



Hepatitis B: From A to Z

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About Hepatitis B

- Blood-borne viral infection of the liver – 300 million people worldwide infected
- World's leading cause of liver cancer
- Good treatments, but no cure

Transmission: Direct Blood to Blood Contact

- Mother-to-child* most common transmission route worldwide
- Unprotected sex
- Injection drug use

About Vaccination

- First anti-cancer vaccine because it prevents liver cancer



Acute vs. Chronic Infection

- New infections are “acute”
- Most adults will recover (immune control) within 6 months
- Few adults (5%) and most babies/young children (60-90%) will develop chronic, life-long infection
- People with chronic infection are at increased risk for liver cancer and cirrhosis and are 70%–85% more likely to die prematurely than the general population

Symptoms

- Most people have NO symptoms – sometimes with acute infection, or with chronic flares/liver disease
- Flu-like: fatigue, nausea, aches/pain, jaundice, dark urine

Diagnosis

- Three-part blood panel tells you a person’s hepatitis B status
- Hepatitis B surface antigen (HBsAg), hepatitis B surface antibody (HBsAb), hepatitis B core antibody (HBcAb)



Hepatitis B in the U.S.

2.4 million Americans chronically infected

mostly non-U.S. born

Acute infections are on the rise

mostly unvaccinated adults with behavioral risks

20,000-50,000 new infections annually

25% with chronic are diagnosed / aware of their infection

50% of those diagnosed receive appropriate care and treatment

24%-52% of people in care receive HCC surveillance as per guidelines



Liver cancer in the U.S.

In 2017 = 41,000 new cases and 29,000 deaths

Since 2013, HCC has been the fastest growing cancer in incidence

HCC death rates are rising, in both men and women

Proportion of HCC cases resulting from CHB has increased

- in one study, proportion of CHB-induced HCC cases grew from 4% to 21% since 2010

Only 1 in 5 patients (20%) survive 5-years after diagnosis

- Henley et al. 2020. Annual Report to the Nation on the Status of Cancer, part I: National cancer statistics. *Cancer*. 126(10):2225-2249.
- Yang et al. 2017. Recent Trends in the Epidemiology of Hepatocellular Carcinoma in Olmsted County, Minnesota: A US Population-Based Study. *J. Clin. Gastroenterol.* 51:742–748.
- Islami et al. 2017. Disparities in Liver Cancer Occurrence in the United States by Race/Ethnicity and State. *CA: A Cancer Journal for Clinicians*; 67(273-289).



Hepatitis B & liver cancer disparities in the U.S.

- Among Asian American, Pacific Islander, African immigrant communities
- #1 health disparities for Asian Americans and Pacific Islanders (AAPI)
- 50% of the chronic hepatitis B burden occurs among AAPIs (~6% of the U.S. population)
- Asians and Blacks with hepatitis B have HCC risk that is 11 to 17-fold higher compared to Whites

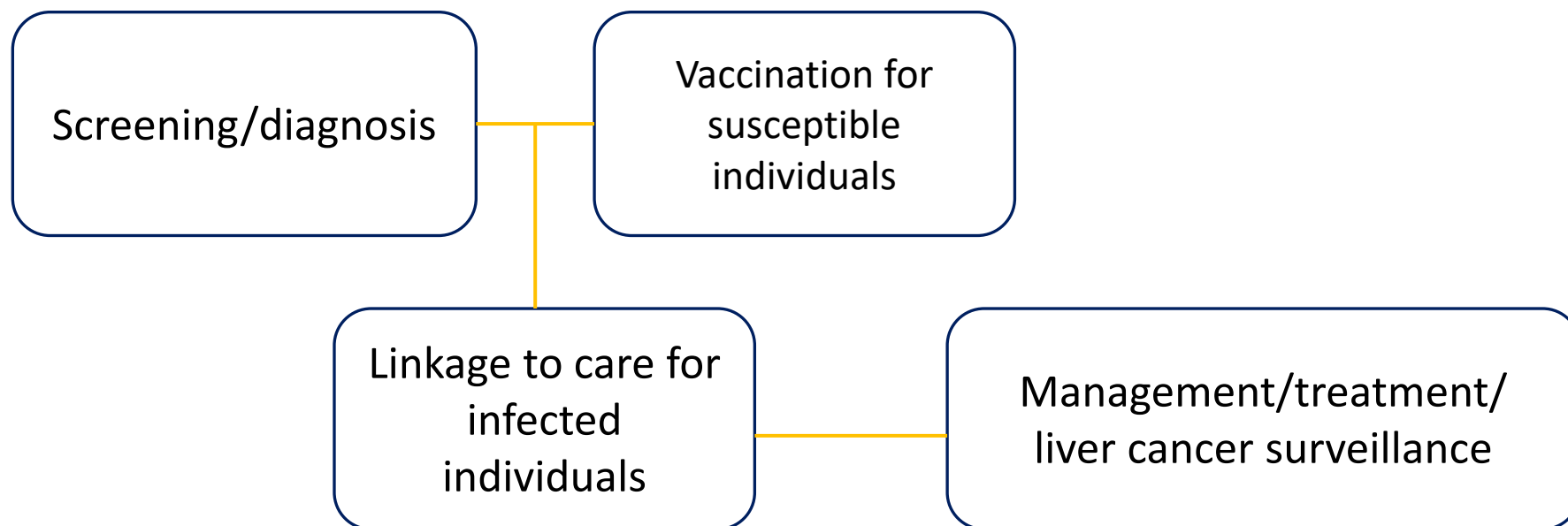
From 2013-2017:

