

**HEALTHY START OF SOUTHERN
POPULATION HEALTH DATA REPORT
DECEMBER 2020
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TABLE OF CONTENTS

	PAGE
Infant Mortality and the Healthy Start Program	2
One-Year, Three-Year, and Six-Year Infant Mortality Rates – 2007-2018 Josephine, Douglas, and Jackson County, including comparison with U.S. and Oregon	3
Infant Deaths and Three-Year Infant Mortality Rates by Zip Code Josephine & Douglas Counties – 2013 – 2019	5
Infant Deaths and Three -Year Infant Mortality Rates by Zip Code Jackson County – 2013 – 2019	6
Neonatal and Post-Neonatal Infant Mortality Rates – 2013-2018	7
Causes of Infant Death	8
One-Year, Three-Year, and Six-Year Low Birth Weight Rates – 2007-2018 Josephine, Douglas, and Jackson County, including comparison with U.S. and Oregon	9
Pre-term Birth Data Josephine, Douglas, and Jackson County, including comparison with U.S. and Oregon	11
Tobacco Use During Pregnancy Josephine, Douglas, and Jackson County, including comparison with U.S. and Oregon	12
Access to Prenatal Care Josephine, Douglas, and Jackson County, including comparison with Oregon	13
Glossary – Terms and Definitions	14

Infant Mortality Rates and Trends in Josephine, Douglas, and Jackson Counties

Infant Mortality Rate (IMR) - Number of deaths before the age of one year, for every 1,000 live births.

Infant mortality is a key measure of a nation's health, reflecting socioeconomic conditions, maternal health, public health practices, and access to high-quality medical care, among other factors. The United States infant mortality rate is consistently higher than other developed countries. In 2019, the U.S. infant mortality rate was 5.74 infant deaths per 1,000 live births, far higher than that of other western industrialized countries.

The five leading causes of infant death in the United States are the following ([CDC](#)):

1. [Birth defects](#)
2. [Preterm birth](#) and low birth weight
3. Maternal [pregnancy complications](#)
4. [Sudden infant death syndrome](#)
5. [Injuries](#) (e.g., suffocation)

Racial, ethnic, geographic, and socio-economic disparities in infant mortality exist in the United States. The mortality rate among babies born to mothers who are African American, Native American, Alaskan Native and Pacific Islander is particularly high. Higher infant mortality rates are also linked to rurality and lower socio-economic status.

Infant Mortality and the Healthy Start Program:

The Healthy Start program aims to reduce infant mortality and improve perinatal outcomes, including birthweight, preterm birth, maternal morbidity and mortality. It focuses on key health indicators, that are predictors of maternal-child health outcomes. These benchmarks include adequate health insurance, medical home/usual source of medical care, prenatal care, perinatal/postpartum care, well woman visits and preventive care, well child visits, tobacco cessation, birth spacing and reproductive life planning, depression screening and referral, safe sleep, breast feeding, intimate partner violence screening, father/partner involvement during and after pregnancy, daily reading to children, and implementation of a perinatal community action network.

In order to be eligible for a Healthy Start grant, the target population (which is typically defined by zip code and/or county of residence) must have an infant mortality rate 1.5 times the national average. The eligibility data for the 2019-2024 Healthy Start grant was three-year infant mortality data for the years 2013 to 2015. Healthy Start of Southern Oregon reported an infant mortality rate of 8.81 infant deaths per thousand for its target population. This is based on data from 2013-2015, for 12 zip codes in Josephine and Douglas Counties that experienced infant mortalities.

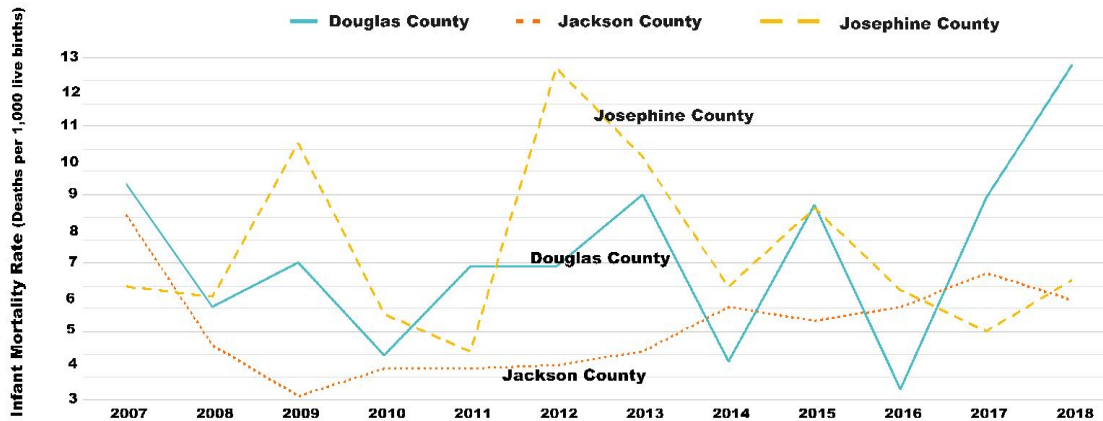
Infant Mortality Rates - Douglas, Josephine and Jackson County – 2007 – 2018 Including Comparison with U.S. and Oregon Rates

Healthy Start of Southern Oregon tracks national, state, and local population health data as part of its program outcome evaluation. This helps the program understand and analyze what increases and decreases are occurring in infant mortality rates and related birth outcomes. See below for twelve-year longitudinal data on infant mortality at the national, state and county level.

