



THE UNIVERSITY OF
CHICAGO
MEDICINE &
BIOLOGICAL
SCIENCES

Prospects for Prevention of Liver Cancer

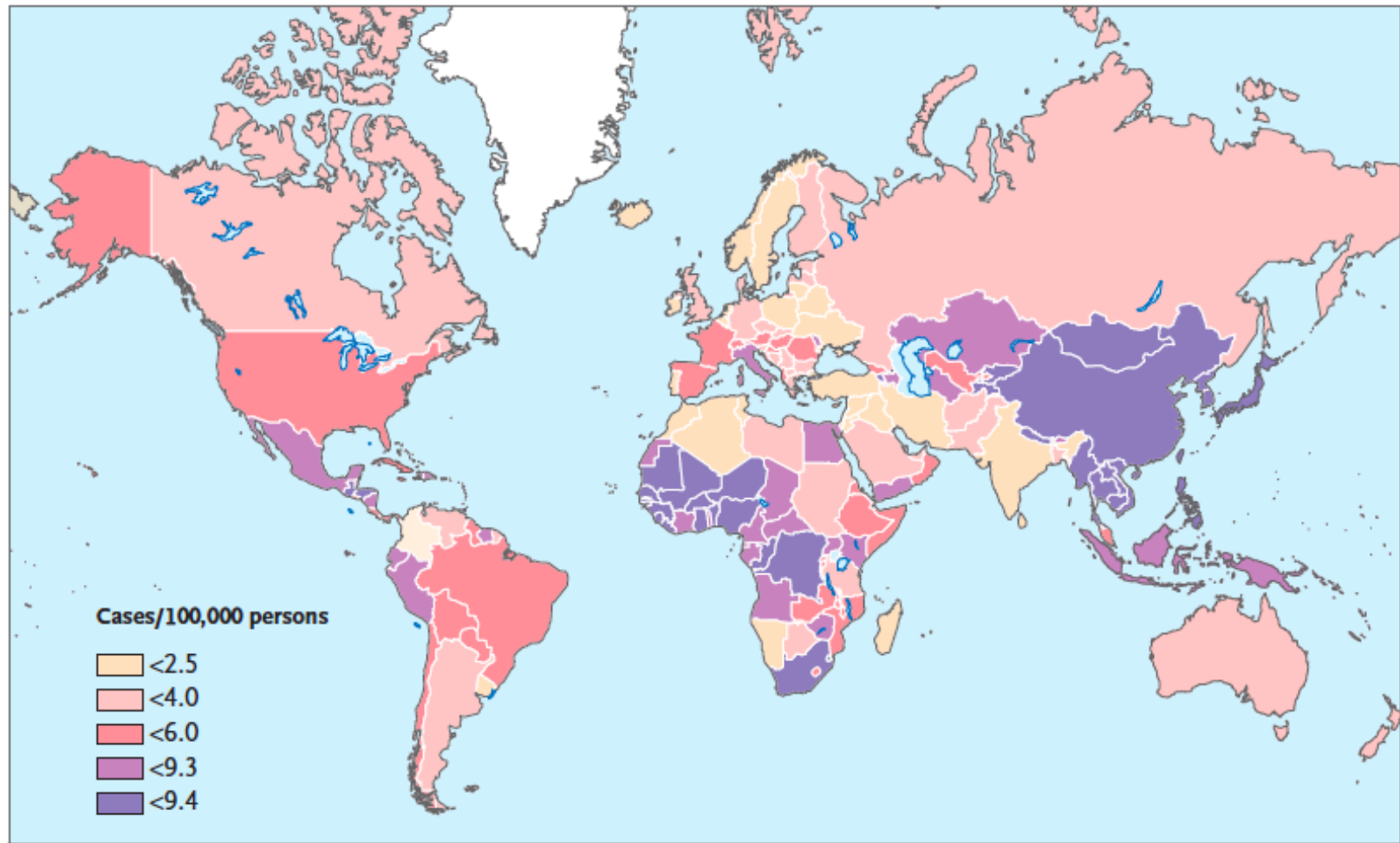
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Hepatocellular Carcinoma

