

eTable 1. List of ICD codes being used in this study

Diagnosis	ICD-10	ICD-9	ICD-8
NAFLD	K75.8, K76.0	571.8	
Liver cirrhosis	K74.6	571.5	
Dementia	F00-03, G30-31	290	290.0, 290.1*
Alzheimer disease	F00, G30	290.1*, 331.0	290.0, 290.1*
Vascular dementia	F01	290.4	290.0
Heart failure	I110, I517, I42-43, I50	428 425.1	400, 425, 427, 428
Atrial fibrillation	I48	427.3	427.93, 427.94
Acute ischemic heart disease	I20-24	410-413	410-413
Haemorrhagic or ischemic Stroke	I61, I63, I64	431,433	431,432
Diabetes	E10-11	250	250
Hypertension	I10-15	401-405	401-404
Dyslipdemia	E75, E77	272	272
Obesity	E66	278	277
Depression	F30-34, F38, F39, F412	296-299	295-299
AAT-deficiency	E88.0A E88.0B	277.6	
Alcoholic liver disease	K70	571.0-4	571.00, 571.01
Autoimmune disease	K75.4		
Budd-Chiari syndrome	I82.0, K76.5	453.0	
Liver failure	K72.1	572.8	573.0
Hemochromatosis	E83.1	275.0	273.20
Primary biliary cholangitis	K74.3, K74.5	571.6	
Primary sclerosing cholangitis	K83.0	576.1	575.05
Wilson's disease	E83.01	275.1	273.30
Viral hepatitis	B15-B19	070, 571.4	070, 999.20

Abbreviations: NAFLD: non-alcoholic fatty liver disease; AAT-deficiency: Alpha-1 antitrypsin deficiency

*ICD code 290.1 was used to exclude prevalent cases at the baseline, not to define outcome.

eTable 2. Associations between NAFLD and dementia from stratified analyses by stroke or heart disease status

	Stroke-free		Stroke		Heart disease-free		Heart disease	
	No. of cases	HR (95% CI)	No. of cases	HR (95% CI)	No. of cases	HR (95% CI)	No. of cases	HR (95% CI)
Total population								
Matched cohort	1153	1.00	138	1.00	1175	1.00	116	1.00
NAFLD	129	1.31 (1.01, 1.69)	16	1.68 (0.47, 6.00)	89	1.61 (1.21, 2.13)	56	1.47 (0.60, 3.61)
Male								
Matched cohort	437	1.00	75	1.00	449	1.00	63	1.00
NAFLD	52	1.31 (0.87, 1.97)	7	0.92 (0.75, 1.13)	35	1.73 (1.10, 2.73)	24	3.43 (0.84, 14.1)
Female								
Matched cohort	716	1.00	63	1.00	726	1.00	53	1.00
NAFLD	77	1.37 (1.01, 1.91)	9	1.59 (0.17, 14.2)	54	1.68 (1.12, 2.28)	32	0.71 (0.44, 1.11)
Age group (65-75 years)								
Matched cohort	510	1.00	59	1.00	552	1.00	47	1.00
NAFLD	69	1.64 (1.12, 2.42)	6	2.87 (0.40, 20.3)	54	1.71 (1.00, 2.94)	21	1.28 (0.74, 2.22)
Age group (75-85 years)								
Matched cohort	510	1.00	54	1.00	510	1.00	47	1.00
NAFLD	50	1.26 (0.77, 2.06)	8	0.81 (0.06, 9.71)	30	1.60 (1.00, 2.57)	28	1.16 (0.33, 1.14)
Age group (≥85 years)								
Matched cohort	133	1.00	25	1.00	136	1.00	22	1.00
NAFLD	10	1.18 (0.51, 2.75)	2	0.88 (0.20, 3.75)	5	0.89 (0.29, 2.70)	7	0.70 (0.03, 15.5)

#P=0.06

†P=0.07

Hazard ratios (HR) conditional on matching variables (age, sex, municipality) and adjusted for diabetes, obesity, dyslipidemia, hypertension, and depression.

eTable 3. Cox regression model's hazard ratios (HR) and 95% CI of the association of NAFLD on dementia after restricting study population with > 5-year follow-up, with >10-year follow-up, or excluding patients with cirrhosis at baseline

