Appendix 1 (as supplied by the authors): Supplemental material

Table S1: Definition of Alcohol Use Disorder – Cases

We used ICD-9-CM, ICD-10-CA, and ATC codes to identify individuals with alcohol use disorder, as follows:

Mental Health Diagnoses 291 Alcohol-induced mental disorders F10 Mental and behavioural disorders due to use of alcohol 303 Alcohol dependence syndrome 305.0 Alcohol abuse Physical Health Diagnoses 571.0 Alcoholic fatty liver K70 Alcoholic Liver Disease 571.1 Acute alcoholic hepatitis 571.2 Alcoholic cirrhosis 571.2 Alcoholic liver damage unspecified 425.5 Alcoholic Cardiomyopathy 425.5 Alcoholic Gastritis K29.2 Alcoholic Gastritis 335.5 Alcoholic Polyneuropathy G62.1 Alcoholic Polyneuropathy 760.71 FASD (for mothers of children with diagnosis) With diagnosis) 977.3 Poisoning by Alcohol Deterrents X45 Accidental poisoning by and exposure to alcohol E86.00 Accidental poisoning by Alcoholic Beverages X65 Intentional self-poisoning by and exposure to alcohol, undetermined intent 980.0 Toxic effect of alcohol (ethanol) T51.0 Toxic effect of alcohol (ethanol) (vetanol) Y90 Evidence of alcohol involvement determined by blood alcohol level Y91 Evidence of alcohol involvement determined by level of intoxication Z70.2 Alcohol rehabilitation Z71.4 Alcohol suse counselling and surveillance Z72.1 Problems related to lifestyle, Alcohol use		ICD-9-CM Diagnosis Code	ICD-10-CA Diagnosis Code
303 Alcohol dependence syndrome 305.0 Alcohol abuse Physical Health Diagnoses 571.1 Acute alcoholic fatty liver 571.2 Alcoholic cirrhosis 571.3 Alcoholic liver damage unspecified 425.5 Alcoholic Cardiomyopathy 535.5 Alcoholic Gastritis 357.5 Alcoholic Polyneuropathy 60.71 FASD (for mothers of children with diagnosis) 777.3 Poisoning by Alcohol Deterrents E86.00 Accidental poisoning by Alcoholic Beverages 426.0 Accidental poisoning by Alcoholic Beverages 571.1 Acute alcoholic hepatitis 571.2 Alcoholic Cardiomyopathy 571.3 Alcoholic Cardiomyopathy 571.3 Alcoholic Gastritis 572.4 Alcoholic Cardiomyopathy 573.5 Alcoholic Polyneuropathy 574.5 Alcoholic Polyneuropathy 575.5 Alcoholic Polyneuropathy 576.7 Alcoholic Polyneuropathy 577.3 Poisoning by Alcohol 578.6 Intentional self-poisoning by and exposure to alcohol 579.1 Poisoning by and exposure to alcohol 579.0 Evidence of alcohol (ethanol) 579.0 Evidence of alcohol involvement determined by level of intoxication 579.1 Evidence of alcohol involvement determined by level of intoxication 579.2 Alcohol rehabilitation 579.2 Alcohol rehabilitation 579.2 Alcohol abuse counselling and surveillance 577.2 Problems related to lifestyle, Alcohol use 572.4 Alcohol-induced pseudo-Cushing's	Mental Health	291 Alcohol-induced mental	F10 Mental and behavioural disorders
Social Health Diagnoses	Diagnoses	disorders	due to use of alcohol
