

Advancing Health Equity in Health Care

Hospital Discharges for Mental Illness*

Highlights

- Hospital discharges for mental illness are decreasing over time for the general population.
- The inequality gap is moderate and showing signs of increasing over time for the general population.
- From 1995 to 2011, 37% of hospital discharges for mental illness 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.

*For the purposes of this analysis, mental illness is the term used to describe Mental Disorders, and Mental and Behavioural Disorders ICD-9 and ICD-10 chapters, respectively. This analysis does not include substance use and addictions.

Between January 1, 1995 and December 31, 2011 there were 15,603 mental illness hospital discharges for Saskatoon residents. There were 7,081 hospital discharges among men and 8,522 hospital discharges among women. In the city as a whole mental illness hospital discharges decreased by 44% from 6.2 to 3.5 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 mental illness rates. The disparity rate ratio decreased by 16% from 2.9 in 1995 to 2.4 in 2011. The disparity rate difference decreased by 48% from 6.4 in 1995 to 3.3 in 2011.

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

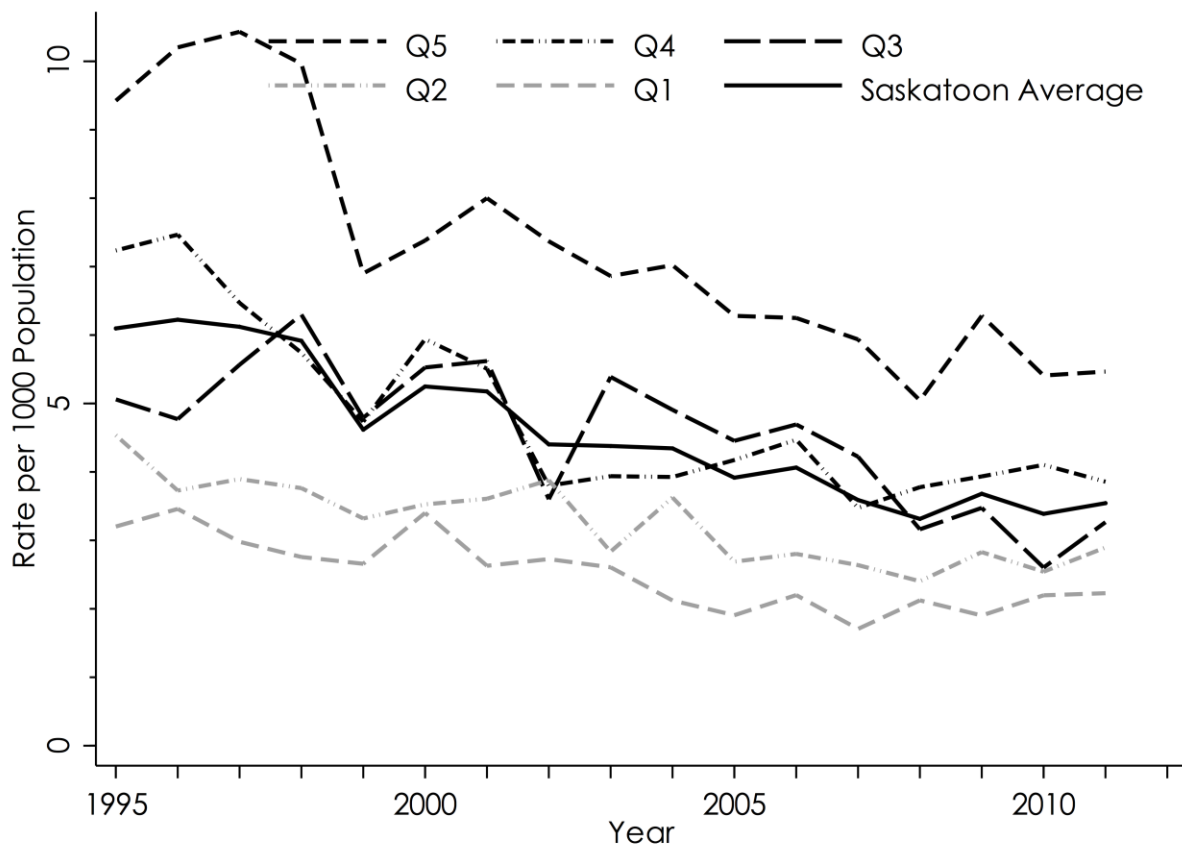
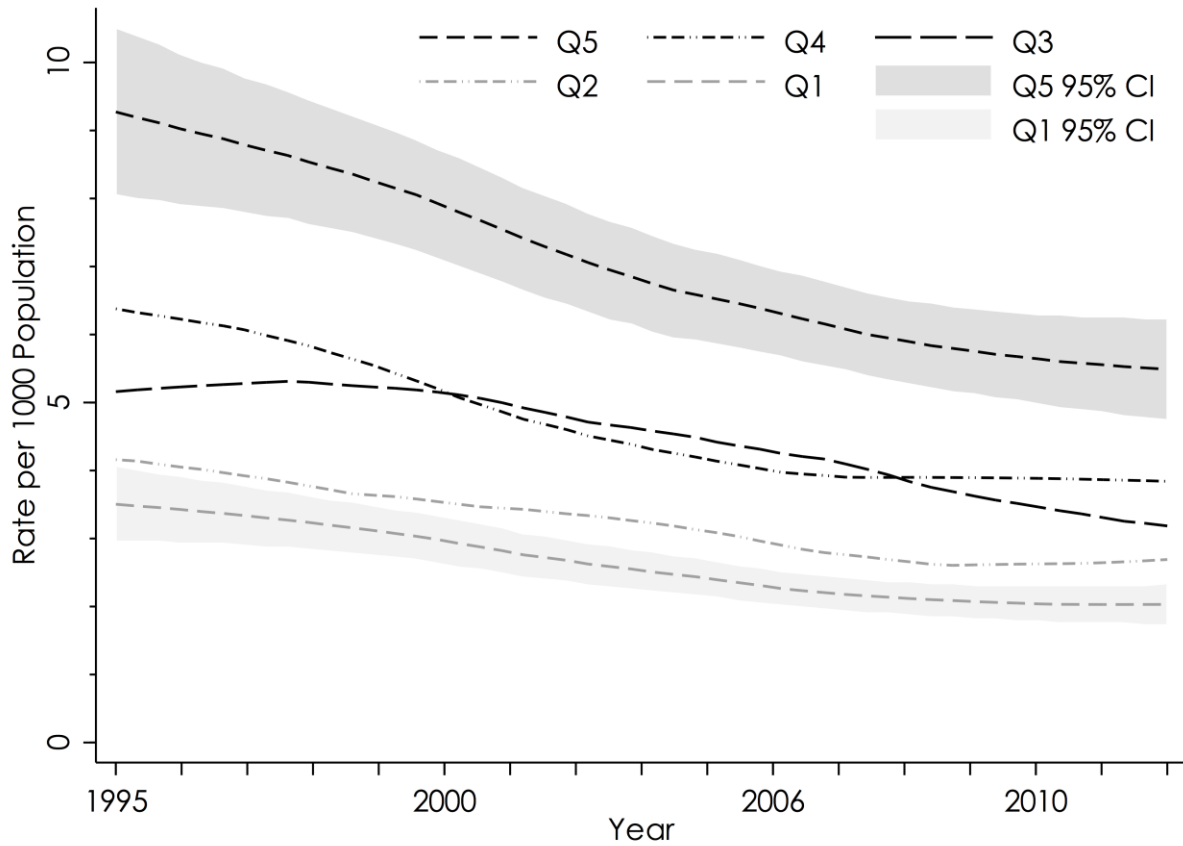
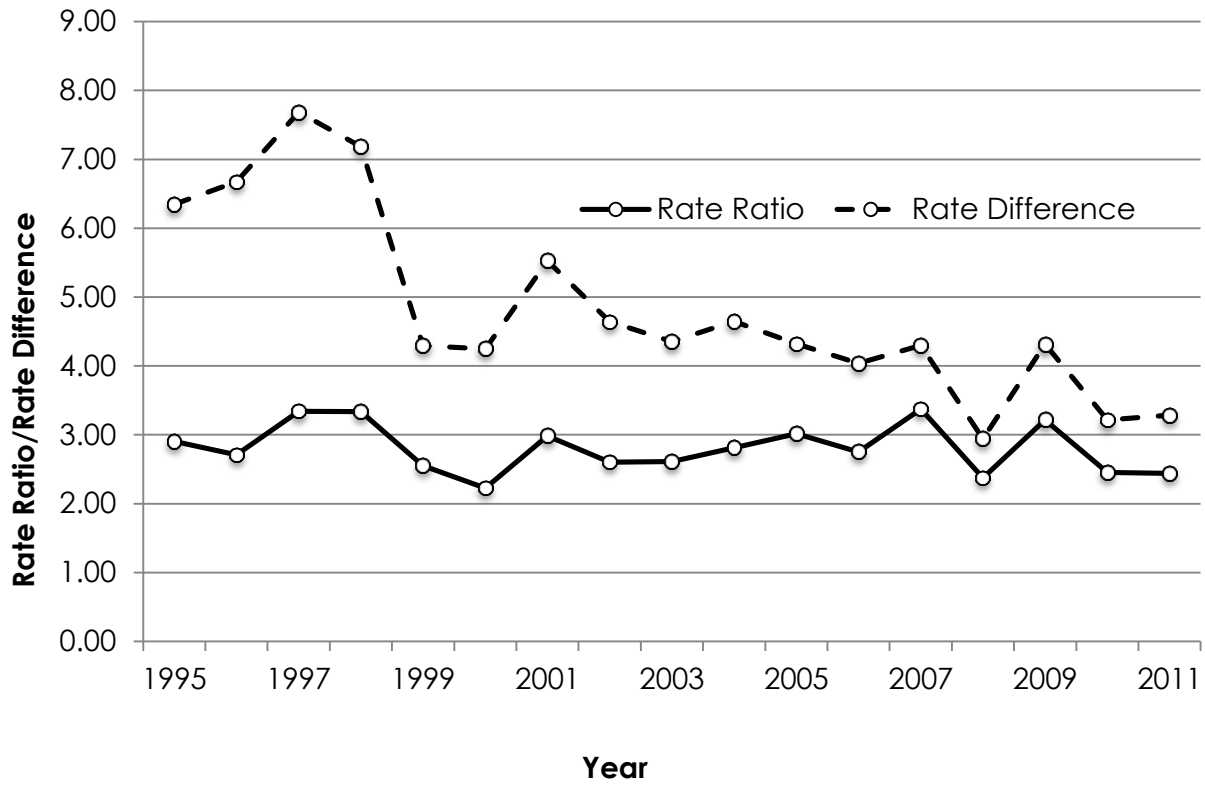


