

# Maine Perinatal Health: Social Determinants of Health

## Maternal and Child Health Block Grant Data Brief

### Domain Listening

Score = not scored

### Regional Forums

Top 2: 1 of 3 forums

### Survey (Professionals)

Child abuse: 50%; Parental mental illness: 50%; Parental substance abuse: 46%; Homelessness: 47%; Low income: 41%; Hunger: 21%; Transportation: 21%

### Survey (non-Professionals)

Child abuse: 56%; Parental mental illness: 32%; Parental substance abuse: 30%; Homelessness: 42%; Low income: 41%; Hunger: 23%; Transportation: 12%

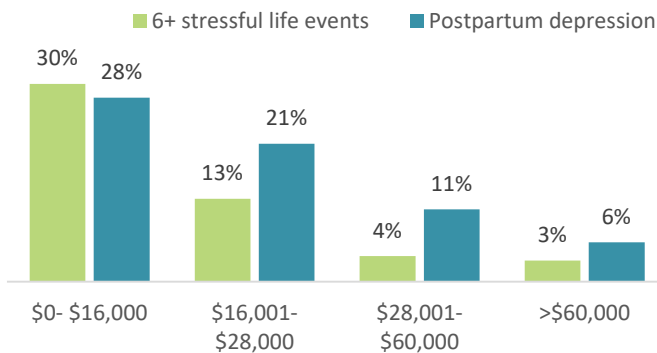
### Stakeholder Input

Stakeholders discussed the following related to social determinants of health and infants:

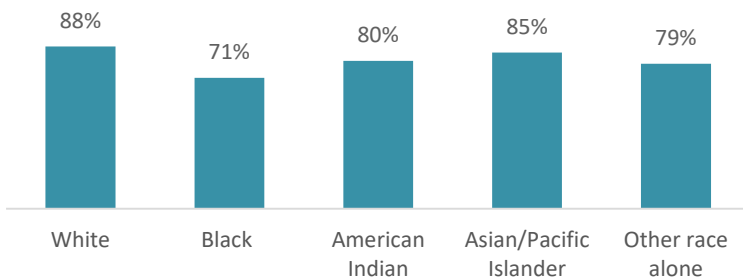
- Impact of child abuse and domestic violence on infant health.
- Adversities such as food insecurity and diaper insecurity and lack of transportation
- Language barriers to care and the need for culturally responsive care

**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)



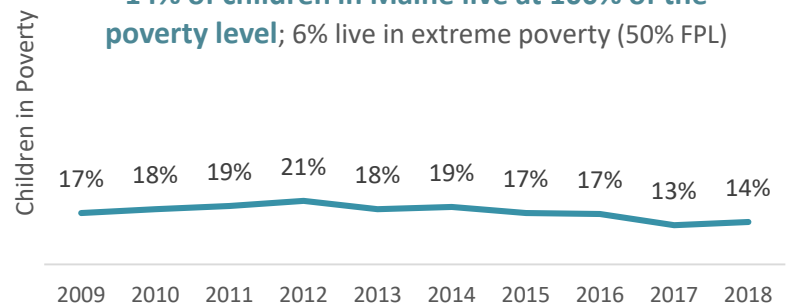
Maine women who are White are more likely to receive **adequate prenatal care** compared to other racial groups (DRVS, 2014-2017).



**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=44<sup>th</sup> highest in the U.S.) (America's Health Rankings, 2019)

**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)

## 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.



# Maine Perinatal Health: Substance Exposed Infants

## Maternal and Child Health Block Grant Data Brief

Domain Listening	Regional Forums	Survey (professionals) n=401	Survey (non-professionals) n=904
Score = 11 (rank=2)	Top 2: 1 of 3 forums	Substance use during pregnancy: 46% (rank=3); Smoking during pregnancy: 16%	Substance use during pregnancy: 43% (rank=2); Smoking during pregnancy: 13%

### Stakeholder Input

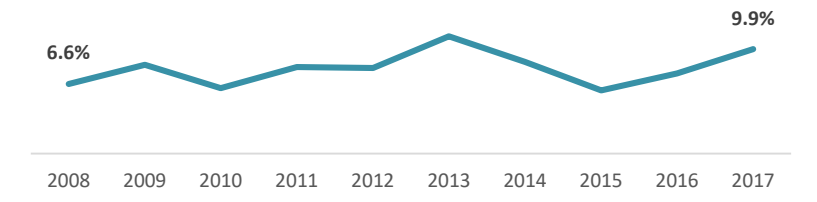
Stakeholders identified **areas of concern** related to substance exposed infants:

