

# Advancing Health Equity in Health Care

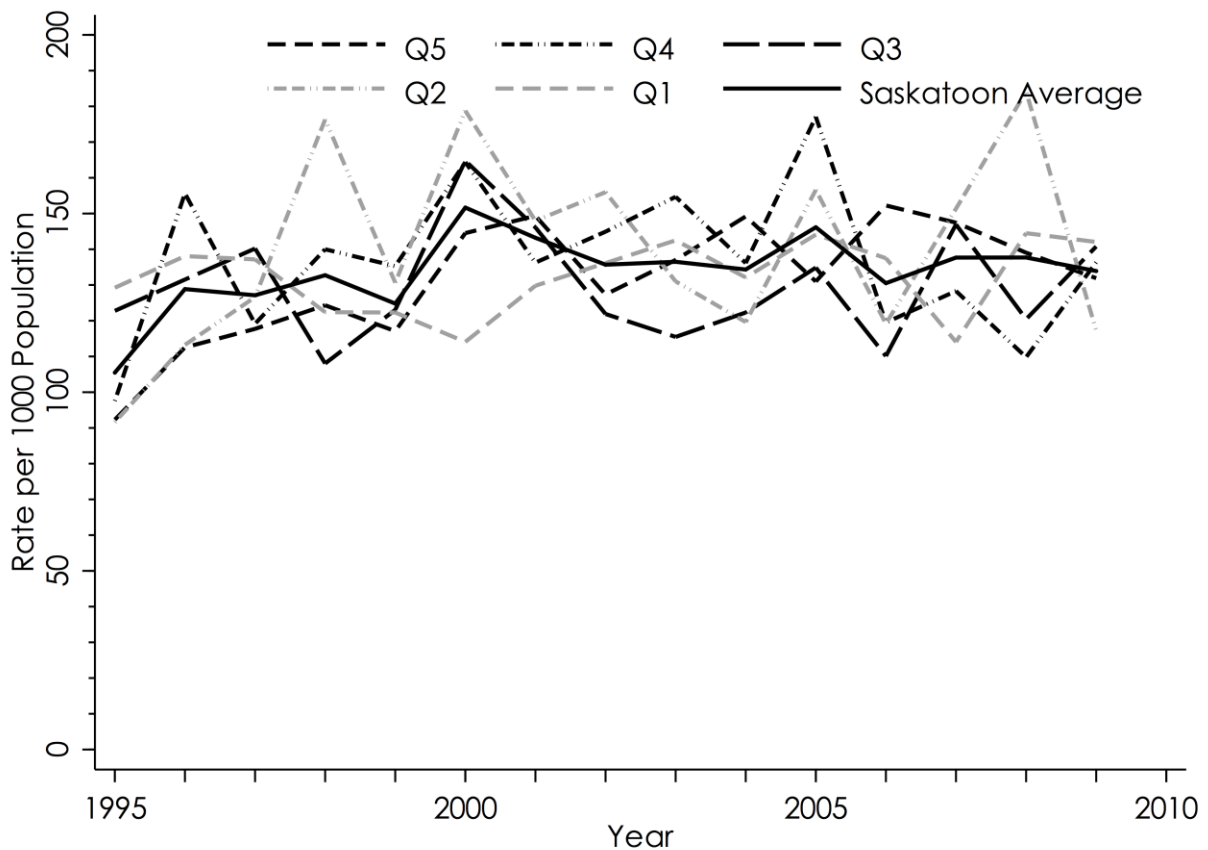
## High Birth Weight

### Highlights

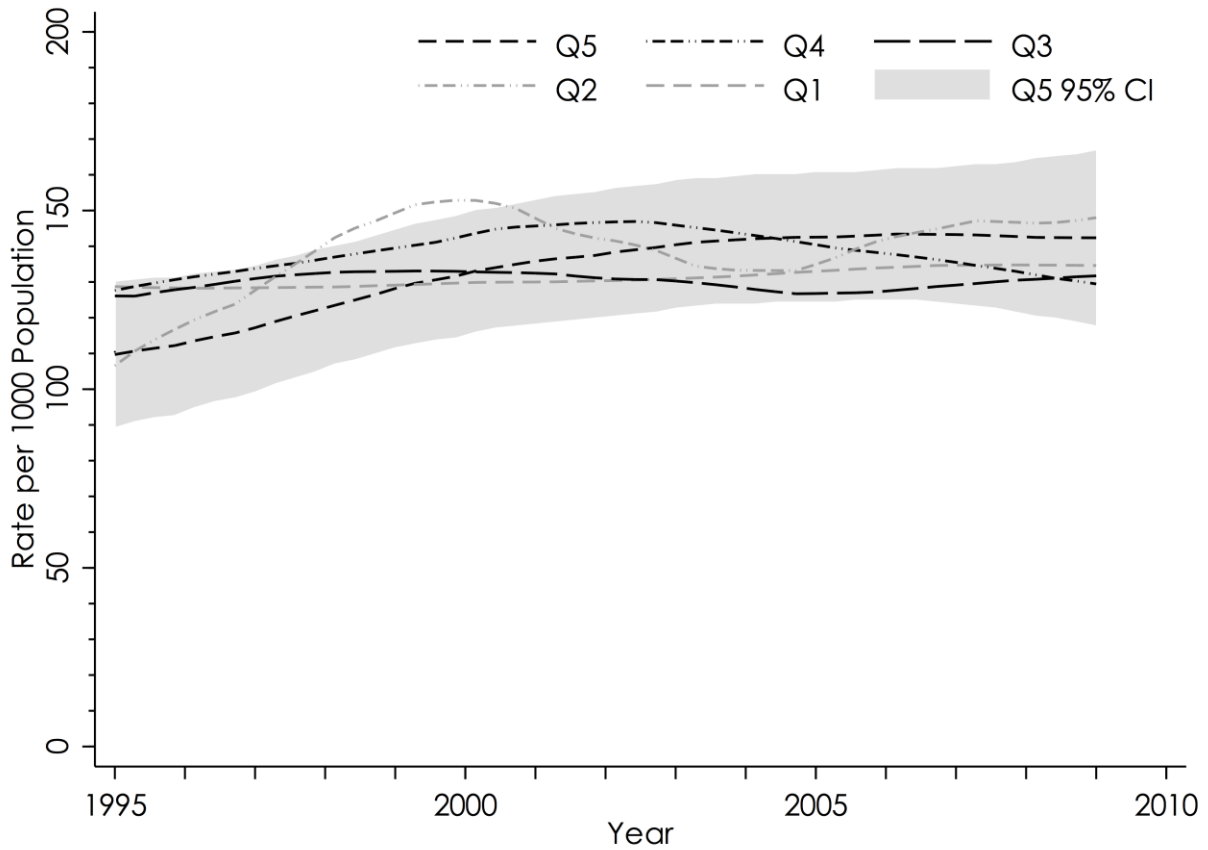
- High birth weight rates are unchanging over time for the general population.
- The inequality gap is moderate but decreasing over time for the general population.
- The Disparity Rate Ratio is significantly increasing to an equal ratio of 1.
- The gap between those living in areas of highest and lowest deprivation is narrowing.
- From 1995 to 2009, 20% of high birth weights occurred for people living in the highest areas of deprivation, compared to 20% 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 4,998 children born weighing more than 4,000 grams (considered a high birth weight) to Saskatoon residents. There were 3,098 high birth weight boys and 1,900 high birth weight girls. In the city as a whole high birth weight increased by 27% from 106.4 to 134.8 per 1000 births between 1995 and 2009 (Figure 1 and Figure 2). Figure 3 shows the disparity rate ratio and disparity rate difference for high birth weight. The disparity rate ratio increased by 30% from 0.73 in 1995 to 0.95 in 2009. The disparity rate difference increased by 81% from -33.7 in 1995 to -6.5 in 2009.

