

# Advancing Health Equity in Health Care

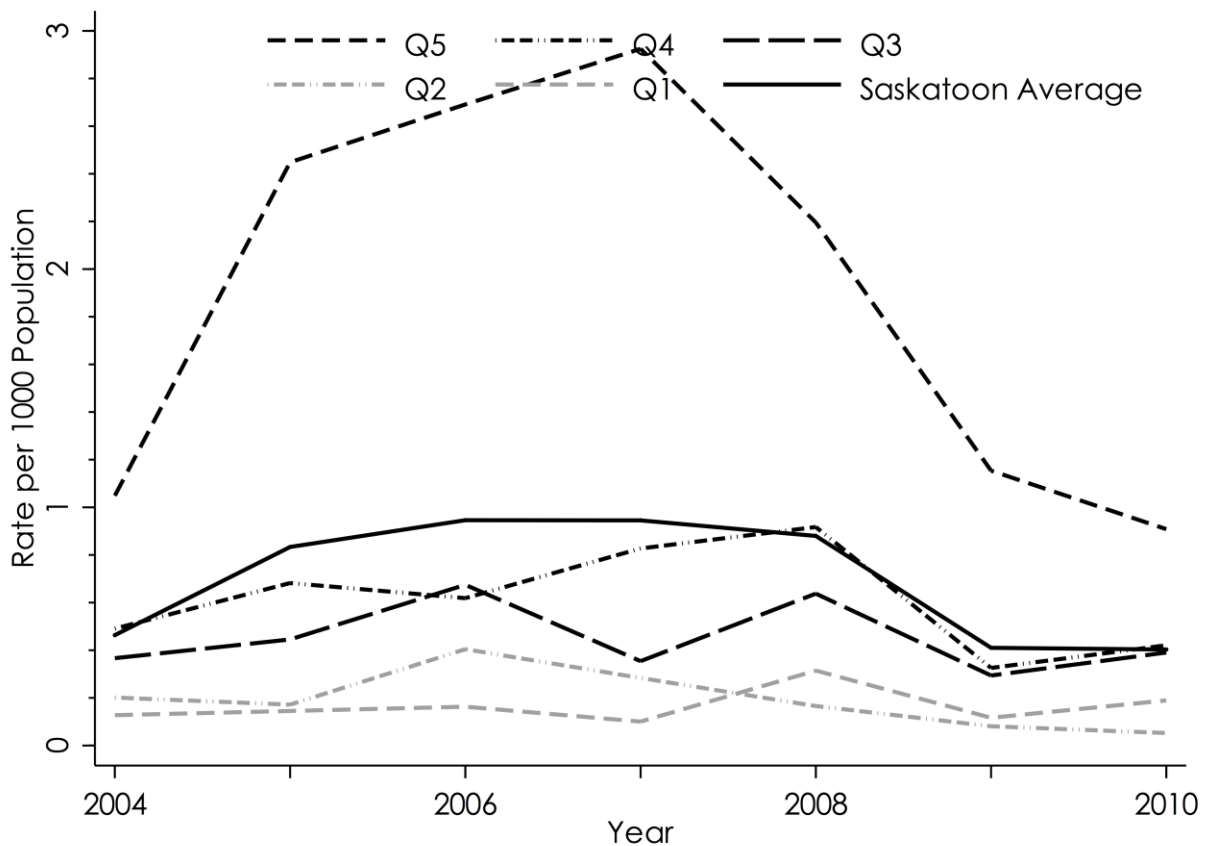
## Sexually Transmitted Infections - Gonorrhoea