- Range of substances, e.g. alcohol, marijuana, opioids
- Increased risk for infectious diseases associated with injection drug use (e.g. Hepatitis C, HIV)
- Limited treatment options for pregnant women, new mothers and partners

Stakeholders identified **potential strategies** to address substance exposed infants:

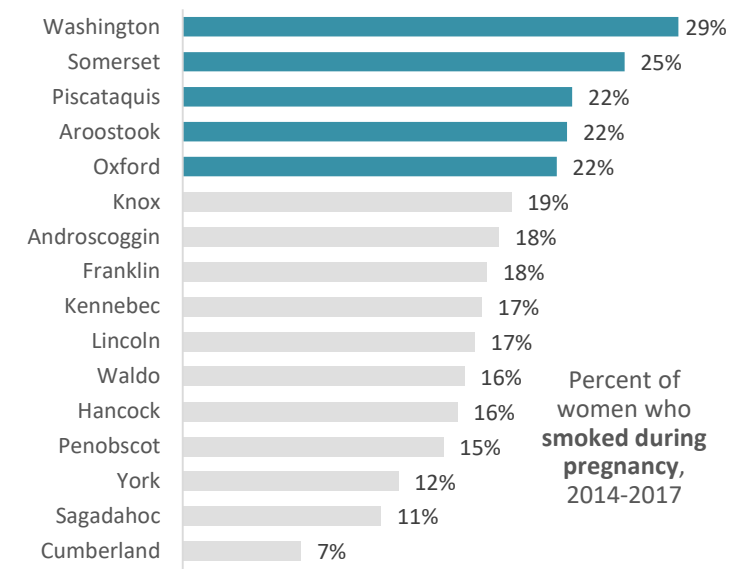
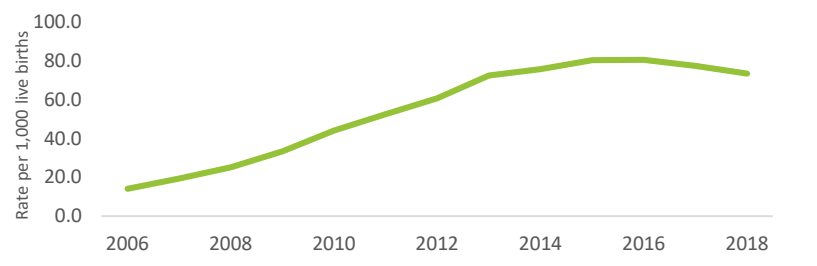
- Improve access to Narcan
- Improve education for new mothers
- Improve access to treatment
- Improve data collection and dissemination
- Increase support for affected families

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



In 2018, **12%** of Maine women **smoked during pregnancy**; The rate has been decreasing, but Maine has the **11<sup>th</sup> 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 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.

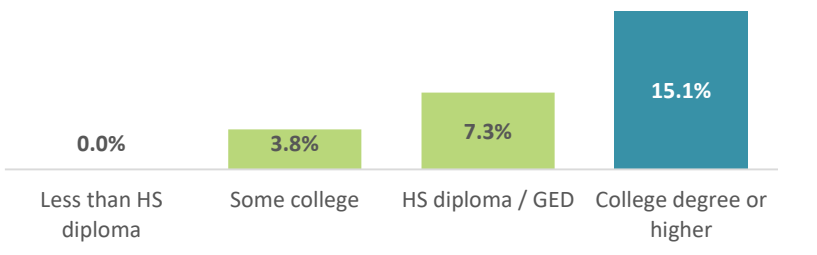


In 2017, **43%** of substance use treatment admissions among pregnant women were related to **heroin or morphine** use; 24% were due to use of **opiate/other synthetics**. (ME-WITS)

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

- 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
- 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)

# Maine Perinatal Health: Access to Care

## Maternal and Child Health Block Grant Data Brief

### Domain Listening

Score = 16 (rank=1)

### Regional Forums

Top 2: 1 of 3 forums

### Survey (professionals)

Access to care: 24%  
Parental leave: 16%

### Survey (non-professionals)

Access to care: 20%  
Parental leave: 27%

## Stakeholder Input

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

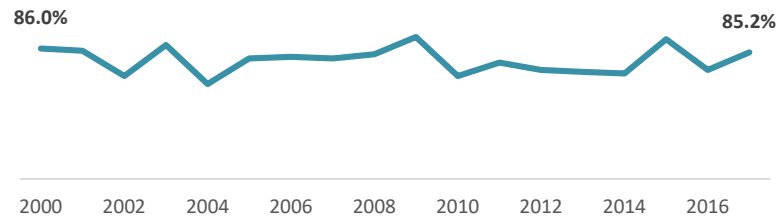
- OB/nurse shortages
- Unintended pregnancies
- Lack of clear homebirth regulations
- Poor perinatal oral health
- Unnecessary primary C-sections
- Referrals and care following newborn screening

