

Hepatitis B control through immunization

WHO guidelines and strategies

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Outline

- WHO recommendations on hepatitis B vaccination
- Implementation of hepatitis B immunization and prevention of perinatal transmission programmes in WHO European Region
- Regional hepatitis B control targets
- WHO support to member states in strengthening hepatitis B control through immunization

WHO position paper on hepatitis B vaccine, 2009



World Health
Organization

Organisation mondiale de la Santé

Weekly epidemiological record
Relevé épidémiologique hebdomadaire

2 OCTOBER 2009, 84th YEAR / 2 OCTOBRE 2009, 84^e ANNÉE

No. 40, 2009, 84, 405–420

<http://www.who.int/wer>

- National strategies to prevent perinatal transmission should include providing hepatitis B vaccine at birth and ensuring high coverage of the birth dose
- Delivery of hepatitis B vaccine within 24 hours of birth should be a performance indicator for all immunization programmes
- The birth dose should be followed by 2 or 3 doses to complete the primary series

Strategic Advisory Group of Experts, 2016



World Health
Organization

Organisation mondiale de la Santé

Weekly epidemiological record
Relevé épidémiologique hebdomadaire

2 DECEMBER 2016, 91th YEAR / 2 DÉCEMBRE 2016, 91^e ANNÉE

No. 48, 2016, 91, 561–584

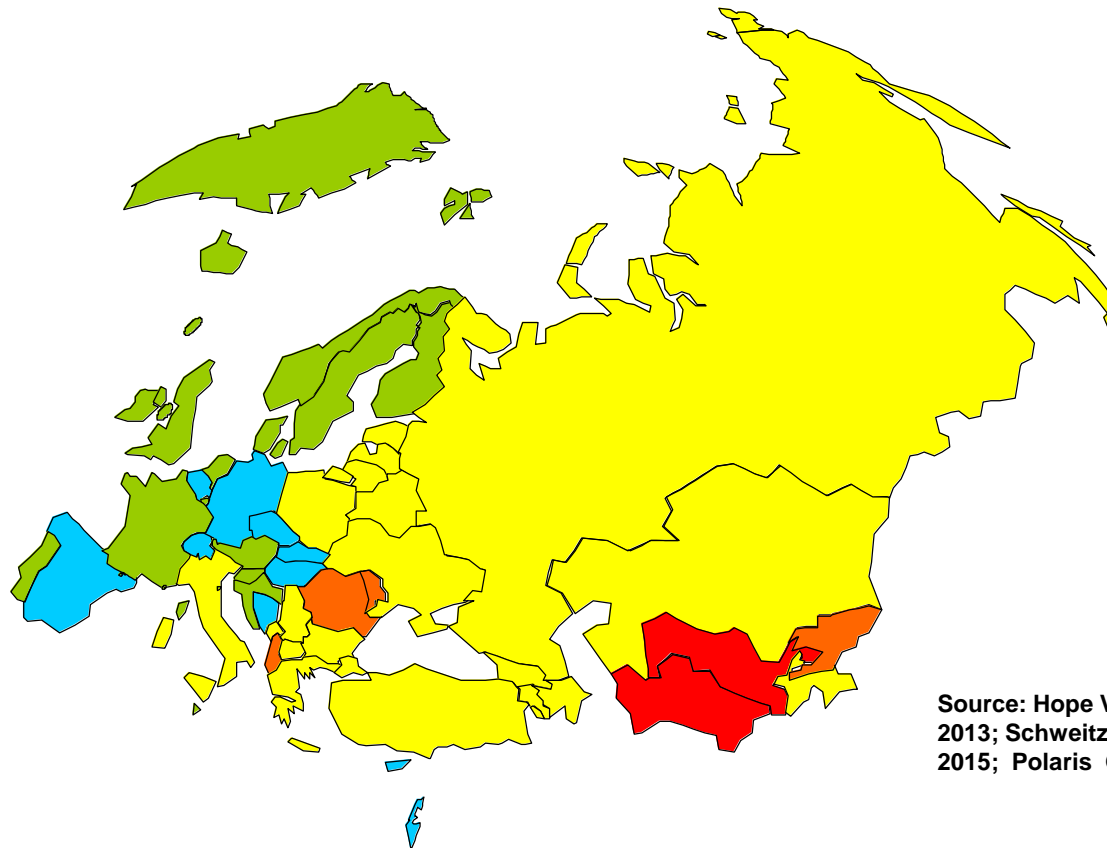
<http://www.who.int/wer>

- SAGE reemphasized the importance of the birth dose and urged all countries to introduce the universal birth dose without further delay
- All infants should receive their first dose of hepatitis B vaccine as soon as possible after birth, preferably within 24 hours
- If this is not feasible, the birth dose can still be effective in preventing perinatal transmission if given within 7 days or later
- Thus, all infants receive the birth dose during the first contact with health facilities at any time up to the time of the first primary dose

Hepatitis B disease burden in WHO European Region

- 13 million people are chronically infected
- 56,000 deaths annually due to hepatitis B related liver cancer and cirrhosis
- Hep B epidemiology is diverse:
 - <1% HBsAg prevalence in North and Central European countries
 - >10% HBsAg prevalence in Central Asian countries

HBsAg prevalence (%) in general population before vaccination, WHO European Region

