

# Advancing Health Equity in Health Care

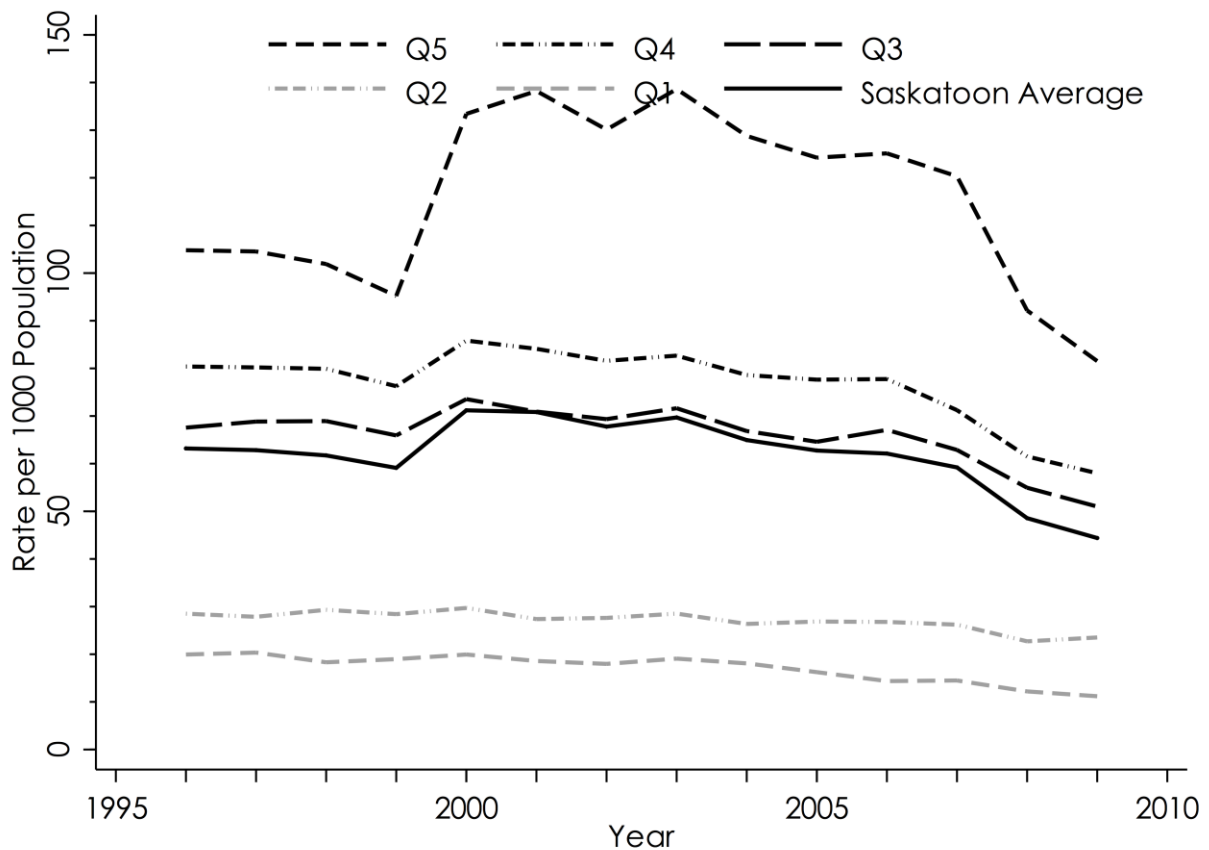
## Physician Billings for Injuries

### Highlights

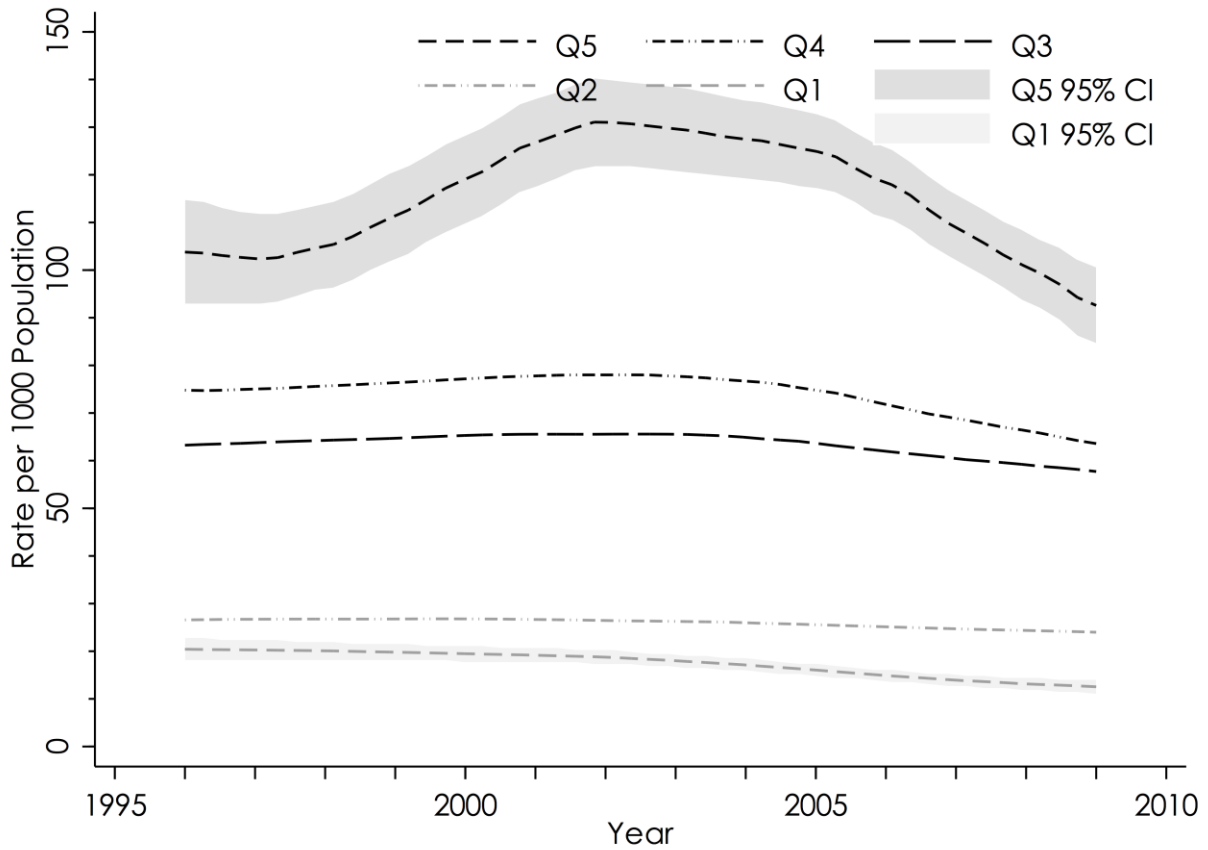
- Physician billings for injuries are decreasing over time for the general population.
- The inequality gap is high and showing signs of increasing over time for the general population.
- The Disparity Rate Ratio is significantly increasing over time.
- The gap between those living in areas of highest and lowest deprivation is widening.
- From 1996 to 2009, 45% of physician billings for injuries 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, 1996 and December 31, 2009 there were 173,140 injury physician billings for Saskatoon residents. There were 90,629 injury physician billings among men and 82,511 among women. In the city as a whole injury rates decreased by 29% from 62.4 to 44.5 physician billings per 1000 people between 1996 and 2009 (Figure 1 and Figure 2). Figure 3 shows the disparity rate ratio and disparity rate difference for age and sex standardized injury rates. The disparity rate ratio increased by 42% from 5.2 in 1996 to 7.4 in 2009. The disparity rate difference decreased by 17% from 85.5 in 1996 to 71.3 in 2009.

**Figure 1: Crude Injury Physician Billings Rate per 1000 Population by Quintile of Deprivation, Saskatoon, 1996 to 2009.**



**Figure 2: Adjusted Injury Physician Billing Rate per 1000 Population by Deprivation Area, Saskatoon, 1996 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 Injury Physician Billings Rate Ratio and Rate Differences between the Highest and Lowest Quintiles of Deprivation, Saskatoon, 1996 to 2009.**



The Lorenz curve for all years combined shows that 45% of injury physician billings occurs among residents in areas of highest deprivation, representing 24% of the total population of Saskatoon (Figure 4). In contrast, 6% of injury physician billings occurs among those residing in areas of least deprivation, representing 23% of the population.

