Maine Perinatal Health: Social Determinants of Health
Maternal and Child Health Block Grant Data Brief

Stakeholder Input
Stakeholders discussed the following related to social determinants of health and infants:
- Impact of child abuse and domestic violence on infant health.
- Adversities such as food insecurity and diaper insecurity and lack of transportation
- Language barriers to care and the need for culturally responsive care

Social determinants of health are the conditions in which people are born, grow, live, work, and age. They influence individual and group difference in health status.

- More than 1 in every 5 Maine children have experienced two or more adverse childhood experiences (NSCH, 2016-17).
- About 2% of women experience domestic violence during pregnancy (PRAMS, 2016).
- In 2017, there were 450 infant victims of child abuse or neglect in Maine; 36 out of every 1,000 infants. (ACF, 2019)
- About 4,000 children in Maine (2%) have at least one parent who is unemployed (ACS, 2017).
- There are 47,000 children living in low-income working families in Maine (19%) (ACS, 2017)
- 1 in 4 children live in families that receive public assistance (Kids Count, 2018)
- 10.3 per 10,000 Maine families are homeless (sleep outside, in an emergency shelter or in a transitional housing program (rank=44th highest in the U.S.) (America’s Health Rankings, 2019)

45% of pregnant women in Maine experience at least three stressful events in the 12 months before birth; 1 in 10 experience more than six. (PRAMS, 2016)

Mothers with lower incomes are more likely to experience more than six or more stressful life events in the year prior to the birth of their child and more likely to experience symptoms of postpartum depression. (PRAMS, 2016)

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14% of children in Maine live at 100% of the poverty level; 6% live in extreme poverty (50% FPL)

13% of new Maine mothers ate less than they felt they should in the 12 months before their baby was born because they didn’t have enough money to buy food. (PRAMS, 2016)

16% of pregnant women in Maine do not have health insurance before they become pregnant; 11% do not have health insurance after the infant birth. (PRAMS, 2016)

Domain Listening Regional Forums
Score = not scored Top 2: 1 of 3 forums

Survey (Professionals) Survey (non-Professionals)
Child abuse: 50%; Parental mental illness: 50%; Parental substance abuse: 46%; Homelessness: 47%; Low income 41%; Hunger: 21%; Transportation: 21%
Child abuse: 56%; Parental mental illness: 32%; Parental substance abuse: 30%; Homelessness: 42%; Low income 41%; Hunger: 23%; Transportation: 12%

National Performance Measures – Perinatal and Infant Health
NPM 3: Percent of very low birth weight (VLBW) infants born in a hospital with a Level III+ Neonatal Intensive Care Unit (NICU)
NPM 4: Percent of infants who are breastfed
NPM 5: Percent of infants sleeping on their back, on an appropriate surface, and without soft bedding or loose objects

Sources: Maine Center for Disease Control and Prevention, Office of Data, Research and Vital Statistics (DRVS) and Maine Pregnancy Risk Assessment Monitoring System (PRAMS); Kids Count Data Center; America’s Health Rankings: The Health of Women and Children , 2019; National Survey of Children’s Health (NSCH); Administration for Children and Families (ACF), Child Maltreatment Report, 2019.
In 2018, 12% of Maine women smoked during pregnancy; The rate has been decreasing, but Maine has the 11th highest rate in the U.S. (CDC Wonder) In many counties in Maine, more than 1 in every 5 pregnant women smoke. (DRVS, 2014-2017)

In 2017, close to 10% of new Maine mothers consumed alcohol during their most recent pregnancy (PRAMS).

In 2018, there were 904 substance exposed infant reports made to Maine DHHS’s Office of Child and Family Services (OCFS). The rate of reports increased until 2016, but has leveled off in recent years.