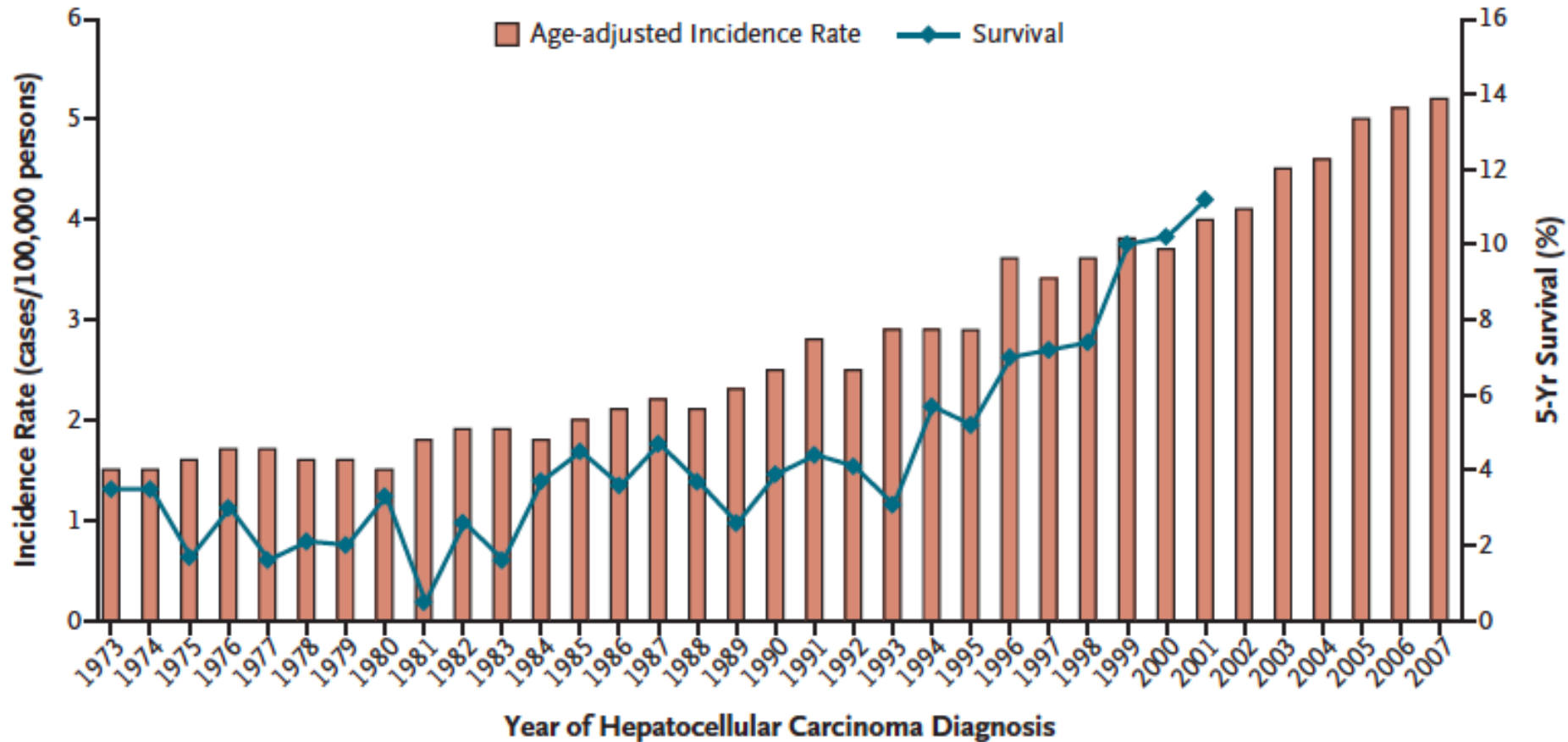
- 5th most common cancer worldwide
- 3rd most common cancer related death
- >500,000 new diagnosis worldwide each year
 - >20,000 new cases in US
- Almost always associated with cirrhosis
- Fastest rising cause of cancer related death in US

