

Advancing Health Equity in Health Care

Hospital Discharges for Heart Disease

Highlights

- Hospital discharges for heart disease are decreasing over time for the general population.
- The inequality gap is moderate but showing signs of increasing over time for the general population.
- The Disparity Rate Ratio is significantly increasing over time.
- The gap between those living in areas of highest and lowest deprivation is widening.
- From 1995 to 2011, 32% of heart disease hospital discharges occurred for people living in the highest areas of deprivation, compared to 15% in the areas of lowest deprivation.
- Click [here](#) to learn more about data sources and methods.

Between January 1, 1995 and December 31, 2011 there were 13,400 heart disease hospital discharges for Saskatoon residents. There were 8,437 hospital discharges among men and 4,963 hospital discharges among women. In the city as a whole heart disease hospital discharges decreased by 52% from 4.9 to 2.4 per 1000 people between 1995 and 2011 (*Figure 1 and Figure 2*). *Figure 3* shows the disparity rate ratio and disparity rate difference for age and sex standardized heart disease rates. The disparity rate ratio increased by 23% from 1.4 in 1995 to 1.8 in 2011. The disparity rate difference decreased by 13% from 1.6 in 1995 to 1.4 in 2011.

Figure 1: Crude Heart Disease Hospital Discharge Rate per 1000 Population by Quintile of Deprivation, Saskatoon, 1995 to 2011.