In 2017, 43% of substance use treatment admissions among pregnant women were related to heroin or morphine use; 24% were due to use of opiate/other synthetics. (ME-WITS)

In 2018, there were 6 cases of Hepatitis C and 2 cases of Hepatitis B among infants and children under 5 years old reported to Maine CDC. (MECDC-DID)

In 2018, Maine’s rate of infants born with Neonatal Abstinence Syndrome was 28.3 per 1,000 delivery hospitalizations. (HCUP)

Mothers with a college degree are more likely to drink alcohol during pregnancy than those with less education. (PRAMS, 2016-2017)

In 2017, 1 in 10 (11%) new mothers reported using marijuana during pregnancy. New mothers under 20 years old were most likely to use (30.5%). (PRAMS)

National Performance Measures – Perinatal and Infant Health

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NPM 14.1: Percent of women who smoke during pregnancy (Women/Maternal Health Measure)

Sources: Maine Center for Disease Control and Prevention, Office of Data, Research and Vital Statistics (DRVS); Maine Pregnancy Risk Assessment Monitoring System (PRAMS); Maine Web Infrastructure for Treatment Services (ME-WITS); Maine DHHS, Office of Child and Family Services; US Agency for Healthcare Research and Quality, Healthcare Cost and Utilization Project (HCUP)
Stakeholder Input

Stakeholders identified areas of concern related to perinatal access to care:

- OB/nurse shortages
- Unintended pregnancies
- Lack of clear homebirth regulations
- Poor perinatal oral health
- Unnecessary primary C-sections
- Referrals and care following newborn screening

Stakeholders identified potential strategies to address access to care issues:

- Access to family planning
- Appropriate fetal monitoring
- Use of telehealth
- Improved access to early and adequate prenatal care
- Increased Hepatitis C screening
- Parent support, home visiting
- Use of doulas

Maine has two Level III Neonatal Infant Care Units (NICU): Maine Medical Center and Eastern Maine Medical Center.

In 2017, 85.2% of very low birth weight babies were born in a facility with a Level III NICU. (DRVS)

Very low birth weight babies born to mothers without a high school diploma were the least likely to be born at a level III hospital (67%). (DRVS, 2008-2017)

Between 2014 – 2017, there were an average of 227 planned home births per year in Maine. (DRVS)

FY2019, about 1,400 infants were enrolled in the Maine Families Home Visiting Program. (Maine Families)

In 2018, each month about 4,300 infants in Maine were served by WIC. (USDA)

In 2017, 1 in 3 births to Maine residents were delivered via C-section; 23.8% of low risk first births were delivered via C-section. (DRVS)

Black/African-American mothers are less likely than White mothers to receive at least 81% of their expected prenatal care visits (63% vs. 82%). (DRVS, 2014-2017)
Maine Perinatal Health: Breastfeeding
Maternal and Child Health Block Grant Data Brief

<table>
<thead>
<tr>
<th>Domain Listening</th>
<th>Regional Forums</th>
<th>Survey (professionals) n=401</th>
<th>Survey (non-professionals) n=904</th>
</tr>
</thead>
<tbody>
<tr>
<td>Infant care score=10 (rank=4)</td>
<td>Top 2: 1 of 3 forums</td>
<td>27%</td>
<td>37% (rank=4)</td>
</tr>
</tbody>
</table>

**Stakeholder Input**

- Stakeholders identified *areas of concern* related to breastfeeding:
  - Support for breastfeeding in the workplace
  - Availability, accessibility of lactation supports
  - Promoting breastfeeding among New Mainer families

- Stakeholders identified *potential strategies* to support breastfeeding:
  - Increased number of lactation counselors
  - Improved community breastfeeding supports, e.g. support groups
  - Culturally responsive breastfeeding support (e.g. for LGBTQ, New Mainers)
  - Streamlined enrollment in services that support breastfeeding (e.g. WIC)

**Between 2007 and 2016, the percentage of Maine infants who were *ever breastfed* increased from 77.6% to 87.3% (12.5% increase).** *(NIS)*

![Graph showing breastfeeding rates from 2007 to 2016]

