The health and well-being of our mothers and infants is vital to creating a healthy community in Kitsap. A mother’s mental, physical, emotional, and socioeconomic well-being can affect pregnancy and birth outcomes as well as the health of their children into adulthood and subsequent generations. Protecting and promoting positive behaviors, such as adequate prenatal care and breastfeeding, can directly impact the health of our community into the next generation.

**TOPIC OVERVIEW**

While Kitsap County performs better than other parts of Washington State on many maternal and child health indicators, indicators for premature birth, low birth weight, and infant mortality have shown little or no improvement since at least 2000 in Kitsap.

Other indicators are getting worse, such as the percentage of births where gestational diabetes or gestational hypertension were diagnosed and the percentage of births with adequate prenatal care.

“Maternal and child health is an important public health issue because we have the opportunity to end preventable deaths among all women, children and adolescents and to greatly improve their health and well-being ...Investments in prevention, health care and education last a lifetime.”  

American Public Health Association

Disparities in birth outcomes are observable across almost all indicators, particularly for Bremerton residents compared to Bainbridge residents, and among Black and African American, and Hispanic and Latino populations, compared to white residents.

In Kitsap County, the indicators that have statistically significantly improved over time are residents smoking during pregnancy and the percentage of births that are to residents younger than 18, which have both been steadily decreasing since at least 2000. These indicators can be viewed at kitsappublichealth.org/data.

The overall health of our population who are of childbearing age (approximately 15 to 44 years old), including mental health, generational context, and socioeconomic factors, is especially important in maternal and child health. Other chapters discuss factors such as food insecurity, economic insecurity, general healthcare access, mental health.

**Note:** We use “mothers” in this report to reflect the terminology used on birth certificates, from which much of our data is drawn. We recognize that not everyone who is pregnant or gives birth identifies as a mother.
KEY FINDINGS

Three main priority areas were identified from available public health data; these were selected based on changes over time for Kitsap residents, differences between Kitsap and Washington, and Kitsap resident input:

Availability of OB/GYN care
Kitsap has 47% fewer OB/GYN providers (obstetricians and gynecologists) per 100,000 residents than Washington as a whole.

Prenatal care access
From 2018 to 2019, there was a decrease in the proportion of Kitsap residents who had adequate prenatal care during pregnancy. The rate did not improve from 2019 to 2021.

About half (52%) of Kitsap residents who gave birth in 2021 received adequate prenatal care based on the Adequacy of Prenatal Care Utilization Scale. This was lower than the statewide percentage (70%).

Lactation support
In a 2022 community survey, more than half of respondents (54%) who were pregnant or had recently been pregnant said there was a time in the last two years when they needed lactation (breastfeeding or chestfeeding) support and could not get it.

Reasons cited for not being able to access support included:

- 44% Not being able to afford a copay or deductible
- 31% A provider not taking their insurance
- 24% Not having any way to get services
- 23% Not being able to find services

KEY DISPARITIES

While the findings from this report provide evidence of disparities in Kitsap County across multiple indicators, the following were identified as the most significant and are not a complete list of all disparities:

Disparities in adequate prenatal care
- From 2019 to 2021, less than half (47%) of Bremerton residents giving birth received adequate prenatal care compared with almost two-thirds (65%) of Bainbridge Island residents giving birth. Although Bainbridge had the highest reported rate of adequate prenatal care in Kitsap, its rate was lower than the statewide rate (70%).

Disparities in gestational hypertension
- In 2021, more than one in ten (12%) of people who gave birth in Kitsap were diagnosed with gestational hypertension at some point during their pregnancy.
- From 2017 to 2021, the rate of gestational hypertension was higher in those who identified as Native Hawaiian or Pacific Islander (18%), multiracial (12%) and white or Caucasian (11%) compared with those who identify as Asian (8%). The highest rates geographically were seen in Bremerton (13%), Central Kitsap (12%) and South Kitsap (10%) compared with 7% on Bainbridge Island.

Disparities in adverse birth outcomes
- From 2017 to 2021, Black and African American people giving birth had higher rates of premature birth (11% compared to 7% for White mothers) and babies born at low birth weight (9% compared to 4% for White). From 2012 to 2021, infant mortality for Black and African American people giving birth was higher (10 per 1,000 compared to 4 per 1,000 babies born to white mothers).
- From 2017 to 2021, Hispanic and Latino people giving birth had higher rates of premature birth (10% compared to 7% for White people giving birth) and babies born at low birth weight (6% compared to 4% for White).
- Bremerton people giving birth had a higher rate of premature birth from 2017 to 2021 (9% compared to 5% for Bainbridge Island).

Disparities in preschool enrollment
- From 2016 to 2020, the lowest percentage preschool enrollment for children aged 3 to 4 was among Bremerton children (38% enrollment), while Bainbridge Island children had the highest percentage (70% enrollment).
BACKGROUND & DEMOGRAPHICS

Kitsap had a smaller proportion of the population who are females of childbearing age, between the ages of 15 and 44, (15%) in comparison to the state overall (20%) in 2020. This accounts for just over 40,000 residents in Kitsap. Despite this, Kitsap's rate of pregnancies was higher (83.2 per 1,000 women aged 15 to 44) than Washington's rate (66.6 per 1,000 women aged 15 to 44). In this context, pregnancy includes all live births, fetal deaths of 20 weeks or more of pregnancy, and induced abortions.

