



Perinatal Indicators Report for Washington Residents May 2009

The *Perinatal Indicators Report* provides key information on perinatal health issues to help guide decision-making by the Washington State Department of Health (DOH) and the Department of Social and Health Services (DSHS) Medical Assistance Administration. Annual updates for this report provide data for ongoing needs assessment and program evaluation. This report is a collaborative project conducted by the Statewide Perinatal Advisory Committee, the First Steps Database staff from the DSHS Division of Research and Data Analysis, and the DOH Office of Maternal Child Health.

Highlights of the Report:

- There were almost 89,000 births in Washington in 2007. Births increased over 10% from 2003 to 2007.
- Medicaid-funded deliveries represented 47% of births in 2007.
- Birth rates and pregnancy rates decreased among women 15-24 from the early 1990s to the early 2000s. No clear pattern has emerged recently.
- SIDS rates have decreased since 1990, in part due to improved death scene investigation and changing reporting practices.
- Smoking just before, during and after pregnancy has decreased since 1996. In 2007, 20% of women reported smoking in the three months before pregnancy.
- Approximately 93% of new mothers reported ever breastfeeding in 2007.

Areas of concern include:

- Cesarean deliveries have increased since the late 1990s, and represented 29% of all births in 2007.
- Over 40% of women were either overweight or obese prior to pregnancy in 2007.
- Total low birth weight has increased steadily since 1990, in part due to the increase in multiple deliveries (twins, triplets, etc.)
- African American and Native American infant mortality rates continued to exceed infant mortality rates of other race and ethnic groups in 2007. While the African American infant mortality rate has remained high, it has decreased since 1990. In contrast, the Native American infant mortality rate has increased since 1994.
- The singleton low birth weight (LBW) rate for African Americans continued to be almost twice the rate for Non-Hispanic Whites in 2007.
- The singleton very low birth weight rate among African Americans has remained over twice the rate of Whites since 1990.
- The percent of women with prenatal care initiation in the first trimester continued to decline, and the percent of women with late or no prenatal care continued to increase in 2007.
- Women on Medicaid continued to have lower first trimester prenatal care rates and higher rates of late/no prenatal care than women who did not receive Medicaid.
- Smoking rates during pregnancy continued to be significantly higher for women receiving Medicaid than for women who did not receive Medicaid.
- The unintended pregnancy rate remained high at approximately 50% in 2007.

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Please Note: Bulleted statements throughout this report are based on statistical analysis of trends from 1990 (or when data were first available after 1990) to 2007. This analysis accounts for variability in the data. For this reason, statements may not always reflect year to year fluctuations seen in the data presented.

Perinatal Indicators Report for Washington Residents

All rates and percentages are calculated after excluding records with unknown data. In some instances where the amount of unknown data is substantial the amount of unknown data is shown below the calculated rates and percentages. Summaries of the data are based on trend analysis of data from 1990-2007.

Livebirths and Deliveries	1997		2004		2005		2006		2007		HP 2010	2006 WA Rank
Total Livebirths (# of liveborn infants)	78,141		81,715		82,625		86,845		88,921			
Livebirths By Mother's Race/Ethnicity ¹												
Non-Hispanic White	56,011	74.7%	53,357	65.3%	53,568	64.8%	56,109	64.6%	56,163	63.2%		
Non-Hispanic African American	2,920	3.9%	3,076	3.8%	3,215	3.9%	3,716	4.3%	3,798	4.3%		
Native American	1,602	2.1%	1,615	2.0%	1,518	1.8%	1,705	2.0%	1,753	2.0%		
Non-Hispanic Asian or Pacific Islander	5,078	6.8%	6,871	8.4%	7,054	8.5%	7,700	8.9%	8,206	9.2%		
Hispanic Origin ²	9,323	12.4%	14,250	17.4%	14,988	18.1%	15,973	18.2%	16,839	18.9%		
Unknown	3,207		2,546	3.1%	2,282	2.8%	1,822	2.1%	2,162	2.4%		
Livebirths By Mother's Age												
<20 Years	8,561	11.0%	6,827	8.4%	6,823	8.3%	7,190	8.3%	7,516	8.5%		
20-24 Years	18,666	23.9%	19,931	24.4%	19,911	24.1%	20,680	23.8%	21,044	23.7%		
25-29 Years	22,360	28.6%	22,644	27.8%	23,198	28.1%	24,938	28.7%	25,530	28.7%		
30-34 Years	18,103	23.2%	19,886	24.4%	19,797	24.0%	20,303	23.4%	20,903	23.5%		
35-39 Years	8,691	11.1%	9,996	12.3%	10,490	12.7%	11,097	12.8%	11,357	12.8%		
40+ Years	1,743	2.2%	2,234	2.7%	2,377	2.9%	2,594	3.0%	2,549	2.9%		
Total Deliveries (# of women who delivered livebirths or fetal deaths) ³	77,118		80,443		81,421		85,453		87,504			
Medicaid-Funded Deliveries ⁴	32,581	42.2%	36,915	45.9%	39,077	48.0%	40,317	47.2%	41,392	47.3%		
Multiple Gestation Deliveries ⁵	1003	1.3%	1,202	1.5%	1,253	1.5%	1,373	1.6%	1,345	1.5%		

- The number of live births was stable from 1990 to 1995, but has increased since, especially from 2003 to 2007. Total births in Washington have increased over 10% since 2003.
- The greatest increases in the number of births since 2003 have been to African American women (26% increase), Asian women (26% increase), and Hispanic women (28% increase).
- The proportions of births to white women decreased while births to women of other races/ethnicities increased from 1990-2007. In 2007, approximately 19% of births were to Hispanic women, 63% were to Non-Hispanic white women, 4% to Non-Hispanic African American Women, 2% to Non-Hispanic Native American women, and 9% to Non-Hispanic Asian or Pacific Islander women.
- Since the expansion of Medicaid through First Steps in 1989, Medicaid-funded deliveries have increased substantially. Medicaid funded 47% of deliveries in 2007.
- Multiple gestations increased significantly from 1990 to 2007. In 2007, they represented 1.5% of deliveries. Proportions may be levelling off, but this is not yet statistically significant.

1. In 2003, WA introduced a new birth certificate form which allows for designation of multiple races. In order to compare 2003 and later data with previous years, records with multiple race designations (2.7% in 2007) were statistically "bridged" into one of the five major race categories used prior to 2003. This is also the reason why no livebirths show up as "Other"; if selected they were recoded to one of the five categories.

2. Persons of Hispanic origin may be of any race. Those of unknown race were excluded from the denominator.

3. "Total deliveries" includes women who delivered a livebirth or fetal death (stillbirth) greater than 20 weeks gestation. Each woman is counted only once regardless of the plurality of her pregnancy. These data are from the First Steps Database which excludes approximately 500 births per year that are unavailable for matching to Medical Assistance data.

4. "Medicaid-funded deliveries" includes women who delivered a livebirth or fetal death (stillbirth) greater than 20 weeks gestation whose deliveries were covered by Medicaid. Each woman is counted only once regardless of the plurality of her pregnancy. A delivery is considered covered by Medicaid if the mother received Medicaid-paid prenatal or delivery services or if she was enrolled in Medicaid managed care for at least 3 of the 6 months prior to delivery. These data are from the First Steps Database which excludes approximately 500 births per year that are unavailable for matching to Medical Assistance data.