One-year Infant Mortality Rates – Douglas, Josephine and Jackson Counties – 2007 - 2018

Region	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
U.S.	6.8	6.6	6.4	6.1	6.1	6.0	6.0	5.8	5.9	5.9	5.8	5.7	5.6
Oregon	5.6	5.1	4.8	4.9	4.7	5.3	5.0	5.1	5.1	4.6	5.4	4.2	4.8
Douglas	8.8	5.2	6.5	3.8	6.4	6.4	8.5	3.6	8.2	2.8	8.4	12.3	3.8
Josephine	5.8	5.5	10.0	5.0	3.9	12.2	9.6	5.8	8.1	5.7	4.5	6.0	5.3
Jackson	7.9	4.1	2.6	3.4	3.4	3.5	3.9	5.2	4.8	5.2	6.2	5.4	5.1

Source: Oregon Public Health Authority, [Center for Health Statistics](#). National Data: [National vital statistics report](#)
Red indicates notable annual fluctuation from previous and/or subsequent years.



Source: Oregon Public Health Authority, [Center for Health Statistics](#). National Data: [National vital statistics report](#)

Because of small population size at the zip code and county level, one-year infant mortality rates often exhibit large swings from year to year. It may be more accurate to examine three-year and six-year averages, to get a sense of true trends in infant mortality at the county and zip code level.

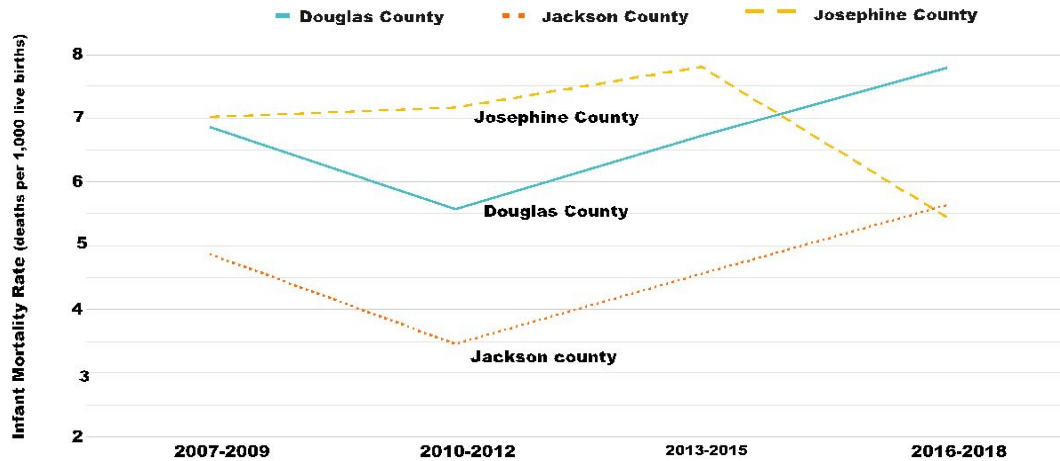
Three-year Infant Mortality Rates – Douglas, Josephine and Jackson Counties – 2007-2018

Region	2007-2009		2010-2012		2013-2015		2016-2018	
	Number of deaths	IMR	Number of deaths	IMR	Number of deaths	IMR	Number of deaths	IMR
U.S.	83,609	6.6	72,200	6.1	70,110	5.9	NA	5.8
Oregon	758	5.20	674	4.76	692	5.08	623	4.74
Douglas	23	6.85	18	5.57	22	6.72	25	7.78
Josephine	18	7.01	17	7.16	20	7.80	14	5.44
Jackson	35	4.86	24	3.45	32	4.55	38	5.63

Source: Oregon Public Health Authority, [Center for Health Statistics](#). National Data: [National vital statistics report](#)

Three Year Infant Mortality Rate (IMR) Douglas, Jackson and Josephine Counties, 2007 - 2018

