MATERNAL HEALTH INNOVATIONS (MHI)

# Data Snapshot Companion

## Priority Area: Rural Access to Care

Washington State Department of HEALTH

**DOH 141-251 June 2026 CS**

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# Information About the Data Snapshots

The Maternal Health Innovation (MHI) Data Snapshots (DS) are designed to help each priority area workgroup focus attention on their specific main issues. Each snapshot offers a compact, updated summary of the current data for their respective MHI priority area: Substance Use and Mental Health, Obstetric Care Quality, Rural Access to Care, and Community-Based Perinatal Care and Support.

This companion document focuses on the **Rural Access to Care Priority Area** and provides additional context and expanded definitions to support the priority area's actionable insights for decision-making and strategy development.

**We grouped the data points into 3 categories for each MHI priority area:**

- Maternal health outcomes
- Maternal health factors
- Additional considerations (qualitative data)

The DS tables reflect the most recent data available by March 31, 2025. Due to space limitations, the tables only include categories with notable values or those representing the range of values across groups. A complete list of available categories for each data point is included in this companion document.

## How Can I Use These Data Snapshots?

This companion document can support your project planning, evaluation, and decision-making. Here are some ways to apply the information:

- **Identify key outcomes and factors.**

  Review the data snapshots to find the maternal health outcomes and maternal health factors most relevant to your priority area work.
  - What initial insights do the data points offer?
  - Which indicators provide new information or confirm what you already know?

- **Tailor priority area project activities.**

  Use the data to shape your project activities.
  - Should some of your workgroup project activities focus on specific subpopulations?

- **Define evaluation and monitoring measures.**

  Discuss with your team if these data points can be adapted to measure progress on your priority area workgroup projects.
  - Is there any data not included in the DS that you would like access to?
  - If yes, consider whether your group project should include additional data collection activities.

## Working Definitions

### Urban and Rural County Designation

Using rural and urban county designations based on where a birthing person lives allows for analysis of differences in socioeconomic or health outcomes that may be associated with living in urban or rural counties. This approach does not fully capture variation in rurality within counties. Many counties include both rural and urban areas, and may vary by population size, remoteness, economic connection to large cities, and interdependence across county lines.

***Birth Certificate data*** uses the Office of Financial Management (OFM) rural-urban classification from 2014 for Washington counties. RCW 82.14.370 defines rural counties as counties with a population density less than 100 persons per square mile or a county smaller than 225 square miles (1).

- **Rural Counties:** Adams, Asotin, Chelan, Clallam, Columbia, Cowlitz, Douglas, Ferry, Franklin, Garfield, Grant, Grays Harbor, Island, Jefferson, Kittitas, Klickitat, Lewis, Lincoln, Mason, Okanogan, Pacific, Pend Orielle, San Juan, Skagit, Skamania, Stevens, Wahkiakum, Walla Walla, Whitman, and Yakima
- **Urban Counties:** Benton, Clark, King, Kitsap, Pierce, Snohomish, Spokane, Thurston, and Whatcom

Rural counties in ***PRAMS data*** are designated by the Centers for Disease Control and Prevention (CDC) using the 2023 National Center for Health Statistics (NCHS) Urban-Rural Classification Scheme. Rural counties have a population of fewer than 50,000 and are not in metropolitan or micropolitan areas (2).

- **Rural Counties:** Adams, Clallam, Ferry, Garfield, Grant, Gray's Harbor, Island, Jefferson, Kittitas, Klickitat, Lewis, Lincoln, Mason, Okanogan, Pacific, San Juan, Wahkiakum, and Whitman.
- **Urban Counties:** Asotin, Benton, Chelan, Clark, Columbia, Cowlitz, Douglas, Franklin, King, Kitsap, Pend Oreille, Pierce, Skagit, Skamania, Snohomish, Spokane, Stevens, Thurston, Walla Walla, Whatcom, and Yakima.

### Race and Ethnicity Categories

The DS uses the following race and ethnicity categories:

- **Hispanic:** Anyone with Hispanic or Latino ethnicity, regardless of race.
- **Non-Hispanic (NH) single-race:** Individuals who identify as one race. For example, AIAN means single-race NH American Indian/ Alaska Native individuals, and NHPI means single-race NH Native Hawaiian/Pacific Islander.
- **Non-Hispanic multiple races:** Individuals reporting 2 or more races.

### Significant Difference

When interpreting DS data points, we use the term **significant difference** to refer to statistically notable differences between groups.

To determine whether the differences between groups are meaningful or due to chance, we used both confidence intervals (CI)[1] and p-values[2] (3, 4). Here's how we assessed the differences:

- Two-group comparisons: A difference is considered significant if the CIs of the comparison groups do not overlap. This suggests the two groups likely differ with a certain level of confidence (e.g., 95%).
- Multiple-group comparisons: In a statistical test comparing multiple groups, we considered differences between groups significant when the p-value associated with that test was below .05 ($p < .05$).

**Important Note:** We recognize that public health practice and policy decisions shouldn't solely be based on p-value thresholds or CI overlaps.

**Desired Direction:** Each indicator has a "desired direction" toward improvement and positive outcomes:

- Increase = Higher is better
- Decrease = Lower is better
- Neutral = Neither direction is better.

For example, a decrease is the desired direction for smoking during pregnancy meaning a lower percentage of this indicator would be considered an improvement.

## Narrative Overview of Each Indicator

This section provides a narrative overview of all the indicators included in the DS tables, along with other related indicators. For each indicator, you will find:

- Indicator name
- Year the data was obtained
- If appropriate, the desired indicator direction
- Indicator definition
- Original data source with a summary table or figure

The definitions reflect those used by the original data source and can also be found below the DS tables.

