

Elimination of Perinatal Hepatitis B Transmission & the National Viral Hepatitis Action Plan



Corinna Dan, RN, MPH

Office of HIV/AIDS and Infectious Disease Policy

Office of the Assistant Secretary for Health

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The findings and conclusions expressed in this presentation are those of the author and do not necessarily represent the views of the Department of Health and Human Services

Overview

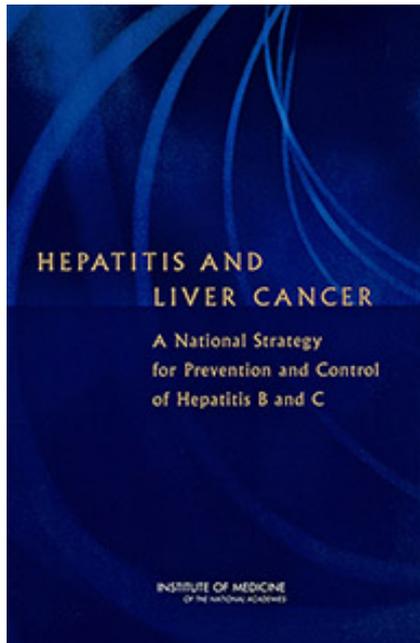
We have the tools to eliminate perinatal hepatitis B transmission in the United States!

- National Viral Hepatitis Action Plan
- Moving toward viral hepatitis elimination
- Current HBV epidemiologic trends
- Perinatal HBV Expert Consultation Report
- Recommendations for the elimination of perinatal hepatitis B in the United States



The Evolution of Our National Response

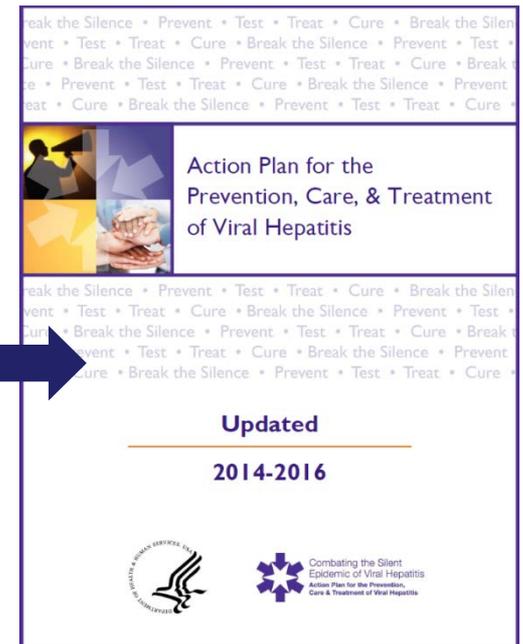
2010



2011



2014



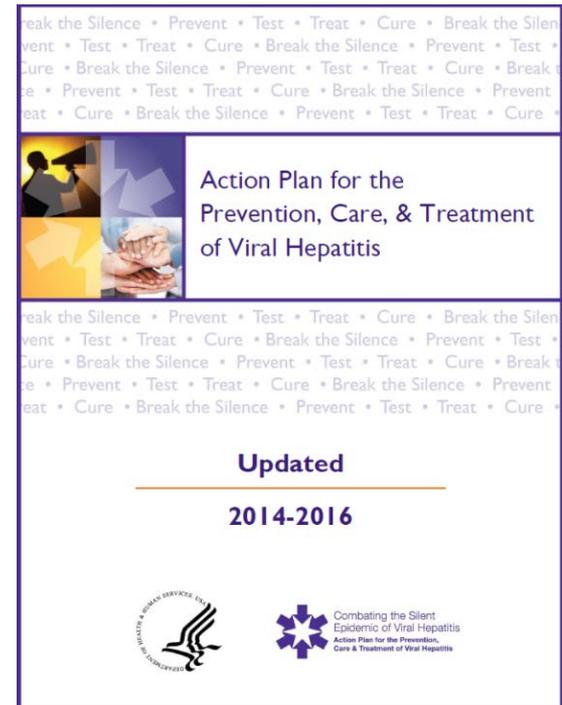
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National Viral Hepatitis Action Plan

