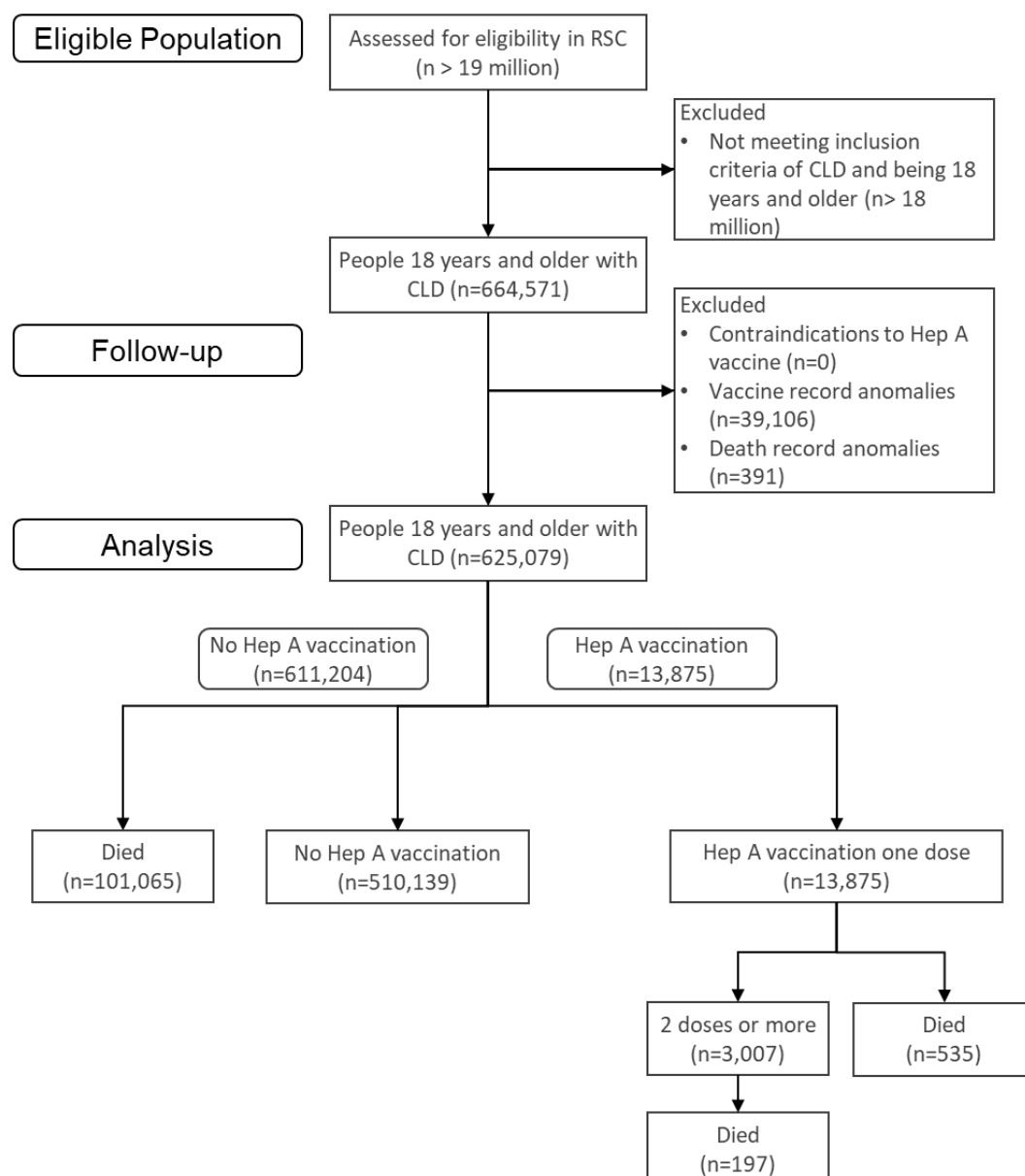


Disparities and low uptake of Hepatitis A vaccination in adults with chronic liver disease (HEALD): a 10-year retrospective cohort study in primary care in England and Wales

Basic results summary

Participant flow

Consort diagram for eligible individuals in the RSC Network for a retrospective cohort analysis of adults with CLD in England and Wales between the 1st January 2012 and 31st December 2022, evaluating hepatitis A vaccination with one and two doses as outcomes.