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

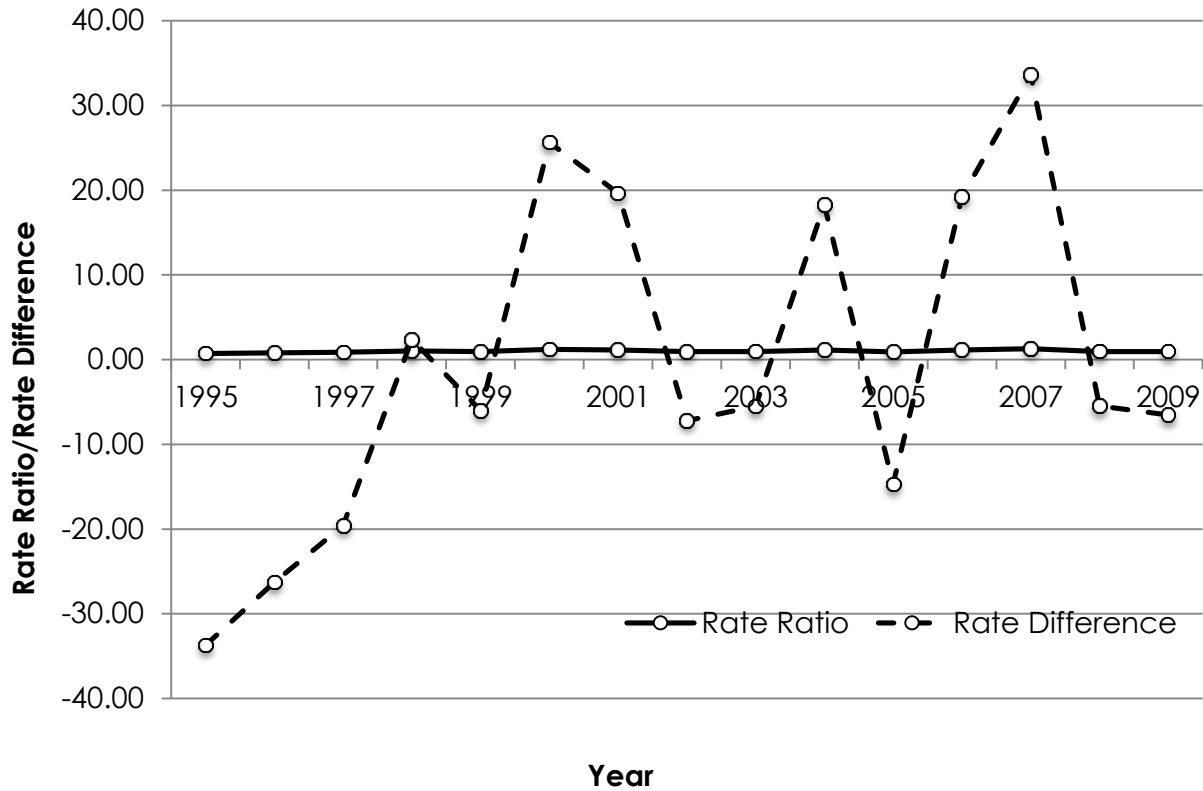


**Figure 2: Adjusted High Birth Weight Rate per 1000 Births by Deprivation Area, Saskatoon, 1995 to 2009.**



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 High 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 20% of high birth weight occurs among children born to mothers in areas of highest deprivation, representing 30% of the total population of births in Saskatoon. Similarly, 20% of high birth weight occurs among children born to mothers residing in areas of least deprivation, representing 18% of the population of births in Saskatoon.

