

# Natality

In 2012, Oregon recorded **45,059 resident births**, 77 fewer than in 2011. The **crude birth rate** (the number of babies born divided by the total state population) was 11.6 per 1,000 population (see Table 1-2). Oregon's crude birth rate peaked in 1947 at 25.4 per 1,000 population. Since 1980, Oregon's rates have held in the mid- to low-teens, ranging from a high of 16.4 in 1980 to the current low of 11.6. Except for the period between 1976 and 1981, Oregon's crude birth rate has remained lower than the national rate for the past 50 years. In 2012, Oregon's rate was 7.9% lower than the national rate (11.6 vs. 12.6) (see Figure 2-1).

Oregon's **fertility rate** decreased from 59.3 in 2011 to 58.8 per 1,000 women aged 15–44 in 2012 (see sidebar Table 2-A, Table 2-2). The fertility rate is based on the number of births per 1,000 women aged 15–44. The fertility rate is a more precise measurement of changes in behavioral patterns than crude birth rate. The fertility rate relates only to women of childbearing age, while the crude rate is based on the entire population. Age-specific birth rates decreased for women in the younger age groups; birth rates increased for women 30 and older. The largest percentage decrease was among women aged 15–19 (8.7%), while the largest increase was among women aged 35–39 (3.5%) (see Table 2-2, Figure 2-2).

***Oregon's crude birth rate and fertility rate both remain below the national rates.***

Table 2-A. Fertility Rates Per 1,000 Females 15-44, Oregon & U.S.		
Year	Oregon	U.S.
1980	69.3	68.4
1985	62.2	66.3
1990	65.1	70.9
1991	63.7	69.3
1992	62.5	68.4
1993	61.1	67.0
1994	61.0	65.9
1995	62.3	64.6
1996	63.2	64.1
1997	63.0	63.6
1998	64.2	64.3
1999	64.2	64.4
2000	62.9	65.9
2001	61.6	65.3
2002	60.9	64.8
2003	61.2	66.1
2004	60.0	66.3
2005	62.2	66.7
2006	65.5	68.5
2007	66.0	69.2
2008	64.6	68.6
2009	62.0	66.7
2010	60.0	66.7
2011	59.3	63.2
2012	58.8	63.0

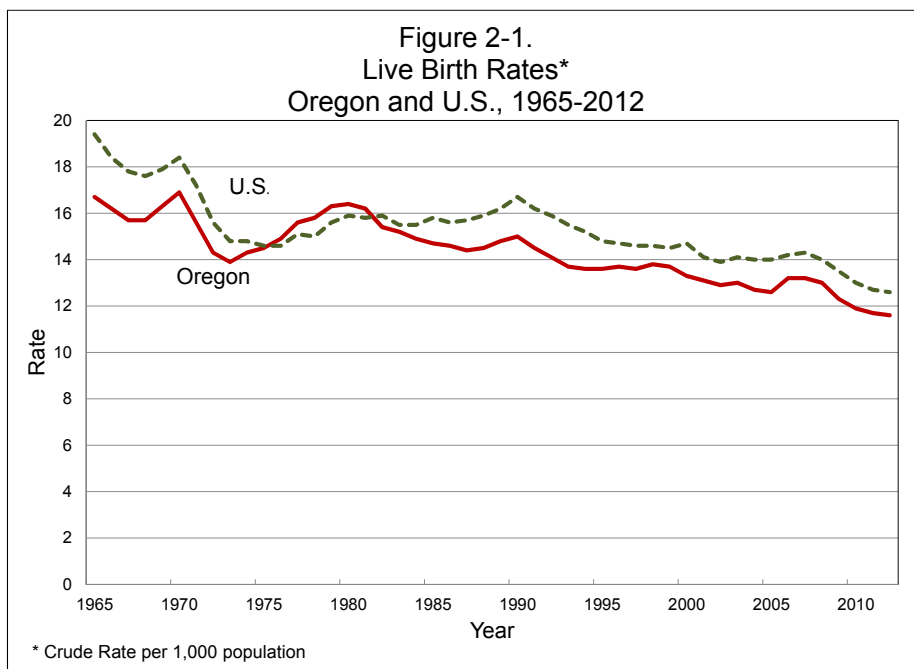
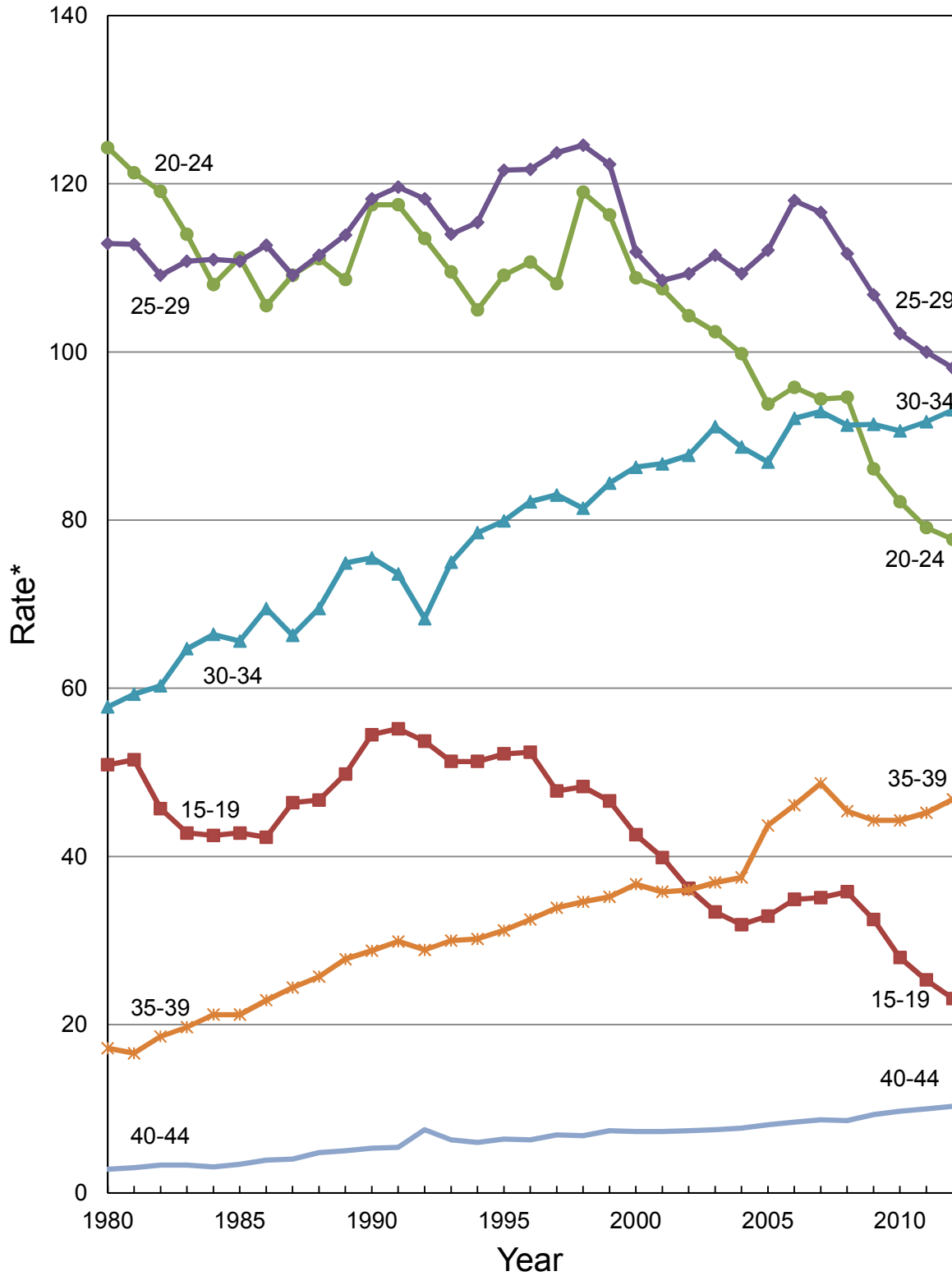


