

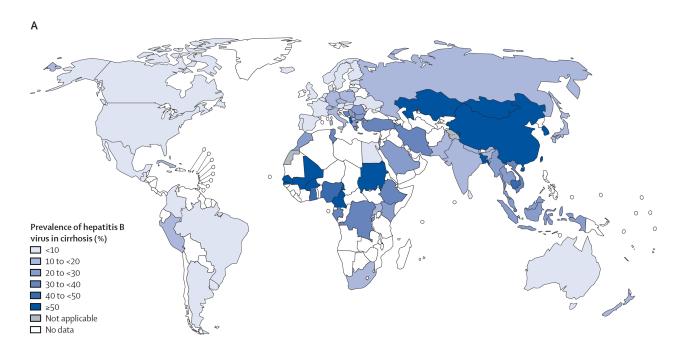


## **Hepatitis B**

~296 million people were living with chronic hepatitis B infection in 2019

1.5 million new infections each year

In 2019- an estimated 820 000 deaths, mostly from cirrhosis and hepatocellular carcinoma (primary liver cancer).





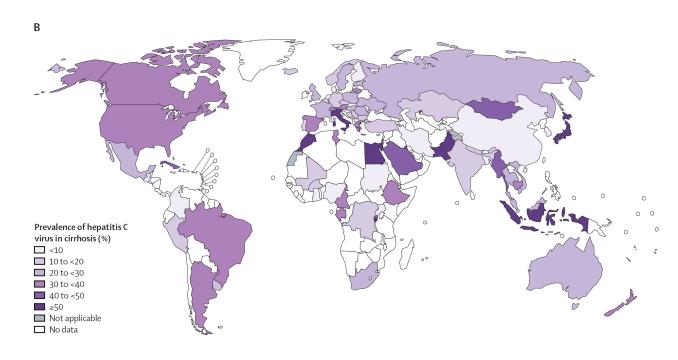


## **Hepatitis C**

~58 million people have chronic hepatitis C virus infection in 2019

1.5 million new infections each year

In 2019, an estimated 290,000 deaths, mostly from cirrhosis and hepatocellular carcinoma (primary liver cancer)







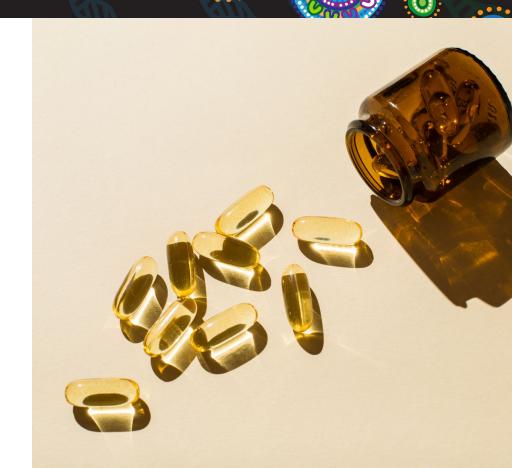
## **Hepatitis B**

- We have a fanstatic, highly effective vaccine which can stop people getting infected
- Critically the most cases of new infections globally occur due to mother to child transmission at/near childbirth.
- Giving birthdose vaccines could stop new infections but in many countries in the world this is not happening



## **Hepatitis B**

- We have tests to detect hepatitis B and monitor its progress
- We have highly effective treatments that stop people getting sick and dying from hepatitis B
- However most people in the world remain undiagnosed and untreated



## **Hepatitis C**

- We have tests to detect hepatitis c and monitor its progress
- We have highly effective, inexpensive treatments that can cure people of their hepatitis C – one tablet a day for 8-12 weeks!
- However, again most people in the world remain undiagnosed and untreated

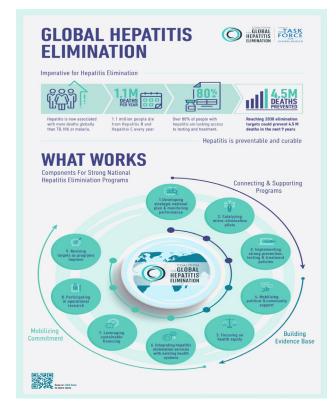


## Viral hepatitis elimination



WHO set targets to eliminate hepatitis B and hepatitis C as public health threats by 2030