➔ Road map for our nation's response to viral hepatitis

- Promotes action, transparency, and accountability
- Sets goals, priorities, and measurable targets
- Actions to be taken by federal government
- Current plan ends this year—currently being updated to 2020



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Goals of the Viral Hepatitis Action Plan

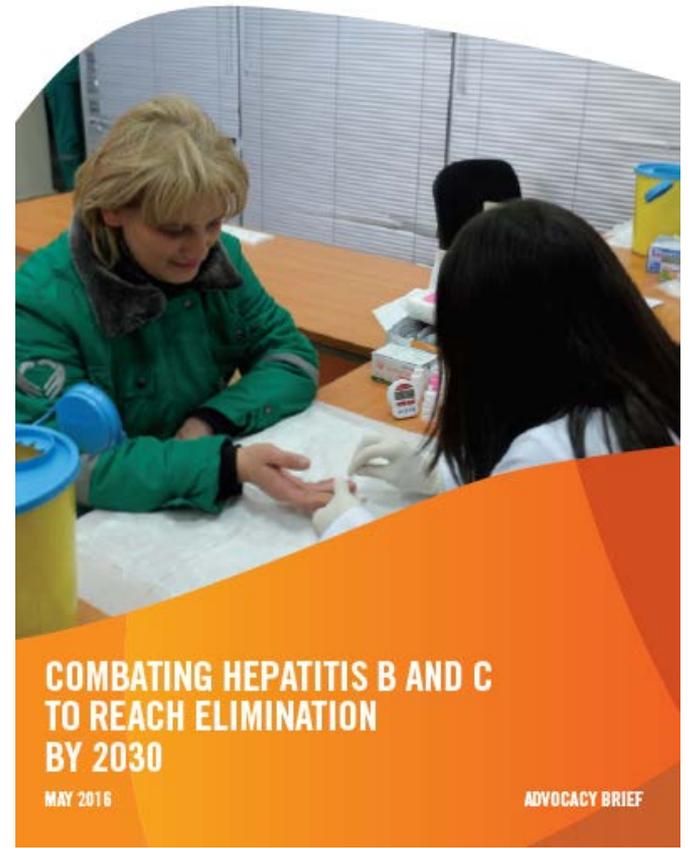
If fully implemented, the Action Plan will:

- ➔ Increase the proportion of persons who are aware of their HBV infection from 33% to 66%
- ➔ Increase the proportion of persons who are aware of their HCV infection from 45% to 66%
- ➔ Reduce the number of new HCV infections by 25%
- ➔ Eliminate mother-to-child HBV transmission



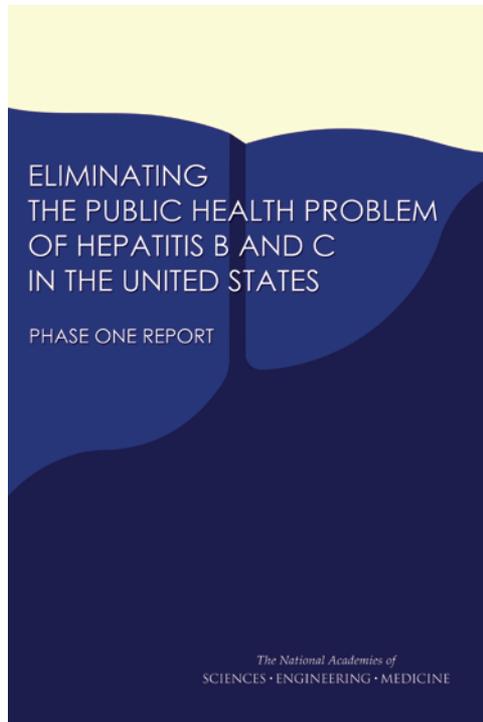
Global Support for Hepatitis Elimination

- ➔ World Health Organization supports hepatitis B elimination
- ➔ Countries have begun drafting elimination plans
- ➔ In the U.S., communities and health systems are putting hepatitis elimination plans to work



