

Hepatitis C-related HCC in Victoria: Gaps remain in the hepatitis C cascade of care

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(For Dr Ericka Flores PhD candidate)

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Disclosures

- **Related**

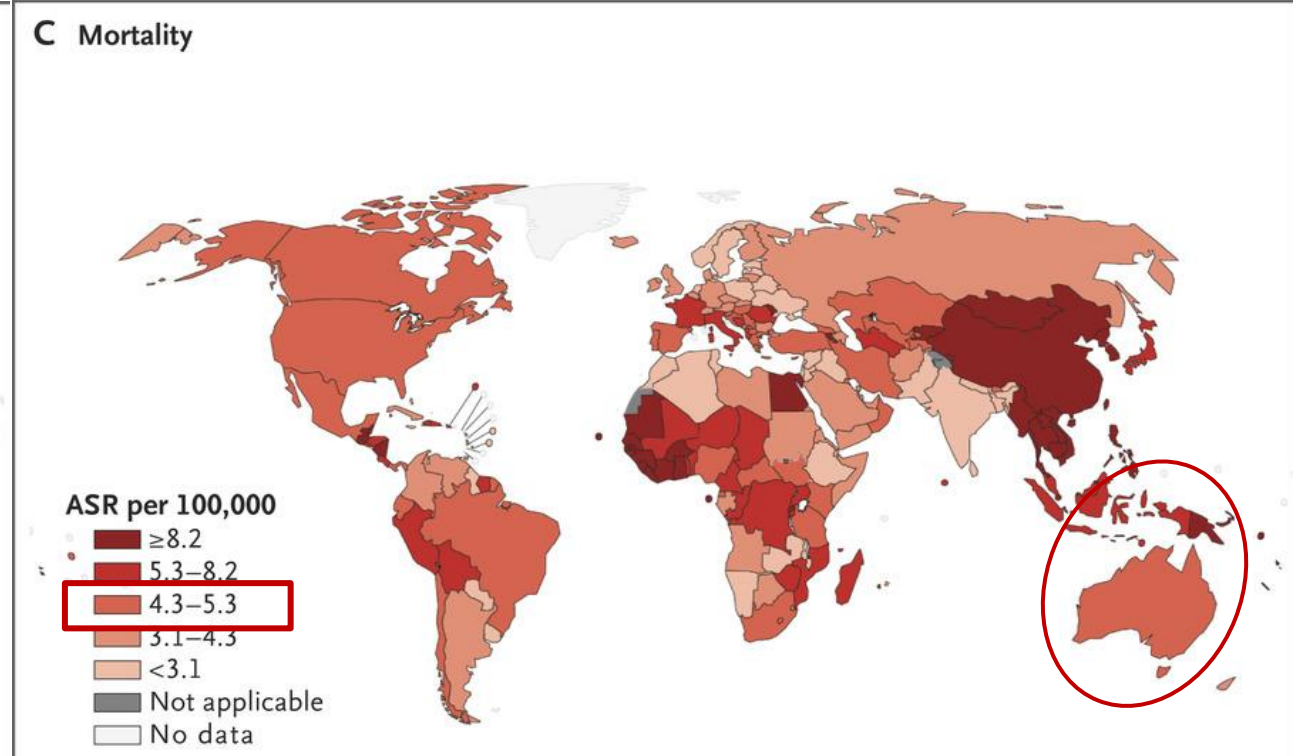
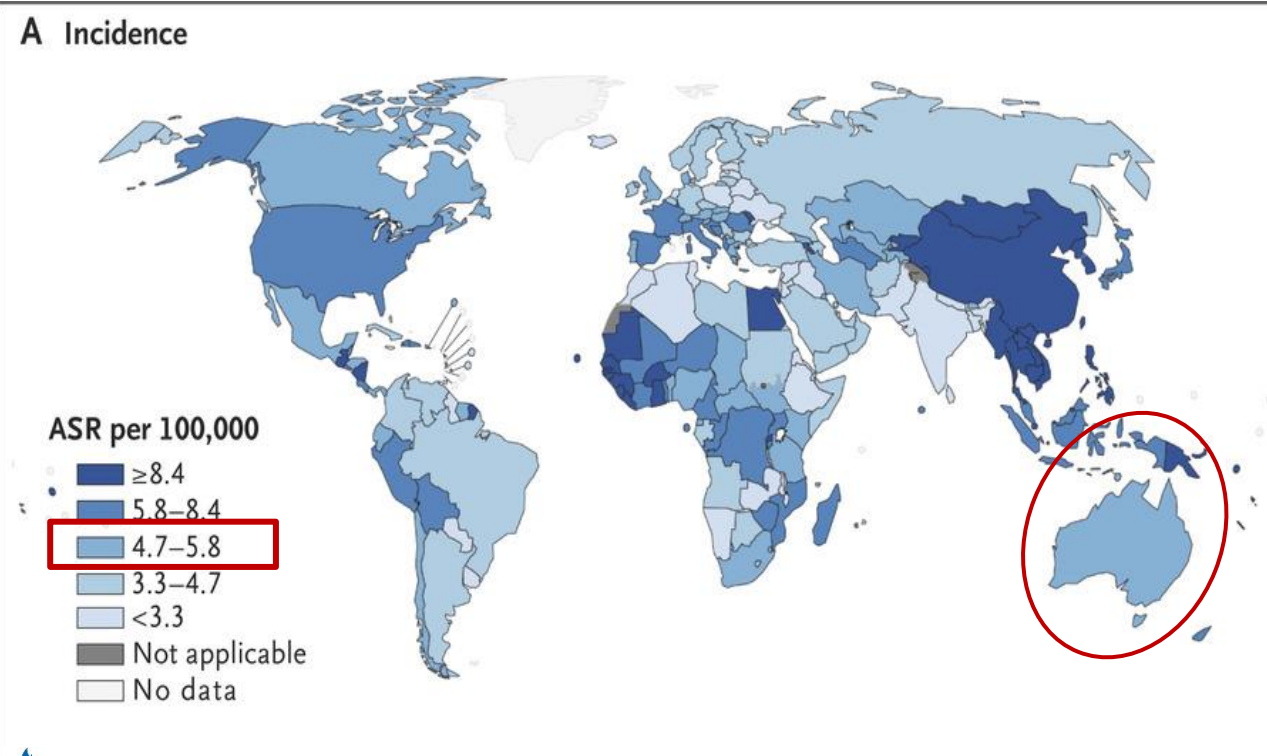
- Funding Gilead Sciences, Eisai

