

Epidemiology

Erie County Maternal, Infant, & Child Health Report, 2011-2013



ERIE COUNTY DEPARTMENT OF HEALTH

Erie County Maternal, Infant, & Child Health Report, 2011-2013

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*“Our mission is to preserve, promote, and protect
the health, safety, and well-being of the people and the environment of Erie County.”*

TABLE OF CONTENTS

Erie County Resident Live Births	4
Births to Teens	5
Infant Mortality	6
Selected Summary Statistics	7
Low Birth Weight Infants	8
Prenatal Care	8
Marital Status of Mother	9
Smoking During Pregnancy	9
Cesarean Section Deliveries	10

Note: The primary sources of data and information for this report are the Erie County Department of Health, the Bureau of Health Statistics and Research at the Pennsylvania Department of Health, and the United States Census Bureau. Federal and state sources are not responsible for any of the analyses, interpretations, or conclusions herein.

Erie County Resident Live Births

There were 9,509 resident live births reported in Erie County during the period 2011 to 2013, for a corresponding crude live birth rate of 11.3 births per 1,000 total population. A total of 9,193 (96.7%) of these births were single births, 298 (3.1%) were twin births, and 18 (0.2%) were grouped as triplets or more births. With respect to gender, males accounted for a slight majority of babies (4,834 births, 50.8%).

Overall, 7,323 (77.0%) of the 9,509 resident births were to White women, 1,156 (12.2%) were to Black women, 861 (9.1%) were to women classified as Other Race, and 169 (1.8%) were to women categorized as Unknown Race. A total of 558 (5.9%) births were to women of Hispanic origin, of any race. The crude live birth rates for the White, Black, and Hispanic populations were 9.8, 18.5, and 19.5 births per 1,000, respectively.

Overall, the Erie County live birth rate dropped from 14.9 births per 1,000 population in 1990-1992 to 11.3 in 2011-2013, a decline of 24.2%

Erie County resident age-specific birth rates are presented in Table 1. The highest rate was observed for women in the 25-29 years age group (108.8 births per 1,000 females aged 25-29 years). Over three-quarters (79.4%) of all births occurred to women aged 20-34 years.

Births to teenage mothers (under the age of 20) accounted for 9.1% of all births in 2011-2013, compared to 12.4% of births in 2000-2002, and 14.3% of births in 1990-1992.

Table 1. Erie County Resident Live Births by Age of Mother, 2011-2013

<u>Age Group</u>	<u>Births</u>	<u>Rate</u>
All ages	9,509 (100.0%)	11.3
Under 15	16 (0.2%)	0.6
15 - 19	848 (8.9%)	27.3
15 - 17	260 (2.7%)	15.9
18 - 19	588 (7.2%)	39.9
20 - 24	2,514 (26.7%)	75.4
25 - 29	2,871 (30.2%)	108.8
30 - 34	2,166 (22.8%)	90.0
35 - 39	878 (9.2%)	38.6
40 - 44	199 (2.1%)	7.6
45 and older	17 (0.2%)	0.6

Note: For women of all ages, the rate is per 1,000 total population. All other rates are per 1,000 females for each specified age group.

Among Erie County's 38 municipalities, the total number of live births during 2011-2013 ranged from a low of 6 babies in Elgin Borough to a high of 4,703 in the City of Erie.

Erie County’s four most populous municipalities - the City of Erie (100,671 residents in 2013 and 4,703 births in 2011-2013), Millcreek Township (54,239 residents and 1,472 births), Harborcreek Township (17,479 residents and 346 births), and Fairview Township (10,221 residents and 230 births) - accounted for 71.0% of all resident live births. The City of Erie alone accounted for nearly half (49.5%) of all births.

Births to Teens

From 1990-1992 to 2011-2013, the Erie County birth rate for female residents 15-19 years of age declined 47%, from 51.2 to 27.3 births per 1,000 females 15-19 years (Table 1, Figure 1). Overall, the rate for teens aged 15-17 years fell 56%, while the rate for teens aged 18-19 years dropped 40%.

