

# Out-of-Hospital Births in Oregon

2012–2017



Oregon  
Health  
Authority



# Background



In 2011, Oregon House Bill 2380 mandated that the Oregon Public Health Division's Center for Health Statistics collect and report birth and fetal death outcomes by birth location and attendant type.

In 2013, the Oregon Public Health Division published an initial report with data from 2012 (*Oregon Birth Outcomes, by Planned Birth Place and Attendant*).<sup>(1)</sup> Since 2012, the Center for Health Statistics has included information on out-of-hospital births in its annual compilation of vital statistics data.<sup>(2)</sup>

This summary provides a closer look at data and trends from 2012 to 2017, including characteristics of out-of-hospital births in Oregon and related health outcomes.

## Policy context

Since the first report in 2013, several notable policy changes regarding out-of-hospital births have occurred, including the following:

- House Bill 2997 (2013) established mandatory licensure for direct entry midwives beginning Jan. 1, 2014, with certain exemptions and requirements for traditional midwives.
- In 2015, the Health Evidence Review Commission (HERC) approved coverage guidance for planned out-of-hospital births,<sup>(3)</sup> resulting in changes to the Prioritized List of Health Services effective Jan. 1, 2016. These changes clarified Medicaid (Oregon Health Plan) coverage of out-of-hospital births and the risk factors that require consultation or transfer to a hospital setting.
- Oregon Health Plan reimburses out-of-hospital birth services for women who meet low-risk pregnancy criteria via a prior authorization process established in Oregon Administrative Rules.

## Data notes

- All data in this summary are based on Oregon birth and death certificates reported to Oregon Public Health Division’s Center for Health Statistics.
- The birth certificate asks, “Did you go into labor planning to deliver at home or at a freestanding birthing center?” Births for which the answer is “yes” are planned out-of-hospital births, including those delivered in a hospital after a transfer.
- The birth certificate also records the planned primary birth attendant type at the onset of labor.
- All figures reported are restricted to births or outcomes from term pregnancies.
- Exclusion criteria for perinatal outcomes: multiple gestation pregnancy, pre-term or post-term pregnancy, prior caesarean section. Births or outcomes meeting any of these criteria were not included in the perinatal outcomes figures, with the exception of the “All term” columns in Table 4.

## Definitions

- Oregon births: births occurring in Oregon, regardless of mother’s place of residence
- Out-of-hospital births: births occurring in a home or a freestanding birthing center
- Term:  $\geq 37$  and  $< 42$  weeks gestational age
- Intrapartum transfer: transfer of a pregnant woman to a hospital after labor has begun
- Neonatal transfer: transfer of a newborn to another hospital within 24 hours after birth
- NICU: neonatal intensive care unit
- Perinatal death: fetal and early neonatal deaths  $\geq 37$  and  $< 42$  weeks gestational age through the first six days of life