Live births

In 2021, there were 2,735 live births to Kitsap residents. The birth rate is calculated as the total live births divided by the entire male and female population of all ages. This is an indication of the natural growth of the population. Population growth that occurs is natural growth plus migration into the county, minus deaths and migration out of the county.

![Birth rate per 1,000 residents](image)

**Figure 1.** Birth rate per 1,000 residents

*Data source: Washington State Department of Health, Birth Certificate Data*

Kitsap's birth rate, about 10 per 1,000 residents (Figure 1), has been decreasing since 2016 and was lower than Washington state's rate in 2021 (11 per 1,000). The average age of Kitsap residents who gave birth in 2021 was 29.7 years, the median age was 30, and ages ranged from 14 years to 48 years old. For first-time births, the average age of the mother was 27.8 years, the median was 28, and it ranged from 14 to 47.
In 2021, 77% of births to mothers living in Kitsap occurred in Kitsap County, another 17% occurred in Pierce County and 6% occurred in King County. (Figure 2)

<table>
<thead>
<tr>
<th>Location of birth</th>
<th>2021</th>
<th>2020</th>
<th>2019</th>
<th>2018</th>
<th>2017</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kitsap</td>
<td>77%</td>
<td>76%</td>
<td>77%</td>
<td>78%</td>
<td>80%</td>
</tr>
<tr>
<td>Pierce</td>
<td>17%</td>
<td>18%</td>
<td>17%</td>
<td>15%</td>
<td>14%</td>
</tr>
<tr>
<td>King</td>
<td>6%</td>
<td>5%</td>
<td>5%</td>
<td>6%</td>
<td>5%</td>
</tr>
<tr>
<td>Other</td>
<td>&lt;1%</td>
<td>1%</td>
<td>1%</td>
<td>1%</td>
<td>1%</td>
</tr>
</tbody>
</table>

*Figure 2. Kitsap resident births by year and location of birth*

*Data Source: Washington State Department of Health, Birth Certificate Data*

<table>
<thead>
<tr>
<th>Age of Mother</th>
<th>Kitsap Total</th>
<th>#</th>
<th>%</th>
<th>Births</th>
<th>#</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>10-17</td>
<td>27</td>
<td>1%</td>
<td></td>
<td>17</td>
<td>1%</td>
<td></td>
</tr>
<tr>
<td>18 to 34</td>
<td>2,641</td>
<td>81%</td>
<td></td>
<td>2,216</td>
<td>81%</td>
<td></td>
</tr>
<tr>
<td>35 to 49</td>
<td>591</td>
<td>18%</td>
<td></td>
<td>502</td>
<td>18%</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Race/Ethnicity of Mother</th>
<th>Kitsap Total</th>
<th>#</th>
<th>%</th>
<th>Births</th>
<th>#</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>AIAN</td>
<td>N/A</td>
<td>37</td>
<td>1%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Asian</td>
<td></td>
<td>122</td>
<td>4%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Black</td>
<td></td>
<td>86</td>
<td>3%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hispanic</td>
<td></td>
<td>401</td>
<td>15%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>NHAPI</td>
<td></td>
<td>45</td>
<td>2%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Multiracial</td>
<td></td>
<td>178</td>
<td>7%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>White</td>
<td></td>
<td>1,809</td>
<td>66%</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Geographic Region of Residence</th>
<th>Kitsap Total</th>
<th>#</th>
<th>%</th>
<th>Births</th>
<th>#</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bainbridge</td>
<td>N/A</td>
<td>142</td>
<td>5%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bremerton</td>
<td></td>
<td>551</td>
<td>20%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Central Kitsap</td>
<td></td>
<td>842</td>
<td>31%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>North Kitsap</td>
<td></td>
<td>422</td>
<td>15%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>South Kitsap</td>
<td></td>
<td>751</td>
<td>27%</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Figure 3. Pregnancies and births by subgroup, 2021*

*Data source: Washington State Department of Health, Birth Certificate Data*

*Note: Geographic region is based on ZIP code rollup.*
**Births to people younger than 18**

The percentage of births that were to people younger than 18 was only 0.6% in 2021 and had decreased since at least 2000. However, the percentage of Kitsap births to people younger than 18 is slightly higher in people who identify as Hispanic or Latino and multiracial, and slightly higher among people who live in Bremerton.