### Highlights

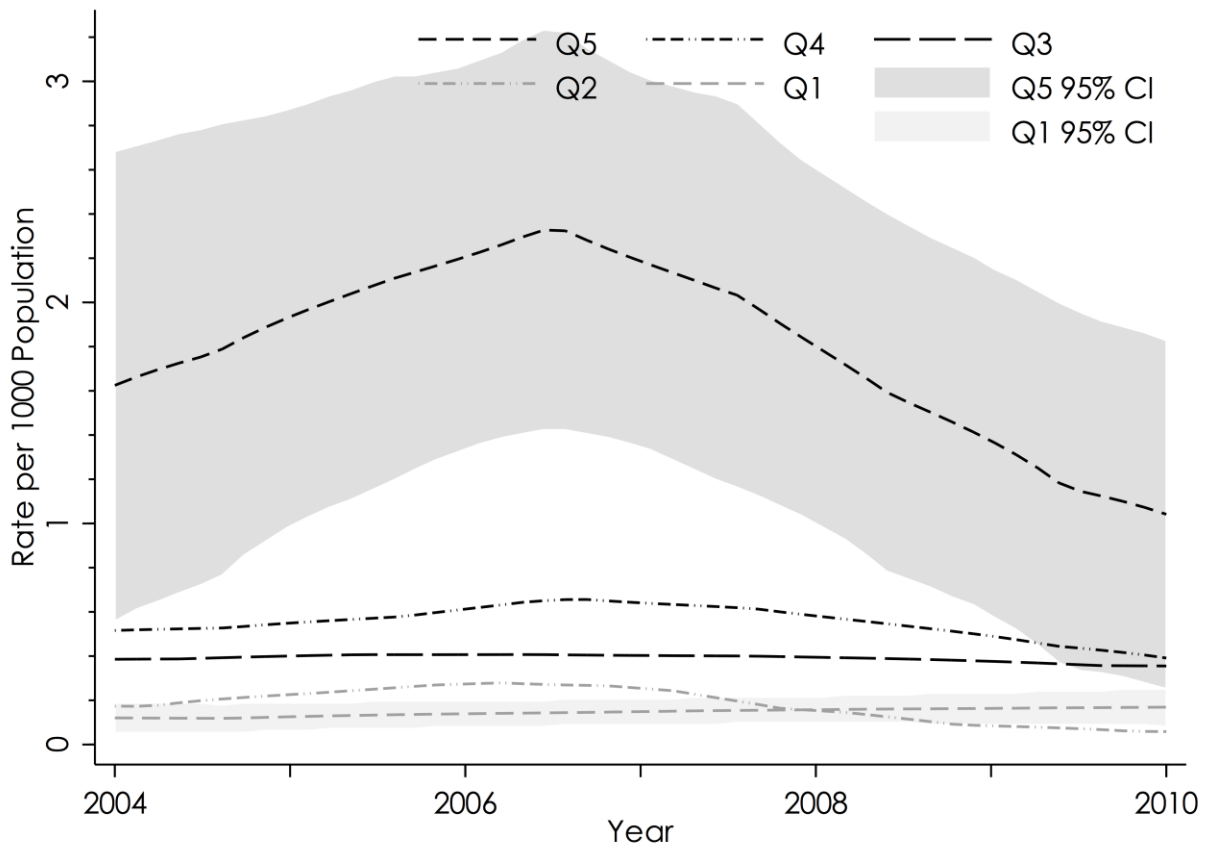
- Gonorrhoea rates are unchanging over time for the general population.
- The inequality gap is very high and showing signs of increasing over time for the general population.
- From 2004 to 2010, 62% of gonorrhoea cases occurred for people living in the highest areas of deprivation, compared to 6% in the areas of lowest deprivation.
- Click [here](#) to learn more about data sources and methods.

Between January 1, 2004 and December 31, 2010 there were 1,001 gonorrhoea infections among Saskatoon residents. There were 456 infections among men and 545 infections among women. In the city as a whole gonorrhoea infections decreased by 13% from 0.46 to 0.40 per 1000 people between 2004 and 2010 (*Figure 1 and Figure 2*). The overall rates mask an outbreak of infections among residents of low income neighbourhoods occurring between 2005 and 2009. *Figure 3* shows the disparity rate ratio and disparity rate difference for age and sex standardized gonorrhoea rates. The disparity rate ratio decrease by 43% from 8.4 in 2004 to 4.8 in 2010. The disparity rate difference decreased by 21% from 0.93 in 2004 to 0.73 in 2010.