- **Unrelated**

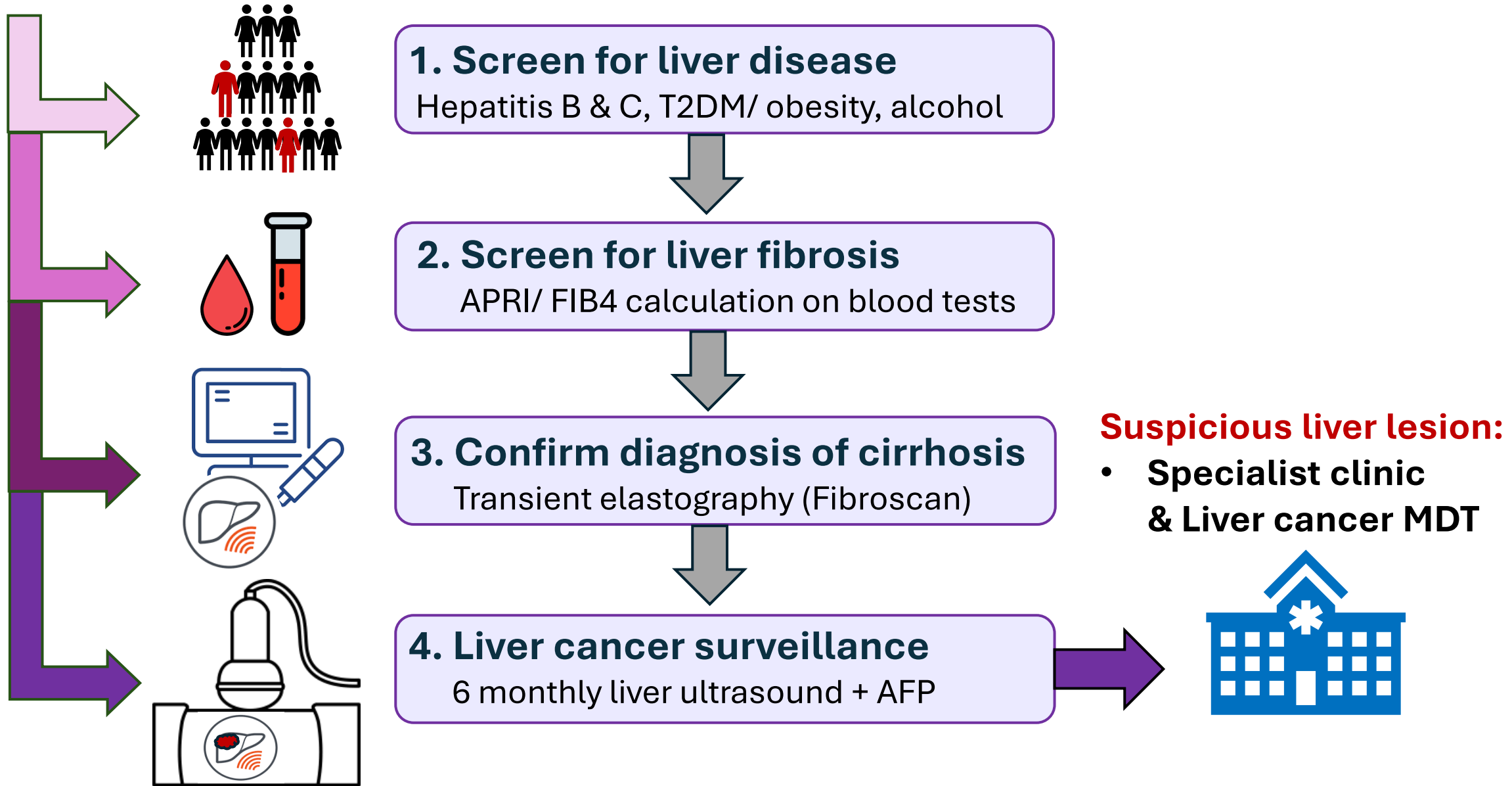
- *Investigator- initiated funding Gilead Sciences, Roche Diagnostics*
- *Advisory board, speaker fees Roche Diagnostics*
- *Advisory board, Astra Zeneca*