Nationally, the links between teen childbearing, family planning and socioeconomic characteristics can be attributed largely to inequities in access to family planning services and information; differences in attitudes about contraception, teen pregnancy, and teen childbearing; and distrust of medical professionals due to experiences with providers and historical mistreatment by the medical field.\(^2\)

**Availability of OB/GYN providers**

In 2021, the estimated number of OB/GYNs in Kitsap County was 23, which means Kitsap (8 providers per 100,000 residents, Figure 4) has almost 47% fewer OB/GYN providers compared to Washington state overall (15 per 100,000 residents). While the OB/GYN rate has increased in Washington state (from 13 per 100,000 population in 2020 to 15 in 2021), the rate in Kitsap has declined (from 9 per 100,000 population in 2020 to 8 in 2021).\(^3\)

Kitsap residents may access obstetrical care from midwives, the Northwest Washington Family Medicine Residency, and other family practice providers in Kitsap. However, for complicated pregnancies and births, obstetricians are essential. The OB/GYN workforce shortage is part of an overall need for increased access to healthcare in Kitsap. For more information on healthcare access, see the Healthcare Access chapter of this report.

<table>
<thead>
<tr>
<th>Measure</th>
<th>Kitsap</th>
<th>Washington</th>
<th>Kitsap Compared to WA</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>Primary care providers per 100,000 population</td>
<td>63</td>
<td>90</td>
<td>30% fewer</td>
<td>Office of Financial Management (OFM), 2021</td>
</tr>
<tr>
<td>Physician assistants per 100,000 population</td>
<td>33</td>
<td>46</td>
<td>28% fewer</td>
<td>OFM, 2021</td>
</tr>
<tr>
<td>OB/GYNs per 100,000 population</td>
<td>8</td>
<td>15</td>
<td>47% fewer</td>
<td>OFM, 2021</td>
</tr>
<tr>
<td>Mental health care providers per 100,000 population</td>
<td>396</td>
<td>436</td>
<td>9% fewer</td>
<td>NPI Registry via County Health Rankings, 2021</td>
</tr>
<tr>
<td>Dentists per 100,000 population</td>
<td>80</td>
<td>84</td>
<td>5% fewer</td>
<td>Area Health Resource File/NPI Registry via County Health Rankings, 2020</td>
</tr>
<tr>
<td>Staffed inpatient hospital beds per 1,000 population</td>
<td>1.01</td>
<td>1.58</td>
<td>36% fewer</td>
<td>HealthData.gov, 2022; AHA/KFF, 2020</td>
</tr>
</tbody>
</table>

*Figure 4. Healthcare workforce*
Importantly, OB/GYN counts exclude providers who only work at federal facilities. Federal providers have historically provided care for people giving birth in Kitsap.

However, births at Naval Hospital Bremerton have experienced a steady decline since the middle of the last decade (Figure 5). For example, in 2014, NHB converted its emergency room to an urgent care facility with limited hours due to having less than two percent of actual life, limb and/or eyesight threatening emergencies, and on April 29, 2022, indefinitely diverted its labor and delivery unit citing staffing concerns as well as facing minimal case complexity to retain critical competency skills.

<table>
<thead>
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<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>700</td>
<td>683</td>
<td>530</td>
<td>490</td>
<td>503</td>
<td>396</td>
<td>195</td>
<td>62</td>
</tr>
</tbody>
</table>

*Figure 5. Births at Naval Hospital Bremerton by year*

*Data source: Naval Hospital Bremerton*
PREGNANCY IN KITSAP

For people who are pregnant, the ability to access quality healthcare specific to the individual’s circumstances in a comprehensive manner is one of the best opportunities to influence birth outcomes. Nationally, babies born to mothers who do not get prenatal care are three times more likely to have a low birth weight and five times more likely to die than those born to mothers who do get care.5

Prenatal care access

In Kitsap, there has been a decreasing trend since 2013 in pregnant people accessing prenatal care in the first trimester. In 2021, two-thirds of Kitsap residents who were pregnant (67%) were able to see their prenatal care provider during their first trimester of pregnancy (Figure 6). This rate has been decreasing since 2013 and is lower than Washington overall, where about three-fourths (75%) access care during the first trimester.

![Figure 6. Prenatal care in the first trimester](image)

Data source: Washington State Department of Health, Birth Certificate Data

Those who identify as Hispanic or Latino (59%) and those who live in Bremerton (62%) have the lowest rates of first trimester prenatal care access in Kitsap. For those on Medicaid, the percentage is better: About 88% of all live birth deliveries received a prenatal care visit in the first trimester, similar to Washington (89%). 6

In addition, from 2018 to 2019, Kitsap residents had a decrease in the percentage of people who gave birth who had adequate prenatal care for their pregnancies (from 62% to 51%, Figure 7). This trend continued through 2021. The Adequacy of Prenatal Care Utilization scale defines adequate prenatal care as accessing care before the fourth month of pregnancy and receiving at least 80% of recommended healthcare visits. More than half (52%) of people who gave birth received adequate prenatal care in 2021, which is statistically significantly lower than Washington state (70%).

