

Advancing Health Equity in Health Care

Hospital Discharges for Diabetes

Highlights

- Hospital discharges for diabetes are unchanging over time for the general population. This is concerning as hospitalizations across Canada (and within the other indicators examined) are generally decreasing.
- 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, 41% of diabetes hospital discharges occurred for people living in the highest areas of deprivation, compared to 12% 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 3,513 diabetes hospital discharges for Saskatoon residents. There were 1,872 hospital discharges among men and 1,641 hospital discharges among women. In the city as a whole diabetes increased by 3% from 1.13 to 1.16 cases 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 diabetes rates. The disparity rate ratio increased by 58% from 1.7 in 1995 to 2.8 in 2011. The disparity rate difference increased by 116% from 0.6 in 1995 to 1.3 in 2011.

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

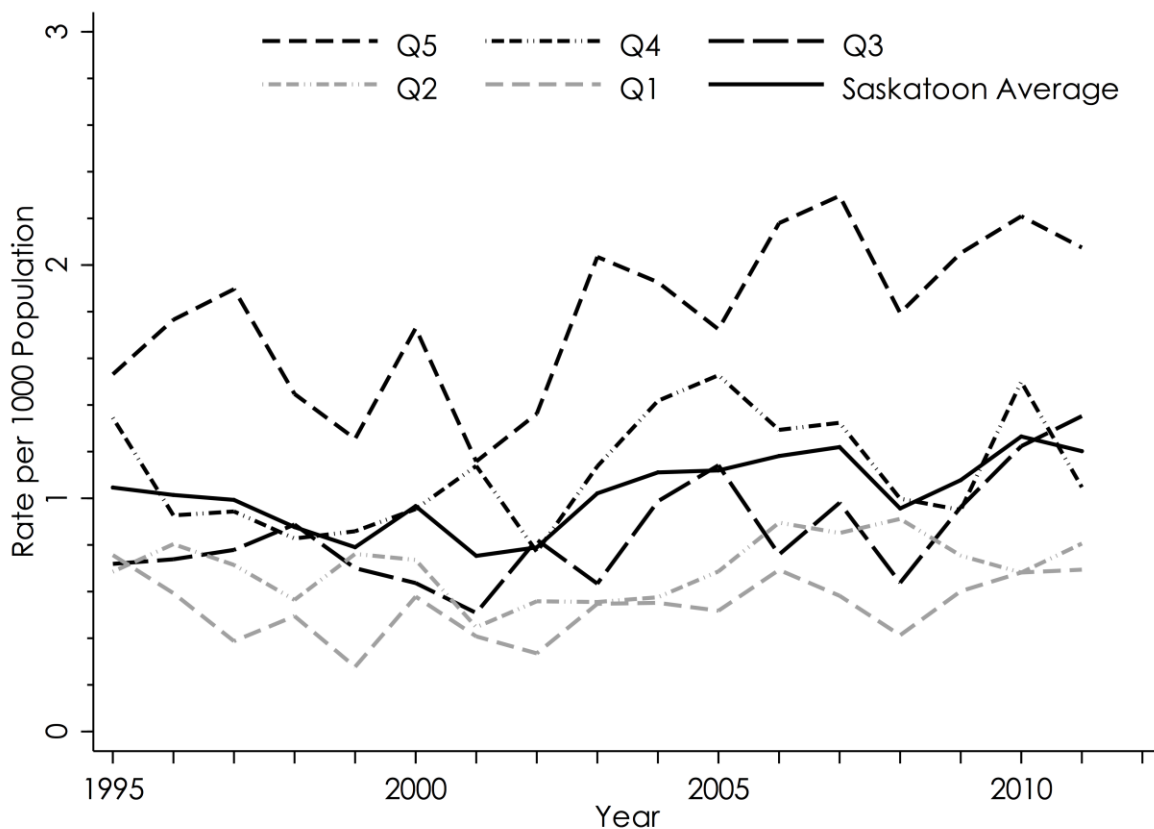
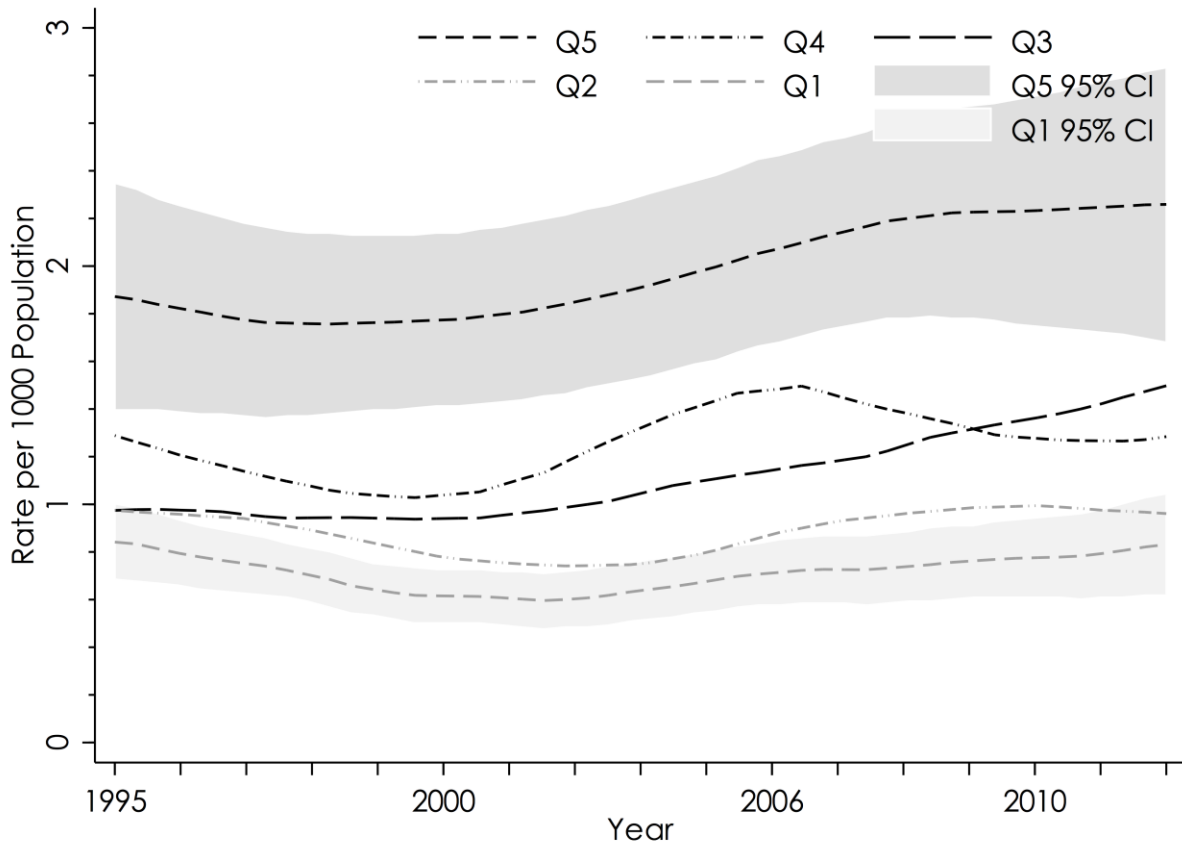
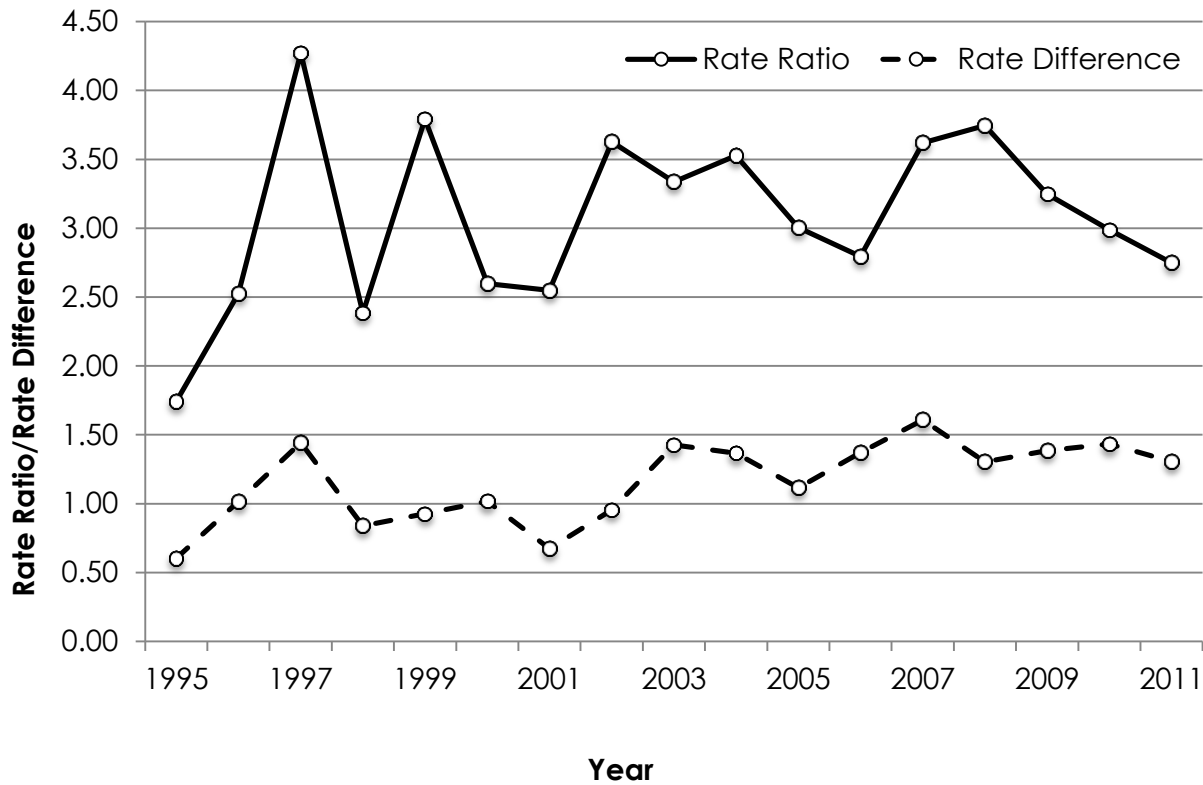