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National Academies Report



Available at: nas.edu/hepatitiselimination

➔ National Academies of Sciences, Engineering and Medicine *(formerly IOM)*

- Released report on April 11, 2016
- Committee determined that:
 - Both hepatitis B and C could be rare diseases in the US
 - But there are substantial obstacles to meeting this goal
- Follow-up report in early 2017 will address what needs to be done



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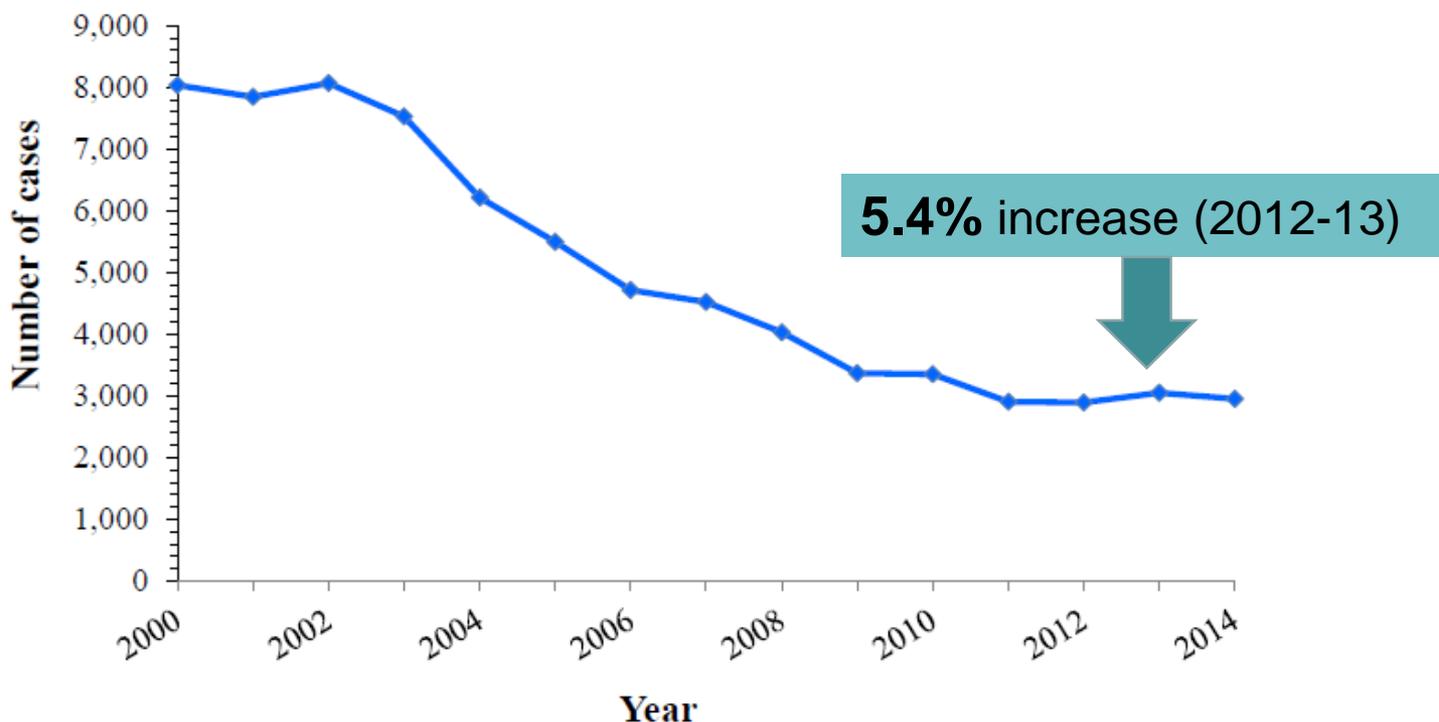
Current Trends in Acute Hepatitis B Infection In the United States



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First Increase in Reported Acute Hepatitis B in 20 Years



Source: CDC, National Notifiable Diseases Surveillance System

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State Acute HBV Overview 2010 - 2014