Bainbridge Island residents had the highest percentage of those who received adequate prenatal care (65%) in Kitsap, but their percentage was still not as high as the state’s average (Figure 8). Bremerton residents had the lowest rate of adequate prenatal care (47%).
In addition to the availability of providers, other barriers to accessing reproductive care identified in the 2022 KCR community survey include transportation, insurance coverage, and financial concerns. Less than 10 respondents (1%) said they did not receive any prenatal care. 15% of respondents (39 people) said they did not receive prenatal care as early as they wanted. The reason reported by the highest number of respondents was that they didn’t have transportation (23%), followed by not being eligible (18%), not being able to afford fees or co-pays (16%), not having services available in their area (14%), and not wanting to ask for help (13%).

**Notes:** *The estimate has an elevated relative standard error (RSE) greater than 25% and does not meet KPHD reliability standards. Geographic region is based on school district.*
About one in ten (9%) community survey respondents said there was a time in the past year when they needed reproductive, pregnancy or post-partum care but could not get it. The reasons voiced by the most respondents were the provider not taking their insurance (30%), not being able to afford the co-pay or deductible (29%) and not having any way to get to the doctor (29%). For more information about barriers to accessing health care, see the Healthcare Access chapter. For more information about socioeconomic barriers, see the Demographics and Social Determinants of Health chapter.

Complications during pregnancy

Complications can be experienced in any pregnancy, which can involve the mother’s health, the fetus’s health, or both. In addition to contributing to adverse birth outcomes and impacting the long-term health of the mother, complications during pregnancy add workload on the OB/GYN providers and increase the need for early and adequate prenatal care. Health conditions that can complicate pregnancy include gestational hypertension (high blood pressure during pregnancy) and gestational diabetes, which affect about 12% and 10% respectively of people who give birth in Kitsap.

The percentage of people who gave birth in 2021 who experienced gestational hypertension in Kitsap (12%) was higher than in Washington (10%, Figure 9). In Kitsap, the rate was higher in those who identify as Native Hawaiian or Pacific Islander (18%), multiracial (12%) and white or Caucasian (11%) compared to those who identify as Asian (8%). The highest rates geographically were seen in Bremerton (13%), Central Kitsap (12%) and South Kitsap (10%) compared to 7% on Bainbridge Island. Rates of gestational hypertension were also higher in first-time pregnancies (18%) compared with those who had previously been pregnant (10%).

---

**Figure 9. Gestational hypertension**

*Data source: Washington State Department of Health, Birth Certificate Data*
For gestational diabetes, there has been a steadily increasing trend in Kitsap from 2000 to 2021 (Figure 10). In 2021, Kitsap’s rate (10%) was lower than Washington’s rate (12%). Unlike gestational hypertension, mothers who identify as Asian have an increased rate (17%) compared to most other races and ethnicities. There was little difference between geographic regions, with Bainbridge Island having a slightly lower (but not statistically significantly lower) rate (6%) compared to the other geographic regions, which range from 8% to 9%. There was also little difference by prior pregnancy status, with about 9% of first-time pregnancies and 10% of those who had previously been diagnosed with gestational diabetes.

![Figure 10. Gestational diabetes](image)

**Data source:** Washington State Department of Health, Birth Certificate Data

### Substance use during pregnancy

Substance use prevention during pregnancy is influential in the health outcomes of the mother and baby. This report focuses on marijuana and tobacco use in Kitsap. Further investigation into these substances, as well as other substances affecting health outcomes of Kitsap mothers, would help to better define the magnitude of the concern in Kitsap.

According to anecdotal reports from KPHD’s Parent Child Health Program, marijuana use is on the rise among people who are pregnant in Kitsap. A growing number of people who are pregnant nationally view it as a safe, natural way to treat nausea and vomiting associated with morning sickness. However, marijuana use during pregnancy can be harmful to a baby’s health and cause negative health effects, such as stillbirth, preterm birth, and development issues. In 2018, the American Academy of Pediatrics released its first official guidelines on marijuana use during pregnancy.7

A 2016 survey by KPHD administered in civilian prenatal care clinics in Kitsap found about 10% of respondents used marijuana in the past 30 days during their pregnancy, the same percentage as reported smoking in the past 30 days. In this study, younger women 18 to 23 years old reported use more than women older than 23. Only 46% of women reported their healthcare provider had talked with them about marijuana use during pregnancy; the percentage was higher for women who had told their provider they were using marijuana.
All providers said they asked about marijuana use and counseled patients to quit using if they were using it, but only 13% of providers reported having educational materials to hand out to patients on marijuana use. Investigation into the use of marijuana and other substances in Kitsap would help to better highlight the need for additional resources.