Primary liver cancer

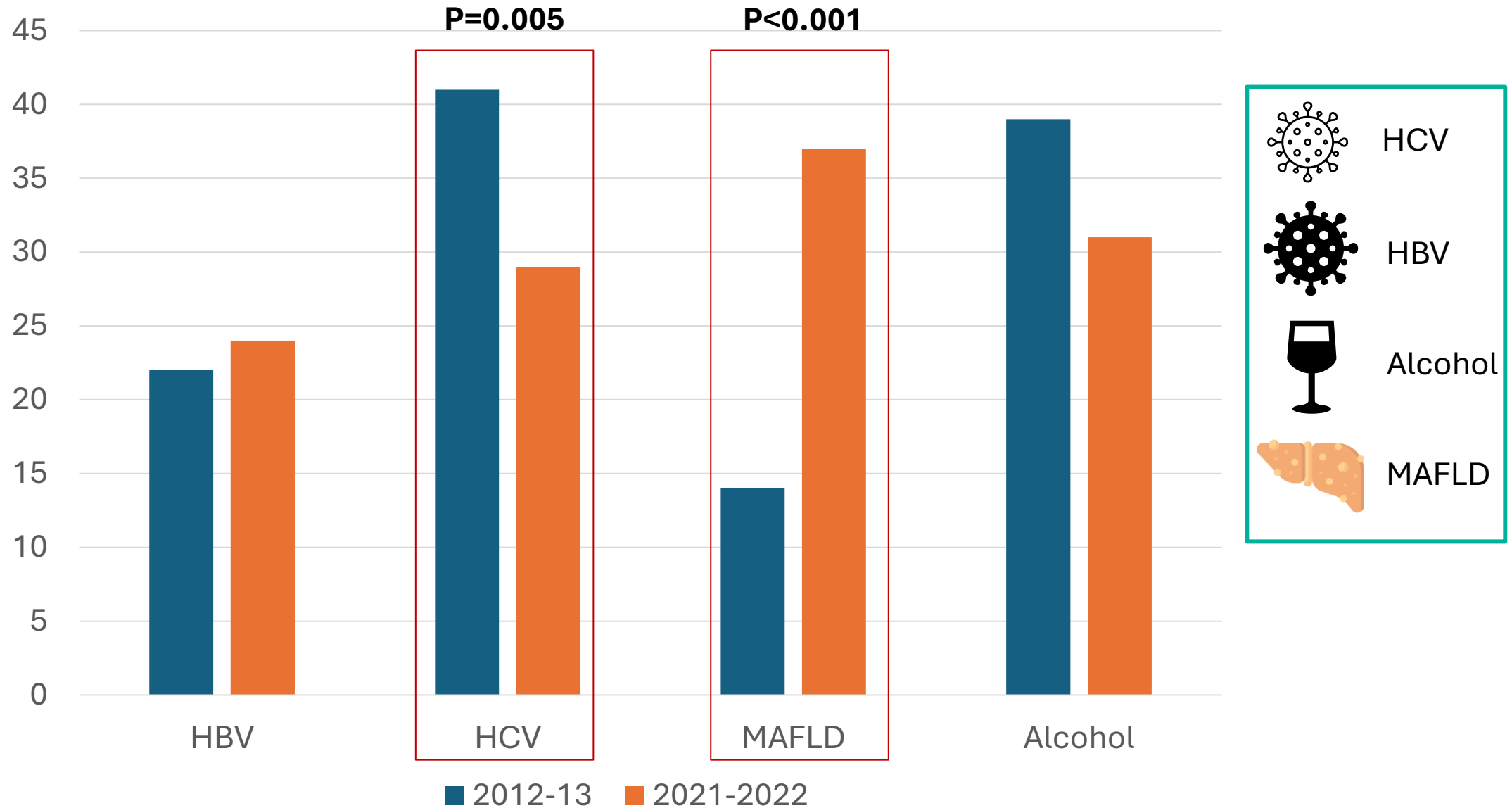
- Estimated 7th most common incident cancer worldwide
- **5-year survival 17-20%**
- 90% hepatocellular carcinoma (HCC); **90% in people with cirrhosis**
- Around 2800 Australians diagnosed annually, 2400 deaths annually