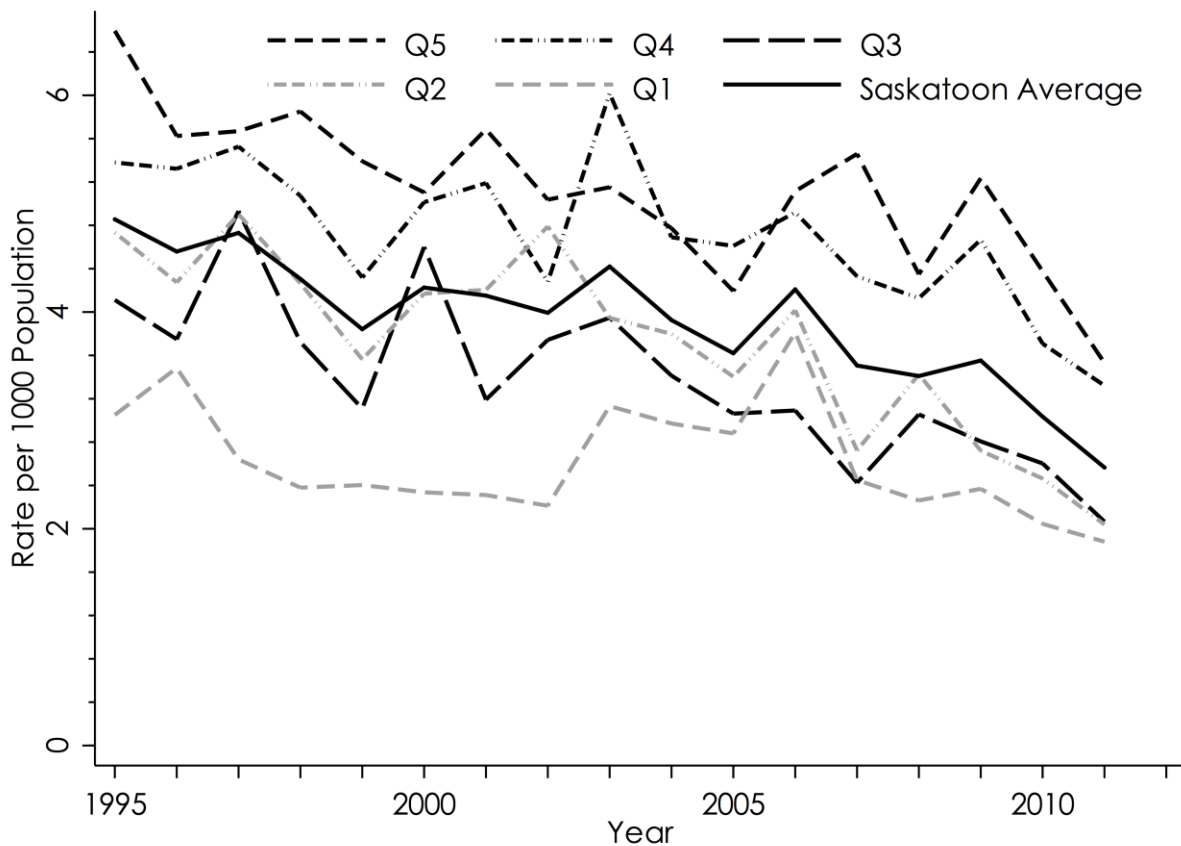
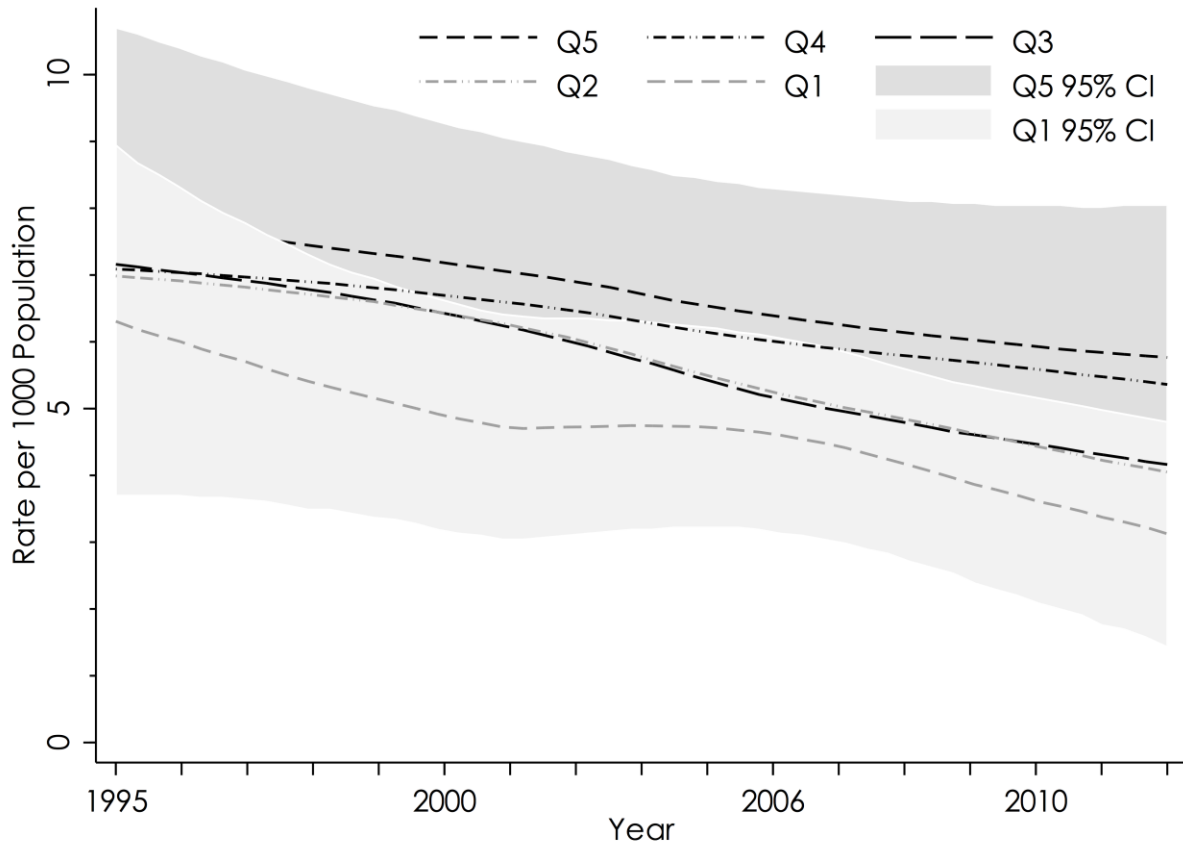