- Increase testing hepatitis B and C
- Increase vaccination hepatitis B
- Increase treatment hepatitis B and C
- Provide clean needles and syringes and OAT to prevent hepatitis C







## Hepatitis B - progress has stalled.











## Countries/Territories Achieving HBV ≤5 Year Old HBsAg Prevalence Elimination Targets

(Trending 2021 Data)







## Hepatitis B - progress has stalled.











### Countries/Territories Achieving Relative or Absolute Impact and Programmatic Targets — HBV

(Trending 2021 Data)







## Hepatitis C - progress has stalled.





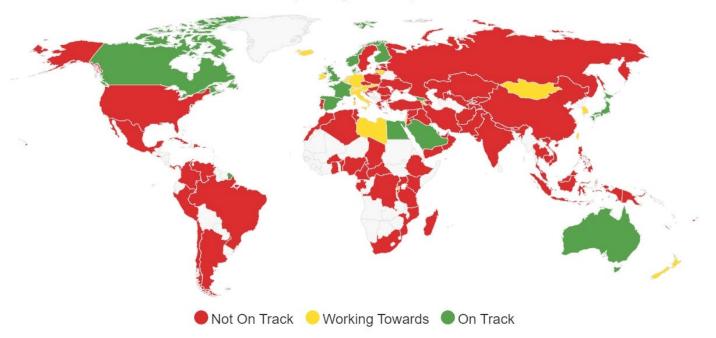






## Countries/Territories Achieving Relative or Absolute Impact and Programmatic Targets — HCV

(Trending 2021 Data)



