



PARIS MASH MEETING

11th edition

Organized by
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September 11 & 12, 2025
Institut Pasteur, Paris





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Does MASLD contribute to the overall burden of cancer and cancer-related mortality?

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Disclosures:

- Nothing to declare
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The literature seems to suggest that MASH is already a large risk factor for hepatocellular carcinoma (HCC)

Epidemiology of non-alcoholic fatty liver disease and hepatocellular carcinoma

Incidence of HCC in patients with NASH, with or without cirrhosis

The association of HCC with NAFLD has been well described.^{34–38} However, it is important to recognise that cirrhosis increases the risk of HCC in patients with NASH, as it does in patients with other types of liver disease. On the other hand, NAFLD patients without cirrhosis are also at risk, albeit lower, of HCC.^{35–39} Among US Medicare patients, NAFLD was associated with 19.2% of HCC cases (32.07% in inpatients and 20.22% outpatients), whereas HCV infection was associated with only 9.75% of HCC cases.⁴⁰ Between

NASH is the leading cause of hepatocellular carcinoma in liver transplant candidates

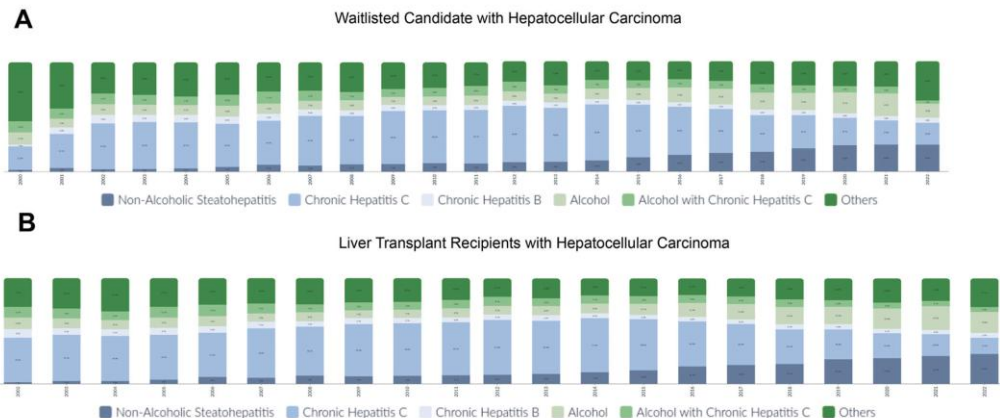


Figure 1.

(A) Waitlisted candidates with hepatocellular carcinoma. (B) Liver transplant recipients with hepatocellular carcinoma.

Other studies suggest that the risk of cancer from MASLD is lower than viral hepatitis

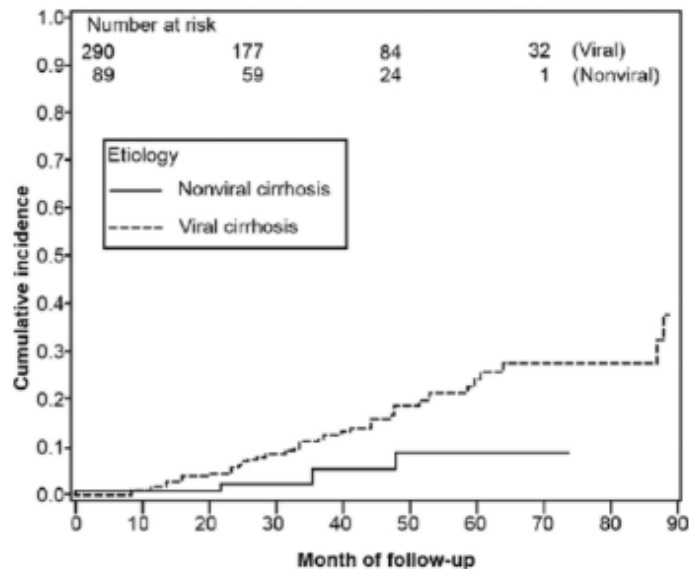


Figure 1. Kaplan-Meier plot of cumulative HCC incidence in patients with viral and nonviral cirrhosis (log-rank, $P = .04$).