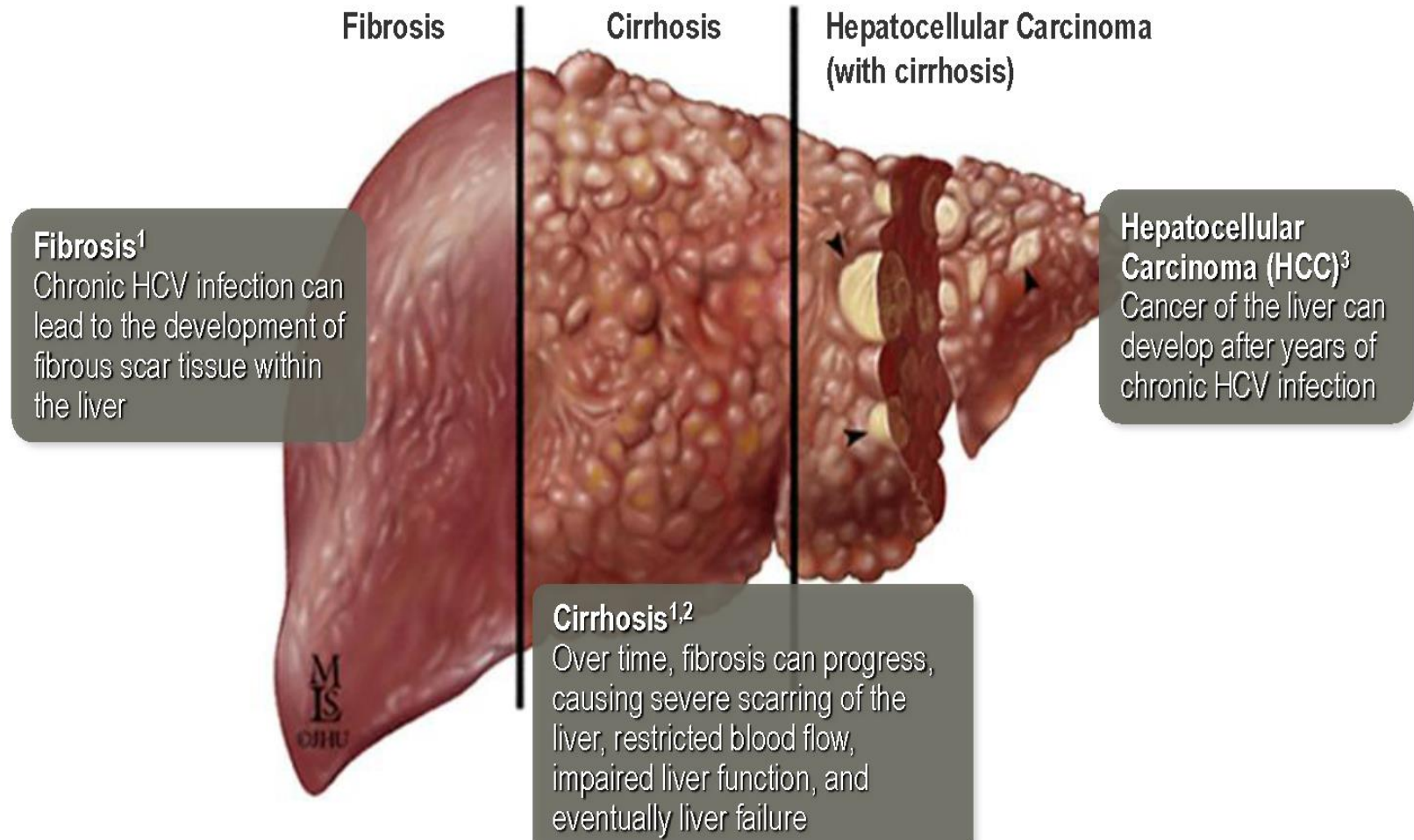


Regional Variation of Liver Cancer



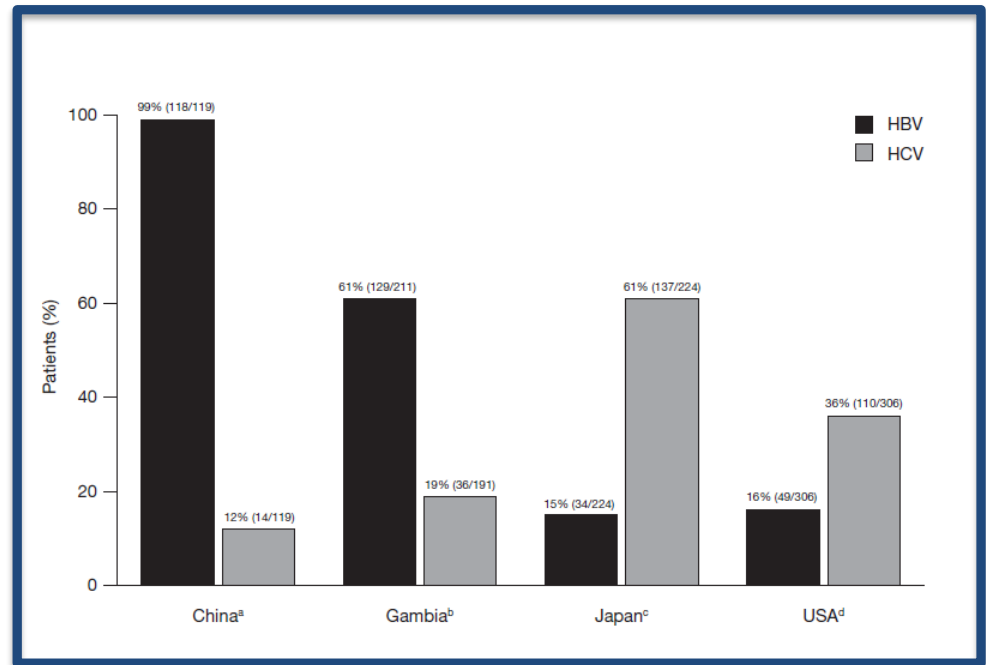
Survival and Incidence 1973-2007





Epidemiology of HCC

- HBV: 50-80% of cases
- HCV: 10-25% of cases