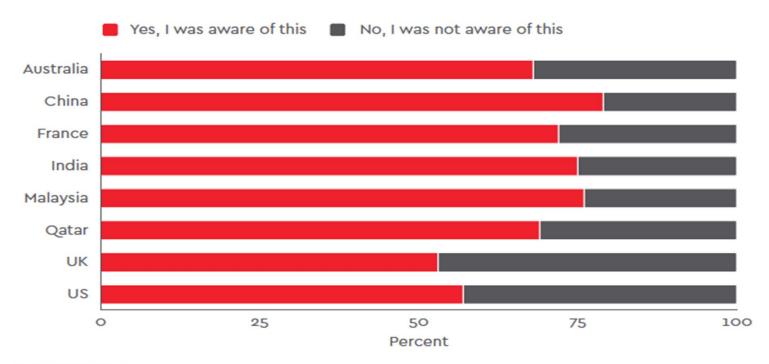






## Lack of awareness About a hepatitis B vaccine



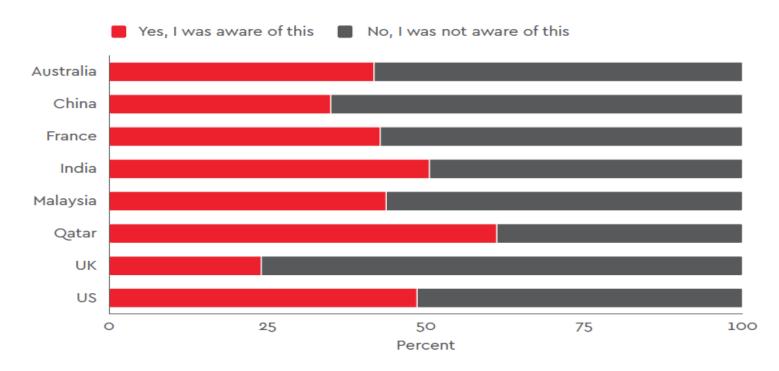


Source: YouGov



### Lack of awareness About a hepatitis C cure





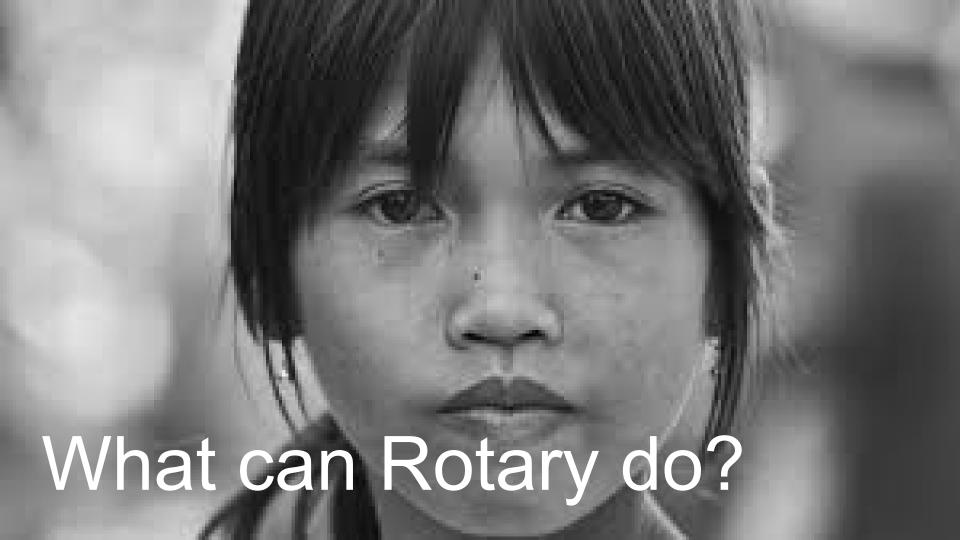
Source: YouGov



## Stigma and discrimination



















## **Acknowledgements**



Burnet team – in particular Jess Howell, Alisa Pedrana and Joe Doyle

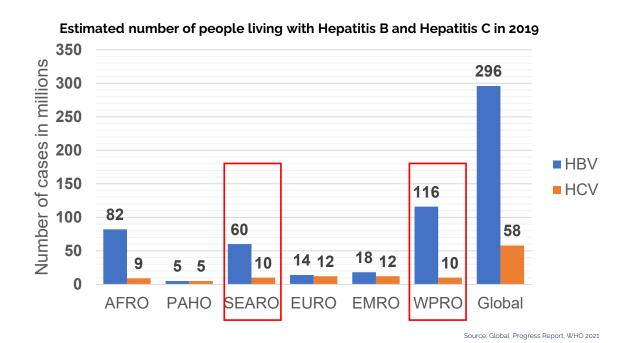
**CDA Polaris** 

**WHO Viral hepatitis team** 

Community organisations contributing to the response



## Of the estimated 360 million people living with Hepatitis B or C globally, 195 million live in the WHO Western Pacific and South-East Asia Regions





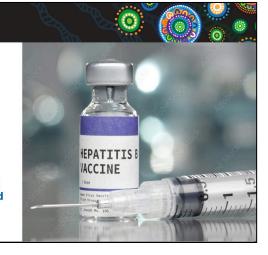


## Hepatitis B infant vaccination is essential for elimination

- Very safe, inexpensive, highly effective vaccine
   unlike HIV, TB, malaria, HCV
- World's first anti-cancer vaccine
- Timely (<24h) birth dose inclusive infant vaccination has been recommended by WHO for all countries since 2009
- Universal vaccination of infants, together with and screening / treatment of women diagnosed in pregnancy (EMTCT) will lead to elimination of hepatitis B
- Scaling up screening, treatment and care of adults will avert unacceptable illness and loss of life in the interim

### Hepatitis B

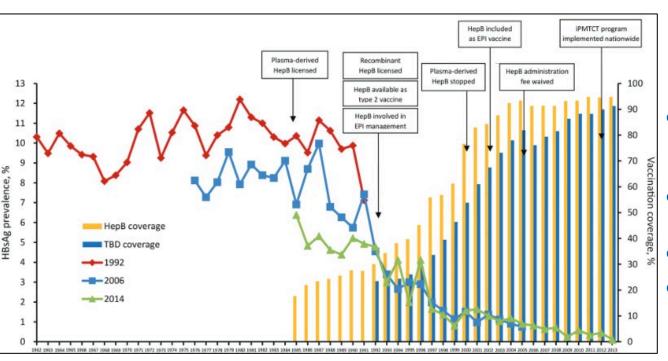
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# Elimination in action – infant hepatitis B vaccination in China





- 1990-2014 the proportion of children living with chronic hepatitis B fell from 10% to 0.3%
- To date, around 35 million chronic hepatitis B infections averted
- Over 5 million future deaths prevented
- Hugely cost saving
  - Prevent subsequent infections incl. in future generations as women enter childbearing years