Infant Deaths per one thousand live births

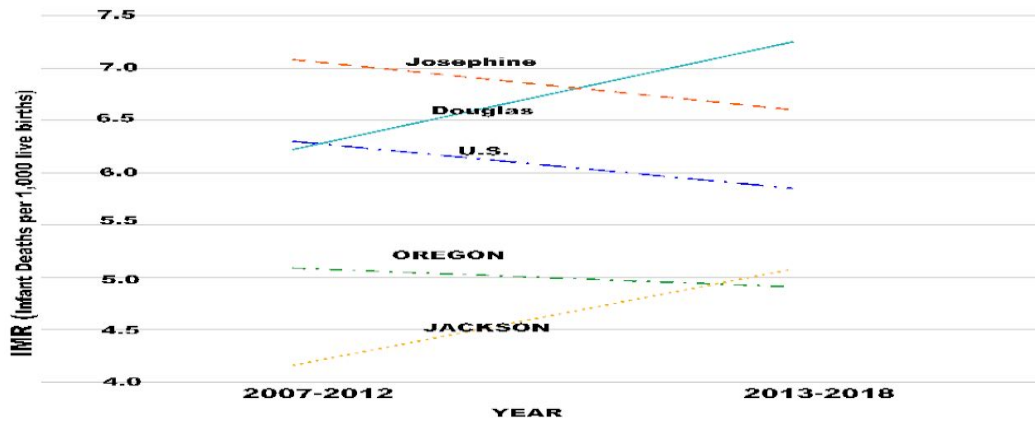


Source: Oregon Public Health Authority, [Center for Health Statistics](#). National Data: [National vital statistics report](#)

Over the last 12 years, both the national and Oregon state infant mortality rates are trending down. However, since 2013, Douglas County and Jackson County are seeing an increase in infant mortality rates. While Josephine County’s infant mortality rate increased between 2007 and 2015, its infant mortality rate now appears to be trending down.

Six-year Infant Mortality Rates – Douglas, Josephine and Jackson Counties – 2007-2018 Compared to Oregon and United States

Region	2007-2012	2013-2018
U.S.	6.3	5.85
Oregon	5.09	4.91
Douglas Co	6.22	7.25
Josephine Co	7.08	6.60
Jackson Co	4.16	5.08



Source: Oregon Public Health Authority, [Center for Health Statistics](#). National Data: [National vital statistics report](#)

Infant Deaths and Three-Year Infant Mortality Rates by Zip Code Josephine & Douglas Counties – 2013 – 2019

The primary target population for the 2019-2024 Healthy Start grant, and the region that meets the eligibility criteria is all zip codes in Josephine & Douglas County that experienced an infant mortality from 2013 to 2015. The table below shows three-year infant mortality rates by zip code:

Josephine County	Zip code	Total population 2017 ACS 5-yr estimate	2013 - 2015			2015 - 2017			2016-2018	2107-2019
			Total births	Infant deaths	IMR	Total births	Infant deaths	IMR	IMR	IMR
Cave Junction	97523	6673	--	0	0	204	1	4.90	2018 zip code level data not Available	2019 zip code level data not Available
Grants Pass	97526	34,614	1104	15	13.59	1085	7	6.45		
Grants Pass	97527	33,681	999	4	4.00	1037	6	5.79		
Kerby	97531	874	28	1	35.71	22	1	45.45		
Selma	97538	1582	-	0	0	53	1	18.87	·14 infant deaths and 2585 births (2016-18)	·13 infant deaths and 2472 births (2017-19)
Total - zip codes with infant mortality		77,424	2131	20	9.38	2401	16	6.66		
For comparison: all county zip codes		84,515	2565	20	7.80	2613	16	6.12	5.44	5.26
Douglas County	Zip code	Total population 2017 ACS 5-yr estimate	2013-2015			2015-2017			2016-18	2107-19
			Total # of births	Infant deaths	IMR	Total # of births	Infant deaths	IMR	IMR	IMR
Canyonville	97417	2583	-	0	0	54	1	18.51	2018 zip code level data not available	2019 zip code level data not available
Drain	97435	1964	66	1	15.15	73	1	13.70		
Glendale	97442	1903	75	1	13.33	75	1	13.33		
Idelyd Park	97447	517	19	1	52.63	19	2	105.26		
Myrtle Creek	97457	10,009	318	2	6.29	322	2	6.13		
Reedsport	97467	4995	-	0	0	152	3	19.74		
Roseburg	97470	19,562	736	4	5.43	722	4	5.43	·25 infant deaths and	·26 infant deaths and
Roseburg	97471	30,080	829	5	6.03	819	4	4.88		

Sutherlin	97479	9507	283	2	7.07	287	1	3.48	3213 births for the county (2016-18)	3169 births for the county (2017-19)
Winston	97496	7561	267	4	14.98	256	2	7.81		
Yoncalla	97499	1,961	43	2	46.51	-	-	-		
Total - zip codes with infant mortality		83,975	2636	22	8.35	2779	21	7.56		
For comparison: all county zip codes		107,576	3273	22	6.72	3261	21	6.44	7.78	8.2
Eligibility-all zips w/ IMR in Jos & Do Co		153,726	4767	42	8.81	5180	36	6.95	not available	not available
For comparison: all zips in Jos & Do Co		192,090	5838	42	7.19	5874	36	6.13	6.73	6.2

Red indicates a zip code area with infant mortality rate of 1.5 times the national average

Source: Oregon Public Health Authority, [Center for Health Statistics](#). data sets from the tables, [Births by county and zip code](#), and [Deaths by age, county, and zip codes](#)

Our grant dictates that we must direct the *majority* of our services towards the target population that makes our application eligible. 80% of the total population of Douglas/Josephine County live in the zip codes that experienced an infant mortality. Our program serves *all* zip codes in the two-county region, while still directing the majority of services towards the eligible population.