5. "Multiple gestation deliveries" includes women who delivered livebirths or fetal deaths (stillbirths) greater than 20 weeks gestation that were twins, triplets or quadruplets. These data are from the First Steps Database which excludes approximately 500 births per year that are unavailable for matching to Medical Assistance data.

Perinatal Indicators Report for Washington Residents

Birth Rate (Live births per 1,000 women) ⁶	1997	2004	2005	2006	2007	HP 2010	2006 WA Rank ⁷
All Ages ⁸	61.5	62.8	63.1	65.5	66.4		15
15-19 years	43.3	31.2	30.7	31.8	32.6		14
15-17 years	24.4	15.5	14.9	15.2	16.1		10
18-19 years	74.5	54.4	54.5	57.0	57.9		20
20-24 years	108.4	93.4	91.4	92.2	92.1		
25-29 years	108.7	116.2	115.7	118.5	116.4		
30-34 years	82.4	94.0	95.9	100.0	102.9		
35-39 years	35.9	45.5	47.6	49.3	50.0		
40-44 years	7.0	9.1	9.2	10.2	10.1		

Pregnancy Rate [(Live births + fetal deaths \geq 20 weeks + abortions) per 1,000 women] ⁶	1997	2004	2005	2006	2007	HP 2010	2006 WA Rank
All Ages ⁸	83.1	82.0	82.0	84.6	85.2		
15-19 years	72.2	51.7	50.8	51.8	52.8		
15-17 years	44.1	28.5	27.6	27.6	28.7	43.0	
18-19 years	118.8	86.3	85.9	88.9	89.5		
20-24 years	155.6	132.5	128.9	129.3	128.2		
25-29 years	139.2	144.1	143.1	146.2	143.0		
30-34 years	100.4	110.8	112.5	116.2	119.3		
35-39 years	46.0	55.3	57.4	59.7	59.7		
40-44 years	10.3	12.5	12.4	13.4	13.3		

- Currently, pregnancy rates and birth rates in Washington are undergoing shifts. Overall, for women 15-44, both birth and pregnancy rates decreased from the early 1990s until 2002-2003. Since then, both rates have been increasing. The birth rate has increased about 7% since 2003.
- Overall rates are being driven by distinct age-specific trends.
- Among younger women 15-24, birth and pregnancy rates decreased substantially until around 2003. No clear pattern has emerged more recently.
- Among women 25-29, the pregnancy rate decreased until 1999 and has had a non-significant increase since. Among this group the birth rate has increased since 1995.
- Among women over 30, birth and pregnancy rates have increased since the early to mid 1990s.

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

7. The 2006 WA State Rank is the ranking of Washington among the 50 states based on the National Center for Health Statistics data, with 1 being the best and 50 the worst. Note that the rates reported in this document are based on the Washington State Center for Health Statistics reports and do not always match the federally reported Washington State rates. As of May 2009, the 2007 state specific rates are not available. In 2006, the birth rates for women 15-17 years ranged from 7.6 to 39.6 livebirths per 1000 women and for women 18-19 years from 35.9 to 113.5 livebirths per 1000 women. The birth rates for women 15-19 ranged from 18.7 to 68.4 livebirths per 1000 women and for women 15-44 years ranged from 52.2 to 94.1 livebirths per 1000 women.

8. "All Ages" rates are the total births or pregnancies per 1000 women 15-44 years.

Perinatal Indicators Report for Washington Residents

Livebirth Delivery Services (All Births Occurring in WA)	1997		2004		2005		2006		2007		HP 2010	2006 WA Rank
Births Occurring in Washington State (includes residents and non-residents)	77,161		81,404		82,364		86,799		88,944			
Birth Facility												
Hospital (includes Military Hospitals)	75,739	98.2%	79,776	98.0%	80,642	97.9%	84,862	97.8%	86,982	97.8%		
Birth Center	319	0.4%	692	0.9%	771	0.9%	863	1.0%	904	1.0%		
Home	1,004	1.3%	880	1.1%	914	1.1%	1,009	1.2%	996	1.1%		
Other (includes Born on Arrival, Other)	99	0.1%	56	0.1%	37	0.0%	63	0.1%	62	0.1%		
Unknown	0		0		0		2		0			
Birth Attendant ^{9,10}												
MD/DO	69,496	90.1%	73,130	89.9%	73,191	88.9%	76,867	88.6%	78,443	88.2%		
Certified Midwife ¹¹	5,563	7.2%	6,149	7.6%	6,824	8.3%	7,536	8.7%	8,077	9.1%		
Licensed Midwife	890	1.2%	1,274	1.6%	1,441	1.7%	1,600	1.8%	1,741	2.0%		
Nurse	465	0.6%	643	0.8%	549	0.7%	198	0.2%	254	0.3%		
Other (includes Other Midwife, Father, Hospital Administrator, and Other)	733	1.0%	165	0.2%	334		573	0.7%	404	0.5%		
Unknown	14		45		25		25		25			

- In 2007, 98% of births in Washington State occurred in hospitals. This proportion has remained stable since 1990.
- MDs or DOs were listed as the birth attendant in approximately 88% of births in 2007. The percentage of MDs or DOs listed as the birth attendant decreased between 1990 and 2001. Since 2001, the percentage of MDs or DOs listed as the birth attendant has remained stable.
- The percent of births delivered by certified (nurse) midwives increased between 1990 and 2001, but has remained stable since.
- The percent of births delivered by licensed midwives increased significantly from 1996 to 2001. In 2003, rates were lower but may be due to reporting changes with the new birth certificate. Rates have been increasing since 2003, but the increase is not statistically significant.

9. Between 1999 and 2004, a number of deliveries were reported with "Hospital Administrator" listed as the birth attendant. In reviewing the data it appears this may be due to reporting issues, which are being addressed by the Washington State Center for Health Statistics. In the majority of these reports, the hospital administrator certified the birth and the birth attendant was unknown. In these cases, the data have been recoded as unknown attendant. However, when the hospital administrator was listed as the birth attendant, the record was not recoded.

10. In 2003, Washington introduced a new electronic birth reporting system. To improve reporting, pre-set drop down boxes for completing the birth attendant field were added. Provider qualifications were pre-determined and may have influenced changes observed in the reporting of licensed midwives and nurses as birth attendants.