Smoking tobacco has also been shown to increase the risk of negative health outcomes, such as preterm birth and low birth weight.\textsuperscript{8} From 2000 to 2021, there was a large decrease in Kitsap residents smoking cigarettes during pregnancy. This trend was similar to Washington overall. Despite this trend, there were still an estimated 147 mothers who smoked during pregnancy in 2021 (5.4% of mothers). Large disparities in smoking rates exist between American Indian and Alaskan Native mothers (17%), multiracial mothers (13%), Native Hawaiian and Pacific Islander mothers (11%) and white mothers (9%) compared to Hispanic and Latino mothers (5%). Residents of Bremerton (11%) and South Kitsap (10%) have the highest rates of smoking while pregnant. (Figure 11)

<table>
<thead>
<tr>
<th>Age of Mother</th>
<th>10-17</th>
<th>18-34</th>
<th>35-49</th>
</tr>
</thead>
<tbody>
<tr>
<td>Smoking Rate</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Race/Ethnicity (Races exclude Hispanic)</th>
<th>American Indian or Alaska Native Asian</th>
<th>Black or African American</th>
<th>Native Hawaiian or Pacific Islander</th>
<th>White or Caucasian</th>
<th>Multiracial</th>
<th>Hispanic or Latino</th>
</tr>
</thead>
<tbody>
<tr>
<td>Smoking Rate</td>
<td>16.8%</td>
<td>7.8%</td>
<td>11.4%</td>
<td>9.1%</td>
<td>13.2%</td>
<td>5.1%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Geographic Region</th>
<th>Bainbridge Island</th>
<th>Bremerton</th>
<th>Central Kitsap</th>
<th>North Kitsap</th>
<th>South Kitsap</th>
</tr>
</thead>
<tbody>
<tr>
<td>Smoking Rate</td>
<td>11.2%</td>
<td>6.8%</td>
<td>11.2%</td>
<td>9.7%</td>
<td></td>
</tr>
</tbody>
</table>

*The estimate has an elevated relative standard error (RSE) greater than 25% and does not meet KPHD reliability standards.

Data source: Washington State Department of Health, Birth Certificate Data

Notes: *The estimate has an elevated relative standard error (RSE) greater than 25% and does not meet KPHD reliability standards. Geographic region is based on school district.
PREGNANCY & BIRTH

BIRTHS IN KITSAP

More than three million healthy babies are born annually in the U.S. Although most Kitsap pregnancies result in uncomplicated deliveries, there can be complications with the birth leading to adverse birth outcomes.

The age, genetics, medical health, socioeconomic status, behaviors, access to healthcare, health of the pregnancy and environmental exposures of the parents all contribute to the health of the mother and child during pregnancy, birth, and throughout their lives. Our understanding of this cycle has increased greatly, but is still not completely understood, and, when adverse outcomes occur, they most likely involve multiple factors occurring at the same time in several areas of a woman’s life. See the chapter on Demographics and Social Determinants of Health for more information about socioeconomic factors affecting a person’s health.

Adverse birth outcomes, including both premature birth (less than 37 weeks of pregnancy) and low birth weight (less than 2,500 grams or 5.5 pounds) can lead to higher rates of illness and infection in newborns, long-term neurological and health problems and infant mortality. Because pregnancies involving twins or higher multiples are at a much higher risk of these complications, for the purposes of this report we only investigated premature birth and low birth weight among singleton births (pregnancies with only one fetus). This group accounted for 96.7% of all births in Kitsap in 2021.

Premature birth (<37 weeks)

In Kitsap, about 8% of singleton babies were born prematurely. The rate varied slightly from year to year with no statistically significant change since 2000. There has been an increase in premature birth in Washington in 2020 and 2021, with no increase in premature birth in Kitsap. Kitsap’s rate in 2021 (8%) is statistically significantly lower than Washington’s rate overall (10%). Among Kitsap births, Black and African American residents (11%), Native Hawaiian and Pacific Islander residents (12%), and Hispanic and Latino residents (10%) experienced higher rates of premature birth compared to white residents (7%). Residents of Bremerton have a higher rate of premature birth (9%) compared to those who live on Bainbridge Island (5%). (Figure 12)

<table>
<thead>
<tr>
<th>Age of Mother</th>
<th>Rate of Premature Birth (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>10-17</td>
<td>7.1</td>
</tr>
<tr>
<td>18-34</td>
<td>10.1</td>
</tr>
<tr>
<td>35-49</td>
<td>14.3</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Race/ Ethnicity of Mother (Races exclude Hispanic)</th>
<th>Rate of Premature Birth (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>American Indian or Alaska Native</td>
<td>8.2</td>
</tr>
<tr>
<td>Asian</td>
<td>9.0</td>
</tr>
<tr>
<td>Black or African American</td>
<td>10.6</td>
</tr>
<tr>
<td>Native Hawaiian or Pacific Islander</td>
<td>12.2</td>
</tr>
<tr>
<td>White</td>
<td>6.7</td>
</tr>
<tr>
<td>Multiracial</td>
<td>8.5</td>
</tr>
<tr>
<td>Hispanic or Latino</td>
<td>9.6</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Geographic Region</th>
<th>Rate of Premature Birth (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bainbridge Island</td>
<td>5.3</td>
</tr>
<tr>
<td>Bremerton</td>
<td>8.6</td>
</tr>
<tr>
<td>Central Kitsap</td>
<td>7.9</td>
</tr>
<tr>
<td>North Kitsap</td>
<td>6.5</td>
</tr>
<tr>
<td>South Kitsap</td>
<td>7.6</td>
</tr>
</tbody>
</table>