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

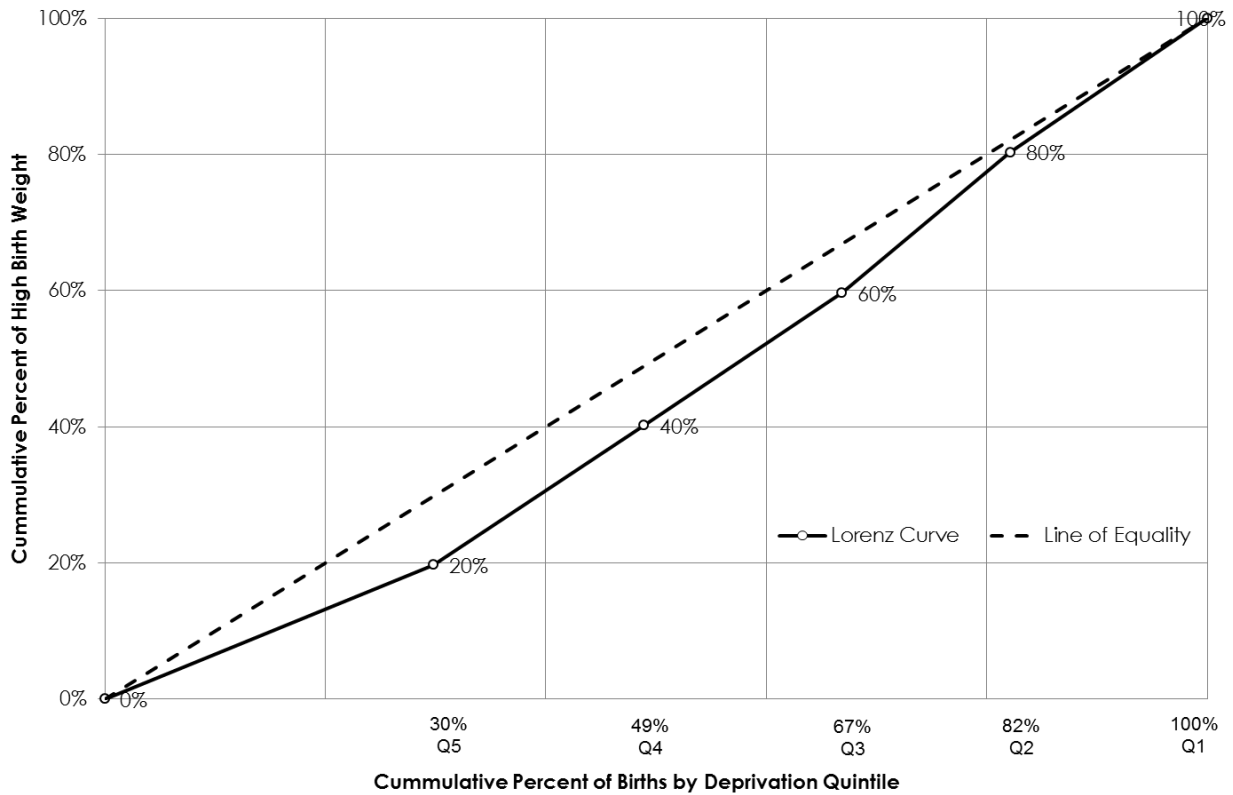
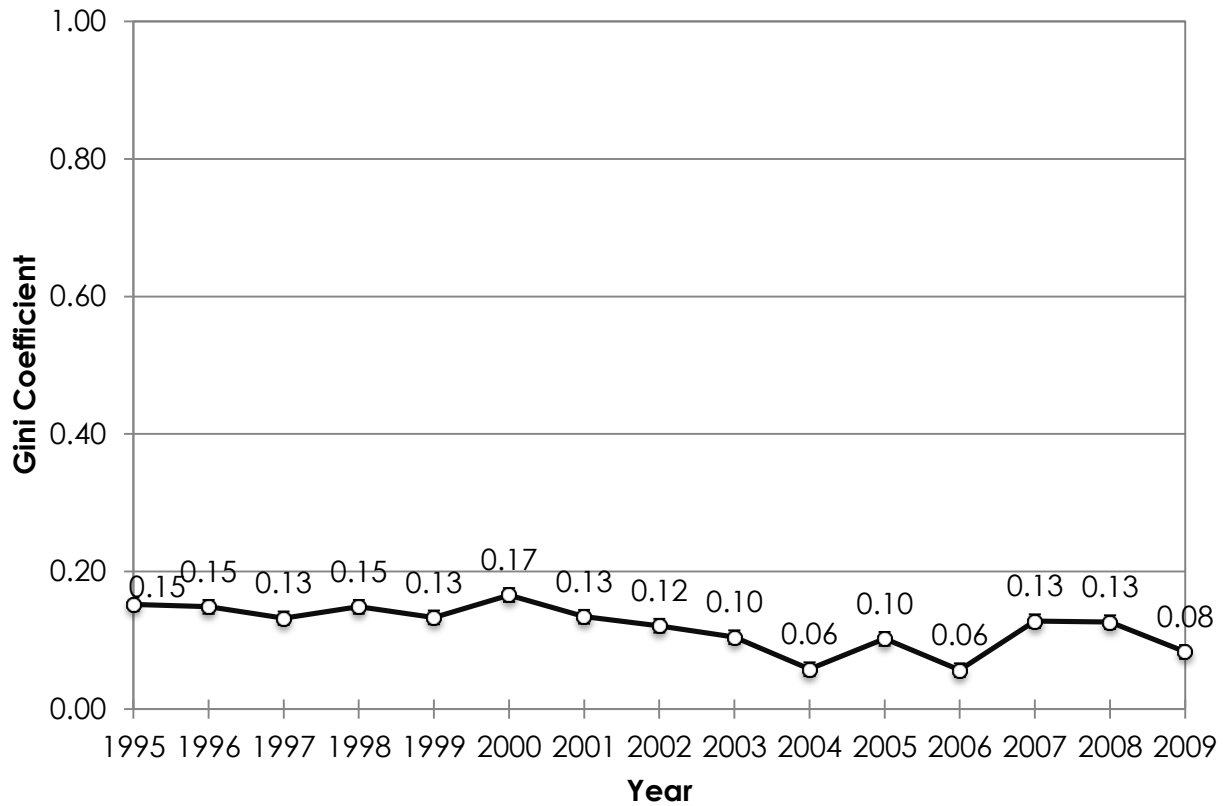