Figure 2-2.  
Age-specific Birth Rates,  
Oregon Residents, 1980-2012



\*Rate per 1,000 females

The youngest female to give birth in 2012 was 13 years old and the oldest was 54. Mother's median age for all births was 28 and the mean age was 28.4. The median age at first birth was 26 and the mean age was 26.3. The **rate of first birth** remained stable from the previous year at 23.7 first births per 1,000 women aged 15–44, slightly lower than the 2012 national rate of 25.2. The proportion of first births among total births has been stable for the past decade. In 2000, 40.1% of births were first births while in 2012, 40.3% were first births.

Father's mean age for births was 31.1 years and the median age was 31. The **birth rate per 1,000 men** ages 15–54 was 43.1 in 2012 for Oregon resident births. Information on the father was missing from 9.3% of birth certificates. Unknown father age was distributed in the same manner as national data (see Technical Notes — definitions, Appendix B). The national birth rate for men in 2012 was 46.1 per 1,000 men.

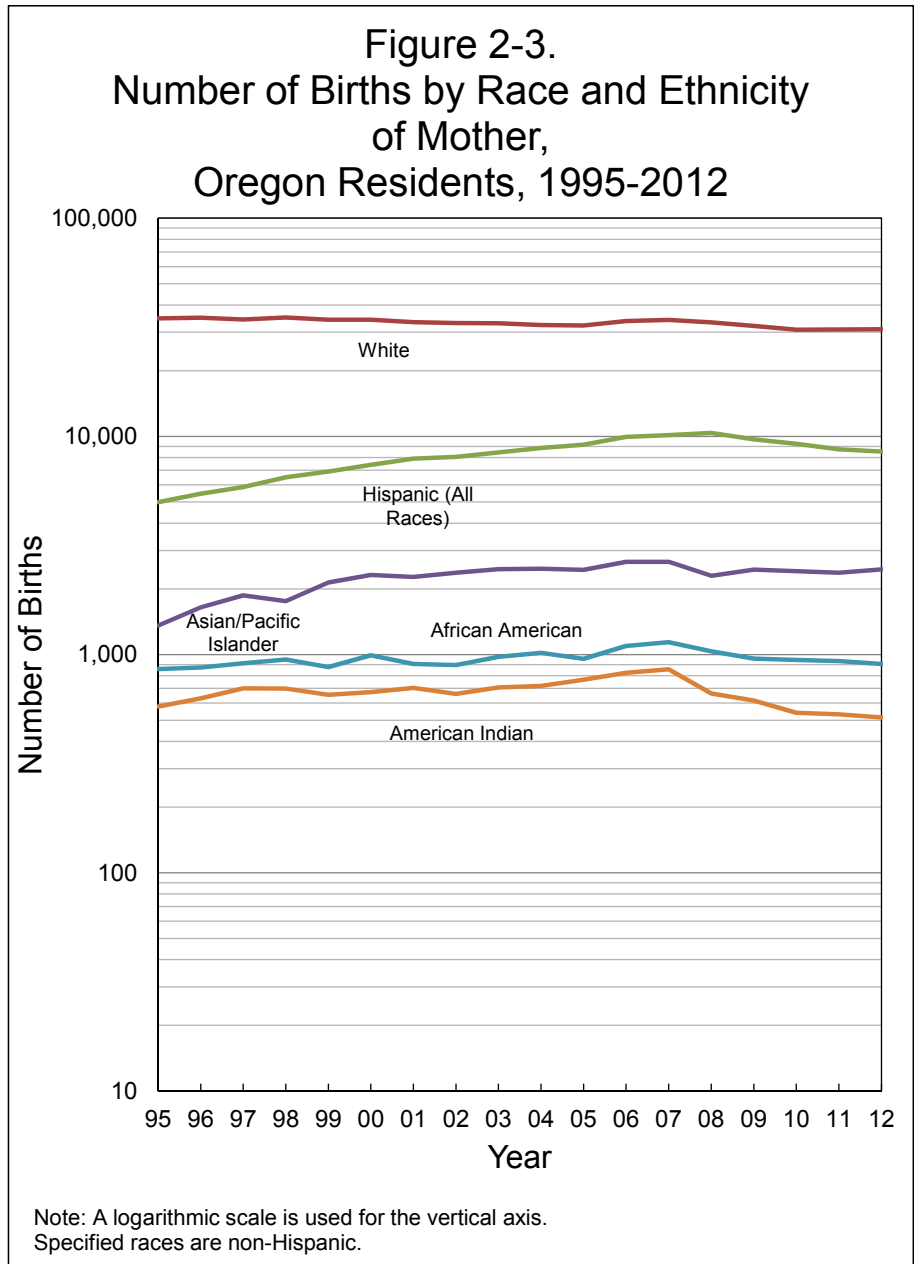
## Demographics

### Maternal race/ethnicity

Birth rates for racial and ethnic groups are not calculated in this report because precise population data by racial and ethnic groups are available only for census years. Instead, this report focuses on the race and ethnicity of women who gave birth as a proportion of total births.

Since 1989, the number of births to women of Hispanic ethnicity has almost quadrupled to 18.9% of total Oregon births (see Table 2-7, Figure 2-3). The method for reporting the Hispanic category has changed in Oregon over the years. From 1981 to 1988, "Hispanic" was a race category on the birth certificate. From 1989 to 2007, information regarding Hispanic ethnicity was reported separately from race. Starting in 2008, an individual could choose multiple race/ethnicity responses (see Technical notes — methodology, Appendix B). Persons of Hispanic ethnicity may belong to any race category (or categories). This change addressed the complexity of race and ethnicity and increased self-reporting accuracy for Oregon.

Differences by race and ethnicity of mother persist. The group with the highest percentage of inadequate care was Hawaiian and Pacific Islander regardless of Hispanicity. White non-Hispanic and Asian non-Hispanic women had



the lowest percentages of inadequate care (4.7 and 4.9% respectively) (see Table 2-18).

### **Marital status of mother**

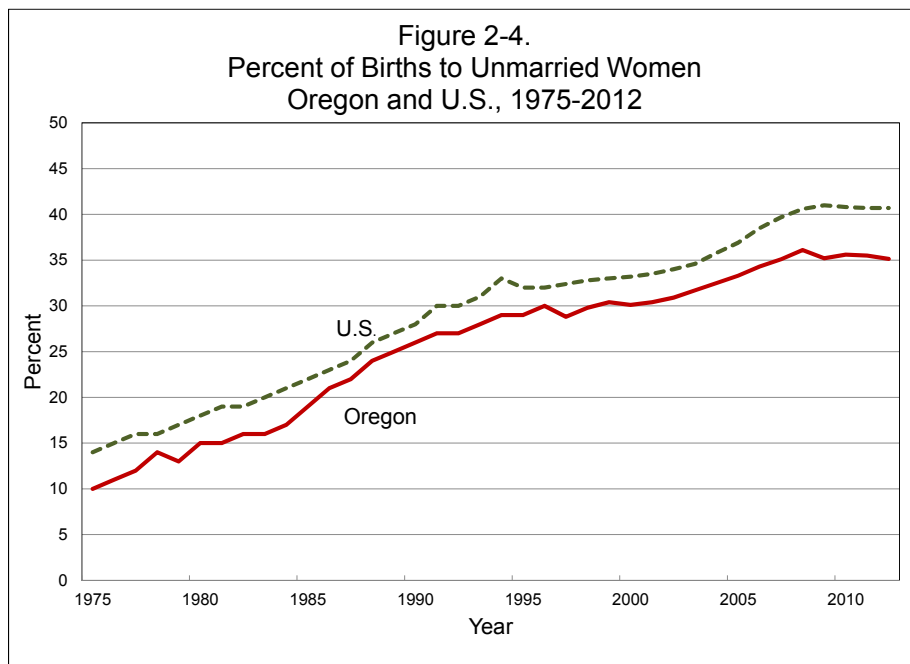