Physical Health Diagnoses 571.0 Alcoholic fatty liver 571.1 Acute alcoholic hepatitis 571.2 Alcoholic cirrhosis 571.3 Alcoholic liver damage unspecified 425.5 Alcoholic Cardiomyopathy 535.5 Alcoholic Gastritis 357.5 Alcoholic Polyneuropathy 760.71 FASD (for mothers of children with diagnosis) 977.3 Poisoning by Alcohol Deterrents E86.00 Accidental poisoning by Alcoholic Beverages 426.0 FASD (for mothers of children with diagnosis) 977.3 Poisoning by Alcohol Deterrents E86.00 Accidental poisoning by Alcohol Deterrents Fand a seposure to alcohol T15.0 Toxic effect of alcohol (ethanol) V11.3 Alcoholism Y90 Evidence of alcohol involvement determined by lood alcohol level Y91 Evidence of alcohol involvement determined by level of intoxication Z50.2 Alcohol rehabilitation Z71.4 Alcohol abuse counselling and surveillance Z72.1 Problems related to lifestyle, Alcohol use E24.4 Alcohol-induced pseudo-Cushing's		303 Alcohol dependence syndrome	
Diagnoses 571.1 Acute alcoholic hepatitis 571.2 Alcoholic cirrhosis 571.3 Alcoholic liver damage unspecified 425.5 Alcoholic Cardiomyopathy 535.5 Alcoholic Gastritis 357.5 Alcoholic Polyneuropathy 760.71 FASD (for mothers of children with diagnosis) 977.3 Poisoning by Alcohol Deterrents E86.00 Accidental poisoning by Alcoholic Beverages 426.0 FASD (for mothers of children with diagnosis) 977.3 Poisoning by Alcohol Deterrents E86.00 Accidental poisoning by Alcohol Deterrents E86.00 Toxic effect of alcohol (ethanol) V11.3 Alcoholism Y90 Evidence of alcohol involvement determined by blood alcohol level Y91 Evidence of alcohol involvement determined by level of intoxication Z50.2 Alcohol rehabilitation Z71.4 Alcohol abuse counselling and surveillance Z72.1 Problems related to lifestyle, Alcohol use E24.4 Alcohol-induced pseudo-Cushing's		305.0 Alcohol abuse	
571.1 Acute alcoholic hepatitis 571.2 Alcoholic cirrhosis 571.3 Alcoholic liver damage unspecified 425.5 Alcoholic Cardiomyopathy 535.5 Alcoholic Gastritis 357.5 Alcoholic Gastritis 357.5 Alcoholic Polyneuropathy 760.71 FASD (for mothers of children with diagnosis) 977.3 Poisoning by Alcohol Deterrents E86.00 Accidental poisoning by Alcoholic Beverages 280.0 Toxic effect of alcohol (ethanol) V11.3 Alcoholism Y90 Evidence of alcohol involvement determined by level of intoxication Z50.2 Alcohol rehabilitation Z71.4 Alcohol abuse counselling and surveillance Z72.1 Problems related to lifestyle, Alcohol use E24.4 Alcohol-induced pseudo-Cushing's	Physical Health	571.0 Alcoholic fatty liver	K70 Alcoholic Liver Disease
571.2 Alcoholic cirrhosis 571.3 Alcoholic liver damage unspecified 425.5 Alcoholic Cardiomyopathy I42.6 Alcoholic Cardiomyopathy 535.5 Alcoholic Gastritis K29.2 Alcoholic Gastritis 357.5 Alcoholic Polyneuropathy G62.1 Alcoholic Polyneuropathy 760.71 FASD (for mothers of children with diagnosis) with diagnosis) 977.3 Poisoning by Alcohol Deterrents exposure to alcohol E86.00 Accidental poisoning by Alcoholic Beverages exposure to alcohol Y15 Poisoning by and exposure to alcohol (ethanol) 980.0 Toxic effect of alcohol (ethanol) (ethanol) V11.3 Alcoholism Y90 Evidence of alcohol involvement determined by blood alcohol level Y91 Evidence of alcohol involvement determined by level of intoxication Z50.2 Alcohol rehabilitation Z71.4 Alcohol abuse counselling and surveillance Z72.1 Problems related to lifestyle, Alcohol use E24.4 Alcohol-induced pseudo-Cushing's	Diagnoses		
571.3 Alcoholic liver damage unspecified 425.5 Alcoholic Cardiomyopathy 535.5 Alcoholic Gastritis 357.5 Alcoholic Polyneuropathy 760.71 FASD (for mothers of children with diagnosis) 977.3 Poisoning by Alcohol Deterrents E86.00 Accidental poisoning by Alcoholic Beverages 980.0 Toxic effect of alcohol (ethanol) V11.3 Alcoholism Y90 Evidence of alcohol involvement determined by level of intoxication Z70.2 Alcohol abuse counselling and surveillance Z72.1 Problems related to lifestyle, Alcohol use E24.4 Alcohol-induced pseudo-Cushing's		571.1 Acute alcoholic hepatitis	
