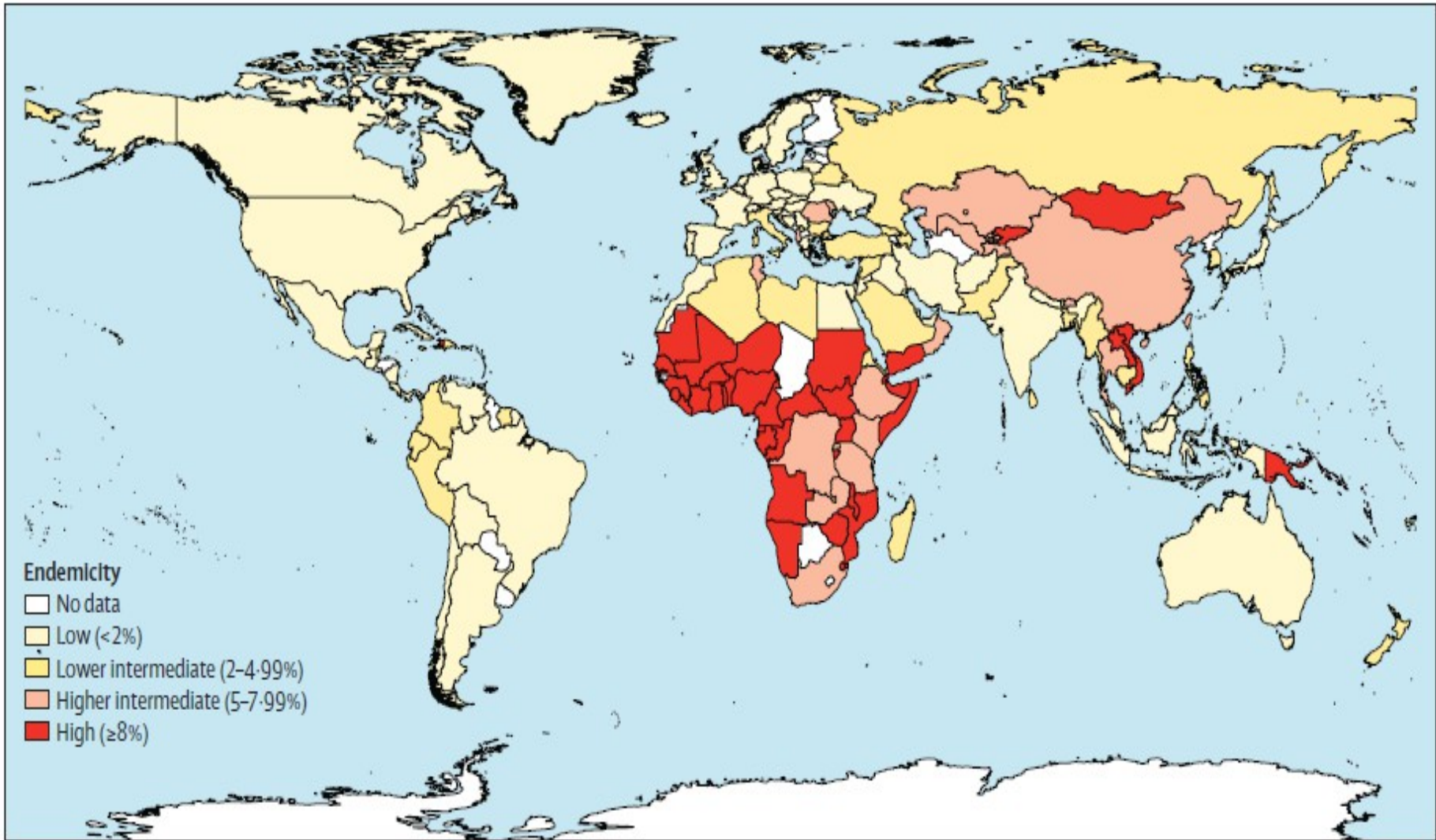


How to control HBV in high endemic regions? Sub-Saharan Africa



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Global HBsAg endemicity (1957-2013)

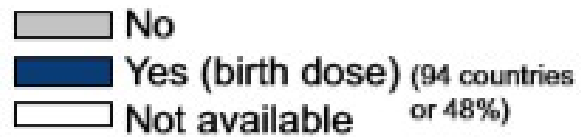
Hepatitis B in sub-Saharan Africa

- 60 to 80 million people HBs Ag positive among 1 billion people
- Prevalence estimate 6.1 % (4.6-8.5%)
- 88 000 to 101 800 deaths / year
- Cirrhosis and Hepatocellular carcinoma