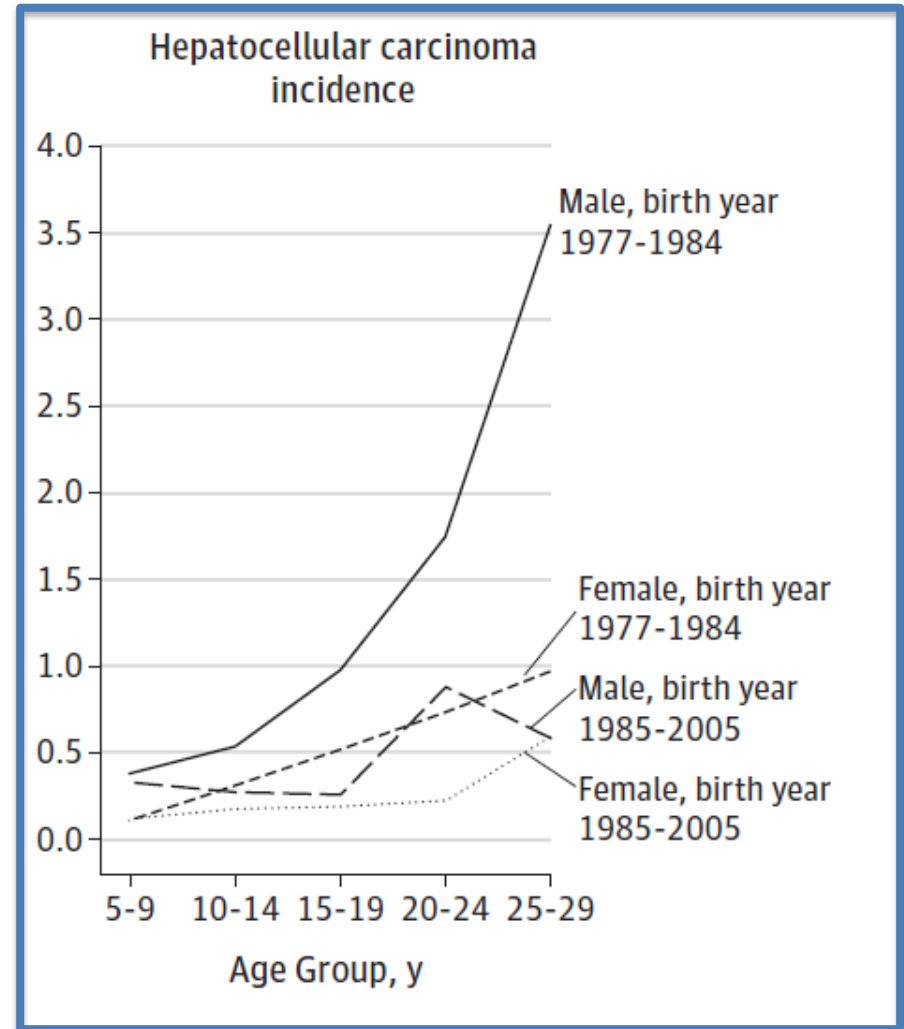
Hepatocellular Carcinoma IS Preventable

HBV Prevention

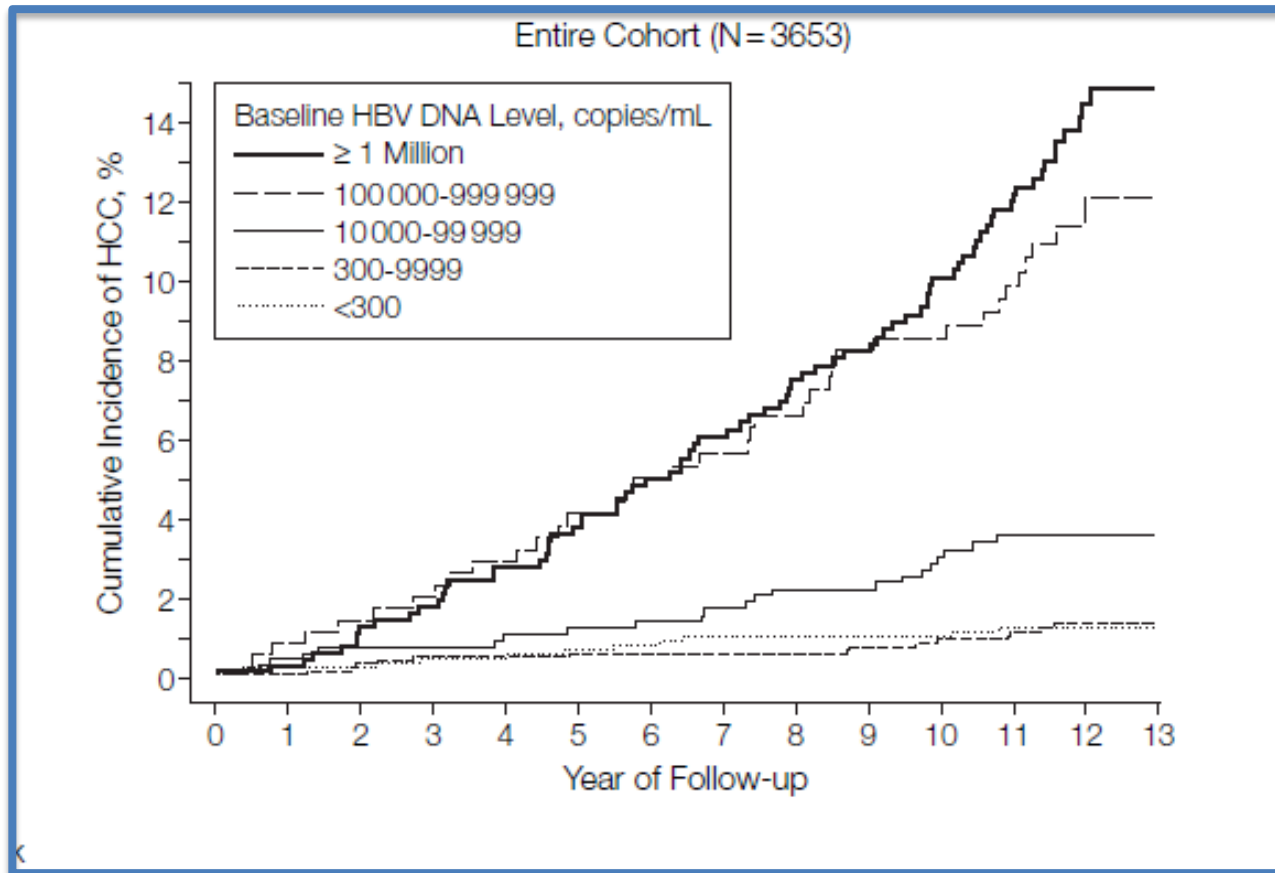
- HBV vaccine is 95% effective in preventing HBV
- Available since 1982
- 183 countries vaccinate all infants for HBV
 - 81% of children received the vaccine
- Vaccination rates still lower in developing countries

HBV Prevention

- Immunization program in Taiwan
- July 1984 – 2010
- Immunization rates 88.8- 96.9%

