

Supplemental Table 1: ICD-10-ca codes and Anatomical Therapeutic Chemical (ATC) codes used in dementia case ascertainment

ICD-10-CA	ATC Codes	Generic Name
G30 (Alzheimer's disease)	N06DA02	Donepezil
F00 (Dementia in Alzheimer's disease)	N06DA03	Rivastigmine
F01 (Vascular dementia)	N06DA04	Galantamine
F02 (Dementia in other diseases classified elsewhere)	N06DX01	Memantine ¹
F03 (Unspecified dementia)		

1. Memantine is approved by Health Canada but is not included in the Ontario Drug Benefit Formulary so had no impact on this study

Supplemental Table 2. Observed and age-sex standardized claims-based dementia incidence Jan 2015 to Dec 2021, Ontario, Canada

Month	Observed incidence	Standardized incidence ¹	Difference
Jan2015	13.09	13.09	0.00
Feb2015	11.65	11.66	0.00
Mar2015	12.43	12.44	0.01
Apr2015	13.79	13.79	0.00
May2015	12.63	12.64	0.01
Jun2015	13.29	13.30	0.00
Jul2015	12.44	12.44	0.00
Aug2015	11.38	11.39	0.00
Sep2015	12.74	12.75	0.01
Oct2015	12.55	12.56	0.00
Nov2015	13.09	13.08	0.00
Dec2015	11.46	11.47	0.00
Jan2016	12.51	12.52	0.00
Feb2016	12.39	12.40	0.00
Mar2016	12.02	12.02	0.00
Apr2016	12.81	12.82	0.01
May2016	12.58	12.59	0.01
Jun2016	13.54	13.55	0.01
Jul2016	11.15	11.16	0.01
Aug2016	11.68	11.70	0.01
Sep2016	12.42	12.43	0.02
Oct2016	11.97	11.98	0.01

Nov2016	12.98	12.99	0.01
Dec2016	11.18	11.22	0.03
Jan2017	12.60	12.62	0.01
Feb2017	12.37	12.40	0.03
Mar2017	12.29	12.34	0.04
Apr2017	12.16	12.20	0.03
May2017	12.79	12.82	0.03
Jun2017	12.66	12.71	0.05
Jul2017	11.17	11.21	0.05
Aug2017	11.56	11.60	0.04
Sep2017	12.14	12.18	0.04
Oct2017	12.07	12.11	0.04
Nov2017	13.37	13.42	0.05
Dec2017	10.48	10.52	0.04
Jan2018	12.39	12.44	0.04
Feb2018	11.84	11.89	0.05
Mar2018	11.73	11.79	0.06
Apr2018	13.34	13.41	0.08
May2018	12.72	12.78	0.06
Jun2018	11.89	11.96	0.06
Jul2018	12.09	12.16	0.07
Aug2018	11.42	11.48	0.06
Sep2018	11.41	11.47	0.06
Oct2018	12.52	12.59	0.07
Nov2018	12.40	12.48	0.08
Dec2018	9.95	10.02	0.07
Jan2019	12.22	12.31	0.08
Feb2019	11.39	11.48	0.09
Mar2019	11.56	11.65	0.09
Apr2019	13.33	13.43	0.11
May2019	12.56	12.63	0.07
Jun2019	11.91	12.02	0.11
Jul2019	12.11	12.20	0.09
Aug2019	10.94	11.03	0.09
Sep2019	11.63	11.75	0.12
Oct2019	12.38	12.50	0.12
Nov2019	12.25	12.37	0.12
Dec2019	10.61	10.74	0.13
Jan2020	12.47	12.62	0.15
Feb2020	10.55	10.66	0.12
Mar2020	9.33	9.44	0.11
Apr2020	8.51	8.62	0.11
May2020	9.03	9.13	0.10
Jun2020	10.17	10.29	0.12
Jul2020	10.67	10.79	0.12

Aug2020	10.07	10.19	0.11
Sep2020	11.48	11.62	0.14
Oct2020	11.52	11.66	0.14
Nov2020	11.90	12.05	0.15
Dec2020	10.69	10.82	0.13
Jan2021	10.92	11.06	0.14
Feb2021	11.47	11.63	0.16
Mar2021	12.60	12.78	0.18
Apr2021	11.71	11.88	0.17
May2021	11.35	11.50	0.16
Jun2021	12.61	12.78	0.17
Jul2021	11.09	11.23	0.14
Aug2021	11.18	11.30	0.13
Sep2021	11.94	12.08	0.14
Oct2021	11.97	12.10	0.13
Nov2021	12.98	13.12	0.14
Dec2021	10.40	10.50	0.10

1. Incidence standardized to the age (65-74,75-84,85+) and sex (M/F) group distribution of Ontario as of January 2015.

Supplemental Table 3. Changes in the claims-based dementia incidence during the COVID-19 pandemic with cumulative differences between observed and expected cases, overall, using standardized incidence rates, and in the community-dwelling population

Measure	Overall	Standardized Rates	Community-dwelling population
2019 Average incidence / 10,000	11.9	12.0	10.3
2020 Nadir incidence / 10,000	8.5	8.62	7.04
Percent drop in incidence at nadir vs. expected	32.6%	32.20%	35.20%
2020 Cumulative difference observed vs. expected cases (in months of new cases)	-1.21 (-1.32, -1.08)	-1.19 (-1.31, -1.06)	-1.17 (-1.31, -1.03)
2021 Cumulative difference observed vs. expected cases (in months of new cases)	0.16 (0.01, 0.32)	0.16 (0.01, 0.33)	0.28 (0.09, 0.46)
2020-2021 Cumulative difference observed vs. expected cases (in months of new cases)	-1.05 (-1.31, -0.77)	-1.04 (-1.30, -0.73)	-0.89 (-1.23, -0.57)