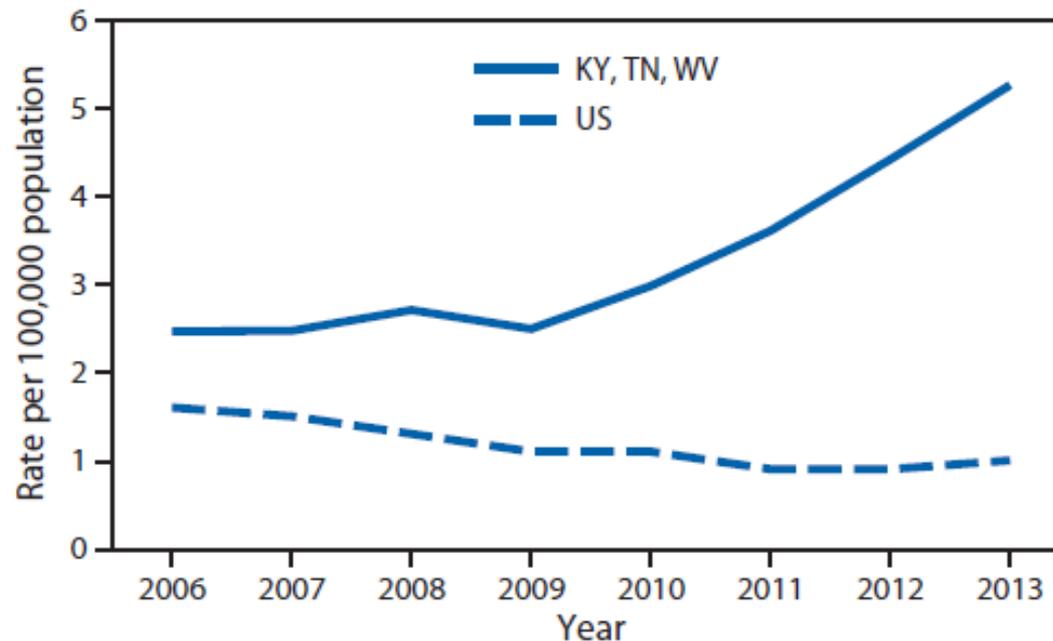
Among the 48 states reporting rates of acute HBV during 2010-2014 (2 states and DC did not report):

- **23 states remain unchanged** (within 0.3 from 2010-2014, FL rates remain higher than all other unchanged states)
 - **15 states decreased by ≥ 0.3**
 - **2 states decreased sharply:** AR ≥ 1.0 , OK ≥ 2.0
-
- **10 states increased by ≥ 0.3 :**
 - **6 states increased by ≥ 0.3** IN, KY, LA, MA, MS, OH
 - **4 states increased by > 1.0** AL > 1.0 , TN > 2.0 , WI > 2.0 , WV > 5.0



Very Rapid Increase in Some States

FIGURE 1. Incidence of acute hepatitis B virus infection, by year—United States and Kentucky, Tennessee, and West Virginia, 2006–2013