Infant Deaths and Three -Year Infant Mortality Rates by Zip Code Jackson County– 2013 – 2019

Jackson County’s three-year infant mortality rate for the time period of 2013 to 2015 was *lower* than the United States average. Jackson County is *not* part of the Healthy Start program, because its infant mortality rates are below the eligibility threshold. However, Healthy Start of Southern Oregon started in Jackson County in 1997, and Jackson County participated in the program for over 15 years. At that time, the infant mortality rate among Latinas in select zip code in Jackson County was more than 1.5 times the national average. Though Jackson County’s infant mortality rate has fallen below the eligible range for the Healthy Start grant, HCCSO continues to track Jackson County infant mortality and birth outcome data. Jackson county did have a few zip codes with Healthy Start eligible infant mortality rates during the three-year time period from 2013 to 2015.

Jackson County	Zip code	Total population 2017 ACS 5-yr pop estimate	2013-2015			2015-2017			2016-18	2017-19
			Total # of births	Infant deaths	IMR	Total # of births	Infant deaths	IMR	IMR	IMR
Medford	97501	45609	1,989	9	4.52	1981	11	5.55	2018 zip code level data not available ·38 infant deaths and 6748 births for the county (2016-18)	2019 zip code level data not available ·37 infant deaths and 6603 births for the county (2017-19)
Central Point	97502	27,832	963	4	4.15	878	3	3.42		
White City	97503	12,693	494	1	2.02	540	4	7.41		
Medford	97504	46,818	1583	6	3.79	1545	6	3.88		
Ashland	97520	25,164	439	4	9.11	456	2	4.39		
Eagle Point	97524	14,357	448	1	2.23	469	3	6.40		
Gold Hill	97525	4,435	128	2	15.63	134	1	7.46		
Jacksonville	97530	6,431	157	1	6.37	162	4	24.69		
Phoenix	97535	5,343	170	3	17.65	161	2	12.42		
Talent	97540	7,289	267	1	3.75	181	1	5.52		

Total- zip codes with infant mortality	195,971	6638	32	4.82	6507	37	5.69		
For comparison: all county zips	212,070	7030	32	4.55	6943	37	5.33	5.63	5.60

Red indicates a zip code area with infant mortality rate of 1.5 times the national average

Source: Oregon Public Health Authority, [Center for Health Statistics](#).

Data sets from the tables, [Births by county and zip code](#), and [Deaths by age, county, an zip codes](#)

Final Data (2016-2019) and Preliminary 2020 Data on Infant Deaths Douglas, Jackson and Josephine County

	Final 2016 Data	Final 2017 Data	Final 2018 Data	Final 2019 Data Run Date: 11/20/20	2020 YTD Data (Jan – Oct 2020)* Run Date: 12/1/20
	Infant deaths	Infant deaths	Infant deaths	Infant deaths	Infant deaths
Josephine County	3	9	13	4	1
Douglas County	5	4	5	4	5
Jackson County	12	14	12	11	9

* Preliminary and YTD data are undergoing editing procedures which result in frequent and significant changes. Data does not reflect records received but not yet processed by Center for Health Statistics

Source: Oregon Public Health Authority, [Center for Health Statistics](#). [Deaths by age, county, and zip codes](#)

Neonatal and Post-Neonatal Infant Mortality Rates – 2013 - 2018 Josephine, Douglas and Jackson Counties - Comparison with U.S. and Oregon Rates

Neonatal Infant Mortality Rate – number of infant deaths during the first 28 days of life (0-27 days) for every 1,000 live births ([March of Dimes](#)).

In the US, about two-thirds of infant mortalities occur during the neonatal period, with 40% occurring during the first day of life. Neonatal mortality is generally associated with pregnancy-related factors and maternal health, often related to short gestation and low birth weight, congenital malformations, maternal complications of pregnancy or complications experienced by the newborn resulting from birth ([healthsystemtracker.cdc.wonder.data.set](#)).

Neonatal Deaths (Age < 27 days) Jackson, Josephine & Douglas Counties, 2013 - 2018

Region	2013-2015			2016-2018		
	Total # of neonatal deaths	Neonatal deaths under 1 day	Neonatal IMR	Total # of neonatal deaths	Neonatal deaths under 1 day	Neonatal IMR
U.S.			4.0			3.8
Oregon			3.4			3.2
Douglas Co	17	12	5.19	20	18	6.22
Josephine Co	15	9	5.85	8	7	3.09
Jackson Co	23	19	3.27	26	13	3.85

Source: Oregon Public Health Authority, [Center for Health Statistics](#). [Infant deaths by age and county of residence](#)
National Data: [National vital statistics report](#)

Post-neonatal Infant Mortality Rate - number of infant deaths among infants ages 28 days to 364 days, for every 1,000 live birth ([March of Dimes](#)).