Figure 2: Adjusted Mental Illness Hospital Discharge Rate per 1000 Population by Deprivation Area, Saskatoon, 1995 to 2011.



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 Mental Illness 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 37% of the mental illness hospital discharges occurs among residents in areas of highest deprivation, representing 24% of the total population of Saskatoon. In contrast, 12% of mental and behavioural disorder hospital discharges occurs for those residing in areas of least deprivation, representing 22% of the population.

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

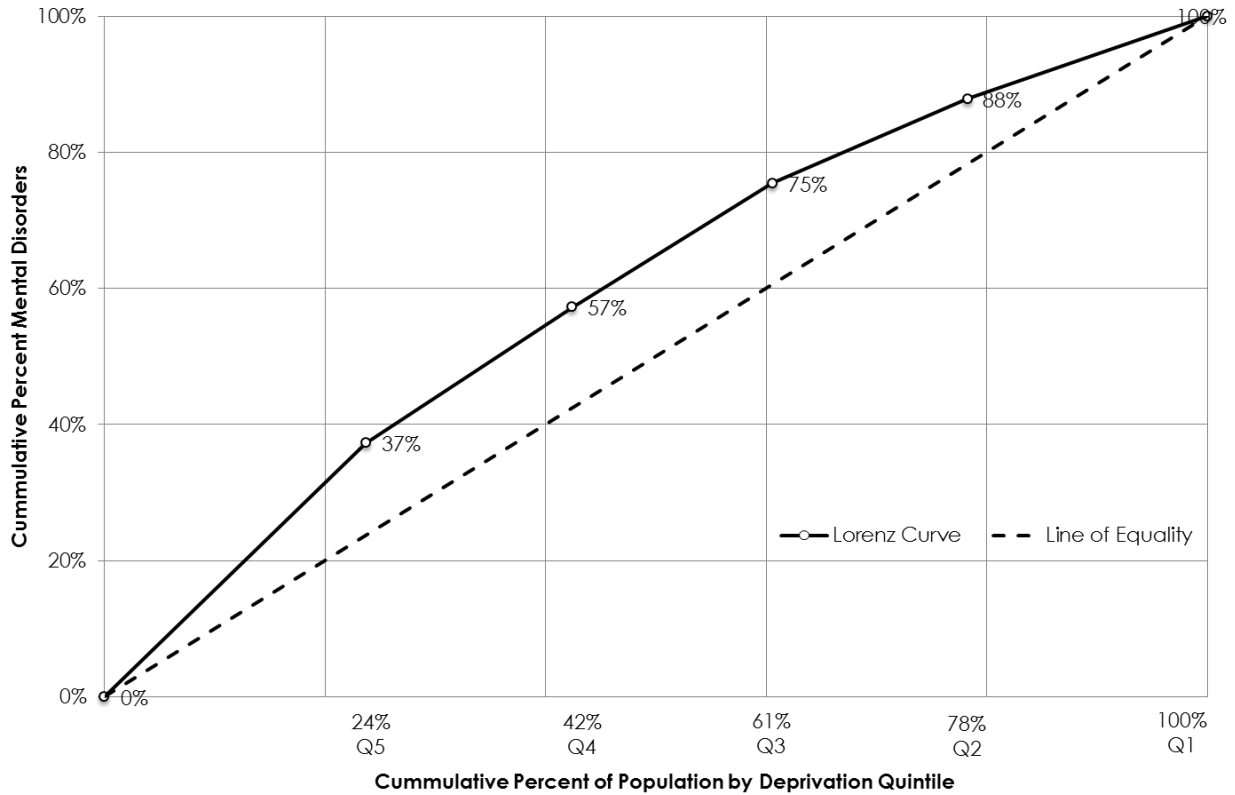


Figure 5 shows that the Gini coefficient for mental illness hospital discharges was 0.20 (95% CI: 0.18 to 0.22) in 1995 and decreased non significantly between 1995 and 2011. A Gini coefficient ranging from 0.23 to 0.16 represents a high to moderate degree of inequality for mental illness hospital discharges in Saskatoon.