# Key findings, 2012–2017

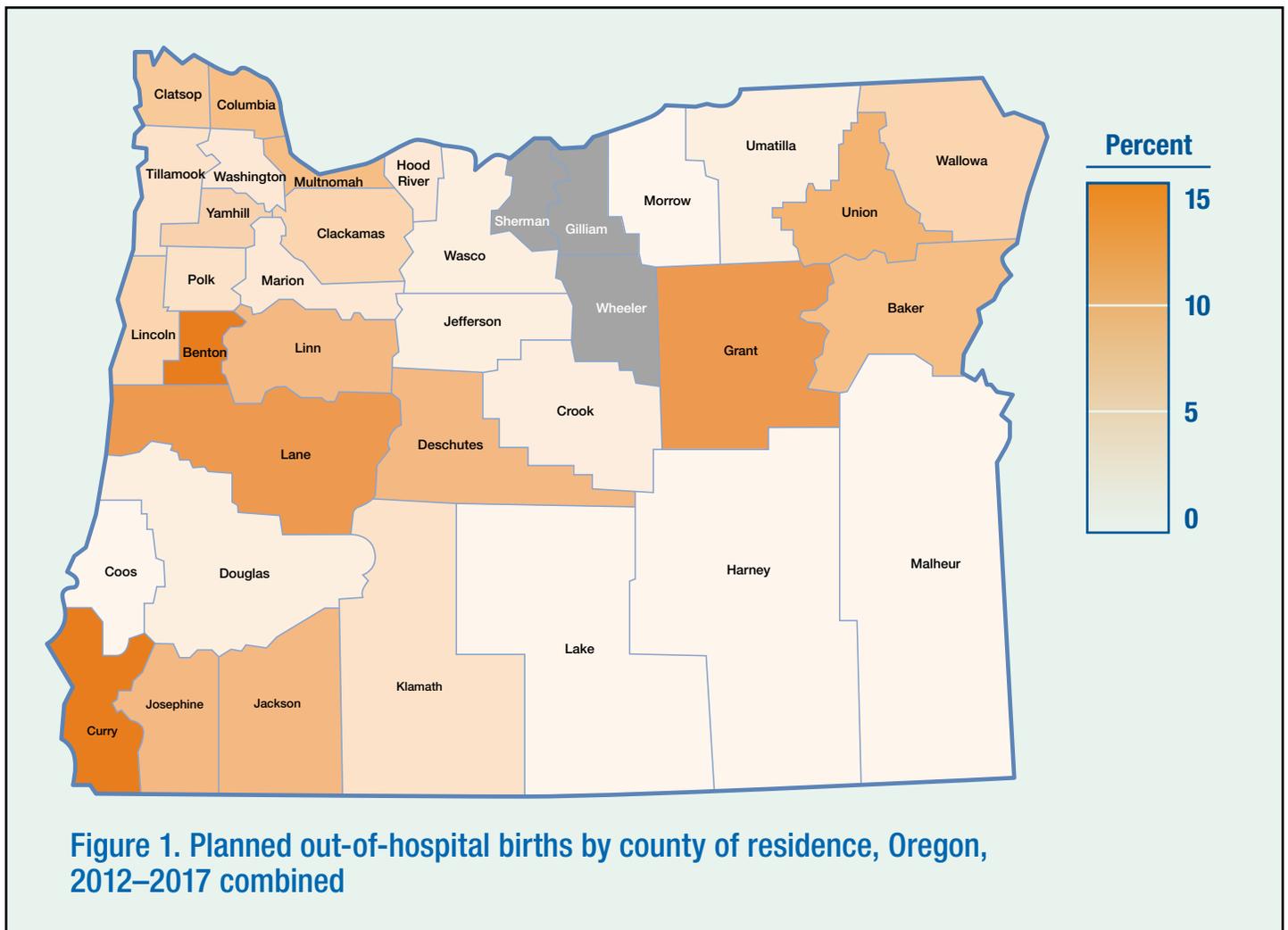
## Birth and maternal characteristics

Table 1. Live term births by planned place of birth, Oregon, 2012–2017

Year	Planned in-hospital		Planned out-of-hospital		Total
	Number	Percentage	Number	Percentage	Number
2012	39,575	95.4%	1,903	4.6%	41,478
2013	39,732	95.8%	1,755	4.2%	41,487
2014	40,001	95.4%	1,934	4.6%	41,935
2015	40,082	95.5%	1,894	4.5%	41,976
2016	39,990	95.7%	1,815	4.3%	41,805
2017	38,352	95.9%	1,636	4.1%	39,988

- Among live term births occurring in Oregon in 2017, 4.1% planned an out-of-hospital birth.
- The number and percentage of planned out-of-hospital births has decreased slightly since 2012.





- The percentage of births that were planned to be outside of a hospital varied by county of residence, ranging from 0.7% in Lake County to 10.1% in Curry County. Note: Gilliam, Sherman and Wheeler counties are excluded because each had fewer than 100 total births during 2012–2017.