Unmarried women as a group have historically poorer birth outcomes than married women. They generally have a greater proportion of babies with lower birthweight and lower Apgar scores than do their married counterparts. Infants born to unmarried mothers are more likely to require neonatal intensive care, have congenital anomalies or die before age 1. In Oregon, the ratio of births to unmarried mothers in 2012 was 3.5 times higher than in 1975, and 5.5 times higher than in 1965 (see Table 1-2 and Figure 2-4). Although there has not been a matching increase in low

birthweight rates and other indicators of poor health, the disparity in prenatal care, tobacco use and race/ethnicity between married and unmarried women continues.

In 2012, 35.1% of all Oregon births were to unmarried women, a slight decrease from the previous year (see Table 1-2). Oregon has consistently had a lower percentage of births to unmarried women than the United States. Oregon’s rate in 2012 was 13.7% lower than the U.S. rate (see Figure 2-4).

Among women giving birth in 2012, the percentage of women who were unmarried varied widely by ethnic and racial group (see sidebar Table 2-B). Non-Hispanic American Indian women had the highest percentage of non-marital births (62.8%), followed by non-Hispanic African American women (57.5%), and Hawaiian and Pacific Islander (52.9%). Non-Hispanic Asian women had the lowest percentage of unmarried mothers (12.0%) (see Table 2-13).

Mothers under age 17 are likely to be unmarried, since persons younger than age 17 cannot legally marry in Oregon. More than four-fifths of teens aged 15–19 who gave birth in 2012 were unmarried (85.5%), compared to 58.6% for women aged 20–24 and 30.5% for women aged 25–29. The percentage of unmarried women was lowest for mothers aged 35–39 (18.8%) and 30–34 (18.9%), while 21.4% of mothers aged 40–44 were unmarried (see Table 2-3). Thirteen of Oregon’s 36 counties had proportions of



Race/Ethnicity	Unmarried
<b>Total</b>	<b>35.2</b>
Non-Hispanic	
African American	57.5
American Indian	62.8
Asian	12.0
Hawaiian/Pacific Islander	52.9
Multiple Races	51.1
White	31.0
Hispanic	49.1

non-marital births significantly higher than the state average (see Table 2-9). Among counties with statistically significant differences, Curry had the highest percentage (58.3%) followed by Jefferson (54.5%) and Lincoln (51.3%) (see Technical notes — formulas, Appendix B for information on statistical significance). Five Oregon counties had percentages of non-marital births significantly lower than the state average. Benton County had the lowest percentage of non-marital births (23.6%). A county's non-marital birth proportion should be viewed, in part, as a function of its own specific population mix, especially age and race. Variations in population composition among counties will likely result in significant differences in non-marital births.