11. Based on a review of the data, the category "Certified Midwife" refers to Certified Nurse Midwives.

Perinatal Indicators Report for Washington Residents

Livebirth Delivery Services (cont'd)	1997		2004		2005		2006		2007		HP 2010	2006 WA Rank ¹²
Method of Delivery ¹³												
Total Vaginal Births	63,582	82.5%	59,233	72.8%	59,489	72.2%	62,155	71.6%	63,169	71.0%		
Vaginal Birth After C-Section (VBAC)	2,025	2.6%	1,130	1.4%	1,051	1.3%	1,090	1.3%	1,198	1.3%		
Primary C-Section	8,717	11.3%	15,647	19.2%	16,004	19.4%	17,077	19.7%	17,599	19.8%		
Repeat C-Section	4,741	6.2%	6,519	8.0%	6,870	8.3%	7,551	8.7%	8,176	9.2%		
Unknown	121		5	0.0%	1	0.0%	16	0.0%	0	0.0%		
Total C-Sections per 100 livebirths	17.5		27.2		27.8		28.4		29.0			17
Primary C-Section per 100 livebirths w/o history of c-section	12.4		21.2		21.5		21.9		22.1		15.5	
VBAC per 100 livebirths w/ history of c-section	29.9		14.8		13.3		12.6		12.8			8 of 19 states

- The distribution of the method of delivery has changed in Washington since 1990. In the early 1990s vaginal births increased and both primary and repeat c-sections decreased. Since 1998, the reverse has occurred. Vaginal births have decreased and both primary and repeat c-sections have increased.
- In 2007, about 71% of births were delivered vaginally, down from about 83% in the mid 1990s.
- The increase in c-section deliveries is also evident in the recent drop in the vaginal birth after c-section (VBAC) rate which decreased from approximately 30 VBACs per 100 livebirths with a history of c-section in the mid 1990s to 12.6 in 2006. The VBAC rate in 2007 is not statistically different from the rate in 2006.

12. The 2006 WA State Rank is the ranking of Washington among the 50 states based on the National Center for Health Statistics data, with 1 being the best and 50 the worst. Note that the rates reported in this document are based on the Washington State Center for Health Statistics reports and do not always match the federally reported Washington State rates. Among states, the cesarean sections rate ranged from 21.5 to 37.4%, and the VBAC rate for women with a history of c-section ranged from a high of 20.9 to 5.2% among the 19 states using the 2003 US Standard Birth Certificate.

13. In 2003, a new birth certificate form was introduced that collected method of delivery differently than the prior form. It appears that this may have affected the reporting of prior cesarean sections, consequently influencing the primary c-section proportion, the repeat c-section proportion, and the VBAC rates in 2003 and later years.

Perinatal Indicators Report for Washington Residents

Maternal Mortality and Morbidity ¹⁴	1997	2004	2005	2006	2007	HP 2010	2006 WA Rank
Maternal Mortality							
Pregnancy - Associated deaths per 100,000 livebirths ¹⁵	33.3	36.7	55.7	n/a	n/a		
Pregnancy - Related deaths per 100,000 livebirths ¹⁵	6.4	11	7.3	n/a	n/a		
Maternal Morbidity							
Total Diabetes per 100 livebirths		5.3	5.9	5.8	6.2		
Prepregnancy Diabetes		0.6	0.7	0.7	0.7		
Gestational Diabetes		4.8	5.1	5.1	5.5		
Total Hypertension per 100 livebirths		6.6	6.7	6.8	6.6		
Prepregnancy Hypertension		1.1	1.3	1.4	1.2		
Gestational Hypertension		5.5	5.4	5.4	5.4		
Group B Strep Culture Positive per 100 livebirths		16.7	16.8	17.5	17.2		

- From 1990-2005, the pregnancy-associated mortality ratio remained stable. In 2005, the ratio was 55.7 deaths per 100,000 livebirths. These deaths occur within one year of pregnancy and are due to any cause. They are not necessarily related to the pregnancy.
- From 1990-2005, the pregnancy-related mortality ratio has also been stable. In 2005, the ratio was 7.3 per 100,000 livebirths. These are deaths directly caused by pregnancy or by a condition exacerbated by pregnancy.
- Maternal morbidity as reported on the birth certificate indicates that in 2007 about 6% of women had diabetes, almost 7% of women had hypertension and about 17% of women were Group B Strep culture positive during pregnancy.

14. In many of the rates presented in this section, single year data are subject to fluctuation due to small numbers.

15. A pregnancy-associated death is a death of a woman while pregnant or within a year of delivery or termination of pregnancy from any cause. A pregnancy-related death is a death of a woman while pregnant or within a year of delivery or termination of pregnancy from any cause related to or aggravated by pregnancy or its management. Cause of death was determined by the Perinatal Advisory Committee Maternal Mortality Subcommittee.

Perinatal Indicators Report for Washington Residents

Maternal Mortality and Morbidity (cont'd)	1997	2004	2005	2006	2007	HP 2010	2006 WA Rank
Prepregnancy Body Mass Index (BMI) per 100 livebirths ¹⁶							
Underweight (BMI < 19.8)		10.3	9.9	10.0	9.7		
Normal Weight (BMI 19.8-26)		50.1	49.8	49.3	49.0		
Overweight (BMI >26-29)		14.6	14.6	14.7	14.8		
Obese (BMI >29)		25.1	25.8	25.9	26.5		
Morbidly Obese (BMI 40+)		3.6	3.8	3.7	3.8		
Unknown BMI (percent of all pregnant women)		19.2%	16.7%	12.9%	10.8%		
Weight Gain per 100 livebirths ¹⁷							
Recommended Weight Gain		31.7	31.7	33.2	32.8		
Less than Recommended Weight Gain		22.6	23.5	23.8	23.4		
Greater than Recommended Weight Gain		45.7	44.8	44.0	43.9		

- Among women with weight and height data, over 40% of women began pregnancy either overweight or obese. Almost 4% of women were morbidly obese.
- In addition, over 44% of women gained more weight during pregnancy than the amount recommended by the 1990 Institute of Medicine Report.
- Missing data from the birth certificate inhibit our ability to adequately track obesity among pregnant women in Washington. While the percent missing has improved considerably, over 10% of birth records were still missing prepregnancy weight or height in 2007. We cannot calculate the prepregnancy body mass index and pregnancy weight gain for these women.

16. Prepregnancy body mass index is calculated as $703.1 \times (\text{prepregnancy weight in pounds} / \text{height in inches}^2)$. As a reference, a woman who is 5'5" tall is underweight if she weighs less than 111 pounds before pregnancy, is normal weight if she weighs 111-149, is overweight if she weighs 150-179 pounds, is obese if she weighs 180 pounds or more, and is morbidly obese if she weighs over 240 pounds.

17. Weight gain is calculated as weight at delivery less prepregnancy weight. Categories of weight gain are based on the Institute of Medicine recommendations for weight gain in pregnancy and take prepregnancy BMI into account. The recommended pregnancy weight gain by prepregnancy BMI status is underweight (28-40 pounds), normal weight (25-35 pounds), overweight (15-25 pounds) and obese (15 pounds).

