

**The Impact of Shifting Demographics, Variants of Concern, and Vaccination on Outcomes During the First Three Covid-19 Waves in Alberta and Ontario: Retrospective Cohort Study  
(McAlister et al.)**

**Appendix 1. Covariate definitions and data sources**

Covariate	ICD-10-CA [or Canadian Classification of Health Intervention (CCI)] Codes	Data sources
Chronic obstructive lung disease (COPD)/asthma	J40-J45	DAD
Other chronic lung disease (non-COPD/asthma)	J46, J47, J60-J67, I278, I279, J684, J701, J703	DAD
Congestive heart failure	I43, I50, I099, I110, I130, I132, I255, I420, I425-I429, P290	DAD
Hypertension	I10-I13, I15	DAD
Diabetes mellitus	E10-E14	DAD
Coronary artery disease (previous myocardial infarction, coronary artery bypass graft surgery, percutaneous coronary intervention/stent)	I20-I25 [or CCI 1I150, 1I176]	DAD, SDS (for procedures)
Peripheral vascular disease	I70, I71, I731, I738, I739, I771, I790, I792, K551, K558, K559, Z958, Z959	DAD
Cerebrovascular disease (previous stroke/transient ischemic attack)	G45, G46, I60-I69, H340	DAD
Atrial fibrillation/flutter	I48	DAD
Ventricular arrhythmias	I472, I49	DAD
Renal disease	I120, I131, N032-N037, N052-N057, N18, N19, N250, Z490, Z491, Z492, Z940, Z992	DAD
Cancer	C00-C26, C30-C34, C37-C39, C40, C41, C43, C45-C49, C50-C58, C60-C85, C88, C90-C97	DAD
Peptic ulcer disease	K25-K28	DAD
Liver disease	B18, I850, I859, I864, I982, K700, K701-K704, K709, K711, K713-K715, K717, K721, K729, K73, K74, K760, K762-K769, Z944	DAD
Dementia	F00-F03, F051, G30, G311	DAD
Vaccination status	At the time of SARS-CoV-2 test: Fully vaccinated = ≥ 2 weeks after second dose of approved COVID-19 vaccine Partially vaccinated = ≥ 2 weeks after first dose of approved COVID-19 vaccine Non-vaccinated = No dose or < 2 weeks after first dose of approved COVID-19 vaccine	Alberta Health Services, Ontario Ministry of Health

Abbreviations: DAD, Canadian Institute for Health Information Discharge Abstract Database; SDS, Canadian Institute for Health Information Same Day Surgery Database.

Appendix 1, as supplied by authors. Appendix to: McAlister FA, Nabipoor M, Chu A, et al. The impact of shifting demographics, variants of concern and vaccination on outcomes during the first 3 COVID-19 waves in Alberta and Ontario: a retrospective cohort study. *CMAJ Open* 2022. DOI:10.9778/cmajo.20210323. Copyright © 2022 The Author(s) or their employer(s). To receive this resource in an accessible format, please contact us at [cmajgroup@cmaj.ca](mailto:cmajgroup@cmaj.ca).