Figure 12. Premature births by subgroup

Data source: Washington State Department of Health, Birth Certificate Data
Low birth weight (<2,500 grams or 5.5 pounds)

In 2021, the percentage of singleton babies born less than 2,500 grams in Kitsap was 6%. This rate has not changed significantly since 2000 and is about the same as Washington overall (5.6%). It's important to note that Washington has had a statistically significantly increasing trend in babies born with low birth weight from 2012 to 2021. Although Kitsap's trend appears similar, Kitsap has not seen a statistically significant trend. Certain groups within Kitsap have much higher percentages of babies born at low birth weight (Figure 13), including Black or African American (9%), multiracial (7%), Asian (6%), Hispanic or Latino (6%), compared to white (4%).

<table>
<thead>
<tr>
<th>Age of Mother</th>
<th>10-17</th>
<th>18-34</th>
<th>35-49</th>
<th>*</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>4.7%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Race/Ethnicity of Mother (Races exclude Hispanic)</th>
<th>American Indian or Alaska Native</th>
<th>Black or African American</th>
<th>Native Hawaiian or Pacific Islander</th>
<th>White</th>
<th>Multiracial</th>
<th>Hispanic or Latino</th>
<th>*</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>6.4%</td>
<td>4.2%</td>
<td>6.5%</td>
<td>9.1%</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Geographic Region</th>
<th>Bainbridge Island</th>
<th>Bremerton</th>
<th>Central Kitsap</th>
<th>North Kitsap</th>
<th>South Kitsap</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>3.5%</td>
<td>5.8%</td>
<td>5.3%</td>
<td>4.1%</td>
<td>4.6%</td>
</tr>
</tbody>
</table>

Figure 13. Low birth weight by subgroup

Data Source: Washington State Department of Health, Birth Certificate Data

Notes: *The estimate has an elevated relative standard error (RSE) greater than 25% and does not meet KPHD reliability standards. Geographic region is based on school district.

Infant mortality

In 2021, there were fewer than 10 infant deaths during the first year of life in Kitsap, the lowest number since at least 2000. Overall, since 2000, there has been no increasing or decreasing trend over time, ranging from 10 to 22 deaths annually. Kitsap’s rate in 2021 was based on less than 10 births, and is therefore suppressed, but is similar to the state’s rate of 4.3 per 1,000 live births. Washington had a statistically significant decreasing trend in infant mortality from 2000 to 2021. Kitsap has very small numbers of infant deaths each year and no statistically significant trend is detected. Over the past ten years (2012-2021), Black or African American infants in Kitsap have had a slightly higher, but not statistically significantly higher, mortality rate (10 per 1,000) compared to white infants (4 per 1,000) in Kitsap.
From 2011 to 2020, the top four causes of infant death were:

- Perinatal conditions, which include maternal complications, placenta, cord and membrane complications, and short gestation and low birth weight,
- Congenital and chromosomal abnormalities,
- External causes of death (accidents), and
- Sudden Infant Death Syndrome (SIDS).
THE HEALTH OF YOUNG CHILDREN IN KITSAP

The first five years of a child’s life are critical to establishing the strong educational, mental and emotional foundation upon which their future resilience and health will be built. Experiences during these formative years can significantly influence future outcomes for children and families.

Initial well child visits for Medicaid beneficiaries

For infants and toddlers, initial well child visits for Medicaid beneficiaries is the percentage of Medicaid beneficiaries who turned 30 months old during the year and received the recommended number of well-child visits. This means six or more well-child visits during the first 15 months of life and two or more well-child visits from 15 to 30 months of life. Any provision of well-child services is included, regardless of provider type.

In 2021, 63% of Kitsap County Medicaid beneficiaries who turned 30 months old had the recommended number of well-child visits — less than two out of every three. From 2017 to 2021, there was no statistically significant trend in Kitsap and Kitsap’s percentage was similar to Washington’s overall.

Breastfeeding/chestfeeding

Breastfeeding and chestfeeding have health benefits for both babies and their mothers. The American Academy of Pediatrics recommends exclusive breastfeeding for about six months and then continuing breastfeeding while introducing complementary foods until the child is 12 months old or older.

In the 2022 community survey conducted by Kitsap Community Resources, lactation services were seen as a need in Kitsap, with over half (54%, 126 people) of respondents saying there was a time in the last 2 years when they needed lactation and breast- or chestfeeding support and could not get it.

The reasons voiced by the most respondents were not being able to afford a co-pay or deductible (44%), a provider not taking their insurance (31%), not having transport to services (24%), and not being able to find services (23%).

Childcare and preschool

Childcare and preschool are important in the development of children and also essential for the 14 million working parents in the U.S. who rely on childcare.

The number of family childcare providers in Kitsap has been declining over the past decade, while the number of childcare centers has remained relatively stable (Figure 14). There were 138 childcare facilities identified in Kitsap County during 2020, down from 213 in 2007. The total number of slots available for childcare declined 7% from 2009 to 2019, which equates to a loss of 365 slots. At the same time, school age providers have increased to 31 in 2019 and the number of school age slots more than doubled between 2009 and 2019.

