	21.2	5,316	166.2	22.9
Under 1									
All Causes	406	467.5	100.0	234	525.4	100.0	172	406.5	100.0
Congenital Malformations (Q00-Q99)	89	102.5	21.9	53	119.0	22.6	36	85.1	20.9
Sudden Infant Death Syndrome (R95)	50	57.6	12.3	29	65.1	12.4	21	49.6	12.2
Short Gestation & Low Birth Weight (P07)	42	48.4	10.3	21	47.2	9.0	21	49.6	12.2
Maternal Complications of Pregnancy (P01)	34	39.2	8.4	20	44.9	8.5	14	33.1	8.1
Complic. of Placenta, Cord & Membranes (P02)	25	28.8	6.2	11	24.7	4.7	14	33.1	8.1
All Other Causes	166	191.1	40.9	100	224.5	42.7	66	156.0	38.4
1-4									
All Causes	67	20.6	100.0	40	24.0	100.0	27	17.0	100.0
Unintentional Injury (Accident) (V01-X59,Y85-Y86)	24	7.4	35.8	16	9.6	40.0	8	5.0	29.6
Assault (Homicide) (X85-Y09,Y87.1)	7	2.2	10.4	5	3.0	12.5	2	.	7.4
Congenital Anomalies (Q00-Q99)	7	2.2	10.4	4	.	10.0	3	.	11.1
Malignant Neoplasms (C00-C97)	6	1.8	9.0	5	3.0	12.5	1	.	3.7
Conditions Originating in Perinatal Period (P00-P96)	4	.	6.0	2	.	5.0	2	.	7.4
All Other Causes	19	5.8	28.4	8	4.8	20.0	11	6.9	40.7
5-14									
All Causes	98	11.4	100.0	59	13.4	100.0	39	9.3	100.0
Unintentional Injury (Accident) (V01-X59,Y85-Y86)	43	5.0	43.9	31	7.0	52.5	12	2.9	30.8
Malignant Neoplasms (C00-C97)	16	1.9	16.3	7	1.6	11.9	9	2.2	23.1
Congenital Anomalies (Q00-Q99)	6	0.7	6.1	6	1.4	10.2	.	.	.
Intentional Self-Harm (Suicide)(X60-X84,Y87.0)	5	0.6	5.1	3	.	5.1	2	.	5.1
Influenza and Pneumonia (J10-J18)	3	.	3.1	2	.	3.4	1	.	2.6
All Other Causes	25	2.9	25.5	10	2.3	16.9	.	.	.
15 - 19									
All Causes	260	56.6	100.0	181	76.8	100.0	79	35.3	100.0
Unintentional Injury (Accident) (V01-X59,Y85-Y86)	140	30.5	53.8	97	41.2	53.6	43	19.2	54.4
Intentional Self-Harm (Suicide)(X60-X84,Y87.0)	39	8.5	15.0	33	14.0	18.2	6	2.7	7.6
Assault (Homicide) (X85-Y09,Y87.1)	19	4.1	7.3	14	5.9	7.7	5	2.2	6.3
Malignant Neoplasms (C00-C97)	17	3.7	6.5	10	4.2	5.5	7	3.1	8.9
Congenital Anomalies (Q00-Q99)	6	1.3	2.3	5	2.1	2.8	1	.	1.3
All Other Causes	39	8.5	15.0	22	9.3	12.2	17	7.6	21.5
20 - 24									
All Causes	384	83.2	100.0	295	124.3	100.0	89	39.7	100.0
Unintentional Injury (Accident) (V01-X59,Y85-Y86)	179	38.8	46.6	147	61.9	49.8	32	14.3	36.0
Intentional Self-Harm (Suicide)(X60-X84,Y87.0)	76	16.5	19.8	66	27.8	22.4	10	4.5	11.2
Assault (Homicide) (X85-Y09,Y87.1)	37	8.0	9.6	30	12.6	10.2	7	3.1	7.9
Malignant Neoplasms (C00-C97)	25	5.4	6.5	17	7.2	5.8	8	3.6	9.0
Diseases of the Heart (I00-I09,I11,I13,I20-I51)	10	2.2	2.6	7	2.9	2.4	3	.	3.4
All Other Causes	57	12.3	14.8	28	11.8	9.5	29	12.9	32.6
25 - 34									
All Causes	694	81.9	100.0	473	109.0	100.0	221	53.4	100.0
Unintentional Injury (Accident) (V01-X59,Y85-Y86)	267	31.5	38.5	196	45.1	41.4	71	17.2	32.1
Intentional Self-Harm (Suicide)(X60-X84,Y87.0)	112	13.2	16.1	85	19.6	18.0	27	6.5	12.2
Malignant Neoplasms (C00-C97)	83	9.8	12.0	43	9.9	9.1	40	9.7	18.1
Diseases of the Heart (I00-I09,I11,I13,I20-I51)	51	6.0	7.3	35	8.1	7.4	16	3.9	7.2
Assault (Homicide) (X85-Y09,Y87.1)	50	5.9	7.2	41	9.4	8.7	9	2.2	4.1
All Other Causes	131	15.5	18.9	73	16.8	15.4	58	14.0	26.2

Mortality Table C3. (Continued) Leading Causes by Age Group and Sex for Residents, 2006

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	1,395	148.0	100.0	867	181.3	100.0	528	113.7	100.0
Unintentional Injury (Accident) (V01-X59,Y85-Y86)	336	35.6	24.1	222	46.4	25.6	114	24.6	21.6
Malignant Neoplasms (C00-C97)	251	26.6	18.0	121	25.3	14.0	130	28.0	24.6
Diseases of the Heart (I00-I09,I11,I13,I20-I51)	185	19.6	13.3	126	26.3	14.5	59	12.7	11.2
Intentional Self-Harm (Suicide)(X60-X84,Y87.0)	127	13.5	9.1	101	21.1	11.6	26	5.6	4.9
Chronic Liver Disease & Cirrhosis (K70,K73-K74)	58	6.2	4.2	28	5.9	3.2	30	6.5	5.7
All Other Causes	438	46.5	31.4	269	56.2	31.0	169	36.4	32.0
45 - 54									
All Causes	3,372	348.7	100.0	2,072	430.3	100.0	1,300	267.8	100.0
Malignant Neoplasms (C00-C97)	930	96.2	27.6	448	93.0	21.6	482	99.3	37.1
Diseases of the Heart (I00-I09,I11,I13,I20-I51)	574	59.4	17.0	431	89.5	20.8	143	29.5	11.0
Unintentional Injury (Accident) (V01-X59,Y85-Y86)	501	51.8	14.9	345	71.6	16.7	156	32.1	12.0
Intentional Self-Harm (Suicide)(X60-X84,Y87.0)	199	20.6	5.9	146	30.3	7.0	53	10.9	4.1
Chronic Liver Disease & Cirrhosis (K70,K73-K74)	155	16.0	4.6	105	21.8	5.1	50	10.3	3.8
All Other Causes	1,013	104.8	30.0	597	124.0	28.8	416	85.7	32.0
55 - 64									
All Causes	5,336	762.5	100.0	3,148	912.4	100.0	2,188	616.8	100.0
Malignant Neoplasms (C00-C97)	2,034	290.7	38.1	1,076	311.9	34.2	958	270.0	43.8
Diseases of the Heart (I00-I09,I11,I13,I20-I51)	1,012	144.6	19.0	706	204.6	22.4	306	86.3	14.0
Unintentional Injury (Accident) (V01-X59,Y85-Y86)	278	39.7	5.2	194	56.2	6.2	84	23.7	3.8
Chronic Lower Respiratory Diseases (J40-J47)	259	37.0	4.9	118	34.2	3.7	141	39.7	6.4
Diabetes Mellitus (E10-E14)	233	33.3	4.4	137	39.7	4.4	96	27.1	4.4
All Other Causes	1,520	217.2	28.5	917	265.8	29.1	603	170.0	27.6
65 - 74									
All Causes	6,996	1,888.1	100.0	3,904	2,213.7	100.0	3,092	1,592.4	100.0
Malignant Neoplasms (C00-C97)	2,598	701.2	37.1	1,387	786.5	35.5	1,211	623.7	39.2
Diseases of the Heart (I00-I09,I11,I13,I20-I51)	1,471	397.0	21.0	956	542.1	24.5	515	265.2	16.7
Chronic Lower Respiratory Diseases (J40-J47)	580	156.5	8.3	289	163.9	7.4	291	149.9	9.4
Cerebrovascular Diseases (I60-I69)	326	88.0	4.7	144	81.7	3.7	182	93.7	5.9
Diabetes Mellitus (E10-E14)	316	85.3	4.5	188	106.6	4.8	128	65.9	4.1
All Other Causes	1,705	460.2	24.4	940	533.0	24.1	765	394.0	24.7
75-84									
All Causes	12,386	5,011.7	100.0	6,140	5,971.3	100.0	6,246	4,328.0	100.0
Malignant Neoplasms (C00-C97)	3,198	1,294.0	25.8	1,664	1,618.3	27.1	1,534	1,063.0	24.6
Diseases of the Heart (I00-I09,I11,I13,I20-I51)	2,956	1,196.1	23.9	1,544	1,501.6	25.1	1,412	978.4	22.6
Chronic Lower Respiratory Diseases (J40-J47)	1,031	417.2	8.3	474	461.0	7.7	557	386.0	8.9
Cerebrovascular Diseases (I60-I69)	836	338.3	6.7	353	343.3	5.7	483	334.7	7.7
Alzheimer's Disease (G30)	675	273.1	5.4	264	256.7	4.3	411	284.8	6.6
All Other Causes	3,690	1,493.1	29.8	1,841	1,790.4	30.0	1,849	1,281.2	29.6
85 and Over									
All Causes	14,483	13,288.0	100.0	5,260	14,959.0	100.0	9,223	12,492.0	100.0
Diseases of the Heart (I00-I09,I11,I13,I20-I51)	4,286	3,932.4	29.6	1,610	4,578.8	30.6	2,676	3,624.5	29.0
Malignant Neoplasms (C00-C97)	1,842	1,690.0	12.7	827	2,352.0	15.7	1,015	1,374.8	11.0
Alzheimer's Disease (G30)	1,645	1,509.3	11.4	428	1,217.2	8.1	1,217	1,648.4	13.2
Cerebrovascular Diseases (I60-I69)	1,233	1,131.3	8.5	378	1,075.0	7.2	855	1,158.1	9.3
Chronic Lower Respiratory Diseases (J40-J47)	679	623.0	4.7	265	753.7	5.0	414	560.7	4.5
All Other Causes	4,798	4,402.2	33.1	1,752	4,982.7	33.3	3,046	4,125.7	33.0

[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 C5. Age-Adjusted Rates for Selected Causes by Sex for Residents, 2006