Post-neonatal mortality is generally associated with factors in the newborn’s environment, and is most often related to sudden infant death syndrome (SIDS), congenital malformations, and unintentional injuries ([healthsystemtracker.cdc.wonder.data.set](#)).

**Post-neonatal Deaths (age 28 days to 364 days)
Jackson, Josephine & Douglas Counties, 2013 - 2018**

Region	2013-2015		2016-2018	
	Total # of post-neonatal deaths	Post-neonatal IMR	Total # of post-neonatal deaths	Post-neonatal IMR
U.S.		1.9		1.9
Oregon		1.7		1.6
Douglas Co	5	1.53	5	1.56
Josephine Co	5	1.95	6	2.32
Jackson Co	9	1.28	12	1.78

Source: Oregon Public Health Authority, [Center for Health Statistics](#), [Infant deaths by age and county of residence](#)
National Data: [National vital statistics report](#)

Causes of Infant Death

The five leading causes of infant death in the United States are the following ([CDC](#)):

1. [Birth defects](#)
2. [Preterm birth](#) and low birth weight
3. Maternal [pregnancy complications](#)
4. [Sudden infant death syndrome](#)
5. [Injuries](#) (e.g., suffocation)

Sudden Unexpected Infant Death (SUID)- The death of an infant less than one year of age that occurs suddenly and unexpectedly. After a full investigation, these deaths may be diagnosed as:

- Suffocation: no air reaches baby's lungs, usually caused by a block in the airway
- Entrapment: baby gets trapped between two objects, such as a mattress and wall, and can't breathe
- Infection: baby has a cold or infection caused by a virus or bacteria that makes breathing difficult
- Ingestion: baby takes something into the mouth that blocks the airway or causes choking
- Metabolic diseases: conditions related to body functions that can lead to problems with breathing
- Cardiac arrhythmias: baby's heart beats too fast or too slow and affects breathing
- Trauma (accidental or non-accidental): baby experiences an injury
- SIDS

([NIH.Safe.to.sleep](#))

Sudden Infant Death Syndrome (SIDS): One type of SUID, SIDS is the sudden death of an infant younger than 1 year of age that cannot be explained even after a full investigation that includes a complete autopsy, examination of the death scene, and review of the clinical history.

([NIH.Safe.to.sleep](#))

SIDS* Deaths to Resident Infants - Jackson, Josephine & Douglas Counties – 2013 - 2018

County	2013	2014	2015	2016	2017	2018
Douglas	0	1	0	0	3	2
Josephine	5	0	1	1	0	0
Jackson	2	0	1	1	2	2

Source: Oregon Public Health Authority, [Center for Health Statistics](#), [Selected causes of death by county](#)

*Defined as underlying cause of death ICD-10 codes W75, R95, or R99

Reported Cause of Death Related to Congenital Malformations* and Perinatal Conditions**

Note: Deaths reported in table below are for all ages. A large proportion of these deaths occur in the first year of life.

County	2016		2017		2018	
	Congenital malformations	Perinatal conditions	Congenital malformations	Perinatal conditions	Congenital malformations	Perinatal conditions
Douglas	5	1	4	3	12	4
Josephine	4	2	3	2	5	3
Jackson	3	6	11	7	2	5

Source: Oregon Public Health Authority, [Center for Health Statistics](#), [Selected causes of death by county](#)

*Congenital malformations (ICD Q00-Q99) – Includes chromosomal malformations, deformations, and chromosomal abnormalities

**Perinatal Conditions(ICD:P00-P96)–Includes conditions that have their origin in perinatal period, though death may occur later

Birthweight Data – 2007-2018

Josephine, Douglas and Jackson Counties - Comparison with U.S. and Oregon Rates

Low Birth Weight – A birth weight less than 2500 grams (5 pounds, 8 ounces). Low birth rate is reported as a percent, per 100 births ([March of Dimes](#)).

Very Low Birth Weight – A birth weight less than 1500 grams (3 pounds, 5 ounces) ([March of Dimes](#)).

Low birthweight is one of the major contributors to infant mortality.

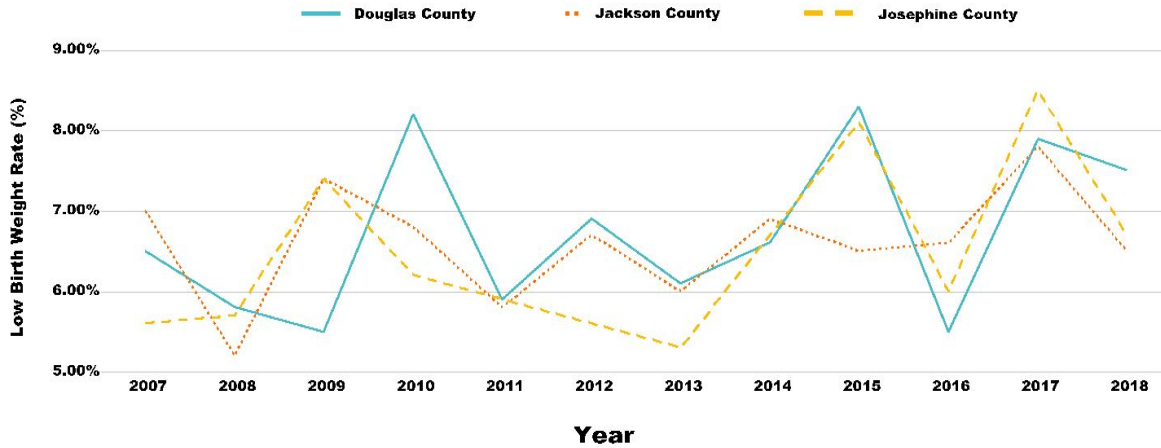
The two main reasons why a baby may be born with low birthweight ([March of Dimes](#)):

