



Low Birth Weight and Preterm Birth

Health Impact

Infants born prior to 37 weeks of gestation are considered preterm. Adverse health outcomes related to preterm birth include cerebral palsy, developmental delay, vision/hearing impairment, and infant death from several causes, including SIDS.¹ Preterm birth is a leading cause of infant mortality.¹

Almost half of preterm births are also of low birth weight (LBW), defined as weight less than 2,500 grams at birth. Preterm birth and fetal growth restrictions are the two main contributors to LBW births.² Risk factors for LBW include birth defects, fetal infection, maternal chronic health issues, alcohol or tobacco use, African-American race, and low socioeconomic status.²

Cost Impact

Health care costs in the first year of life average 10 times higher for preterm than full-term infants. Accordingly, a preterm baby will cost \$38,438 versus \$3,953 for a term baby (converted to 2012 dollars).³

How is Ohio Doing?

Of all infants born in Ohio, 12.3 percent were preterm compared to 11.7 percent in the US (2011).⁴ In 2010, Ohio had the 15th highest rate of preterm births and fell short of the Healthy People 2020 objective of 11.4 percent.

In 2012, 8.6 percent of all Ohio births were LBW, above the U.S. rate of 8.1 (2011) and leaving room for improvement to reach the Healthy People 2020 objective of 7.8 percent.

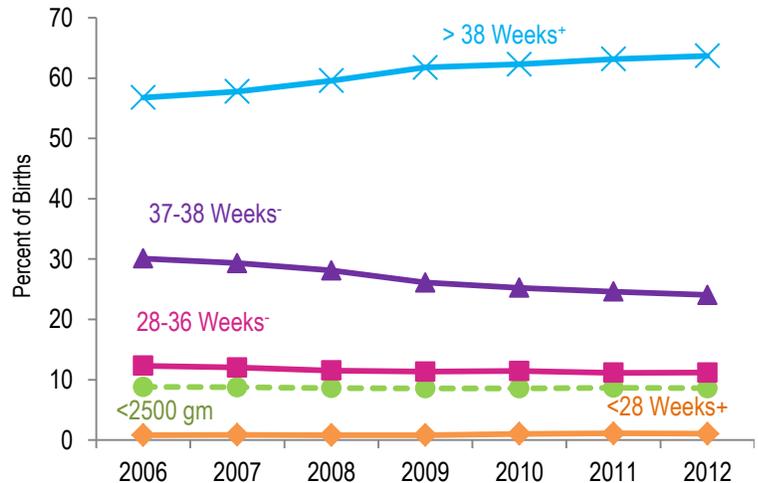
Before Pregnancy

In 2010, 46.9 percent (43.3-50.4) of mothers who gave birth were not intending to become pregnant.⁵ Family planning methods and programs can help women address their health needs before deciding to become pregnant.

A prime time to reduce the risk of prematurity is prior to pregnancy. The management of chronic health conditions and smoking cessation will reduce risk. Preconception physicals, as well as early prenatal care, can identify women who may need special care before or early in pregnancy.

In 2010, 82.4 percent (95 percent confidence interval 79.1-85.2) of women entered prenatal care in the first trimester.⁵

Figure 1: Low Birth Weight and Preterm Singleton Births, Ohio, 2006-2011

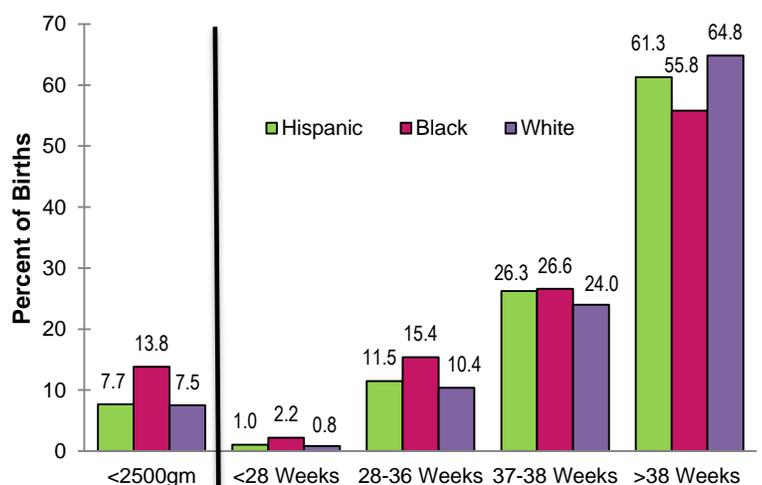


Source: Ohio Department of Health Vital Statistics

* Statistically significant increasing trend - Statistically significant decreasing trend

