

Low and Very Low Birthweight Babies

Definition

Low birthweight babies is the number and percent of infants born weighing less than 5 lbs. 8 oz. *Very low birthweight babies* is the number of infants weighing less than 3 lbs. 4 oz.

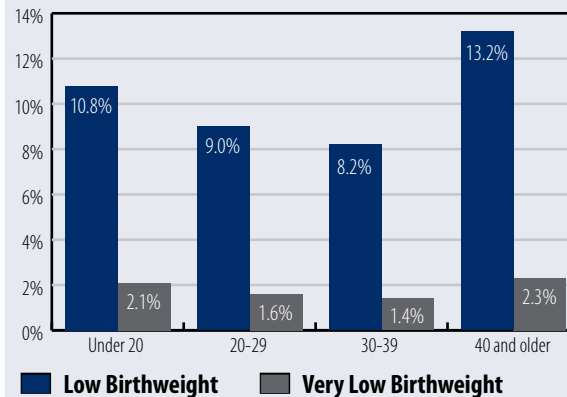
Data in context

Every child needs a healthy beginning to life. Children born at a low birthweight face increased risk for serious health problems as newborns; poor educational outcomes; long-term physical, behavioral, and developmental disabilities; and even death.¹ They are also 26 times more likely than those born at normal weights to die within the first year of life.² Children born at very low birthweight have the highest risk of health problems such as cerebral palsy, blindness, deafness, and mental retardation.³ Children born at low birthweight are 34 percent less likely to graduate from high school by age 19, even when compared to siblings who were raised in the same environment.⁴

Cigarette smoking by a mother during pregnancy is the “single most important known cause” of low birthweight.⁵ Mothers who smoke during pregnancy are more likely to deliver a low birthweight baby than non-smokers. In 2006, 11.9 percent of babies born to smokers were low birthweight compared to 7.5 percent of babies born to non-smokers.⁶

The two major reasons babies may be born at low birthweight are prematurity and growth-restriction during development, which may be due to the smaller size of parents or something that slowed the baby’s growth while in the womb.⁷ The causes of preterm labor are not thoroughly understood, but certain risk factors have been identified, including previously delivering a premature baby; being pregnant with twins, triplets or more; and having abnormalities of the uterus or cervix.⁸ Factors beyond smoking that may contribute include birth defects, chronic health problems in the mother, alcohol or drug use, infections in the mother, infections in the fetus, placental problems, and inadequate maternal weight gain.⁹

Percent of Babies Born at Low Birthweight and Very Low Birthweight by Mother’s Age, 2006



Source: Kentucky Cabinet for Health and Family Services, processed by Kentucky Population Research at the University of Louisville Urban Studies Institute.

Low-weight birth rates reflect racial disparities in health status and receipt of care. All pregnant women need quality prenatal care to ensure healthy pregnancy outcomes, yet women of color are more likely to face barriers to accessing quality prenatal care. In Kentucky in 2006, Black women had the highest rates of low weight births (14 percent), followed by White women (9 percent). Hispanic women had the best rates (7 percent) among the major race categories, despite being least likely to access prenatal care. The rates of very low weight births improved for all racial groups from 2004 to 2006.

Kentucky’s rate of low weight births increased slightly from 8 percent from 1999–2001 to 9 percent from 2004–2006, following national trends.¹⁰ This rate varied from 4 percent in Lyon County to 19 percent in Todd County during 2004–2006. The majority of counties did worse in this indicator over time, with the biggest increases in Carlisle, Logan, and Todd Counties and the biggest improvements in Bracken and Ohio Counties. The number of very low birthweight babies also increased from 2,606 to 3,412.

Improving access to prenatal care would work to reduce racial disparities in rates of low birthweight babies.¹¹ Health plans across the country have taken many innovative approaches, such as collecting race data, offering their provider members trainings, and offering community programs like immunizations for children.¹² Kentucky can also decrease the incidence of low-weight births with tobacco prevention programs for youth and smoking cessation programs for pregnant women.¹³

Data Source: Kentucky Cabinet for Health and Family Services, processed by Kentucky Population Research at the University of Louisville Urban Studies Institute.

Data Note: All data refer to totals over the 3-year periods of 1999–2001 and 2004–2006. Data are reported by mother’s place of residence, not infant’s place of birth. Data from 2006 are preliminary and exclude births to Kentucky mothers that occurred in Ohio. For cases where the information for this variable was missing, the case was excluded from the total number of live births.

