

Advancing Health Equity in Health Care

Low Birth Weight

Highlights

- Low birth weight rates are unchanging over time for the general population.
- The inequality gap is moderate and unchanging over time for the general population.
- From 1995 to 2009, 26% of low birth weight occurred for people living in the highest areas of deprivation, compared to 19% in the areas of lowest deprivation.
- Click [here](#) to learn more about data sources and methods.

Between January 1, 1995 and December 31, 2009 there were 2,197 children born weighing less than 2,500 grams (considered a low birth weight) to Saskatoon residents. There were 1,083 low birth weight boys and 1,114 low birth weight girls. In the city as a whole low birth weight decreased by 7% from 66.0 to 61.5 per 1000 births between 1995 and 2009 (Figure 1 and Figure 2). Figure 3 shows the disparity rate ratio and disparity rate difference for low birth weight. The disparity rate ratio decreased by 33% from 2.3 in 1995 to 1.5 in 2009. The disparity rate difference decreased by 49% from 54.5 in 1995 to 27.8 in 2009.

Figure 1: Crude Low Birth Weight Rate per 1000 Births by Quintile of Deprivation, Saskatoon, 1995 to 2009.

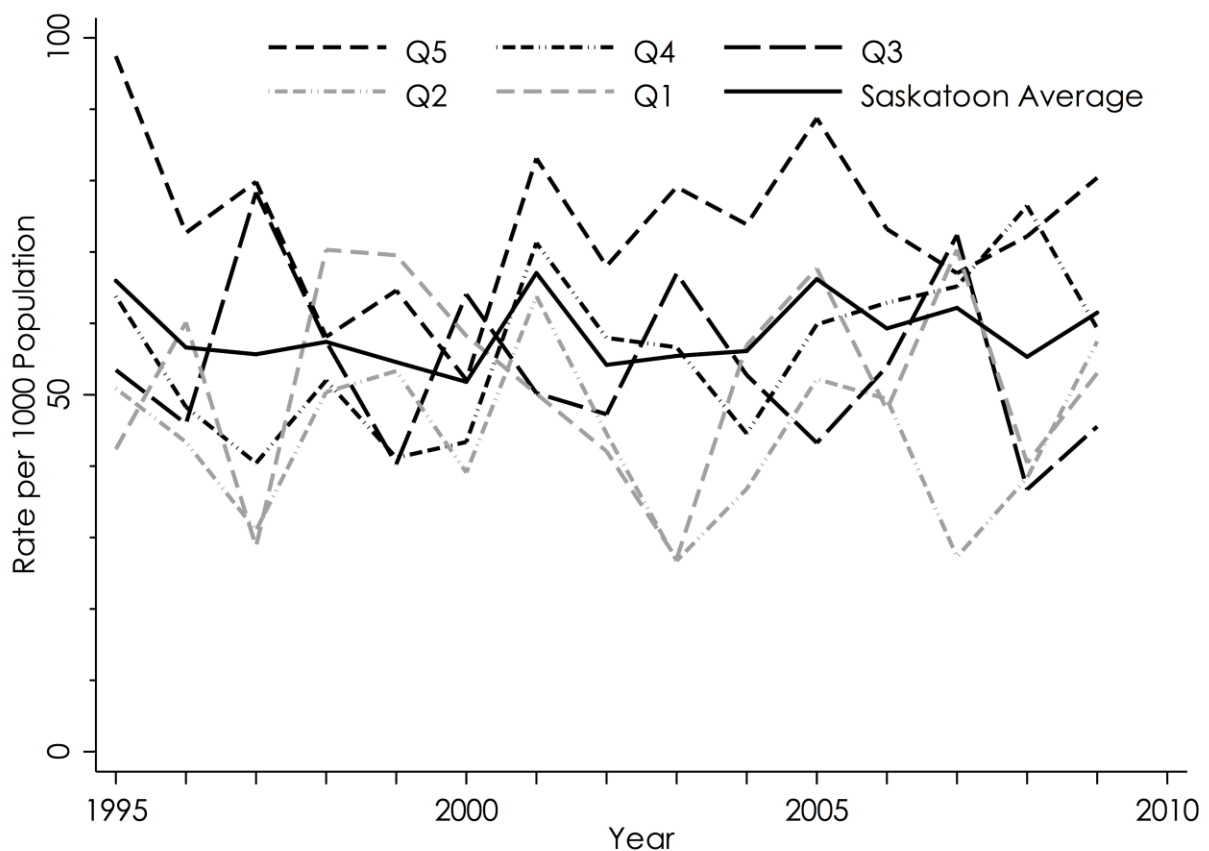
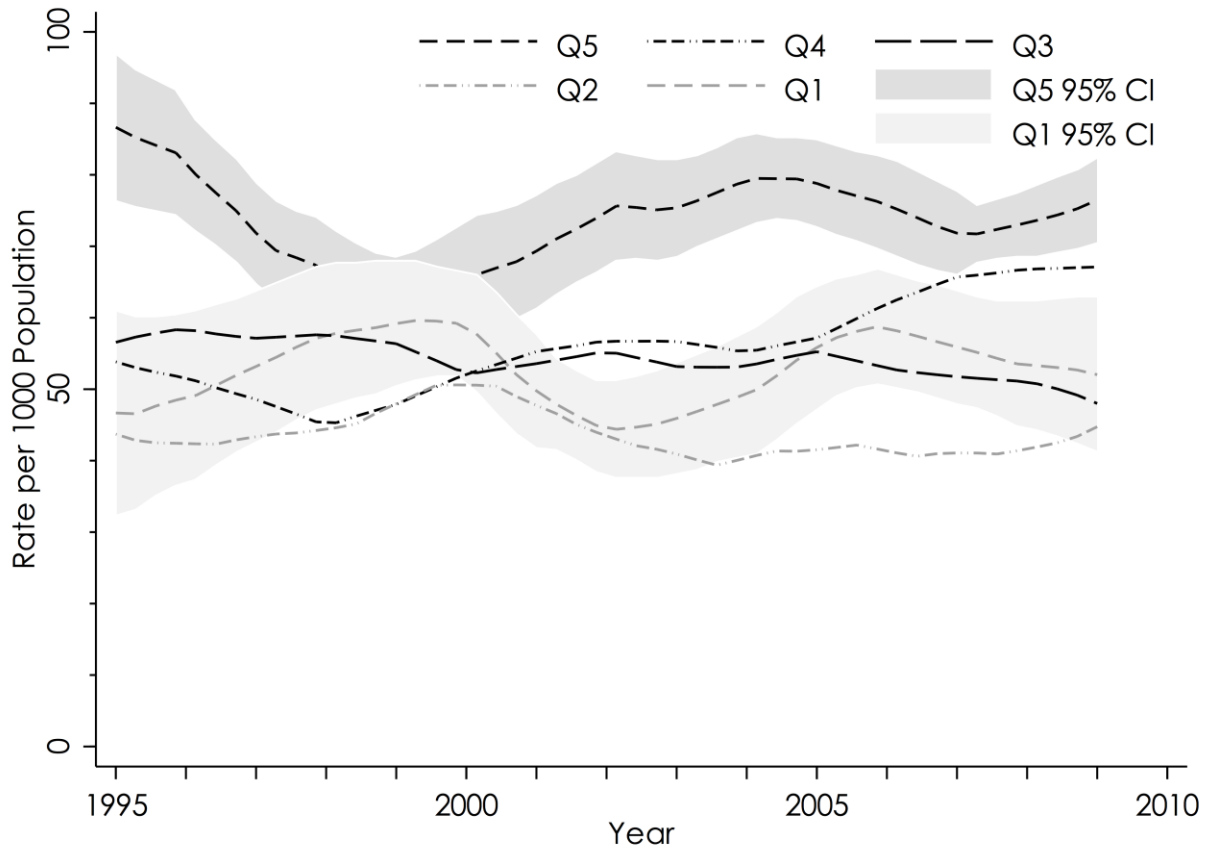
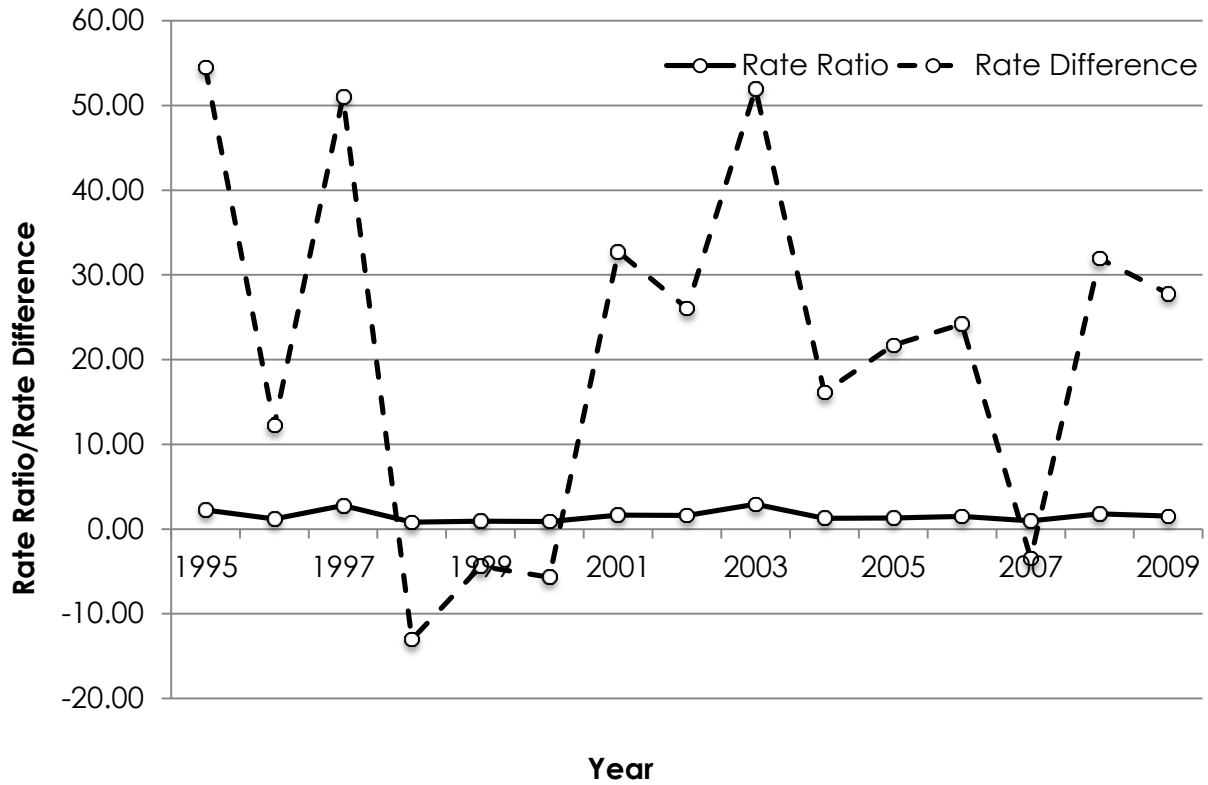