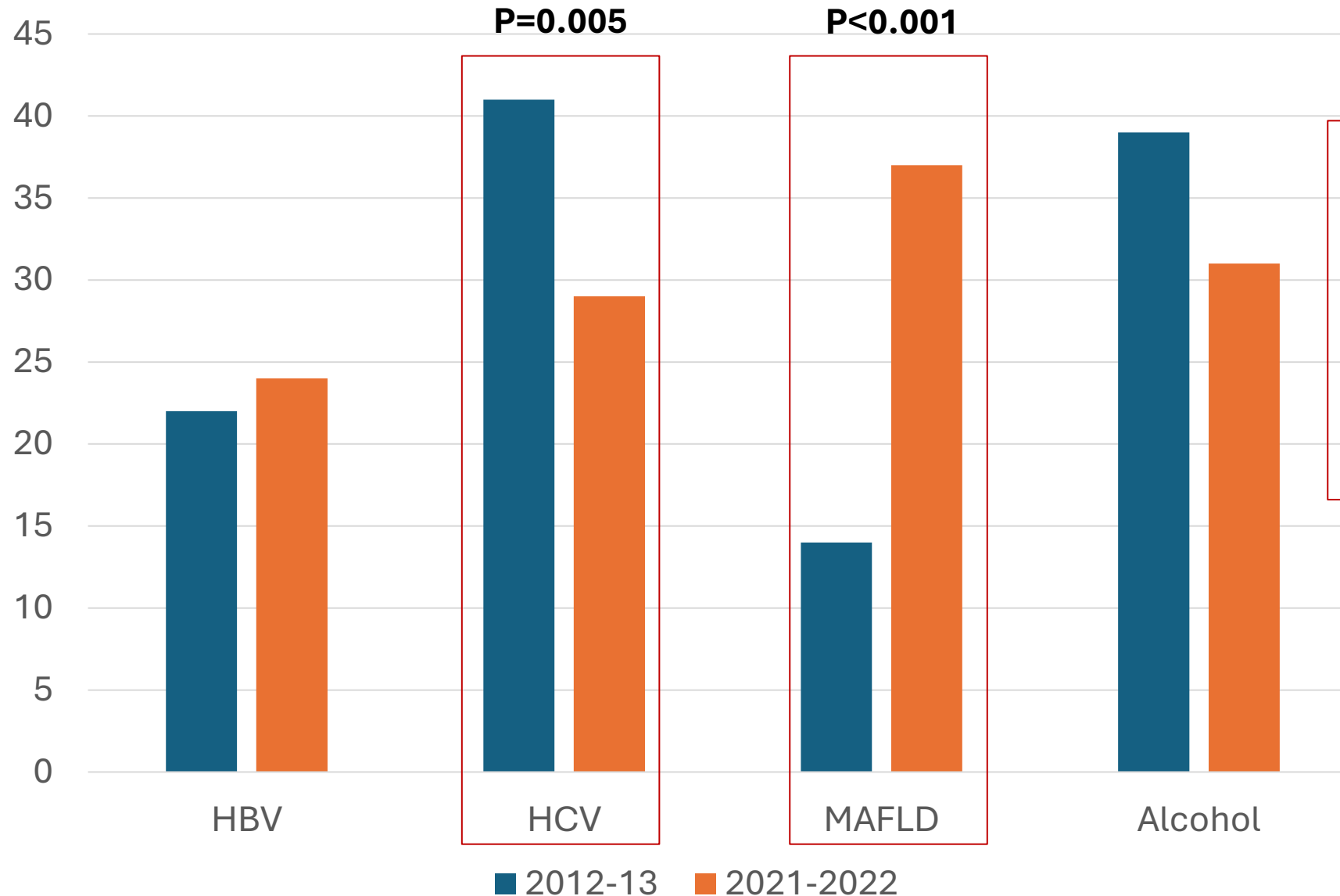
Pathway of care for people with liver disease



Change in proportion of HCC cases due to different liver disease aetiologies in Victoria: Comparison 2012-13 to 2021-22



Change in proportion of HCC cases due to different liver disease aetiologies in Victoria: Comparison 2012-13 to 2021-22



- **Post HCV SVR: 3-7% risk HCC in cirrhosis**
- **Surveillance recommended**

Aims

- To describe the cascade of care in people with HCV- HCC
- To describe factors associated with receiving HCV treatment, being evaluated for cirrhosis and being enrolled in HCC surveillance
- To describe the impact of SVR on HCC presentation and outcomes

Methods

- Retrospective and prospective cohort study
- Melbourne Liver Group sites, Greater Melbourne area
- All consecutive incident HCC cases in Victoria
- 1st January 2018 to 31st December 2021
 - Prospective 2020- 2021
- Collected demographic, clinical and treatment data- EMR, MDT notes
- Descriptive statistics comparing HCV-HCC to non-HCV HCC
- Factors associated with survival since diagnosis
 - Cox proportional hazards model

Results

- 348 (34%) of 1013 incident HCC cases were due to HCV

	HCV-HCC cases n=348	Non-HCV HCC cases n= 655	p-value
Male, n (%)	279 (80%)	539 (81%)	0.736
Median age, years (IQR)	61 (57,65)	70 (63, 76.5)	<0.001
Caucasian	266 (82%)	478 (77%)	0.002
Asian	47 (14%)	131 (21%)	
African	3 (1%)	10 (2%)	
ATSI	9 (3%)	3 (0.5%)	
Type 2 diabetes (n=1003)	70 (20%)	293 (45%)	<0.001
Obesity (n=976)	29 (9%)	102 (16%)	0.002
Current alcohol misuse	177 (34%)	161 (25%)	<0.001
Smoking	125 (37%)	80 (12%)	<0.001
Injecting drug use			<0.001
Current	22 (7%)	4 (1%)	
Past	86 (26%)	6 (1%)	
None reported	219 (67%)	638 (98%)	
Mental health issues	80 (24%)	58 (9%)	<0.001