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]	(45,878)	(723.2)	(22,674)	(852.3)	(23,204)	(621.7)
Certain Infectious & Parasitic Disease (A00-B99)	(936)	(14.4)	(495)	(16.9)	(441)	(12.1)
Tuberculosis (A16-A19)	12	0.2	9	0.3	3	*
Septicemia (A40-A41)	368	5.8	180	6.8	188	5.1
Viral Hepatitis (B15-B19)	164	2.4	98	2.8	66	1.9
HIV (B20-B24)	100	1.5	80	2.4	20	0.6
Other (A00-A15,A20-A39,A42-B14,B25-B99)	292	4.5	128	4.6	164	4.4
Neoplasms (C00-D48)	(11,257)	(179.6)	(5,734)	(212.6)	(5,523)	(157.2)
Malignant Neoplasms (C00-C97)	11,003	175.6	5,606	207.4	5,397	153.9
In Situ & Benign Neoplasms (D00-D48)	254	4.1	128	5.2	126	3.3
Diseases of Blood & Blood-Forming Organs (D50-D89)	(139)	(2.2)	(57)	(2.2)	(82)	(2.2)
Anemias (D50-D64)	57	0.9	20	0.8	37	0.9
Other (D65-D89)	82	1.3	37	1.4	45	1.3
Endocrine, Nutritional & Metabolic Diseases (E00-E90)	(2,126)	(33.7)	(1,058)	(39.3)	(1,068)	(29.4)
Diabetes Mellitus (E10-E14)	1,539	24.7	800	30.0	739	20.6
Nutritional Diseases (E40-E64)	44	0.7	14	0.6	30	0.7
Other (E00-E09,E15-E39,E65-E90)	543	8.4	244	8.7	299	8.0
Mental & Behavioral Disorders (F01-F99)	(1,456)	(22.4)	(587)	(23.5)	(869)	(21.1)
Diseases of the Nervous System (G00-G98)	(3,621)	(56.6)	(1,420)	(58.2)	(2,201)	(54.6)
Meningitis (G00-G03)	9	0.1	4	*	5	0.1
Amyotrophic Lateral Sclerosis (G12.2)	165	2.6	106	3.7	59	1.7
Parkinson's Disease (G20-G21)	465	7.6	280	12.0	185	4.8
Alzheimer's Disease (G30)	2,466	38.1	765	33.0	1,701	40.6
Multiple Sclerosis (G35)	115	1.7	42	1.3	73	2.0
Other (G04-G12.1,G12.3-G19,G22-G29,G31-G34,G36-G98)	401	6.4	223	8.1	178	5.2
Diseases of the Eye & Ear (H00-H93)	(3)	(*)	(2)	(*)	(1)	(*)
Diseases of the Circulatory System (I00-I99)	(14,472)	(227.6)	(7,018)	(273.6)	(7,454)	(191.8)
Major Cardiovascular Diseases (I00-I78)	(14,391)	(226.4)	(6,984)	(272.5)	(7,407)	(190.5)
Diseases of the Heart (I00-I09,I11,I13,I20-I51)	(10,551)	(165.7)	(5,418)	(209.7)	(5,133)	(131.9)
Acute & Chronic Rheumatic Disease (I00-I09)	102	1.6	37	1.5	65	1.7
Hypertensive Heart Disease (I11)	724	11.2	323	11.8	401	10.1
Hypertensive Heart & Renal Disease (I13)	77	1.2	28	1.1	49	1.2
Ischemic Heart Diseases (I20-I25)	(7,264)	(114.6)	(4,000)	(154.7)	(3,264)	(84.2)
Acute Myocardial Infarction (I21-I22)	2,147	34.1	1,199	45.6	948	25.1
Other Acute Ischemic Heart Disease (I24)	31	0.5	14	0.5	17	0.5
Other Chronic Ischemic Heart Disease (I20,I25)	(5,086)	(80.0)	(2,787)	(108.6)	(2,299)	(58.6)
Atherosclerotic Cardiovascular Disease (I25.0)	1,459	22.7	783	28.7	676	17.3
All Other Chronic Disease (I20,I25.1-I25.9)	3,627	57.3	2,004	79.9	1,623	41.3
Other Heart Diseases (I26-I51)	(2,384)	(37.2)	(1,030)	(40.7)	(1,354)	(34.8)
Acute & Subacute Endocarditis (I33)	27	0.4	15	0.5	12	0.3
Disease Pericardium & Acute Myocarditis (I30-I31,I40)	16	0.2	7	0.2	9	0.3
Heart Failure (I50)	532	8.2	223	9.5	309	7.6
All Other Heart disease (I26-I28,I34-I38,I42-I49,I51)	1,809	28.3	785	30.4	1,024	26.6
Hypertension & Hypertensive Renal Disease (I10,I12)	443	7.0	168	6.7	275	7.0
Cerebrovascular Diseases (I60-I69)	2,711	42.8	1,050	42.3	1,661	42.9
Atherosclerosis (I70)	190	2.9	72	3.0	118	2.9
Other Diseases of Circulatory System (I71-I78)	(495)	(8.0)	(275)	(10.8)	(220)	(5.9)
Aortic Aneurysm & Dissection (I71)	306	5.0	196	7.6	110	3.0
Other Disease of Arteries (I72-I78)	189	3.0	79	3.2	110	2.9
Other (I80-I99)	81	1.2	34	1.1	47	1.3

Mortality Table C5. (Continued) Age-Adjusted Rates for Selected Causes by Sex for Residents, 2006

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)	(4,436)	(71.5)	(2,077)	(83.0)	(2,359)	(64.4)
Influenza and Pneumonia (J10-J18)	(810)	(12.6)	(372)	(15.0)	(438)	(11.2)
Influenza (J10-J11)	23	0.3	10	0.4	13	0.3
Pneumonia (J12-J18)	787	12.3	362	14.7	425	10.9
Other Acute Lower Respiratory Infections (J20-J22)	2	*	0	*	2	*
Chronic Lower Respiratory Disease (J40-J47)	(2,648)	(43.3)	(1,198)	(47.6)	(1,450)	(40.7)
Bronchitis, Chronic and Unspecified (J40-J42)	5	0.1	3	*	2	*
Emphysema (J43)	206	3.3	109	4.3	97	2.8
Asthma (J45-J46)	76	1.2	25	0.9	51	1.4
Other Chronic Lower Respiratory Disease (J44,J47)	2,361	38.7	1,061	42.3	1,300	36.5
Pneumoconioses & Chemical Effects (J60-J66,J68)	15	0.3	14	0.6	1	*
Pneumonitis Due to Solids & Liquids (J69)	439	6.8	218	9.0	221	5.6
Other (J00-J06,J30-J39,J67,J70-J98)	522	8.4	275	10.8	247	6.8
Diseases of the Digestive System (K00-K92)	(1,778)	(27.7)	(858)	(30.2)	(920)	(25.1)
Peptic Ulcer (K25-K28)	91	1.4	49	1.8	42	1.1
Diseases of Appendix (K35-K38)	12	0.2	9	0.3	3	*
Hernia (K40-K46)	41	0.6	17	0.7	24	0.6
Chronic Liver Disease & Cirrhosis (K70,K73-K74)	(592)	(8.9)	(363)	(11.4)	(229)	(6.6)
Alcoholic Liver Disease (K70)	459	6.8	307	9.5	152	4.4
Other (K73-K74)	133	2.1	56	1.9	77	2.2
Cholelithiasis & Other Gallbladder Disease (K80-K82)	70	1.1	27	1.1	43	1.1
Other (K00-K24,K29-K34,K39,K47-K69,K71-K72,K75-K79,K83-K92)	972	15.4	393	15.0	579	15.6
Diseases of Skin & Subcutaneous Tissue (L00-L98)	(84)	(1.3)	(38)	(1.5)	(46)	(1.1)
Diseases Musculoskeletal & Connective Tissue (M00-M99)	(364)	(5.7)	(124)	(4.8)	(240)	(6.4)
Diseases of the Genitourinary System (N00-N98)	(798)	(12.5)	(356)	(14.2)	(442)	(11.4)
Nephritis (N00-N07,N17-N19,N25-N27)	(421)	(6.6)	(206)	(8.0)	(215)	(5.6)
Acute Nephrotic Syndrome (N00-N01,N04)	2	*	1	*	1	*
Chronic Nephritis & Unsp. Nephritis(N02-N03,N05-N07,N26)	24	0.4	11	0.4	13	0.4
Renal Failure (N17-N19)	394	6.2	194	7.5	200	5.2
Other Disorders of Kidney (N25,N27)	1	*	0	*	1	*
Infections of Kidney (N10-N12,N13.6,N15.1)	18	0.3	7	0.3	11	0.3
Hyperplasia of Prostate (N40)	n/a	n/a	20	0.9	n/a	n/a
Other(N13.0-N13.5,N13.7-N15.0,N15.8-N16,N20-N23,N28-N39,N41-N99)	339	5.3	123	5.1	216	5.5
Pregnancy, Childbirth & Puerperium (O00-O99)	n/a	n/a	n/a	n/a	(9)	(0.3)
Conditions Originating in Perinatal Period (P00-P96)	(190)	(3.0)	(101)	(3.1)	(89)	(2.9)
Congenital Anomalies (Q00-Q99)	(186)	(2.9)	(108)	(3.4)	(78)	(2.4)
Symptoms & Signs Not Elsewhere Classified (R00-R99)	(239)	(3.7)	(108)	(3.9)	(131)	(3.4)
Sudden Infant Death Syndrome (R95)	50	0.8	29	0.9	21	0.7
Other (R00-R94,R96-R99)	189	2.9	79	3.0	110	2.7
External Causes of Mortality (V01-Y89)	(3,784)	(58.2)	(2,533)	(81.8)	(1,251)	(35.9)
Unintentional Injury or Accident (V01-X59,Y85-Y86)	(2,646)	(40.8)	(1,681)	(55.0)	(965)	(27.3)
Transport Accidents (V01-V99,Y85)	794	12.2	588	18.3	206	6.3
Nontransport Accidents (W00-X59,Y86)	1,852	28.6	1,093	36.8	759	21.0
Intentional Self-Harm (Suicide) (X60-X84,Y87.0)	796	12.2	621	19.6	175	5.2
Assault (Homicide) (X85-Y09,Y87.1)	219	3.4	166	5.1	53	1.7
Legal Intervention (Y35,Y89.0)	10	0.2	9	0.3	1	*
Events of Undetermined Intent (Y10-Y34,Y87.2,Y89.9)	88	1.4	48	1.5	40	1.2
Operations of War & Sequelae (Y36,Y89.1)	1	*	1	*	0	*
Complications of Medical & Surgical Care (Y40-Y84,Y88)	24	0.4	7	0.3	17	0.5

[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 D3. Cancer for Total All Sites, Lung, and Colo-Rectal by County of Residence, 2006