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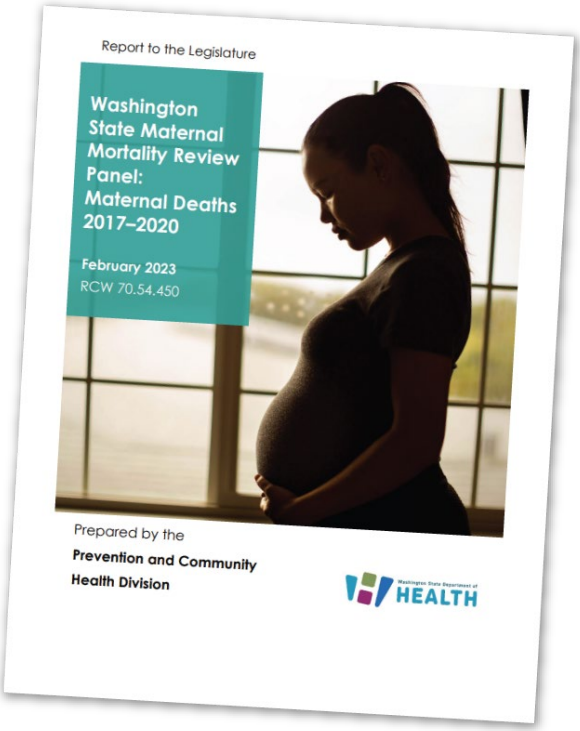
[1] A CI provides an interval estimate or range of values that acknowledge the uncertainty of the single number point estimate, particularly one that is based on a sample of the population

[2] A p-value is the probability under a specified statistical model that a statistical summary of the data (e.g., the sample mean difference between two compared groups) would be equal to or more extreme than its observed value

# Maternal Health Outcomes

## Pregnancy-Related Deaths (2014–2020) – Lower Rates are Desirable

Pregnancy-related deaths per 100,000 live births refer to deaths that occur during pregnancy or within one year of the end of pregnancy from a pregnancy complication, a chain of events initiated by a pregnancy, or the aggravation of an unrelated condition by the physiological effects of pregnancy, as determined by the Washington Maternal Mortality Review Panel (MMRP) (5).




The table on the next page presents pregnancy-related deaths included in the 2023 WA MMRP Report (5). The table presents both frequencies and rates. Frequency, the total number of deaths in each subgroup, shows the magnitude of deaths. Rates, the number of deaths per 100,00 live births, highlight differences in outcomes across subgroups.

Residence was classified as rural or urban using the residential ZIP code designation from the Rural-Urban Commuting Area (RUCA) system developed by the Federal Office of Rural Health Policy (5).

**Table 1. Pregnancy-Related Deaths by Maternal Age, Race and Ethnicity, Coverage Type and County of Residence (2014–2020, Washington)**

| Maternal Mortality | Rate per 100,000 | 95% Confidence Interval |
|---|---|---|
| Statewide (n=97) | 15.9 | (12.9, 19.4) |
| *By Maternal Age** | | |
| <25 Years (n=18) | 14 | (8, 21) |
| 25-34 Years (n=48) | 13 | (10, 17) |
| ≥ 35 Years (n=31) | 26 | (18, 36) |
| *By Maternal Race and Ethnicity** | | |
| AIAN NH (n=7) | 84 | (34, 156) |
| NHPI NH (n=4) | 48 | (13, 106) |
| Black NH (n=10) | 36 | (17, 61) |
| Hispanic (n=21) | 19 | (12, 28) |
| White NH (n=46) | 13 | (9, 17) |
| *By Insurance Coverage Type** | | |
| Medicaid (n=66) | 28 | (22, 35) |
| Private (n=24) | 8 | (5, 11) |
| *By County of Residence* | | |
| Urban County (n=82) | 15 | (12, 19) |
| Rural County (n=15) | 23 | (13, 36) |

Data Source: Washington State MMRP: Maternal Deaths 2014–2020 * = differences between certain categories of this indicator were statistically significant based on non-overlapping Confidence Intervals (CI)

## Severe Maternal Morbidity (2022) – Lower Rates are Desirable

Severe Maternal Morbidity (SMM) refers to unexpected outcomes of labor and delivery that can result in significant short- and long-term health consequences (6).

SMM events are identified as in-hospital deliveries of female patients aged 12–55 years with a diagnosis or procedure indicating SMM documented in their discharge record. This indicator includes SMM by maternal age, maternal race and ethnicity, patient residence county, hospital delivery volume, and expected payer.

Hospital delivery volume is the number of deliveries at an individual facility each year. Expected payer is the type of payer that the hospital expects to be the source of payment for the hospital bill. Patient residence is based on the county-level National Center for Health Statistics (NCHS) designation for the patient's county of residence[3].

[3] The NCHS Urban-Rural Classification Scheme defines large metropolitan as counties in metropolitan areas of one million or more population, while small and medium metropolitan are counties in metropolitan areas of 50,000 to 999,999 population. Nonmetropolitan is defined as counties in micropolitan areas of 10,000 to 49,999 population or counties not in a metropolitan or micropolitan area.

SMM deliveries are identified among all in-hospital deliveries of patients treated in community hospitals in Washington[4]. The data includes deliveries of both people living in Washington state and people living outside of Washington who gave birth at Washington facilities (7).

From 2016 to 2022, the overall rate of SMM in the US increased from 72 to 93.1 per 10,000 in-hospital deliveries. In the same period, the SMM rates increased in WA from 58.3 in 2016 to 100.0 in 2022.

**Table 2. SMM Rates per 10,000 In-Hospital Deliveries (2022, Washington)**

| SMM | Rate per 10,000 |
|---|---|
| Statewide | 100.0 |
| *By Maternal Age* | |
| < 20 Years | 86.1 |
| 20-24 Years | 86.4 |
| 25-34 Years | 92.6 |
| ≥ 35 Years | 128.3 |
| *By Maternal Race and Ethnicity†* | |
| Black NH | 170.1 |
| Hispanic | 105.8 |
| White NH | 86.8 |
| Other, NH‡ | 132.1 |
| *By Patient County of Residence* | |
| Large Metropolitan | 112.0 |
| Small/Medium Metropolitan | 79.7 |
| Nonmetropolitan | 93.6 |
| *By Hospital Delivery Volume* | |
| < 500 Deliveries | 60.4 |
| 500-1,000 Deliveries | 54.1 |
| > 1,000 Deliveries | 108.0 |
| *By Expected Payer* | |
| Medicaid and Medicare§ | 105.5 |
| Private Insurance | 98.0 |

Data Source: HCUP Fast Stats, Severe Maternal Morbidity (SMM) Among In-Hospital Deliveries in WA; †SMM rate by maternal race and ethnicity is from 2021; ‡The non-Hispanic Other category includes Asian or Pacific Islander, American Indian/Alaska Native, and other non-Hispanic race identified as "other". Discharges missing race/ ethnicity are excluded from results reported by race/ethnicity. § On average, Medicare represents fewer than 1% of in-hospital deliveries.

[4] Community hospitals include short-term, non-Federal, general, and other hospitals excluding hospital units of other institutions (e.g. prisons) or community hospitals that are also long-term care facilities.

## Preterm Birth (2022–2023) – Lower Percentages Are Desirable

Infants born before 37 weeks of gestation have a higher risk of infections, breathing problems, developmental problems, and even death. Reducing preterm births is a national priority. The Healthy People 2030 objective is to bring the rate down to 9.4%.