**Figure 4: Age and Sex Adjusted Lorenz Curve for Injury Physician Billings, Saskatoon, 1996 to 2009.**

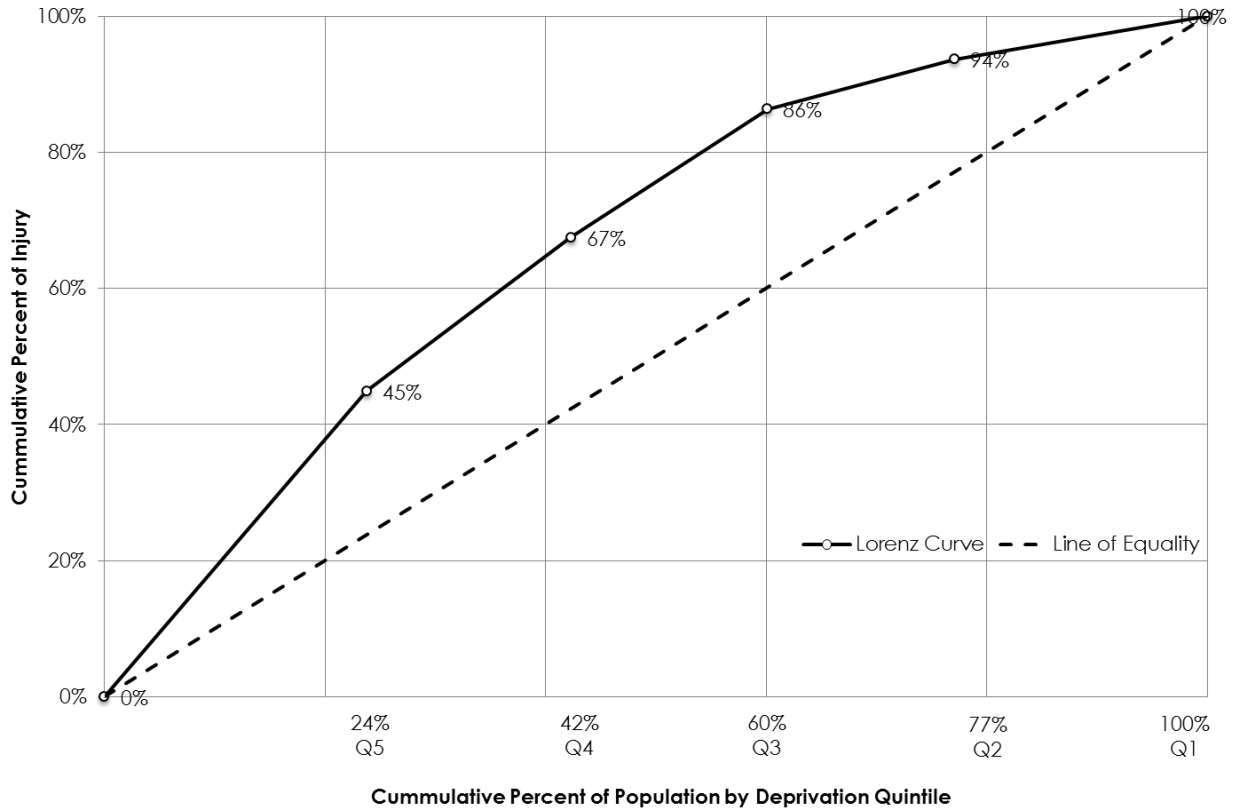
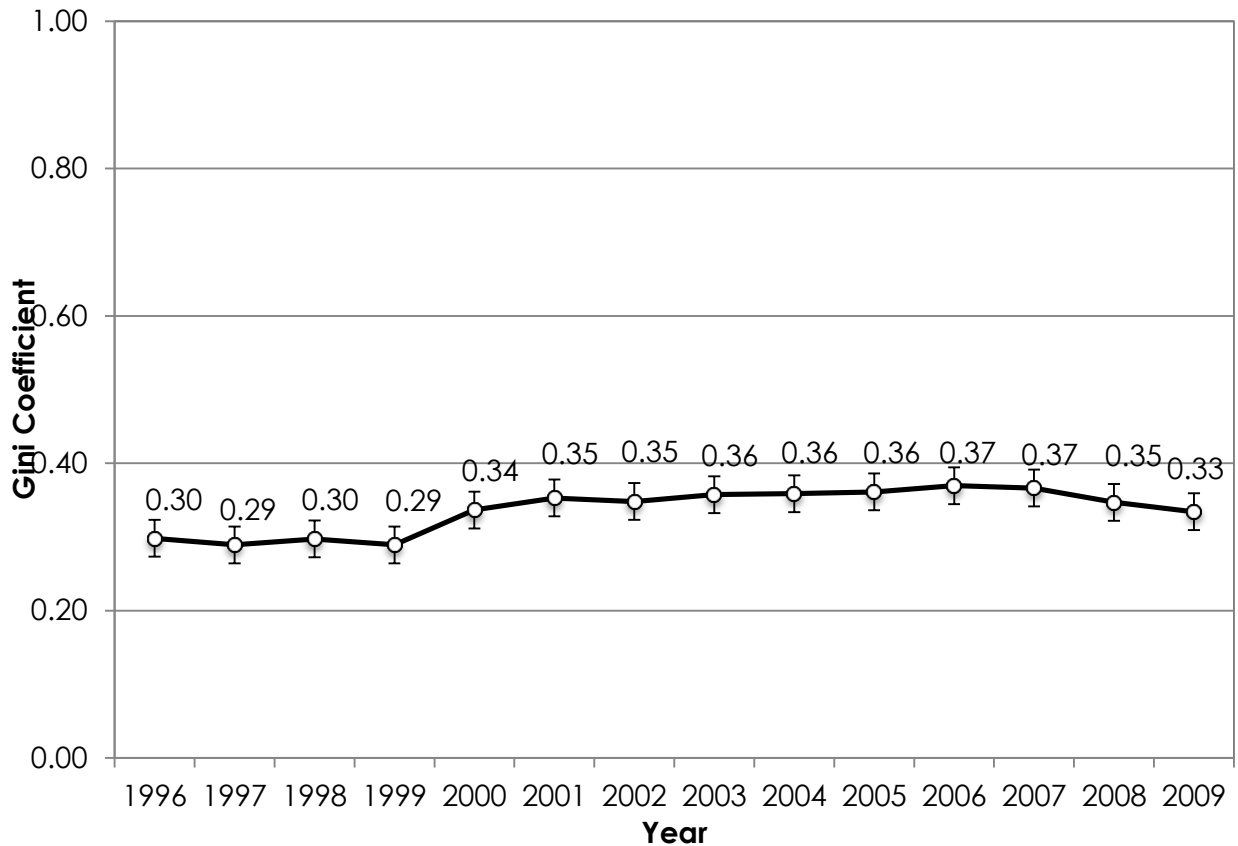