	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	**11,003**	**172.6**	**175.6**	**3,074**	**48.2**	**49.8**	**944**	**14.8**	**15.0**
Adams	23	133.0	148.9	7	40.5	44.7	2	*	*
Asotin	45	213.3	178.5	18	85.3	64.9	5	23.7	22.0
Benton	276	171.9	188.7	67	41.7	46.8	32	19.9	21.9
Chelan	111	158.3	133.8	34	48.5	42.2	6	8.6	7.2
Clallam	221	326.0	198.3	61	90.0	55.4	18	26.5	15.4
Clark	646	160.1	182.2	183	45.4	53.0	56	13.9	15.7
Columbia	11	268.2	170.2	2	*	*	2	*	*
Cowlitz	219	226.2	198.4	68	70.2	63.7	20	20.7	18.2
Douglas	65	182.1	176.0	24	67.2	64.6	5	14.0	13.5
Ferry	21	280.0	254.5	5	66.7	64.6	0	*	*
Franklin	66	102.8	138.1	18	28.0	35.8	8	12.5	17.4
Garfield	9	375.3	236.7	6	250.2	159.2	1	*	*
Grant	147	182.4	192.0	41	50.9	53.6	14	17.4	19.2
Grays Harbor	161	228.7	182.9	57	81.0	65.2	12	17.0	14.4
Island	167	216.3	187.1	46	59.6	51.1	18	23.3	20.2
Jefferson	83	294.3	183.3	25	88.7	54.2	2	*	*
King	2,783	151.6	159.6	701	38.2	40.7	255	13.9	14.3
Kitsap	410	168.4	176.6	119	48.9	52.3	35	14.4	14.8
Kittitas	55	147.1	148.4	14	37.4	35.8	7	18.7	18.9
Klickitat	30	151.5	139.1	12	60.6	54.7	1	*	*
Lewis	181	248.3	195.2	47	64.5	50.1	16	21.9	18.0
Lincoln	23	225.5	146.2	10	98.0	61.8	1	*	*
Mason	155	291.9	226.8	51	96.0	76.2	15	28.2	22.8
Okanogan	81	203.5	175.5	17	42.7	37.2	7	17.6	16.7
Pacific	60	279.1	171.0	26	120.9	74.2	2	*	*
Pend Oreille	36	292.6	252.8	8	65.0	48.8	4	*	*
Pierce	1,299	167.9	185.8	388	50.2	56.5	103	13.3	15.0
San Juan	40	254.8	152.2	9	57.3	36.8	3	*	*
Skagit	223	197.2	165.4	64	56.6	48.0	22	19.5	16.1
Skamania	27	254.7	258.6	6	56.6	46.2	4	*	*
Snohomish	975	145.1	172.5	278	41.4	50.7	75	11.2	13.2
Spokane	864	194.7	184.4	254	57.2	54.7	75	16.9	15.7
Stevens	93	220.9	202.4	22	52.3	47.8	6	14.3	13.9
Thurston	513	222.0	218.9	148	64.0	63.9	39	16.9	16.5
Wahkiakum	10	256.4	198.6	5	128.2	81.9	0	*	*
Walla Walla	106	183.1	151.7	27	46.6	37.5	13	22.5	17.0
Whatcom	352	191.0	192.2	95	51.5	53.4	26	14.1	13.9
Whitman	54	126.2	157.4	12	28.0	34.9	3	*	*
Yakima	362	156.2	161.7	99	42.7	45.8	31	13.4	13.7

[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, 2006

County	Female Breast (C50)			Prostate (C61)			Pancreas (C25)		
	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	**809**	**25.3**	**22.9**	**610**	**19.2**	**25.1**	**650**	**10.2**	**10.3**
Adams	0	*	*	0	*	*	1	*	*
Asotin	3	*	*	2	*	*	0	*	*
Benton	28	34.7	32.8	15	18.8	28.8	8	5.0	6.0
Chelan	3	*	*	9	25.8	25.8	10	14.3	12.0
Clallam	21	61.3	34.9	13	38.7	26.8	12	17.7	10.4
Clark	44	21.7	20.9	31	15.5	23.9	45	11.2	12.6
Columbia	2	*	*	0	*	*	0	*	*
Cowlitz	14	28.7	24.5	17	35.4	39.6	12	12.4	10.5
Douglas	1	*	*	0	*	*	4	*	*
Ferry	5	138.8	122.8	3	*	*	1	*	*
Franklin	4	*	*	4	*	*	3	*	*
Garfield	1	*	*	1	*	*	0	*	*
Grant	8	20.3	19.7	9	21.8	24.9	3	*	*
Grays Harbor	9	25.4	19.1	7	20.0	19.9	10	14.2	10.9
Island	4	*	*	5	12.9	14.9	11	14.2	12.4
Jefferson	7	49.4	28.3	6	42.8	30.1	4	*	*
King	238	25.8	23.6	183	20.0	27.8	155	8.4	8.8
Kitsap	24	20.0	18.0	21	17.0	23.3	27	11.1	11.0
Kittitas	5	26.6	27.2	3	*	*	3	*	*
Klickitat	2	*	*	2	*	*	2	*	*
Lewis	12	32.7	26.1	13	35.9	33.6	18	24.7	19.0
Lincoln	2	*	*	0	*	*	0	*	*
Mason	7	27.3	20.3	4	*	*	12	22.6	18.2
Okanogan	8	40.2	30.8	7	35.2	36.1	7	17.6	13.5
Pacific	1	*	*	5	46.9	31.4	3	*	*
Pend Oreille	2	*	*	0	*	*	4	*	*
Pierce	89	22.9	22.2	58	15.1	22.3	73	9.4	10.6
San Juan	2	*	*	2	*	*	3	*	*
Skagit	16	28.1	22.0	8	14.3	13.6	11	9.7	7.8
Skamania	2	*	*	5	93.5	127.9	1	*	*
Snohomish	69	20.6	21.6	52	15.5	26.0	60	8.9	10.4
Spokane	56	24.8	21.2	48	22.0	26.0	56	12.6	12.1
Stevens	8	37.9	31.4	4	*	*	8	19.0	15.9
Thurston	35	29.7	26.5	28	24.7	31.5	30	13.0	12.9
Wahkiakum	1	*	*	0	*	*	1	*	*
Walla Walla	14	49.3	38.1	5	17.0	17.3	5	8.6	7.5
Whatcom	26	27.8	26.1	24	26.4	31.5	20	10.9	10.4
Whitman	8	37.9	37.1	2	*	*	4	*	*
Yakima	28	24.1	22.4	14	12.1	15.0	23	9.9	10.4

[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.

Mortality Table E8. Unintentional Injury (Accident), Motor Vehicle Traffic, and Falls by County of Residence, 2006

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	**2,646**	**41.5**	**40.8**	**687**	**10.8**	**10.5**	**656**	**10.3**	**10.2**
Adams	4	*	*	0	*	*	1	*	*
Asotin	14	66.3	57.3	5	23.7	23.9	2	*	*
Benton	65	40.5	42.5	17	10.6	11.0	15	9.3	10.8
Chelan	32	45.6	42.3	9	12.8	12.7	9	12.8	10.6
Clallam	57	84.1	75.7	10	14.7	11.4	18	26.5	16.9
Clark	127	31.5	33.3	29	7.2	7.3	29	7.2	8.4
Columbia	4	*	*	0	*	*	0	*	*
Cowlitz	64	66.1	62.1	15	15.5	15.1	19	19.6	17.3
Douglas	21	58.8	58.3	10	28.0	28.9	3	*	*
Ferry	9	120.0	131.4	3	*	*	1	*	*
Franklin	14	21.8	25.0	4	*	*	2	*	*
Garfield	1	*	*	0	*	*	0	*	*
Grant	51	63.3	64.4	21	26.1	24.7	11	13.6	14.7
Grays Harbor	44	62.5	60.3	14	19.9	20.1	12	17.0	14.0
Island	40	51.8	50.9	12	15.5	15.5	17	22.0	20.6
Jefferson	16	56.7	49.4	6	21.3	24.2	3	*	*
King	662	36.1	35.0	146	8.0	7.7	163	8.9	8.9
Kitsap	83	34.1	33.9	22	9.0	8.8	32	13.1	13.5
Kittitas	8	21.4	21.1	2	*	*	4	*	*
Klickitat	6	30.3	31.6	1	*	*	1	*	*
Lewis	42	57.6	51.4	14	19.2	19.3	12	16.5	11.5
Lincoln	5	49.0	48.5	3	*	*	0	*	*
Mason	38	71.6	67.3	13	24.5	25.0	8	15.1	12.6
Okanogan	32	80.4	77.2	11	27.6	29.0	5	12.6	9.9
Pacific	15	69.8	61.6	6	27.9	32.2	5	23.3	17.8
Pend Oreille	8	65.0	61.8	2	*	*	1	*	*
Pierce	287	37.1	37.6	75	9.7	9.4	63	8.1	9.0
San Juan	7	44.6	45.5	2	*	*	2	*	*
Skagit	60	53.0	48.5	22	19.5	19.0	13	11.5	8.8
Skamania	6	56.6	65.4	2	*	*	0	*	*
Snohomish	268	39.9	41.9	63	9.4	9.4	65	9.7	11.7
Spokane	235	53.0	50.3	27	6.1	6.1	70	15.8	13.8
Stevens	37	87.9	85.5	12	28.5	31.2	10	23.8	21.1
Thurston	85	36.8	36.0	32	13.8	13.6	14	6.1	6.0
Wahkiakum	5	128.2	129.4	2	*	*	2	*	*
Walla Walla	29	50.1	38.9	4	*	*	18	31.1	21.1
Whatcom	65	35.3	36.2	20	10.9	10.4	9	4.9	4.4
Whitman	13	30.4	36.4	7	16.4	19.7	1	*	*
Yakima	87	37.5	38.7	44	19.0	19.2	16	6.9	7.0

[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 F8. Fetal Deaths, Perinatal, Neonatal, and Infant Mortality by County/City of Residence, 2006

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	**490**	**5.6**	**706**	**8.1**	**260**	**3.0**	**406**	**4.7**
Adams	3	*	3	*	0	*	1	*
Asotin	3	*	3	*	0	*	0	*
Benton	15	6.4	26	11.0	13	5.6	17	7.3
Kennewick	9	7.3	14	11.3	6	4.9	9	7.3
Richland	2	*	5	9.1	4	*	5	9.1
Chelan	5	5.1	7	7.1	2	*	2	*
Wenatchee	4	*	5	8.5	1	*	1	*
Clallam	5	7.7	9	13.8	4	*	4	*
Port Angeles	3	*	5	19.5	2	*	2	*
Clark	18	3.1	26	4.5	8	1.4	15	2.6
Battle Ground	0	*	2	*	2	*	3	*
Camas	1	*	1	*	0	*	0	*
Vancouver	12	3.2	17	4.5	5	1.3	11	3.0
Columbia	0	*	0	*	0	*	0	*
Cowlitz	4	*	7	5.3	3	*	9	6.8
Longview	1	*	3	*	2	*	5	8.8
Douglas	1	*	2	*	1	*	1	*
Ferry	1	*	2	*	1	*	2	*
Franklin	12	7.8	19	12.3	8	5.2	9	5.9
Pasco	12	9.2	16	12.1	5	3.8	6	4.6
Garfield	1	*	1	*	0	*	0	*
Grant	13	8.4	25	16.0	12	7.7	14	9.0
Moses Lake	1	*	4	*	3	*	3	*
Grays Harbor	3	*	3	*	1	*	4	*
Aberdeen	2	*	2	*	0	*	1	*
Island	9	9.6	12	12.7	3	*	4	*
Oak Harbor	6	11.0	8	14.5	2	*	3	*
Jefferson	1	*	2	*	1	*	2	*
King	129	5.3	190	7.8	68	2.8	100	4.1
Auburn	7	6.4	12	10.8	5	4.5	8	7.3
Bellevue	5	3.5	9	6.2	4	*	6	4.2
Bothell part	2	*	2	*	0	*	0	*
Burien	5	12.0	5	11.9	0	*	3	*
Covington	1	*	2	*	1	*	1	*
Des Moines	0	*	1	*	1	*	1	*
Federal Way	11	8.2	12	8.9	2	*	6	4.5
Issaquah	3	*	6	10.5	3	*	3	*
Kenmore	0	*	0	*	0	*	0	*
Kent	8	4.6	12	6.8	4	*	9	5.1
Kirkland	4	*	5	6.3	1	*	1	*
Maple Valley	4	*	4	*	0	*	0	*
Mercer Island	2	*	2	*	0	*	0	*
Redmond	5	5.1	6	6.1	3	*	3	*
Renton	12	7.1	16	9.4	4	*	6	3.6
Sammamish	2	*	4	*	3	*	3	*
SeaTac	2	*	5	13.6	3	*	3	*
Seattle	40	5.3	60	7.9	22	2.9	28	3.7