**Figure 1: Crude Gonorrhoea Rate per 1000 Population by Quintile of Deprivation, Saskatoon, 2004 to 2010.**

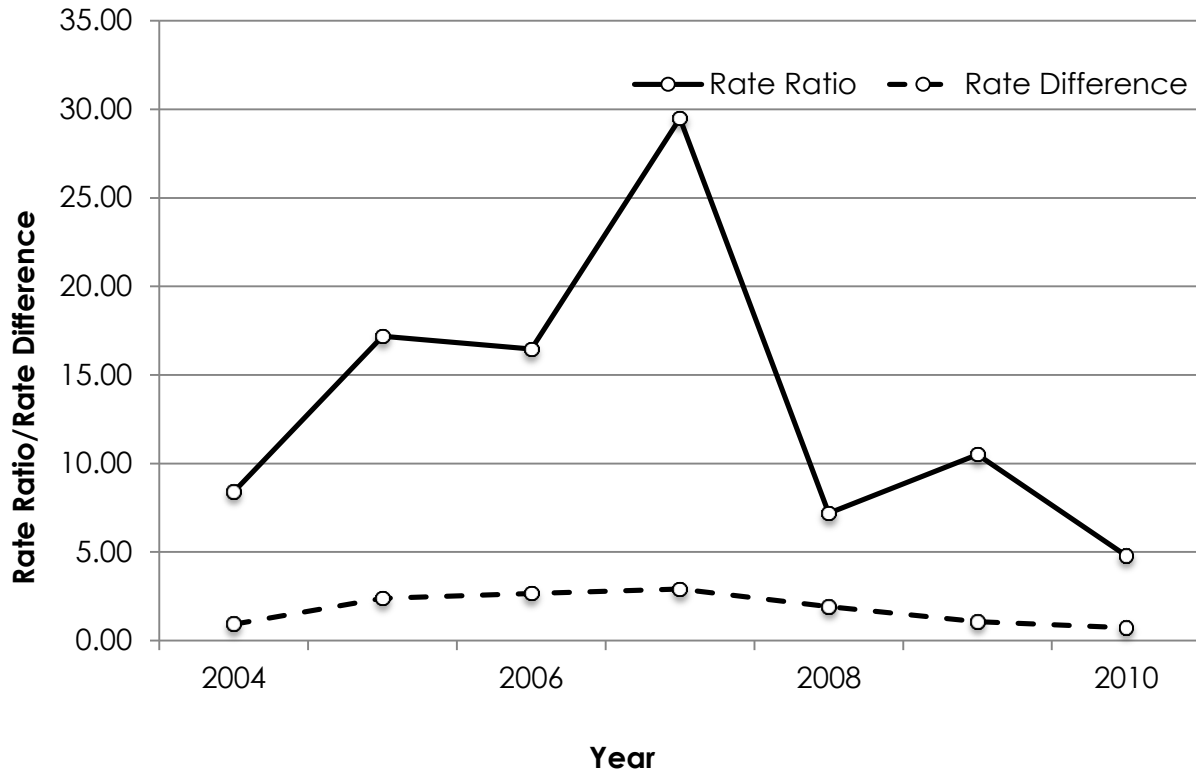


**Figure 2: Adjusted Gonorrhea Rate per 1000 Population by Deprivation Area, Saskatoon, 2004 to 2010.**



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 Gonorrhea Rate Ratio and Rate Differences between the Highest and Lowest Quintiles of Deprivation, Saskatoon, 2004 to 2010.**



The Lorenz curve for all years combined shows that 62% of the gonorrhoea infections occurs among residents in areas of highest deprivation, representing 23% of the total population of Saskatoon. In contrast, 6% of gonorrhoea infections occurs for those residing in areas of least deprivation, representing 24% of the population.

