

Infant Mortality

THE DEATH OF AN INFANT BORN ALIVE UNDER AGE 1

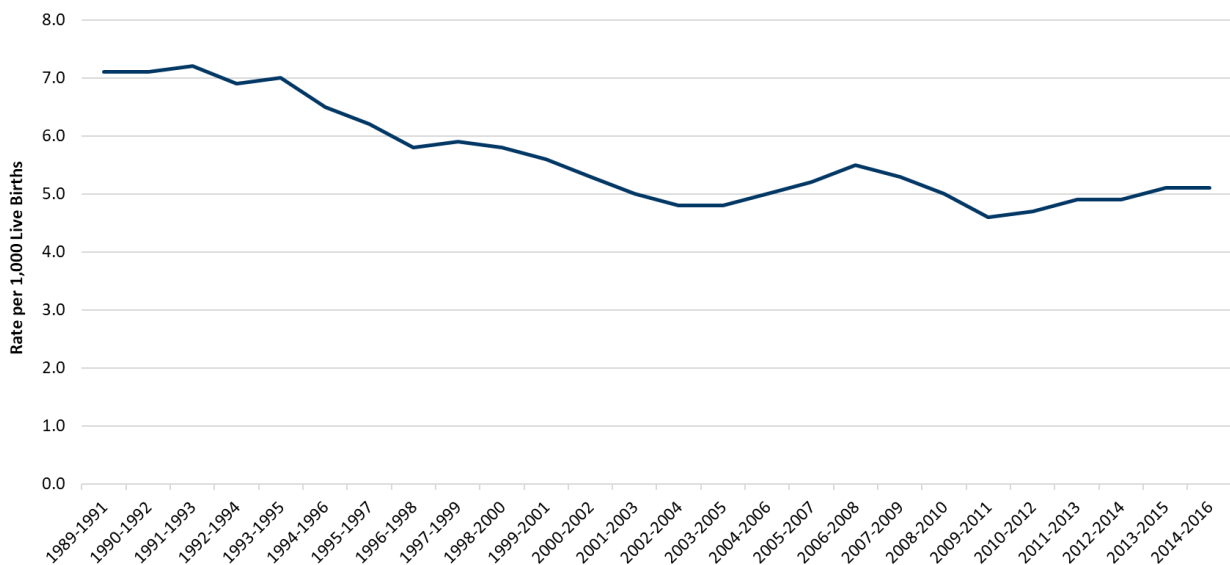
Why It's Important

Infant mortality is widely used as an international measure of overall population health. Compared to other developed countries, the United States has a higher infant mortality rate.¹ Infant mortality is a multifactorial societal problem often linked to factors that affect an individual's physical and mental well-being, including maternal health, socioeconomic status, quality and access to medical care, and public health practices. It can adversely affect families and communities, both socially and emotionally, often resulting in a number of negative symptoms such as depression, grief, and guilt. Families may suffer from long-term psychological distress, which can lead to partner separation or divorce. Grieving parents also face isolation from friends and family.^{2,3}

In 2017, 357 infants born in Minnesota died before their first birthday.

Minnesota's infant mortality rate has declined by 29 percent since 1990, from a high of 7.2 deaths per 1,000 live births to its present level of 5.1 in 2016. Minnesota's infant mortality rate has historically been lower than the U.S. rate overall; yet, little to no progress has been made in reducing in infant mortality in the past decade.

Figure 1. Minnesota Infant Mortality Rate, 3-year Rolling Averages



Source: Minnesota Linked Birth/Infant Death Final File, 1989-2016

The leading causes of infant mortality in Minnesota are congenital anomalies (also known as birth defects) and prematurity (birth to an infant under 37 weeks gestation).⁴ Other common causes of infant mortality in Minnesota include obstetric conditions, sudden unexpected infant deaths (SUID), and injury. Prematurity is related to low birth weight (born weighing under 2,500 g), short gestation, and respiratory distress. Obstetric conditions are complications related to pregnancy, childbirth, and the

