Advancing Health Equity in Health Care

Infant Mortality

Highlights

- Infant mortality rates are decreasing over time for the general population.
- The inequality gap is moderate and unchanging over time for the general population.
- From 1995 to 2009, 42% of infant deaths occurred for people living in the highest areas of deprivation, compared to 18% 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 235 infant deaths in Saskatoon. There were 138 deaths among boys and 97 deaths among girls. In the city as a whole infant mortality decreased by 22% from 10.7 to 8.4 cases per 1000 births between 1995 and 2009 *(Figure 1 and Figure 2)*. *Figure 3* shows the disparity rate ratio and disparity rate difference for infant mortality rates. The disparity rate ratio decreased by 44% from 2.9 in 1995 to 1.6 in 2009. The disparity rate difference decreased by 69% from 10.7 in 1995 to 3.4 in 2009.

Figure 1: Crude Infant Mortality per 1000 Births by Quintile of Deprivation, Saskatoon, 1995 to 2009.

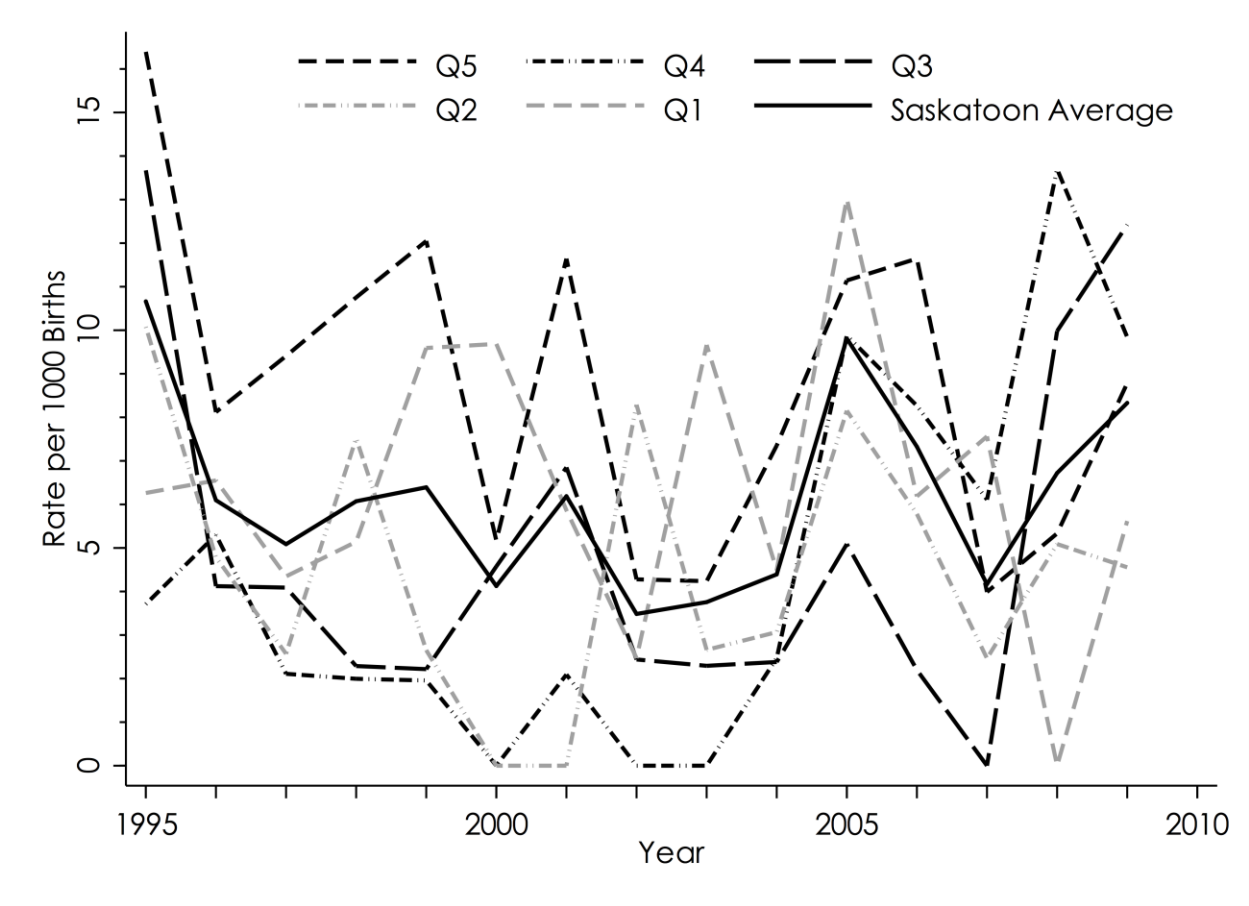
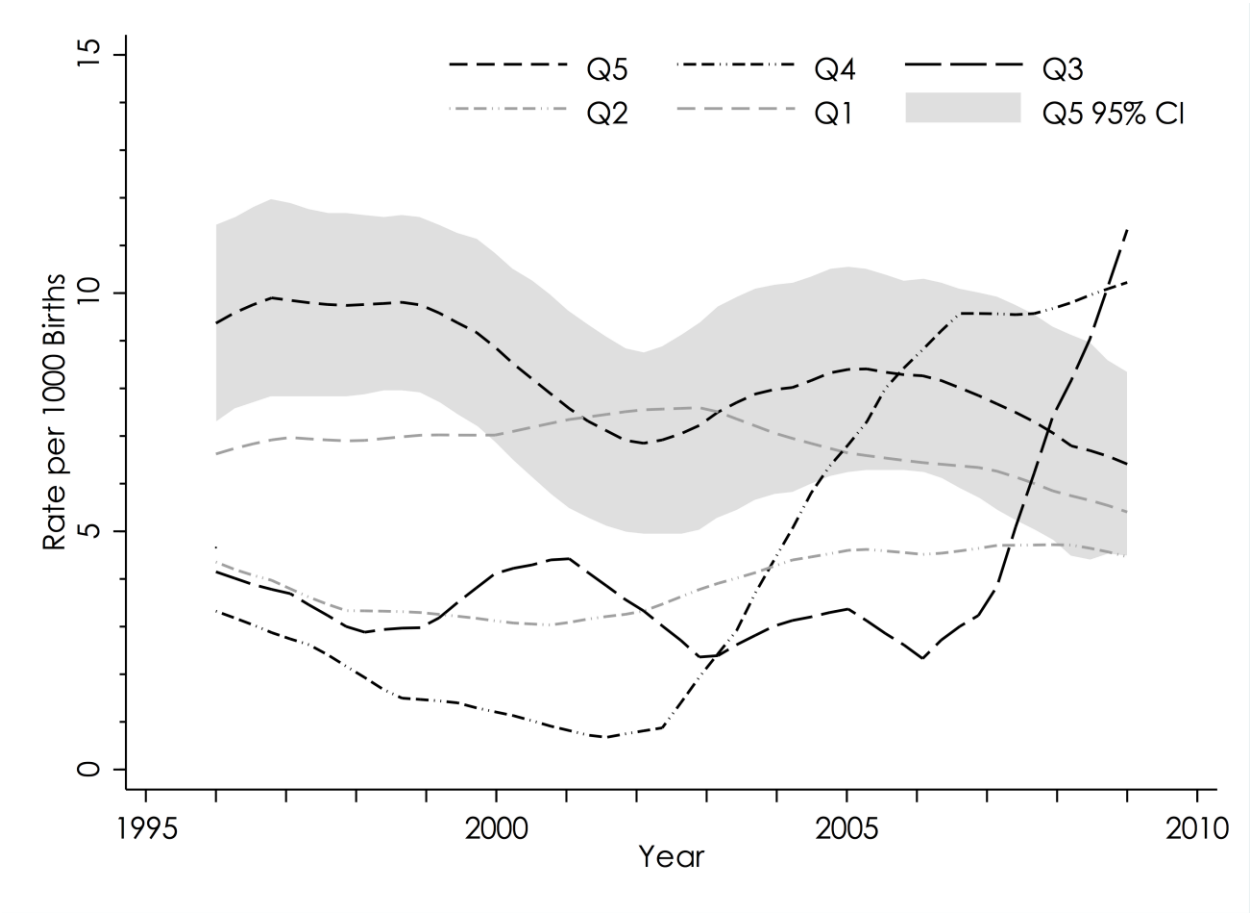


Figure 2: Adjusted Infant Mortality Rate per 1000 Births by Deprivation Area, Saskatoon, 1995 to 2009.



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 Infant Mortality Rate Ratio and Rate Differences between the Highest and Lowest Quintiles of Deprivation, Saskatoon, 1995 to 2009.