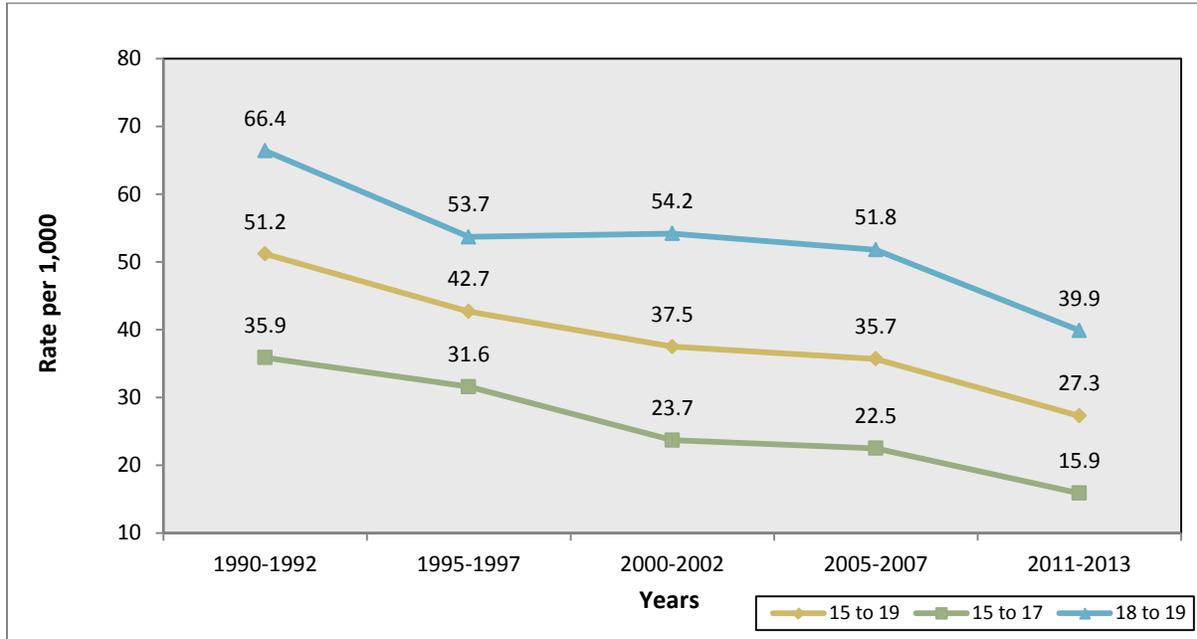
Historically, the lowest three-year total number of births to Erie County female residents 15-19, 15-17, and 18-19 years of age were recorded during the most recent period of 2011-2013. These totals were 848, 260, and 588 births, respectively, compared to 1,735, 606, and 1,129 births during 1990-1992.

Table 2. Erie County Teen Births and Birth Rates, 1990-1992 to 2011-2013

Years	Ages 15 to 19			Ages 15 to 17			Ages 18 to 19		
	Number	Rate	PA Rate	Number	Rate	PA Rate	Number	Rate	PA Rate
1990-1992 (12,440 births)	1,735	51.2	43.5	606	35.9	27.9	1,129	66.4	63.3
1995-1997 (10,834 births)	1,501	42.7	37.2	551	31.6	24.1	950	53.7	55
2000-2002 (10,212 births)	1,252	37.5	31.6	437	23.7	17.7	815	54.2	51.1
2005-2007 (10,193 births)	1,230	35.7	29.3	427	22.5	15.9	803	51.8	48.2
2011-2013 (9,509 births)	848	27.3	23.0	260	15.9	11.7	588	39.9	37.6

Note: Rates are per 1,000 females for each specified age group.

Figure 1. Erie County Teen Birth Rates, 1990-1992 to 2011-2013



Infant Mortality

Infant mortality is defined as the death of an infant less than one year of age. From 2011-2013, there were a total of 66 resident infant deaths in Erie County, with a corresponding infant mortality rate of 6.9 deaths per 1,000 live births (Table 3). Although Whites accounted for the majority (71.2%) of infant deaths, the rate among Blacks (8.7) remained higher than the rate for Whites (6.4).

A total of 47 (71.2%) of the 66 resident infant deaths occurred during the neonatal period (the first 27 days of life), with a corresponding neonatal mortality rate of 4.9 deaths per 1,000 live births.

Table 3. Erie County Infant and Neonatal Mortality Rates, 2011-2013

Deaths	All Races (9,509 Births)			White (7,323 Births)			Black (1,156 Births)			Hispanic (558 Births)		
	Count	Erie Co.	PA	Count	Erie Co.	PA	Count	Erie Co.	PA	Count	Erie Co.	PA
Infants (less than 1 year of age)	66	6.9	6.7	47	6.4	5.3	10	8.7	13.9	3	N/A	7
Neonates (less than 28 days of age)	47	4.9	4.6	36	4.9	3.5	6	N/A	8.7	1	N/A	4.4

Notes: Rates denote the number of deaths per 1,000 live births. N/A = Not Available

Selected Summary Statistics

Selected summary statistics for Erie County resident live births for the period 2011-2013 are included in Table 4. Brief summaries for some of the major topics follow Table 4.