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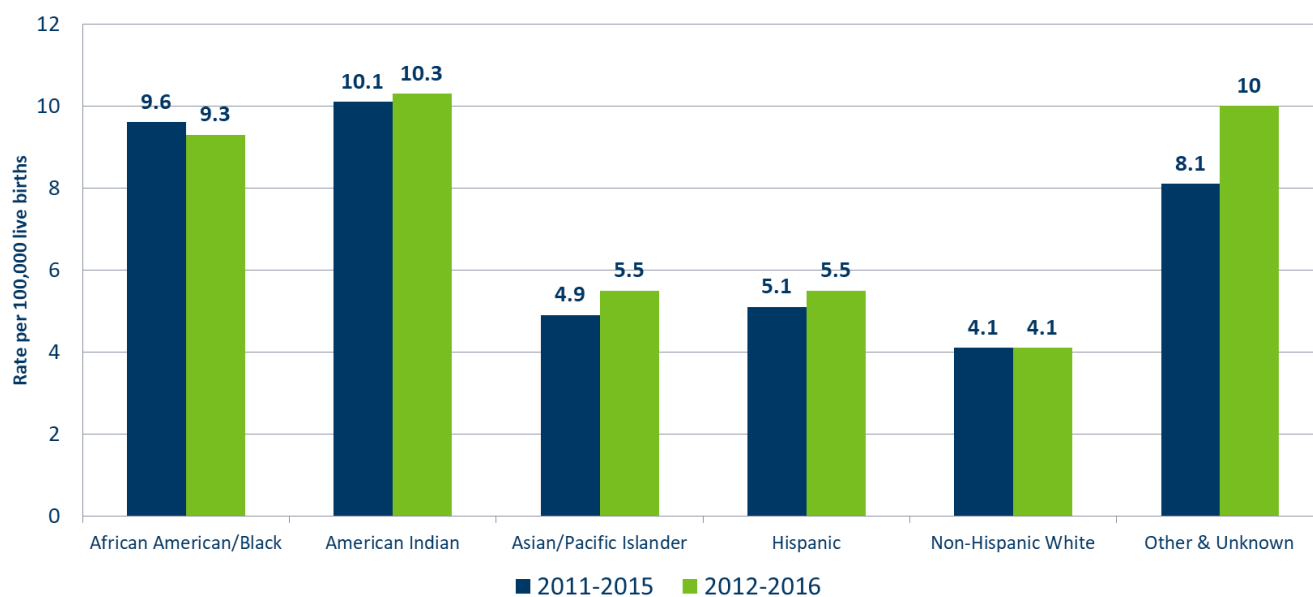
postpartum period. SUID refers to the death of an infant with no obvious cause at the time of death, this includes sudden infant death syndrome (SIDS) and accidental suffocation and strangulation in bed (ASSB).⁵

“[The biggest unmet needs of women, children and families in my community] is infant mortality, isolation of families, and no one giving a care in the world what happens to families.” – Needs Assessment Discovery Survey Participant

Focus on Health Equity

Despite Minnesota’s favorable infant mortality rate and ranking, the state’s overall infant mortality rate disguises substantial variation in rates by race/ethnicity – the burden of infant mortality is not shared equally across all groups. While infant mortality rates for all racial groups in Minnesota have declined overtime, the disparities have remained constant for over 20 years.

Figure 2. Minnesota Infant Mortality Rate by Race/Ethnicity, 2011-2016



Source: Minnesota Linked Birth/Infant Death Final File

The infant mortality rate is over two times greater for infants born to African American/black mothers and American Indian mothers than non-Hispanic white mothers in Minnesota. Stress related to racism and discrimination leads to changes in the body that can increase the rate of infant mortality.⁶ The infant mortality rates among of African Americans/blacks in Minnesota vary greatly depending on the mother’s birth country. From 2012-2016, African Americans/black mothers born in the United States have an infant mortality rate double (12.4 per 1,000) that of foreign-born mothers (6.7 per 1,000).⁷

Factors commonly associated with increased infant mortality rates include infants born to mothers with less than high school education, giving birth to twins or triplets, and tobacco use during pregnancy. Social determinants of health are even more influential. For example, African American/black mothers with more than a high school education have the same rate of infant death as non-Hispanic white mothers with less than high school education. Infants born to American Indian and African American

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mothers are more likely to be low birth weight than white infants. White women are more likely to receive prenatal care than American Indian and African American women. Prenatal and postpartum care visits are important as they decrease the risk of complications during pregnancy. These visits also decrease risk of premature infants and increase knowledge about breastfeeding, safe sleep methods, and other strategies to maintain the wellbeing of infants.⁸

Additional Considerations

Medical and social services to prevent infant mortality due to prematurity and birth defects, the most common causes of infant death are costly. For instance, preterm birth costs the United States more than \$26 billion annually.⁹ Prematurity is a leading cause of infant death, and babies who survive an early birth often face the risk of lifetime health challenges, on top of the increased risk for infant mortality. Data tells us that the earlier a baby is born, the greater the risk of death, but even babies born just a few weeks too soon (born between 34 to 36 weeks gestation) have an infant mortality rate three times as high as babies born full term.⁹

Each year, over 2,000 babies in Minnesota are born with serious birth defects. Babies born with a birth defect are more likely to die before their first birthday, compared to babies born without a birth defect. Birth defects contribute to one in every five infant deaths (proportion of babies with birth defects that die?). Babies born with birth defects that survive have a greater chance of illness and long-term disability than babies without birth defects. . Birth defects are costly – hospital costs for the treatment of birth defects are more than \$2.5 billion each year in the United States.¹⁰ On top of the social and monetary costs there is also the incalculable costs of infant mortality on the family, community, and society which we cannot measure.

Important Note on Equity and Intersectionality

The Minnesota Department of Health's Title V Needs Assessment Team acknowledges that structural (social, economic, political and environmental) inequities can result in poor health outcomes across generations. They have a greater influence on health outcomes than individual choices or a person's ability to access health care, and not all communities are impacted in the same way.

All people living in Minnesota benefit when we reduce health disparities.

We also acknowledge that the topic addressed in this data story does not exist in isolation– which is important to remember as we do needs assessments and as we start thinking about how we approach solutions. In addition to the needs themselves being intersectional, there are also intersecting processes and systems through which power and inequity are produced, reproduced, and actively resisted.

Citations

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