- In 2018, **18.5%** of Maine infants were born at a hospital with a “Baby-Friendly” designation. *(US CDC)*
- Maine has **33** Certified Lactation Counselors (CLC) for every 1,000 live births *(n=407)*. *(ALPP)*
- Close to **42%** of Maine babies born in 2015 were still *breastfeeding at 12 months* of age. *(US CDC)*
- In 2009-2011 (latest period for which data are available), close to **30%** of non-WIC eligible babies were exclusively *breastfed until 6 months*, vs 12.4% of WIC eligible babies. *(NIS)*
- In 2014-2017, **Black/African American** and **Asian/Pl** mothers had the **highest** rates of *breastfeeding at discharge* from birth facilities. Over **92%** of foreign-born Black/African American mothers were breastfeeding at discharge after delivery. *(DRVS)*

<table>
<thead>
<tr>
<th>Percent (%) breastfed at discharge</th>
<th>American Indian/ Alaska Native</th>
<th>Other race</th>
<th>White</th>
<th>Black or African American</th>
<th>Asian or Pacific Islander</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not significantly different than the state</td>
<td>76.0%</td>
<td>77.6%</td>
<td>83.6%</td>
<td>89.4%</td>
<td>89.6%</td>
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<tr>
<td>Significantly lower than the state</td>
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<tr>
<td>Significantly higher than the state</td>
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**Note:** In 2015-2017, infants whose delivery was paid for by **MaineCare** were less likely to be *breastfed at discharge* (76.5%), compared to those whose delivery was paid for by private insurance (90.9%) *(DRVS)*.

In 2014-2017, **Aroostook, Washington** and **Somerset** counties had the *lowest* proportion of babies *breastfeeding at discharge* from birth facilities *(DRVS)*.

### National Performance Measures – Perinatal and Infant Health

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Sources: Maine Center for Disease Control and Prevention, Office of Data, Research and Vital Statistics (DRVS); US Center for Disease Control and Prevention (US CDC); National Immunization Survey (NIS); Academy of Lactation Policy and Practice (ALPP), 2019 Statistical Tables

Domain Listening Session
Regional Forums
Survey (professionals)
Survey (non-professionals)

Score = 10 (rank=3)  Top 2: 1 of 3 forums  Infant death: 4%; Preterm birth: 7%; Low birth weight: 3%; Safe sleep: 12%  Infant death: 8%; Preterm birth: 10%; Low birth weight: 3%; Safe sleep: 13%

Stakeholder Input
Stakeholders identified contributing factors related to infant and fetal mortality:
- Pregnancy complications
- Maternal chronic disease
- Birth defects
- Maternal sepsis
- Maternal mental health
- Child abuse and neglect
- Infant head trauma
- Domestic violence

Stakeholders identified potential strategies to reduce infant and fetal mortality:
- Longer postpartum eligibility for MaineCare
- Increased provision of safe sleep aids (e.g. sleep sacks)
- Improved safe sleep education
- Universal “4th trimester” visits
- Easing access to support services
- No-cost immunizations
- In-home support for infants post-NICU

In 2017, Maine’s infant mortality rate was 5.7 deaths per 1,000 live births.
After reaching a high point in 2013, Maine’s infant mortality rate has been decreasing.

Over the past 2 decades, preterm related causes have consistently been the most frequent causes of death among Maine babies, followed by congenital anomalies, and sudden infant death (SIDS) and Sudden Unexplained Infant Death (SUID). Most the SIDS/SUID deaths are related to unsafe sleep.(DRVS)

Babies born to mothers with a high school education or less were more likely to die in 2013-2017 than babies born to mothers with at least some college (DRVS).

In 2017, 8.7% of Maine babies were born pre-term (DRVS).

Babies born at less than 32 weeks have the lowest chances of survival. In 2013-2017, survival outcomes for Maine babies at less than 32 weeks were the worst in the nation (NCHS).

In 2013-2017, counties in northern Maine had higher infant mortality rates that those in the south.

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