- HCC was the 5th most common cause of cancer death for men
- 2nd among AAPI men
- 4th among AI/AN and Hispanic men



Hepatitis B care continuum

We can eliminate hepatitis B and prevent liver cancer!





Hep B Vaccine Recommendations: U.S.

The U.S. Centers for Disease Control and Prevention (CDC) recommends the hepatitis B vaccine for:

All newborns

Children up to age 18

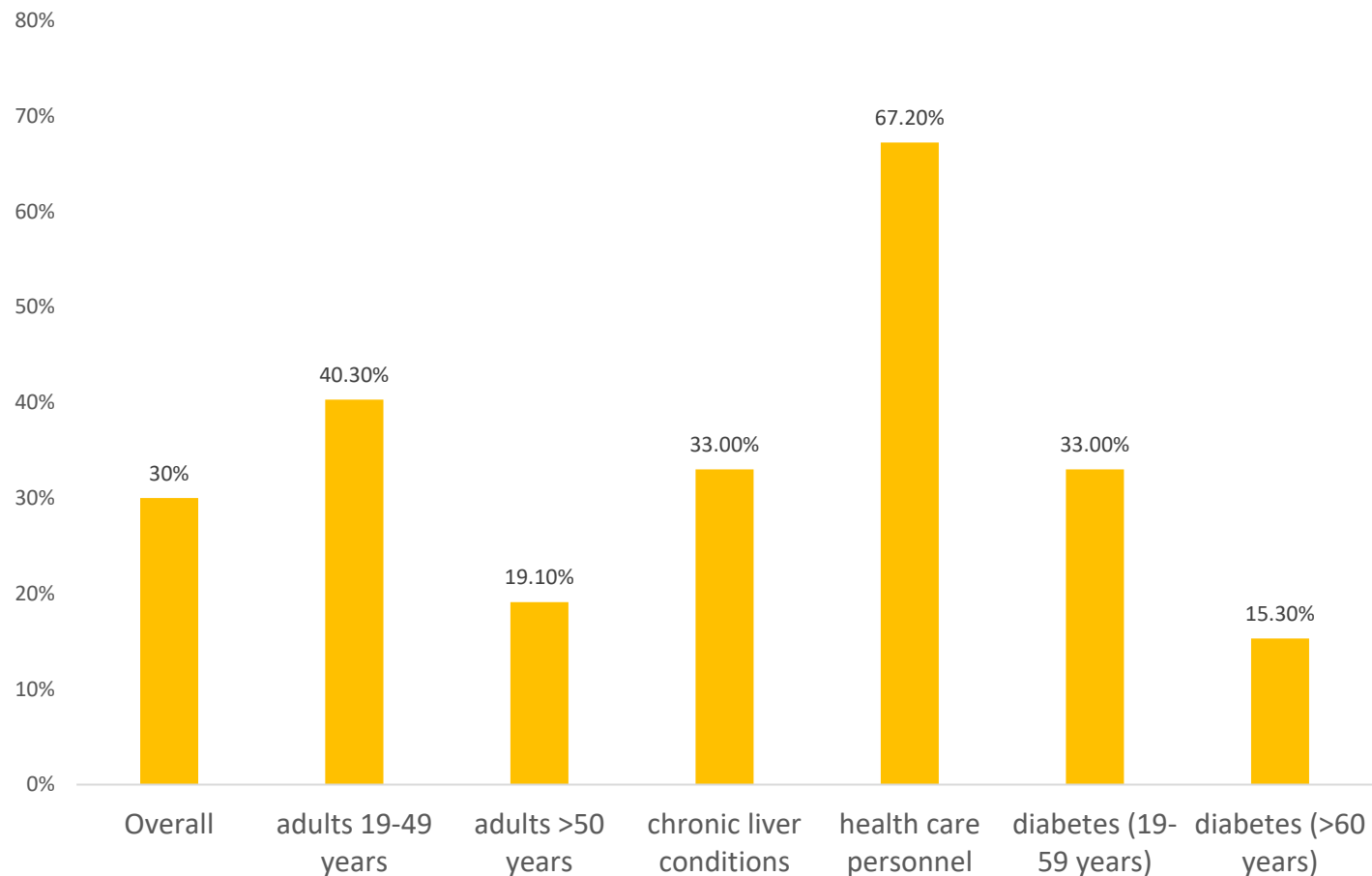
Adults 19-59 years of age

Adults 60 and older who are at high-risk for infection*

*Recommended Nov 2021 by ACIP



Hepatitis B vaccine coverage (≥ 3 doses) among adults in the U.S.



Why the new universal adult recs?

- Adult vaccine coverage is low
- Coverage among HCPs has not improved since 2010 – and did not meet HP2020 target of 90%
- Coverage was higher for those with health insurance, those U.S. born, and those White compared to Black or Hispanic



What does universal adult hepatitis B vaccination mean for communities?

- It will be easier to protect adults from hepatitis B!
- All adults aged 19-59 can receive the HBV vaccination with no cost-sharing.
- Financial and other systematic barriers to vaccine access will be eliminated for many adults.
- Access to the hepatitis B vaccine will increase; more providers will offer the vaccine, and it will be easier to get vaccinated.
- Stigma associated with risk factors should be eliminated as a barrier.
- Health insurance coverage for the vaccine will improve.
- Progress toward our shared goal of eliminating viral hepatitis in the U.S. by 2030 will accelerate.
- Health disparities and new hepatitis B infections will be reduced.



Make hepatitis B vaccine a priority in your community!

- **Talk to communities**
 - Stigma & discrimination are persistent in communities impacted by hepatitis B
 - Universal recs takes the burden off of patient
 - Highlight that this is a routine immunization for ALL adults
 - The link between hepatitis B and liver cancer
 - Collaboration with key community groups for those at higher risk