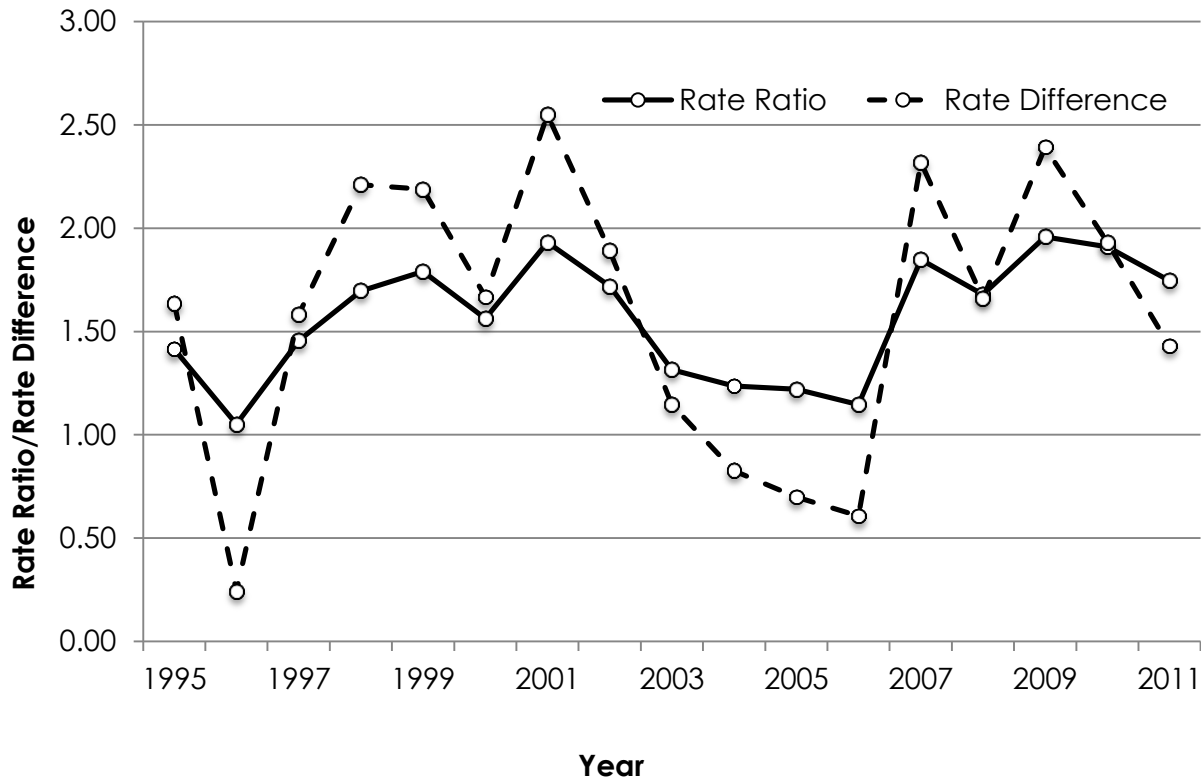