Figure 2: Adjusted Low Birth Weight Rate per 1000 Births by Deprivation Area, Saskatoon, 1995 to 2009.



Note: Model is a negative binomial regression and includes age, sex, year, quintile of deprivation and a year*quintile of deprivation interaction term as dependent variables. The model is offset by the log of population size and robust standard errors were estimated.

Figure 3: Age and Sex Standardized Low Birth Weight Rate Ratio and Rate Differences between the Highest and Lowest Quintiles of Deprivation, Saskatoon, 1995 to 2009.



The Lorenz curve for all years combined shows that 26% of low birth weight occurs among children born to mothers in areas of highest deprivation, representing 30% of the total population of births in Saskatoon. In contrast, 19% of low birth weight occurs among children born to mothers residing in areas of least deprivation, representing 18% of the total population of births in Saskatoon.

Figure 4: Age and Sex Adjusted Lorenz Curve for Low Birth Weight, Saskatoon, 1995 to 2009

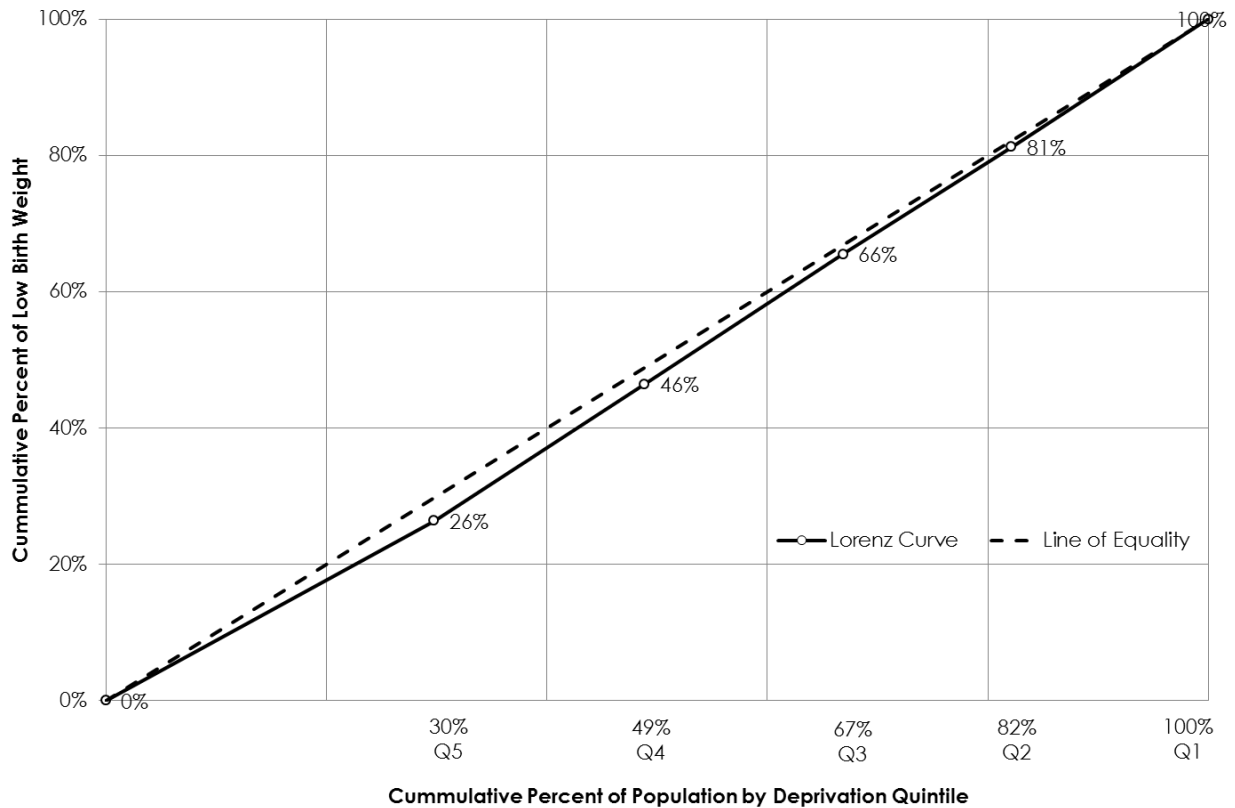


Figure 5 shows that the Gini coefficient for low birth weight was 0.06 (95% CI: 0.05 to 0.07) in 1995 with considerable variation but no change occurring between 1995 and 2009. A Gini coefficient ranging from 0.03 to 0.17 represents a low to moderate degree of inequality toward the least deprived for low birth weight.

Figure 5: Age and Sex Adjusted Gini Coefficients for Low Birth Weight, Saskatoon, 1995 to 2009.