unspecified 425.5 Alcoholic Cardiomyopathy 535.5 Alcoholic Gastritis 357.5 Alcoholic Polyneuropathy 760.71 FASD (for mothers of children with diagnosis) 977.3 Poisoning by Alcohol Deterrents E86.00 Accidental poisoning by Alcohol Alcoholic Beverages 980.0 Toxic effect of alcohol (ethanol) V11.3 Alcoholism Y10 Evidence of alcohol involvement determined by level of intoxication Z50.2 Alcohol abuse counselling and surveillance Z72.1 Problems related to lifestyle, Alcohol use E24.4 Alcohol-induced pseudo-Cushing's		571.2 Alcoholic cirrhosis	
425.5 Alcoholic Cardiomyopathy 535.5 Alcoholic Gastritis 357.5 Alcoholic Polyneuropathy 760.71 FASD (for mothers of children with diagnosis) 977.3 Poisoning by Alcohol Deterrents E86.00 Accidental poisoning by Alcoholic Beverages 425.5 Alcoholic Polyneuropathy 760.71 FASD (for mothers of children with diagnosis) 977.3 Poisoning by Alcohol Deterrents E86.00 Accidental poisoning by Alcoholic Beverages 425.5 Alcoholic Polyneuropathy 760.71 FASD (for mothers of children with diagnosis) 426.0 FASD (for mothers of children with diagnosis) 425.5 Accidental poisoning by and exposure to alcohol E86.00 Accidental poisoning by and exposure to alcohol Y15 Poisoning by and exposure to alcohol, undetermined intent 426.0 Toxic effect of alcohol (ethanol) 427.0 Toxic effect of alcohol (ethanol) 428.0 Toxic effect of alcohol (ethanol) 429.0 Evidence of alcohol involvement determined by lovel of intoxication 429.1 Evidence of alcohol involvement determined by level of intoxication 429.2 Alcohol rehabilitation 429.2 Alcohol abuse counselling and surveillance 429.1 Problems related to lifestyle, Alcohol use 420.2 Alcohol-induced pseudo-Cushing's		571.3 Alcoholic liver damage	
535.5 Alcoholic Gastritis 357.5 Alcoholic Polyneuropathy 760.71 FASD (for mothers of children with diagnosis) 977.3 Poisoning by Alcohol Deterrents E86.00 Accidental poisoning by Alcohol Alcoholic Beverages 286.0 Toxic effect of alcohol (ethanol) V11.3 Alcoholism Y90 Evidence of alcohol involvement determined by level of intoxication Z50.2 Alcohol involvement determined by level of intoxication Z71.4 Alcohol abuse counselling and surveillance Z72.1 Problems related to lifestyle, Alcohol use E24.4 Alcohol-induced pseudo-Cushing's		unspecified	
357.5 Alcoholic Polyneuropathy 760.71 FASD (for mothers of children with diagnosis) 977.3 Poisoning by Alcohol Deterrents E86.00 Accidental poisoning by Alcohol Alcoholic Beverages 980.0 Toxic effect of alcohol (ethanol) V11.3 Alcoholism Y90 Evidence of alcohol involvement determined by blood alcohol level Y91 Evidence of alcohol involvement determined by level of intoxication Z50.2 Alcohol ause E72.1 Problems related to lifestyle, Alcohol use E24.4 Alcohol-induced pseudo-Cushing's		425.5 Alcoholic Cardiomyopathy	I42.6 Alcoholic Cardiomyopathy