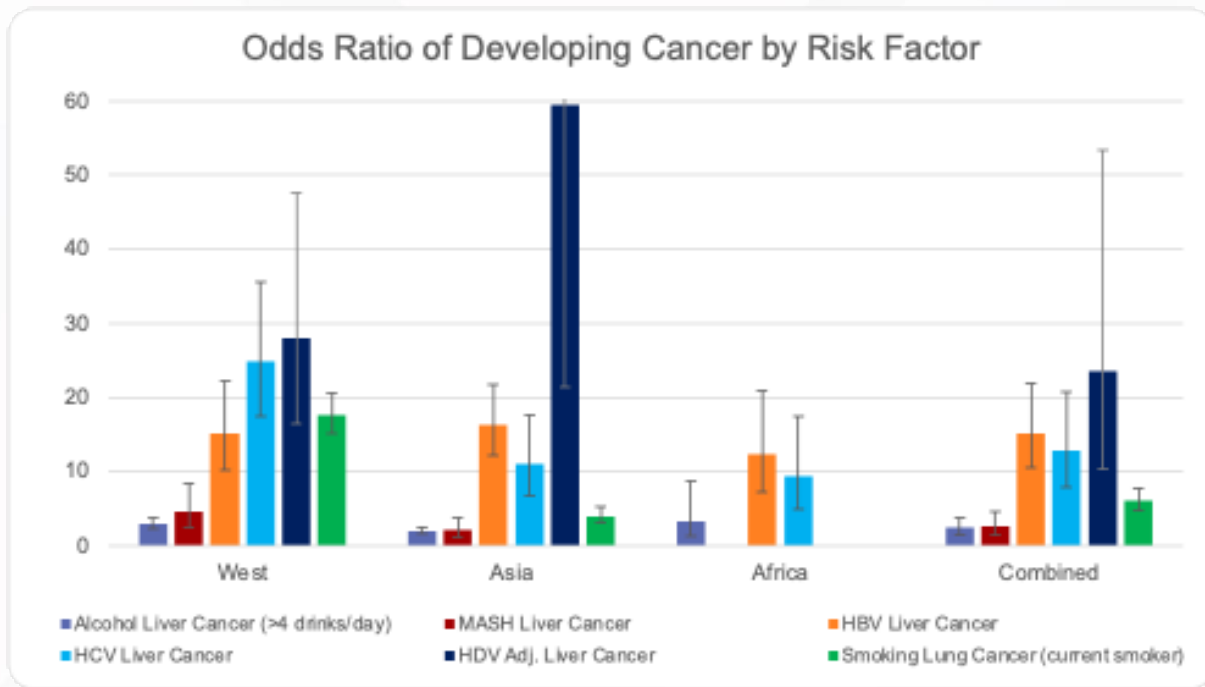
Mair RD, et al. (2012)

During a mean follow-up of 4.3 years, 10,042 new HCC cases were diagnosed. Patients with HCV had >3 times higher incidence of HCC (3.3 per 100 patient-years) than patients with ALD (0.86/100 patient-years), NAFLD (0.90/100 patient-years) or OTHER (1.0/100 patient-years), an association that persisted after adjusting for baseline characteristics. HCC incidence was 1.6 times higher in patients with cirrhosis diagnosed in 2008–2014 (2.47/100 patient-years) than in 2001–2007 (1.55/100 patient-years).

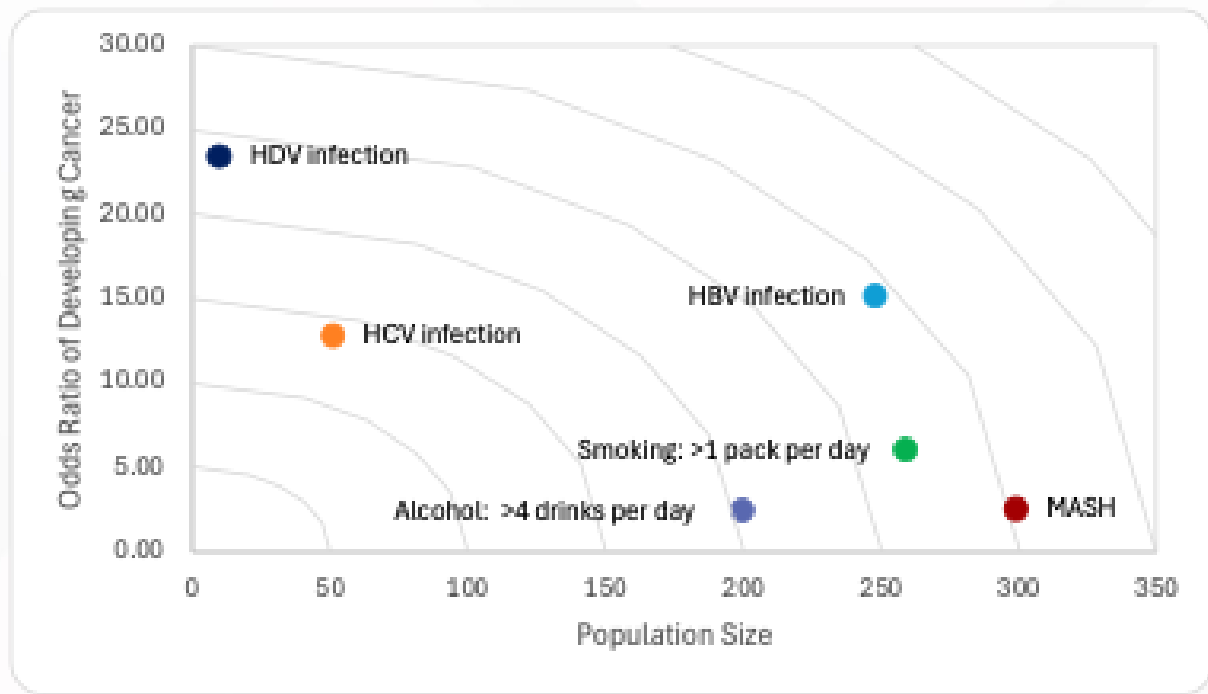
Ioannou GN, et al. (2018)