### **Educational attainment**

A mother's level of education was closely related to prenatal care patterns. Women with less than a high school education had the lowest percentages of first trimester prenatal care. As educational attainment increases, so does the percentage of women obtaining first trimester care. Women who had a doctorate or professional degree had the highest percentage of first trimester care (see sidebar Table 2-C and Table 2-19).

More than four-fifths of women who gave birth in 2012 had at least a high school diploma or GED (84.0%) and 29.1% had a bachelor's degree or higher. The race/ethnic groups with the highest percentages of high school completion are non-Hispanic Asian (93.0%) and non-Hispanic White (91.4%) mothers. Hispanic mothers had the lowest percentage of completion of at least 12 years of education (55.8%) (see Table 2-13).

<b>Years of Education</b>	<b>No First Trimester Care (%)</b>
8th Grade or Less	36.8
9th to 12th Grade, No Diploma	35.9
High School Graduate or GED	30.1
Some College, No Degree	23.4
Associates Degree	18.4
Bachelors Degree	14.2
Masters Degree	12.1
Doctorate or Professional Degree	11.5

## Maternal lifestyle and health characteristics

### Tobacco

#### ***Oregon Benchmark for the Year 2015***

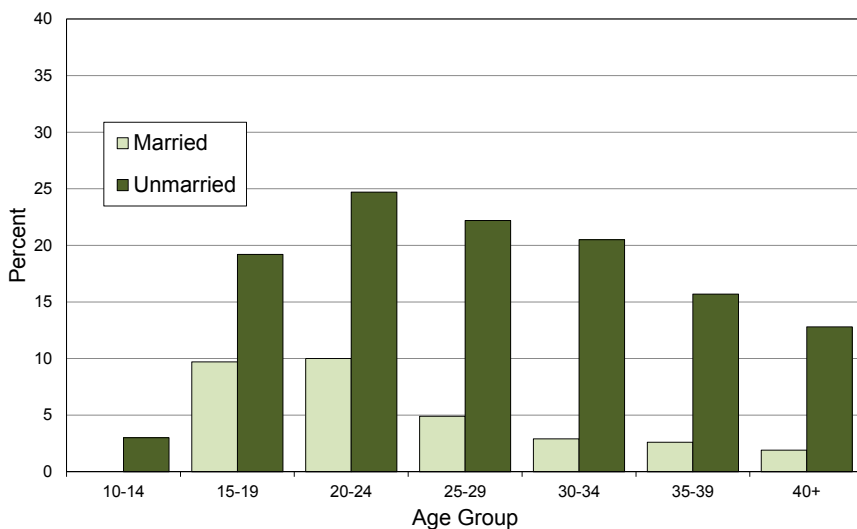
*Percentage of infants whose mothers did not use tobacco during pregnancy (self-reported).*

<i>Year 2015 target:</i>	<b>98.0 %</b>
<i>2012:</i>	<b>89.4 %</b>

<b>Table 2-D. Percent Tobacco Use, Oregon Residents</b>	
<b>Year</b>	<b>Percentage</b>
1990	22.4
1995	17.9
2000	13.5
2001	12.8
2002	12.6
2003	12.0
2004	12.6
2005	12.4
2006	12.3
2007	11.7
2008	11.8
2009	11.3
2010	11.3
2011	10.7
2012	10.6

Women who smoke when pregnant have a far higher incidence of low birthweight babies than nonsmokers. Low birthweight infants are more likely to experience serious health problems, including increased rates of infant mortality. Women who smoked had a low birthweight rate of 103.6 per 1,000 live births, compared to 56.5 per 1,000 among women who did not smoke. Nearly one of nine mothers (10.6%) reported using tobacco during pregnancy, which is the lowest rate seen in more than 20 years (see sidebar Table 2-D). The percentage of mothers who reported smoking during pregnancy generally decreased with age among married women. For unmarried women, smoking rates rose and fell with age, peaking in the early 20s. The percentage of tobacco use among unmarried women was nearly five times that of married women (21.7% vs. 4.5%). The highest percentage of tobacco use during

**Figure 2-5.**  
Percentage of Mothers Who Smoked During Pregnancy by Age and Marital Status, Oregon Residents, 2012



**Women who smoked had a low birthweight rate of 103.6 per 1,000.**

pregnancy in 2012 was among unmarried mothers aged 20–24 (24.7%) and unmarried mothers aged 25–29 (22.2%). Very little smoking was reported for the youngest mothers aged 10–14. The lowest percentage of smokers was reported for married mothers aged 40 or older (1.9%) and 35–39 (2.6%) (see Figure 2-5).