760.71 FASD (for mothers of children with diagnosis) 977.3 Poisoning by Alcohol Deterrents E86.00 Accidental poisoning by Alcohol Alcoholic Beverages Y15 Poisoning by and exposure to alcohol (ethanol) V11.3 Alcoholism Y90 Evidence of alcohol involvement determined by blood alcohol level Y91 Evidence of alcohol involvement determined by level of intoxication Z50.2 Alcohol rehabilitation Z71.4 Alcohol abuse counselling and surveillance Z72.1 Problems related to lifestyle, Alcohol use E24.4 Alcohol-induced pseudo-Cushing's		535.5 Alcoholic Gastritis	K29.2 Alcoholic Gastritis
children with diagnosis) 977.3 Poisoning by Alcohol Deterrents E86.00 Accidental poisoning by Alcoholic Beverages X65 Intentional self-poisoning by and exposure to alcohol Y15 Poisoning by and exposure to alcohol y15 Poisoning by and exposure to alcohol, undetermined intent 980.0 Toxic effect of alcohol (ethanol) V11.3 Alcoholism Y90 Evidence of alcohol involvement determined by blood alcohol level Y91 Evidence of alcohol involvement determined by level of intoxication Z50.2 Alcohol rehabilitation Z71.4 Alcohol abuse counselling and surveillance Z72.1 Problems related to lifestyle, Alcohol use E24.4 Alcohol-induced pseudo-Cushing's		357.5 Alcoholic Polyneuropathy	G62.1 Alcoholic Polyneuropathy
977.3 Poisoning by Alcohol Deterrents E86.00 Accidental poisoning by Alcoholic Beverages Y15 Poisoning by and exposure to alcohol (ethanol) V11.3 Alcoholism Y90 Evidence of alcohol involvement determined by level of intoxication Z50.2 Alcohol rehabilitation Z71.4 Alcohol abuse counselling and surveillance Z72.1 Problems related to lifestyle, Alcohol use E24.4 Alcohol-induced pseudo-Cushing's		760.71 FASD (for mothers of	Q86.0 FASD (for mothers of children
Deterrents E86.00 Accidental poisoning by Alcoholic Beverages X65 Intentional self-poisoning by and exposure to alcohol Y15 Poisoning by and exposure to alcohol, undetermined intent P80.0 Toxic effect of alcohol (ethanol) V11.3 Alcoholism Y90 Evidence of alcohol involvement determined by blood alcohol level Y91 Evidence of alcohol involvement determined by level of intoxication Z50.2 Alcohol rehabilitation Z71.4 Alcohol abuse counselling and surveillance Z72.1 Problems related to lifestyle, Alcohol use E24.4 Alcohol-induced pseudo-Cushing's		children with diagnosis)	with diagnosis)
E86.00 Accidental poisoning by Alcoholic Beverages X65 Intentional self-poisoning by and exposure to alcohol Y15 Poisoning by and exposure to alcohol, undetermined intent 980.0 Toxic effect of alcohol (ethanol) V11.3 Alcoholism Y90 Evidence of alcohol involvement determined by blood alcohol level Y91 Evidence of alcohol involvement determined by level of intoxication Z50.2 Alcohol rehabilitation Z71.4 Alcohol abuse counselling and surveillance Z72.1 Problems related to lifestyle, Alcohol use E24.4 Alcohol-induced pseudo-Cushing's		977.3 Poisoning by Alcohol	X45 Accidental poisoning by and
Alcoholic Beverages exposure to alcohol Y15 Poisoning by and exposure to alcohol, undetermined intent 980.0 Toxic effect of alcohol (ethanol) V11.3 Alcoholism Y90 Evidence of alcohol involvement determined by blood alcohol level Y91 Evidence of alcohol involvement determined by level of intoxication Z50.2 Alcohol rehabilitation Z71.4 Alcohol abuse counselling and surveillance Z72.1 Problems related to lifestyle, Alcohol use E24.4 Alcohol-induced pseudo-Cushing's		Deterrents	exposure to alcohol