So, who is right?

The risk of developing liver cancer from MASH is higher than alcohol use but lower than viral hepatitis infection



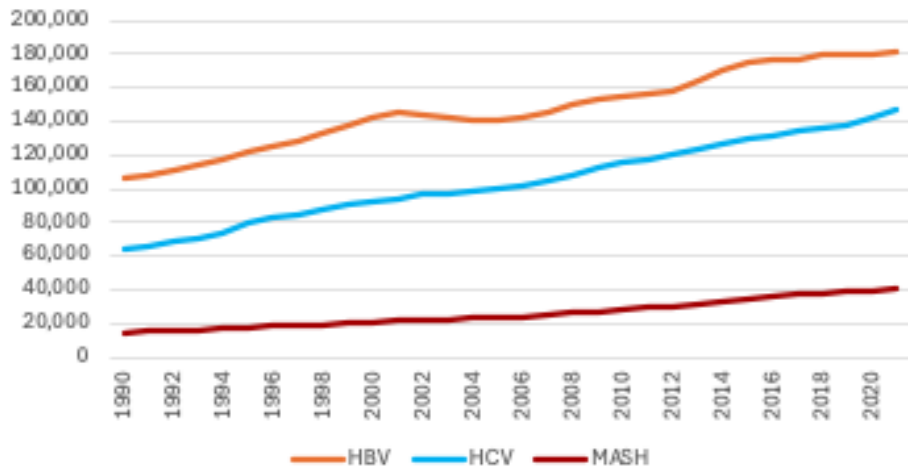
However, when population size is considered, MASH becomes the largest risk factor of liver cancer



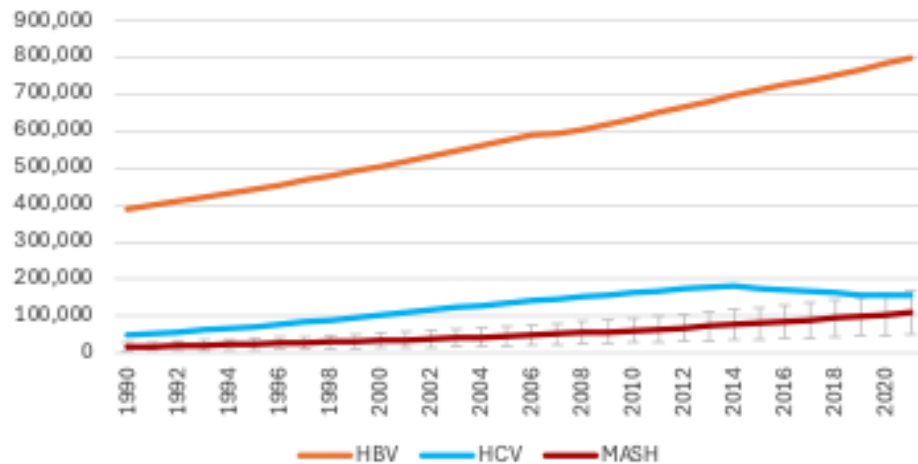
These figures represent the lifetime risks associated with cancer development, not the risks of developing cancer within a specific year.