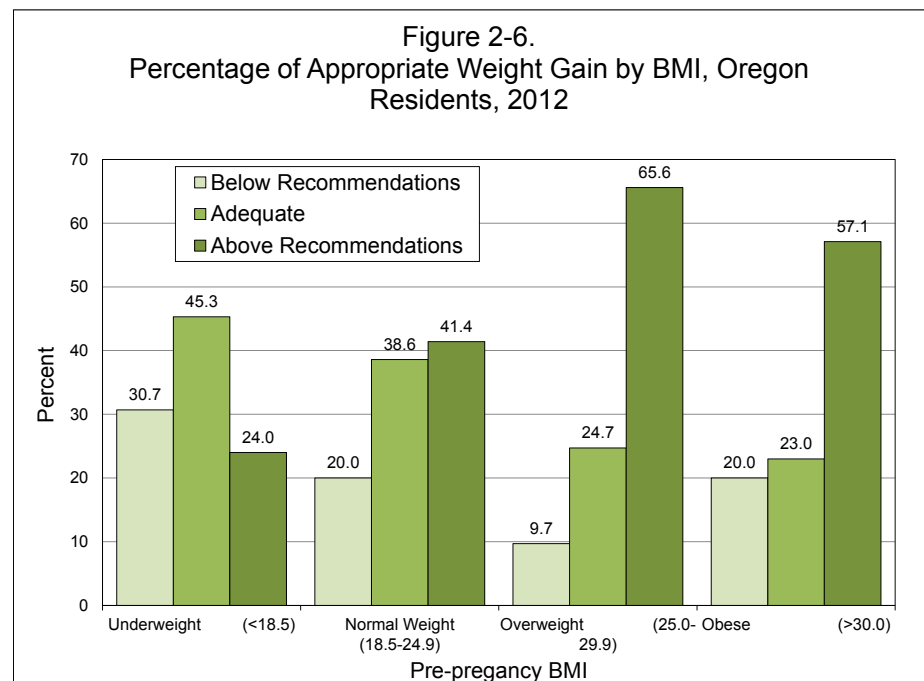
Smoking prevalence as reported on birth certificates also varied among racial and ethnic groups. In 2012, non-Hispanic American Indian women (22.4%) and non-Hispanic women reporting multiple races (18.5%) had the highest reported proportions for smoking during pregnancy, while non-Hispanic Asian women (0.9%) and Hispanic women (3.5%) reported the lowest (see Table 2-25).

**Maternal weight and weight gain**

Appropriate maternal weight gain has been shown to be positively correlated with infant birthweight. Low maternal weight gain is associated with poor fetal growth, lower birthweight and the chance of a baby being born prematurely. High maternal weight gain is associated with higher infant birthweight and cesarean delivery. Excessive weight during pregnancy is often accompanied by chronic disease and is a health risk factor for both the mother and child.

In 2008, Oregon began collecting data on birth certificates about mothers’ pre-pregnancy weight, weight at delivery and height. The availability of this new data allows body

Table 2-E. Institute of Medicine Guidelines for Weight Gain During Pregnancy	
Pre-pregnancy BMI (kg/m <sup>2</sup> )	Weight Gain (lbs)
Underweight (<18.5)	28-40
Normal Weight (18.5-24.9)	25-35
Overweight (25.0-29.9)	15-25
Obese (>30.0)	11-20





mass index (BMI) to be calculated and provides a better picture of pre-pregnancy BMI and gestational weight gain. In 2009, the Institute of Medicine (IOM) revised its guidelines for weight gain during pregnancy, which express ideal weight gain in pregnancy as a range for each category of pre-pregnancy BMI (see sidebar Table 2-E). Many Oregon mothers exceeded these recommendations. In 2012, 50.6% of women gained more weight than the IOM guidelines. Additionally, 48.7% of Oregon women entered pregnancy overweight or obese and also had the highest percentage of weight gain above the guidelines (65.6% and 57.1% respectively) (see Figure 2-6). Women starting pregnancy underweight had the highest percentage of weight gain below the IOM recommendations (30.7%) and had the highest percentage of low birthweight infants (9.2%).

### Medical risk factors

Maternal medical risk factors influence pregnancy complications and infant health and vary greatly based on the mother's age, race and ethnicity. In 2012, the most frequently reported medical risk factors were previous cesarean delivery (13.5%), gestational diabetes (7.3%) and pregnancy-associated hypertension (5.9%) (see tables 2-23 and 2-26).

### Medical services utilization

#### Prenatal care

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#### ***Oregon benchmark for 2015***

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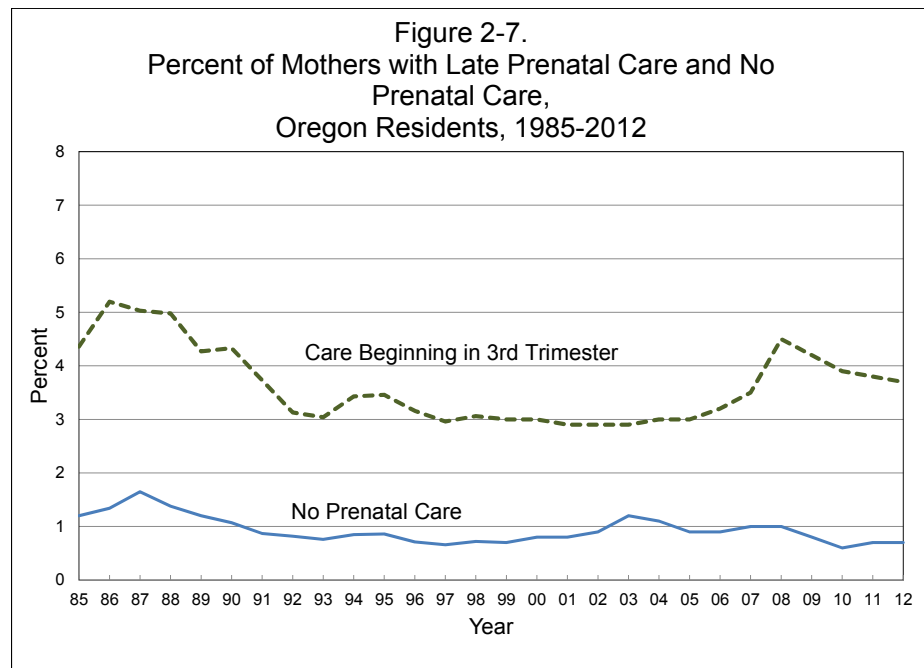
*Percentage of infants whose mothers received prenatal care beginning in the first trimester.*

<i>2015 target:</i>	<i>90.0 %</i>
<i>2012:</i>	<i>75.9 %</i>

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Public health services and private care providers seek to minimize the risk of death and disability to infants. Additionally, they seek reductions in costs associated with low birthweight infants by providing comprehensive prenatal care. The two ways Oregon measures prenatal care are:

- “Inadequate prenatal care,” defined as no care until the third trimester or fewer than five total prenatal visits; or



- “First trimester care,” defined as care beginning in the first three months of pregnancy, regardless of the number of total prenatal visits.