During 2012–2017, women who planned out-of-hospital births compared to those who planned in-hospital births tended to be:

- Older (57.9% vs. 45.3% aged  $\geq 30$  years)
- White and non-Hispanic (86.4% vs. 67.7%)
- Married (81.1% vs. 63.9%)
- College-educated (45.0% vs. 30.1%)
- Self-paying for delivery (28.2% vs. 0.8%)

- Less overweight or obese pre-pregnancy (33.1% vs 49.3%)
- Less likely to smoke (2.2% vs. 9.9%)
- More likely to have no prenatal care (1.9% vs. 0.4%) or inadequate prenatal care (8.0% vs. 5.1%), and less likely to begin prenatal care in the first trimester (65.7% vs. 78.7%)

## Birth attendants and payment sources

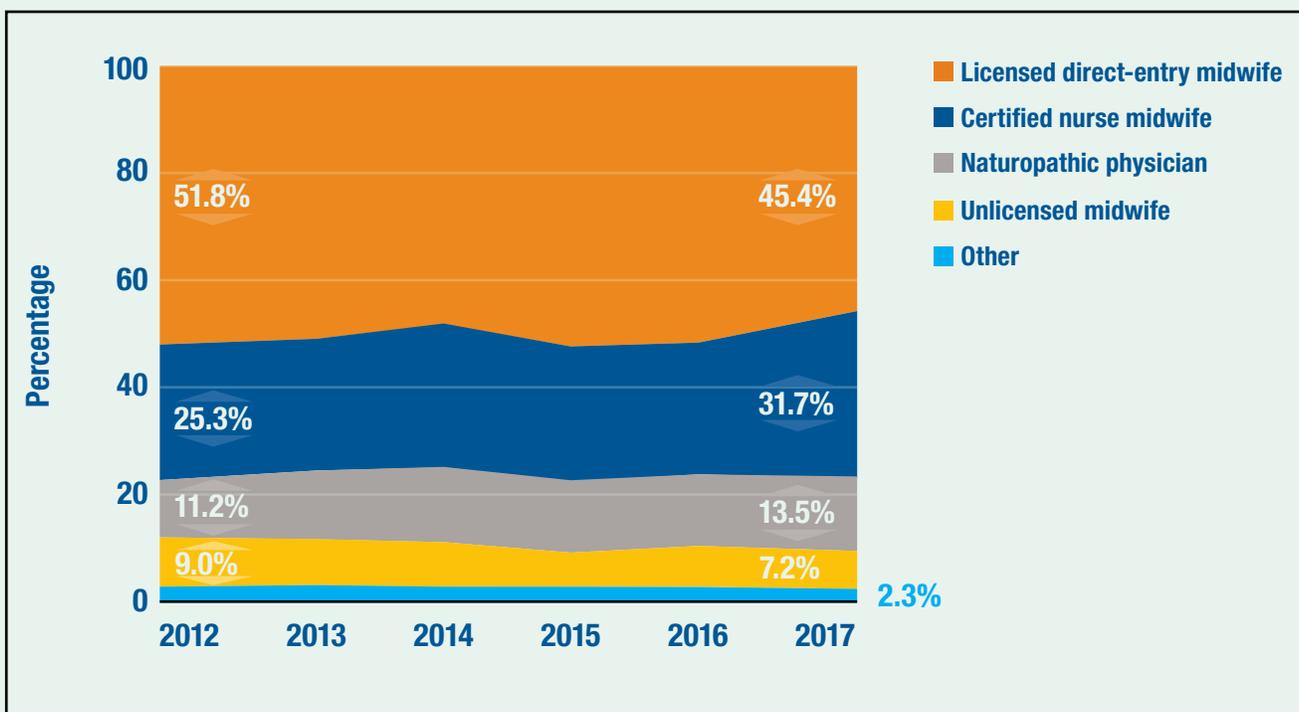


Figure 2. Planned birth attendant for planned out-of-hospital births, Oregon, 2012–2017

- Planned birth attendants for planned out-of-hospital births include certified nurse midwives, licensed direct-entry midwives, unlicensed midwives and naturopathic physicians.
- Since 2012, the percentage of planned out-of-hospital births attended by certified nurse midwives increased from 25.3% to 31.7%; the percentage attended by licensed direct entry midwives decreased from 51.8% to 45.4%.
- Since 2012, the percentage of planned in-hospital births attended by certified nurse midwives increased from 16.9% to 22.3%; the percentage attended by an MD or DO decreased from 82.7% to 77.3% (data not shown).