Figure 5 shows that the Gini coefficient for high birth weight was 0.15 (95% CI: 0.13 to 0.17) in 1995 with a significant decrease to 0.08 (95% CI: 0.07 to 0.09) occurring between 1995 and 2009. A Gini coefficient ranging from 0.06 to 0.17 represents a low to moderate degree of inequality toward the least deprived for high birth weight in Saskatoon.

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



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

High Birth Weight	Robust					
Rates	RR	Std. Err.	z	P>z	[95% Conf. Interval]	
<b>Sex</b>						
Male	1.00	-	-	-	-	-
Female	0.66	0.02	-17.09	0.00	0.63	0.70
<b>Deprivation Quintiles</b>						
Q5	1.00	-	-	-	-	-
Q4	1.60	0.14	5.37	0.00	1.35	1.91
Q3	2.04	0.18	8.30	0.00	1.73	2.42
Q2	1.97	0.22	5.94	0.00	1.57	2.46
Q1	2.24	0.18	9.95	0.00	1.91	2.62
<b>Year</b>						
1995	1.00	-	-	-	-	-
1996	1.11	0.10	1.17	0.24	0.93	1.33
1997	1.35	0.17	2.34	0.02	1.05	1.74
1998	1.44	0.13	3.98	0.00	1.20	1.73
1999	1.35	0.20	2.00	0.05	1.01	1.82
2000	1.50	0.23	2.70	0.01	1.12	2.02
2001	1.67	0.26	3.26	0.00	1.23	2.27
2002	1.56	0.19	3.67	0.00	1.23	1.98
2003	1.65	0.16	5.24	0.00	1.37	1.98
2004	1.87	0.16	7.15	0.00	1.57	2.21
2005	1.54	0.13	5.26	0.00	1.31	1.81
2006	1.93	0.24	5.22	0.00	1.51	2.47
2007	1.70	0.24	3.71	0.00	1.28	2.25
2008	1.58	0.19	3.93	0.00	1.26	1.99
2009	1.42	0.12	4.25	0.00	1.21	1.66

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.