Badley eAppendix Page 1 of 3

TABLE E-1 Overall Number and per Capita Provision of Practicing Orthopaedic Surgeons per 100,000 Population and Provision of Orthopaedic Services by Health Region per 100,000 Population in Ontario, Canada, 2006

		Hours	Hours per Week of Orthopaedic Provision per 100,000				
	No. of	Population					
No. of	Orthopaedic					Total Time	
Orthopaedic	Surgeons			Working-	Office +	in Direct	
Surgeons	(FTE)/100,000	Office	Surgery	on-Call	Surgery	Clinical	
(FTE)†	Population†	Hours	Hours	Hours	Hours	Care	
60 (46.48)	5.22 (4.05)	84.62	65.68	29.96	150.30	180.26	
48 (39.24)	4.06 (3.32)	82.59	43.93	20.96	126.53	147.49	
44 (37.65)	3.22 (2.76)	71.23	32.07	31.13	103.30	134.43	
32 (27.01)	3.45 (2.91)	59.17	47.74	20.28	106.91	127.19	
19 (16.38)	3.94 (3.40)	76.34	52.39	28.14	128.74	156.88	
38 (33.87)	2.59 (2.31)	57.58	24.54	24.60	82.13	106.73	
31 (27.75)	1.97 (1.76)	43.61	23.00	16.73	66.61	83.34	
20 (17.50)	1.88 (1.65)	35.69	22.10	17.09	57.79	74.88	
14 (11.95)	2.17 (1.85)	44.84	30.73	13.08	75.57	88.66	
13 (11.58)	1.72 (1.54)	32.20	21.03	22.39	53.23	75.62	
13 (11.48)	2.29 (2.02)	43.08	22.91	27.84	65.99	93.83	
11 (10.98)	1.57 (1.57)	37.20	21.48	14.41	58.69	73.10	
9 (6.61)	3.74 (2.74)	72.45	21.09	26.17	93.53	119.70	
7 (6.03)	1.65 (1.42)	24.85	25.43	11.88	50.28	62.15	
359	2.86 (2.43)	56.33	33.17	22.10	89.50	111.60	
(304.51)							
	3.3	3.4	3.1	2.9	2.9	3.0	
	Orthopaedic Surgeons (FTE)† 60 (46.48) 48 (39.24) 44 (37.65) 32 (27.01) 19 (16.38) 38 (33.87) 31 (27.75) 20 (17.50) 14 (11.95) 13 (11.58) 13 (11.48) 11 (10.98) 9 (6.61) 7 (6.03) 359	No. of Orthopaedic Surgeons (FTE)/100,000 Population† 60 (46.48) 5.22 (4.05) 48 (39.24) 4.06 (3.32) 44 (37.65) 3.22 (2.76) 32 (27.01) 3.45 (2.91) 19 (16.38) 3.94 (3.40) 38 (33.87) 2.59 (2.31) 31 (27.75) 1.97 (1.76) 20 (17.50) 1.88 (1.65) 14 (11.95) 2.17 (1.85) 13 (11.58) 1.72 (1.54) 13 (11.48) 2.29 (2.02) 11 (10.98) 1.57 (1.57) 9 (6.61) 3.74 (2.74) 7 (6.03) 1.65 (1.42) 359 (304.51) — 3.3	No. of Orthopaedic Surgeons (FTE)/100,000 Population† Hours 60 (46.48) 5.22 (4.05) 84.62 48 (39.24) 4.06 (3.32) 82.59 44 (37.65) 3.22 (2.76) 71.23 32 (27.01) 3.45 (2.91) 59.17 19 (16.38) 3.94 (3.40) 76.34 38 (33.87) 2.59 (2.31) 57.58 31 (27.75) 1.97 (1.76) 43.61 20 (17.50) 1.88 (1.65) 35.69 14 (11.95) 2.17 (1.85) 44.84 13 (11.58) 1.72 (1.54) 32.20 13 (11.48) 2.29 (2.02) 43.08 11 (10.98) 1.57 (1.57) 37.20 9 (6.61) 3.74 (2.74) 72.45 7 (6.03) 1.65 (1.42) 24.85 359 (304.51) - 3.3 3.4	No. of Orthopaedic Surgeons (FTE)† Opulation† Office Surgery Hours 60 (46.48) 5.22 (4.05) 84.62 65.68 48 (39.24) 4.06 (3.32) 82.59 43.93 44 (37.65) 3.22 (2.76) 71.23 32.07 32 (27.01) 3.45 (2.91) 59.17 47.74 19 (16.38) 3.94 (3.40) 76.34 52.39 38 (33.87) 2.59 (2.31) 57.58 24.54 31 (27.75) 1.97 (1.76) 43.61 23.00 20 (17.50) 1.88 (1.65) 35.69 22.10 14 (11.95) 2.17 (1.85) 44.84 30.73 13 (11.58) 1.72 (1.54) 32.20 21.03 13 (11.48) 2.29 (2.02) 43.08 22.91 11 (10.98) 1.57 (1.57) 37.20 21.48 9 (6.61) 3.74 (2.74) 72.45 21.09 7 (6.03) 1.65 (1.42) 24.85 25.43 359 (304.51)	No. of Orthopaedic Surgeons (FTE)/100,000 Population Hours	No. of Orthopaedic Surgeons (FTE)†	