Figure 2: Adjusted Diabetes Hospital Discharge Rate per 1000 Population by Deprivation Area, Saskatoon, 1995 to 2011.



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 Diabetes 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 41% of the diabetes hospital discharges occurs among residents in areas of highest deprivation, representing 24% of the total population of Saskatoon. In contrast, 12% of diabetes 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 Diabetes Hospital Discharges, Saskatoon, 1995 to 2011.

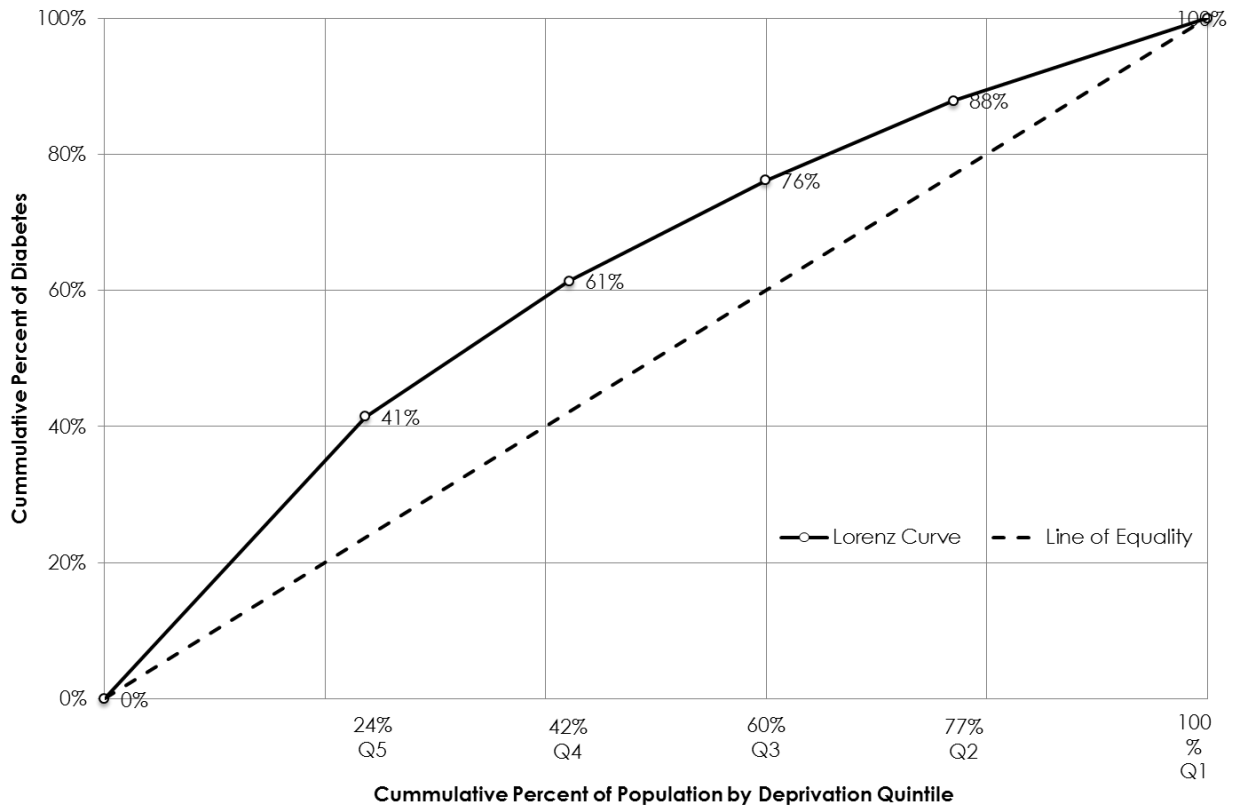


Figure 5 shows that the Gini coefficient for diabetes hospital discharges was 0.18 (95% CI: 0.16 to 0.20) in 1995. The Gini coefficient increased to 0.19 (95% CI: 0.17 to 0.22) between 1995 and 2011. A Gini coefficient ranging from 0.31 and 0.18 represents a moderate to high degree of inequality for diabetes hospital discharges in Saskatoon.