Perinatal Indicators Report for Washington Residents

Infant Mortality	1997	2004	2005	2006	2007	HP 2010	2006 WA Rank ¹⁸
Fetal deaths per 1,000 livebirths ¹⁹	5.8	5.3	6.3	5.6	5.5	4.1	30 (2005)
Perinatal deaths per 1,000 livebirths ²⁰	8.5	7.8	8.5	8.1	7.7	4.5 ²¹	
Infant deaths per 1,000 livebirths (period) ²²	5.6	5.5	5.1	4.7	4.8	4.5	2 (2005)
Neonatal deaths per 1,000 livebirths (period) ²³	3.4	3.3	3.0	3.0	2.8	2.9	3 (2005)
Post Neonatal deaths per 1,000 livebirths (period) ²⁴	2.3	2.2	2.0	1.7	2.0	1.2	
SIDS deaths per 1,000 livebirths (period) ²⁵	1.1	0.6	0.5	0.6	0.7		

- Total infant mortality declined significantly from 1990-1998. Rates then fluctuated for a few years. Since 2002, the infant mortality rate has declined by almost 13%.
- Between 1990 and 2006, there were no statistically significant changes in the rate of fetal or perinatal mortality.
- Both neonatal mortality and post neonatal mortality decreased significantly from 1990-2007.
- SIDS rates decreased significantly from 1990 through 2007. Improved death scene investigation and changes in reporting practices of coroners/medical examiners have played a role in this decline.

18. The 2006 WA State Rank is the ranking of Washington among the 50 states based on the National Center for Health Statistics data, with 1 being the best and 50 the worst. For 2005 infant mortality rates range from 4.46 per 1000 livebirths to 11.35 per 1000 livebirths. Neonatal mortality rates range from 2.96 per 1000 livebirths to 9.91 per 1000 livebirths and fetal death rates range from 2.84 per 1000 livebirths to 9.79 per 1000 livebirths.

19. Fetal death reporting in Washington is required when the fetus is 20 weeks gestation or more.

20. Perinatal deaths refer to fetal deaths of 20 weeks gestation or more as well as deaths to infants less than 7 days old.

21. The Healthy People 2010 target for perinatal mortality is defined as 28 weeks or more gestation plus deaths of infants less than 7 days old.

22. Infant deaths refer to deaths to infants from birth through 364 days of age. These are crude infant mortality rates which use infant deaths in a given year as the numerator and infant births in the same year as the denominator. These are also known as period infant mortality rates.

23. Neonatal deaths refer to deaths to infants birth through 27 days of age.

24. Post neonatal deaths refer to deaths to infants from 28 through 364 days of age.

25. Cause of death was coded with ICD-9 in 1990-1998 and with ICD 10 in 1999-2002. Rates prior to 1999 were adjusted by the ICD10-ICD9 comparability ratio for SIDS of 1.0362. See <http://www.doh.wa.gov/ehsphil/chs/chs-data/infdeath/download/InfantF1.xls> for additional information. When interpreting trends in SIDS, the category "unexplained infant death" should be considered to see if that has also changed over time. Since neither of these conditions is very well-defined, the designation of a particular infant death as SIDS (ICD-10 R95) vs. unexplained death (ICD-10 R99) may be a matter of personal preference on the part of the coroner or medical examiner.

Perinatal Indicators Report for Washington Residents

Mortality (cont'd) ²⁶	1997	2004	2005	2006	2007	HP 2010	2006 WA Rank ²⁶
Race/ethnic-specific Infant deaths per 1,000 livebirths (period) ²⁷							6 (2003-2005) ²⁶
Non-Hispanic White	5.4	4.9	5.0	3.9	4.3	4.5	11 (2003-2005) ²⁶
Non-Hispanic African American	10.8	12.0	10.3	6.7	10.0	4.5	2 of 36 (2003-2005) ²⁶
Non-Hispanic Native American	9.3	9.3	11.2	11.7	13.1	4.5	6 of 9 (2003-2005) ²⁶
Non-Hispanic Asian or Pacific Islander	4.2	5.4	3.7	4.0	4.6	4.5	9 of 17 (2003-2005) ²⁶
Hispanic Origin ²⁸	5.0	5.5	3.9	5.0	4.3		3 of 36 (2003-2005) ²⁶
Infant deaths per 1,000 livebirths (cohort) ²⁹							
Total	5.5	5.4	4.8	4.7	n/a		
Medicaid	7.2	6.8	5.6	5.9	n/a		
Non-Medicaid	4.3	4.3	4.1	3.7	n/a		
Singleton	5.1	5.0	4.4	4.3	n/a		
Twins	18.7	19.4	16.2	16.8	n/a		
Triplets	88.9	0.0	64.5	38.5	n/a		

- In 2007, African American (10.0 per 1,000) and Native American (13.1 per 1,000) mortality rates continued to exceed infant mortality rates of other race/ethnic groups.
- While the African American infant mortality rate has remained high, it has significantly decreased since 1990. The rate of decrease among African Americans is greater than the decrease among Non-Hispanic white women.
- The infant mortality among Native American infants has significantly increased since 1994. From 1990 to 1994, the infant mortality rate had significantly decreased.
- The Asian infant mortality rate has not significantly changed since 1990.
- The Hispanic infant mortality rate has not significantly changed since 1994. From 1990 to 1994, the infant mortality rate had significantly decreased.
- In 2006, the mortality of infants whose mothers received Medicaid-funded maternity care (5.9 per 1,000) continued to exceed the mortality of infants whose mothers did not receive Medicaid-funded maternity care (3.7 per 1,000). While both rates have declined since 1990, the mortality rate of infants whose mothers received Medicaid experienced a greater decline.
- In 2006, the mortality of twins (16.2 per 1,000) and triplets (38.5 per 1,000) greatly exceeded the mortality of singleton infants (4.4 per 1,000).

26. In many of the rates presented in this table, single year data are subject to fluctuation due to small numbers. The 2006 WA State Rank is the ranking of Washington among the 50 states based on the National Center for Health Statistics data, with 1 being the best and 50 the worst. These rates are 2003-2005 combined. For whites, the range was 3.95 to 7.54 per 1000 livebirths. For African Americans, the range was 8.58 to 17.20 per 1000 livebirths. For Native Americans the range was 6.24 to 12.73 per 1000 livebirths. For Asian or Pacific Islanders the range was 3.79 to 8.06 per 1000 livebirths. For Hispanics, the range was 4.25 to 7.69 per 1000 livebirths.

27. Race and ethnicity are determined from the birth certificate after matching infant death certificates to the child's birth certificate. There were 26, 20, 34, 57, 25, and 20 deaths in 1996, 2001-2005 that were of unknown race/ethnicity. In 2003, WA introduced a new birth certificate form which allows for designation of multiple races. In order to compare 2003 and later data with previous years, records with multiple race designations (2.7% in 2007) were statistically "bridged" into one of the five major race categories used prior to 2003. This is also the reason why no livebirths show up as "Other"; if selected they were recoded to one of the five categories.

28. Persons of Hispanic origin may be of any race.

29. These are cohort infant mortality rates. Cohort mortality rates describe the experience of a birth cohort. The denominator includes all births in a specified year (cohort) and the deaths before 365 days of age among those infants in the numerator. The deaths may occur in the cohort year or the subsequent year. These data come from the First Steps Database and exclude approximately 500 births each year that are unavailable for matching to Medical Assistance data.