Cascade of HCV care in those with HCC

	HCV-HCC cases n=348	Non-HCV HCC cases n= 655	p-value
HCV RNA negative at HCC diagnosis*, n (%)	208/ 341 (61%)	-	-
Cirrhosis, n (%)	331 (95%)	509 (77%)	<0.0001
Cirrhosis known at time of HCC diagnosis, n (%)	238 (72%)	305 (60%)	<0.0001
Enrolled in HCC surveillance program	170 (50%)	253 (39%)	<0.001
At least one surveillance scan < 12 months HCC diagnosis, n (%)	158 (45%)	248 (37%)	0.012
Early-stage HCC at diagnosis (BCLC 0-A), n (%)	175 (51%)	306 (46%)	0.162
First line curative therapies , n (%)	120 (35%)	203 (31%)	0.199
*where data available			

- 18/ 208 (8%) were treated but were not diagnosed with cirrhosis
- 54/ 208 (26%) who were treated were not enrolled in HCC surveillance

Factors associated with HCV treatment

- Half as likely to have HCV treated if alcohol misuse

	HCV-HCC Untreated n=219	HCV-HCC Treated n= 129	OR (95% CI)	p- value
Male, n (%)	186 (85%)	93 (72%)		0.281
Median age, years (IQR)	61 (57, 65)	62 (56, 65)		0.800
Caucasian	173 (82%)	93 (81%)		0.975
Asian	29 (14%)	18 (16%)		
African	2 (1%)	1 (1%)		
ATSI	6 (3%)	3 (3%)		
Type 2 diabetes (n=1003)	43 (20%)	27 (21%)		0.803
Obesity (n=976)	16 (8%)	13 (10%)		0.451
Current alcohol misuse	88 (41%)	29 (22%)	0.50 (0.31-0.80)	<0.001
Current smoking	80 (39%)	45 (35%)		0.796
Injecting drug use				
Current	15 (7%)	8 (7%)		0.675
Past	57 (28%)	29 (24%)		0.369
None reported	133 (65%)	86 (70%)		
Mental health issues	27 (21%)	52 (25%)		0.341

Factors associated with diagnosed cirrhosis

- Half as likely to be evaluated for cirrhosis if alcohol misuse

	Cirrhosis undiagnosed n=93	Cirrhosis diagnosed n= 238	OR (95% CI)	p-value
Male, n (%)	78 (84%)	185 (78%)		0.152
Median age, years (IQR)	62 (58, 65)	61 (56, 65)		0.492
Caucasian	75/ 89 (84%)	181/ 220 (82%)		0.106
Asian	13/ 89 (15%)	28/ 220 (13%)		
African	0 (0%)	2/ 220 (1%)		
ATSI	1/ 89 (1%)	8/ 220 (4%)		
Type 2 diabetes (n=1003)	18 (20%)	48 (20%)		0.932
Obesity (n=976)	5 (6%)	21 (9%)		0.248
Current alcohol misuse	43 (46%)	72 (31%)	0.49 (0.30-0.79)	0.004
Current smoking	32 (36%)	89 (39%)		0.486
Past or current injecting drug use	37 (40%)	68 (31%)		0.078
Mental health issues	18 (20%)	59 (25%)		0.505