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

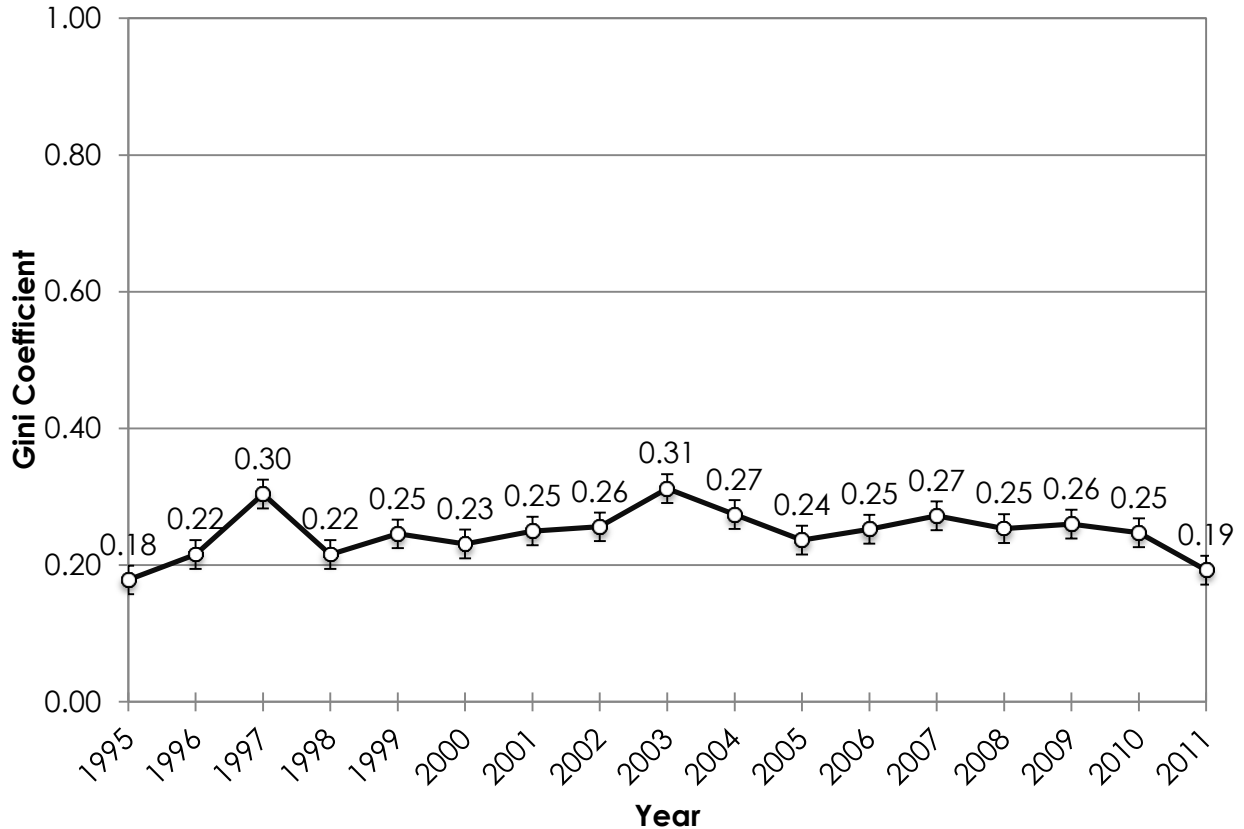


Table 1: Diabetes Hospital Discharge Rate Ratios for Sex, Age, Quintile of Deprivation, Saskatoon, 1995 and 2011.

Diabetes	Robust					
Rates	RR	Std. Err.	z	P>z	[95% Conf. Interval]	
Sex						
Male	1.00	-	-	-	-	-
Female	0.58	0.03	-11.04	0.00	0.52	0.63
Age Category						
0 to 14	1.00	-	-	-	-	-
15 to 29	1.64	0.18	4.50	0.00	1.32	2.03
30 to 44	1.66	0.18	4.68	0.00	1.34	2.05
45 to 64	3.43	0.35	12.22	0.00	2.82	4.18
65+	14.97	1.43	28.29	0.00	12.41	18.05
Deprivation Quintiles						
Q5	1.00	-	-	-	-	-
Q4	1.25	0.29	0.98	0.33	0.80	1.98
Q3	0.80	0.18	-0.98	0.33	0.52	1.25
Q2	0.92	0.19	-0.40	0.69	0.62	1.37
Q1	0.99	0.27	-0.05	0.96	0.58	1.68
Year						
1995	1.00	-	-	-	-	-
1996	1.14	0.23	0.65	0.51	0.77	1.70
1997	1.16	0.32	0.54	0.59	0.68	1.97
1998	0.96	0.24	-0.17	0.87	0.58	1.58
1999	0.72	0.20	-1.16	0.25	0.41	1.25
2000	0.98	0.23	-0.07	0.94	0.63	1.54
2001	0.67	0.16	-1.70	0.09	0.43	1.06
2002	0.82	0.21	-0.79	0.43	0.50	1.34
2003	1.30	0.34	1.00	0.32	0.78	2.18
2004	1.18	0.23	0.87	0.39	0.81	1.72
2005	1.07	0.20	0.37	0.71	0.74	1.54
2006	1.30	0.30	1.14	0.25	0.83	2.03
2007	1.29	0.23	1.47	0.14	0.92	1.82
2008	1.01	0.19	0.06	0.95	0.69	1.47
2009	1.16	0.20	0.84	0.40	0.82	1.62
2010	1.22	0.20	1.25	0.21	0.89	1.68
2011	1.20	0.23	0.96	0.34	0.83	1.74

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.