Global MASH and HBV HCC-related deaths have been increasing since 1990 while HCV deaths declined as a result of DAAs

GBD est. HCC Deaths

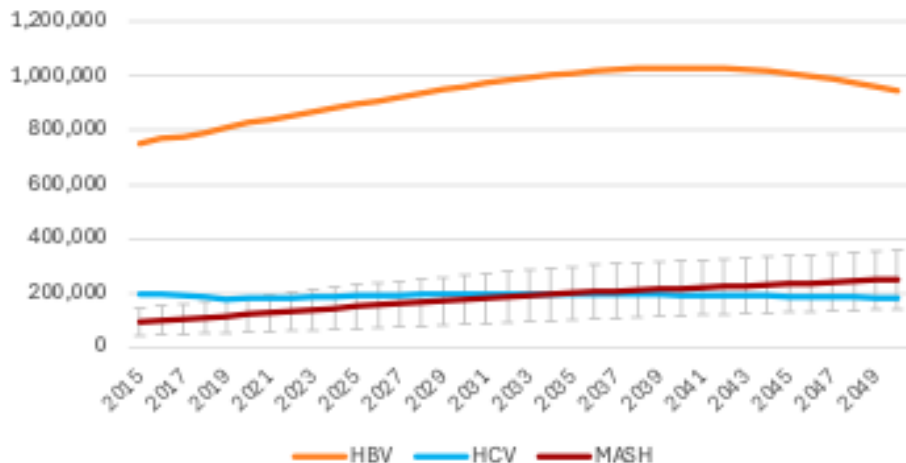


Polaris Observatory HCC Deaths

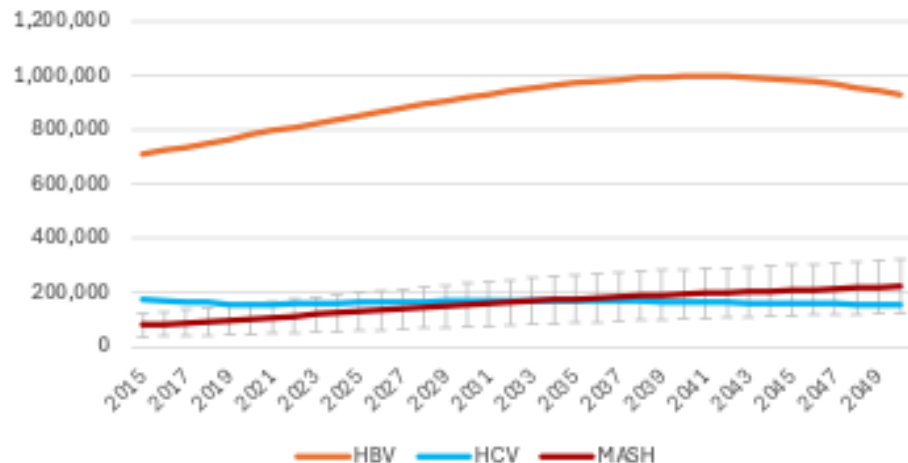


MASH-related HCC & HCC-related deaths are expected to surpass HCV cases and deaths by 2035