- Statistically significant decreases were observed in early term (37-38 weeks) and preterm (29-36 weeks) births from 2006-2012
- A corresponding increase in full-term births occurred
- Very preterm births (<28 weeks) increased from 2006-2012
- The rate of low birth weight, <2,500g, experienced no change

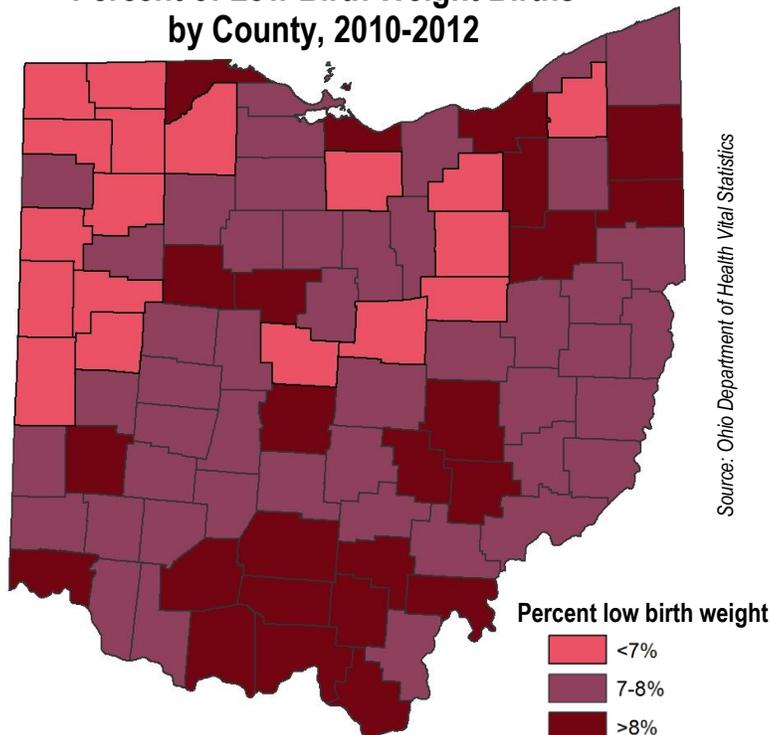
Figure 2: Low Birth Weight, Preterm & Term Singleton Births, by Race/Ethnicity, Ohio, 2010-2012



Source: Ohio Department of Health Vital Statistics

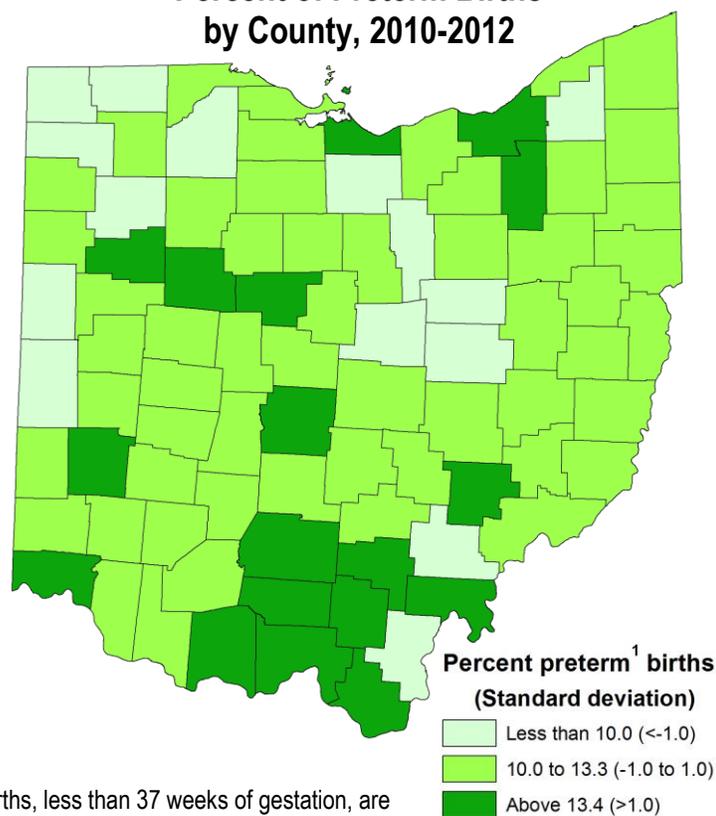
- Non-Hispanic black infants had higher rates of preterm, early term and low birth weight births compared to both non-Hispanic white and Hispanic infants
- Hispanic infants were more likely than non-Hispanic white infants to be born early term