Y15 Poisoning by and exposure to alcohol, undetermined intent 980.0 Toxic effect of alcohol (ethanol) V11.3 Alcoholism Y90 Evidence of alcohol involvement determined by blood alcohol level Y91 Evidence of alcohol involvement determined by level of intoxication Z50.2 Alcohol rehabilitation Z71.4 Alcohol abuse counselling and surveillance Z72.1 Problems related to lifestyle, Alcohol use E24.4 Alcohol-induced pseudo-Cushing's		E86.00 Accidental poisoning by	X65 Intentional self-poisoning by and
alcohol, undetermined intent 980.0 Toxic effect of alcohol (ethanol) V11.3 Alcoholism Y90 Evidence of alcohol involvement determined by blood alcohol level Y91 Evidence of alcohol involvement determined by level of intoxication Z50.2 Alcohol rehabilitation Z71.4 Alcohol abuse counselling and surveillance Z72.1 Problems related to lifestyle, Alcohol use E24.4 Alcohol-induced pseudo-Cushing's		Alcoholic Beverages	exposure to alcohol
980.0 Toxic effect of alcohol (ethanol) V11.3 Alcoholism Y90 Evidence of alcohol involvement determined by blood alcohol level Y91 Evidence of alcohol involvement determined by level of intoxication Z50.2 Alcohol rehabilitation Z71.4 Alcohol abuse counselling and surveillance Z72.1 Problems related to lifestyle, Alcohol use E24.4 Alcohol-induced pseudo-Cushing's			Y15 Poisoning by and exposure to
(ethanol) V11.3 Alcoholism Y90 Evidence of alcohol involvement determined by blood alcohol level Y91 Evidence of alcohol involvement determined by level of intoxication Z50.2 Alcohol rehabilitation Z71.4 Alcohol abuse counselling and surveillance Z72.1 Problems related to lifestyle, Alcohol use E24.4 Alcohol-induced pseudo-Cushing's			alcohol, undetermined intent
determined by blood alcohol level Y91 Evidence of alcohol involvement determined by level of intoxication Z50.2 Alcohol rehabilitation Z71.4 Alcohol abuse counselling and surveillance Z72.1 Problems related to lifestyle, Alcohol use E24.4 Alcohol-induced pseudo-Cushing's			T51.0 Toxic effect of alcohol (ethanol)
Y91 Evidence of alcohol involvement determined by level of intoxication Z50.2 Alcohol rehabilitation Z71.4 Alcohol abuse counselling and surveillance Z72.1 Problems related to lifestyle, Alcohol use E24.4 Alcohol-induced pseudo-Cushing's		V11.3 Alcoholism	Y90 Evidence of alcohol involvement
determined by level of intoxication Z50.2 Alcohol rehabilitation Z71.4 Alcohol abuse counselling and surveillance Z72.1 Problems related to lifestyle, Alcohol use E24.4 Alcohol-induced pseudo-Cushing's			determined by blood alcohol level
Z50.2 Alcohol rehabilitation Z71.4 Alcohol abuse counselling and surveillance Z72.1 Problems related to lifestyle, Alcohol use E24.4 Alcohol-induced pseudo-Cushing's			Y91 Evidence of alcohol involvement
Z71.4 Alcohol abuse counselling and surveillance Z72.1 Problems related to lifestyle, Alcohol use E24.4 Alcohol-induced pseudo-Cushing's			determined by level of intoxication
surveillance Z72.1 Problems related to lifestyle, Alcohol use E24.4 Alcohol-induced pseudo-Cushing's			Z50.2 Alcohol rehabilitation
Alcohol use E24.4 Alcohol-induced pseudo-Cushing's			_
E24.4 Alcohol-induced pseudo-Cushing's			Z72.1 Problems related to lifestyle,
			Alcohol use
			E24.4 Alcohol-induced pseudo-Cushing's
syndrome			syndrome