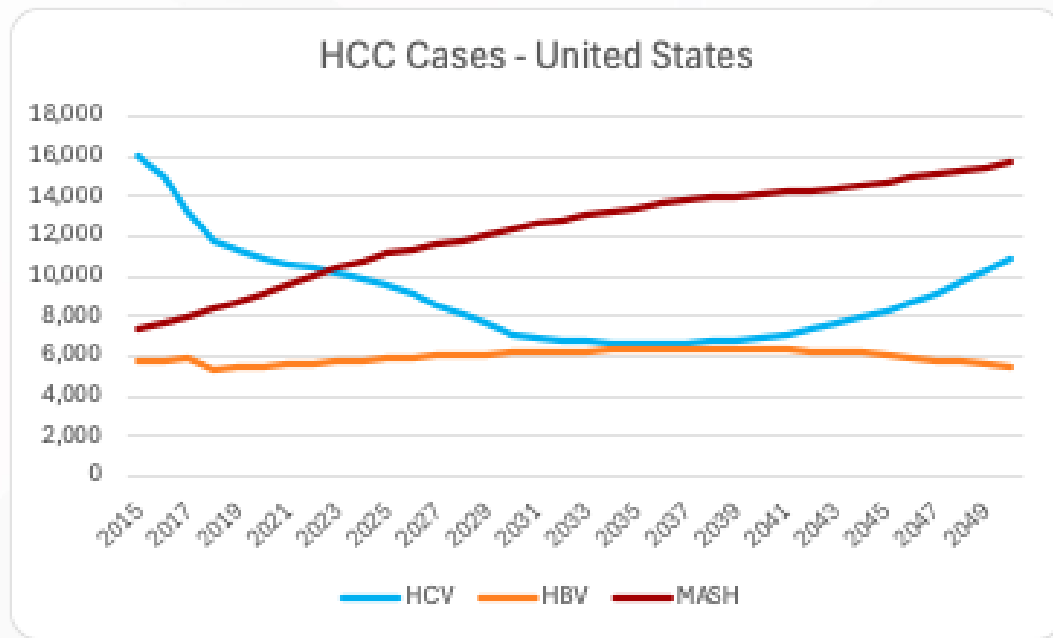
Polaris Observatory New HCC Cases



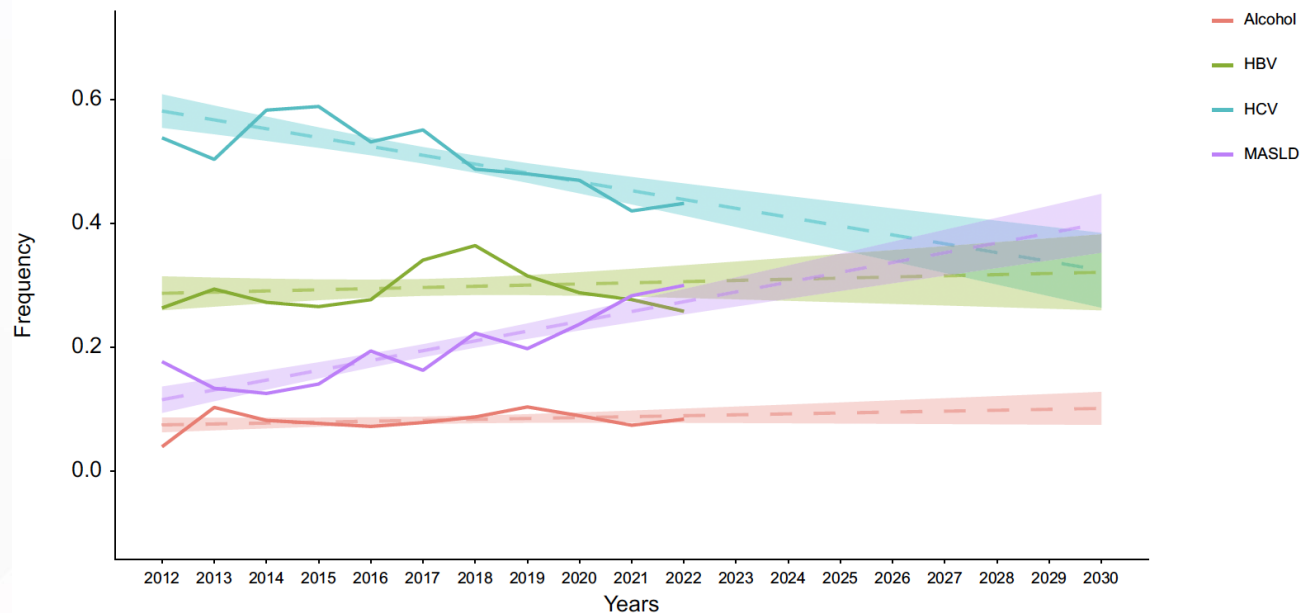
Polaris Observatory HCC Deaths



MASH is already the leading risk factor for HCC in countries with a relatively low prevalence of HBV and HCV and high prevalence of MASH – Example: United States



An analysis of liver transplant recipients in Italy showed trends indicating that MASH-related HCC will surpass HCV & HBV by 2030



Epidemiological trends and future trajectories of waiting list inscriptions for liver transplantation in Italy according to main aetiologies of liver disease, period 2012–2030 among patients with HCC

Conclusions:

- The risk of HCC associated with MASH is comparable to that of heavy drinking but significantly lower than that associated with HBV, HCV, and HDV.
- Despite the low risk of cancer, the MASH population accounts for a large and growing population.
- MASH is a new and growing risk factor for cancer, with the corresponding burden of HCC increasing annually.
- Conversely, we anticipate a decline in HBV- and HCV-related HCC due to HBV vaccination and HCV treatment.
- Nationally, MASH has already surpassed viral hepatitis as the leading cause of HCC in countries with a low HBV/HCV prevalence and increasing MASH prevalence.
- Furthermore, MASH-related HCC is projected to surpass HCV-related HCC by 2035.
- We fully expect that without interventions MASH will be a significant risk factor to the overall burden of cancer and cancer-related mortality globally.



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