Cui et al. EID 2017; 23 (5): 765-772

## While we acknowledge progress, we must strive to do even better



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Uptake of perinatal immunoprophylaxis for infants born to women with la record of hepatitis B in Victoria (2009–2017)



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#### ARTICLE INFO

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Kevwords: Henatitis B Mother-to-child transmission Vertical transmission

#### ABSTRACT

Background: Mother-to-child transmission (MTCT) of hepatitis B virus (HBV) remains one of the leading causes of transmission worldwide. An estimated 90 % of infants who are exposed to HBV and do not receive appropriate post exposure immunoprophylaxis will go on to develop chronic hepatitis B (CHB). In Australia, universal birth dose vaccination was adopted in 2000 and universal antenatal screening for hepatitis B was introduced in the 1990 s, however up to 10 % of women may have missed screening. There is no coordinated care or data collection that systematically reports the access to interventions to prevent mother-to-child transmission (PMTCT) for women with CHB. Therefore, the incidence rate of MTCT is unknown.

Methods: We conducted retrospective data linkage of perinatal records, public health notification and hospital admission data to identify women with a record of HBV infection who had given birth to a live infant(s) in Victoria between 2009 and 2017. We assessed uptake of birth dose vaccination and hepatitis B immunoglobulin (HBIG) and explored factors associated with administration of birth dose recorded as

Results: Among 690,052 live births, 6118 births (0.90%) were linked to 4196 women with a record of HBV infection, 89.4 % of all Victorian infants (n = 616.879), and 96.8 % of infants linked to women with a positive record of CHB (n = 5.925) received birth dose within 7 days. Infants born in private hospitals had reduced odds of receiving birth dose when compared to public hospitals births (Victorian population, aOR = 0.67, 95 %CI = 0.66, 0.69; CHB linked records aOR = 0.17, 95 %CI = 0.11, 0.25).

Of the 6118 infants linked to a positive maternal record of CHB, discrepant recording of maternal CHB status between the three datasets was identified in 72.4% of records and HBIG administration was

Conclusion: An approach that involves coordinated care and integrates data collection for women with CHB and their infants is required to support the elimination of MTCT of hepatitis B in Victoria. Crown Copyright @ 2023 Published by Elsevier Ltd. This is an open access article under the CC BY-NC-ND

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### Women with hepatitis B: how mothers with chronic hepatitis B understand and experience the prevention of mother-to-child transmission interventions in Victoria. Australia

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#### **ABSTRACT**

Background. Mother-to-child transmission (MTCT) of hepatitis B can be prevented with targeted interventions; however, MTCT continues to occur in Australia and globally. This qualitative research investigated how mothers with chronic hepatitis B (CHB) understand and experience interventions for the prevention of MTCT of CHB (PMTCT-CHB) in Victoria, Australia, Methods, Semi-structured interviews were conducted with women with CHB. Participants were recruited through purposive and snowballing sampling. Interviews explored the women's experience of care for themselves and their infants aimed at PMTCT-CHB. Interviews were conducted over the phone with a qualified interpreter where required. The consolidated criteria for reporting qualitative research framework was used with data thematically analysed. This study was co-designed with mothers with CHB through a Community Advisory Group established for this research; coordinated and supported by LiverWELL and the researchers. Results. Sixteen women were interviewed. Although most women understood the purpose of hepatitis B vaccination, there were significant gaps in information and education provided to mothers regarding PMTCT-CHB. These gaps included understanding of the extent of protection of vaccination, breastfeeding with CHB, postvaccination testing for infants and lack of clarity of the woman's own hepatitis B status. There was notable fear and worry associated with hepatitis B transmission, with emotional support for mothers identified as a major gap in service delivery. Additionally, some women experienced stigma and discrimination due to their hepatitis B and refugee status. Conclusions. This study explored how mothers with CHB understand and experience interventions to prevent MTCT. Our findings reveal substantial gaps in delivery of information and care in the context of PMTCT-CHB in Victoria. Our findings can support development of evidence-based interventions and systems to improve healthcare for mothers with CHB and their infants, and thereby reduce possible CHB transmission and other negative outcomes, including stigma and discrimination.