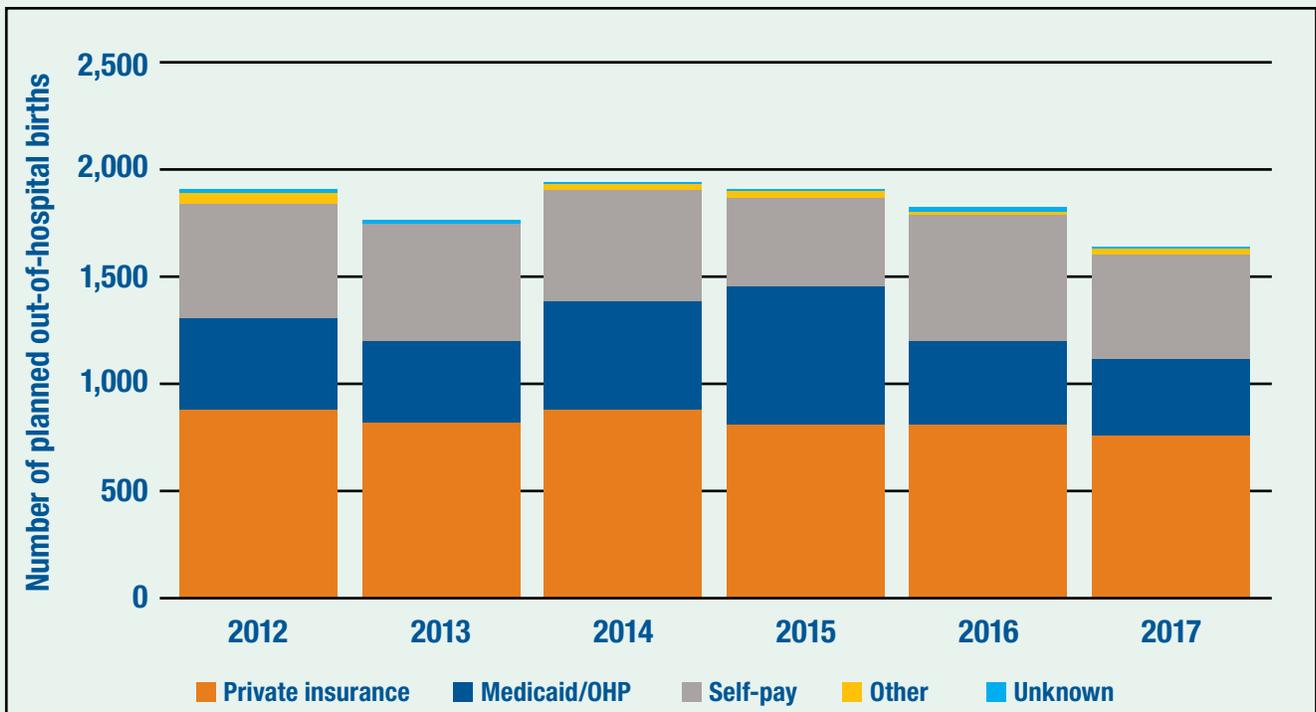


Figure 3. Planned out-of-hospital births by primary source of payment at delivery, Oregon, 2012–2017

- In 2017, the primary sources of payment differed for planned out-of-hospital compared to planned in-hospital births: private insurance (46.3% vs. 52.3%, respectively), self-pay (29.8% vs. 0.8%) and Medicaid (Oregon Health Plan) (21.8% vs. 45.4%).
- The number of out-of-hospital births paid by Medicaid (Oregon Health Plan) peaked at 642 in 2015 (33.3%) and decreased to 357 (21.8%) in 2017.



# Perinatal outcomes

## Interpreting these data

The exclusion criteria used for these perinatal outcomes do not fully account for the potential risk differences between those who plan in-hospital births and those who plan out-of-hospital births. Therefore, these data cannot determine whether differences in perinatal outcomes are due to differences in maternal risk factors not recorded on the birth certificate, type of care received, planned birth location or other factors.

See page 4 for data notes and definitions.