Appendix to: Bolton JM, Leong C, Ekuma O, et al. Health service use among Manitobans with alcohol use disorder: a population-based matched cohort study. CMAJ Open 2020. DOI:10.9778/cmajo.20200124. Copyright © 2020 Joule Inc. or its licensors

		G31.2 Degeneration of nervous system
		due to alcohol
		G72.1 Alcoholic Myopathy
		K85.2 Alcohol-induced acute pancreatitis
		K86.0 Alcohol-induced chronic
		pancreatitis
		O35.4 Maternal care for (suspected)
		damage to fetus from alcohol
Prescription	ATC Code	Generic Drug Name
medications		
	N07BB01	Disulfiram
	N07BB02	Calcium Carbimide
	N07BB03	Acamprosate Calcium

Notes: For evidence of the validity of these codes in defining AUD, please see:

Kim HM, Smith EG, Stano CM, Ganoczy D, Zivin K, Walters H, Valenstein M. Validation of key behaviourally based mental health diagnoses in administrative data: suicide attempt, alcohol abuse, illicit drug abuse and tobacco use. BMC Health Serv Res. 2012 Jan 23;12:18. doi: 10.1186/1472-6963-12-18.

For readers interested in the correlation between ICD codes and the DSM: While ICD codes do not correspond directly with DSM codes, there is evidence that they align well with each other. Please see:

Hoffmann NG, Kopak AM. How well do the DSM-5 alcohol use disorder designations map to the ICD-10 disorders? Alcohol Clin Exp Res. 2015 Apr;39(4):697-701. doi: 10.1111/acer.12685.

Table S2: Inclusion and Exclusion Criteria for Control Group

To create the control group, we identified individuals from the general Manitoba population with at least five years of continuous health coverage prior to index date. We then excluded individuals if they met the criteria for AUD during the study or washout period, if they had ever had a substance use disorder diagnosis of any kind, had ever been accused of driving while intoxicated, had ever reported that they drank during their pregnancy, or were mothers of children with fetal alcohol spectrum disorder. In addition, we used data from the Canadian Community Health Survey (CCHS) to identify people to be removed from the control group (see the table below for the relevant survey variables).

Survey Variable	Survey(s) in which Variable Appeared
5+ drinks in one sitting (at least once a month	CCHS: 1.1, 1.2, 2.1, 2.2, 3.1, 2007, 2008,
for past year)	Healthy Aging, 2009, 2010, 2011, 2012, 2013
5+ drinks in one sitting (at least once a month	CCHS: 1.2
for 1 year)	
Daily alcohol consumption in past week	CCHS: 1.1, 1.2, 2.1, 3.1, 2011, 2012, 2013
(exceeds daily limits)	
Number of drinks in past week (exceeds	CCHS: 1.1, 1.2, 2.1, 3.1, 2011, 2012, 2013
weekly limits)	
Ever regularly drank >12 drinks/week	CCHS: 1.1, 1.2, 2.1, 3.1
Reason reduced drinking - drinking problem	CCHS: 1.1, 1.2, 2.1, 3.1
Reason reduced drinking - affected	CCHS: 1.1, 1.2, 2.1, 3.1
work/studies	
Reason reduced drinking - interfered with	CCHS: 1.1, 1.2, 2.1, 3.1
family or home life	
Reason reduced drinking - affected physical	CCHS: 1.1, 1.2, 2.1, 3.1
health	
Reason reduced drinking - affected social	CCHS: 1.1, 1.2, 2.1, 3.1
relationships	
Reason reduced drinking - affected financial	CCHS: 1.1, 1.2, 2.1, 3.1
position	
Reason reduced drinking - affected outlook	CCHS: 1.1, 1.2, 2.1, 3.1
on life, happiness	
Drank while pregnant	CCHS: 1.1, 2.1, 3.1
Frequency of drinks while pregnant	CCHS: 1.1, 2.1, 3.1
Alcohol dependence (yes to any question in	CCHS: 1.1, 1.2
module)	CCHC 2.1 2007 2000 2011 2012
Drove motor vehicle after drinking 2+ drinks	CCHS: 2.1, 2007, 2008, 2011, 2012
in hour before	GGHG 2.1 2007 2000 2011 2012
Frequency of driving after 2+ drinks in past	CCHS: 2.1, 2007, 2008, 2011, 2012
year 1:1 4 ATV	COME 2.1 2007 2000 2011 2012
Drove boat, ATV, snowmobile, etc. after	CCHS: 2.1, 2007, 2008, 2011, 2012
drinking 2+ drinks in hour before	CCHC. 2.1. 2007, 2009, 2011, 2012
Frequency of driving boat, ATV, snowmobile	CCHS: 2.1, 2007, 2008, 2011, 2012
after 2+ drinks in past year	CCHC. 1.2. 2.1. 2.1. 2007, 2009, 2009, 2019
Cause of health problems - alcohol or drugs	CCHS: 1.2, 2.1, 3.1, 2007, 2008, 2009, 2010,
	2012, 2013