Table 4. Selected Summary Statistics for Erie County Resident Births, 2011-2013

Subject	All Races (9,509 Births)			White (7,323 Births)			Black (1,156 Births)			Hispanic (558 Births)		
	Count	Erie Co.	PA	Count	Erie Co.	PA	Count	Erie Co.	PA	Count	Erie Co.	PA
% Low Birth Weight Infants	754	7.9	8.1	512	7.0	6.9	148	12.8	13.0	51	9.2	8.2
(Unknown)	24			10			1			1		
% Received Prenatal Care in First Trimester	7,098	76.1	72.2	5,721	79.4	77.1	728	64.6	57.2	371	68.1	58.9
(Unknown)	178			118			29			13		
% Unmarried Mothers	4,583	48.4	41.7	3,141	43.1	32.4	969	84.0	79.4	390	70.1	66.0
(Unknown)	46			30			3			2		
% Preterm Births	850	9.0	9.4	637	8.7	8.7	119	10.3	12.9	60	10.8	9.7
(Unknown)	34			19			2			1		
% Cesarean Section Deliveries	3,405	35.8	31.3	2,630	35.9	31.6	381	33.0	30.8	216	38.7	30.4
(Unknown)	4			2			1			0		
% Non-Smoking Mothers During Pregnancy	7,424	78.3	85.2	5,637	77.1	83.0	897	77.8	87.2	451	81.0	91.4
(Unknown)	26			14			4			2		
% Received WIC Food During Pregnancy	4,472	47.9	39.2	2,946	40.8	29.4	852	75.1	67.8	405	74.0	72.9
(Unknown)	168			97			22			11		
% Medicaid as Source of Payment	3,631	38.7	33.0	2,355	32.6	24.6	712	62.6	61.1	319	58.0	57.2
(Unknown)	126			103			19			8		

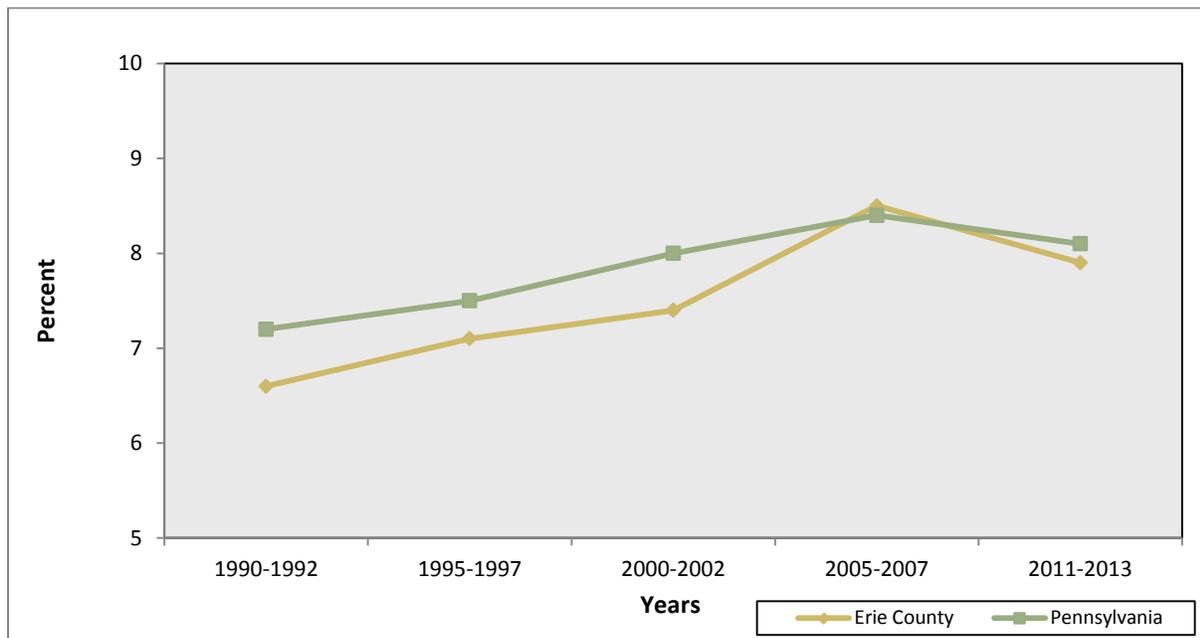
Note: Unknowns excluded from calculations.

Low Birth Weight Infants

Overall, 7.9% of Erie County live births were classified as low birth weight (less than 2,500 grams or 5 pounds and 9 ounces) in 2011-2013. The percentage of low birth weight babies born to Black mothers (12.8) was higher than the percentages for White (7.0) and Hispanic (9.2) mothers.