**Table 2. Planned out-of-hospital births requiring intrapartum or neonatal transfer to hospital, Oregon, 2012–2017**

Year	Intrapartum transfer		Neonatal transfer	
	Number	Rate per 1,000 births	Number	Rate per 1,000 births
2012	314	174.9	17	9.5
2013	214	126.8	33	19.5
2014	246	134.4	35	19.1
2015	268	147.4	35	19.3
2016	221	126.6	26	14.9
2017	222	139.7	24	15.1
<b>Total</b>	<b>1,485</b>	<b>141.9</b>	<b>170</b>	<b>16.2</b>

- In 2017, 222 of 1,589 (14.0%) births planned to be out-of-hospital ultimately occurred in a hospital after intrapartum transfer.
- In 2017, the newborn was transferred to another hospital in 24 of 1,589 (1.5%) planned out-of-hospital births.

**Table 3. Births requiring NICU admission by planned place of birth, Oregon, 2012–2017**

Year	Planned in-hospital		Planned out-of-hospital	
	Number	Rate per 1,000 births	Number	Rate per 1,000 births
2012	1,053	31.4	32	17.8
2013	1,033	30.7	29	17.2
2014	1,060	31.3	31	16.9
2015	949	27.8	30	16.5
2016	1,114	32.8	28	16.0
2017	1,090	33.4	28	17.6
<b>Total</b>	<b>6,299</b>	<b>31.2</b>	<b>178</b>	<b>17.0</b>

- There was a slight upward trend for planned in-hospital births requiring NICU admission from 2012 to 2017. NICU admission rates for planned out-of-hospital births remained stable between 2012 and 2017, with slight year-to-year variability.
- The rate of NICU admission for planned out-of-hospital births remained lower than for planned in-hospital births between 2012 and 2017.

**Table 4. Perinatal deaths by planned place of birth, Oregon, 2012–2017**

Year	Planned in-hospital		Planned out-of-hospital	
	Number	All term*	Number	All term*
2012	72	84	5	7 <sup>†</sup>
2013	52	65	5	7
2014	48	59	4	4
2015	52	60	2	2
2016	50	61	2	2
2017	59	66	3	3
<b>Total</b>	<b>333</b>	<b>395</b>	<b>21</b>	<b>25</b>

\* Including multiple gestation pregnancies and pregnancies in women with prior C-section.

† The 2013 report noted eight perinatal deaths in 2012; however, only seven were term pregnancies by the definition used here ( $\geq 37$  and  $< 42$  weeks gestational age).

- Perinatal death is a rare occurrence; with any rare event, counts and rates can have significant year-to-year variability. Therefore, rates were calculated based on combined years.
- Among included pregnancies during 2012–17, there were 1.7 perinatal deaths per 1,000 pregnancies for planned in-hospital deliveries compared to 2.0 per 1,000 pregnancies for planned out-of-hospital deliveries.

## Maternal deaths

During 2012–2017, 92 Oregon women died within one year of childbirth. Of these maternal deaths, 43 could be matched to a birth or fetal death record. Of these 43, only one had a planned out-of-hospital birth; this birth occurred approximately six months prior to the mother’s death.

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## Endnotes

1. Oregon Center for Health Statistics. Birth outcomes by planned birth place and attendant. [cited 2018 Dec 10]. Available from: <http://www.oregon.gov/oha/PH/BIRTHDEATHCERTIFICATES/VITALSTATISTICS/BIRTH/Pages/planned-birth-place.aspx>.
2. Oregon Center for Health Statistics. Vital statistics. [cited 2018 Dec 10]. Available from: <http://healthoregon.org/vitalstats>. See Annual Reports, Volume 1 Tables 2-38, 2-39 and 2-40 and Volume 2 Tables 7-19, 7-20, 7-21, 7-22.
3. Health Evidence Review Commission. Health Evidence Review Commission (HERC) coverage guidance: Planned out-of-hospital birth. [cited 2018 Dec 10]. Available from: <http://www.oregon.gov/oha/HPA/DSI-HERC/EvidenceBasedReports/Planned-out-of-hospital-birth-11-12-15.pdf>.



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