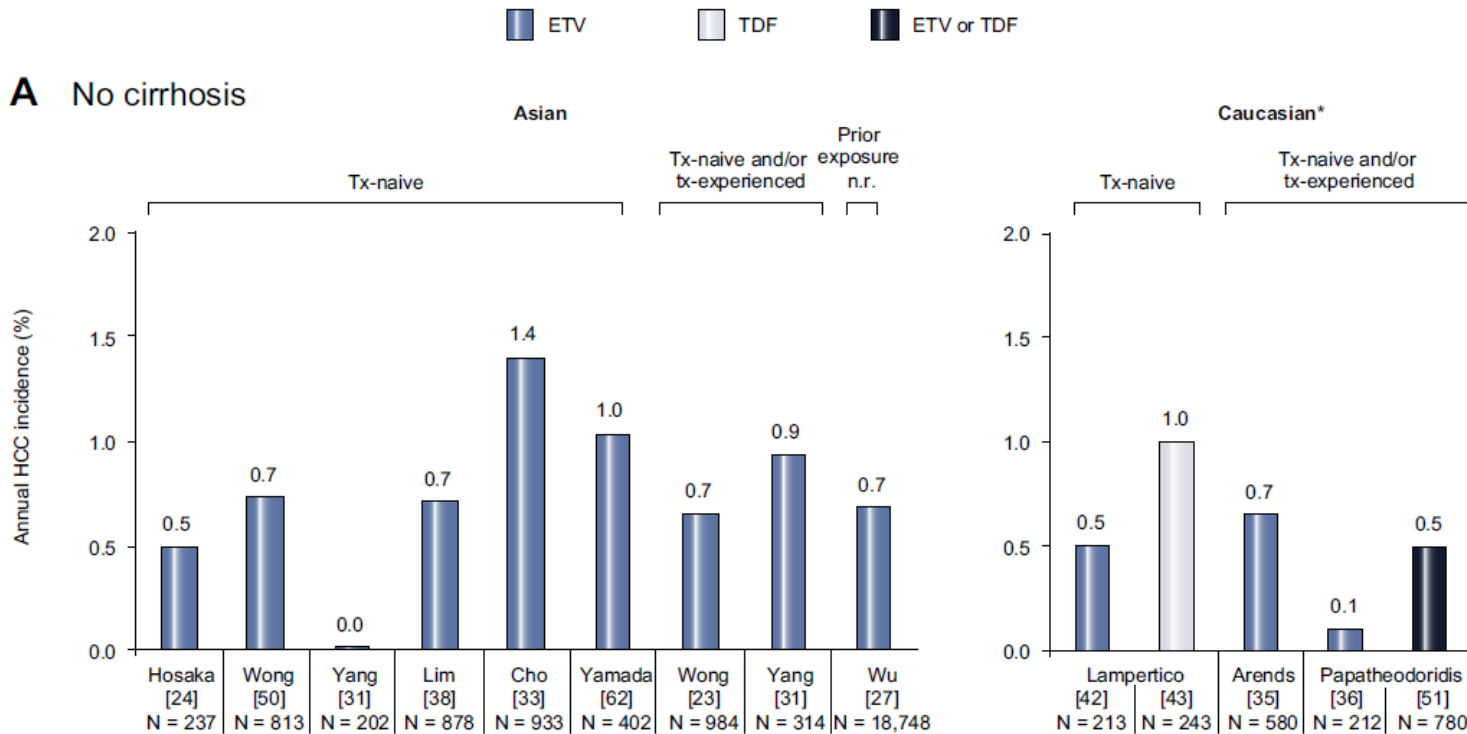


HBV Viral Load and HCC Risk



HBV Treatment and HCC Incidence