First trimester care has been adopted as an Oregon Benchmark with a goal to ensure at least 90% of women begin prenatal care within the first three months of their pregnancies by 2015.

Overall, 75.9% of women who gave birth during 2012 received early prenatal care, which is 6.9% higher than the 2008 national number of 71.0% (see tables 2-17 and 1-5). Moreover, this is 1.1% higher than the 2011 rate of 75.1%.

In 2012, 5.5% of women giving birth received inadequate prenatal care and 24.1% received no first trimester care. The percentage of low birthweight infants was much higher for women who received inadequate prenatal care, 11.6%, compared to 5.6% of children born to mothers who received adequate prenatal care. The percentage of mothers that received no prenatal care was the same as previous years (0.7%). Mothers who initiated care in the third trimester decreased in 2012 from 3.8% in 2011 to 3.7% (see Figure 2-7). Age, marital status, education and race/ethnicity continue to show important differences in accessing prenatal care (see tables 2-17, 2-18, 2-19 and 2-21).

Two of Oregon’s 36 counties had first trimester care rates significantly higher than the statewide rate. These counties were Deschutes and Washington. Six counties had rates

significantly lower than the state: Klamath, Malheur, Marion, Morrow, Tillamook and Umatilla (see Table 2-20).

Year	Intensive	Adequate	Intermediate	Inadequate
2007	24.1	43.4	18.7	12.8
2008	30.0	39.5	14.4	15.0
2009	32.4	40.1	12.5	14.1
2010	35.5	40.1	10.9	12.9
2011	34.8	41.3	11.8	12.2
2012	33.6	40.9	13.6	12.0

The **Adequacy of Prenatal Care Utilization Index** is an alternative measure of prenatal care based on the month prenatal care began and the number of prenatal visits, adjusting for gestational age. Care is determined to be intensive (exceeding recommended care by a ratio of expected visits to actual visits by at least 110%), adequate, intermediate or inadequate (see Table 2-F, above). As with other measures of prenatal care, more women under the age of 20 received inadequate prenatal care, while more women aged 40 and over received intensive prenatal care. Women with medical risk factors such as diabetes and hypertension also were more likely to receive intensive prenatal care.

**Birth attendant and place of delivery**

**Hospital births.** Hospitals are the most frequent place of birth with 96.2% of Oregon occurrence births. Most in-hospital births (99.1%) were planned to occur in the hospital; 392 births were planned out-of-hospital at the onset of labor and subsequently delivered in the hospital. Of planned hospital births, the majority (83.5%) were delivered by medical doctors or osteopathic doctors, certified nurse midwives delivered 16.1%, and 0.3% were delivered by other licensed medical professionals (see Table 2-38).

**Out-of-hospital births.** In 2012, 3.8% of Oregon births occurred out-of-hospital. As in past years, the majority of out-of-hospital births occurred in the mother’s home (62.5%). Of those home births, 96.0% were planned home births, while the remaining 4.0% were not intended to occur at home. Freestanding birthing centers accounted for 612 births, more than one-third of all out-of-hospital births.

In 2011, the Oregon Legislature passed House Bill 2380, which required the Oregon Public Health Division to add two questions to the Oregon Birth Certificate to determine

Year	Deliveries	Rate <sup>1</sup>
1982	2,069	49.2
1983	2,060	50.2
1984	1,786	43.7
1985	1,772	43.5
1986	1,520	37.9
1987	1,361	34.0
1988	1,217	29.4
1989	1,117	26.2
1990	1,077	24.2
1991	979	22.2
1992	996	22.8
1993	936	21.6
1994	979	22.5
1995	967	21.7
1996	979	21.4
1997	970	21.5
1998	914	19.8
1999	948	20.6
2000	1,047	22.4
2001	1,007	21.7
2002	947	20.6
2003	1,000	21.3
2004	1,003	21.6
2005	1,058	22.6
2006	1,134	23.1
2007	1,267	25.4
2008	1,431	29.0
2009	1,404	29.4
2010	1,574	34.3
2011	1,680	36.9
2012	1,739	38.2

<sup>1</sup> Rate per 1,000 births

Table 2-H. Certified Nurse Midwife Deliveries, Oregon Occurrence			
Year	Deliveries		
	Total	In-Hospital	Out-of-Hospital
1984	1,912	1,567	374
1985	2,022	1,661	390
1986	1,984	1,607	400
1987	1,843	1,483	385
1988	2,345	2,133	259
1989	2,886	2,706	244
1990	3,660	3,539	226
1991	4,262	4,096	166
1992	4,498	4,319	179
1993	4,784	4,618	173
1994	4,931	4,772	159
1995	5,601	5,441	160
1996	6,019	5,871	148
1997	5,853	5,734	119
1998	6,152	6,004	148
1999	6,357	6,193	164
2000	6,740	6,591	149
2001	6,848	6,721	127
2002	6,837	6,747	90
2003	6,838	6,721	117
2004	6,586	6,472	114
2005	6,487	6,386	101
2006	7,102	6,996	106
2007	7,631	7,507	124
2008	8,004	7,820	184
2009	7,711	7,579	132
2010	7,476	7,257	219
2011	7,496	7,245	251
2012	7,454	7,156	298

planned place of birth and birth attendant. Every mother who delivered in the hospital was asked if she planned to deliver at a private home or a freestanding birthing center and the planned primary attendant type at the time she went into labor. Overall, 2,046 births were planned out-of-hospital (4.5%). Of these, 392 (19.2%) planned out-of-hospital births ultimately delivered in-hospital. Neonatal transfers were slightly more likely among women who planned an out-of-hospital birth (1.2% versus 1.0%). Women who planned out-of-hospital births tended to be 30 or older (57.0%), White non-Hispanic (87.6%), married (82.1%), and college educated (45.1%) (see Table 2-39).