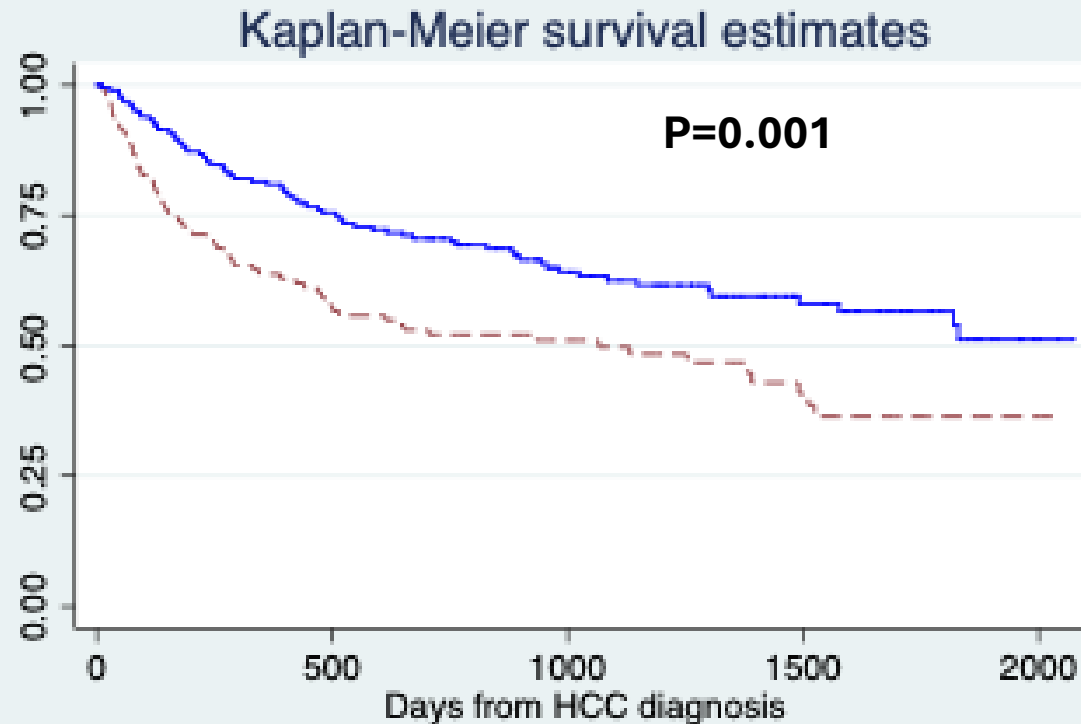
Factors associated with HCC surveillance

- Half as likely to be enrolled in surveillance if male & alcohol misuse

	No HCC surveillance n=168	HCC surveillance n= 170	OR (95% CI)	p-value
Male, n (%)	146 (87%)	126 (74%)	0.43 (0.25-0.76)	0.003
Median age, years (IQR)	61 (56, 61)	62 (57, 66)		0.531
Caucasian (n=315)*	130 (81%)	129 (84%)		0.830
Asian	24 (15%)	21 (14%)		
African	2 (1%)	1 (1%)		
ATSI	5 (3%)	3 (2%)		
Type 2 diabetes (n=336)	38 (23%)	31 (18%)		0.317
Obesity (n=325)	12 (8%)	15 (9%)		0.651
Current alcohol misuse (n=334)	68 (41%)	44 (26%)	0.51 (0.32-0.81)	0.011
Current smoking (n=326)	64 (40%)	58 (35%)		0.391
Mental health issues (n=330)	36 (22%)	44 (26%)		0.400
Specialist liver clinic (n=311)*	12 (10%)	109 (90%)	12.25	<0.001
Non-specialist clinic	58 (57%)	43 (43%)	(5.99-25.04)	

* Known cirrhosis

Factors associated with survival in HCV-HCC



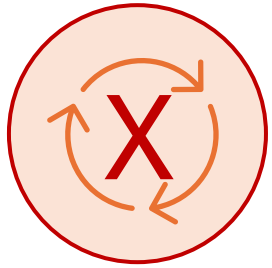
Number at risk

hcv_svr = No	131	64	43	19	3
hcv_svr = Yes	205	137	81	41	5

--- Achieved SVR= No — Achieved SVR= Yes

- SVR was associated with greater survival post HCC diagnosis
 - log rank HR 0.57 (95% CI 0.41-0.79)
p=0.001
- Association not significant when adjusted for Age, Child Pugh class, Surveillance and BCLC stage
 - aHR 0.79 (95% CI 0.54-1.15)
p=0.22
- **Linkage to care drives survival**

Take-aways and key actions



Major gaps in HCV cascade of care for people with HCC

- **1/3 of people with HCV-HCC untreated**
- **1/3 unaware they had cirrhosis**
- **1/2 not enrolled in liver cancer surveillance**



People with alcohol misuse *half as likely to receive care*

- Need interventions to achieve equity in cascade of care



Beyond the virus: urgent need for holistic care targets

- Cirrhosis assessment
- HCC surveillance enrolment



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