

**Appendix 1: Effect of restrictions to control an outbreak of severe acute respiratory syndrome (SARS) on hospital admissions and emergency department visits**

Variable	Affected region (Greater Toronto Area)						Comparison regions in Ontario (London, Ottawa)					
	Monthly pre-SARS rate per 1000, mean (95% CI)	Adjusted relative change* (95% CI)				Monthly pre-SARS rate per 1000, mean (95% CI)	Adjusted relative change* (95% CI)					
		Early SARS restriction period†		Late SARS restriction period‡			Early SARS restriction period†		Late SARS restriction period‡			
<b>Hospital admissions</b>												
Overall	5.83	(5.44-6.22)	0.88	(0.85-0.91)††	0.89	(0.85-0.92)††	6.60	(6.19-7.01)	0.96	(0.93-0.98)	0.99	(0.96-1.02)
Medical§	4.83	(4.50-5.16)	0.89	(0.86-0.92)††	0.90	(0.86-0.94)††	5.54	(5.18-5.91)	0.96	(0.93-0.99)	0.99	(0.96-1.02)
High-volume surgical												
Urgent¶	0.35	(0.33-0.38)	1.00	(0.95-1.06)	0.96	(0.91-1.02)	0.37	(0.35-0.39)	0.98	(0.89-1.06)	1.04	(0.95-1.13)
Elective**	0.81	(0.75-0.88)	0.78	(0.74-0.82)	0.85	(0.80-0.89)	0.89	(0.82-0.95)	0.92	(0.86-0.97)	0.92	(0.86-0.98)
<b>Cause specific</b>												
Delivery	4.26	(3.96-4.57)	0.98	(0.94-1.03)	0.97	(0.92-1.02)	3.92	(3.71-4.14)	0.98	(0.94-1.03)	0.98	(0.93-1.02)
Acute myocardial infarction	0.18	(0.16-0.19)	0.85	(0.78-0.91)††	0.94	(0.87-1.02)	0.22	(0.20-0.24)	0.94	(0.84-1.03)	0.81	(0.72-0.90)††
Pulmonary embolism	0.017	(0.015-0.019)	0.86	(0.67-1.11)	0.75	(0.57-0.98)††	0.021	(0.017-0.024)	0.86	(0.60-1.13)	0.96	(0.65-1.27)
Gastrointestinal bleed	0.043	(0.039-0.047)	0.79	(0.68-0.91)††	0.98	(0.85-1.13)	0.051	(0.046-0.056)	1.03	(0.81-1.24)	0.83	(0.64-1.02)
Vascular emergencies (ruptured abdominal aortic aneurysm and intracerebral hemorrhage)	0.032	(0.029-0.035)	1.03	(0.87-1.23)	0.99	(0.82-1.18)	0.032	(0.029-0.035)	0.76	(0.54-0.98)††	0.92	(0.66-1.17)
Respiratory cancer	0.051	(0.047-0.055)	0.93	(0.81-1.07)	0.98	(0.85-1.13)	0.060	(0.056-0.065)	1.13	(0.92-1.33)	1.10	(0.89-1.32)
Hip fracture	0.073	(0.068-0.078)	1.12	(1.01-1.25)	1.10	(0.98-1.23)	0.105	(0.094-0.115)	1.07	(0.92-1.22)	1.05	(0.90-1.20)
<b>Ambulatory care sensitive conditions</b>												
Chronic obstructive pulmonary disease	0.13	(0.12-0.15)	0.85	(0.78-0.93)††	0.84	(0.77-0.93)††	0.24	(0.21-0.26)	0.94	(0.84-1.03)	0.98	(0.88-1.09)
Congestive heart failure	0.16	(0.15-0.18)	0.93	(0.86-1.01)	0.88	(0.81-0.96)††	0.20	(0.18-0.22)	0.95	(0.85-1.05)	1.12	(1.00-1.24)
<b>Cardiac procedures</b>												
<b>Coronary artery bypass graft</b>												
Urgent, semi-urgent	0.029	(0.026-0.031)	1.06	(0.90-1.24)	1.41	(1.20-1.67)††	0.039	(0.035-0.043)	0.93	(0.73-1.13)	0.77	(0.59-0.95)††
Elective	0.046	(0.041-0.051)	0.48	(0.39-0.59)††	0.49	(0.39-0.62)††	0.040	(0.037-0.043)	0.68	(0.45-0.92)††	0.51	(0.30-0.72)

Percutaneous coronary intervention												
Urgent, semi-urgent	0.057	(0.052-0.061)	0.83	(0.72-0.94)††	0.87	(0.76-1.00)	0.094	(0.08-0.11)	1.03	(0.88-1.18)	0.96	(0.82-1.10)
Elective	0.061	(0.055-0.067)	0.34	(0.27-0.43)††	0.39	(0.31-0.50)††	0.037	(0.03-0.04)	0.35	(0.21-0.49)††	0.29	(0.16-0.42)††
Emergency department visits												
Low acuity	11.42	(10.28-12.57)	0.86	(0.81-0.91)††	0.86	(0.81-0.91)††	32.10	(29.17-35.02)	0.97	(0.92-1.03)	0.98	(0.92-1.05)
Medium acuity	10.25	(9.46-11.04)	0.88	(0.82-0.93)††	0.86	(0.80-0.93)††	10.98	(10.16-11.79)	0.78	(0.73-0.84)††	0.81	(0.75-0.87)††
High acuity	2.45	(2.27-2.63)	0.63	(0.82-0.93)††	0.55	(0.50-0.60)††	2.08	(1.92-2.24)	0.87	(0.79-0.97)††	0.94	(0.85-1.05)

Note: CI = confidence interval.

\*Adjusted for age group, sex, pre- and post-restriction calendar month, and annual trend.

†Mar. 15 to May 14, 2003.

‡May 15 to July 14, 2003.

§Admissions with no operative procedures.

¶†Top 20 urgent procedures by volume: appendectomy; cholecystectomy; femur fixation; hip arthroplasty; colectomy; ankle fixation; hip fixation; tibia or fibula fixation; hernia fixation; radius or ulna fixation; cesarean section; duodenectomy; humerus fixation; ectopic pregnancy removal; laparoscopy; intracranial decompression; radius or ulna reduction; elbow joint fixation; hysterectomy; partial prostatectomy.

\*\*Top 20 elective procedures by volume: total hysterectomy; hernia fixation; cesarean section; knee arthroplasty; hip arthroplasty; partial prostatectomy; colectomy; cholecystectomy; tonsillectomy or adenoidectomy; partial hysterectomy; reduction mammoplasty; lumpectomy; radical prostatectomy; spinal fusion; fixation of bladder neck; salpingo oophorectomy; vaginal fixation; thyroidectomy; cystectomy; radical mastectomy.

††Clinically (> 5%) and statistically ( $p < 0.05$ ) significant change in utilization rate.