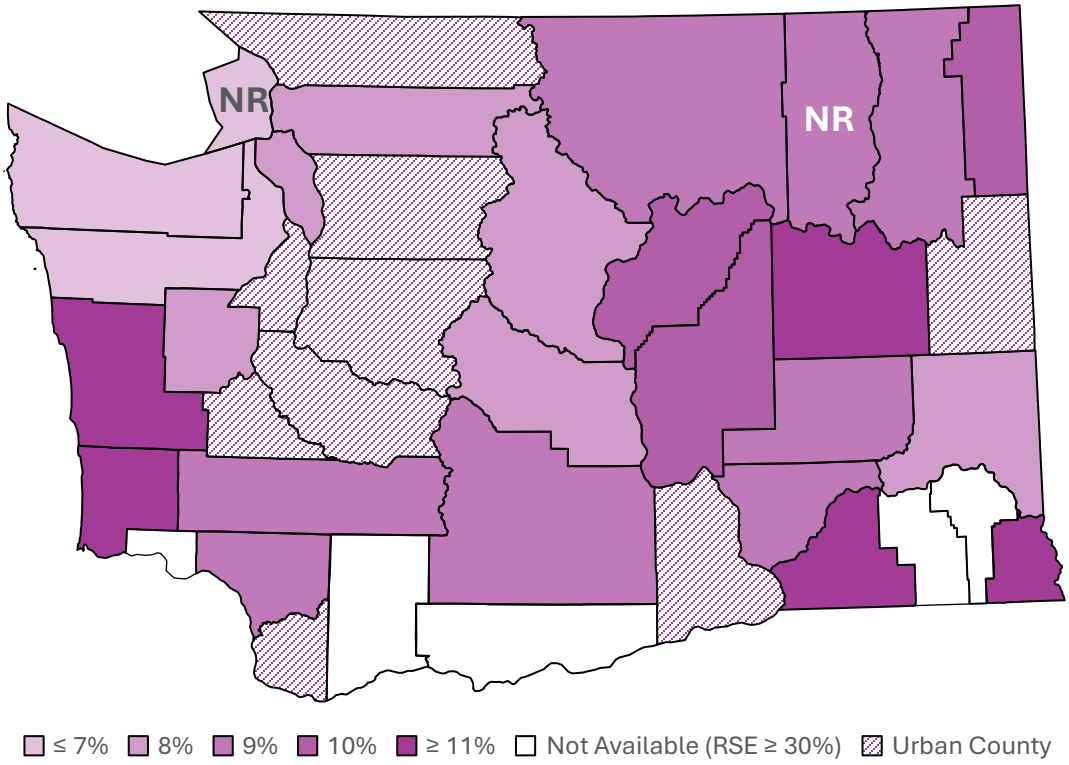
In 2022, national preterm birth rates increased to 10.4%. Racial disparities in preterm birth have also been observed (8). The table below shows preterm births – those before 37 completed weeks of gestation – as a percentage of in-state births to people who live in Washington.

**Table 3. Preterm Birth Among In-State Births to People Living in Washington, 2022–2023**

| Preterm Birth | Percent |
|---|---|
| By County of Residence | |
| Urban Counties | 9% |
| Rural Counties<br>*(range across rural counties)* | 9%<br>(6–22%) |

Data Source: WA Birth Certificate Data (2022–2023)

**Figure 1. Map of Preterm Birth Among In-State Births to People Living in Washington, 2022–2023**




NR = Relative Standard Error (RSE) is between 25-30%; estimates may be unreliable and should be interpreted with caution.

## Low Birthweight Infants (2022–2023) – Lower Percentages Are Desirable

Birthweight is a key indicator of maternal and newborn health. Infants born with a low birth weight, defined as **under 2500 grams**, have a greater risk of health problems – both short- and long-term – and account for approximately 80% of newborn deaths (9).

Low birthweight can result from babies being born too early (preterm), too small for their gestational age, or both.

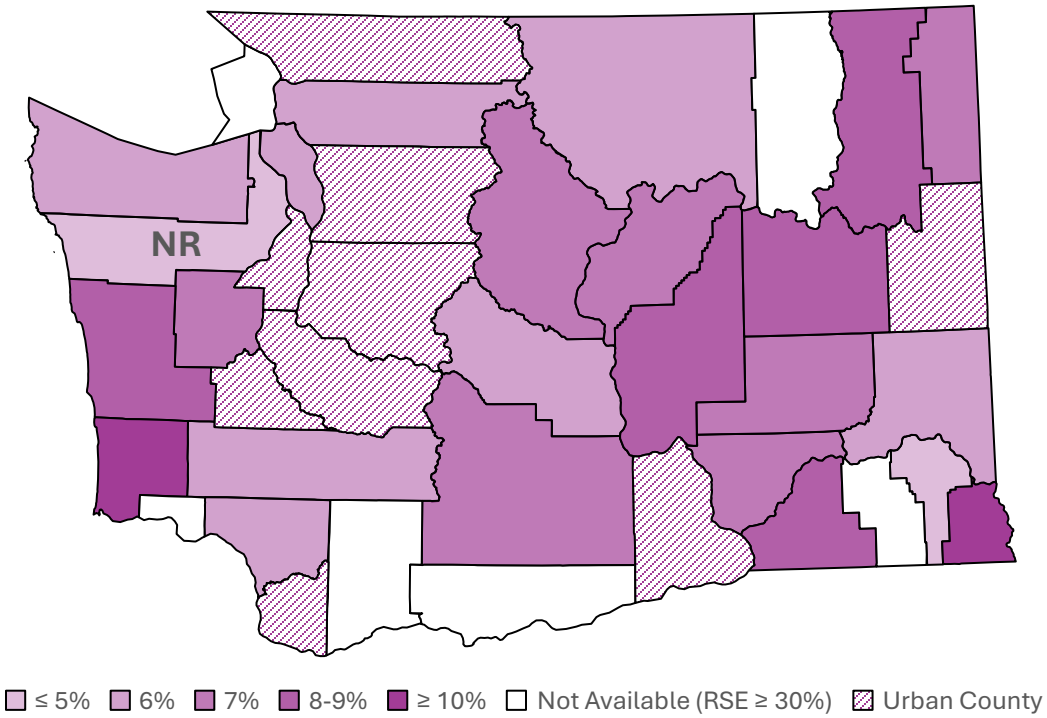
The table below illustrates low birthweight births as a percentage of in-state births to people who live in Washington.