Stakeholders identified **potential strategies** to address access to care issues:

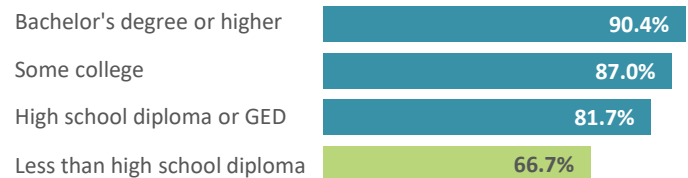
- Access to family planning
- Appropriate fetal monitoring
- Use of telehealth
- Improved access to early and adequate prenatal care
- Increased Hepatitis C screening
- Parent support, home visiting
- Use of doulas

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)



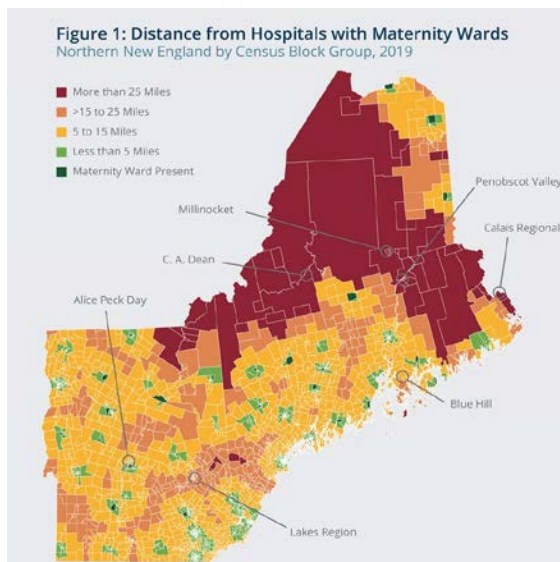
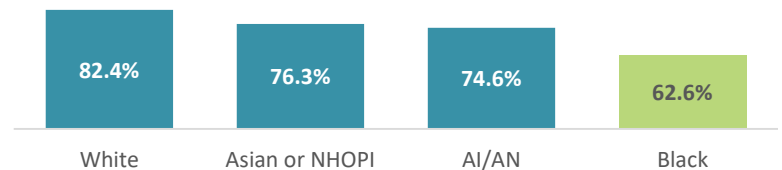
Between 2014 – 2017, there were an average of **227 planned home births** per year in Maine. (DRVS)

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)



Since 2009, **three rural hospitals in Maine closed their maternity units**. In Northern New England, about 6,000 women aged 18-29 live in census blocks farther than 25 miles from a maternity ward. (NEPPC)

## 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

**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); Maine Families Home Visiting Program; USDA WIC Data Tables; New England Public Policy Center (NEPPC), Declining Access to Health Care in Northern New England.



# Maine Perinatal Health: Breastfeeding

## Maternal and Child Health Block Grant Data Brief

Domain Listening	Regional Forums	Survey (professionals) n=401	Survey (non-professionals) n=904
Infant care score=10 (rank=4)	Top 2: 1 of 3 forums	27%	37% (rank=4)

### Stakeholder Input

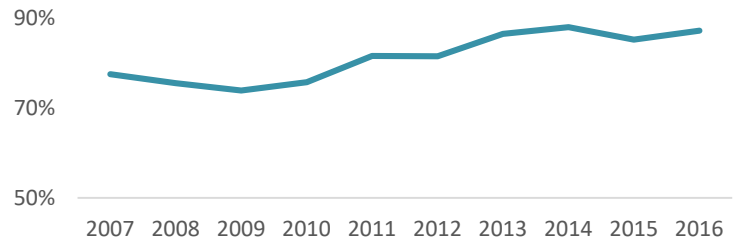
Stakeholders identified **areas of concern** related to breastfeeding:

- Support for breastfeeding in the workplace
- Availability, accessibility of lactation supports
- Promoting breastfeeding among New Mainer families

Stakeholders identified **potential strategies** to support breast feeding:

- 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)



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)