Baseline characteristics and outcome measures

Frequency counts and proportion of covariates across the study population stratified by at least one dose of hepatitis A vaccination status (outcome measure) during follow-up between 1st January 2012 and 31st of December 2022

Variable	Level	Overall	%	Unvaccinated	%	Vaccinated	%	p
Total		625,079	-	611,204	(97.8)	13,875	(2.2)	
Sociodemographic								
Age quintiles	18 to 38	121,148	(19.4)	116,631	(19.1)	4,517	(32.6)	<0.001
	39 to 49	120,876	(19.3)	117,368	(19.2)	3,508	(25.3)	
	50 to 57	115,703	(18.5)	113,045	(18.5)	2,658	(19.2)	
	58 to 68	136,445	(21.8)	134,013	(21.9)	2,432	(17.5)	
	69+	130,907	(20.9)	130,147	(21.3)	760	(5.5)	
Sex	Female	301,315	(48.2)	294,788	(48.2)	6,527	(47.0)	0.006
	Male	323,764	(51.8)	316,416	(51.8)	7,348	(53.0)	
Ethnicity	White	492,040	(78.7)	484,351	(79.2)	7,689	(55.4)	<0.001
	Asian	51,605	(8.3)	47,850	(7.8)	3,755	(27.1)	
	Black	19,854	(3.2)	18,624	(3.0)	1,230	(8.9)	
	Missing	44,235	(7.1)	43,551	(7.1)	684	(4.9)	
	Other	17,345	(2.8)	16,828	(2.8)	517	(3.7)	
Socioeconomic status	More deprived	340,151	(54.4)	331,970	(54.3)	8,181	(59.0)	<0.001
	Less deprived	284,928	(45.6)	279,234	(45.7)	5,694	(41.0)	
Urban/Rural	Rural	102,254	(16.4)	100,752	(16.5)	1,502	(10.8)	<0.001
	Urban	522,825	(83.6)	510,452	(83.5)	12,373	(89.2)	
Smoker	Smoker	378,357	(60.5)	371,871	(60.8)	6,486	(46.7)	<0.001
	Non-smoker	219,626	(35.1)	213,315	(34.9)	6,311	(45.5)	
	Missing	27,096	(4.3)	26,018	(4.3)	1,078	(7.8)	
CLD aetiology								
	Liver disease*	400,621	(64.1)	392,511	(64.2)	8,110	(58.5)	<0.001
	Alcoholic	38,967	(6.2)	38,362	(6.3)	605	(4.4)	
	Autoimmune	6,620	(1.1)	6,407	(1.0)	213	(1.5)	
	Cirrhosis	18,833	(3.0)	18,520	(3.0)	313	(2.3)	
	Infectious	10,569	(1.7)	9,859	(1.6)	710	(5.1)	
	MASLD	137,350	(22.0)	133,821	(21.9)	3,529	(25.4)	
	Other	12,119	(1.9)	11,724	(1.9)	395	(2.8)	
Comorbidities, exposures and CLD complications								
Obesity	Yes	52,733	(8.4)	51,991	(8.5)	742	(5.3)	
Harmful Use Of Alcohol	Yes	69,887	(11.2)	68,849	(11.3)	1,038	(7.5)	
Hypertension	Yes	226,925	(36.3)	223,384	(36.5)	3,541	(25.5)	
Cancer	Yes	11,471	(1.8)	11,417	(1.9)	54	(0.4)	
CKD stages 3-5	Yes	43,104	(6.9)	42,755	(7.0)	349	(2.5)	
CCF	Yes	19,288	(3.1)	19,151	(3.1)	137	(1.0)	
Stroke	Yes	8,833	(1.4)	8,769	(1.4)	64	(0.5)	
Type 1 Diabetes	Yes	4,675	(0.7)	4,600	(0.8)	75	(0.5)	
Type 2 Diabetes	Yes	109,953	(17.6)	107,730	(17.6)	2,223	(16.0)	
Asplenia	Yes	1,568	(0.3)	1,542	(0.3)	26	(0.2)	
Respiratory System Diseases	Yes	414,029	(66.2)	405,490	(66.3)	8,539	(61.5)	
Mental Disorder	Yes	295,426	(47.3)	290,548	(47.5)	4,878	(35.2)	
Influenza Vaccinated	Yes	306,279	(49.0)	300,925	(49.2)	5,354	(38.6)	
Outcomes								
Death	Yes	101,797	(16.3)	101,065	(16.5)	732	(5.3)	

*Unspecified liver disease

Adverse events

There were no adverse events associated with this study.