Perinatal Indicators Report for Washington Residents

Birth Weight	1997	2004	2005	2006	2007	HP 2010	2006 WA Rank ³⁰
Low Birth Weight Births ³¹							
Low birth weight (LBW) births per 100 livebirths	5.6	6.2	6.1	6.5	6.3	5.0%	3
Singleton	4.5	4.8	4.7	5.0	4.9		
Multiple Births	47.7	51.5	52.6	53.0	52.8		
Singleton LBW births per 100 singleton livebirths ³²							
Non-Hispanic White	4.1	4.3	4.1	4.3	4.4		
Non-Hispanic African American	9.0	8.8	8.3	8.7	8.3		
Non-Hispanic Native American	6.5	6.1	5.9	6.4	6.4		
Non-Hispanic Asian or Pacific Islander	5.0	6.0	6.0	6.3	6.1		
Hispanic Origin ³³	4.7	5.0	5.0	5.4	4.8		
Medicaid ³⁴							
Medicaid	5.6	5.7	5.3	5.8	5.5		
Non-Medicaid	3.7	4.0	4.0	4.3	4.2		

- Total low birth weight (LBW) increased steadily from 5.3% in 1990 to 6.3% in 2007. The increase in total low birth weight is in part attributable to the influence of multiple births. However, the singleton low birth weight rate has also increased steadily.
- In 2007, the highest singleton LBW rate was for Non-Hispanic African Americans (8.3%), despite this group's significant decrease in singleton LBW since 1990.
- The singleton LBW rates of all race or ethnic groups except African Americans have significantly increased since 1990.
- In 2007, the Medicaid singleton LBW rate (5.5%) continued to exceed the Non-Medicaid singleton LBW rate (4.2%).

30. The 2006 WA State Rank is the ranking of Washington among the 50 states based on the National Center for Health Statistics data, with 1 being the best and 50 the worst. Note that the rates reported in this document are based on the Washington State Center for Health Statistics reports and do not always match the federally reported Washington State rates. Total LBW rates ranged from 6.0 per 100 livebirths to 12.4 per 100 livebirths.

31. Low birth weight is defined as less than 2,500 grams (5 lbs. 8 oz.).

32. In 2003, WA introduced a new birth certificate form which allows for designation of multiple races. In order to compare data from 2003 and later with previous years, records with multiple race designations (2.7% in 2006) were statistically "bridged" into one of the five major race categories used prior to 2003.

33. Persons of Hispanic origin may be of any race.

34. These data come from the First Steps Database and exclude approximately 500 births each year that are unavailable for matching to Medical Assistance data.

Perinatal Indicators Report for Washington Residents

Birth Weight (cont'd)	1997	2004	2005	2006	2007	HP 2010	2006 WA Rank ³⁵
Very Low Birth Weight Births ³⁶							
Very low birth weight (VLBW) births per 100 livebirths	1.0	1.1	0.9	1.0	1.1	0.9%	1
Singleton VLBW births per 100 singleton livebirths ³⁷							
Total	0.8	0.8	0.7	0.8	0.8		
Non-Hispanic White	0.8	0.7	0.6	0.6	0.7		
Non-Hispanic African American	2.0	1.5	1.6	1.9	1.6		
Non-Hispanic Native American	0.6	0.8	0.9	0.5	0.8		
Non-Hispanic Asian or Pacific Islander	0.7	0.9	0.8	0.7	0.9		
Hispanic Origin ³⁸	0.9	0.9	0.8	0.9	0.8		
Medicaid ³⁹	1.0	1.0	0.8	0.9	0.9		
Non-Medicaid	0.6	0.7	0.6	0.7	0.7		
VLBW births at Facilities with Level III Perinatal Services ⁴⁰	n/a	86.1%	87.8%	85.9%	85.8%	90%	
Births < 1000 g at Facilities with Level III Perinatal Services ⁴⁰	n/a	84.3%	86.1%	83.6%	81.7%		

- While it is not visible in the rates presented above, both the total VLBW and singleton VLBW rates increased significantly from 1990 to 2007. During this time, trends in race-specific VLBW rates were not significant, except for a significant increase among Asians and Pacific Islanders.
- The singleton VLBW rate among African Americans has remained approximately twice the rate of Whites between 1990 and 2007.
- One measure used to evaluate the effectiveness of perinatal regionalization is the percent of VLBW births occurring at facilities with Level III perinatal Services. In Washington State, approximately 86% of VLBW infants were born at facilities with Level III perinatal services in 2007.

35. The 2006 WA State Rank is the ranking of Washington among the 50 states based on the National Center for Health Statistics data, with 1 being the best and 50 the worst. Note that the rates reported in this document are based on the Washington State Center for Health Statistics reports and do not always match the federally reported Washington State rates. VLBW rates ranged from 1.0 per 100 livebirths to 2.3 per 100 livebirths.

36. Very low birth weight is defined as less than 1,500 grams (3 lbs. 4 oz.).

37. In 2003, WA introduced a new birth certificate form which allows for designation of multiple races. In order to compare data from 2003 and later with previous years, records with multiple race designations (2.7% in 2006) were statistically "bridged" into one of the five major race categories used prior to 2003.

38. Persons of Hispanic origin may be of any race.

39. These data come from the First Steps Database and exclude approximately 500 births each year that are unavailable for matching to Medical Assistance data.

40. These data are limited to resident births that occurred in Washington State. Facilities with Level III Perinatal Services are as recommended by the Perinatal Advisory Committee Subgroup on Perinatal Level of Care.

Perinatal Indicators Report for Washington Residents

Preterm Births ⁴²	1997	2004	2005	2006	2007	HP 2010	2006 WA Rank ⁴¹
Preterm births per 100 livebirths ⁴³	8.9	10.0	10.3	10.7	10.4	7.6%	7
Non-Hispanic White	8.4	9.5	9.6	10.0	9.7		
Non-Hispanic African American	13.4	12.7	13.0	9.9	13.6		
Non-Hispanic Native American	11.3	13.7	15.7	16.5	16.5		
Non-Hispanic Asian or Pacific Islander	10.0	9.2	10.6	10.9	10.5		
Hispanic Origin ⁴⁴	9.8	10.7	11.0	11.5	11.0		
Very preterm (<32 weeks)	1.3	1.6	1.5	1.5	1.5		
Moderately preterm (32-36 weeks)	7.6	8.4	8.8	9.2	8.8		
Singleton preterm births per 100 livebirths ⁴³	8.0	8.8	9.1	9.4	9.2		
Non-Hispanic White	7.3	8.2	8.3	8.6	8.4		
Non-Hispanic African American	12.4	11.5	11.9	11.3	12.3		
Non-Hispanic Native American	10.8	12.8	14.5	15.2	14.4		
Non-Hispanic Asian or Pacific Islander	9.3	8.3	9.9	9.8	9.6		
Hispanic Origin ⁴⁴	9.4	9.8	10.2	10.8	10.1		
Singleton very preterm (<32 weeks)	1.1	1.2	1.2	1.2	1.2		
Singleton moderately preterm (32-36 weeks)	6.9	7.6	7.9	8.2	8.0		

- The rate of singleton preterm birth is not quite double the singleton LBW rate. In 2007, approximately two-thirds of singleton preterm infants in Washington State were normal weight (2500 grams or more) at delivery.
- The rate of singleton preterm birth increased significantly from 1993 to 2007. Rates of both moderately preterm birth (32-36 weeks) and very preterm birth (< 32 weeks) increased.