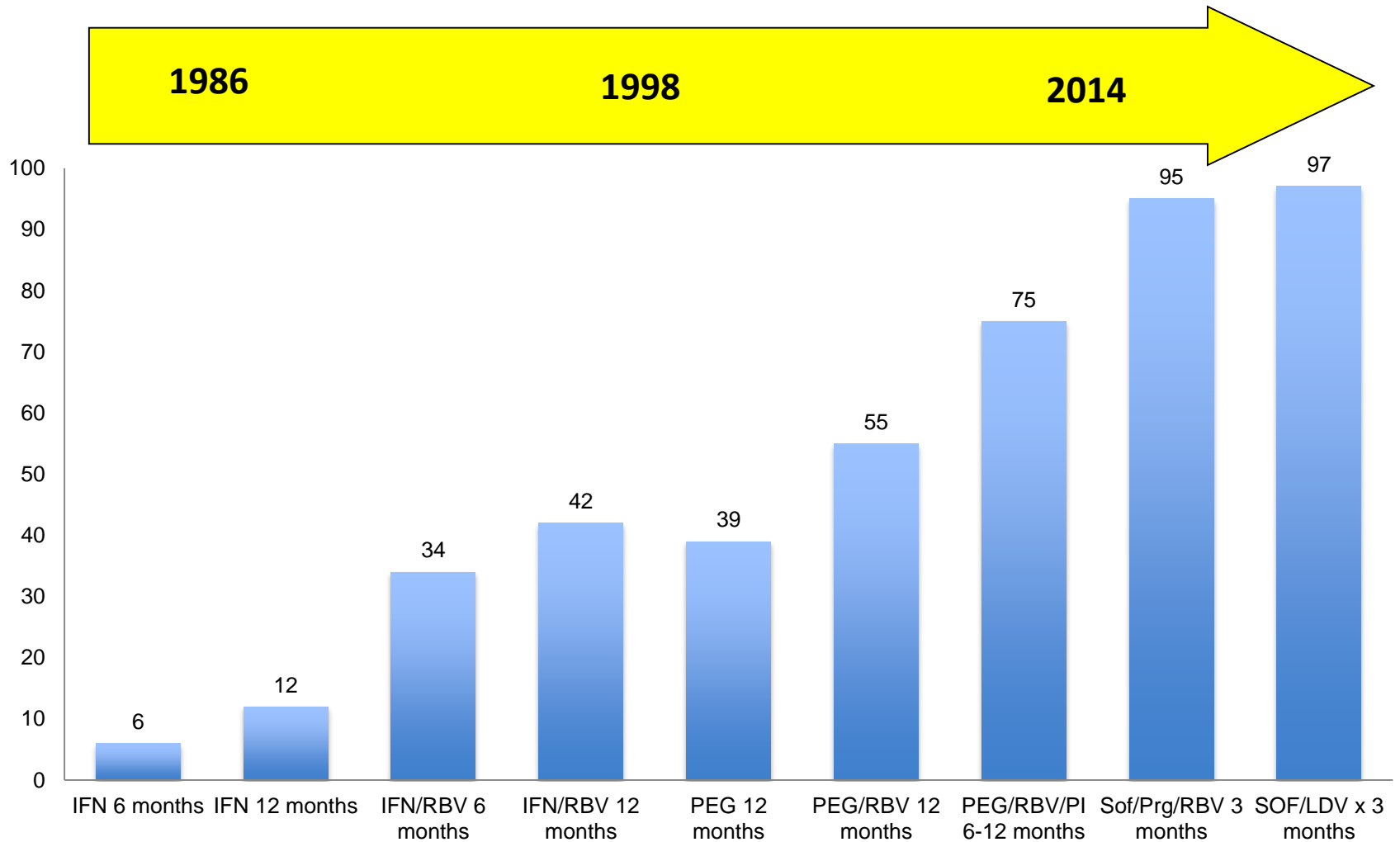
HCC risk reduction with therapy: 30% (cirrhosis) 80% (non-cirrhotic)