**Table 4. Low Birthweight Infants Among In-State Births to People Living in Washington, 2022–2023**

| Low Birthweight | Percent |
|---|---|
| By County of Residence | |
| Urban Counties | 7% |
| Rural Counties<br>*(range across rural counties)* | 7%<br>(0–20%) |

Data Source: WA Birth Certificate Data (2022–2023)

**Figure 2. Map of Low Birthweight Infants Among In-State Births to People Living in Washington, 2022–2023**




NR = Relative Standard Error (RSE) is between 25-30%; estimates may be unreliable and should be interpreted with caution.

# Rural Health Factors and Outcomes

## Birth Certificate Data (2022–2023)

The Washington State Department of Health collects pregnancy and delivery data from birth certificates. The information in this section of the Rural Access to Care Priority Area reflects the percentage of people living in Washington who had an in-state birth between 2022–2023 (n=161,162) (10).

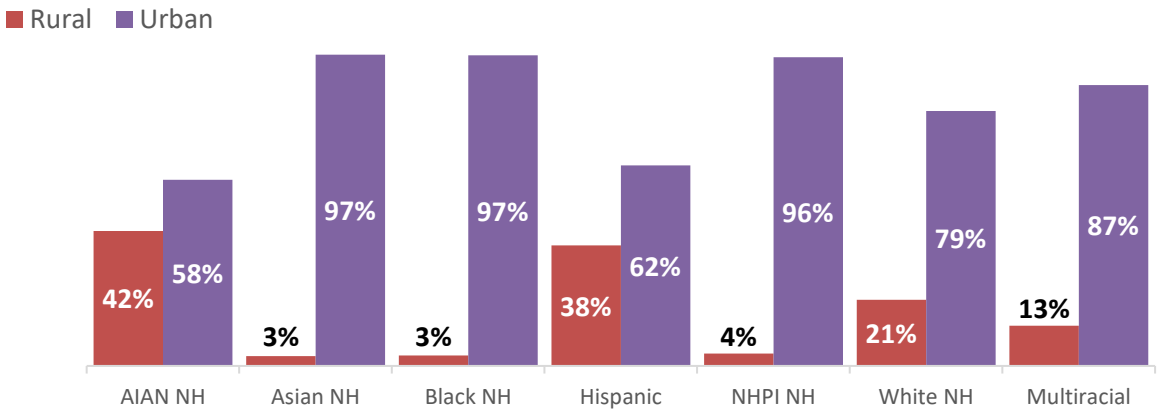
Birth certificates are an important source of data for tracking maternal health at the state and national levels (11). They include information such as birthweight, delivery methods, and demographic characteristics, most of which are considered highly accurate. However, some data, like the use of prenatal care, might be overreported, while others, such as tobacco use, transfer status, medical risk factors, and obstetric procedures, might be underreported (12).

## Births in Rural Counties (2022–2023)

Rural counties accounted for about 1 in 5 in-state births (21%). This share varied by race and ethnicity of the birth parent:

- 42% of births to non-Hispanic American Indian or Alaska Native individuals
- 38% of births to Hispanic individuals
- 21% of births to non-Hispanic White individuals
- 13% of births to non-Hispanic individuals of more than one race
- 4% of births to non-Hispanic Native Hawaiian or Pacific Islander individuals
- 3% of births to non-Hispanic Black individuals
- 3% of births to non-Hispanic Asian individuals

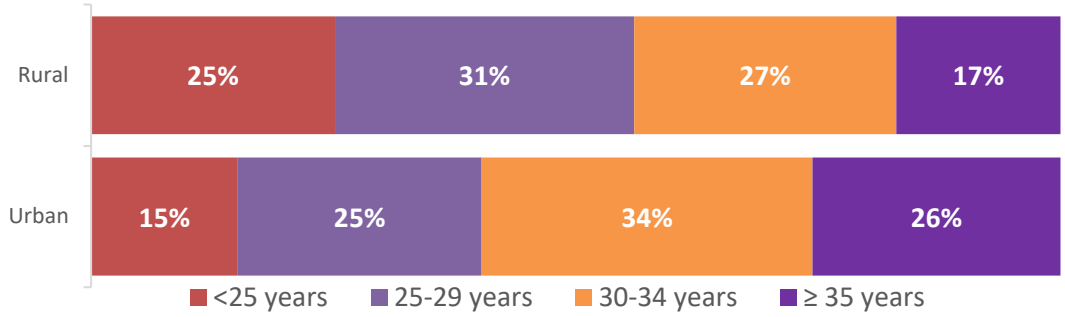
**Figure 3. County Type of Residence by Maternal Race and Ethnicity, In-State Births to People Living in Washington, 2022–2023**




Data Source: WA Birth Certificate Data (2022–2023); AIAN = American Indian or Alaska Native; NHPI = Native Hawaiian or Pacific Islander; NH = Non-Hispanic. Hispanic includes all Hispanic individuals regardless of race; the rest are non-Hispanic single race groups, except Multiracial.

Overall, birth parents in rural counties tended to be younger than those in urban counties. Births to people **younger than 25 years made up 25% of all rural births**, compared to 15% of all urban births. People **35 and older accounted for 17% of rural births**, compared to 26% of urban births.

**Figure 4. Maternal Age by County Type of Residence, In-State Births to People Living in Washington, 2022–2023**




Data Source: WA Birth Certificate Data (2022–2023)

## Inadequate Prenatal Care (2022–2023) – Lower Percentages Are Desirable

The Kotelchuck Index is used to measure the adequacy of prenatal care. It considers both when prenatal care began and how many visits occurred between the first visit and delivery.

Prenatal care is considered **inadequate** when it begins after the fourth month of pregnancy or when the birthing person receives less than 50% of the recommended number of visits. Births reported as having no prenatal care are also included in the inadequate category.

The table below uses the Kotelchuck adequacy of prenatal care index to illustrate the percentage of in-state births when the birthing person received inadequate or no prenatal care.