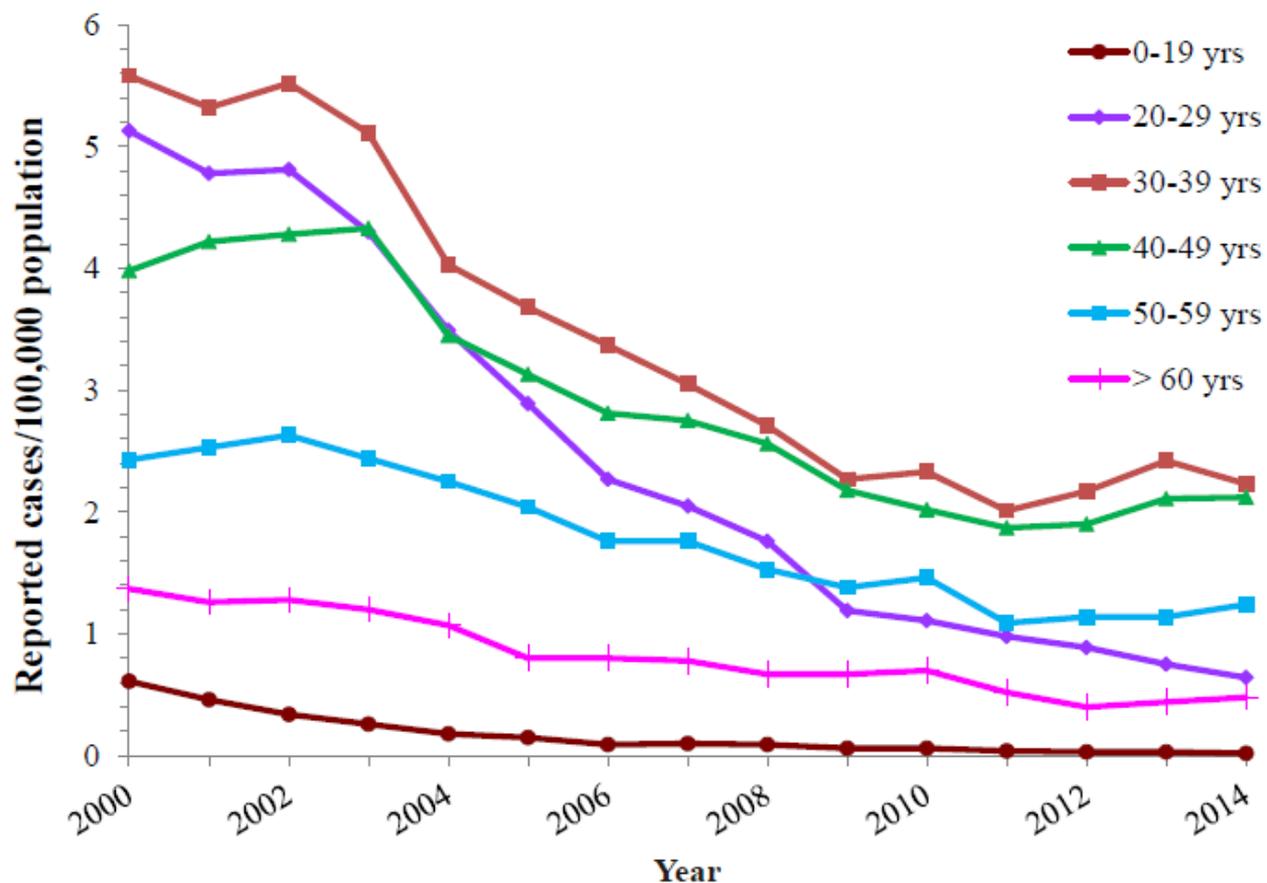
Source: [CDC. \(2016\). MMWR, 65, 47-50.](#)



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Incidence of Acute Hepatitis B by Age Group 2000–2014



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Source: CDC, National Notifiable Diseases Surveillance System (NNDSS)

Perinatal HBV Prevention Recommendations

CDC and USPSTF recommend:

- ➔ Screening all pregnant women for HBsAg at the first prenatal visit
- ➔ Administering post exposure prophylaxis within 12 hours of birth for infants born to mothers who are chronically infected, i.e., HBsAg (+)
- ➔ Referring to case management (e.g., CDC's Perinatal Hepatitis B Prevention Program), counseling and medical management, and providing information about HBV for pregnant women with HBV

ACIP recommends:

- ➔ Universal HBV vaccination of all infants beginning at birth



Perinatal HBV Prevention: Current Status

“Timely immunoprophylaxis and completion of the ACIP recommended 3 dose Hep B vaccine series is the cornerstone of perinatal hepatitis B prevention.”