Mortality Table F8. (Continued) Fetal Deaths, Perinatal, Neonatal, and Infant Mortality by County/City of Residence, 2006

County and City	Fetal Deaths		Perinatal Mortality		Neonatal Mortality		Infant Mortality	
	Number	Ratio[1]	Number	Rate[2]	Number	Rate[3]	Number	Rate[4]
Shoreline	2	*	3	*	1	*	1	*
Tukwila	1	*	2	*	1	*	3	*
Kitsap	24	7.9	28	9.1	7	2.3	11	3.6
Bainbridge Island	2	*	2	*	1	*	1	*
Bremerton	9	8.9	10	9.8	1	*	1	*
Kittitas	1	*	2	*	1	*	2	*
Ellensburg	0	*	0	*	0	*	1	*
Klickitat	0	*	0	*	0	*	3	*
Lewis	8	8.5	9	9.5	1	*	1	*
Centralia	2	*	2	*	0	*	0	*
Lincoln	1	*	1	*	0	*	0	*
Mason	4	*	6	9.4	3	*	4	*
Okanogan	4	*	6	10.0	2	*	3	*
Pacific	0	*	0	*	0	*	0	*
Pend Oreille	0	*	1	*	1	*	1	*
Pierce	61	5.5	83	7.4	33	3.0	58	5.2
Bonney Lake	2	*	2	*	1	*	2	*
Lakewood	2	*	7	7.1	8	8.1	12	12.1
Puyallup	9	7.0	12	9.3	3	*	4	*
Tacoma	26	6.5	31	7.7	9	2.3	15	3.8
University Place	6	15.0	7	17.2	1	*	2	*
San Juan	1	*	1	*	0	*	1	*
Skagit	7	4.7	7	4.6	1	*	2	*
Anacortes	1	*	1	*	0	*	0	*
Mount Vernon	2	*	2	*	1	*	2	*
Skamania	0	*	0	*	0	*	1	*
Snohomish	64	7.1	84	9.2	25	2.8	37	4.1
Arlington	2	*	2	*	0	*	0	*
Bothell part	7	10.8	7	10.6	0	*	0	*
Edmonds	1	*	1	*	0	*	0	*
Everett	17	7.3	21	8.9	6	2.6	11	4.7
Lynnwood	5	4.8	8	7.6	3	*	6	5.7
Marysville	3	*	8	9.9	7	8.7	7	8.7
Mill Creek	0	*	0	*	0	*	0	*
Monroe	6	18.6	9	27.4	3	*	3	*
Mountlake Terrace	0	*	0	*	0	*	0	*
Mukilteo	0	*	1	*	1	*	1	*
Spokane	25	4.2	38	6.3	16	2.7	27	4.5
Spokane (city)	17	4.6	26	7.1	11	3.0	18	4.9
Spokane Valley	3	*	5	6.8	3	*	4	*
Stevens	3	*	5	10.2	3	*	5	10.3
Thurston	16	5.8	22	7.9	9	3.2	15	5.4
Lacey	5	8	6	9.6	1	*	2	*
Olympia	6	5.7	8	7.5	3	*	5	4.7
Wahkiakum	0	*	0	*	0	*	0	*
Walla Walla	2	*	5	7.1	3	*	5	7.1
Walla Walla (city)	1	*	4	*	3	*	5	11.1
Whatcom	15	6.8	22	9.9	8	3.6	14	6.3

Mortality Table F8. (Continued) Fetal Deaths, Perinatal, Neonatal, and Infant Mortality by County/City of Residence, 2006

County and City	Fetal Deaths		Perinatal Mortality		Neonatal Mortality		Infant Mortality	
	Number	Ratio[1]	Number	Rate[2]	Number	Rate[3]	Number	Rate[4]
Bellingham	6	7.1	8	9.5	2	*	3	*
Whitman	3	*	4	*	1	*	1	*
Pullman	2	*	3	*	1	*	1	*
Yakima	28	6.4	45	10.3	21	4.8	31	7.1
Yakima (city)	14	8	21	12	9	5.2	14	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.

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, 1996 - 2006

	Percent of Births[1] where Mother is…			
	A Teenager (<20)	Unmarried	Not a High School Graduate	A Woman of Color[2]
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
2004	8.4	30.2	19.3	33.3
2005	8.3	30.8	19.2	33.9
2006	8.3	31.7	18.7	34.5

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

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

Trends for teenagers, women of color, and unmarried mothers continue as they have over the decade. The percent of births to women without a high school degree 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). The percent of women without a high school degree has since declined, as it did for 1998-2002.

Natality Table A9. Mother's Age Group by County of Residence, 2006

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	**86,845**	**82**	**7,108**	**2,062**	**5,046**	**20,680**	**24,938**	**20,303**	**11,097**	**2,434**	**160**	**43**
Adams	386	1	64	27	37	118	105	50	37	9	1	1
Asotin	245	0	29	6	23	94	65	35	19	3	0	0
Benton	2,339	6	240	78	162	656	691	477	219	43	7	0
Chelan	982	0	131	49	82	278	265	195	95	17	1	0
Clallam	647	2	72	24	48	207	184	119	45	16	0	2
Clark	5,789	4	415	110	305	1,375	1,812	1,354	683	139	6	1
Columbia	45	0	3	1	2	12	18	5	4	3	0	0
Cowlitz	1,325	0	146	56	90	472	386	212	87	20	2	0
Douglas	543	1	72	26	46	146	166	98	47	12	1	0
Ferry	62	1	9	2	7	21	20	7	3	0	0	1
Franklin	1,535	5	216	90	126	411	452	309	106	33	2	1
Garfield	16	0	3	2	1	7	3	1	1	1	0	0
Grant	1,549	1	230	70	160	473	446	261	112	25	1	0
Grays Harbor	884	4	115	35	80	284	250	147	65	18	1	0
Island	933	0	67	16	51	284	290	178	94	17	2	1
Jefferson	221	0	14	4	10	55	56	56	30	10	0	0
King	24,244	15	1,156	315	841	3,782	6,100	7,314	4,762	1,021	79	15
Kitsap	3,040	1	253	58	195	859	913	611	320	77	5	1
Kittitas	375	0	23	7	16	103	123	78	41	6	0	1
Klickitat	212	0	20	4	16	61	55	49	19	8	0	0
Lewis	939	0	130	29	101	291	300	134	62	19	3	0
Lincoln	114	0	13	0	13	30	38	20	12	1	0	0
Mason	632	1	75	26	49	223	182	91	47	13	0	0
Okanogan	594	1	92	30	62	186	155	106	42	10	2	0
Pacific	196	1	26	11	15	72	52	31	8	5	1	0
Pend Oreille	142	0	26	9	17	52	32	22	10	0	0	0
Pierce	11,139	6	1,014	241	773	3,125	3,326	2,302	1,082	259	16	9
San Juan	85	0	1	1	0	28	19	19	13	5	0	0
Skagit	1,500	3	181	75	106	419	418	285	164	28	2	0
Skamania	110	0	8	0	8	31	30	23	15	3	0	0
Snohomish	9,070	7	578	145	433	1,969	2,747	2,271	1,243	246	5	4
Spokane	5,986	10	523	122	401	1,655	1,896	1,212	553	132	5	0
Stevens	485	0	53	16	37	164	134	81	37	15	1	0
Thurston	2,771	2	173	52	121	695	892	627	300	74	6	2
Wahkiakum	25	0	3	0	3	10	7	4	1	0	0	0
Walla Walla	705	0	99	25	74	184	221	128	57	15	1	0
Whatcom	2,209	3	166	53	113	489	679	530	283	55	3	1
Whitman	413	0	14	1	13	80	149	109	52	9	0	0
Yakima	4,358	7	655	246	409	1,279	1,261	752	327	67	7	3

Natality Table A10. Age Specific Live Birth Rates[1] by County of Residence, 2006