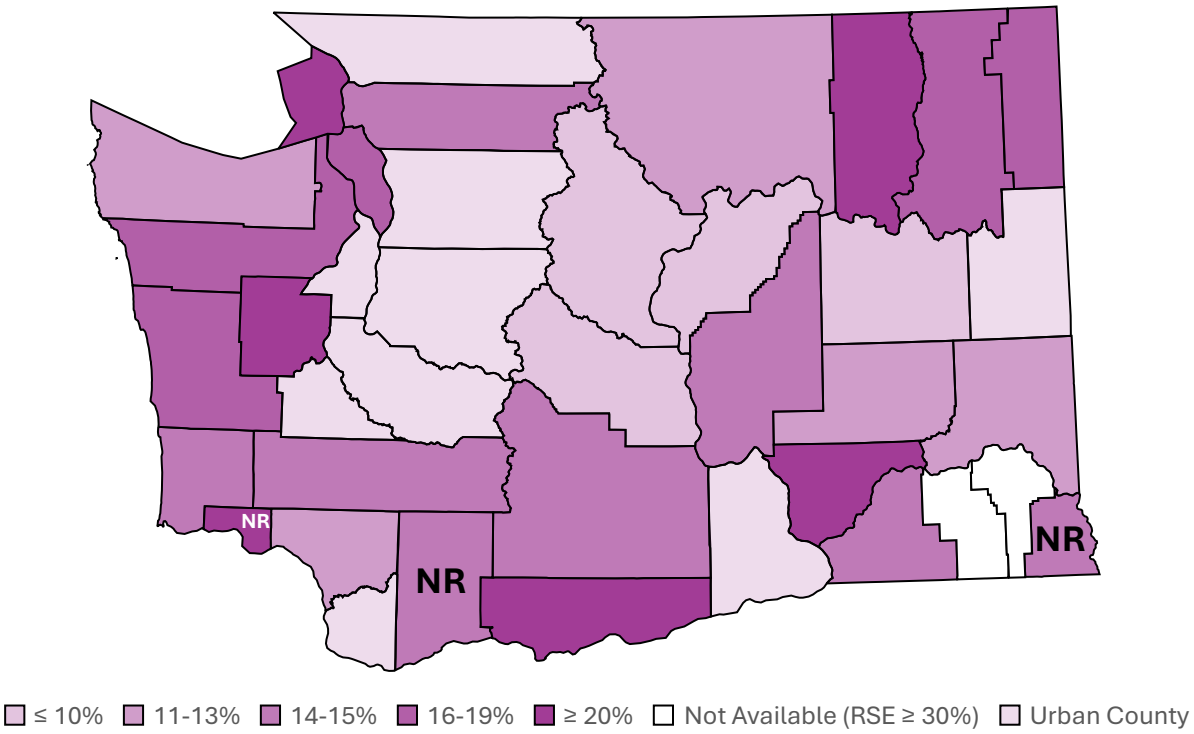
**Table 5. Births with Inadequate or No Prenatal Care Among In-State Births to People Living in Washington, 2022–2023**

| Inadequate or No Prenatal Care | Percent |
|---|---|
| By County of Residence* | |
| Urban Counties | 16% |
| Rural Counties<br>*(range across rural counties)* | 15%<br>(9–27%) |

Data Source: WA Birth Certificate Data (2022–2023). Information on prenatal care was missing for 18% of in-state births to Washingtonians in 2022–2023. These data are not included in Table 5. High levels of missing data can lead to incorrect conclusions, especially if some birthing individuals are more likely to have missing prenatal care data than others. Findings may not represent the prenatal care experience of all birthing people in Washington and should be used carefully.

* = differences between categories were significant ($p < .05$).

**Figure 5. Map of Births with Inadequate or No Prenatal Care Among In-State Births to People Living in Washington, 2022–2023**




NR = Relative Standard Error (RSE) is between 25-30%; estimates may be unreliable and should be interpreted with caution.

## Pre-Pregnancy Diabetes or Gestational Diabetes – Lower Percentages Are Desirable

Gestational diabetes is a type of diabetes that develops during pregnancy in people who weren't previously diabetic. It affects about 5% to 9% of pregnancies in the US every year.

Having gestational diabetes increases the risk for cesarean delivery, future type 2 diabetes, and possibly postpartum depression (13).

More Washington births in 2022–2023 had gestational diabetes (12%), while pre-existing diabetes accounted for a smaller portion (1%).

The table below shows the percentage of births where pre-existing or gestational diabetes was indicated on the birth certificate.

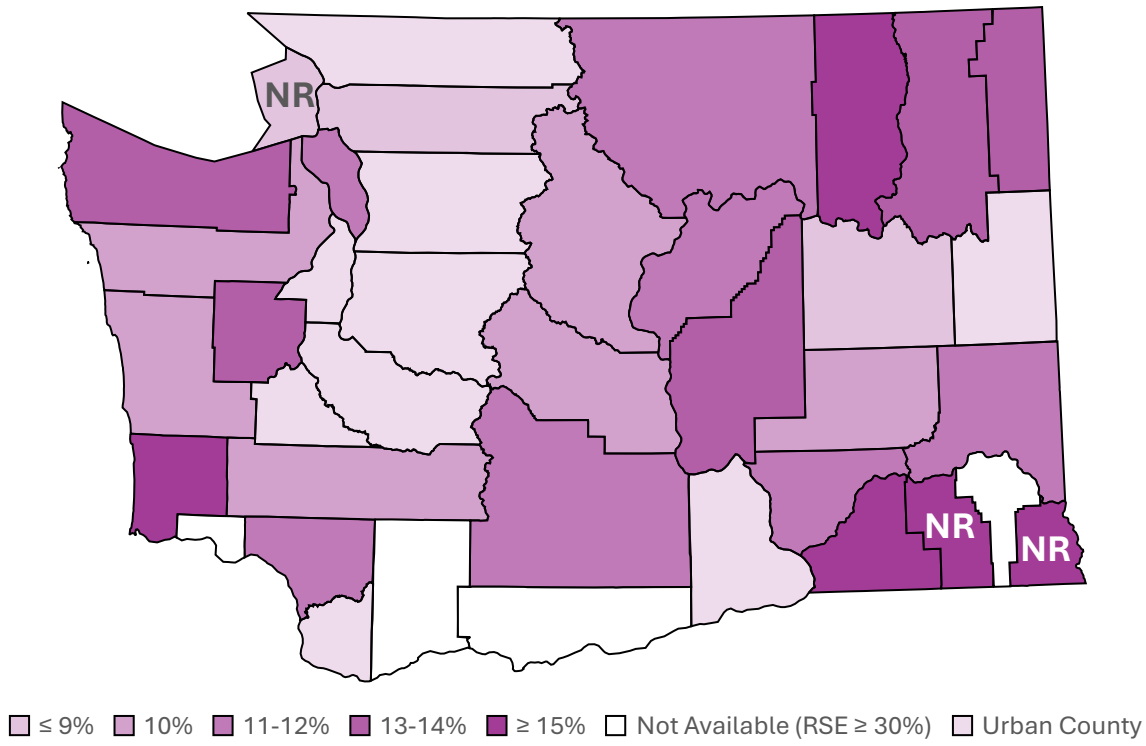
**Table 6. Pre-Existing and Gestational Diabetes Among In-State Births to People Living in Washington, 2022–2023**

| Diabetes | Percent |
|---|---|
| By County of Residence* | |
| Urban Counties | 14% |
| Rural Counties<br>*(range across rural counties)* | 12%<br>(7–18%) |

Data Source: WA Birth Certificate Data (2022–2023). * = differences between categories were significant ($p < .05$).