Figure 2: Adjusted Heart Disease Hospital Discharge Rate per 1000 Population by Deprivation Area, Saskatoon, 1995 to 2011.



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 Heart Disease Hospital Discharge Rate Ratio and Rate Differences between the Highest and Lowest Quintiles of Deprivation, Saskatoon, 1995 to 2011.



The Lorenz curve for all years combined shows that 32% of the heart disease hospital discharges occurs among residents in areas of highest deprivation, representing 24% of the total population of Saskatoon. In contrast, 15% of heart disease hospital discharges occurs for those residing in areas of least deprivation, representing 23% of the population.

Figure 4: Age and Sex Adjusted Lorenz Curve for Heart Disease Hospital Discharges, Saskatoon, 1995 to 2011.

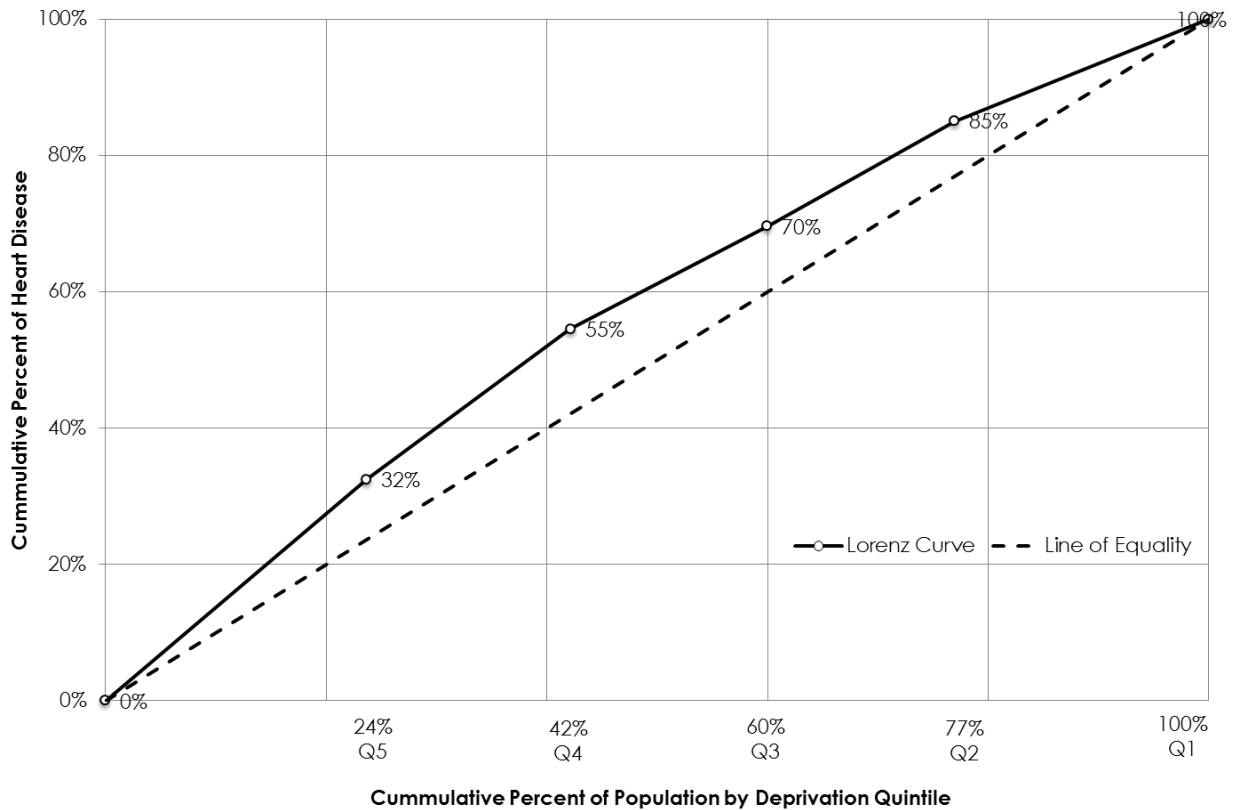


Figure 5 shows that the Gini coefficient for heart disease hospital discharges was 0.15 (95% CI: 0.13 to 0.17) in 1995. Between 1995 and 2011 there was a small increase in the Gini coefficient to 0.16 (95% CI: 0.14 to 0.18). A Gini coefficient ranging from 0.19 to 0.08 between 1995 and 2011 represents a low to moderate degree of inequality for heart disease hospital discharges in Saskatoon.

Figure 5: Age and Sex Adjusted Gini Coefficients for Heart Disease Hospital Discharges, Saskatoon, 1995 to 2011.