41. The 2006 WA State Rank is the ranking of Washington among the 50 states based on the National Center for Health Statistics data, with 1 being the best and 50 the worst. Note that the rates reported in this document are based on the Washington State Center for Health Statistics reports and do not always match the federally reported Washington State rates. Preterm birth rates ranged from 9.6 per 100 livebirths to 18.8 per 100 livebirths.

42. Gestational age is calculated following National Center for Health Statistics methodology. This is documented at <http://www.cdc.gov/nchs/data/dvs/instr12.pdf>.

43. In 2003, WA introduced a new birth certificate form which allows for designation of multiple races. In order to compare data from 2003 and later with previous years, records with multiple race designations (2.7% in 2006) were statistically "bridged" into one of the five major race categories used prior to 2003.

44. Persons of Hispanic origin may be of any race.

Perinatal Indicators Report for Washington Residents

Initiation of Prenatal Care ⁴⁶	1997	2004	2005	2006	2007	HP 2010	2006 WA Rank ⁴⁵
First Trimester Prenatal Care per 100 pregnant women							
Total	83.5	79.3	79.3	78.6	76.4	90%	14 (among 18 states)
Medicaid	73.6	69.0	69.4	68.4	65.3		
Non-Medicaid	90.5	88.3	88.3	87.7	86.6		
Late/No Prenatal Care per 100 pregnant women ⁴⁷							
Total	3.3	4.9	4.6	5.0	5.5		14 (among 18 states)
Medicaid	5.3	7.4	7.0	7.5	8.2		
Non-Medicaid	1.9	2.7	2.4	2.7	3.0		
Unknown Prenatal Care (percent of all pregnant women)							
Total	9.3%	18.0%	16.4%	12.7%	8.7%		
Medicaid	10.8%	17.0%	16.2%	12.1%	8.0%		
Non-Medicaid	8.1%	18.7%	16.6%	13.1%	9.4%		

- Prenatal care initiation in the first trimester dropped to 76.4% in 2007. First trimester prenatal care has recently declined for women on Medicaid and women not on Medicaid.
- First trimester prenatal care initiation for women receiving Medicaid increased on average 5% per year between 1991 and 1995 (First Steps started in August 1989). There was no significant change from 1995-2002, and the rate has declined over 2% per year since 2002.
- The percentage of women with late or no prenatal care significantly increased from 2002-2006. The rate increased for women on Medicaid and women not on Medicaid. The overall rate of late or no prenatal care was 5.5% (about 4,400 women) in 2007.
- The high number (and percent) of birth certificates with missing data for prenatal care became a greater problem in 2003. This is due to changes in the birth certificate reporting form which asks for the exact date of first prenatal visit. The percent missing prenatal care data improved considerably since 2003.

45. Eighteen states, including Washington, used the 2003 revision of the birth certificate in 2006. Among these states, first trimester prenatal care ranged from 61.6% to 83.8%. Late or no prenatal care ranged from 2.4% to 7.1%.

46. These data are from the First Steps Database and reflect prenatal care provided to women who delivered either a livebirth or fetal death. These data exclude approximately 500 births every year that are unavailable for matching to Medical Assistance data. First trimester prenatal care and late/no prenatal care rates are calculated after excluding records missing month prenatal care began. "Unknown prenatal care" represents the proportion of all records missing month prenatal care began.

47. "Late/No prenatal care" refers to women who received prenatal care during their third trimester or received no prenatal care.

Perinatal Indicators Report for Washington Residents

Medicaid Expenditures for Maternal & Infant Services ^{48, 49}	1997	2004	2005	2006	2007	HP 2010	2006 WA Rank
Average costs per client for maternal services (prenatal through end of 2nd month post partum)	\$5,280	\$7,548	\$7,796	\$7,803	\$7,949		
Average costs per client for infant services (first year of life)	\$3,723	\$6,050	\$6,307	\$6,705	\$7,168		
Combined average costs for maternal/infant services	\$9,003	\$13,598	\$14,103	\$14,508	\$15,117		

- Average Medicaid Expenditures per client for maternal and infant services have more than doubled since 1996.

Data for the perinatal indicators on this and previous pages come from Washington State birth, fetal death, and death certificate data as well as the First Steps Database. The following perinatal indicators come from the Pregnancy Risk Assessment Monitoring System (PRAMS), an ongoing population based surveillance system sponsored by the Centers for Disease Control and Prevention that surveys new mothers who are representative of all registered births to Washington State residents. The Washington State Department of Health has collected PRAMS data since 1993. For more information on PRAMS data, contact MCH Assessment at 360-236-3533 or visit the website at <http://www.doh.wa.gov/cfh/prams>.

48. Dollars are the actual amounts paid for a given year and have not been adjusted for inflation. These data were reported by the First Steps Database in February 2006. Data are subject to change as claims are paid.

49. Maternity Support Services and Maternity Case Management costs are included in the prenatal and post partum costs.

Perinatal Indicators Report for Washington Residents

Pregnancy Smoking ⁴⁸	PRAMS 1997		PRAMS 2005		PRAMS 2006		PRAMS 2007	
	Percent	95% CI	Percent	95% CI	Percent	95% CI	Percent	95% CI
Smoking in 3 months before pregnancy per 100 pregnant women								
Total	24	(21, 28)	18	(16, 22)	21	(18, 24)	20	(17, 23)
Medicaid	37	(31, 42)	26	(22, 31)	31	(26, 36)	28	(24, 33)
Non-Medicaid	17	(14, 21)	11	(8, 14)	13	(10, 17)	14	(10, 17)
Smoking in last 3 months of pregnancy per 100 pregnant women								
Total	13	(11, 16)	9	(7, 11)	12	(10, 15)	9	(7, 12)
Medicaid	23	(19, 28)	15	(11, 19)	19	(16, 24)	16	(12, 20)
Non-Medicaid	6	(4, 9)	4	(2, 6)	6	(4, 9)	5	(3, 7)
Smoking at post partum interview per 100 pregnant women ⁴⁸								
Total	18	(16, 21)	13	(10, 15)	15	(12, 18)	13	(11, 16)
Medicaid	31	(26, 36)	20	(16, 25)	23	(19, 28)	22	(17, 26)
Non-Medicaid	10	(8, 14)	5	(4, 8)	7	(5, 11)	6	(4, 9)

- According to the Pregnancy Risk Assessment Monitoring System (PRAMS), smoking in the three months before pregnancy, in the last three months of pregnancy and at post partum interview (2-6 months after delivery) declined significantly from 1996 to 2007.
- This pattern was similar for both women receiving Medicaid and women not receiving Medicaid. Women receiving Medicaid have higher smoking rates at each time period, and have experienced a slower rate of decrease than women not receiving Medicaid.
- This smoking data is from PRAMS because we observed substantial underreporting of smoking on the birth certificate compared to PRAMS.