Note: Unreliable minimum or maximum values, where Relative Standard Error (RSE) is above 30%, are not included in the range across rural counties.

**Figure 6. Map of Pre-Existing and Gestational Diabetes Among In-State Births to People Living in Washington, 2022–2023**

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## Pre-Existing or Gestational Hypertension – Lower Percentages Are Desirable

High blood pressure (hypertension) is very common during pregnancy and affects 5% to 10% of birthing people. High blood pressure can lead to serious complications during pregnancy,

including preeclampsia, eclampsia, stroke, the need for labor induction (giving medicine to start labor to give birth), and placental abruption (the placenta separating from the wall of the uterus)(14). Pre-existing hypertension refers to high blood pressure that was present before pregnancy. Gestational hypertension (pregnancy-induced hypertension and preeclampsia) develops during pregnancy .

Similar to diabetes, more Washington births in 2022–2023 had gestational hypertension (11%) than pre-existing or chronic hypertension (2%).

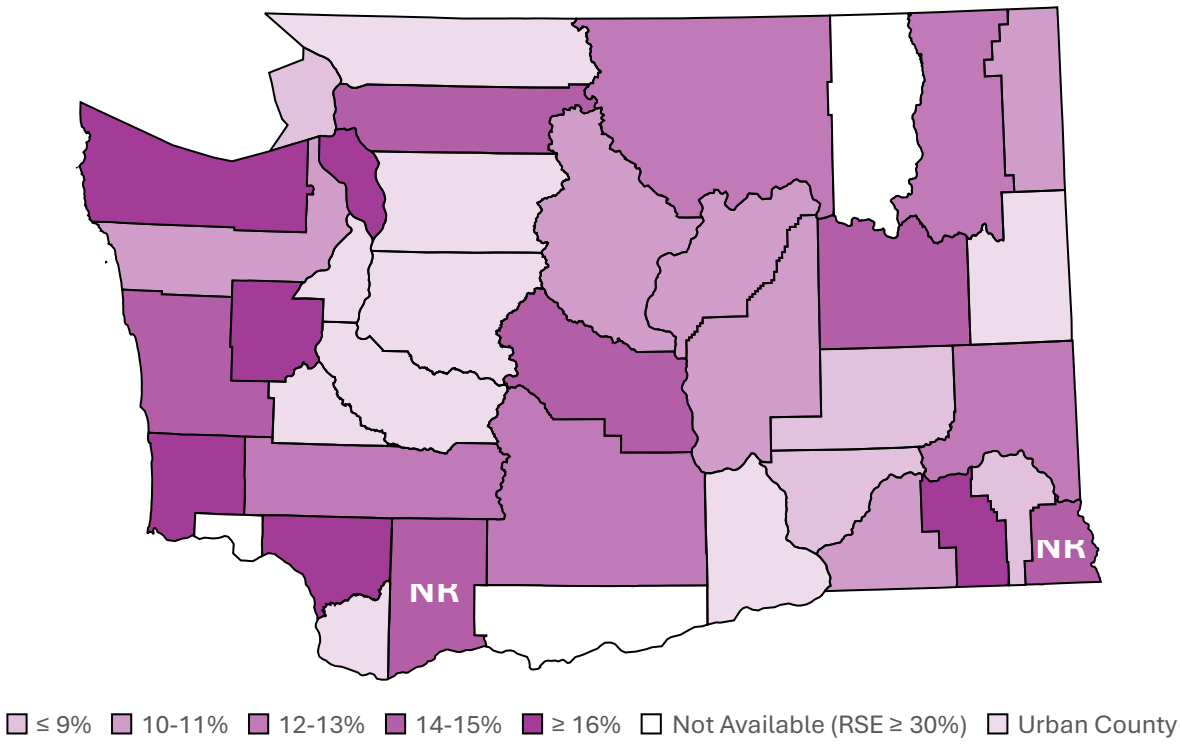
**Table 7** shows the percentage of births where either type of hypertension was indicated on the birth certificate.

**Table 7. Pre-Existing and Gestational Hypertension Among In-State Births to People Living in Washington, 2022–2023**

| Hypertension | Percent |
|---|---|
| By County of Residence* | |
| Urban Counties | 13% |
| Rural Counties<br>*(range across rural counties)* | 12%<br>(0–19%) |

Data Source: WA Birth Certificate Data (2022–2023). * = differences between categories were significant (p < .05).

**Figure 7. Map of Pre-Existing and Gestational Hypertension Among In-State Births to People Living in Washington, 2022–2023**

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## Cesarean Section Among Low-Risk Births – Lower Percentages Are Desirable

Low-risk births are referred to as NTSV deliveries:

- **N**ulliparous (Birthing person who has not previously had a live birth)
- **T**erm (37 weeks or more)
- **S**ingleton (1 baby)
- **V**ertex (Baby is in a head-down position)

In Washington, about 1 in 3 births (35%) were considered low-risk. The percentage of low-risk births was 36% of births to people living in urban counties and 31% of births to people living in rural counties.

**Healthy People 2030** includes an objective to reduce cesarean births to 23.6% among low-risk, first-time birthing people. But in 2022, the national rate increased to 26.3%, indicating this trend is becoming worse (15).