- WHO Global Hepatitis report 2017
- Lemoine M., Thursz M.R. J Hepatol 2017; 66:645-54
- Wendy Spearman C et al. Lancet Gastroenterol Hepatol 2017; 2:900-9
- Stanaway JD et al. Lancet 2016;388:1081-88

Childhood Hepatitis Vaccination

- All 47 countries have introduced Hep B in Expanded Programme of immunization (EPI)
- Pentavalent vaccine for 44 countries
- Schedule : 6,10, 14 weeks of age for 33 countries
- **Universal Birth dose for 8 countries (17%,Dec 2016)**
- Coverage with 3 doses (HepB3) increased from 5% in 2000 to **76%** in 2015
- Birth dose : from 0% in 2000 to **10%** in 2015
- Breakwell L et al. Pan Afr Med J 2017;27(suppl. 3):17



Global coverage of HBV vaccine birth dose. WHO/UNICEF coverage estimates 2012 revision, July 2013

Childhood Hepatitis Vaccination

Seroprevalence of HBs Ag in children

Country	Pre-vaccination period	Post-vaccination period
Gambia (Hep BD)	8 to 14.6 %	0 to 1.3%
Nigeria (Hep BD)	4.6 to 20%	0.5 to 14.1%
Senegal	10.9 to 13.5%	0.2 to 3.9%
South Africa	10.4%	0.13% to 1.3%
Cameroon	17.4 to 25.1%	0.7%

The prevalence is still 3% in the African Region (WHO report 2017)