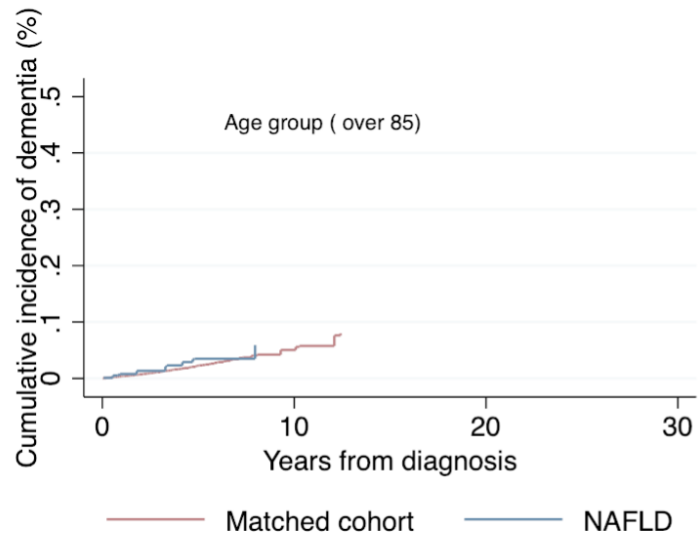
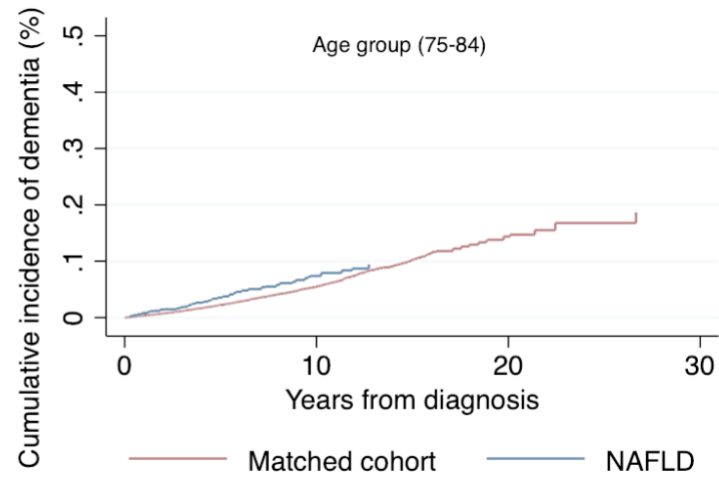
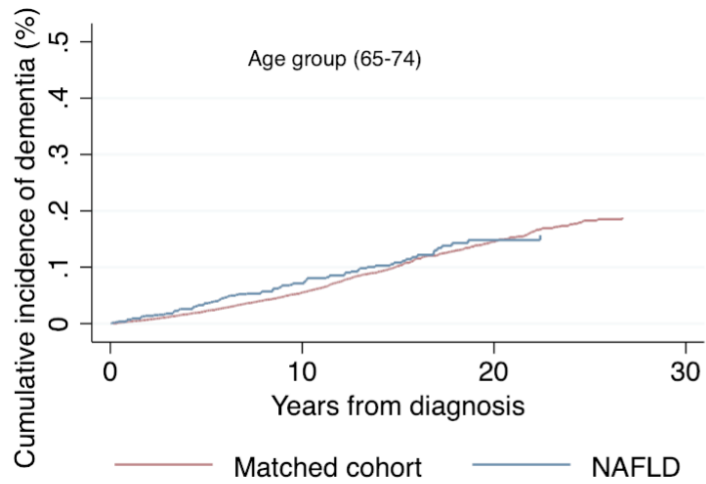
	No. of cases/no. at risk	Model 1*	Model 2**	Model 3***
		HR (95% CI)	HR (95% CI)	HR (95% CI)
Sensitivity analysis 1:				
A. Restricted to >5-year follow-up				
Matched cohort	813/12947	1.00	1.00	1.00
NAFLD	71/1023	1.63 (1.24, 2.13)	1.42 (1.05, 1.93)	1.34 [#] (0.98, 1.86)
B. Restricted to >10-year follow-up				
Matched cohort	454/5134	1.00	1.00	1.00
NAFLD	30/392	1.41 (0.93, 2.14)	1.26 (0.78, 2.03)	1.21 (0.73, 1.98)
Sensitivity analysis 2:				
Excluded cirrhosis at baseline				
Matched cohort	1291/28357	1.00	1.00	1.00
NAFLD	138/2793	1.80 (1.49, 2.17)	1.31 (1.05, 1.63)	1.33 (1.06, 1.68)

*Model 1: conditional on matching variables (age, sex, municipality)

**Model 2: conditional on matching variables (age, sex, municipality) and adjusted for diabetes, obesity, dyslipidemia, and hypertension.

***Model 3: conditional on matching variables (age, sex, municipality) and adjusted for diabetes, obesity, dyslipidemia, hypertension, stroke, heart disease, and depression.

[#]p=0.07



eFigure1. Cumulative incidence of all-cause dementia across age groups by NAFLD status
 Abbreviations: NAFLD: non-alcoholic fatty liver disease