County	All Ages	15-19	15-17	18-19	20-24	25-29	30-34	35-39	40-44
State Total	**65.5**	**31.8**	**15.2**	**57.0**	**92.2**	**118.5**	**100.0**	**49.3**	**10.2**
Adams	116.2	88.0	57.6	143.4	200.3	193.4	104.8	77.9	17.6
Asotin	61.2	36.4	11.7	80.7	148.5	111.1	61.9	27.9	*
Benton	72.4	37.8	19.0	72.3	130.4	145.8	102.1	39.8	7.2
Chelan	74.8	51.8	30.4	89.4	137.7	133.1	105.0	42.5	6.8
Clallam	62.6	34.2	17.6	64.7	145.5	136.5	90.7	24.1	7.0
Clark	69.2	29.6	12.4	59.3	104.9	135.7	102.0	46.3	9.2
Columbia	69.0	*	*	*	118.8	219.5	59.5	*	*
Cowlitz	72.6	43.3	26.2	72.9	162.5	137.1	78.0	28.3	5.9
Douglas	78.8	51.9	28.7	95.6	141.7	167.5	103.3	38.9	9.1
Ferry	49.1	30.7	*	76.9	122.8	120.5	42.4	*	*
Franklin	119.1	80.0	52.6	127.3	171.8	201.2	170.3	55.4	18.1
Garfield	42.8	*	*	*	189.2	*	*	*	*
Grant	99.8	70.5	33.4	137.0	177.5	177.3	117.7	47.3	10.0
Grays Harbor	69.7	44.8	21.3	86.6	149.9	138.2	83.0	30.3	7.2
Island	65.9	28.3	10.5	60.1	124.0	134.8	82.4	36.8	6.4
Jefferson	56.1	18.5	*	42.2	127.3	125.3	103.7	41.6	9.6
King	59.8	20.7	9.6	36.8	56.5	84.5	107.2	68.0	14.1
Kitsap	63.9	30.1	10.6	66.3	114.9	134.4	85.9	37.9	8.2
Kittitas	41.7	12.8	10.5	14.2	32.7	117.0	92.4	40.8	5.2
Klickitat	62.2	29.5	*	79.6	139.9	114.6	106.5	31.0	10.7
Lewis	72.1	48.5	16.7	107.0	140.6	165.7	76.8	28.0	7.6
Lincoln	71.1	36.8	*	134.0	170.5	206.5	88.9	40.7	*
Mason	72.4	42.8	22.2	84.8	186.9	155.4	77.2	29.5	7.0
Okanogan	84.2	61.1	30.0	122.8	196.8	154.8	109.5	36.1	6.8
Pacific	64.2	41.8	26.3	73.5	183.7	137.6	73.8	15.1	7.0
Pend Oreille	70.2	56.9	27.4	131.8	265.3	137.9	81.5	24.7	*
Pierce	67.5	35.8	14.0	69.3	112.8	129.3	89.9	38.2	8.8
San Juan	39.3	*	*	*	122.8	76.6	69.1	30.4	8.1
Skagit	70.5	44.1	29.0	69.6	124.0	131.7	92.3	46.4	7.0
Skamania	55.3	20.2	*	60.6	136.0	114.9	83.6	39.2	*
Snohomish	63.3	24.7	9.8	50.5	94.9	123.3	98.4	46.9	9.0
Spokane	65.0	30.5	12.5	54.4	94.8	138.2	95.4	37.2	8.1
Stevens	65.9	31.9	13.5	78.7	188.7	153.5	79.8	29.6	8.9
Thurston	58.1	20.5	9.9	37.6	85.9	125.9	91.9	37.1	8.1
Wahkiakum	43.6	*	*	*	158.7	97.2	*	*	*
Walla Walla	62.5	39.4	19.8	59.0	75.1	155.7	87.7	35.7	8.2
Whatcom	54.4	21.1	14.0	27.6	48.5	122.1	104.6	48.8	8.8
Whitman	33.7	5.1	*	6.2	16.0	106.9	105.4	52.6	8.5
Yakima	94.9	71.2	42.2	121.5	156.4	165.5	114.8	46.4	9.1

[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.

Natality Table A13a. Mother's Race/Ethnicity by County of Residence, 2006

County	Total	White	African American	Native American	Japa-nese	Chinese	Filipino	Other Asian	Other	Unk	Hispanic Origin[1]
State Total	**86,845**	**71,558**	**4,215**	**1,925**	**428**	**1,058**	**1,332**	**5,388**	**0**	**941**	**15,793**
Adams	386	367	0	17	0	0	0	1	0	1	289
Asotin	245	238	1	5	0	0	0	1	0	0	9
Benton	2,339	2,116	47	27	0	19	12	49	0	69	671
Chelan	982	958	4	12	0	0	1	4	0	3	453
Clallam	647	559	5	73	1	2	1	5	0	1	48
Clark	5,789	5,234	132	46	15	40	47	258	0	17	600
Columbia	45	45	0	0	0	0	0	0	0	0	5
Cowlitz	1,325	1,248	12	26	1	1	6	27	0	4	171
Douglas	543	530	2	5	1	0	1	3	0	1	227
Ferry	62	48	0	13	0	0	0	0	0	1	2
Franklin	1,535	1,416	25	6	0	0	1	17	0	70	989
Garfield	16	16	0	0	0	0	0	0	0	0	4
Grant	1,549	1,497	17	21	3	0	2	5	0	4	826
Grays Harbor	884	785	9	76	0	0	2	11	0	1	155
Island	933	799	46	8	8	1	29	36	0	6	89
Jefferson	221	200	6	9	0	0	0	6	0	0	7
King	24,244	16,915	2,091	241	263	791	665	2,953	0	325	3,355
Kitsap	3,040	2,617	143	68	17	7	92	87	0	9	275
Kittitas	375	364	3	1	0	1	1	4	0	1	61
Klickitat	212	201	1	6	0	0	2	1	0	1	32
Lewis	939	903	7	12	1	1	2	9	0	4	125
Lincoln	114	112	0	1	0	0	0	1	0	0	5
Mason	632	564	10	40	1	1	5	10	0	1	118
Okanogan	594	467	1	99	2	0	0	2	0	23	188
Pacific	196	184	1	1	0	0	0	10	0	0	30
Pend Oreille	142	135	0	6	0	0	0	0	0	1	4
Pierce	11,139	8,796	1,040	222	18	23	200	727	0	113	1,499
San Juan	85	82	1	1	1	0	0	0	0	0	16
Skagit	1,500	1,423	9	39	1	1	10	11	0	6	485
Skamania	110	105	0	4	0	0	0	1	0	0	14
Snohomish	9,070	7,372	309	173	64	102	161	680	0	209	1,214
Spokane	5,986	5,448	127	180	9	15	36	149	0	22	321
Stevens	485	432	2	44	1	1	1	3	0	1	19
Thurston	2,771	2,375	100	59	9	10	27	166	0	25	287
Wahkiakum	25	24	0	1	0	0	0	0	0	0	2
Walla Walla	705	670	11	5	1	2	2	9	0	5	246
Whatcom	2,209	1,978	13	108	4	11	11	77	0	7	289
Whitman	413	343	8	5	4	20	2	29	0	2	24
Yakima	4,358	3,992	32	265	3	9	13	36	0	8	2,639

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

NOTE: Uses bridged race, see Technical Appendix

Natality Table B4. Maternal Smoking During Pregnancy by County of Residence, 2006

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	**86,845**	**75,786**	**10,465**	**8,537**	**7,507**	**7,180**	**2,347**
Adams	386	378	8	7	7	7	1
Asotin	245	187	77	56	49	48	0
Benton	2,339	2,112	286	203	162	162	18
Chelan	982	911	72	68	57	53	3
Clallam	647	516	145	129	116	114	2
Clark	5,789	4,457	983	760	633	598	563
Columbia	45	34	13	9	8	9	0
Cowlitz	1,325	919	369	348	309	280	57
Douglas	543	503	39	37	32	31	3
Ferry	62	44	19	17	17	16	1
Franklin	1,535	1,472	84	57	42	39	5
Garfield	16	14	4	2	2	2	0
Grant	1,549	1,397	151	146	138	131	2
Grays Harbor	884	669	237	197	178	169	12
Island	933	754	174	122	97	94	52
Jefferson	221	174	51	45	41	39	0
King	24,244	22,719	1,341	1,041	931	898	455
Kitsap	3,040	2,628	443	382	329	300	27
Kittitas	375	331	53	43	31	28	1
Klickitat	212	77	31	27	23	24	106
Lewis	939	734	207	174	157	145	22
Lincoln	114	88	31	26	24	24	0
Mason	632	494	151	133	119	114	4
Okanogan	594	481	119	108	96	94	2
Pacific	196	85	26	24	24	24	86
Pend Oreille	142	110	32	32	30	29	0
Pierce	11,139	9,336	1,369	1,067	926	887	712
San Juan	85	74	17	9	6	6	1
Skagit	1,500	1,336	196	157	139	134	4
Skamania	110	63	20	17	15	14	30
Snohomish	9,070	8,146	1,005	827	736	711	79
Spokane	5,986	4,780	1,348	1,181	1,110	1,088	3
Stevens	485	371	126	112	99	96	1
Thurston	2,771	2,295	535	392	332	313	73
Wahkiakum	25	10	7	7	6	6	8
Walla Walla	705	630	81	70	54	48	5
Whatcom	2,209	2,047	180	158	134	119	4
Whitman	413	384	31	28	23	20	0
Yakima	4,358	4,026	404	319	275	266	5

Natality Table B6. Body Mass Index[1] by County of Residence, 2006

County	Total Births	Underweight (<18.5)	Normal (18.5-24.9)	Overweight (25.0-29.9)	Obese (30.0+)	Unknown
State Total	**86,845**	**2,344**	**36,710**	**19,571**	**16,989**	**11,231**
Adams	386	3	171	111	96	5
Asotin	245	11	105	62	63	4
Benton	2,339	68	996	552	475	248
Chelan	982	27	435	254	187	79
Clallam	647	12	270	164	177	24
Clark	5,789	181	2,594	1,259	1,159	596
Columbia	45	2	23	9	11	0
Cowlitz	1,325	36	519	277	282	211
Douglas	543	17	222	156	120	28
Ferry	62	2	31	15	12	2
Franklin	1,535	27	636	408	309	155
Garfield	16	0	6	7	2	1
Grant	1,549	32	649	450	392	26
Grays Harbor	884	27	336	207	244	70
Island	933	19	422	243	169	80
Jefferson	221	7	114	52	45	3
King	24,244	719	11,065	5,285	3,891	3,284
Kitsap	3,040	79	1,347	727	738	149
Kittitas	375	3	201	102	58	11
Klickitat	212	0	55	25	23	109
Lewis	939	21	356	234	264	64
Lincoln	114	3	46	31	34	0
Mason	632	10	210	159	143	110
Okanogan	594	8	247	150	156	33
Pacific	196	2	43	38	22	91
Pend Oreille	142	6	66	25	35	10
Pierce	11,139	253	3,679	2,166	2,069	2,972
San Juan	85	2	43	17	18	5
Skagit	1,500	15	471	317	337	360
Skamania	110	2	41	20	14	33
Snohomish	9,070	222	3,532	2,023	1,847	1,446
Spokane	5,986	251	3,104	1,400	1,201	30
Stevens	485	12	236	120	109	8
Thurston	2,771	73	1,247	671	565	215
Wahkiakum	25	0	3	0	5	17
Walla Walla	705	18	303	183	166	35
Whatcom	2,209	54	1,035	470	384	266
Whitman	413	11	208	89	66	39
Yakima	4,358	109	1,643	1,093	1,101	412