Appendix to: Bolton JM, Leong C, Ekuma O, et al. Health service use among Manitobans with alcohol use disorder: a population-based matched cohort study. *CMA7 Open* 2020. DOI:10.9778/cmajo.20200124. Copyright © 2020 Joule Inc. or its licensors

Cause of poor ADLs or social difficulties - alcohol or drugs	CCHS: 1.2, 2.1, 3.1,
Barrier to improving health - addiction to	CCHS: 3.1, 2007, 2008, Healthy Aging, 2011,
drugs or alcohol	2012, 2013
Frequency of coping with stress by drinking alcohol	CCHS: 1.2
Depressive episodes due to alcohol	CCHS: 1.2
Manic episodes due to alcohol	CCHS: 1.2
Panic attacks due to alcohol	CCHS: 1.2
Not currently working due to use of alcohol or drugs	CCHS: 2.1
Not looking for work due to use of alcohol or drugs	CCHS: 2.1, Healthy Aging
Reason retired - use of alcohol or drugs	CCHS: Healthy Aging

Box S1: Definitions of Health Services Use Outcomes

Inpatient Hospitalizations

Hospitalizations in which patients were formally admitted to the hospital for diagnostic, medical, or surgical treatment and typically stayed for one or more days. Multiple admissions of the same person were counted as separate events. All Manitoba hospitals were included, but personal care homes, nursing stations, federal hospitals, and long-term care facilities were excluded (Deer Lodge Centre, Manitoba Adolescent Treatment Centre, Rehabilitation Centre for Children, and Riverview Health Centre). Out-of-province hospitalizations for Manitoba residents were also included.

Days Spent in Hospital

The total number of days spent as an inpatient in a hospital. The total number of days in hospital takes into account transfers, so as to not double-count any days. All Manitoba hospitals were included; personal care homes, nursing stations, federal hospitals, and long-term care facilities were excluded. Out-of-province hospitalizations for Manitoba residents were also included.

Outpatient Physician Visits

Almost all contacts with physicians (family practitioners and specialists): office visits, walk-in clinic visits, home visits, visits to personal care homes, and visits to outpatient departments. Prenatal visits were included. Services provided to patients while admitted to hospital and emergency department visits were excluded.

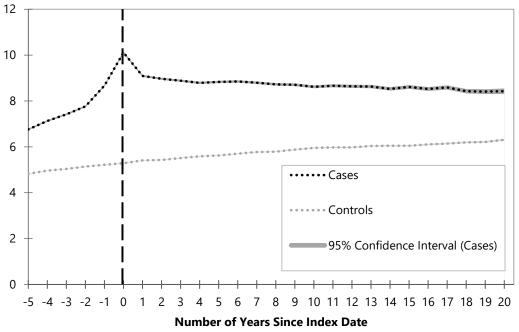
Emergency Department Visits

The Emergency Department Information System (EDIS) contains information on a patient's experience as they progress through the Emergency Department from their first point of entry at the triage desk through to their discharge. EDIS captures ED data from the following Winnipeg hospitals: Concordia Hospital, Grace Hospital, Health Sciences Centre Adult, Seven Oaks General Hospital, St. Boniface General Hospital, and Victoria General Hospital. ED data was available for fiscal years 2008/09 to 2014/15. The emergency department visits to these hospitals were counted and a rate per 100 person-years was calculated for alcohol-related cases and their matches.