- ➔ 47% of the estimated 25,600 births to HBsAg (+) women were identified by the CDC’s PHBPP in 2009
- ➔ 95% of identified births were case-managed
- ➔ 95% of case managed infants received HBIG and HBV vaccine at birth
- ➔ 77% of case managed infants received 3 doses of HBV vaccine by 12 mo of age
- ➔ 55% of case managed infants had post vaccination testing



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Technical Consultation on the Elimination of Perinatal Hepatitis B in the United States



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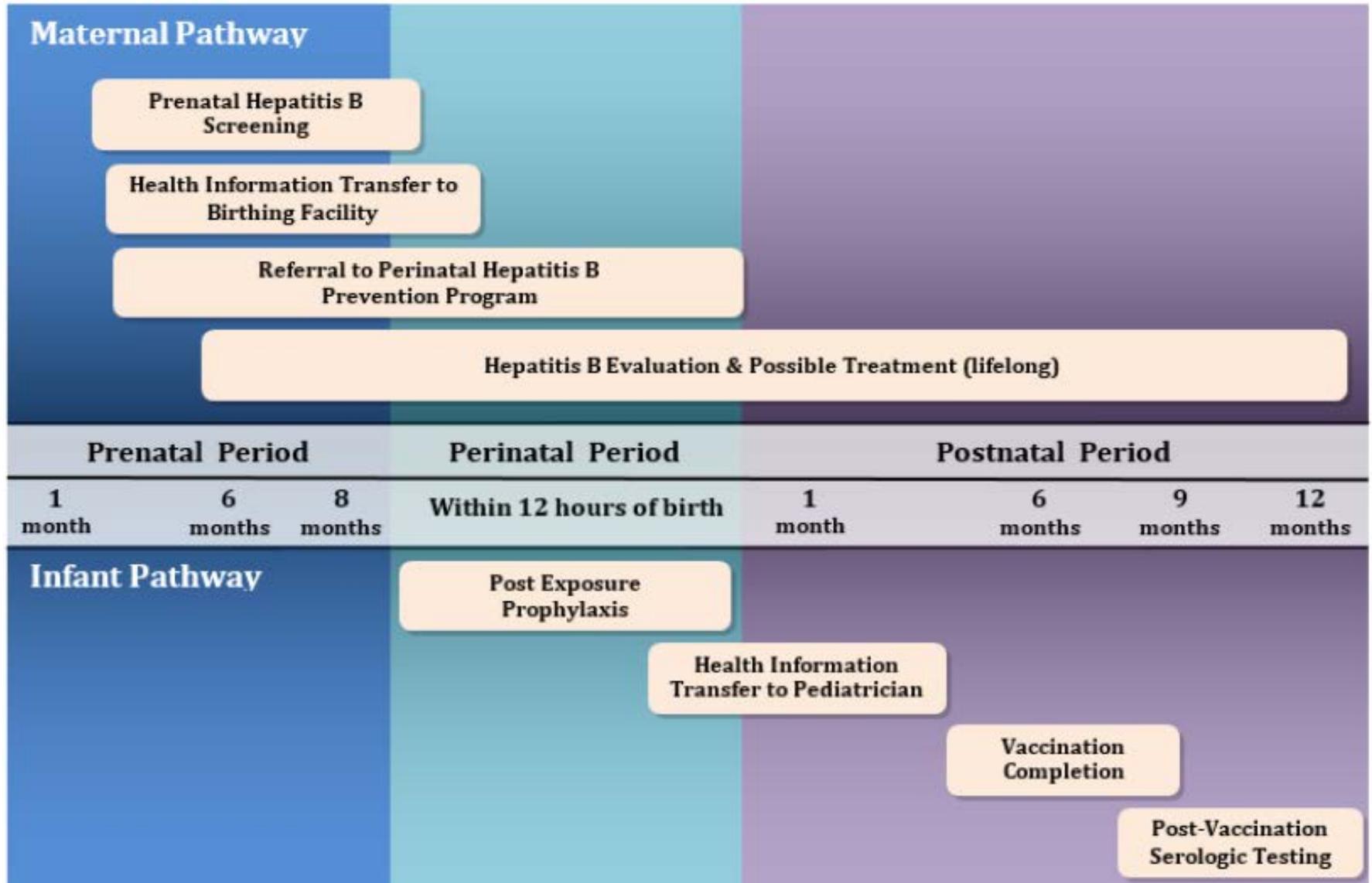
Expert Consultation on Perinatal HBV Elimination

Problem: The annual number of infants born to hepatitis B-infected mothers who become perinatally infected has remained stubbornly constant at approximately 1,000 per year over the last decade.