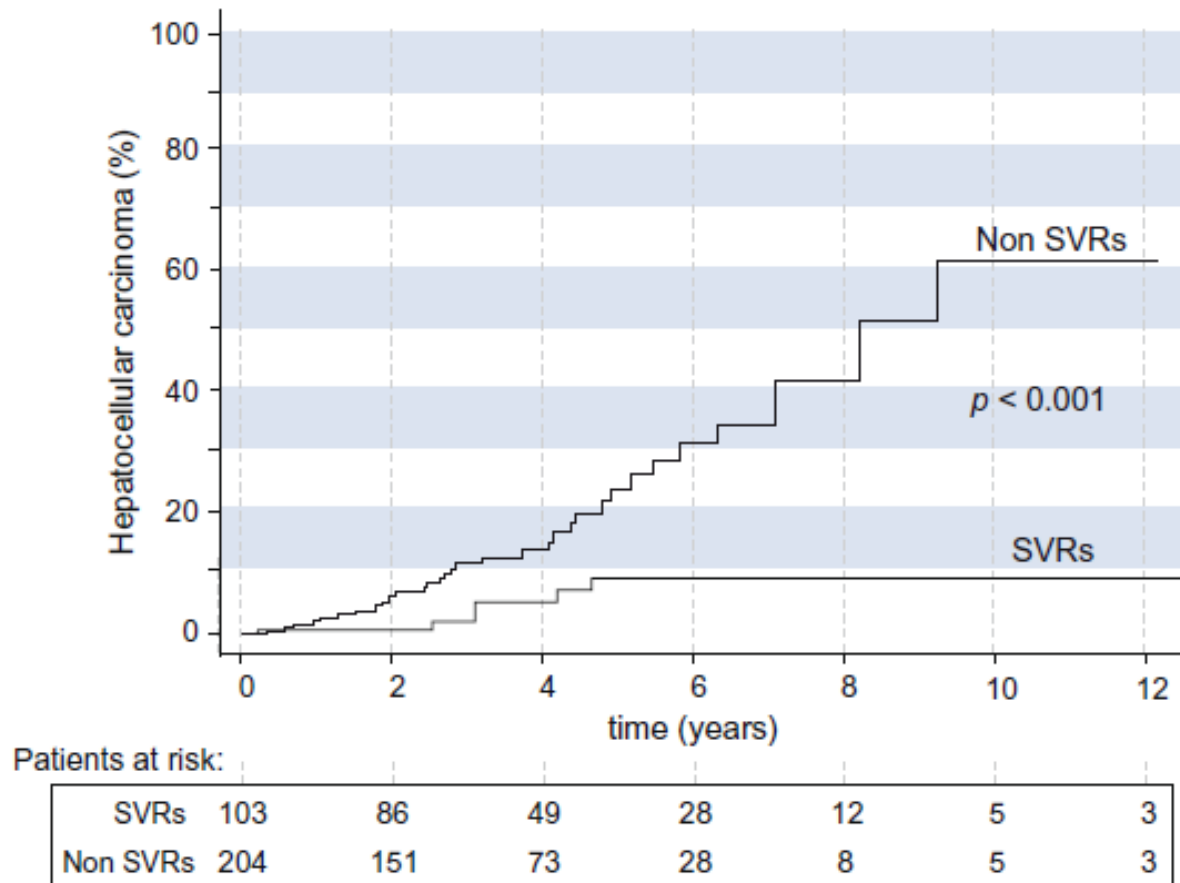
Barriers to Prevention

- Inadequate vaccination in some regions
 - Failure to diagnose
 - Especially in at risk populations
 - Failure to recognize risk
 - Especially in non-cirrhotic population
-

Timeline of HCV Therapeutics

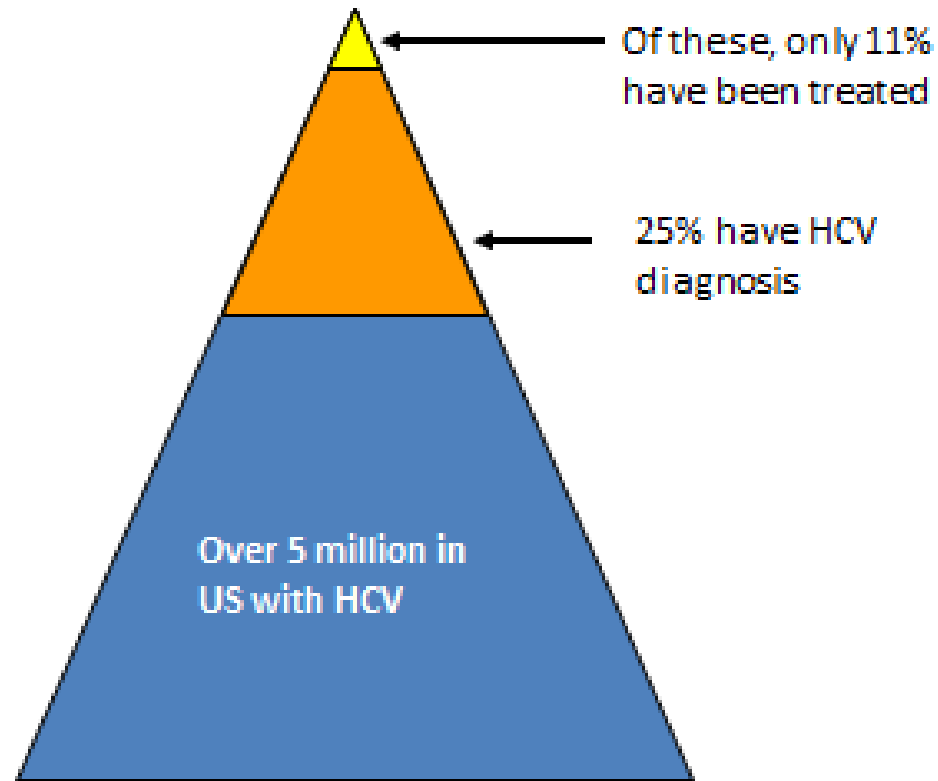


HCV and Hepatocellular Carcinoma





Lots of Work to Do



Barriers



Cost

- High Treatment Cost
- Restricted Access by payers

Access

- Identifying patients at risk
- Obtaining therapy
- Proper follow up



Take Home

- Majority of HCC is related to underlying liver disease
 - HBV, HCV
- HBV: effective vaccination, therapy
- HCV: effective therapy (cure)
- HCC is preventable!
 - Key is to overcome barriers in treatment / prevention