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The Lorenz curve for all years combined shows that 42% of infant mortality occurs among children born to mothers in areas of highest deprivation, representing 30% of the total population of births in Saskatoon. In contrast, 18% of infant births 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 Infant Mortality, Saskatoon, 1995 to 2009

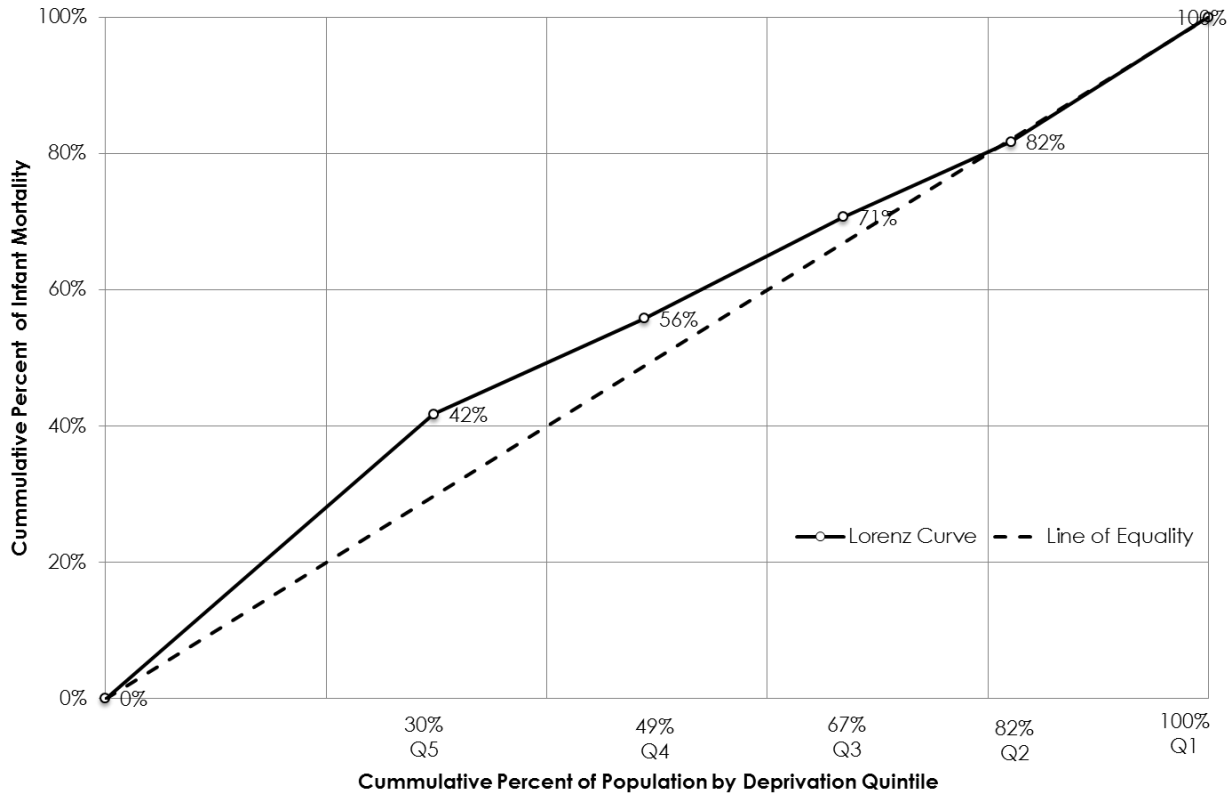

Figure 5 shows that the Gini coefficient for infant mortality was 0.18 (95% CI: 0.15 to 0.21) in 1995 with considerable variation and a small decrease to 0.17 (95% CI: 0.14 to 0.20) in 2009. A Gini coefficient ranging from 0.13 to 0.42 represents a high degree of inequality for infant mortality in Saskatoon.

Figure 5: Age and Sex Adjusted Gini Coefficients for Infant Mortality, Saskatoon, 1995 to 2009.