**Table 8** below shows the percentage of NTSV births that had a cesarean section delivery.

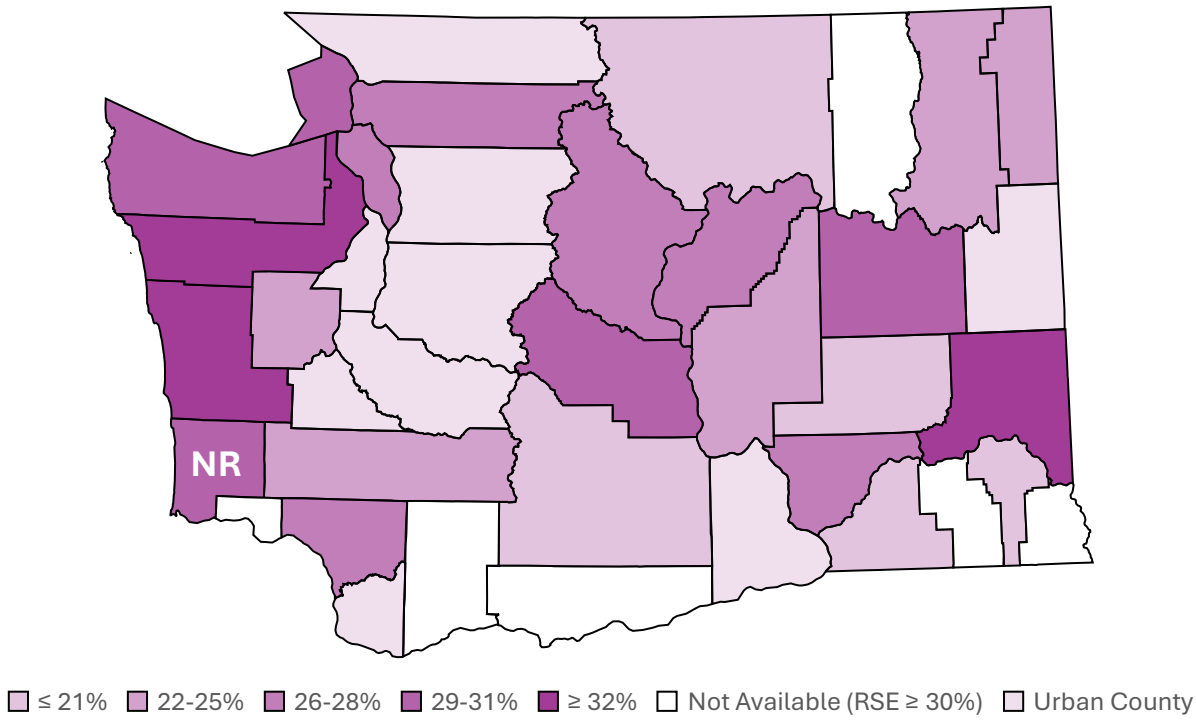
**Table 8. Cesarean Sections Among In-State Low-Risk Births to People Living in Washington, 2022–2023**

| Cesarean Sections among NTSV Births | Percent |
|---|---|
| By County of Residence* | |
| Urban Counties | 29% |
| Rural Counties<br>*(range across rural counties)* | 25%<br>(0–34%) |

Data Source: WA Birth Certificate Data (2022–2023). * = differences between categories were significant ($p < .05$).

Note = Unreliable minimum or maximum values, where Relative Standard Error (RSE) is above 30% are not included in the range across rural counties.

**Figure 8. Map of Cesarean Sections Among In-State Low-Risk Births Washingtonians Living In-State, 2022–2023**




NR = Relative Standard Error (RSE) is between 25-30%; estimates may be unreliable and should be interpreted with caution.

## Attendant Type at Birth

Birth attendants include:

- Physicians (MD or DO)
- Certified Nurse-Midwives (CNM) and Advanced Registered Nurse Practitioners (ARNP) – grouped together
- Licensed Midwives (LM)

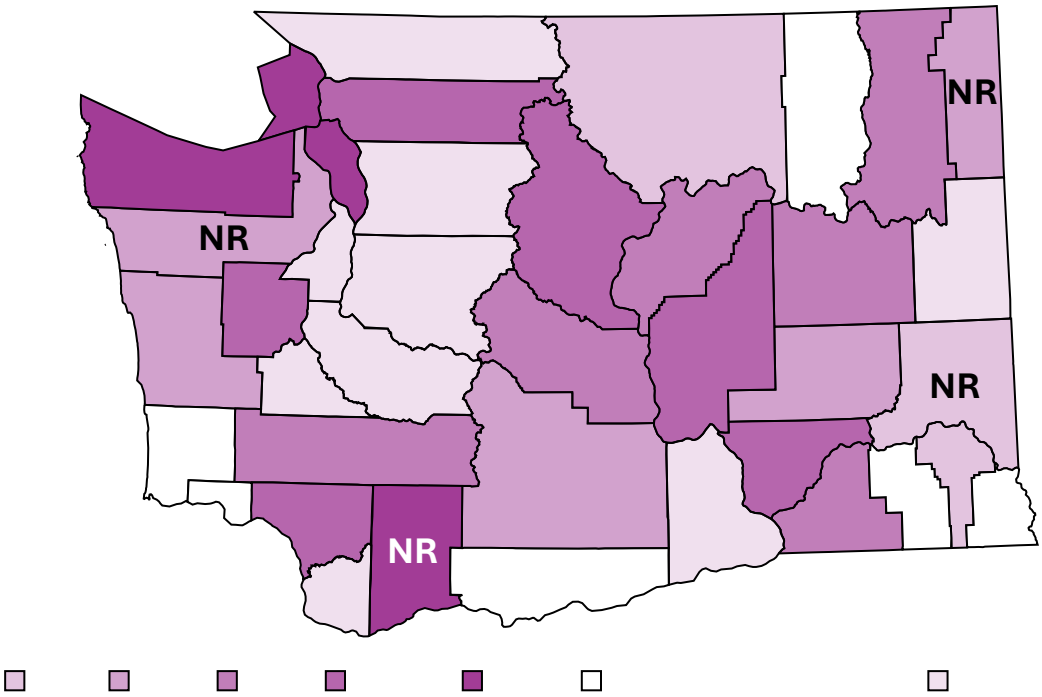
**Table 9** shows the percentage of births attended by CNMs or ARNPs for people living in rural and urban counties. More than 9 in 10 Washington births were delivered in a hospital (95%).

**Table 9. Certified Nurse Midwife (CNM) or Nurse Practitioner (ARNP) Attended Births Among In-State Births to People Living in Washington, 2022–2023**

| CNM or ARNP Attended Births | Percent |
|---|---|
| By County of Residence* | |
| Urban Counties | 16% |
| Rural Counties<br>*(range across rural counties)* | 9%<br>(0–18%) |

Data Source: WA Birth Certificate Data (2022–2023). * = differences between categories were significant (p < .05).

**Figure 9. Map of Certified Nurse Practitioner (CNM) or Nurse Practitioner (ARNP) Attended Births Among In-State Births to people Living in Washington, 2022–2023**

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## Pregnancy Risk Assessment Monitoring System (2020–2022)

The Pregnancy Risk Assessment Monitoring System (PRAMS) is a survey of new birthing parents conducted by the WA State Department of Health and the Centers for Disease Control and Prevention (CDC) (16). PRAMS gathers information from birthing people about their experiences before, during, and after their most recent pregnancy.

In the data snapshot, PRAMS data is reported as the percentage of people living in Washington who had a live birth in-state between 2020–2022.