- ➔ One-day technical consultation convened by the U.S. Department of Health and Human Services (HHS) Office of HIV/AIDS and Infectious Disease Policy (OHAIDP)
- ➔ Strategic discussions included:
 - Improve public health, prevention and surveillance efforts for perinatal hepatitis B,
 - Routinize birth dose hepatitis B vaccination and post-exposure prophylaxis (PEP), and
 - Improve identification and management of mothers at high risk of transmitting hepatitis B.



Perinatal Hepatitis B Prevention Pathways



Recommendations: 3 Categories

The recommendations made by consultation participants fall into three broad categories:

- ➔ Engaging patients and communities disproportionately impacted by hepatitis B,
- ➔ Strengthening systems to enhance prevention efforts, and
- ➔ Expanding and refining research efforts.



Engaging Patients and Communities Disproportionately Impacted by Hepatitis B

- ➔ Increase awareness of the importance of HBV prenatal screening and infant vaccination among women and families from communities with high rates of chronic HBV infection
- ➔ Most effective when done collaboratively with trusted community partners, health systems, government
- ➔ Anticipated outcomes:
 - Improved testing and vaccination acceptance
 - Facilitated PEP administration
 - Increased maternal HBV linkage to care



Strengthening Systems to Enhance Prevention Efforts

- ➔ Create incentives for providers, institutions, and health care systems to implement recommendations for HBV vaccination and/or PEP for infants
- ➔ Provide educational support for clinician understanding and interpretation of HBV-related test results for both maternal screening & infant post-vaccination serologic testing
- ➔ Use electronic prompts in electronic health records (EHRs) to optimize HBV testing & pregnancy status reporting
- ➔ Increase awareness of the CDC's Perinatal Hepatitis B Prevention Program (PHBPP)
- ➔ Develop & disseminate recommendations for HBV treatment of high-risk expectant women