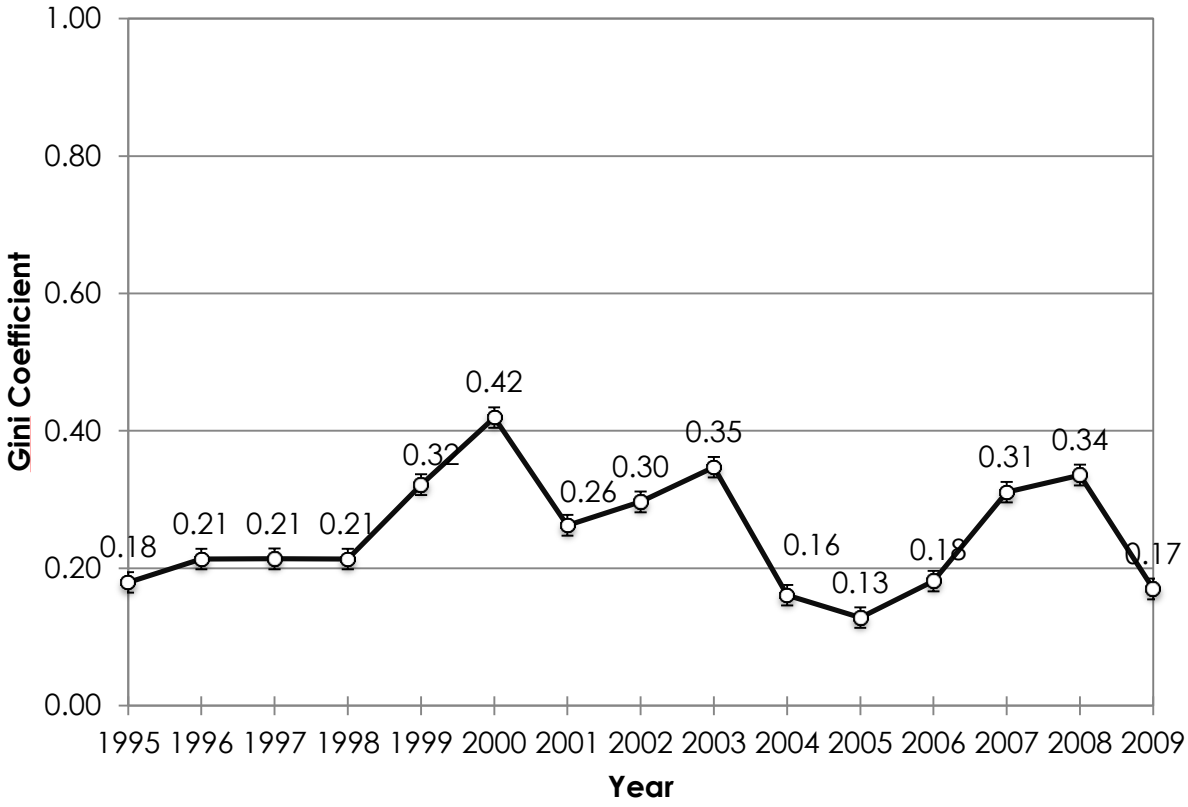

Table 1: Infant Mortality Rate Ratios for Sex, Age, Quintile of Deprivation, Saskatoon, 1995 and 2009.

Infant Mortality Rates	RR	Robust Std. Err.	z	P>z	[95% Conf.	Interval]
Sex						
Male	1.00	-	-	-	-	-
Female	0.71	0.09	-2.79	0.01	0.56	0.90
Deprivation Quintiles						
Q5	1.00	-	-	-	-	-
Q4	0.34	0.03	-12.94	0.00	0.29	0.40
Q3	1.30	0.12	2.75	0.01	1.08	1.57
Q2	1.31	0.59	0.60	0.55	0.54	3.16
Q1	0.52	0.31	-1.08	0.28	0.16	1.70
Year						
1995	1.00	-	-	-	-	-
1996	0.46	0.04	-9.57	0.00	0.39	0.54
1997	0.62	0.07	-4.06	0.00	0.49	0.78
1998	0.69	0.20	-1.28	0.20	0.39	1.22
1999	0.82	0.21	-0.74	0.46	0.49	1.37
2000	0.36	0.19	-1.93	0.05	0.13	1.02
2001	0.67	0.16	-1.72	0.09	0.42	1.06
2002	0.29	0.05	-7.42	0.00	0.21	0.41
2003	0.30	0.12	-3.14	0.00	0.14	0.64
2004	0.58	0.33	-0.97	0.33	0.19	1.74
2005	0.77	0.14	-1.44	0.15	0.55	1.10
2006	0.82	0.10	-1.67	0.09	0.65	1.03
2007	0.27	0.11	-3.13	0.00	0.12	0.62
2008	0.30	0.19	-1.93	0.05	0.09	1.02
2009	0.53	0.13	-2.58	0.01	0.33	0.86

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.

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