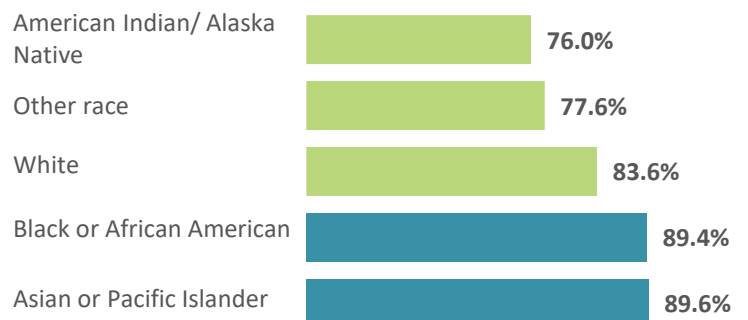
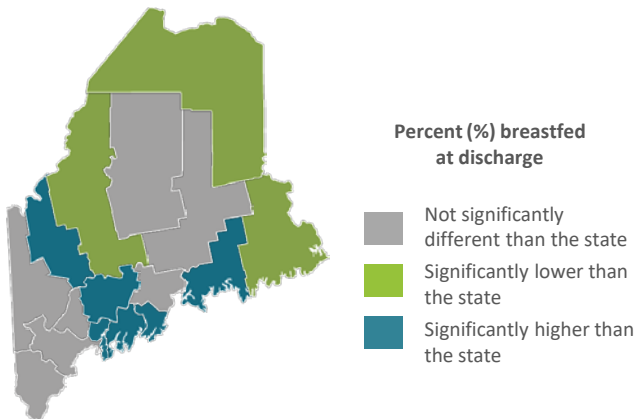
Close to **42%** of Maine babies born in 2015 were still **breastfeeding at 12 months** of age. (US CDC)

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/PI** 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)

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

**NPM 3:** Percent of very low birth weight (VLBW) infants born in a hospital with a Level III+ Neonatal Intensive Care Unit (NICU)

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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  
<https://www.alpp.org/pdf/Statistical-Report-CLCs.pdf>



# Maine Perinatal Health: Infant Mortality

Maternal and Child Health Block Grant Data Brief

Domain Listening Session	Regional Forums	Survey (professionals) n=401	Survey (non-professionals) n=904
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:

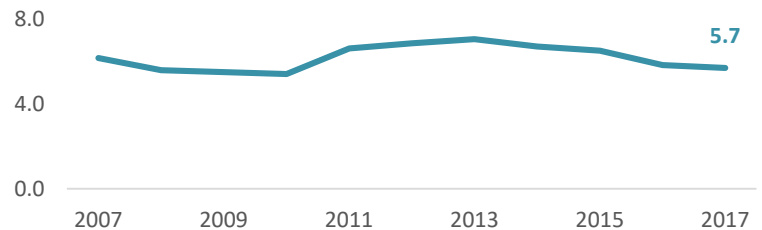
- Pregnancy complications
- Maternal chronic disease
- Birth defects
- Maternal sepsis
- Maternal mental health
- Child abuse and neglect
- Infant head trauma
- Domestic violence

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 “4<sup>th</sup> 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.**



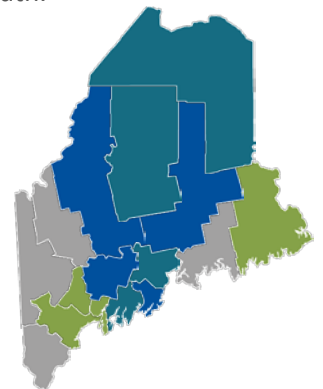
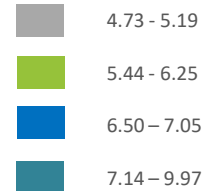
Babies born to mothers with a **high school education or less** were **more likely to die** in 2013-2017 than babies born to mothers with at least some college (DRVS).

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

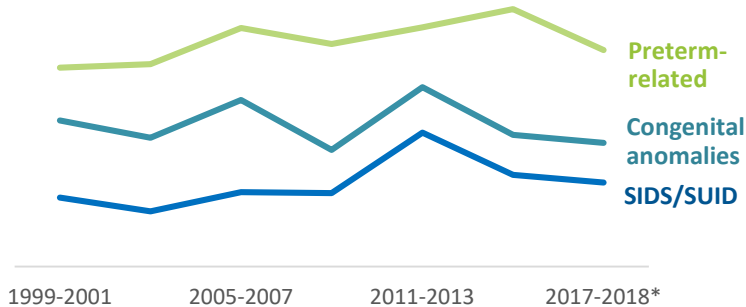
Babies born at **less than 32 weeks** have **the lowest changes of survival.** In 2013-2017, survival outcomes for Maine babies at less than 32 weeks were the worst in the nation (NCHS).

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

Infant deaths per 1,000 live births



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)



## 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; US CDC National Center for Health Statistics (NCHS)