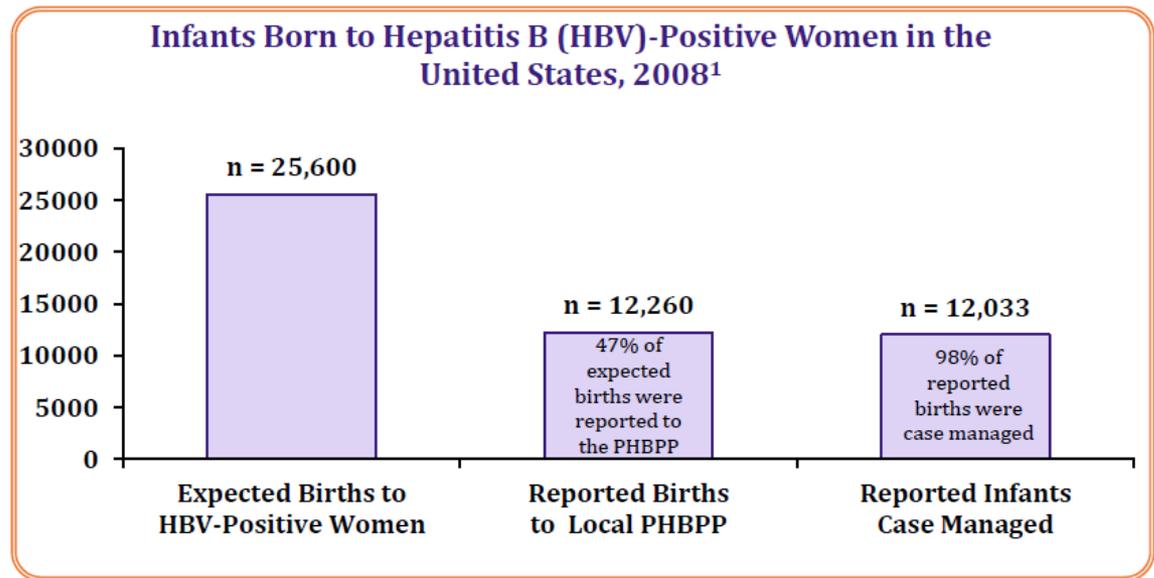


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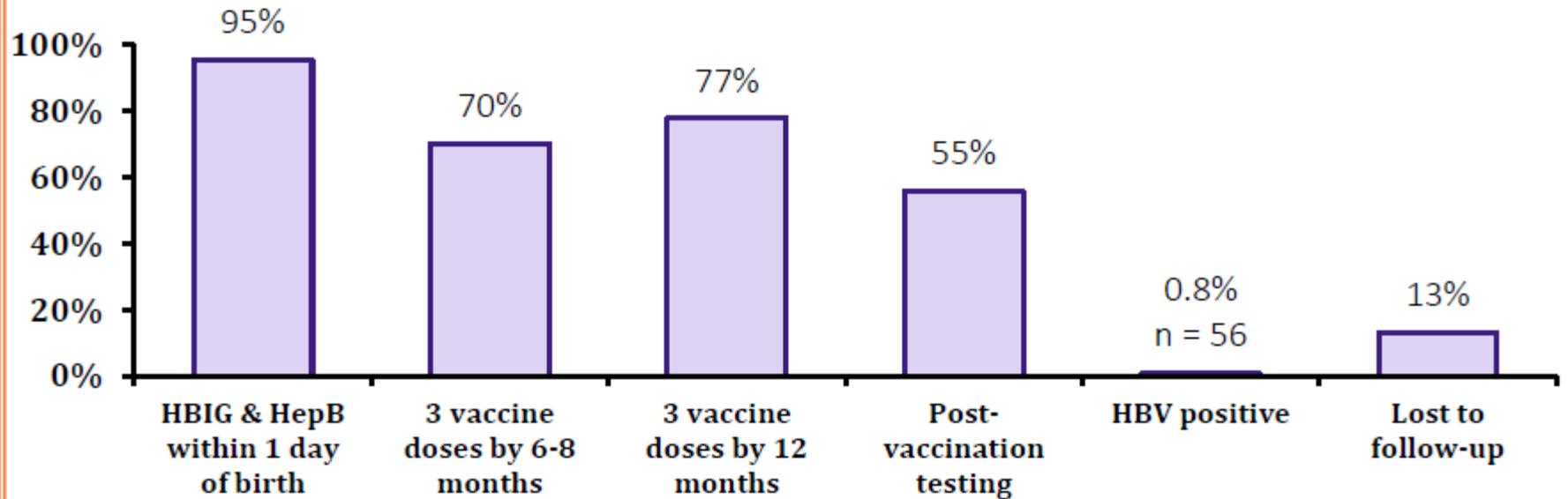
Expanding and Refining Research Efforts

- ➔ Understand the true burden of hepatitis B disease
- ➔ Understand the reasons for parental refusal of hepatitis B vaccination and PEP
- ➔ Identify barriers to PHBPP referral



Perinatal HBV Prevention is Effective

Hepatitis B (HBV) Service Utilization and Outcomes Among 12,033 PHBPP Case-Managed Infants, 2008¹



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Local Actions → National Improvement

What steps can you take?

- ➔ Understand what's happening in perinatal HBV prevention in your system
- ➔ Identify strategies to improve identification and management
 - Staff training, expanded use of EHR, administrator buy-in, identify new patient education strategies
- ➔ Collaborate with community partners



Thank you!

- ➔ Read the report Technical Consultation on the Elimination of Perinatal HBV in the U.S.
<http://www.hhs.gov/hepatitis/blog/2015/12/22/approaches-to-eliminating-perinatal-hbv-transmission-report-from-an-hhs-technical-consultation.html>
- ➔ Acknowledgements: Nancy Fenlon (CDC), Sarah Schillie (CDC), Ronald Valdiserri (HHS), Michelle Moses-Eisenstein (HHS)
- ➔ Contact: Corinna Dan, RN, MPH
Corinna.Dan@HHS.gov