Rate Calculation: (number of babies born weighing less than 5 lbs. 8 oz. between 1999–2001 * 100) / (total number of live births between 1999–2001) (number of babies born weighing less than 5 lbs. 8 oz. between 2004–2006 * 100) / (total number of live births between 2004–2006)

- 1 March of Dimes Quick Reference Fact Sheets (2008). *Low Birthweight*. Available at <http://www.marchofdimes.com>. Accessed August 2008.
- 2 Annie E. Casey Foundation (2007). *2007 KIDS COUNT Data Book: State Profiles of Child Well-Being*. Baltimore, MD: Annie E. Casey Foundation.
- 3 Lucile Packard Children’s Hospital. *High-Risk Newborn: Very Low Birthweight*. Available at <http://www.lpch.org/DiseaseHealthInfo/HealthLibrary/hrnewborn/vlbw.html>. Accessed August 2008.
- 4 Shore, R. (2003). *KIDS COUNT Indicator Brief: Preventing Low Birth Weight*. Annie E. Casey Foundation. Available at <http://www.aecf.org>. Accessed August 2008.
- 5 Ibid.
- 6 Martin, J., Hamilton, B., Sutton, P., Ventura, S., Menacker, F., Kirmeyer, S., and Munson, M. (2007). “Births: Final Data for 2005.” *National Vital Statistics Reports*, vol. 56, no. 6. Hyattsville, MD: National Center for Health Statistics.
- 7 March of Dimes Quick Reference Fact Sheets (2008). *Low Birthweight*. <http://www.marchofdimes.com>. Accessed August 2008.
- 8 Ibid.
- 9 Ibid.
- 10 Martin, J., Hamilton, B., Sutton, P., Ventura, S., Menacker, F., Kirmeyer, S., and Munson, M. (2007). “Births: Final Data for 2005.” *National Vital Statistics Reports*, vol. 56, no. 6. Hyattsville, MD: National Center for Health Statistics.
- 11 National Women’s Health Information Center (2006). *Prenatal Care: Frequently Asked Questions*. Available at <http://www.womenshealth.gov>. Accessed September 2008.
- 12 National Institute for Health Care Management Foundation (2007). *Reducing Health Disparities among Children: Strategies and Programs for Health Plans*. Available at <http://www.nihcm.org>. Accessed August 2008.
- 13 Shore, R. (2003). *KIDS COUNT Indicator Brief: Preventing Low Birth Weight*. Annie E. Casey Foundation. Available at <http://www.aecf.org>. Accessed August 2008.

Infants weighing less than 5 lbs. 8 oz. at birth (number & percent of all live births) and number of infants weighing less than 3 lbs. 4 oz.

	1999-2001			2004-2006		
	Low Birthweight		Very Low Birthweight	Low Birthweight		Very Low Birthweight
	Number	Percent	Number	Number	Percent	Number
Kentucky	13,696	8	2,606	15,758	9	3,412
Adair	61	10	11	72	11	7
Allen	60	8	12	66	10	11
Anderson	50	7	11	78	10	11
Ballard	30	11	2	24	9	2
Barren	116	8	31	160	10	37
Bath	34	7	5	37	8	8
Bell	99	9	19	114	10	27
Boone	259	6	58	295	6	52
Bourbon	64	9	14	80	10	13
Boyd	134	8	22	191	11	30
Boyle	81	9	13	98	10	20
Bracken	40	12	14	22	6	3
Breathitt	48	10	9	48	9	4
Breckinridge	46	7	7	67	9	10
Bullitt	157	7	30	196	9	35
Butler	43	9	6	36	7	9
Caldwell	24	6	1	46	11	5
Calloway	73	7	9	79	7	14
Campbell	257	7	49	267	8	39
Carlisle	8	4	2	24	13	4
Carroll	39	9	9	36	8	6
Carter	93	9	18	102	9	18
Casey	39	7	6	50	9	13
Christian	457	10	104	715	17	426
Clark	118	9	14	132	10	25
Clay	120	13	25	87	10	13
Clinton	32	8	4	39	10	5
Crittenden	10	3	3	23	7	4
Cumberland	21	9	3	21	9	1
Daviess	330	8	53	345	9	62
Edmonson	26	6	6	24	7	4
Elliott	18	7	4	26	11	3
Estill	72	12	14	57	10	7
Fayette	838	8	149	982	8	182
Fleming	42	8	6	53	9	10
Floyd	139	9	20	197	12	25
Franklin	153	8	39	157	8	26
Fulton	29	10	3	31	12	14
Gallatin	27	8	2	45	10	5
Garrard	52	10	4	60	11	7