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

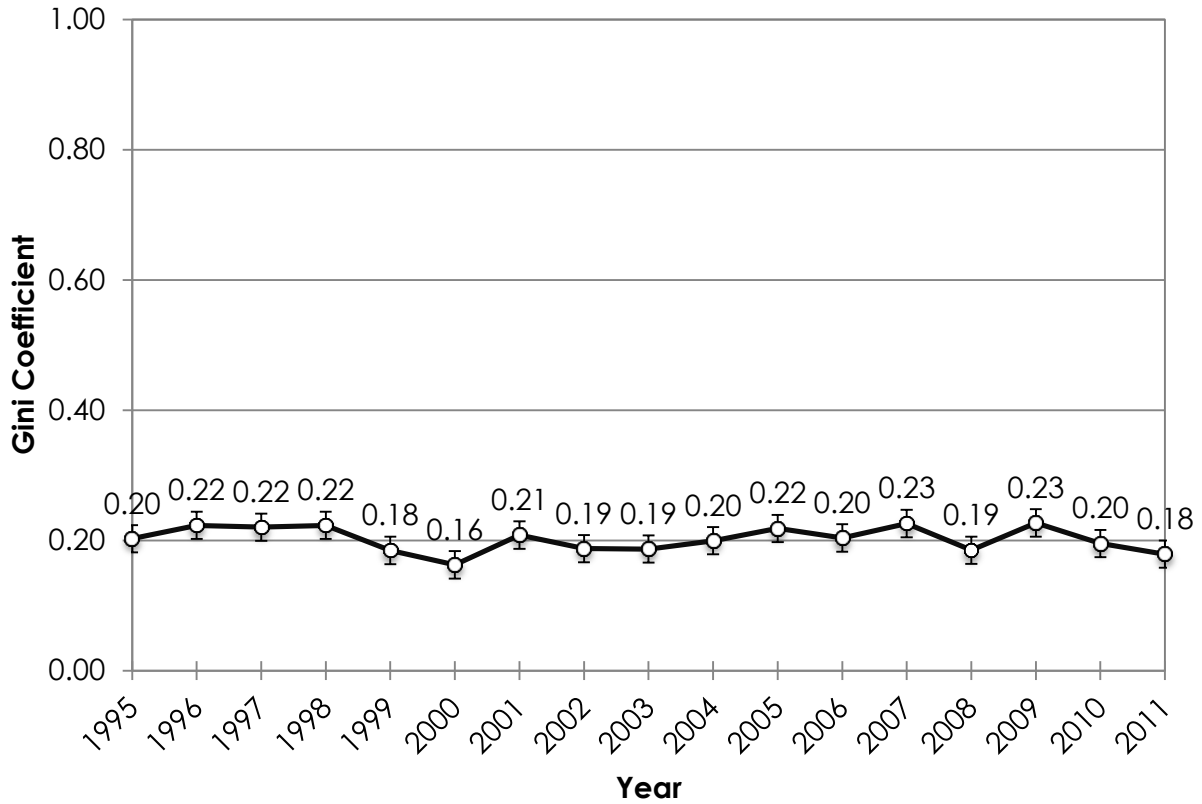


Table 1: Mental Illness Hospital Discharge Rate Ratios for Sex, Age, Quintile of Deprivation, Saskatoon, 1995 and 2011.

Mental Illness	Robust					
Rates	RR	Std. Err.	z	P>z	[95% Conf. Interval]	
Sex						
Male	1.00	-	-	-	-	-
Female	1.06	0.03	2.03	0.04	1.00	1.12
Age Category						
0 to 14	1.00	-	-	-	-	-
15 to 29	7.23	0.45	31.95	0.00	6.40	8.16
30 to 44	7.98	0.50	33.38	0.00	7.07	9.02
45 to 64	7.17	0.46	30.66	0.00	6.32	8.13
65+	11.39	0.85	32.65	0.00	9.84	13.18
Deprivation Quintiles						
Q5	1.00	-	-	-	-	-
Q4	0.97	0.15	-0.19	0.85	0.72	1.31
Q3	0.75	0.13	-1.63	0.10	0.53	1.06
Q2	0.82	0.15	-1.09	0.28	0.58	1.17
Q1	0.49	0.11	-3.25	0.00	0.32	0.75
Year						
1995	1.00	-	-	-	-	-
1996	1.06	0.18	0.37	0.71	0.76	1.49
1997	1.08	0.21	0.41	0.68	0.74	1.58
1998	1.01	0.17	0.06	0.95	0.72	1.41
1999	0.71	0.12	-1.98	0.05	0.50	1.00
2000	0.78	0.16	-1.25	0.21	0.52	1.15
2001	0.81	0.15	-1.13	0.26	0.57	1.16
2002	0.75	0.13	-1.64	0.10	0.54	1.06
2003	0.74	0.11	-2.00	0.05	0.56	0.99
2004	0.73	0.13	-1.79	0.07	0.52	1.03
2005	0.66	0.13	-2.17	0.03	0.45	0.96
2006	0.69	0.11	-2.22	0.03	0.50	0.96
2007	0.62	0.12	-2.51	0.01	0.43	0.90
2008	0.52	0.09	-3.98	0.00	0.37	0.72
2009	0.66	0.11	-2.59	0.01	0.48	0.90
2010	0.54	0.09	-3.92	0.00	0.39	0.73
2011	0.54	0.08	-3.97	0.00	0.40	0.73

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.