Low Birth Weight in Connecticut

Factsheet

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Family Health Section
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Significance & Definition

Low birth weight is strongly associated with infant mortality, and the overall well-being of a society is reflected in the health of its infants (Enotes, 2008). The Healthy People 2010 goal is to reduce the rate of low birth weight to 5%.

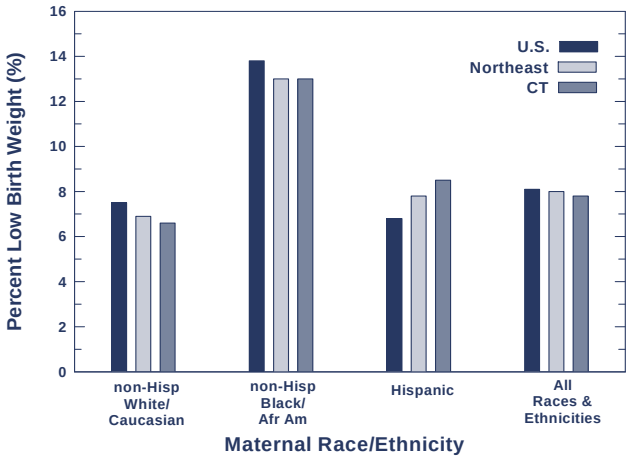
The low birth weight rate is the number of births occurring in a calendar year with a birth weight less than 2,500 grams (or about 5.5 pounds), per 100 live births, and is often expressed as a percent. Data in this report show maternal demographics, and except where noted, use birth records to Connecticut residents.

A pregnancy can be singleton (a single developing fetus) or multi-fetal (multiple developing fetuses).

Incidence of Low Birth Weight

Among all singleton and multi-fetal births from 2003-2005 combined, Connecticut ranked well across the nation in its low birth weight rate, but dramatic minority race/ethnicity disparities existed, and no racial/ethnic group attained the Healthy People 2010 goal of 5% low birth weight.

- In Connecticut, the low birth weight rate was 7.8% among all race/ethnicities, 6.6% among non-Hispanic White/Caucasians; 13.0% among non-Hispanic Black/African Americans; and 8.5% among Hispanics.
- The rate of low birth weight among non-Hispanic White/Caucasians was lower in Connecticut relative to that of the Northeast states and the U.S.
- Among Hispanics, the rate of low birth weight in Connecticut was greater than that of the Northeast states and the U.S.



U.S. and Northeast figures for calendar years 2003-2005 combined were obtained from the National Center for Health Statistics, final natality data, retrieved July 15, 2008 from *www.marchofdimes.com/peristats*.

Connecticut figures obtained from Registration Reports, 2003-2005, *www.ct.gov/dph.*

Risk Factors for Low Birth Weight

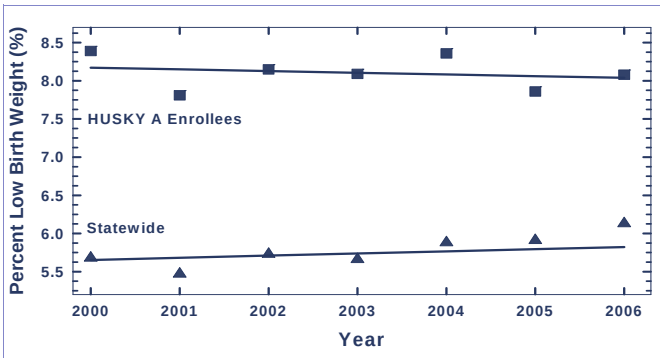
Low birth weight is the result of either premature birth (before 37 weeks gestation) or fetal growth restriction (March of Dimes, 2009). Many of the risk factors for low birth weight can be detected, and either treated or controlled, with preconception and prenatal care. Risk factors for low birth weight include:

- History of low birth weight
- Multi-fetal pregnancy
- Uterine, cervical or placental problems
- Birth defects
- Chronic or pregnancy-induced hypertension
- Inadequate weight gain during pregnancy
- Short interval between pregnancies
- Smoking during pregnancy
- Alcohol or substance abuse
- Low socio-economic status; teen, unmarried, low educational level, low income level

Singleton Low Birth Weight Trends

Annual trends in low birth weight rates within Connecticut among singleton births from 2000-2006 demonstrate that, despite current efforts to address low birth weight, this public health problem persists.