Keywords: community health, health service, health systems, liver cancer, maternal health, mother-to-child transmission, vaccination, viral hepatitis,





# Integrating EMTCT – Person centred, universal care



Figure 2. Impact of hepatitis B vaccination on disease burden

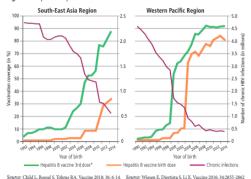


Figure 3. Tiered approach to introduction of additional interventions for EMTCT of hepatitis 8

Antiviral

Hepatitis B
immunoglobulin
for exposed infants

Screening of pregnant women, linkages
to care and follow-up of exposed infants

Hepatitis B birth dose and follow-up doses

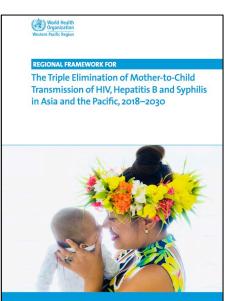
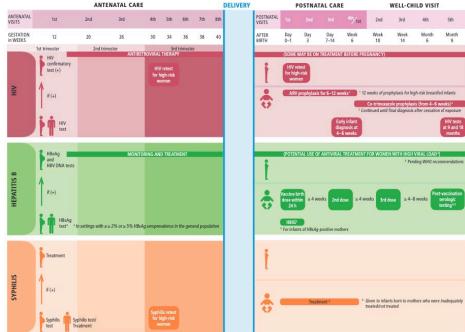


Figure 4. EMTCT interventions for HIV, hepatitis B and syphilis









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### Elimination of mother-to-child transmission of HIV, syphilis and hepatitis B

WHO's commitment to this global effort catalysed maternal and child health services to expand their capacity to address vertical transmission of other communicable diseases, including hepatitis B virus (HBV). This culminated in the "triple elimination initiative", which encourages countries to simultaneously commit to EMTCT of HIV, syphilis and HBV – further pushing the agenda for integrated service delivery.

Essential triple EMTCT services include:

- · testing for HIV, syphilis and HBV in antenatal care clinics;
- · prompt and efficacious interventions to treat women who test positive, and to prevent transmission of the infection(s) to their children;
- · counselling for women and their partners to reduce transmission risk and ensure appropriate treatment;
- · appropriately attended, safe delivery;
- · appropriate follow-up of exposed infants, including HBV vaccine birth dose;
- · optimal infant feeding; and
- lifelong treatment and care for mothers living with HIV, or eligible for treatment for HBV or syphilis.

Success in all countries depends on the combined efforts of advocates, policy-makers, health providers and community representatives. These stakeholders must help ensure that services are non-coercive and that the human rights of women, children and families affected by the 3 conditions are protected.

Validation of EMTCT of HIV, syphilis and hepatitis B

Global Validation Advisory Committee (GVAC)

EMTCT of HIV

EMTCT of hepatitis B

EMTCT of syphilis





## What can Rotary do?















## What can Rotary do?



### ADVOCATE

- For integrated, person centred PMTCT programs as part of universal perinatal and maternal and child health investment
- For global donors to incorporate viral hepatitis elimination, including hepatitis B PMTCT, in their programs
  - Global Fund for HIV TB and Malaria some inclusion of hepatitis B PMTCT from 2023
  - GAVI hepatitis B birth dose purchasing in supported countries when will this happen?
  - CHAI, UNITAID increasing focus on hepatitis others?

### EDUCATE

- Every WHO member state has endorsed elimination of viral hepatitis as a major public health threat by 2030
- Progress? Commitments? Actions?
- The importance of Triple Elimination of MTCT of HIV, syphilis and hepatitis B including in our region

### BE CHAMPIONS

For vaccination, especially high coverage of infant and childhood vaccination globally





## WHO Collaborating Centre for Viral Hepatitis, Doherty Institute Epidemiology and Public Health Team



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www.doherty.edu.au/viralhepatitis







Raise awareness

Campaign in your community

Advocate for an End Hepatitis campaign



- 820,000 people died from Hepatitis B related condition in 2019.
- 290,000 people died from Hepatitis C related condition in 2019.

- Yet, these deaths are preventable.
- The time to act is <u>now</u> to reach elimination by 2030.