48. The Pregnancy Risk Assessment Monitoring System which is administered 2-6 months postpartum.

Perinatal Indicators Report for Washington Residents

Unintended Pregnancy	PRAMS 1997		PRAMS 2005		PRAMS 2006		PRAMS 2007	
	Percent	95% CI	Percent	95% CI	Percent	95% CI	Percent	95% CI
Survey Question 10. Thinking back to just before you got pregnant, how did you feel about becoming pregnant?								
I wanted to be pregnant sooner								
Total	23	(20, 26)	18	(15, 21)	18	(16, 21)	21	(18, 24)
Medicaid	21	(17, 26)	12	(10, 16)	13	(10, 16)	12	(9, 16)
Non-Medicaid	24	(20, 28)	23	(19, 27)	23	(19, 27)	27	(23, 32)
I wanted to be pregnant later								
Total	28	(25, 31)	28	(25, 31)	28	(25, 32)	29	(26, 32)
Medicaid	43	(38, 48)	38	(33, 42)	41	(36, 45)	43	(38, 48)
Non-Medicaid	19	(15, 23)	19	(15, 23)	18	(15, 22)	18	(14, 22)
I wanted to be pregnant then								
Total	40	(37, 44)	45	(41, 48)	45	(42, 49)	43	(40, 47)
Medicaid	26	(22, 31)	39	(34, 44)	36	(32, 41)	34	(30, 39)
Non-Medicaid	49	(45, 54)	50	(45, 55)	50	(49, 58)	51	(46, 55)
I didn't want to be pregnant then or at any time in the future								
Total	9	(7, 11)	9	(7, 12)	8	(7, 11)	7	(6, 9)
Medicaid	10	(7, 13)	10	(8, 14)	11	(8, 15)	11	(8, 15)
Non-Medicaid	8	(6, 11)	8	(6, 11)	6	(4, 9)	4	(3, 7)
Estimated births from unintended pregnancies ⁵⁰								
Total	37	(33, 40)	37	(34, 41)	37	(33, 43)	36	(33, 39)
Medicaid	53	(48, 58)	48	(43, 53)	51	(46, 56)	54	(49, 58)
Non-Medicaid	27	(23, 31)	27	(23, 32)	24	(20, 28)	22	(18, 26)
Estimated pregnancies that were unintended ⁵¹								
	53		51		51		50	

■ Approximately 36% of Washington State births resulted from unplanned pregnancies in 2007. This rate is significantly higher for women receiving Medicaid (54%) than for women not receiving Medicaid (22%).

■ The unintended pregnancy rate was approximately 50% in 2007. (This rate includes births and abortions.)

50. Responses to "I wanted to be pregnant later" are referred to as "mistimed" and responses to "I didn't want to be pregnant then or at any time in the future" are referred to as "unwanted." Together these two categories are what is considered "unintended."

51. Estimated pregnancies that are unintended are calculated by taking the estimated births that were unintended from PRAMS and multiplying this by the number of livebirths. The number of abortions is added to this number, and then the sum is divided by the number of livebirths and abortions. This estimate assumes that all reported abortions are due to unintended pregnancies, though a small percentage might be medically indicated.

Perinatal Indicators Report for Washington Residents

Provider Screening	PRAMS 1997		PRAMS 2005		PRAMS 2006		PRAMS 2007	
	Percent	95% CI	Percent	95% CI	Percent	95% CI	Percent	95% CI
Survey Question 21. During any of your prenatal care visits, did a doctor, nurse, or other health care worker ask you questions about any of the things listed below?								
a. If you were smoking cigarettes								
Total	na		91	(89, 93)	94	(92, 95)	93	(91, 94)
Medicaid			93	(91, 95)	96	(93, 97)	96	(93, 97)
Non-Medicaid			89	(86, 92)	92	(98, 94)	91	(87, 93)
b. How much alcohol you were drinking								
Total	na		84	(82, 87)	87	(85, 89)	88	(86, 90)
Medicaid			86	(82, 89)	85	(81, 89)	90	(87, 93)
Non-Medicaid			83	(79, 86)	89	(85, 91)	86	(83, 89)
c. If someone was hurting you emotionally or physically								
Total	na		69	(66, 72)	75	(72, 78)	73	(69, 75)
Medicaid			77	(73, 81)	80	(75, 83)	81	(77, 85)
Non-Medicaid			61	(56, 66)	71	(67, 75)	66	(61, 70)
d. If you were using illegal drugs (marijuana or hash, cocaine, crack, etc.)								
Total	na		76	(73, 79)	78	(75, 81)	78	(75, 81)
Medicaid			85	(81, 88)	85	(81, 88)	86	(82, 89)
Non-Medicaid			69	(64, 73)	73	(68, 77)	72	(67, 76)
e. If you wanted to be tested for HIV (the virus that causes AIDS)								
Total	na		82	(80, 85)	83	(81, 86)	79	(76, 82)
Medicaid			84	(80, 88)	83	(79, 87)	85	(81, 88)
Non-Medicaid			81	(76, 84)	84	(80, 87)	74	(70, 78)
f. If you planned to use birth control after your baby was born								
Total	na		90	(87, 92)	89	(87, 91)	89	(87, 91)
Medicaid			93	(90, 95)	94	(92, 96)	93	(90, 95)
Non-Medicaid			86	(82, 89)	85	(81, 88)	86	(83, 89)

- [New mothers reported provider screening rates over 85% for smoking, alcohol use, postpartum birth control, and prenatal screening in 2007.](#)
- [In 2007, mothers reported the lowest provider screening rates for domestic violence \(73%\) and use of illegal drugs \(76%\). However, both of these screening rates increased significantly since 2000 among all women and women receiving Medicaid.](#)
- [Women receiving Medicaid were more likely to report a health care provider asked them about domestic violence, illegal drug use, if they wanted to be tested for HIV, or postpartum birth control use than women not receiving Medicaid.](#)

Perinatal Indicators Report for Washington Residents

Provider Screening (continued)	PRAMS 1997		PRAMS 2005		PRAMS 2006		PRAMS 2007	
	Percent	95% CI	Percent	95% CI	Percent	95% CI	Percent	95% CI
Survey Question 66. At any time during your pregnancy, did a doctor, nurse or other health care worker ask you about the following things?								
a. "Baby blues" or post partum depression								
Total	69	(65, 72)	81	(78, 84)	82	(81, 86)	82	(79, 85)
Medicaid	72	(67, 76)	85	(81, 88)	87	(83, 99)	87	(84, 90)
Non-Medicaid	67	(62, 71)	78	(74, 82)	82	(78, 85)	78	(74, 82)
b. Tests that could be done during your pregnancy to see if your baby had a birth defect or genetic disease.								
Total	80	(77, 83)	83	(80, 86)	84	(81, 86)	86	(84, 88)
Medicaid	80	(76, 84)	84	(80, 87)	81	(77, 85)	85	(81, 88)
Non-Medicaid	80	(77, 84)	82	(78, 86)	86	(83, 89)	87	(83, 90)

Breastfeeding	PRAMS 1997		PRAMS 2005		PRAMS 2006		PRAMS 2007	
	Percent	95% CI	Percent	95% CI	Percent	95% CI	Percent	95% CI
Survey Question 46. Did you ever breastfeed or pump breast milk								
Percent of women who responded they ever breastfed								
Total	87	(84, 89)	93	(91, 95)	91	(89, 93)	93	(91, 94)
Medicaid	81	(77, 85)	90	(86, 93)	86	(82, 89)	90	(86, 93)
Non-Medicaid	90	(87, 93)	96	(94, 98)	95	(93, 97)	95	(92, 97)
Percent of women who reported breastfeeding at two months post partum								
Total	63	(60, 66)	75	(72, 78)	72	(69, 75)	72	(68, 75)
Medicaid	51	(46, 56)	67	(62, 71)	62	(57, 67)	62	(57, 67)
Non-Medicaid	71	(67, 75)	82	(78, 86)	80	(76, 84)	79	(75, 83)

- Provider screening for alcohol use and postpartum depression also increased significantly from 2000 to 2007 among all women and women receiving Medicaid.
- In 2007, initiation of breastfeeding was high in Washington State at approximately 93%. However, rates dropped to approximately 72% by two months postpartum.
- This decline is more acute among women receiving Medicaid. Approximately 90% of women receiving Medicaid reported initiating breastfeeding, but this rate dropped to approximately 62% by two months postpartum.