## Discrimination in the 12 Months Before Delivery – Lower Percentages Are Desirable

This measure is the percentage of all Washington residents with a live birth in Washington in 2020-2022 that reported experiencing discrimination for any reason in the year before delivery (16).

PRAMS survey participants are asked if they experienced any discrimination, harassment, or were made to feel inferior in the 12 months before delivery because of:

- Race, ethnicity, or culture
- Insurance or Medicaid status
- Weight
- Marital status
- Any other reason

**Table 10. Experienced Discrimination in the 12 Months Before Delivery (2020–2022, Washington)**

| Discrimination in 12 Months Before Delivery | Percent | 95% Confidence Interval |
|---|---|---|
| *By County of Residence* | | |
| Urban Counties | 17% | (15%, 19%) |
| Rural Counties | 12% | (8%, 19%) |

Data Source: WA PRAMS (2020–2022)

## Postpartum Health Care Visit – Higher Percentages Are Desirable

This measure is the percentage of all Washington residents with a live birth in Washington in 2020-2022 that reported having had a postpartum checkup since their new baby was born (self-reported, as of time of survey) (16).

**Table 11. Postpartum Health Care Visit After Delivery (2020–2022, Washington)**

| Postpartum Health Care Visit | Percent | 95% Confidence Interval |
|---|---|---|
| Urban Counties | 91% | (90%, 93%) |
| Rural Counties | 92% | (87%, 95%) |
| *By Maternal Age, Among Rural Counties Only* | | |
| < 25 Years | 86% | (73%, 93%) |
| 25-34 Years | 94% | (87%, 97%) |
| ≥ 35 Years | 93% | (75%, 98%) |

Data Source: WA PRAMS (2020–2022)

## Loss of Insurance Between Pregnancy and Postpartum – Lower Percentages Are Desirable

This is the percentage of all Washington residents with a live birth in Washington between 2020–2022 who reported having at least 1 source of health insurance during their pregnancy, but no health insurance at the time of interview (16).

**Table 12. Loss of Insurance After Pregnancy (2020–2022, Washington)**

| Loss of Insurance After Pregnancy | Percent | 95% Confidence Interval |
|---|---|---|
| *By County of Residence* | | |
| Urban Counties | 8% | (7%, 10%) |
| Rural Counties | 10% | (7%, 16%) |

Data Source: WA PRAMS (2020–2022)

## Received Breastfeeding Information from a Breastfeeding or Lactation Specialist – Higher Percentages Are Desirable

This is the percentage of all Washington residents with a live birth in Washington between 2020–2022 who reported receiving information about breastfeeding from a breastfeeding or lactation specialist before or after their new baby was born, regardless of how they fed their baby (16).

**Table 13. Received Breastfeeding Information from a Breastfeeding or Lactation Specialist (2020–2022, Washington)**

| Received Breastfeeding Information from a Breastfeeding or Lactation Specialist | Percent | 95% Confidence Interval |
|---|---|---|
| *By County of Residence** | | |
| Urban Counties | 79% | (77%, 81%) |
| Rural Counties | 70% | (62%, 77%) |

Data Source: WA PRAMS (2020–2022); * = differences between categories were significant (p<.05).

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# Appendix A

**Table A1. Health Factors and Outcomes Among In-State Births to People Living in Washington by Rural County, 2022–2023**

| County of Residence | Preterm Birth | Low Birth-weight Infants | Inadequate or No Prenatal Care | Diabetes (Pre-Existing or Gestational) | Hypertension (Pre-Existing or Gestational) | Cesarean Section among Low-Risk Births | CNM/ARNP Attended Births |
|---|---|---|---|---|---|---|---|
| Adams | 9% | 7% | 13% | 10% | 5% | 21% | 5% |
| Asotin | 22% | 20% | 15% [FR] | 15% [FR] | 15% [FR] | * | * |
| Chelan | 8% | 7% | 9% | 10% | 10% | 26% | 11% |
| Clallam | 7% | 6% | 12% | 13% | 17% | 29% | 16% |
| Columbia | * | * | * | 16% [FR] | 19% | * | * |
| Cowlitz | 9% | 6% | 12% | 12% | 16% | 26% | 10% |
| Douglas | 10% | 7% | 9% | 12% | 11% | 27% | 9% |
| Ferry | 9% [FR] | * | 27% | 18% | * | * | * |
| Franklin | 9% | 7% | 21% | 11% | 8% | 26% | 11% |
| Garfield | * | 0% | * | * | 0% | 0% | 0% |
| Grant | 10% | 8% | 14% | 13% | 10% | 24% | 13% |
| Grays Harbor | 11% | 8% | 18% | 10% | 15% | 32% | 6% |
| Island | 8% | 6% | 16% | 12% | 16% | 27% | 18% |
| Jefferson | 6% | 5% [FR] | 17% | 10% | 10% | 34% | 4% [FR] |
| Kittitas | 8% | 6% | 9% | 10% | 15% | 30% | 8% |
| Klickitat | * | * | 25% | * | * | * | * |
| Lewis | 9% | 6% | 14% | 10% | 12% | 23% | 8% |
| Lincoln | 12% | 9% | 10% | 9% | 14% | 31% | 9% |
| Mason | 8% | 7% | 23% | 13% | 17% | 23% | 13% |
| Okanogan | 9% | 6% | 13% | 12% | 13% | 21% | 3% |
| Pacific | 16% | 16% | 14% | 15% | 17% | 30% [FR] | * |
| Pend Oreille | 10% | 7% | 18% | 14% | 11% | 24% | 6% [FR] |
| San Juan | 6% [FR] | * | 20% | 7% [FR] | 9% | 31% | 15% |
| Skagit | 8% | 6% | 15% | 9% | 14% | 26% | 11% |
| Skamania | * | * | 15% [FR] | * | 14% [FR] | * | 16% [FR] |
| Stevens | 9% | 9% | 16% | 13% | 12% | 24% | 7% |
| Wahkiakum | * | * | 23% [FR] | * | * | * | * |
| Walla Walla | 11% | 9% | 15% | 15% | 11% | 18% | 9% |
| Whitman | 8% | 6% | 11% | 12% | 13% | 33% | 2% [FR] |
| Yakima | 9% | 7% | 14% | 12% | 12% | 19% | 4% |

**Data Source:** WA Birth Certificate Data (2022–2023)

* Relative Standard Error (RSE) is above 30%; estimates are not available.

NR = Relative Standard Error (RSE is between 25–30%; estimates may be unreliable and should be interpreted with caution.