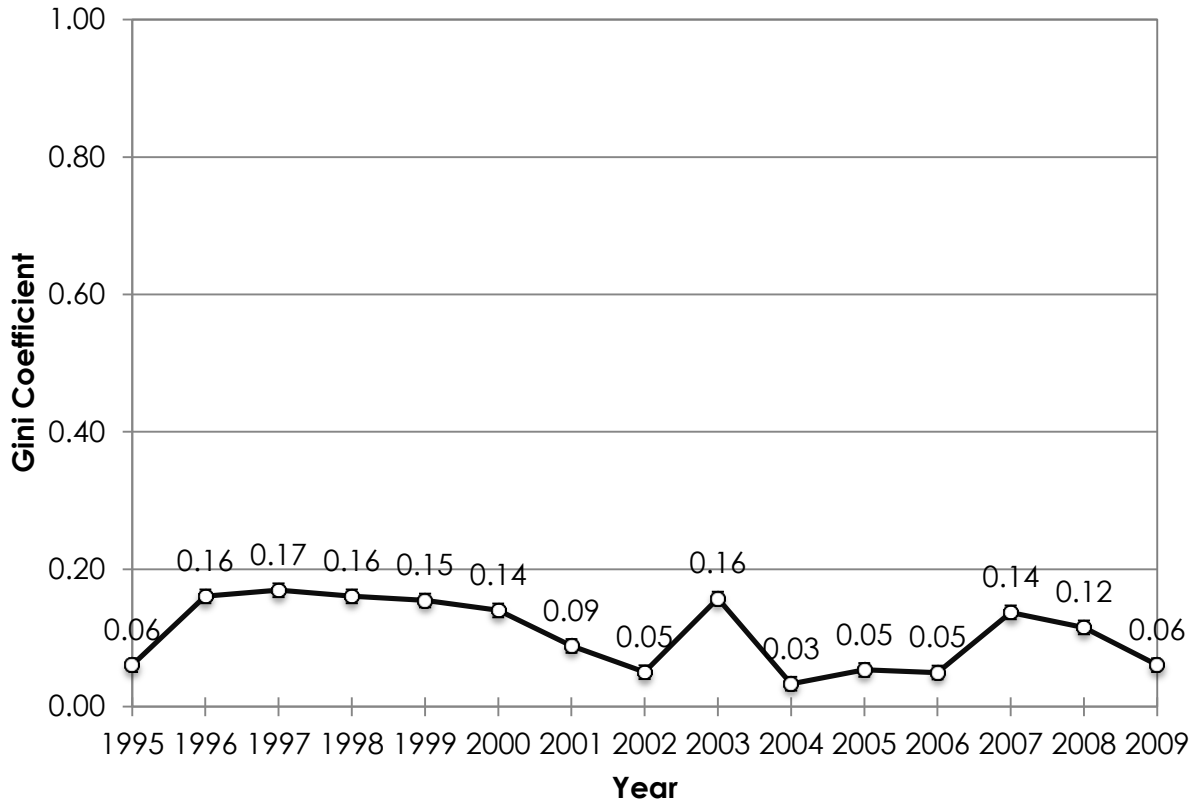


Table 1: Low Birth Weight Rate Ratios for Sex, Age, Quintile of Deprivation, Saskatoon, 1995 and 2009.

Low Birth Weight		Robust				
Rates	RR	Std. Err.	z	P>z	[95% Conf. Interval]	
Sex						
Male	1.00	-	-	-	-	-
Female	1.14	0.04	4.03	0.00	1.07	1.21
Deprivation Quintiles						
Q5	1.00	-	-	-	-	-
Q4	0.97	0.19	-0.17	0.86	0.65	1.43
Q3	0.84	0.15	-0.97	0.33	0.59	1.20
Q2	1.00	0.32	0.00	1.00	0.54	1.87
Q1	0.73	0.13	-1.75	0.08	0.51	1.04
Year						
1995	1.00	-	-	-	-	-
1996	0.68	0.09	-3.03	0.00	0.53	0.87
1997	0.86	0.11	-1.18	0.24	0.67	1.11
1998	0.61	0.10	-3.02	0.00	0.45	0.84
1999	0.69	0.11	-2.28	0.02	0.51	0.95
2000	0.54	0.09	-3.80	0.00	0.40	0.74
2001	0.85	0.16	-0.85	0.40	0.58	1.24
2002	0.79	0.14	-1.32	0.19	0.55	1.12
2003	0.89	0.12	-0.90	0.37	0.68	1.15
2004	0.86	0.23	-0.55	0.58	0.51	1.45
2005	0.99	0.13	-0.05	0.96	0.76	1.29
2006	0.85	0.11	-1.28	0.20	0.66	1.09
2007	0.71	0.13	-1.82	0.07	0.49	1.03
2008	0.77	0.11	-1.82	0.07	0.57	1.02
2009	0.81	0.14	-1.28	0.20	0.58	1.12

Note: Model is a negative binomial regression and includes age, sex, year, quintile of deprivation and a year*quintile of deprivation interaction term as dependent variables. The model is offset by the log of population size and robust standard errors were estimated.