

Appendix 1. List of diagnosis codes used to define the 16 selected medical conditions

Condition	ICD 9 / OHIP fee codes	ICD 10
AMI*	410	I21, I22
Arthritis - Osteoarthritis Arthritis - Other Arthritis (Synovitis, Fibrositis, Connective tissue disorders, Ankylosing spondylitis, Gout Traumatic arthritis, pyogenic arthritis, Joint derangement, Dupuytren’s contracture, Other MSK disorders)	715 727, 729, 710, 720, 274, 716, 711, 718, 728, 739	M15-M19 M00-M03, M07, M10, M11-M14, M20-M25, M30-M36, M65-M79
Arthritis - Rheumatoid arthritis	714	M05-M06
Asthma*	493	J45
Cancer	140-239	C00-C26, C30-C44, C45- C97,
Cardiac Arrhythmia	427.3 (DAD) / 427 (OHIP)	I48.0, I48.1
CHF*	428	I500, I501, I509
COPD*	491, 492, 496	J41, J43, J44
Dementia	290, 331, 797 (OHIP) / 290.0, 290.1, 290.3, 290.4, 290.8, 290.9, 294.1, 294.8, 294.9, 331.0, 331.1, 331.2, 797 (DAD)	F000, F001, F002, F009, F010, F011, F012, F013, F018, F019, F020, F021, F022, F023, F024, F028, F03, F051, F065, F066, F068, F069, F09, G300, G301, G308, G309, G310, G311, R54
Depression	311, 300, 296	F32, F33, F412, F480
Diabetes*	250	E08 - E13
Hypertension*	401, 402, 403, 404, 405	I10, I11, I12, I13, I15
Osteoporosis	733	M81 M82
Renal failure	403, 404, 584, 585, 586, v451	N17, N18, N19, T82.4, Z49.2, Z99.2
Stroke	430, 431, 432, 434, 436	I60-I64
Coronary syndrome (excluding MI)	411-414	I20, I22-I25

Note: * validated diagnosis codes; OHIP, Ontario Health Insurance Plan; AMI, Acute Myocardial Infarction, MSK, musculoskeletal; DAD, Discharge Abstract Database; CHF, Congestive Heart Failure; COPD, Chronic Obstructive Pulmonary Disease; MI, Myocardial infarction

Appendix 2. Proportions and mean number of medical conditions by baseline characteristics,

April 1, 2009 to March 31, 2010

	N	Number of medical conditions					Mean (SD)
		1 (%)	2 (%)	3 (%)	4 (%)	≥5 (%)	
All cohort	6,639,089	52.2	24.2	12.3	6.1	5.2	1.88 (1.16)
Sex							
Female	3,541,644	49.2	25.3	13.4	6.6	5.5	1.94 (1.18)
Male	3,097,445	55.6	22.8	11.1	5.5	5.0	1.81 (1.14)
Age (years)							
0-19	809,782	89.8	9.3	0.8	0.1	0.01	1.11 (0.35)
20-34	908,634	77.2	18.8	3.4	0.5	0.1	1.27 (0.55)
35-44	875,680	66.5	24.4	7.0	1.7	0.5	1.45 (0.74)
45-64	2,410,603	47.0	29.9	14.4	5.7	3.0	1.88 (1.05)
65-74	836,640	25.3	29.3	22.3	12.7	10.4	2.53 (1.28)
70-74	383,237	21.8	28.2	23.2	14.2	12.6	2.68 (1.30)
75+	797,750	13.6	22.4	23.2	17.8	23.0	3.14 (1.36)
Income quintile							
Lowest	1,249,664	50.3	23.8	12.8	6.8	6.3	1.95 (1.21)
Middle-low	1,307,725	50.8	24.3	12.8	6.5	5.7	1.92 (1.18)
Middle	1,317,644	52.4	24.2	12.2	6.1	5.1	1.87 (1.15)
Middle-high	1,365,082	53.2	24.3	12.0	5.8	4.8	1.85 (1.13)
Highest	1,340,912	53.5	24.5	11.9	5.7	4.5	1.83 (1.12)
Rurality index							
Non-rural (< 40)	6,038,705	52.3	24.1	12.3	6.1	5.2	1.88 (1.56)
Rural (≥40)	514,225	48.9	25.0	13.3	6.8	5.9	1.96 (1.19)
Deprivation quintile							
Least deprived	1,654,445	55.0	24.0	11.4	5.3	4.3	1.80 (1.11)
Less deprived	1,504,855	52.6	24.4	12.2	5.9	4.9	1.86 (1.14)
Somewhat deprived	1,328,459	51.1	24.4	12.7	6.4	5.5	1.91 (1.17)
Very deprived	1,101,586	50.0	24.3	13.0	6.7	6.0	1.94 (1.20)
Most deprived	934,094	50.0	23.8	12.9	6.8	6.4	1.96 (1.21)

Appendix 2. (Cont'd)

	N	Number of medical conditions					Mean (SD)
		1 (%)	2 (%)	3 (%)	4 (%)	≥5 (%)	
Instability quintile							
Least unstable	1,715,922	56.6	24.0	11.0	4.9	3.5	1.75 (1.06)
Less unstable	1,365,580	53.2	24.4	12.1	5.8	4.6	1.84 (1.13)
Somewhat unstable	1,077,375	50.5	24.6	12.9	6.5	5.5	1.91 (1.17)
Very unstable	1,195,108	50.4	24.2	12.8	6.6	6.0	1.94 (1.20)
Most unstable	1,169,454	47.3	23.9	13.6	7.6	7.6	2.04 (1.26)
Dependency quintile							
Least dependent	1,400,521	59.3	23.3	10.0	4.3	3.1	1.69 (1.02)
Less dependent	1,456,755	55.5	24.1	11.3	5.2	4.0	1.78 (1.09)
Somewhat dependent	1,280,391	52.4	24.5	12.3	5.9	4.9	1.86 (1.14)
Very dependent	1,134,858	49.3	24.7	13.3	6.8	5.9	1.95 (1.19)
Most dependent	1,250,914	42.2	24.6	15.3	8.9	9.0	2.18 (1.31)
Ethnic concentration quintile							
Lowest	848,456	47.2	25.1	13.9	7.3	6.5	2.01 (1.22)
Middle-low	1,060,646	49.8	24.8	13.0	6.6	5.7	1.91 (1.19)
Middle	1,160,097	51.0	24.5	12.6	6.3	5.5	1.91 (1.17)
Middle-high	1,323,040	53.4	24.0	11.8	5.8	5.0	1.84 (1.14)
Highest	2,131,200	54.9	23.5	11.5	5.5	4.6	1.81 (1.12)
Primary care model							
Family health teams/ other primary care models	1,109,443	51.0	24.9	12.6	6.3	5.2	1.94 (1.28)
Family health networks /family health organizations	1,054,714	49.6	25.3	13.1	6.5	5.5	1.97 (1.30)
Community health centres/family health groups/non-rostered patients	4,474,932	53.1	23.7	12.0	6.0	5.2	1.90 (1.29)