Child Care Aware (CCA) of Washington provides referrals to licensed childcare facilities for families seeking care. During 2019, 454 Kitsap families used referral services provided by CCA. Of the 502 children for which care referral was requested, 21% were infants (less than 1 year old), 33% were toddlers (1 and 2-year-olds), 23% were preschoolers (3 and 4-year-olds), and 23% were school age (at least 5 years old).
Almost two in three children between the ages of 3 and 4 in Kitsap were enrolled in a preschool program in 2019. This percentage (65%) is statistically significantly higher than Washington state’s average (48%). However, there are differences within the county; Bremerton children aged 3 to 4 have the lowest percentage in preschool with only 38%, while Bainbridge children have the highest percentage (70%).

There are four Head Start, ECEAP and Early Head Start providers in Kitsap: Kitsap Community Resources (KCR), Olympic Educational Service District 114, the Port Gamble S’Klallam Tribe, and the Suquamish Tribe. This year, the Kitsap Interagency Coordinating Council (KICC), the coordinating body of the four Head Start providers, is updating its community assessment of children aged 0 to 5 and their parents and caregivers. This update should provide more information about childcare availability in Kitsap.

**Additional health indicators**

There are many more health behaviors and metrics which influence the health of young children and wellbeing of their families. For more information about health behaviors, housing and socioeconomic factors, chronic disease, mental and emotional health, injuries, and substance use, see the appropriate chapters in this report. Information on childhood immunizations can be found in the *Communicable Disease* chapter.
COMMUNITY ASSETS

There are many community members and organizations working to improve the health of our pregnancies and babies:

**Answers Counseling** provides First Steps Maternity Support Services and Infant Case Management. For those with Medicaid/Apple Health, Answers Counseling is the Kitsap provider for free, strength-based Maternity Support Services (MSS) and Infant Case Management services.

**Black Birth Power Initiative** is run by Swedish Medical Center’s doula program seeks to honor Black lives by centering and uplifting the Black birth experience with culturally congruent doula care at their Birth Centers.

**Black Mamas Matter Alliance** is a Black women-led alliance that centers Black mamas and birthing people to advocate, drive research, build power, and shift culture for Black maternal health, rights, and justice.

**Child Care Aware Washington** offers the only statewide childcare resource and referral program in Washington state.

**Cribs for Kids** is part of National Infant Safe Sleep Initiative partners, who have been making an impact on reducing the rate of infant sleep-related deaths due to accidental suffocation, asphyxia or undetermined causes in unsafe sleeping environments.

**Dolly Parton’s Imagination Library** is dedicated to inspiring a love of reading by gifting books free of charge to children from birth through age five once a month.

The **Family Birth Center at St. Michael Medical Center** offers breastfeeding support with their certified lactation consultants and childbirth and parenting classes.

**Head Start and Early Head Start Programs** provide free preschool programs for children ages 0 to 5 from income-eligible families and children with special needs. There are four providers in Kitsap County, including the Port Gamble S’Klallam Tribe, the Suquamish Tribe, Olympic Educational Services District, and Kitsap Community Resources.

**Holly Ridge Center** is dedicated to enabling children and adults with differing abilities to reach their fullest potential, creating a positive and lasting impact on the community.

**House of Hope** is a local nonprofit organization that empowers and equips pregnant youth under the age of 25 with classes, support groups, resources, and other services.

**KidVantage**, formerly “Eastside Baby Corner West Sound,” partners with local agencies to bring essentials (like diapers, cribs, and car seats) to local children living in poverty or crisis via their Bremerton hub.

**Kitsap Community Resources** houses the Women, Infants and Children (WIC) program, which provides support for pregnant women, nursing moms, and children under five to improve access to healthy foods, receive health education and screening services, increase breast feeding and access other health and social services. They also run the Parenting...
**PREGNANCY & BIRTH**

**Place**, which offers classes and resources that help family members build positive family relationships and create healthy home environments.

**Kitsap Immigrant Assistance Center** provides direct services to our immigrant neighbors, including rent assistance, translation assistance, medical and dental services, and connecting families with clothing, baby items, pantry staples and more. Provides information, resources, training, and support for families caring for children and individuals with disabilities living in the Kitsap County community.

**Kitsap Public Health District services include:**

- **Nurse Family Partnership Program** services for people who are pregnant with their first baby. A specially trained nurse visits parents throughout their pregnancy until the babies turn 2, providing education and support.
- **Children and Youth with Special Healthcare Needs** provides support and a resource referral list for families and providers taking care of a child who has or is at risk to have a physical, developmental, behavioral, or emotional condition.
- **Mama Moves Kitsap** is a Group Peer Support model that encourages movement, mindfulness and social connection for new parents and is supported by bilingual staff.
- **Child Death Review Panel** was restarted in 2023 to convene community organizations invested in the health of our children to investigate pediatric deaths and identify potential solutions and best practices to prevent deaths.
- **Kitsap County Breastfeeding Coalition** protects, promotes, and supports breastfeeding by providing mothers, and their families with the education and resources, that assist them in attaining their breastfeeding goals.