^{*}See Figure 1 for a list of regions. †FTE = full-time equivalent. One FTE was assumed to be at least forty hours of work per week of direct patient care (reported office, surgery, and on-call time). ‡Regions in the Toronto conurbation.

Badley eAppendix Page 2 of 3

TABLE E-2 Age and Sex-Adjusted Rates of Office Visits to Orthopaedic Surgeons and Orthopaedic Surgery by Health Regions in Ontario, Canada, Fiscal Year 2005 to 2006

	Age and Sex-Adjusted Rate per 1000 Population				
Health Regions*	Office Visits	Orthopaedic Surgery			
With teaching					
hospitals					
7†	36.4	8.1			
11	42.1	11.7			
4	49.2	13.5			
2	39.6	13.1			
10	50.8	15.1			
Other					
9†	41.4	10.6			
8†	39.2	9.0			
6†	40.4	9.4			
1	40.8	12.7			
5†	25.7	6.1			
13	41.6	12.9			
3	32.2	10.9			
14	53.0	14.1			
12	39.2	13.0			
Ontario	41.0	11.5			
Extremal quotient	2.1	2.5			

^{*}See Figure 1 for a list of regions. †Regions in the Toronto conurbation.

Badley eAppendix Page 3 of 3

TABLE E-3 Associations Between Orthopaedic Service Provision and Orthopaedic Service Utilization in Ontario, Canada, Fiscal Year 2005 to 2006

Provision of Orthopaedic Services per 100,000			
Population	Office Visits	Surgeries	
Correlation coefficient*			
Office hours	0.55 (0.03 to 0.84)	0.30 (-0.27 to 0.72)	
Surgery hours	0.35 (-0.22 to 0.74)	0.41 (-0.15 to 0.77)	
Full-time equivalents (total clinical care)	0.55 (0.03 to 0.84)	0.34 (-0.40 to 0.81)	
Rate ratios*†			
Full-time equivalents			
Lowest	1.00	1.00	
2nd	1.11 (1.03 to 1.19)	0.96 (0.89 to 1.03)	
3rd	1.22 (1.13 to 1.32)	1.31 (1.16 to 1.48)	
Highest	1.29 (1.21 to 1.38)	1.05 (1.00 to 1.11)	
Office hours			
Lowest	1.00	1.00	
2nd	1.09 (1.02 to 1.17)	1.07 (0.97 to 1.19)	
3rd	1.27 (1.09 to 1.48)	1.14 (1.04 to 1.24)	
Highest	1.61 (1.44 to 1.80)	1.39 (1.24 to 1.56)	
Surgery hours			
Lowest	1.00	1.00	
2nd	1.05 (0.90 to 1.23)	0.92 (0.80 to 1.05)	
3rd	1.02 (0.88 to 1.19)	1.07 (0.95 to 1.20)	
Highest	0.92 (0.78 to 1.08)	1.01 (0.87 to 1.16)	

^{*}The 95% confidence interval is given in parentheses. †Negative binomial regression. Models included age, sex, and neighborhood income quintile.