- **Educate other providers**
 - Most providers are unaware of the new recommendations



Adult Hepatitis B Vaccines: U.S.

Adult hepatitis B vaccine¹	Dose of HBs Antigens	Schedule
PreHevbrio²	10µg	3 doses at 0, 1, 6 months
Engerix-B	20µg	3 doses at 0, 1, 6 months
Recombivax HB	10µg	3 doses at 0, 1, 6 months
Twinrix (combination HAV)	20µg	3 doses at 0, 1, 6 months
Heplisav-B	20µg	2 doses at 0, 1 months



Resources for communities

- Hepatitis B Foundation
 - www.hepb.org or info@hepb.org, 215-489-4900
- Hep B United
 - www.hepbunited.org
- CDC
 - Vaccine cards: <https://www.cdc.gov/knowhepatitisb/pdfs/ForPrint-HepBVaccineCard.pdf>
 - Vaccinate your baby: <https://www.cdc.gov/knowhepatitisb/PDFs/Infographic-Perinatal.pdf>
 - <https://www.cdc.gov/knowhepatitisb/materials.htm>



Resources for providers

- ECHO CME Training on hepatitis B diagnosis, prevention, treatment
 - <https://hepbtaskforce.org/> - Find Your ECHO!!
- CDC
 - <https://www.cdc.gov/hepatitis/hbv/vaccchildren.htm>
 - <https://www.cdc.gov/hepatitis/hbv/vaccadults.htm#guidelines>
- Hepatitis B Foundation
 - <https://www.hepb.org/prevention-and-diagnosis/vaccination/>
- Hepatitis B Management: Guidance for the Primary Care Provider
 - <https://www.hepatitisb.uw.edu/page/primary-care-workgroup/guidance>



Key Takeaways

- Hepatitis B and liver cancer impact millions of people in the U.S., especially in under-served communities of color
- Acute hepatitis B is on the rise in the U.S.
- Hepatitis B can be prevented with a safe and effective vaccine
- All adults age 19-59 should be vaccinated – and universal screening recommendation for all adults is expected 2022/early 2023
- Diagnosis and linkage to appropriate follow-up/care is critical to saving lives – hepatitis B is treatable and manageable!
- Screening and first dose of vaccine can be given together, especially in hard-to-reach settings
- We have a unique opportunity to eliminate hepatitis B and save lives!

Together we can eliminate hepatitis B!

Thank you – chari.cohen@hepb.org