**Figure 4: Age and Sex Adjusted Lorenz Curve for Gonorrhoea, Saskatoon, 2004 to 2010.**

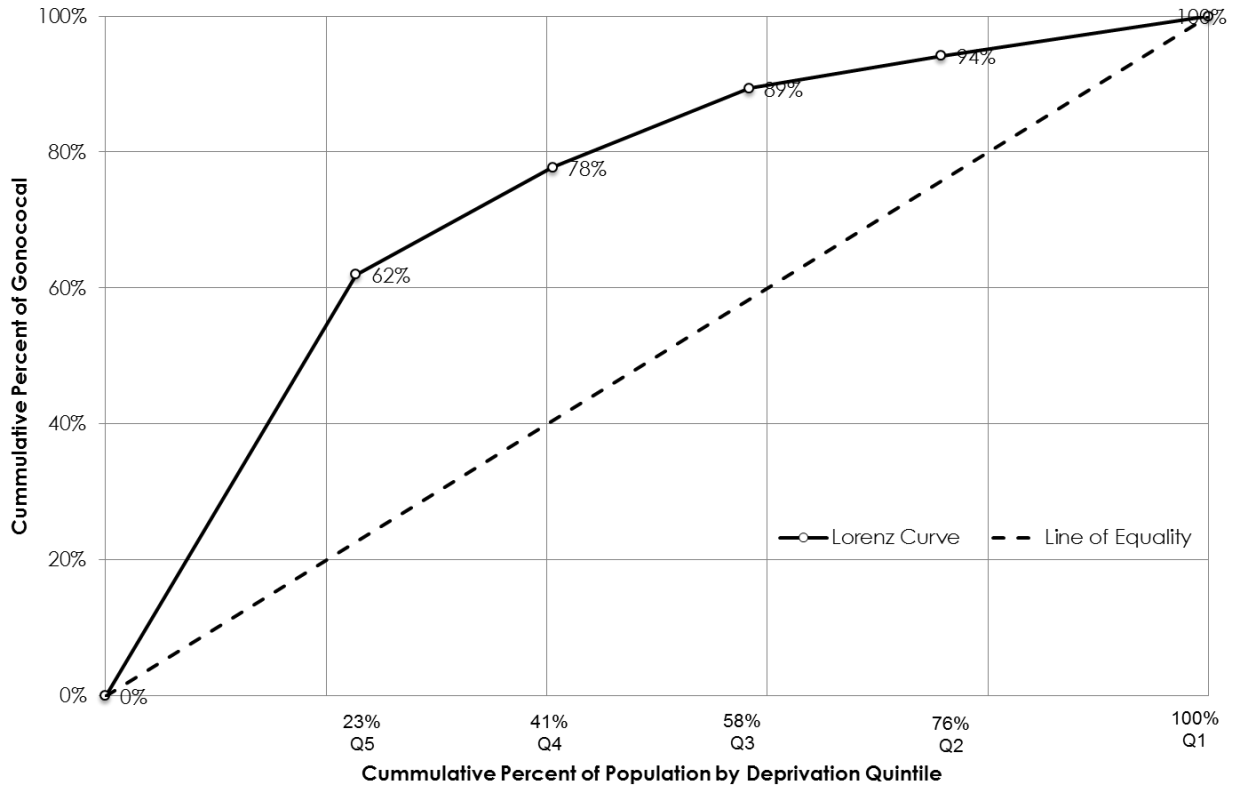
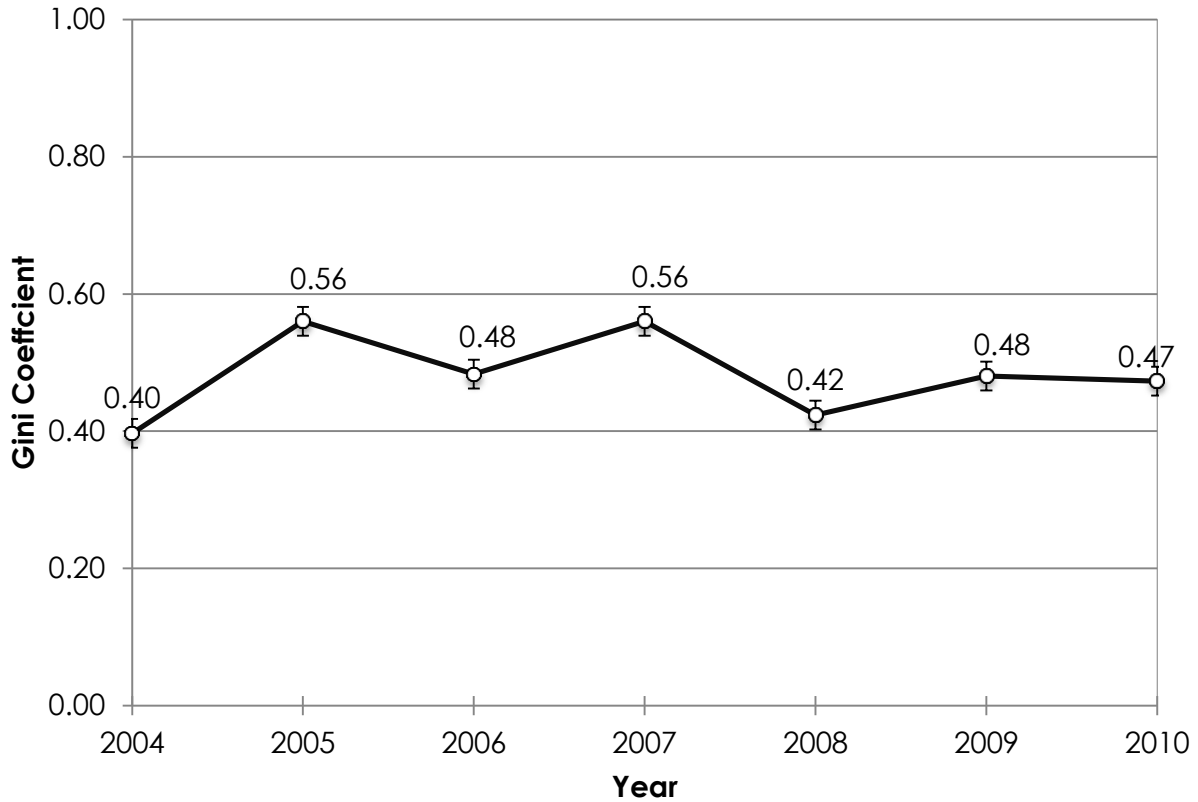


