

Hepatitis B vaccines

What are the questions for SAGE today?

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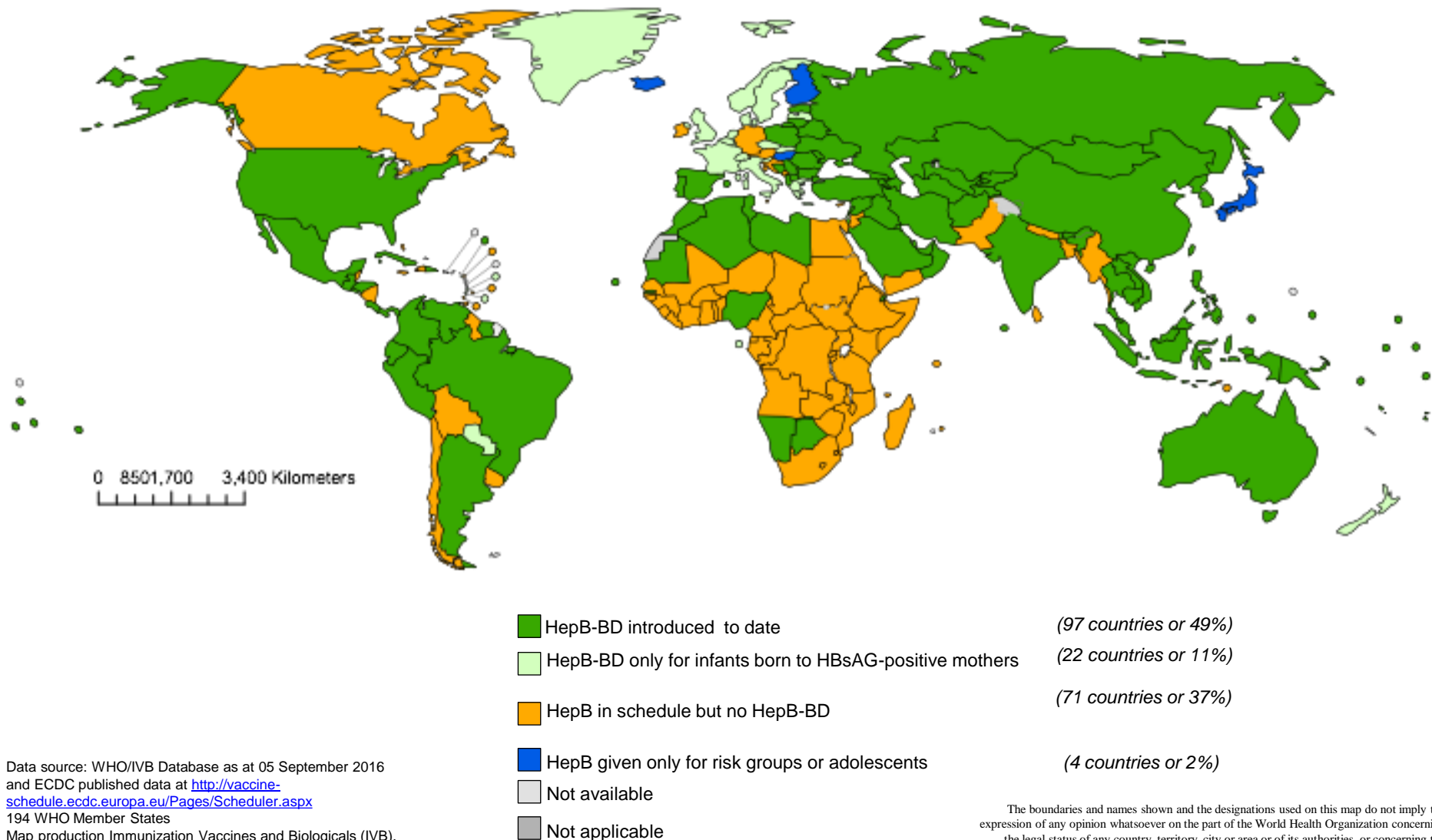
Background

Birth dose recommendation

Since perinatal or early postnatal transmission is an important cause of chronic infections globally, the first dose of hepatitis B vaccine should be given as soon as possible (<24 hours) after birth even in low-endemicity countries.