- Preterm (also called premature) birth – birth before 37 weeks
- Small for gestational age – baby doesn’t gain weight as expected.

One-year Low Birth Weight Rate– Douglas, Josephine and Jackson County – 2007-2018

Region	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
U.S.	8.2%	8.2%	8.2%	8.1%	8.1%	8.0%	8.0%	8.0%	8.1%	8.2%	8.3%	8.3%
Oregon	6.1%	6.1%	6.3%	6.3%	6.1%	6.2%	6.3%	6.3%	6.4%	6.6%	6.8%	6.7%
Douglas Co	6.5%	5.8%	5.5%	8.2%	5.9%	6.9%	6.1%	6.6%	8.3%	5.5%	7.9%	7.5%
Josephine Co	5.6%	5.7%	7.4%	6.2%	5.9%	5.6%	5.3%	6.7%	8.1%	6.0%	8.5%	6.7%
Jackson Co	7.0%	5.2%	7.4%	6.8%	5.8%	6.7%	6.0%	6.9%	6.5%	6.6%	7.8%	6.5%

Red indicates notable fluctuation from previous and/or subsequent years

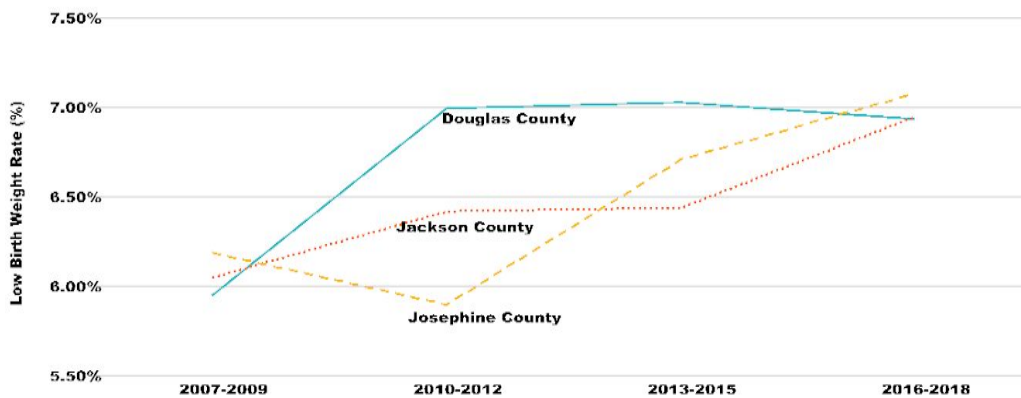


Source: Oregon Public Health Authority, [Center for Health Statistics](#). National Data: [National vital statistics report](#)

Because there is a larger number of low birth weight births than infant mortalities each year, the low birth weight rate exhibits less dramatic annual fluctuations than the annual infant mortality rate. However, low birth weight has also been grouped in three-year and six-year averages.

Three-year Low Birth Weight Rate–Douglas, Josephine and Jackson County 2007-2018

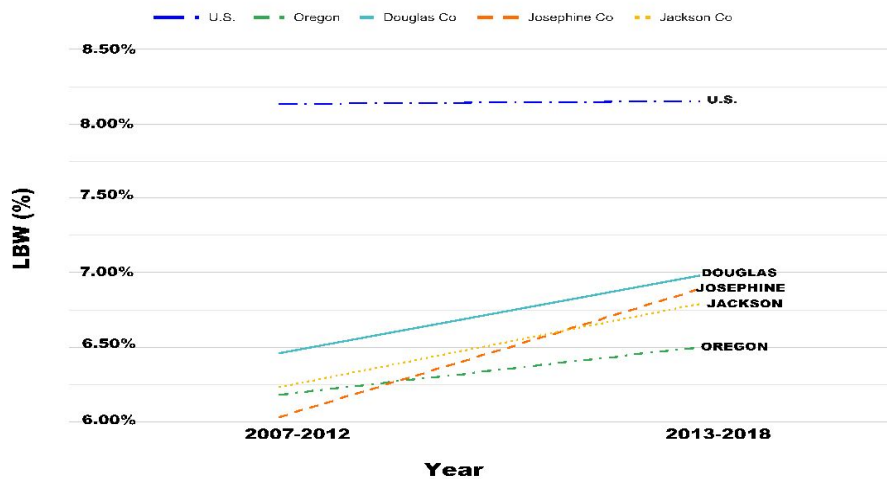
Region	2007-2009		2010-2012		2013-2015		2016-2018	
	Number of LBW births	LBW Rate	Number of LBW births	LBW Rate	Number of LBW births	LBW Rate	Number of LBW births	LBW Rate
U.S.		8.18%		8.07%		8.03%		8.25%
Oregon	8,965	6.15%	8,420	6.20%	8,623	6.32%	8,771	6.68%
Douglas Co	200	5.95%	226	7.00%	230	7.03%	223	6.94%
Josephine Co	159	6.19%	139	5.90%	172	6.71%	183	7.08%
Jackson Co	436	6.05%	447	6.42%	453	6.44%	469	6.95%