	1999-2001			2004-2006		
	Low Birthweight		Very Low Birthweight	Low Birthweight		Very Low Birthweight
	Number	Percent	Number	Number	Percent	Number
Grant	87	7	9	109	9	21
Graves	112	8	13	130	9	33
Grayson	66	7	12	89	9	15
Green	22	6	3	33	9	6
Greenup	110	9	17	112	9	28
Hancock	30	8	6	18	5	4
Hardin	363	8	83	393	8	75
Harlan	114	9	25	133	11	29
Harrison	62	9	10	72	11	16
Hart	46	7	10	48	7	6
Henderson	200	11	33	209	11	50
Henry	57	9	9	58	10	8
Hickman	16	10	2	10	7	5
Hopkins	178	10	32	166	9	31
Jackson	41	7	7	48	9	9
Jefferson	2,665	9	595	2,918	10	601
Jessamine	98	6	12	174	9	29
Johnson	60	6	8	88	10	14
Kenton	513	7	86	508	8	82
Knott	54	10	5	65	12	11
Knox	122	9	20	148	9	33
LaRue	46	9	10	32	6	8
Laurel	228	10	39	187	8	34
Lawrence	60	10	13	91	14	10
Lee	15	6	1	23	10	2
Leslie	47	10	7	45	10	4
Letcher	86	10	13	105	11	14
Lewis	47	10	10	42	9	12
Lincoln	90	9	14	96	9	13
Livingston	26	9	4	28	9	5
Logan	83	7	15	175	16	108
Lyon	10	6	2	8	4	1
McCracken	226	9	54	217	9	43
McCreary	60	9	11	55	8	3
McLean	36	9	4	46	13	12
Madison	232	8	57	318	10	50
Magoffin	49	8	9	63	11	5
Marion	67	9	8	65	8	4
Marshall	78	8	16	85	9	21
Martin	61	11	12	54	11	6
Mason	52	8	13	62	9	12

	1999-2001			2004-2006		
	Low Birthweight		Very Low Birthweight	Low Birthweight		Very Low Birthweight
	Number	Percent	Number	Number	Percent	Number
Meade	67	7	8	57	8	5
Menifee	23	10	3	22	10	4
Mercer	62	8	11	60	8	13
Metcalfe	38	10	1	43	11	5
Monroe	26	6	7	36	8	7
Montgomery	77	8	11	119	11	30
Morgan	26	6	4	38	8	13
Muhlenberg	100	8	26	110	9	22
Nelson	121	8	11	159	9	27
Nicholas	41	14	8	36	13	4
Ohio	86	10	14	65	6	10
Oldham	111	7	24	131	8	18
Owen	33	9	8	24	6	3
Owsley	11	6	0	23	12	4
Pendleton	48	8	18	46	9	5
Perry	124	10	23	112	9	17
Pike	191	8	37	260	11	39
Powell	48	9	7	57	10	10
Pulaski	166	8	33	216	9	35
Robertson	1	*	1	7	11	0
Rockcastle	52	9	8	42	7	4
Rowan	53	7	5	61	8	10
Russell	39	7	8	40	7	8
Scott	114	7	19	156	8	30
Shelby	120	8	21	156	9	25
Simpson	61	9	12	58	9	31
Spencer	36	7	5	34	6	9
Taylor	62	7	13	64	7	19
Todd	40	7	8	104	19	73
Trigg	37	9	6	53	12	15
Trimble	16	5	2	20	6	5
Union	65	11	12	47	9	7
Warren	277	8	36	349	8	83
Washington	28	7	5	25	6	4
Wayne	57	8	9	56	7	7
Webster	61	11	19	64	11	10
Whitley	136	9	30	209	16	118
Wolfe	30	9	1	24	7	2
Woodford	58	6	12	67	8	11

* Rates were not calculated for counties with fewer than 6 occurrences.