Women who planned out-of-hospital births generally experienced fewer medical interventions than those women who planned hospital births. Medical intervention rates among planned out-of-hospital births included induction and augmentation of labor (12.4%), epidural or spinal anesthesia (11.6%), operative vaginal birth (1.2%) and cesarean section (7.2%). A woman planning on delivering in-hospital was nearly three times more likely to have a primary cesarean section than a woman planning on delivering out-of-hospital (17.6% versus 6.1%). In 2012, 43.4% of women planning out-of-hospital births did not have a Group B streptococcal test compared to 5.9% for women planning a hospital birth (see Table 2-40).

Outcomes generally have been positive for out-of-hospital births. Women who planned out-of-hospital births were more likely to deliver term infants (obstetric estimate of gestation of 37 completed weeks or more) and less likely to deliver low birthweight infants.

**Birth attendant.** There are three different types of midwives in Oregon: certified nurse midwives (CNM), licensed direct entry midwives (LDM) and direct entry midwives (DEM). CNMs have completed an accredited, university-affiliated nurse-midwifery program, and have an active nurse practitioner license. They may attend deliveries in hospitals, freestanding birth centers and homes. LDMs are direct entry midwives who have volunteered for state licensure through the Oregon Health Licensing Agency. They must meet qualifications and adhere to regulations set by the state. Other midwives are lay midwives that are not licensed in Oregon, but are registered with Oregon's Center for Health Statistics to certify births.

A major shift during the past few decades has been the increasing prevalence of births attended by certified nurse midwives (CNMs). In 2012, 16.2% of planned hospital deliveries were CNM-attended. Women who planned out-of-hospital births reported the following planned attendants: CNMs (24.8%), LDMs (52.1%), naturopathic physicians (10.8%) and other midwives (9.6%). Non-medical attendants delivered 53 babies in total, including 2.6% of the planned out-of-hospital births (see Table 2-38).

### **Method of delivery**

In 2012, the rate of cesarean delivery was 28.3%, well below the 2012 U.S. rate of 32.8%. The rate for vaginal delivery after a previous cesarean was only 2.2%, while the repeat cesarean rate was 11.3%. The majority of births (69.5%) continue to be vaginal deliveries without prior cesarean (see Table 2-37). The number of vaginal deliveries (without prior cesarean) has increased slightly from 2011 (0.4%). After several years of increasing cesarean rates, the 2012 cesarean rate decreased 1.7% from 2011 (28.8%).

### **Infant health characteristics**

#### **Period of gestation**

Preterm births (infants born prior to completion of 37 weeks gestation) comprised 7.5% of total births in 2012, much lower than the U.S. rate in 2012 (11.6%) (see Table 2-25). Similar to national trends, proportions of preterm births are higher for non-Hispanic African Americans (10.5%) and non-Hispanic American Indian women (12.4%). Hispanic and Asian non-Hispanic women had the lowest proportions of preterm births (7.2 and 6.2% respectively) (see Table 2-25).

#### **Low birthweight**

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#### ***National Healthy People 2020 objective***

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*Percentage of live births resulting in low birthweight infants.*

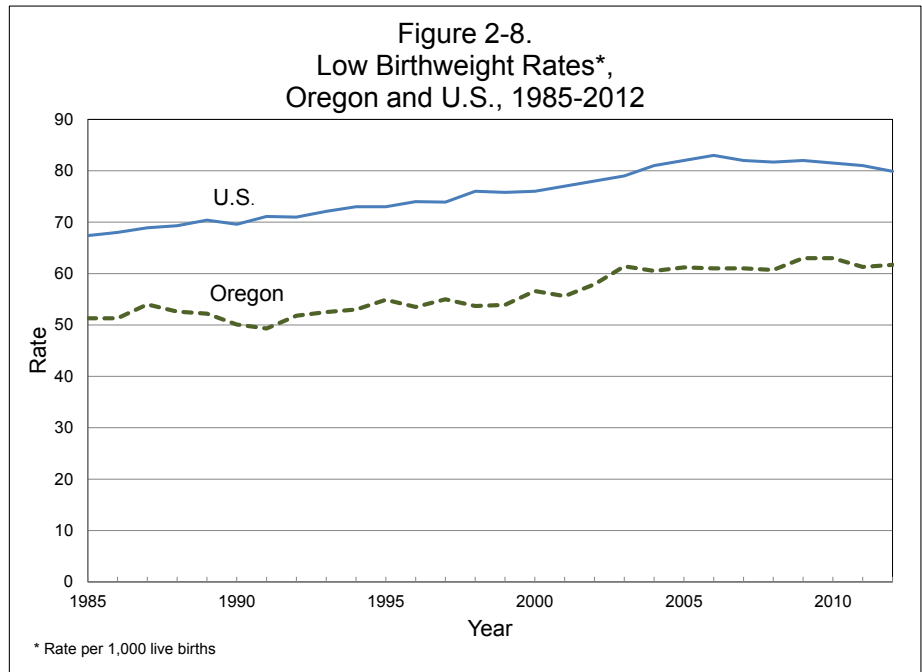
<i>Year 2020 Target:</i>	<i>7.8 %</i>
<i>2012:</i>	<i>6.2 %</i>

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Of the thousands of infants born each year, not all thrive and become healthy adults. Low birthweight is the major



predictor of infant death, which is a fundamental measure of the health of a population. Infants with low birthweight are more likely to need extensive medical treatment and to have lifelong disabling conditions. (For more information, see the Oregon Vital Statistics Annual Report 2012, Volume 2: Mortality Fetal and Infant Mortality.) The low birthweight rate is the proportion of infants who weigh less than 2,500 grams (5 pounds, 8 ounces) at birth. In 2012, there were 2,778 low birthweight babies born to Oregon mothers (see Table 2-27). One of the National Healthy People 2020 objectives is to reduce the percentage of low birthweight infants nationwide to 7.8%. In 2012, the percentage of low birthweight births in Oregon remained well below this objective at 6.2%, or 61.7 per 1,000 live births. This rate is 1.6% higher than the 2011 rate. While annual changes have been slight in the last 20 years, there has been a slight upward trend in low birthweight infants (see Table 1-5; Figure 2-8). Nevertheless, Oregon's low birthweight rates are typically 25% lower than national rates and, in 2012, Oregon's rate was 22.8% lower than the 2012 national rate (61.7 vs. 79.9 per 1,000 births).