Over the last five years, the US and Oregon low birth weight rates have exhibited a small increase. In Southern Oregon, low birth weight rates have increased by about one percent since 2007. Southern Oregon’s low birth weight rate is typically lower than the national rate, but higher than the state rate.

**Six-year Low Birth Weight Rate – Douglas, Josephine and Jackson Counties – 2007-2018
Comparison to Oregon and U.S.**

Region	2007-2012	2013-2018
U.S.	8.13%	8.15%
Oregon	6.18%	6.50%
Douglas Co	6.46%	6.98%
Josephine Co	6.03%	6.89%
Jackson Co	6.23%	6.69%



Source: Oregon Public Health Authority, [Center for Health Statistics](#) National Data: [National vital statistics report](#)

**Pre-term Birth Data – 2010-2017
Josephine, Douglas and Jackson Counties - Comparison with U.S. and Oregon Rates**

Pre-Term Birth – A birth that occurs before 37 weeks of pregnancy ([CDC](#)). The pre-term birth rate is reported as a percent, per 100 births. ([CDC](#)).

Pre-Term Births and Infant Mortality

Babies born too early have higher rates of death and disability. Pre-term infant mortalities are typically neonatal mortalities, occurring during the first 28 days after birth. There are racial and ethnic disparities in pre-term birth rates, which is one of the biggest risk factors for infant mortality ([healthsystemtracker.cdc.wonder.data.set](#)).

3-Year Pre-Term Birth Rates by County

Region	2010-2012	2013-2015	2015-2017

	# of pre-term births	# of total births	preterm birth rate	# of pre-term Births	# of total births	Preterm birth rate	# of pre-term births	# of total births	Preterm birth rate
U.S.	-	-	9.9%	-	-	9.6%	-	-	9.9%
Oregon	-	-	7.6%	-	-	7.6%	--		7.9%
Douglas	241	3233	7.45%	263	3273	8.04%	266	3261	8.16%
Josephine	175	2374	7.37%	224	2565	8.73%	230	2613	8.80%
Jackson	616	6962	8.85%	567	7030	8.07%	603	6943	8.69%

Source: Oregon Data: OHA, [Center for Health Statistics, medical characteristics of birth by race/ethnicity](#)
National Data: [National vital statistics report](#)

Term Birth – A birth that occurs between 37 weeks and 42 weeks of pregnancy. Early term births occur between 37-39 weeks of pregnancy, full term births between 39–41 weeks of pregnancy, late term births during the 41st week, of pregnancy, and post-term births after the 42nd week of pregnancy([ACOG](#)).

Term Births and Infant Mortality

High poverty and rural residence have been associated with term infant mortality (deaths of infants who are born after 37 weeks or more of pregnancy). Term infant mortalities are typically post-neonatal mortalities, occurring between 28 and 364 days after birth. These deaths are often associated with the social determinants of health – socio-economic factors such as economic environment and availability of health and social services ([Mohamoud et al, 2019](#)).

Tobacco Use During Pregnancy

Women who smoke when pregnant have a far higher incidence of low birthweight babies than do nonsmokers. Smoking during pregnancy has also been linked with the following health risks:

- Problems with the placenta
- Premature birth
- Birth defects
- Low birth weight
- Pregnancy loss

Smoking during pregnancy can also increase the risk of the following:

- Sudden infant death syndrome (SIDS)
- Colic
- Asthma

- Childhood obesity

[Mayo Health Clinic](#)

**Percent of Live Births with Tobacco Use
Douglas, Josephine and Jackson County - 2011 – 2019**

Region	2011	2012	2013	2014	2015	2016	2017	2018	2019
U.S.	9%	9%	8%	8%	8%	7%	7%	6%	NA
Oregon	10.7%	10.6%	10.2%	10.4%	10.0%	9.6%	9.0%	8.4%	7.5
Douglas Co	25.1%	23.0%	25.4%	23.9%	20.4%	20.5%	20.0%	19.7%	18.7%
Josephine Co	25.2%	22.2%	24.0%	21.8%	21.6%	19.6%	18.2%	15.7%	12.4%
Jackson Co	14.6%	13.3%	14.3%	14.5%	14.2%	13.6%	12.5%	11.2%	10.0%

Source: Oregon Data: Oregon Public Health Authority, [Center for Health Statistics](#), [Live births with maternal tobacco use by county](#)

National Data [Annie.E.Casey.Kids.Count.Data.Book](#)

While the rates of tobacco use during pregnancy have declined over the past decade, the percentage of Southern Oregon births with tobacco use is more than double the national and state average. Josephine and Douglas County have particularly high rates of tobacco use during pregnancy.