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

Natality Table C4. Month Prenatal Care Began by County of Residence, 2006

County	Total	1st	2nd	3rd	4th	5th	6th	7th	8th	9th+	No Care	Unk
State Total	**86,845**	**10,972**	**30,884**	**17,662**	**6,515**	**3,671**	**2,294**	**1,613**	**1,053**	**394**	**795**	**10,992**
Adams	386	40	178	94	20	23	10	7	4	2	5	3
Asotin	245	12	36	48	12	7	5	1	1	0	0	123
Benton	2,339	270	833	520	245	118	103	79	33	20	24	94
Chelan	982	49	399	286	90	56	36	18	8	1	8	31
Clallam	647	56	225	191	70	39	14	8	11	3	3	27
Clark	5,789	368	2,282	1,682	602	357	193	119	79	24	32	51
Columbia	45	2	21	9	4	1	1	0	0	0	0	7
Cowlitz	1,325	133	587	279	114	61	48	30	14	6	14	39
Douglas	543	36	225	152	63	21	14	11	6	3	4	8
Ferry	62	10	16	17	8	2	2	0	2	1	0	4
Franklin	1,535	123	451	356	218	113	75	55	31	17	11	85
Garfield	16	2	1	2	1	1	1	0	0	1	0	7
Grant	1,549	165	621	380	142	64	48	32	39	10	36	12
Grays Harbor	884	84	282	196	115	60	30	32	16	5	18	46
Island	933	73	433	217	51	47	26	23	19	5	2	37
Jefferson	221	13	71	82	18	12	7	5	4	2	1	6
King	24,244	3,023	8,545	4,088	1,435	829	515	408	256	118	200	4,827
Kitsap	3,040	220	1,080	887	258	144	106	75	70	17	20	163
Kittitas	375	79	186	65	22	6	4	2	3	3	1	4
Klickitat	212	27	79	58	23	10	3	2	2	0	2	6
Lewis	939	177	339	171	95	47	25	18	10	4	10	43
Lincoln	114	35	36	16	10	5	1	1	0	1	2	7
Mason	632	79	221	146	68	33	17	18	8	5	4	33
Okanogan	594	92	205	135	45	33	20	14	10	3	6	31
Pacific	196	22	54	53	29	17	5	2	5	1	4	4
Pend Oreille	142	24	46	31	11	7	5	1	5	1	4	7
Pierce	11,139	1,376	3,357	1,819	658	430	267	195	107	44	114	2,772
San Juan	85	9	34	24	7	6	0	1	0	0	0	4
Skagit	1,500	161	611	330	117	74	53	40	24	5	17	68
Skamania	110	11	43	27	13	7	5	0	0	2	0	2
Snohomish	9,070	1,022	3,231	1,749	623	391	258	188	143	47	72	1,346
Spokane	5,986	1,694	2,310	897	265	154	89	55	25	9	88	400
Stevens	485	85	163	107	41	25	22	9	6	1	7	19
Thurston	2,771	602	971	486	223	102	68	31	28	7	21	232
Wahkiakum	25	4	6	12	1	1	0	0	0	0	0	1
Walla Walla	705	62	298	191	52	20	17	10	5	5	8	37
Whatcom	2,209	106	774	719	249	99	56	47	26	9	8	116
Whitman	413	37	167	124	36	12	9	4	4	0	2	18
Yakima	4,358	589	1,467	1,016	461	237	136	72	49	12	47	272

Natality Table D7. Birth Weight in Grams by County of Occurrence, 2006

County	Total	Under 1000	1000-1499	1500-1999	2000-2499	2500-2999	3000-3499	3500-3999	4000-4499	4500+	Unk
State Total	**86,845**	**404**	**468**	**1,131**	**3,656**	**12,915**	**31,789**	**26,653**	**8,130**	**1,448**	**251**
Adams	386	2	5	5	13	72	172	93	20	4	0
Asotin	245	2	4	1	8	47	86	72	21	4	0
Benton	2,339	17	14	32	87	423	856	699	179	32	0
Chelan	982	4	4	12	37	149	365	304	92	15	0
Clallam	647	3	2	8	16	69	219	220	87	21	2
Clark	5,789	19	24	75	232	788	2,061	1,872	619	97	2
Columbia	45	0	0	1	2	6	19	12	4	1	0
Cowlitz	1,325	3	8	11	55	205	471	428	131	13	0
Douglas	543	1	2	4	25	73	205	177	48	8	0
Ferry	62	0	0	1	3	16	19	17	4	1	1
Franklin	1,535	13	3	17	77	248	594	466	98	18	1
Garfield	16	0	0	0	1	1	5	5	3	1	0
Grant	1,549	7	8	19	71	256	619	439	106	24	0
Grays Harbor	884	4	2	14	39	129	338	277	72	9	0
Island	933	5	9	5	33	116	310	317	102	24	12
Jefferson	221	0	0	1	6	25	79	69	34	6	1
King	24,244	105	150	327	1,103	3,695	8,832	7,331	2,211	426	64
Kitsap	3,040	10	24	35	125	429	1,069	966	325	56	1
Kittitas	375	0	1	3	11	57	131	122	41	8	1
Klickitat	212	2	2	7	17	34	82	44	22	2	0
Lewis	939	4	7	14	29	131	317	321	91	25	0
Lincoln	114	0	0	0	6	13	42	46	4	3	0
Mason	632	3	4	10	19	100	230	196	58	11	1
Okanogan	594	1	2	9	29	110	221	158	54	9	1
Pacific	196	0	0	2	5	37	68	66	15	3	0
Pend Oreille	142	1	3	0	10	23	61	33	9	2	0
Pierce	11,139	65	62	168	454	1,653	4,058	3,366	1,104	201	8
San Juan	85	1	1	0	3	15	32	25	6	1	1
Skagit	1,500	7	2	24	77	220	543	481	128	17	1
Skamania	110	0	0	1	5	15	41	33	14	1	0
Snohomish	9,070	39	32	111	348	1,225	3,208	2,858	959	147	143
Spokane	5,986	32	28	76	273	898	2,321	1,811	458	87	2
Stevens	485	2	3	5	25	65	175	153	46	11	0
Thurston	2,771	13	22	36	90	397	1,017	876	272	48	0
Wahkiakum	25	0	0	1	1	3	5	11	4	0	0
Walla Walla	705	2	5	7	36	101	262	225	55	11	1
Whatcom	2,209	10	11	21	57	267	745	758	297	39	4
Whitman	413	1	4	5	24	65	156	118	36	4	0
Yakima	4,358	26	20	63	204	739	1,755	1,188	301	58	4

Pregnancy and Induced Abortion

Table 1. Pregnancy Outcomes of Residents by Woman's Age, 2006

Age	Total Pregnancies	Live Births		Abortions		Fetal Deaths	
		Number	Percent[1]	Number	Percent[1]	Number	Percent[1]
State Total	112,125	86,845	77.5	24,790	22.1	490	0.4
Under 15	169	82	48.5	86	50.9	1	0.6
15-19	11,604	7,108	61.3	4,450	38.3	46	0.4
15-17	3,728	2,062	55.3	1,654	44.4	12	0.3
18-19	7,876	5,046	64.1	2,796	35.5	34	0.4
20-24	28,995	20,680	71.3	8,214	28.3	101	0.3
25-29	30,777	24,938	81.0	5,720	18.6	119	0.4
30-34	23,600	20,303	86.0	3,191	13.5	106	0.4
35-39	13,434	11,097	82.6	2,258	16.8	79	0.6
40-44	3,209	2,434	75.8	752	23.4	23	0.7
45 and Over	254	160	63.0	92	36.2	2	0.8
Unknown	83	43	51.8	27	32.5	13	15.7

[1] Percents are the number of live births, abortions, or fetal deaths out of total pregnancies for specific age group.

Table 2. Age-Specific Rates[1] and Abortion Ratios of Residents, 2006

Age	Female Population	Pregnancy Rate	Birth Rate	Abortion Rate	Abortion Ratio[2]
All Ages[3]	1,325,991	84.6	65.5	18.7	285.5
Under 15	214,191	0.8	0.4	0.4	1048.8
15-19	223,862	51.8	31.8	19.9	626.1
15-17	135,266	27.6	15.2	12.2	802.1
18-19	88,596	88.9	57.0	31.6	554.1
20-24	224,223	129.3	92.2	36.6	397.2
25-29	210,526	146.2	118.5	27.2	229.4
30-34	203,109	116.2	100.0	15.7	157.2
35-39	225,095	59.7	49.3	10.0	203.5
40-44	239,176	13.4	10.2	3.1	309.0
45 and Over	249,933	1.0	0.6	0.4	575.0

[1] Age-Specific rates equal the number of pregnancies, births, or abortions occurring to women in a specific age group per 1,000 female population in that age group.

For "Under 15" and "45 and over" the denominators for the age-specific rates are limited to the female populations aged 10-14 and 45-49, respectively.

[2] The abortion ratio equals the number of abortions per 1,000 live births.

[3] For the category, "All Ages", rates equal total pregnancies, births, or abortions per 1,000 women aged 15-44 (child-bearing ages).

Population Data: See Appendix A: Technical Appendix, Sources of data: Population.

Table 17. Age-specific Pregnancy Rates[1] by County of Residence, 2006

County	All Ages	15-19	15-17	18-19	20-24	25-29	30-34	35-39	40-44
State Total[2]	**84.6**	**51.8**	**27.6**	**88.9**	**129.3**	**146.2**	**116.2**	**59.7**	**13.4**
Adams	125.6	96.3	59.7	162.8	220.7	204.4	109.0	86.3	17.6
Asotin	74.0	47.7	15.6	105.3	180.1	131.6	72.6	32.4	*
Benton	85.8	52.7	28.2	97.8	159.3	166.2	113.2	44.4	9.3
Chelan	86.7	68.4	40.9	116.7	161.5	145.2	114.6	48.8	10.4
Clallam	77.2	53.1	30.0	95.7	180.6	155.0	104.4	32.7	7.5
Clark	84.8	46.0	23.0	85.7	135.2	160.3	115.9	54.5	11.5
Columbia	81.3	*	*	*	148.5	243.9	71.4	41.7	*
Cowlitz	87.5	66.2	44.9	102.9	192.8	154.8	86.5	37.0	8.0
Douglas	89.2	64.9	40.9	110.2	166.0	177.6	110.6	46.3	9.8
Ferry	55.4	30.7	*	76.9	140.4	144.6	42.4	*	*
Franklin	135.3	94.4	61.4	151.5	197.7	226.6	186.3	60.6	23.1
Garfield	45.5	*	*	*	189.2	*	*	*	*
Grant	109.9	82.1	41.5	155.0	196.6	191.7	125.4	52.3	10.8
Grays Harbor	84.2	60.4	28.6	116.9	181.0	159.2	97.1	36.8	8.8
Island	79.9	43.9	16.4	93.2	161.6	151.0	91.2	42.3	8.3
Jefferson	69.6	31.7	13.5	71.7	182.9	136.5	114.8	49.9	10.6
King	82.0	43.9	23.6	73.0	98.0	114.9	127.0	81.9	18.5
Kitsap	81.2	47.5	20.6	97.6	155.1	162.7	100.4	44.2	10.6
Kittitas	53.8	25.1	16.4	30.2	46.4	139.9	104.3	47.8	6.1
Klickitat	72.1	41.4	16.8	99.5	167.4	127.1	113.0	39.2	10.7
Lewis	86.0	58.6	23.6	122.9	167.7	188.4	95.1	37.1	8.0
Lincoln	77.4	45.3	*	154.6	181.8	222.8	88.9	47.5	*
Mason	89.9	60.5	32.4	117.6	226.3	182.7	99.2	36.4	9.8
Okanogan	95.7	75.7	42.0	142.6	222.2	167.8	120.9	43.0	8.2
Pacific	79.6	62.7	40.7	107.8	227.0	166.7	78.6	20.7	8.5
Pend Oreille	80.6	56.9	27.4	131.8	306.1	163.8	92.6	29.6	*
Pierce	91.2	61.7	29.1	112.2	160.7	165.7	108.2	49.4	12.2
San Juan	55.9	*	*	*	166.7	112.9	83.6	51.4	11.4
Skagit	87.3	64.8	42.6	102.4	160.4	152.9	103.6	55.5	9.2
Skamania	62.9	30.2	*	75.8	162.3	126.4	87.3	41.8	*
Snohomish	83.1	46.8	23.0	87.8	138.3	152.8	113.2	58.2	12.9
Spokane	81.7	48.2	23.4	81.0	127.6	161.8	110.3	44.9	10.1
Stevens	75.4	41.0	19.3	95.7	208.3	171.8	89.7	35.1	10.7
Thurston	78.7	41.5	20.4	75.8	130.8	154.8	107.8	47.7	11.8
Wahkiakum	50.6	*	*	*	174.6	111.1	*	*	*
Walla Walla	77.0	54.9	30.9	78.9	96.8	176.9	102.1	44.4	10.3
Whatcom	70.8	39.9	27.5	51.3	71.0	146.5	119.4	56.9	13.6
Whitman	43.9	12.3	*	14.9	30.4	116.9	115.1	59.7	9.4
Yakima	112.5	93.2	57.9	154.4	189.4	189.9	127.6	52.0	11.7

[1] The general pregnancy rate shown under "All Ages" equals total pregnancies (live births. fetal deaths, plus abortions) per 1,000 women of childbearing age (15-44).