From Breakwell L et al. Pan Afr Med J 2017;27(supp 3):17

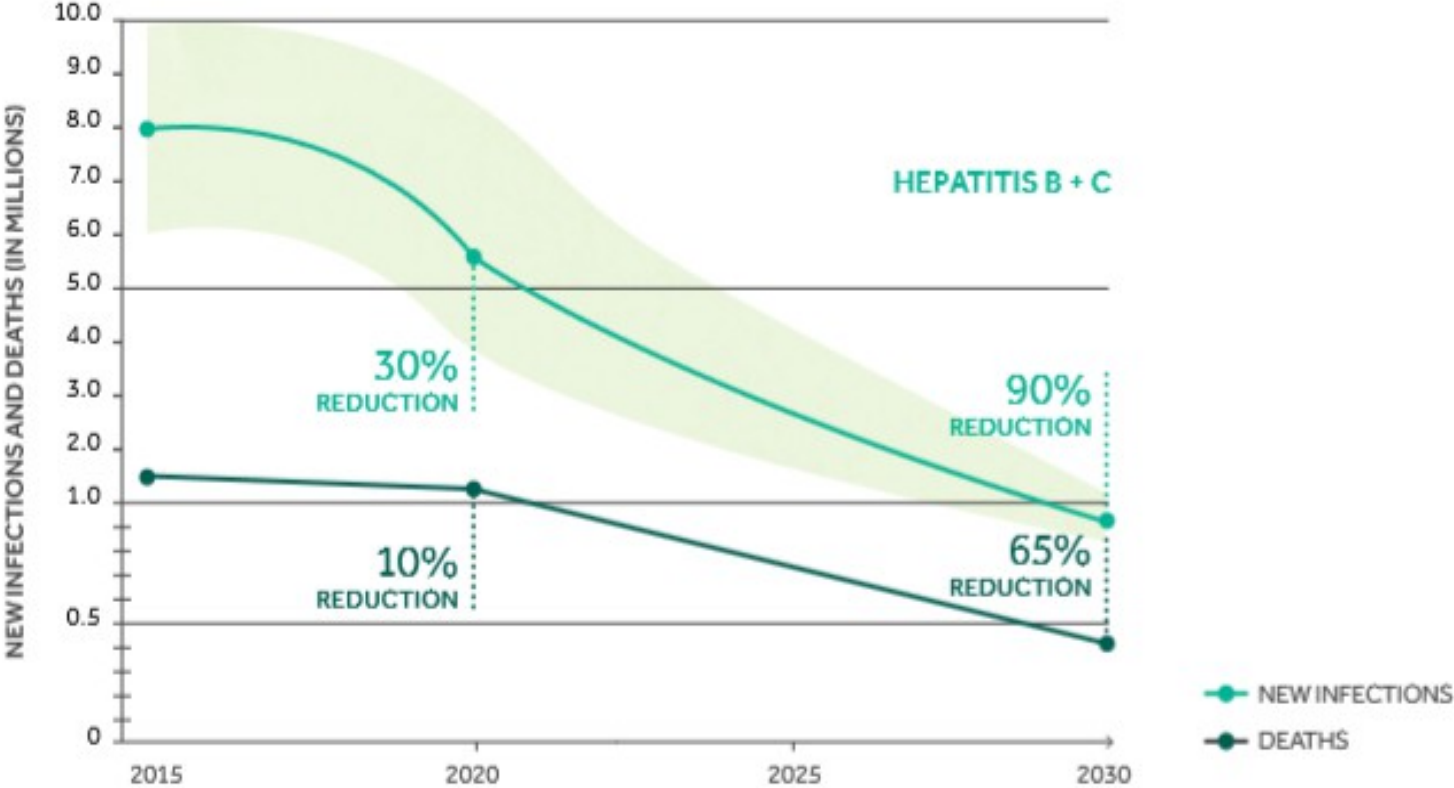
Perinatal transmission of HBV in Africa

- Horizontal transmission main mode But perinatal transmission exits (10%) increased by co-infection HIV-HBV
- Cote d'Ivoire: 9 (38%) of 24 infants born to HBe Ag positive mothers tested HBs positive at 6 weeks compared 0% of 142 infants born to HBe Ag negative mothers
- Burkina Faso:
7 (32%) of 22 infants born to HBe Ag negative and 2 (29%) of 7 infants born to HBe Ag positive tested HBs Ag positive within 24hours

Treatments in sub-Saharan Africa

- PEG- interferon ,Lamivudine and Tenofovir
- Costs for one year of treatment:
 - Lamivudine: 24 to 1450 €
 - Tenofovir: 48 to 7320 €
- NUCs Available for HIV patients but Not for HBV monoinfected in some countries
- Very few patients under treatment

WHO Global Health Sector Strategy (GHSS) on viral hepatitis



Targets for reducing new cases of and deaths from chronic viral hepatitis B and C infection

How to do in sub-Saharan Africa?

- Priority actions at clinical level with public health approach
- Prevention of neonatal and early childhood infection
- Hepatitis Birth dose and high vaccine coverage
- **Less than 3% of infants receive HBV vaccine within 24 h** in The Gambia (Home births and stock outs)
- **Total BD coverage 4%** before 2015 in Nigeria among health facilities

- Breakwell L et al. Pan Afr Med J 2017;27(supp 3):17
- Lemoine M.,Thursz M.R. J Hepatol 2017; 66:645-54

Prevention of MTCT

- Hep B birth dose alone insufficient even with Hyper Immunoglobulins (10% infection of babies in high viraemic mothers)
 - HBIG expensive and unavailable
 - Screening and prophylactic treatment of high viraemic mothers (DNA PCR and HBe Ag)
-
- Wendy Spearman C et al. Lancet Gastroenterol Hepatol 2017; 2:900-9
 - Debarry J et al. Liver Int 2017; 37(supp l.1):67-72

Screen and Treat

- Screen all high risk individuals, including HCW and household and sexual contacts of HBsAg positive persons
- Mandatory screening of blood donors and pregnant women
- HBV vaccination and linkage to care with help of social workers
- Affordable WHO prequalified POC testing for serology and HBV DNA (HIV platforms)

Education and training

- Community education on HBV and its transmission
- Training of HCW, **including all birth attendants** and development of local and simple guidelines WHO inspired
- Sustainable access to Tenofovir
- Strong support from local governments and health community

Conclusions

- Hepatitis B remains a major cause of deaths and a heavy burden in Sub-Saharan Africa
- To reach the goal of eliminating Hepatitis as a public health threat
- **Priority actions should be:**
 - Implementation of birth dose vaccine and scaling up high coverage of full vaccination in infants
 - **Mandatory test for pregnant women and Blood donors**
 - Test and possibly treat high risk individuals and their contacts
 - Make available simple and reliable diagnosis tools (HIV platforms)
 - Make available and affordable Tenofovir
- **Public education and HCW training with local Guidelines on HBV**