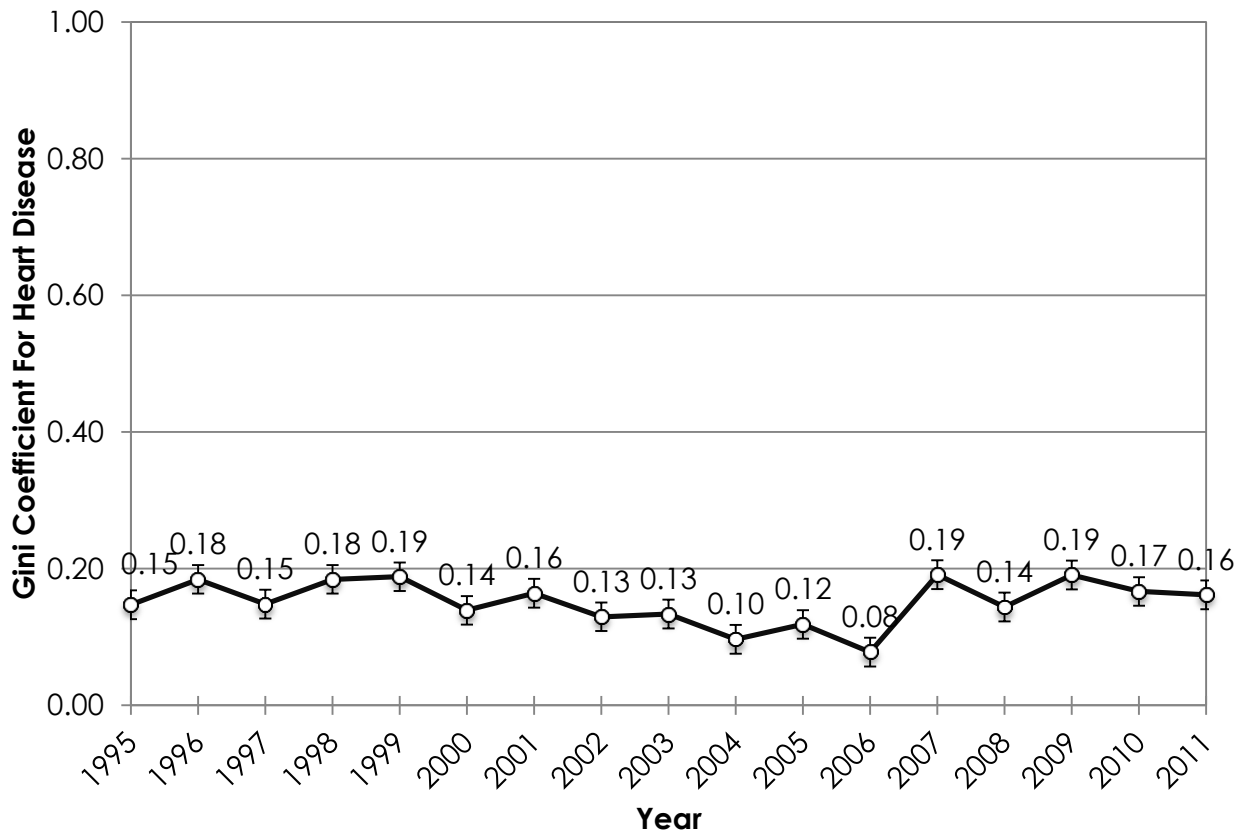


Table 1: Heart Disease Hospital Discharge Rate Ratios for Sex, Age, Quintile of Deprivation, Saskatoon, 1995 and 2011.

Heart Disease	Robust					
Rates	RR	Std. Err.	z	P>z	[95% Conf. Interval]	
Sex						
Male	1.00	-	-	-	-	-
Female	0.35	0.01	-37.58	0.00	0.33	0.37
Age Category						
0 to 14	0.00	0.00	-237.53	0.00	0.00	0.00
15 to 29	0.00	0.00	-24.18	0.00	0.00	0.00
30 to 44	0.01	0.00	9.78	0.00	0.01	0.01
45 to 64	0.13	0.01	7.46	0.00	0.12	0.14
65+	1.00	-	-	-	-	-
Deprivation Quintiles						
Q5	1.00	-	-	-	-	-
Q4	1.18	0.18	1.07	0.29	0.87	1.58
Q3	1.56	0.28	2.43	0.02	1.09	2.23
Q2	1.65	0.27	3.02	0.00	1.19	2.28
Q1	1.53	0.24	2.63	0.01	1.11	2.09
Year						
1995	1.00	-	-	-	-	-
1996	0.84	0.15	-1.03	0.30	0.59	1.18
1997	0.80	0.18	-1.00	0.32	0.52	1.24
1998	0.84	0.18	-0.82	0.42	0.54	1.29
1999	0.76	0.11	-1.90	0.06	0.57	1.01
2000	0.74	0.10	-2.12	0.03	0.56	0.98
2001	0.80	0.13	-1.42	0.16	0.58	1.09
2002	0.70	0.09	-2.86	0.00	0.55	0.89
2003	0.72	0.09	-2.65	0.01	0.56	0.92
2004	0.65	0.07	-3.98	0.00	0.53	0.80
2005	0.58	0.07	-4.54	0.00	0.45	0.73
2006	0.66	0.10	-2.81	0.01	0.49	0.88
2007	0.67	0.08	-3.22	0.00	0.53	0.86
2008	0.54	0.07	-4.93	0.00	0.42	0.69
2009	0.65	0.08	-3.66	0.00	0.52	0.82
2010	0.55	0.06	-5.61	0.00	0.45	0.68
2011	0.42	0.05	-7.28	0.00	0.33	0.53

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.