Age-Specific rate equal the number of pregnancies to women in a specific age group per 1,000 women in the age group.

[2] Total pregnancies includes 10 abortions for which county of residence was unknown.

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

Population Data: See Appendix A: Technical Appendix, Sources of Data: Population.

Table 21. Age-specific Abortion Rates[1] by County of Residence, 2006

County	All Ages	15-19	15-17	18-19	20-24	25-29	30-34	35-39	40-44
State Total[2]	**18.7**	**19.9**	**12.2**	**31.6**	**36.6**	**27.2**	**15.7**	**10.0**	**3.1**
Adams	8.4	8.3	*	19.4	18.7	*	*	*	*
Asotin	12.0	11.3	*	24.6	30.0	20.5	*	*	*
Benton	12.9	14.8	9.2	25.0	27.8	19.6	10.5	4.2	2.2
Chelan	11.6	16.6	10.5	27.3	23.8	12.1	8.6	4.9	3.6
Clallam	14.0	18.5	12.4	29.6	35.1	16.3	13.0	8.6	*
Clark	15.4	16.3	10.5	26.4	30.1	24.2	13.6	8.1	2.2
Columbia	12.3	*	*	*	*	*	*	*	*
Cowlitz	14.7	22.8	18.7	30.0	29.9	17.0	8.1	8.8	2.1
Douglas	10.2	13.0	12.2	14.6	23.3	10.1	7.4	7.4	*
Ferry	5.5	*	*	*	*	*	*	*	*
Franklin	15.2	14.1	8.8	23.2	25.5	23.6	14.3	5.2	4.4
Garfield	*	*	*	*	*	*	*	*	*
Grant	9.3	11.3	8.1	17.1	17.6	12.7	7.2	3.8	*
Grays Harbor	14.3	15.2	7.3	29.2	31.1	21.0	13.0	6.5	*
Island	13.4	15.6	5.9	33.0	36.2	15.8	7.9	4.3	1.9
Jefferson	13.2	13.2	*	29.5	53.2	11.2	11.1	8.3	*
King	21.9	23.0	14.0	36.0	41.3	30.0	19.3	13.5	4.2
Kitsap	16.8	17.0	9.7	30.6	39.5	27.5	13.9	5.9	2.2
Kittitas	12.0	12.2	*	16.0	13.7	21.9	11.8	7.0	*
Klickitat	10.0	11.8	*	*	27.5	12.5	*	8.2	*
Lewis	13.3	10.1	6.9	15.9	27.1	21.0	16.0	8.6	*
Lincoln	5.6	*	*	*	*	*	*	*	*
Mason	17.1	17.7	10.2	32.9	38.6	25.6	21.2	6.9	2.7
Okanogan	10.9	13.9	12.0	17.8	25.4	13.0	11.4	5.2	*
Pacific	15.4	20.9	14.4	34.3	43.4	29.1	*	*	*
Pend Oreille	10.4	*	*	*	40.8	25.9	*	*	*
Pierce	23.3	25.6	14.9	42.2	47.4	35.9	17.9	11.0	3.3
San Juan	16.2	*	*	*	43.9	36.3	*	18.7	*
Skagit	16.5	20.7	13.6	32.8	36.1	20.8	11.3	8.5	2.0
Skamania	7.5	*	*	*	26.3	*	*	*	*
Snohomish	19.4	21.8	13.2	36.6	42.7	28.8	14.4	10.7	3.8
Spokane	16.5	17.5	10.8	26.3	32.3	23.2	14.6	7.6	1.9
Stevens	9.1	9.0	5.9	17.0	19.6	17.2	8.9	4.8	*
Thurston	20.3	20.8	10.5	37.6	44.2	28.6	15.1	10.5	3.7
Wahkiakum	*	*	*	*	*	*	*	*	*
Walla Walla	14.4	15.5	11.1	19.9	21.2	20.4	14.4	8.8	*
Whatcom	16.1	18.8	13.5	23.7	21.9	23.9	14.4	8.1	4.2
Whitman	9.9	7.2	*	8.6	14.4	10.0	8.7	5.1	*
Yakima	17.0	21.6	15.4	32.4	32.8	23.4	11.4	5.1	2.5

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

[2] Total abortions includes 10 abortions for which county of residence was unknown.

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

Population Data: See Appendix A: Technical Appendix, Sources of Data: Population.

Appendix. Sample Certificates

Birth Filing Form

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 Suffix

*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:

SAMPLE

Washington State Department of Health

SAMPLE

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

DOH/CHS 001 Rev 10/3/2002

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/YYYY) / / ☐ No Prenatal Care

42b. Date of Last Prenatal Care Visit (MM/DD/YYYY) / /

43. Total Number of Prenatal Visits for this Pregnancy
(If none, enter '0') _____

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

45. 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:

46. Principal Source of Payment for this Delivery
☐ Medicaid ☐ Self Pay ☐ Private Insurance
☐ Indian Health ☐ CHAMPUS ☐ Other Gov't
☐ Other (Specify)

Newborn's Statistical Information

47. Newborn Medical Record Number

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

49. Infant Head Circumference (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 six hours
3 ☐ NICU admission
4 ☐ Newborn given surfactant replacement therapy
5 ☐ Antibiotics received by the newborn for suspected neonatal sepsis
6 ☐ Seizure or serious neurologic dysfunction
7 ☐ Significant birth injury (skeletal fracture(s), peripheral nerve injury, soft tissue or solid organ hemorrhage which requires intervention)
8 ☐ None of the above

62. Characteristics of Labor and Delivery (Check all that apply):

1 ☐ Induction of labor
2 ☐ Augmentation of labor
3 ☐ Non-vertex presentation
4 ☐ Epidural or spinal anesthesia during labor
5 ☐ Steroids (glucocorticoids) for fetal lung maturation received by the mother prior to delivery
6 ☐ Antibiotics received by the mother during labor
7 ☐ Clinical chorioamnionitis diagnosed during labor or maternal temperature ≥38°C (100.4°F)
8 ☐ Moderate/heavy meconium staining of the amniotic fluid
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. Congenital Anomalies of the Newborn (Observed within 24 hours of delivery) (Check all that apply)

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 ☐ 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