- Rates of low birth weight among singleton births in Connecticut among HUSKY A enrollees decreased slightly from 2000-2006.
- Low birth weight rates among all singleton births in the state increased steadily from 2000-2006, with a more dramatic increase in recent years.
- Low birth weight rates among HUSKY A enrollees, despite a decreasing trend, were significantly higher than statewide rates ($p < 0.05$).



Annual rates of low birth weight for years 2000-2006 (symbols) are shown in Connecticut for all singleton births (triangles) and those among HUSKY A enrollees (squares). Trends in low birth weight (lines) were determined by linear regression.

Source: Birth records for calendar years 2000-2006, providedcourtesy of HCQSAR, DPH, and birth-linked Medicaid records created by CT Voices for Children for the Department of Social Services.

Singleton Low Birth Weight Costs*

Average hospitalization charges in Connecticut for a singleton low birth weight baby in 2006 was 15-times higher than that for a baby born with a higher birth weight. A reduction of 30% in the number of low birth weight events in Connecticut could reduce these hospitalization charges among HUSKY A enrollees by nearly $13 million.

- Of the 2,313 low birth weight births linked to hospitalization records in 2006, 829 (36%) were among women enrolled in HUSKY A.
- On average, each low birth weight event among HUSKY A enrollees added $52,217 in hospitalization charges.
- A 30% decrease in low birth weight deliveries would save nearly $13 million in hospitalization charges among Medicaid enrollees, and $38 million among all births in the state.

Hospital Charges Associated with Singleton Low Birth Weight (LBW) Events	Insurance Status: HUSKY A enrollees	Insurance Status: All Insurance Types
Number of Events	829	2,313
Average Charges per Event	$52,217	$54,840
Total Savings with 30% Reduction	$12,986,365	$38,053,691

* Calculations are based on records linked to inpatient hospital newborn records with a recorded charge value. Insurance status at delivery was based on birth records linked with records from DSS's Husky-A clients. The linked Birth/ Medicaid file was created by CT Voices for Children for the Department of Social Services.

***** *Contributed by L. Mueller, J. Olson, and F. Amadeo, HCQSAR, HISR..*

Evidence-Based Interventions

To reduce low birth weight and its disparities within Connecticut, coordinated strategies are needed that encourage evidence-based interventions (DPH, 2009), such as:

- Healthy Start Program enrollment
- WIC Program participation
- Centering Pregnancy® implementation (CHI, Inc, 2009)

In addition, CDC recommendations should be encouraged, including:

- Preconception Care
- 18 month inter-pregnancy interval

References

CHI, Inc (2009): *http://www.centeringpregnancy.com*, accessed February 3, 2009.

DPH (2009) Strategic Plan within the Family Health Section Addressing Low Birth Weight Outcomes and Low Birth Weight Disparities in Connecticut, Connecticut Department of Public Health, Hartford, CT.

Enotes: Encyclopedia of Public Health: Infant Mortality Rate, *http://www.enotes.com/public-health-encyclopedia/infant-mortality-rate*, accessed July 15, 2008.

Federal Interagency Forum on Child and Family Statistics (2003) America's children: Key national indicators of well-being 2003. Washington, D.C. U.S. Government Printing Office.

HRSA (2008) Evidence of trends, risk factors, and intervention strategies. U.S. Department of Health and Human Services, Health Resources and Services Administration, Maternal and Child Health Bureau. U.S. Government Printing Office: 2008-343-953/60010.

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