Figure 5 shows that the Gini coefficient for injury physician billings was 0.30 (95% CI: 0.27 to 0.33) in 1996 to increased to 0.33 (95% CI: 0.30 to 0.37) in 2009. A Gini coefficient ranging from 0.29 to 0.37 represents a high degree of inequality for injury physician billings in Saskatoon.

**Figure 5: Age and Sex Adjusted Gini Coefficients for Injury Physician Billings, Saskatoon, 1996 to 2009.**



**Table 1: Injury Physician Billings Rate Ratios for Sex, Age, Quintile of Deprivation, Saskatoon, 1996 and 2009.**

Injury Rates	RR	Robust Std. Err.	z	P>z	[95% Conf. Interval]	
<b>Sex</b>						
Male	1.00	-	-	-	-	
Female	0.83	0.01	-11.71	0.00	0.81 0.86	
<b>Age Category</b>						
0 to 14	1.00	-	-	-	-	
15 to 29	0.92	0.02	-4.68	0.00	0.89 0.95	
30 to 44	0.79	0.01	-13.41	0.00	0.76 0.82	
45 to 64	0.79	0.02	-11.78	0.00	0.76 0.82	
65+	0.82	0.03	-5.05	0.00	0.75 0.88	
<b>Deprivation Quintiles</b>						
Q5	1.00	-	-	-	-	
Q4	0.92	0.08	-0.94	0.35	0.77 1.09	
Q3	0.81	0.06	-2.90	0.00	0.71 0.93	
Q2	0.39	0.03	-11.36	0.00	0.33 0.45	
Q1	0.24	0.04	-7.66	0.00	0.17 0.35	
<b>Year</b>						
1996	1.00	-	-	-	-	
1997	1.00	0.08	0.03	0.98	0.86 1.17	
1998	0.97	0.09	-0.33	0.75	0.82 1.16	
1999	0.88	0.09	-1.29	0.20	0.72 1.07	
2000	1.27	0.11	2.79	0.01	1.07 1.50	
2001	1.28	0.11	2.95	0.00	1.09 1.51	
2002	1.21	0.10	2.37	0.02	1.03 1.42	
2003	1.36	0.11	3.95	0.00	1.17 1.59	
2004	1.27	0.11	2.84	0.01	1.08 1.49	
2005	1.21	0.10	2.43	0.02	1.04 1.41	
2006	1.28	0.10	3.08	0.00	1.09 1.49	
2007	1.20	0.09	2.30	0.02	1.03 1.40	
2008	0.90	0.08	-1.22	0.22	0.77 1.06	
2009	0.81	0.07	-2.44	0.02	0.68 0.96	

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.