Figure 5 shows that the Gini coefficient for gonorrhea infections was 0.40 (95% CI: 0.37 to 0.42) in 2004. The Gini coefficient increased significantly between 2004 and 2010 to 0.47 (95% CI: 0.45 to 0.50). A Gini coefficient ranging between 0.40 and 0.56 represents a high degree of inequality for gonorrhea infections in Saskatoon.

**Figure 5: Age and Sex Adjusted Gini Coefficients for Gonorrhea, Saskatoon, 2004 to 2010.**



**Table 1: Gonorrhoea Rate Ratios for Sex, Age, Quintile of Deprivation, Saskatoon, 1995 and 2011.**

Gonorrhoea Rates	Robust			P>z	[95% Conf. Interval]	
	RR	Std. Err.	z			
<b>Sex</b>						
Male	1.00	-	-	-	-	-
Female	1.16	0.08	2.20	0.03	1.02	1.32
<b>Age Category</b>						
0 to 14	1.00	-	-	-	-	-
15 to 29	24.47	7.60	10.30	0.00	13.32	44.96
30 to 44	6.86	2.18	6.05	0.00	3.68	12.81
45 to 64	2.13	0.74	2.17	0.03	1.08	4.20
65 +	0.48	0.29	-1.21	0.23	0.15	1.57
<b>Deprivation Quintiles</b>						
Q5	1.00	-	-	-	-	-
Q4	0.61	0.22	-1.38	0.17	0.30	1.23
Q3	0.41	0.12	-3.11	0.00	0.24	0.72
Q2	0.28	0.11	-3.34	0.00	0.13	0.59
Q1	0.12	0.04	-6.59	0.00	0.06	0.23
<b>Year</b>						
2004	1.00	-	-	-	-	-
2005	2.34	0.60	3.30	0.00	1.41	3.87
2006	2.74	0.67	4.13	0.00	1.70	4.43
2007	2.90	0.71	4.37	0.00	1.80	4.67
2008	2.07	0.56	2.67	0.01	1.21	3.52
2009	1.11	0.30	0.37	0.71	0.65	1.88
2010	0.82	0.25	-0.65	0.51	0.46	1.48

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.