WHO Position paper 2009

Countries with Hepatitis B Birth dose (HepB-BD) vaccine in the national immunization programme

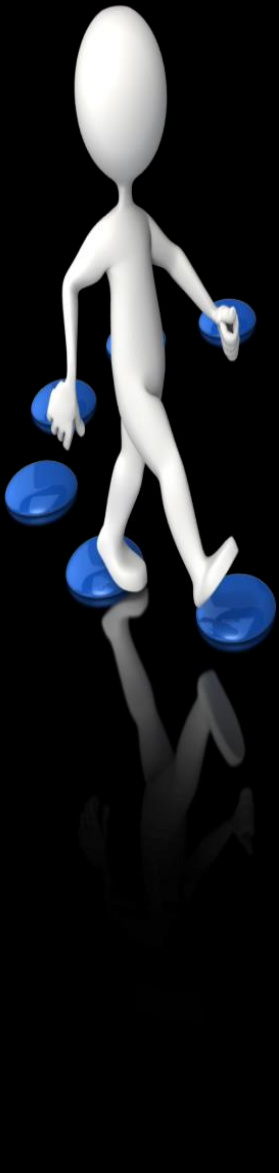


PROCESS

**Ad hoc Expert Consultations
(June 2013, March 2014, Sept 2015,
Sep 2016)**

**Review of methods and
mathematical models
(IVIR-AC June 2013, Sept 2014)**

Report to SAGE (Oct 2016)



Sources of evidence

1. Systematic reviews on:

- Safety and efficacy from randomized controlled trials and observational studies of childhood schedules using hepatitis B vaccines. (Soares K 2016)
- Seroprotection after recombinant Hep B vaccination among newborn infants. (Schillie 2013)
- Effectiveness of vaccination strategies against hepatitis B in people with HIV. (Wakefield 2014)
- Long-term Immune responses to vaccination in HIV-Infected patients. (Kernéis 2014)
- Long term protection provided by hepatitis B vaccine and need for booster dose: a meta-analysis. (Poorojalal 2010)
- Global compliance with hepatitis B vaccine birth dose and factors related to timely schedule. (de la Hoz 2016)
- Antiviral therapy in chronic hepatitis B viral infection during pregnancy: a systematic review and meta-analysis. (Brown 2016)
- Update of the estimations of worldwide prevalence of chronic hepatitis B virus infection. (Schweitzer 2015, de la Hoz 2016)
- Economic evaluation of Hep B vaccine impact in LMICs. (Chiyakunapruk 2016)
- Monovalent hepatitis B vaccine thermostability. (Gessner 2016)

Sources of evidence

2. Descriptive reviews:

- Long term impact of Hep B vaccination programmes on Hepatitis B epidemiology.
- Annual incidence and mortality of cirrhosis among persons with chronic HBV infection. (CDC 2015)

3. Review of routine information system.

- WHO databases on vaccine introduction.

4. Survey to WHO regional offices

- Identification of barriers for introduction of birth dose.

5. Model estimates

- Worldwide HBsAg prevalence.(Edmunds 2016)
- Global HBV vaccine impact. (Edmunds 2016)
- Global burden of HBV-attributable liver cancer. (Plummer 2016)

Today's questions

1. Does the emerging evidence suggest the **need to adjust current HBV recommendations**?
2. What is the **impact HBV vaccination** programme on HBV epidemiology?
3. Does the available evidence support **flexibility in the requirement for cold chain storage of Hepatitis B monovalent vaccines** in order to expand the delivery of the birth dose?