**Kitsap Strong** is coalition of more than 115 organizations that are collectively working together, grounded in the latest research, to prevent and overcome childhood trauma by building a culture of empathy, equity, and connection.

**La Leche League** is a volunteer-led, parent-oriented group for families in need of support milk feeding their children. Leaders in the Washington chapter provide support and information to local families from pregnancy through weaning.

The **Native American Women's Dialogue on Infant Mortality (NAWDIM)**, a Native-led collective whose members are concerned about high rates of infant mortality in their communities.

Naval Base Kitsap provides a free **New Parent Support Program** helping military parents transition successfully into parenthood.

The **Northwest Infant Survival & SIDS Alliance** is dedicated to reducing the risk of sudden unexpected infant death and supporting families affected by a fetal or child death.

The **Parent-Child Assistance Program** is an evidence-based federal research program, housed by **Agape Kitsap**, helping mothers build and maintain healthy, independent family lives, assure that children are in safe, stable homes and prevent future births of alcohol and drug exposed children. This program is free to help pregnant and parenting mothers get healthy and gain independent family lives, providing home visitation, support and transportation. PCAP helps
participants create personalized goals for success in recovery and walks alongside you during the 3-year journey through the program.

**ParentHelp123.org**, operated by **WithinReach**, helps Washington state families find services in their communities and apply for health insurance, food assistance programs, and more. The website also provides important health information for pregnant women, children and families.

**Parents as Teachers** promotes the optimal early development, learning and health of young children by supporting and engaging their parents and caregivers.

**Peninsula Birth Network** provides pregnancy, birth, postpartum resources in Kitsap and the Peninsula.

**Perinatal Support Washington** provides perinatal mental health resources to families and communities.

**The Period of PURPLE Crying** curriculum helps parents understand this time in their baby’s life and is a promising strategy for reducing the risk of child abuse.

**South Puget Intertribal Planning Agency (SPIPA)’s** Healthy Families Program provides home visitation services to tribal members to improve child and family outcomes for health and development, parenting practices, school readiness, and coordination of referrals to community resources.

**True North Birth Center**, a North Kitsap-based center offering individualized care during pregnancy, birth and beyond.

**YWCA of Kitsap County** is dedicated to ensuring the personal safety, rights, welfare, and dignity of those who experience domestic abuse while building partnerships and increasing community awareness to create positive social change.
ENDNOTES


4. Douglas H Stutz, Public Affairs Officer, Naval Hospital Bremeraton, Navy Medicine Readiness and Training Command (NMRTC), personal communication

5. US. Dept of Health & Human Services, Office of the Assistant Secretary for Health, Office on Women’s Health, [https://www.womenshealth.gov/a-z-topics/prenatal-care#:~:text=Prenatal%20care%20can%20help%20keep,when%20they%20see%20mothers%20regularly](https://www.womenshealth.gov/a-z-topics/prenatal-care#:~:text=Prenatal%20care%20can%20help%20keep,when%20they%20see%20mothers%20regularly)

6. HCA Medicaid Maternal and Child Health Measures Dashboard, [https://hca-tableau.waitech.wa.gov/t/51/views/MaternalandChildHealth/Dashboard?%3AisGuestRedirectFromVizportal=y&%3Aembed=y](https://hca-tableau.waitech.wa.gov/t/51/views/MaternalandChildHealth/Dashboard?%3AisGuestRedirectFromVizportal=y&%3Aembed=y)


8. Centers for Disease Control and Prevention (CDC), Smoking during pregnancy, [https://www.cdc.gov/tobacco/basic_information/health_effects/pregnancy/index.htm#:~:text=Smoking%20during%20pregnancy%20can%20cause,maternal%20smoking%20and%20cleft%20lip.&text=Studies%20also%20suggest%20a%20relationship%20between%20tobacco%20and%20miscarriage](https://www.cdc.gov/tobacco/basic_information/health_effects/pregnancy/index.htm#:~:text=Smoking%20during%20pregnancy%20can%20cause,maternal%20smoking%20and%20cleft%20lip.&text=Studies%20also%20suggest%20a%20relationship%20between%20tobacco%20and%20miscarriage)


DATA SOURCES

- Washington State Department of Health, Center for Health Statistics, Birth Certificate Data, Community Health Assessment Tool (CHAT), July 2022


- Washington State Department of Health, Center for Health Statistics, Death Certificate Data, Community Health Assessment Tool (CHAT), April 2023

- Health Care Authority (HCA) Medicaid Enrollment and Claims Data, Medicaid Maternal and Child Health Measures Dashboard, accessed at https://hca-tableau.watech.wa.gov/t/51/views/MaternalandChildHealth/Dashboard?%3AisGuestRedirectFromVizportal=y&%3Aembed=y&%2C