The percentage of low birth weight babies in Erie County increased from 6.6 in 1990-1992 to 7.9 in 2011-2013 (Figure 2). For Pennsylvania, the percentage rose from 7.2 to 8.1.

Figure 2. Percent of Low Birth Weight Babies, 1990-1992 to 2011-2013



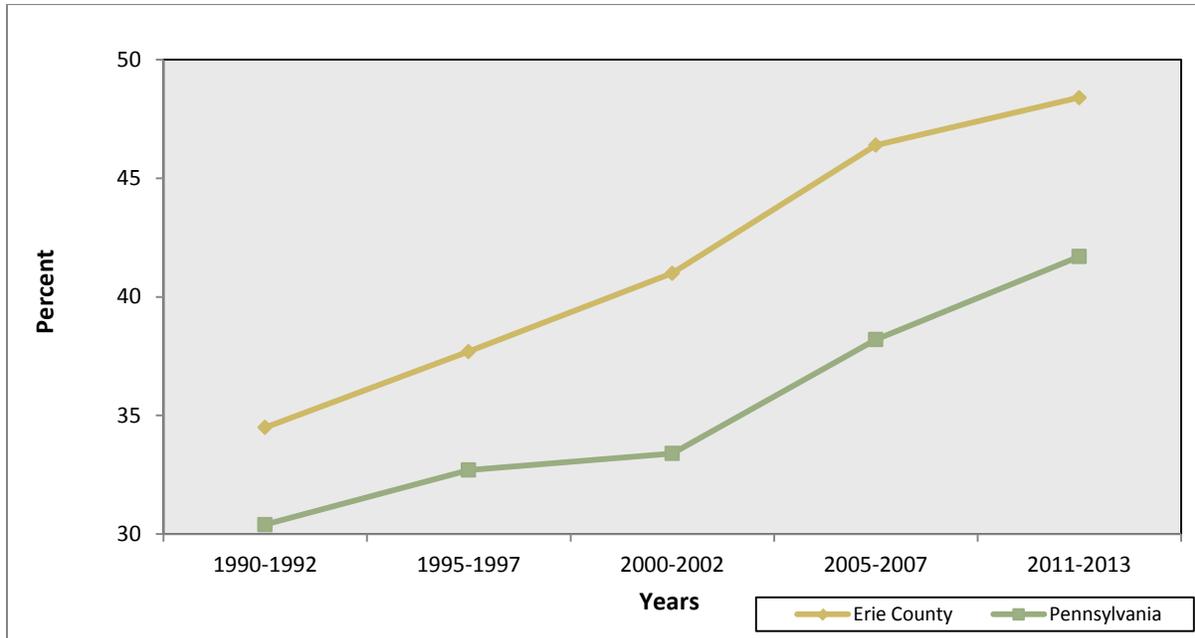
Prenatal Care

From 2011-2013, 76.1% of Erie County live births were to mothers who had received prenatal care during the first trimester of pregnancy, compared to 72.2% for Pennsylvania. The percentages among Erie County White, Black, and Hispanic mothers were 79.4, 64.6, and 68.1, respectively.

Marital Status of Mother

From 2011-2013, nearly half (48.4%) of Erie County live births were to unmarried mothers. The percentages among White, Black, and Hispanic mothers were 43.1, 84.0, and 70.1, respectively. The percentage of unmarried mothers in Erie County rose from 34.5 in 1990-1992 to 48.4 in 2011-2013 (Figure 3). For Pennsylvania, the percentage rose from 32.9 to 41.7.

Figure 3. Percent of Live Births to Unmarried Mothers, 1990-1992 to 2011-2013



Smoking During Pregnancy

During 2011-2013, 78.3% of Erie County live births were to mothers who did not smoke during pregnancy. The percentages among White, Black, and Hispanic mothers were 77.1, 77.8, and 81.0, respectively.

The percentage of non-smoking mothers in Erie County has increased since 1990-1992, when the percentage equaled 73.7. For Pennsylvania, the percentage of non-smoking mothers rose from 79.2 in 1990-1992 to 85.2 in 2011-2013.

Cesarean Section Deliveries

During 2011-2013, over one-third (35.8%) of Erie County live births were cesarean section deliveries. The percentage of cesarean section deliveries in Erie County rose from 20.1 in 1990-1992 to 35.8 in 2011-2013 (Figure 4). For Pennsylvania, the percentage rose from 22.1 to 31.3.

Figure 4. Percent of Live Births Delivered by Cesarean Section, 1990-1992 to 2011-2013