Perinatal Indicators Report for Washington Residents

Folic Acid Use Prior to Pregnancy	PRAMS 1997		PRAMS 2005		PRAMS 2006		PRAMS 2007	
	Percent	95% CI	Percent	95% CI	Percent	95% CI	Percent	95% CI
Survey Question 3. In the month <i>before</i> you got pregnant with your								
I didn't take a multivitamin at all								
Total	na		54	(51, 57)	54	(51, 57)	52	(48, 55)
Medicaid	na		76	(72, 80)	73	(68, 77)	73	(69, 77)
Non-Medicaid	na		33	(28, 38)	38	(34, 43)	34	(30, 39)
1 to 3 times a week								
Total	na		11	(9, 13)	10	(8, 12)	9	(7, 11)
Medicaid	na		6	(4, 9)	5	(4, 8)	7	(5, 9)
Non-Medicaid	na		15	(12, 19)	14	(11, 17)	10	(8, 14)
4 to 6 times a week								
Total	na		7	(5, 9)	9	(8, 12)	10	(8, 12)
Medicaid	na		4	(2, 6)	7	(5, 10)	6	(4, 9)
Non-Medicaid	na		10	(7, 13)	12	(9, 15)	13	(10, 16)
Every day of the week								
Total	na		28	(25, 32)	27	(23, 30)	30	(27, 33)
Medicaid	na		14	(11, 18)	15	(12, 19)	14	(11, 18)
Non-Medicaid	na		42	(38, 47)	36	(32, 41)	43	(38, 48)

- In 2007, only about 30% of women reported taking a multivitamin every day of the week, and about 52% of women reported not taking any multivitamin at all in the month prior to becoming pregnant.
- Women receiving Medicaid were less likely to report daily use, and more likely than women not receiving Medicaid to report not taking a multivitamin at all in the month prior to becoming pregnant.

Perinatal Indicators Report for Washington Residents

Sleep Position	PRAMS 1997		PRAMS 2005		PRAMS 2006		PRAMS 2007	
	Percent	95% CI	Percent	95% CI	Percent	95% CI	Percent	95% CI
Survey Question 51. How do you <i>most often</i> lay your baby down to sleep now?								
On his or her side								
Total	36	(33, 40)	11	(9, 13)	10	(8, 12)	9	(7, 11)
Medicaid	46	(41, 51)	14	(11, 18)	12	(10, 16)	12	(9, 15)
Non-Medicaid	30	(26, 35)	8	(6, 11)	8	(6, 11)	6	(4, 9)
On his or her back								
Total	53	(50, 57)	78	(75, 81)	78	(75, 80)	80	(77, 82)
Medicaid	45	(40, 50)	73	(69, 78)	75	(70, 79)	76	(72, 80)
Non-Medicaid	58	(54, 63)	82	(78, 86)	80	(76, 84)	82	(78, 86)
On his or her stomach								
Total	11	(9, 13)	6	(5, 8)	8	(7, 11)	8	(6, 10)
Medicaid	9	(7, 12)	5	(3, 8)	8	(5, 11)	6	(4, 9)
Non-Medicaid	11	(9, 15)	7	(5, 10)	9	(7, 12)	10	(7, 13)
On his or her side and back								
Total			4	(3, 5)	2	(2, 3)	3	(2, 4)
Medicaid			7	(5, 10)	3	(2, 5)	4	(3, 6)
Non-Medicaid			1	(1, 3)	1	(0.1, 3)	1	(0, 3)
Other ⁵²								
Total			1	(1,3)	2	(1,3)	1	(1,2)
Medicaid			2	(1,4)	2	(1,4)	2	(1,4)
Non-Medicaid			1	(1,3)	1	(0,3)	0	(0,2)

- In 2007, approximately 80% of mothers reported laying their newborns down to sleep most often on their backs.
- Between 2000 and 2007, the percentage of women who reported laying their newborns down to sleep on their back increased significantly. This increase was greater among women who received Medicaid.

52. "Other" includes "side and stomach," "back and stomach," and "all 3 positions."

Perinatal Indicators Report for Washington Residents

Post Partum Depression

Survey Question 70a. *Since your new baby was born, how often have you felt down, depressed, or hopeless?*

Always or Often

	PRAMS 1997		PRAMS 2005		PRAMS 2006		PRAMS 2007	
	Percent	95% CI	Percent	95% CI	Percent	95% CI	Percent	95% CI
Total	na		9	(7, 11)	9	(7, 11)	8	(7, 11)
Medicaid	na		14	(11, 18)	13	(10, 17)	11	(8, 15)
Non-Medicaid	na		4	(3, 6)	6	(4, 9)	6	(4, 9)

Survey Question 70b. *Since your new baby was born, how often have you had little interest or little pleasure in doing things?*

Always or Often

	PRAMS 1997		PRAMS 2005		PRAMS 2006		PRAMS 2007	
	Percent	95% CI	Percent	95% CI	Percent	95% CI	Percent	95% CI
Total	na		8	(6, 10)	10	(8, 13)	10	(8, 12)
Medicaid	na		10	(7, 13)	14	(11, 18)	13	(10, 17)
Non-Medicaid	na		6	(4, 9)	7	(5, 10)	7	(5, 10)

Post Partum Depression Symptoms

Women who answered "Always" or "Often" to post partum depression screening questions: 70a or 70b

	PRAMS 1997		PRAMS 2005		PRAMS 2006		PRAMS 2007	
	Percent	95% CI	Percent	95% CI	Percent	95% CI	Percent	95% CI
Total	na		13	(11, 16)	15	(12, 17)	14	(12, 17)
Medicaid	na		19	(15, 23)	20	(16, 25)	19	(15, 24)
Non-Medicaid	na		8	(6, 11)	10	(7, 13)	10	(7, 13)

- In 2007, approximately 9% of mothers reported always or often feeling down, depressed or hopeless, and 10% reported always or often having little interest or pleasure in doing things.
- Research has shown that these two questions combined identify subjects at higher risk for post partum depression. These women should undergo a more complete diagnostic evaluation.⁵³
- In 2007, 14% of women expressed experiencing postpartum depression symptoms. Women on Medicaid were almost twice as likely to report symptoms as women who did not receive Medicaid.

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Perinatal Indicators Report for Washington Residents

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Note: All of the Internet links cited above were current as of May 6, 2009.