Percent of Low Birth Weight Births by County, 2010-2012



- Southern Ohio tended to have higher percentages of infants born with LBW
- LBW births were less prevalent in the northwestern area of the state

Percent of Preterm Births by County, 2010-2012



- Preterm births, less than 37 weeks of gestation, are more likely to occur in southern Ohio

Ohio

What is Being Done in Ohio to Prevent Prematurity?

- Ohio's executive budget includes a package of new and/or enhanced efforts coordinated around existing programs and represents work among the Ohio office of Health Transformation, Department of Medicaid, ODH, and the Ohio Department of Mental Health and Addiction Services and other human services agencies (<http://tinyurl.com/OhioCommitmentIM>).
- The Ohio Collaborative to Prevent Infant Mortality (OCPIM), <http://tinyurl.com/OhioCPIM>, a diverse group of public health officials, policy makers, advocates, providers, and other stakeholders, was formed in 2009 to prevent infant mortality throughout Ohio.
- The Ohio Perinatal Quality Collaborative (OPQC) initiated a quality improvement initiative to prevent scheduled births prior to 39 weeks of gestational age. As of March 2013, an estimated 31,600 births have moved from before to after 39 weeks, thereby preventing 950 NICU admissions with \$19M in cost savings. This project is expanding to all maternity hospitals in Ohio.⁶
- OPQC is launching a progesterone quality improvement project to improve birth outcomes for Medicaid births by enabling wider use of progesterone treatment. Providers will be better able to identify, screen and track outcomes for women eligible for progesterone treatment. Progesterone (injection for vaginal form) is a safe, low-cost and effective treatment to reduce preterm birth.
- Evidence-based smoking cessation counseling using 5 As (Ask, Advise, Assess, Assist and Arrange) is being expanded in WIC, CFHS, and HMG programs to connect women to tools, training and assistance, including the Quitline, needed to quit smoking. Other activities include developing and implementing a mass media campaign, provider education and Quitline protocols for perinatal women and families with young children.
- An initiative to expand community-based HUBS in Ohio aims to reduce infant mortality among minority populations experiencing the highest rates. For women at high risk, social factors (e.g., transportation, housing, access to care) can be greater determinants in pregnancy outcome than medical factors. HUB is based on this premise and uses community health workers to identify women at-risk and connect them to care using a "pregnancy pathway" map of actions to result in a healthy pregnancy.

Data Note: Low birth weight (LBW) births are those that weighed less than 2500 grams at delivery. LBW for Ohio, 2010-2012 was 8.6%. Mean LBW for counties was 7.8%. Preterm births are those delivered at less than 37 completed weeks gestation and was calculated using combined obstetric estimation and last menstrual period estimation.

References:

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4. JA Martin, Hamilton, BE, SJ Ventura, et al.. Births: Final Data for 2011. National Vital Statistics Reports. Hyattsville, MD: National Center for Health Statistics. 2013; 62 (1).
5. Ohio PRAMS Annual Data Summary 2006-2010. www.odh.ohio.gov/healthstats/pramshs/pramsdata.aspx
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