Access to Prenatal Care

Douglas, Josephine and Jackson Counties - Comparison with Oregon Rates

Timely access to prenatal care is an important determinant of birth outcome. The percentage of low birthweight infants is much higher for women who received inadequate prenatal care than for women who received adequate prenatal care. Oregon measures prenatal care in two ways:

First trimester care is defined as care beginning in the first 12 weeks of pregnancy, regardless of the number of total prenatal visits.

**Percent of Births with First Trimester Prenatal Care
Douglas, Josephine and Jackson County - 2011 – 2018**

Region	2011	2012	2013	2014	2015	2016	2017	2018
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Oregon	75.1%	75.9%	77.8%	77.5%	79.0%	79.7%	79.9%	81.0%
Douglas Co	78.6%	81.8%	81.9%	77.3%	82.1%	81.3%	83.5%	85.9%
Josephine Co	76.2%	75.3%	76.9%	77.5%	80.4%	76.7%	79.5%	80.8%
Jackson Co	73.05	73.5%	75.5%	78.0%	80.4%	78.2%	79.3%	82.8%

Source: Oregon Health Authority, [Center for Health Statistics, First.trimester.care](#)

Inadequate prenatal care is defined as no care until the third trimester or fewer than five total prenatal visits.

**Percent of Births with Inadequate Prenatal Care
Douglas, Josephine and Jackson County - 2011 – 2018**

Region	2011	2012	2013	2014	2015	2016	2017	2018
Oregon	5.4%	5.5%	5.7%	6.0%	5.7%	6.0%	6.1%	6.3%
Douglas Co	4.9%	4.2%	5.0%	5.7%	4.5%	5.2%	5.7%	6.0%
Josephine Co	7.0%	6.7%	6.9%	7.8%	7.9%	8.8%	7.1%	7.5%
Jackson Co	5.4%	5.8%	6.6%	6.3%	5.8%	7.2%	6.6%	5.8%

Source: Oregon Health Authority, [Center for Health Statistics, Adequate.prenatal.care.by.county](#)

Mother’s race/ethnicity, residence, marital status, education and age continue to influence rates of accessing prenatal care. The highest percentage of inadequate care is found among unmarried women, women with less education, women who are young, and women of color.

Glossary - Population Health Definitions and Terms Related to Healthy Start

Infant Mortality Rate (IMR) - Number of deaths before the age of one year, for every 1,000 live births

Low Birth Weight – A birth weight less than 2500 grams (5 pounds, 8 ounces), low birth rate is reported as a percent, per 100 births ([March of Dimes](#))

Neonatal Infant Mortality Rate – Number of infant deaths during the first 28 days of life (0-27 days) for every 1,000 live births ([March of Dimes](#))

Maternal Mortality - The death of a woman while pregnant or within one year of the end of a pregnancy – regardless of the outcome, duration or site of the pregnancy – from any cause related to or aggravated by the pregnancy or its management, but not from accidental or incidental causes ([CDC](#))

Maternal Mortality Ratio - The number of maternal deaths during a given time period per 100,000 live births during the same time period ([CDC](#))

Post-Neonatal Infant Mortality Rate - Number of infant deaths among infants ages 28 days to 364 days, for every 1,000 live birth ([March of Dimes](#))

Pre-Term Birth – A birth that occurs before 37 weeks of pregnancy, pre-term birth rate is reported as a percent, per 100 births ([CDC](#))

Severe Maternal Morbidity (SMM) - Includes unexpected outcomes of labor and delivery that result in significant short- or long-term consequences to a woman's health ([CDC](#))

Sudden Infant Death Syndrome (SIDS): One type of SUID, SIDS is the sudden death of an infant younger than 1 year of age that cannot be explained even after a full investigation that includes a complete autopsy, examination of the death scene, and review of the clinical history ([NIH.Safe.to.sleep](#))

Sudden Unexpected Infant Death (SUID) - The death of an infant less than 1 year of age that occurs suddenly and unexpectedly. After a full investigation, these deaths may be diagnosed as suffocation, entrapment, infection, ingestion, metabolic disease, cardiac arrhythmia, trauma or SIDS ([NIH.Safe.to.sleep](#))

Term Birth – A birth that occurs between 37 weeks and 42 weeks of pregnancy. Early term births occur between 37-39 weeks of pregnancy, full term births between 39–41 weeks of pregnancy, late term births during the 41st week, of pregnancy, and post-term births after the 42nd week of pregnancy([ACOG](#))

Very Low Birth Weight – A birth weight less than 1500 grams (3 pounds, 5 ounces), very low birth rate is reported as a percent, per 100 births ([March of Dimes](#))