Major factors contributing to the risk of having a low birthweight baby are multiple births, tobacco use and chronic hypertension. Other factors include non-White race of mother, mother's age (younger than 18 or older than 34), lack of prenatal care, low income, single marital status,



a previous fetal or infant death, low education, and short spacing between births. As an example of risk factors, women ages 45+ have a slightly below average percentage of first trimester care (72.0%) compared to the state average of 75.9% (see Table 2-17). Nevertheless, women aged 45+ continue to have the highest percentage of low birthweight babies, 21.7% compared to 6.2% for all births (see Table 2-24).

**High birthweight**

Birthweight is an important factor in the health of a newborn. Excessive birthweight, or fetal macrosomia, is a health risk factor for both the mother and child and is commonly defined as birthweight greater than 4,000 grams (8 pounds, 13 ounces).

Among Oregon residents in 2012, the prevalence of fetal macrosomia at 4,000 grams was 10.6% (see tables 2-24 and 2-25). As maternal age increases, the risk of fetal macrosomia also tends to increase (see Table 2-24). The percentage of infants born weighing more than 4,000 grams is 15.1% greater in women 35 and older (12.2%) than the state average and 82.1% higher than among women younger than 20 (6.7%).

In 2012, the prevalence of macrosomia was highest among non-Hispanic American Indian women (see Table 2-25). The lowest rates of macrosomia were found in African American women and Asian women, though the low percentage of macrosomia among African American women was likely related to the higher proportion of preterm births in that group.

**Apgar scores**

The Apgar score is composed of measurements of five infant characteristics: heart rate, respiratory effort, muscle tone, reflex irritability and color. Each characteristic is rated 0–2 and the score totaled. Scores below 7, five minutes after birth, indicate poor to intermediate health at birth. In Oregon during 2012, 2.6% of infants had Apgar scores below 7, nearly 1.5 times the 2012 national figure of 1.9 (see tables 2-24 and 2-25).

**Abnormal conditions and congenital anomalies**

The most frequently reported conditions on birth certificates were admission to a neonatal intensive care unit, assisted ventilation immediately after delivery, and antibiotics for suspected neonatal sepsis (see tables 2-33 and 2-34). Congenital anomalies reported on birth certificates are shown in Table 2-35. Although Oregon occurrences are somewhat higher than

<b>Table 2-I. Percentage of infants born weighing more than 4,000 grams, Oregon Residents</b>		
<b>Year</b>	<b>Percent</b>	<b>Largest infant born (in grams)</b>
1990	14.2	6040
1991	13.9	6265
1992	13.8	5990
1993	13.8	6010
1994	13.8	5810
1995	13.5	6265
1996	13.1	6156
1997	12.8	6060
1998	13.0	6139
1999	12.8	6293
2000	12.8	6151
2001	12.4	5981
2002	11.8	5896
2003	11.5	6180
2004	10.9	5925
2005	10.9	6497
2006	10.7	5982
2007	10.5	7000
2008	10.7	7711
2009	10.7	6804
2010	10.4	6454
2011	10.9	6401
2012	10.6	6350

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***Among Oregon resident births in 2012, the biggest baby born was 14 pounds.***

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Year	Private Insurance	Self Pay	Medicaid/OHP
	%	%	%
1989	60.7	9.5	27.5
1990	60.4	8.7	28.7
1991	58.2	6.5	33.2
1992	57.2	5.8	35.2
1993	56.2	5.9	36.2
1994	57.5	5.6	34.9
1995	57.9	4.9	35.5
1996	58.3	5.7	35.0
1997	60.8	6.3	31.9
1998	62.2	6.3	30.7
1999	61.1	5.9	32.4
2000	61.6	5.4	32.8
2001	61.2	4.3	34.3
2002	58.7	3.5	37.8
2003	58.9	3.5	37.6
2004	56.5	3.2	40.3
2005	55.6	3.0	41.4
2006	55.1	3.2	41.3
2007	56.1	3.5	40.4
2008	53.6	3.2	40.9
2009	52.3	2.5	42.3
2010	50.9	2.4	45.1
2011	50.8	2.2	45.5
2012	51.5	2.2	44.8

Note: Denominator excludes births with unknown payor source, and multiple payor source.

national rates for some anomalies, congenital anomalies are believed to be underreported nationally due to factors such as recognizability and severity. Even at the national level, data users are advised to use caution in comparing annual occurrences for relatively small numbers.

### Multiple births

Although 3.3% of births in Oregon during 2012 were multiple births, the proportion varied widely by age, race and ethnicity. During 2012, mothers aged 45 and older had the highest percentage of multiple births. The percentage of multiple births for each age group ranged from 1.5% for mothers aged 15–19 to 25.3% of births to mothers aged 45 and older. The percentage of multiple births generally increased with each five-year age group (see Table 2-24). Non-Hispanic African American women had the highest percentages of multiple births (4.2%) (see Table 2-25).

### Infertility treatment

Many fertility treatments increase a woman's chance of having twins, triplets or other multiples. Multiples are at higher risk for prematurity and low birthweight. During 2012, mothers aged 45 and older had the highest rate of infertility treatment (373.5 per 1,000 births) (see Table 2-23).

### Source of payment

Primary source of payment for delivery is noted on Oregon birth certificates under five categories: 1) public insurance (Medicaid/Oregon Health Plan), 2) private insurance, 3) self-pay (no insurance), 4) Indian Health Services, and 5) other and unknown payment source. Private insurance companies paid for the majority of deliveries in Oregon (51.5%), up from 50.8% in 2011 (see sidebar Table 2-J). Medicaid programs (e.g., the Oregon Health Plan) paid for over two-fifths of Oregon resident births (44.8%). Delivery costs were more likely to be paid for by public insurance if the woman was under age 18 (see Table 2-14).

### Endnote

1. CDC. Births: Final Data for 2012, 2012, National Vital Statistics Reports, Dec. 30, 2013; V62, No. 9.