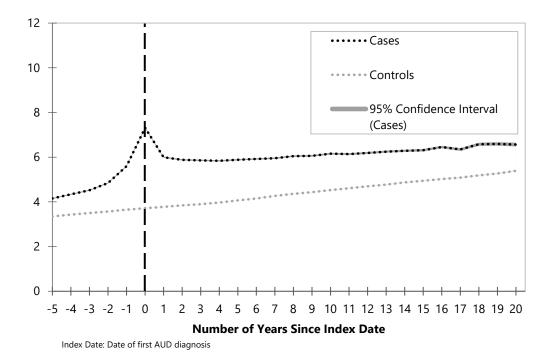
Prescription Drugs

The average number of different types of prescription drugs dispensed to each case and match. Each pharmaceutical agent that falls under a different fourth-level ATC class was counted as a new drug for each person. A person could have several prescriptions for drugs in the same fourth-level ATC class, but this only counted as one drug type. This essentially separated drugs used for different health problems and avoided double-counting prescriptions for drugs in the same group. Nearly all prescriptions dispensed from community-based pharmacies across the province were included; prescription drugs given to hospitalized patients and some residents in personal care homes with hospital-based pharmacies were not included. Prescriptions were limited to those covered by Manitoba Health's Pharmacare program; prescriptions for over-the-counter drugs were excluded to ensure a common set of drugs that could be compared fairly across the province.

Figure S1. Crude number of annual outpatient visits for women (top) and men (bottom) with AUD (cases) and without AUD (controls), before and after index date.

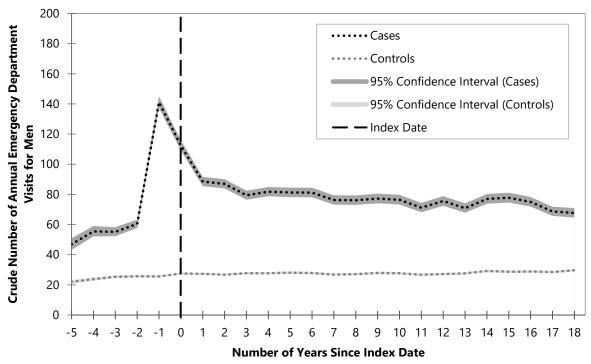


Index Date: Date of first AUD diagnosis

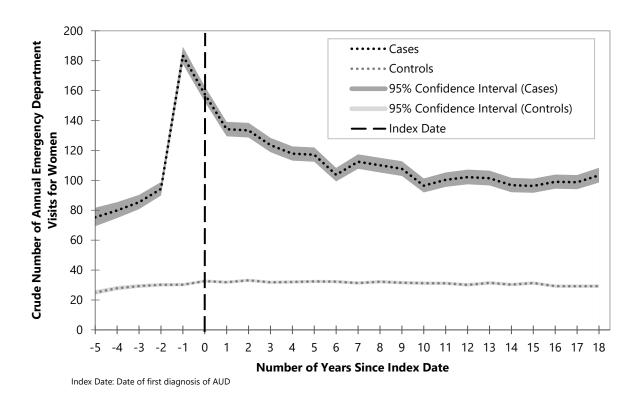


Appendix to: Bolton JM, Leong C, Ekuma O, et al. Health service use among Manitobans with alcohol use disorder: a population-based matched cohort study. CMAJ Open 2020. DOI:10.9778/cmajo.20200124. Copyright © 2020 Joule Inc. or its licensors

Figure S2. Crude number of annual emergency department visits for women (top) and men (bottom) with AUD (cases) and without AUD (controls), before and after index date.



Index Date: Date of first AUD diagnosis



Appendix to: Bolton JM, Leong C, Ekuma O, et al. Health service use among Manitobans with alcohol use disorder: a population-based matched cohort study. CMAJ Open 2020. DOI:10.9778/cmajo.20200124. Copyright © 2020 Joule Inc. or its licensors