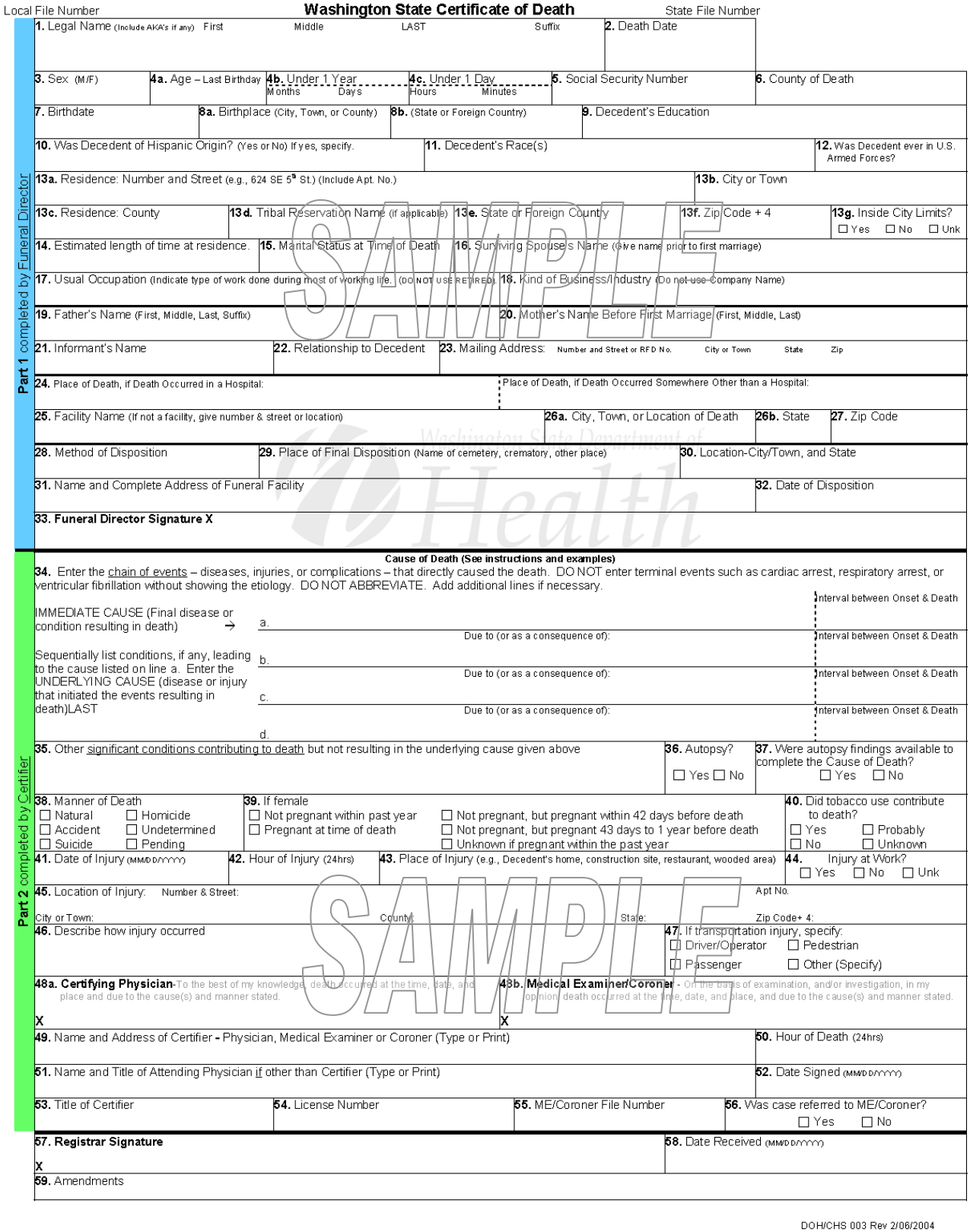
67. Date Certified (MM/DD/YYYY) / /

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



Local File Number

Washington State Certificate of Death

State File Number

Part 1 completed by Funeral Director

1. Legal Name (Include AKA's if any) First Middle LAST Suffix
2. Death Date
3. Sex (M/F)
4a. Age – Last Birthday
4b. Under 1 Year Months Days
4c. Under 1 Day Hours Minutes
5. Social Security Number
6. County of Death
7. Birthdate
8a. Birthplace (City, Town, or County)
8b. (State or Foreign Country)
9. Decedent's Education
10. Was Decedent of Hispanic Origin? (Yes or No) If yes, specify.
11. Decedent's Race(s)
12. Was Decedent ever in U.S. Armed Forces?
13a. Residence: Number and Street (e.g., 624 SE 5th St.) (Include Apt. No.)
13b. City or Town
13c. Residence: County
13d. Tribal Reservation Name (if applicable)
13e. State or Foreign County
13f. Zip Code + 4
13g. Inside City Limits? ☐ Yes ☐ No ☐ Unk
14. Estimated length of time at residence.
15. Marital Status at Time of Death
16. Surviving Spouse's Name (Give name prior to first marriage)
17. Usual Occupation (Indicate type of work done during most of working life. (DO NOT USE RETIRED))
18. Kind of Business/Industry (Do not use Company Name)
19. Father's Name (First, Middle, Last, Suffix)
20. Mother's Name Before First Marriage (First, Middle, Last)
21. Informant's Name
22. Relationship to Decedent
23. Mailing Address: Number and Street or RFD No. City or Town State Zip
24. Place of Death, if Death Occurred in a Hospital:
Place of Death, if Death Occurred Somewhere Other than a Hospital:
25. Facility Name (If not a facility, give number & street or location)
26a. City, Town, or Location of Death
26b. State
27. Zip Code
28. Method of Disposition
29. Place of Final Disposition (Name of cemetery, crematory, other place)
30. Location-City/Town, and State
31. Name and Complete Address of Funeral Facility
32. Date of Disposition
33. **Funeral Director Signature X**

Part 2 completed by Certifier

Cause of Death (See instructions and examples)

34. Enter the chain of events – diseases, injuries, or complications – that directly caused the death. DO NOT enter terminal events such as cardiac arrest, respiratory arrest, or ventricular fibrillation without showing the etiology. DO NOT ABBREVIATE. Add additional lines if necessary.

IMMEDIATE CAUSE (Final disease or condition resulting in death) → a. — Interval between Onset & Death

Due to (or as a consequence of):

Sequentially list conditions, if any, leading to the cause listed on line a. Enter the UNDERLYING CAUSE (disease or injury that initiated the events resulting in death)LAST

b. — Interval between Onset & Death

Due to (or as a consequence of):

c. — Interval between Onset & Death

Due to (or as a consequence of):

d. — Interval between Onset & Death

35. Other significant conditions contributing to death but not resulting in the underlying cause given above
36. Autopsy? ☐ Yes ☐ No
37. Were autopsy findings available to complete the Cause of Death? ☐ Yes ☐ No
38. Manner of Death ☐ Natural ☐ Homicide ☐ Accident ☐ Undetermined ☐ Suicide ☐ Pending
39. If female ☐ Not pregnant within past year ☐ Pregnant at time of death ☐ Not pregnant, but pregnant within 42 days before death ☐ Not pregnant, but pregnant 43 days to 1 year before death ☐ Unknown if pregnant within the past year
40. Did tobacco use contribute to death? ☐ Yes ☐ Probably ☐ No ☐ Unknown
41. Date of Injury (MM/DD/YYYY)
42. Hour of Injury (24hrs)
43. Place of Injury (e.g., Decedent's home, construction site, restaurant, wooded area)
44. Injury at Work? ☐ Yes ☐ No ☐ Unk
45. Location of Injury: Number & Street: Apt No. City or Town: County: State: Zip Code+ 4:
46. Describe how injury occurred
47. If transportation injury, specify: ☐ Driver/Operator ☐ Pedestrian ☐ Passenger ☐ Other (Specify)
48a. **Certifying Physician**-To the best of my knowledge, death occurred at the time, date, and place and due to the cause(s) and manner stated. X
48b. **Medical Examiner/Coroner** - On the basis of examination, and/or investigation, in my opinion, death occurred at the time, date, and place, and due to the cause(s) and manner stated. X
49. Name and Address of Certifier - Physician, Medical Examiner or Coroner (Type or Print)
50. Hour of Death (24hrs)
51. Name and Title of Attending Physician if other than Certifier (Type or Print)
52. Date Signed (MM/DD/YYYY)
53. Title of Certifier
54. License Number
55. ME/Coroner File Number
56. Was case referred to ME/Coroner? ☐ Yes ☐ No
57. **Registrar Signature** X
58. Date Received (MM/DD/YYYY)
59. Amendments

SAMPLE

Washington State Department of Health

DOH/CHS 003 Rev 2/06/2004

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)

5a. 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):

5b. 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., 624 SE 5th St.) | Apt No. | 15b. City or Town

15c. County | 15d. If you live on Tribal Reservation, give name | 15e. State or Foreign Country | 15f. Zip Code + 4

15g. Inside City Limits? ☐ Yes ☐ No ☐ Unk | 16. How Long at Current Residence? Years Months

17. Father's Current Legal Name (First, Middle, Last, Suffix) | 18. Date of Birth (MM/DD/YYYY) / / | 19. Birthplace (State, Territory, or Foreign County)

Disposition Information

20. Name and Title of Person Completing Cause of Death | Signature X

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)*	31. Other Significant Causes or Conditions *(Select or specify all other conditions contributing to death)*
1 ☐ Maternal Conditions/Diseases (Specify)	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)	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)	3 ☐ Other Obstetrical or Pregnancy Complications (Specify)
4 ☐ Fetal Anomaly (Specify)	4 ☐ Fetal Anomaly (Specify)
5 ☐ Fetal Injury (Specify)	5 ☐ Fetal Injury (Specify)
6 ☐ Fetal Infection (Specify)	6 ☐ Fetal Infection (Specify)
7 ☐ Other Fetal Conditions/Disorders (Specify)	7 ☐ Other Fetal Conditions/Disorders (Specify)
8 ☐ Unknown	8 ☐ Unknown

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

SAMPLE

Washington State Department of Health

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)

51. Mother's Weight at Delivery
(Pounds)

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

53. Date of First Prenatal Care Visit (MM/DD/YYYY)
/ / ☐ No Prenatal Care

54. Date of Last Prenatal Care Visit (MM/DD/YYYY)
/ /

55. Total Number of Prenatal Visits for this Pregnancy
(If none, enter "0")

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

Now Living
Number_____ ☐ None

Now Dead
Number_____ ☐ None

57a. Number of Other Pregnancy Outcomes
(Spontaneous or induced losses or ectopic pregnancies)

Other Outcomes
Number_____ ☐ None

58. 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	_____

56b. Date of Last Live Birth (MM/YYYY)
/

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

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):

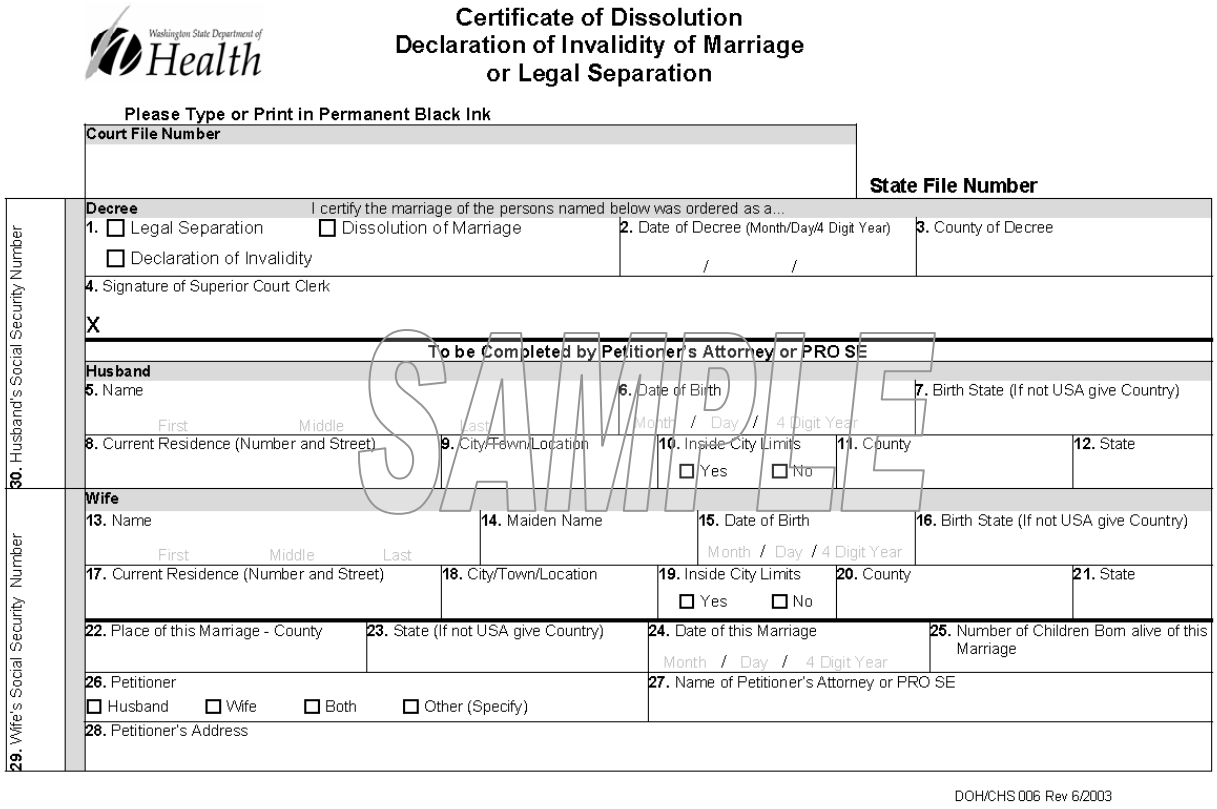
1 ☐ Maternal transfusion
2 ☐ Third or fourth degree perineal laceration
3 ☐ Ruptured uterus
4 ☐ Unplanned hysterectomy
5 ☐ Admission to intensive care unit
6 ☐ Unplanned operating room procedure following delivery
7 ☐ None of the above

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 Completed by Petitioner's Attorney or PRO SE

Husband

30. Husband's Social Security Number

5. Name (First Middle Last)

6. Date of Birth (Month / Day / 4 Digit Year)

7. Birth State (If not USA give Country)

8. Current Residence (Number and Street)

9. City/Town/Location

10. Inside City Limits ☐ Yes ☐ No

11. County

12. State

Wife

29. Wife's Social Security Number

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

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

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

Declaration in Absence of a Social Security Number

I have not furnished a Social Security Number on my application for registration of a marriage certificate, because ***I do not have a Social Security Number.***

I declare under penalty of perjury under the laws of the State of Washington that the 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