PREMATURITY PROFILE
TENNESSEE

IN AN AVERAGE WEEK IN TENNESSEE

1,513 babies are born
165 babies are born preterm
119 babies born late preterm
26 babies are born very preterm

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PRETERM BIRTH RATE IN TENNESSEE
PERCENTAGE OF LIVE BIRTHS

PRETERM BIRTH RATE, 2011-2020

PRETERM RATES BY COUNTY, 2017-2020 AVERAGE

Higher than TN Rate of 11.1 (41)
Between HP 2030 Objective and TN Rate (47)
Met or lower than HP 2030 Objective of 9.4 (7)

• In 2020, there were 8,594 preterm births in Tennessee, representing 10.9% of live births.

• In 2020, 1 in 9 babies (10.9% of live births) was born preterm in Tennessee.

• In 2017-2020, 41 Tennessee counties had a preterm birth rate higher than the state rate of 11.1%.

• In 2017-2020, 7 Tennessee counties had met the March of Dimes preterm rate goal of 9.4%.

Every baby in Tennessee deserves the chance to be born healthy.

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**PRETERM BIRTH BY RACE AND ETHNICITY**

The March of Dimes is concerned about inequities in health and health care that contribute to higher rates of preterm birth among different racial and ethnic groups.

### PERCENTAGE OF PRETERM LIVE BIRTHS (2018-2020 AVERAGE)

<table>
<thead>
<tr>
<th>Race/Ethnicity</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hispanic</td>
<td>9.8</td>
</tr>
<tr>
<td>White</td>
<td>10.2</td>
</tr>
<tr>
<td>Black</td>
<td>14.6</td>
</tr>
<tr>
<td>American Indian/Alaska Native</td>
<td>8.9</td>
</tr>
<tr>
<td>Asian/Pacific Islander</td>
<td>9.9</td>
</tr>
<tr>
<td>Total</td>
<td>11.1</td>
</tr>
</tbody>
</table>

- During 2018-2020 (average) in Tennessee, preterm birth rates were highest for black infants (14.6%), followed by Whites (10.2%), Asian/Pacific Islanders (9.9%), Hispanics (9.8%) and American Indian/Alaska Natives (8.9%).
- Black infants (14.6%) were about 2 times as likely as American Indian/Alaska Native infants (8.9%) to be born preterm during 2018-2020 (average).
- Of all live births in Tennessee during 2018-2020 (average), 10.5% were Hispanic, 65.7% were white, 20.3% were black, 0.1% were American Indian/Alaska Native and 2.5% were Asian/Pacific Islander.

**CONSEQUENCES OF PRETERM BIRTH**

Preterm birth, along with low birth weight babies, make up the second leading cause of infant deaths after birth defects. Health consequences of preterm birth include developmental delays, chronic respiratory problems and vision and hearing impairment. Having a preterm baby impacts families emotionally and financially.

**33.5%**

*Infant deaths are preterm-related*

When causes of death related to preterm birth are grouped together, preterm-related causes account for 33.5% of infant deaths in Tennessee. (See figure)

**$57,000**

*Associated with preterm birth*

The annual societal economic cost (medical, educational, and lost productivity) associated with preterm birth in Tennessee is an estimated $57,000.
RISK FACTORS FOR PRETERM BIRTH

Rather than having one cause, preterm birth seems to be triggered by multiple, interacting biologic and environmental factors. We do know that a history of preterm birth, multiple gestations, and certain uterine and/or cervical problems are the strongest risk factors for preterm birth. The factors below also contribute to preterm birth.4

MATERNAL AGE
During 2018-2020 (average) in Tennessee, preterm birth rates were highest for women ages 40 and older (15.5%), followed by women ages 30-39 (11.6%), under age 20 (11.2%) and ages 20-29 (10.5%).

SMOKING
In 2020, 18.0% of women of childbearing age reported smoking in Tennessee. Smoking is an important determinant of health and a significant factor contributing to preterm births.

MULTIPLE BIRTHS
In Tennessee in 2020, 9.2% of singleton births were preterm, compared to 61.0% of multiple births. Multiple births represent 3.3% of live births in Tennessee. Current multifetal pregnancy is one of the most consistently identified risk factors for preterm birth.

BIRTH SPACING
Birth spacing, or inter-pregnancy interval, is the timing between a live birth and the beginning of the next pregnancy. Birth spacing of less than 18 months increases the risk of preterm birth and other adverse outcomes. In Tennessee, 32.5% of pregnancies with a prior live birth have a birth spacing of less than 18 months (2018-2020 average).

OBESITY
While obesity does not directly cause preterm birth, it does increase rates of medical complications (e.g., hypertension, diabetes) that contribute to preterm birth. In Tennessee, 36.7% of women of childbearing age were obese in 2020.

HEALTH INSURANCE COVERAGE
In 2020, about 1 in 8 women of childbearing age (12.8%) was uninsured in Tennessee. Health care before, during and after pregnancy can help identify and manage conditions that contribute to preterm birth.

OTHER CONTRIBUTING FACTORS4
Other factors contributing to preterm birth include: infection (especially genito-urinary), diabetes mellitus, hypertension, late or no prenatal care, alcohol and illicit drug use, and social determinants of health. Socioeconomic status at both the individual and community level (e.g., income/poverty, job status, education) as well as psychosocial factors (e.g., chronic stress, lack of social support) are associated with an increased risk of preterm birth.

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MARCH OF DIMES MISSION

March of Dimes leads the fight for the health of all moms and babies. We support research, lead programs and provide education and advocacy so that every baby can have the best possible start. Building on a successful 80-year legacy of impact and innovation, we empower every mom and every family.


FOOTNOTES

1. Preterm is less than 37 weeks of pregnancy.
2. Late preterm is between 34 and 36 weeks gestation.
3. Very preterm is less than 32 weeks.
4. All race categories exclude Hispanics.
5. Smoking is defined as having ever smoked 100 cigarettes in a lifetime and currently smoking everyday or some days. Percent reported is among women ages 18-44.
6. Multiple deliveries include twin, triplet and higher order deliveries.
7. Birth spacing is the period of time between giving birth and getting pregnant again. Its also called pregnancy spacing or interpregnancy interval (also called IPI).
8. Obesity is defined as a Body Mass Index of 30 or more. Body Mass Index (BMI) is a number calculated from a person’s weight and height. Percent reported is among women ages 18-44.
9. A woman was considered uninsured if she was not covered by any type of health insurance at the time of the survey. Percent reported is among women ages 15-44.
10. Social determinants of health are the conditions in which people are born, grow, work, live and age, as well as the wider set of forces and systems that shape daily life conditions.
11. Prematurity/LBW cause of death is a single cause of death defined as disorders related to short gestation and low birthweight (LBW), not elsewhere classified, determined by Category P07 (four codes) in the tenth International Classification of Diseases (ICD-10).
12. Preterm-related cause of death is a grouping of causes of death each determined to be a direct consequence of preterm birth (44 codes from the tenth International Classification of Diseases (ICD-10)).

DATA SOURCES

- National Center for Health Statistics, final natality data.
- National Center for Health Statistics, period linked birth/infant death data.

REFERENCES