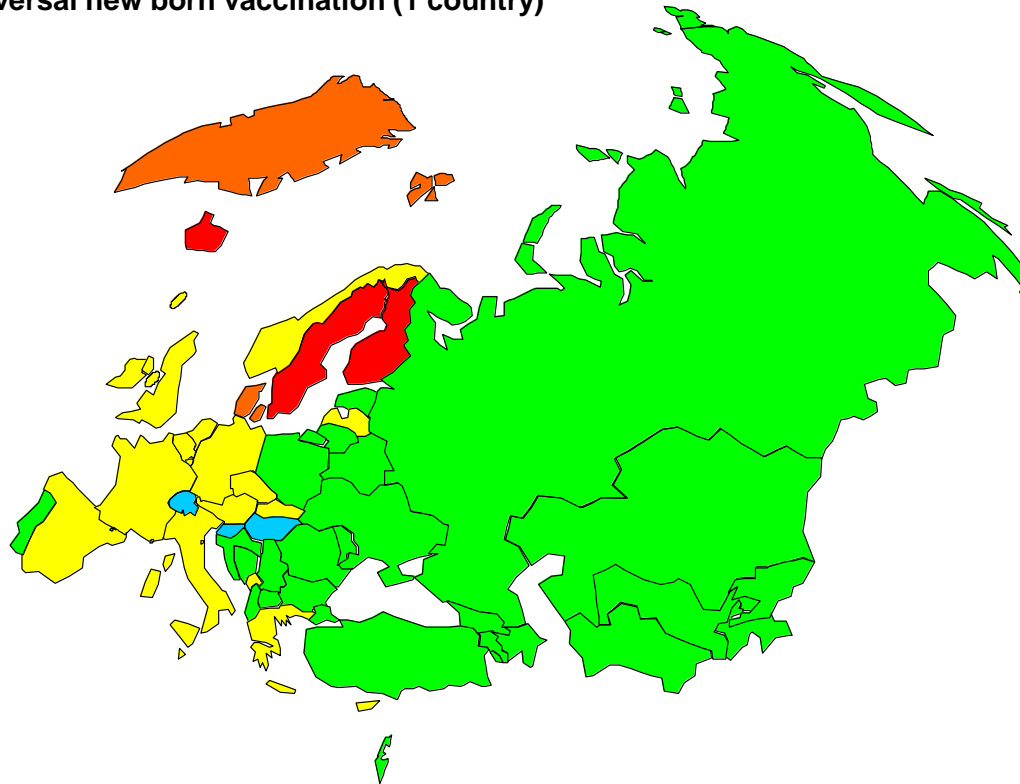


- **13 mln chronically infected people**
- **56,000 deaths annually**

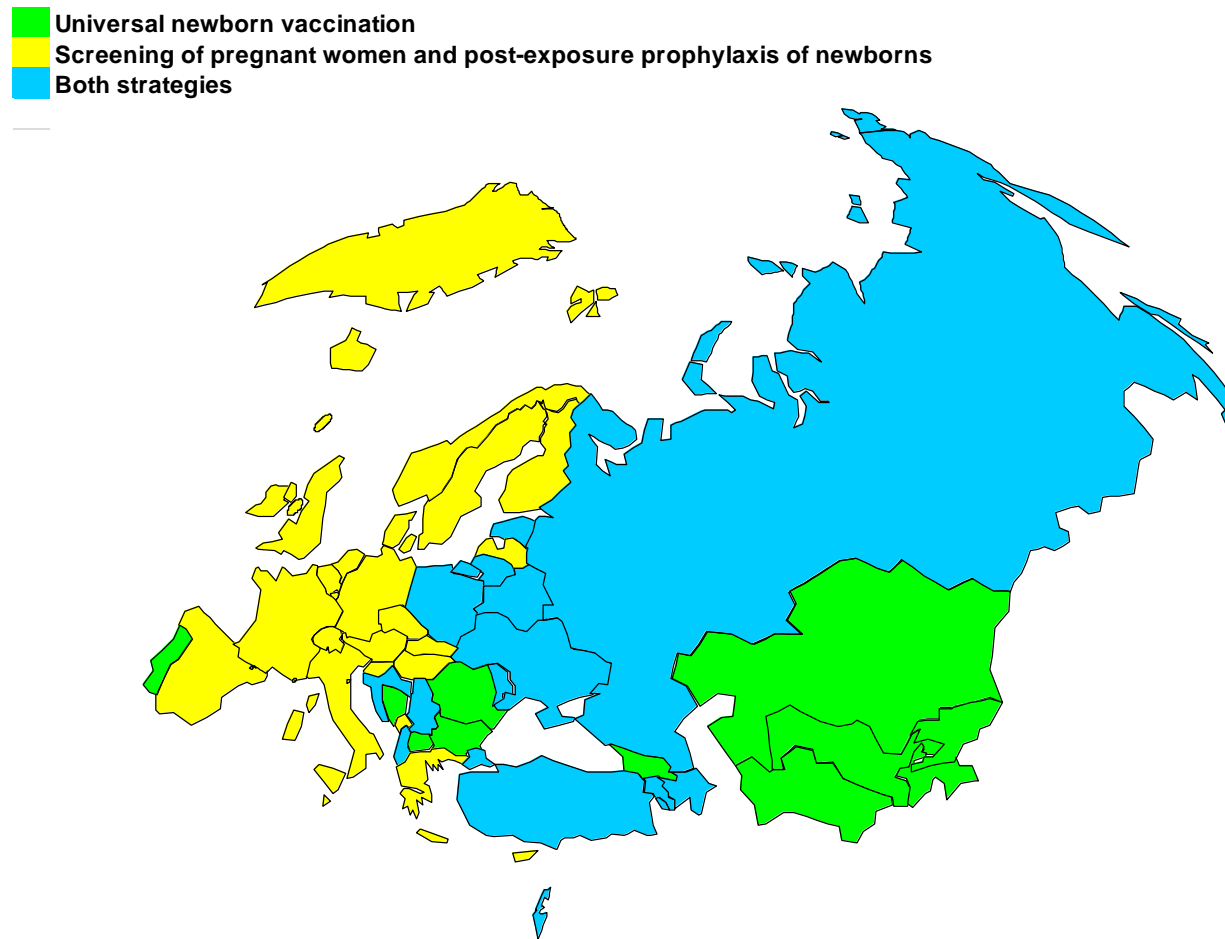
Source: Hope V Epidemiol. Infect. 2013; Schweitzer A The Lancet, 2015; Polaris Observatory

Hepatitis B immunization policy, WHO European region

- Universal newborn vaccination (26 countries)
- Universal childhood vaccination (20 countries)
- Universal children/adolescents (3 countries)
- Risk groups vaccination (3 countries)
- Risk groups / universal new born vaccination (1 country)



Strategies to prevent perinatal transmission of hepatitis B, WHO European Region



Hepatitis B 3 vaccine coverage, 2015

Coverage (%)	No of countries
≥ 95	24
94	8
91 - 93	5
80 – 90	6*
< 80	2**
Total:	45

* BiH, France, Germany, Montenegro, Romania, Slovenia

** San Marino, Ukraine

Source: WHO/UNICEF
estimate

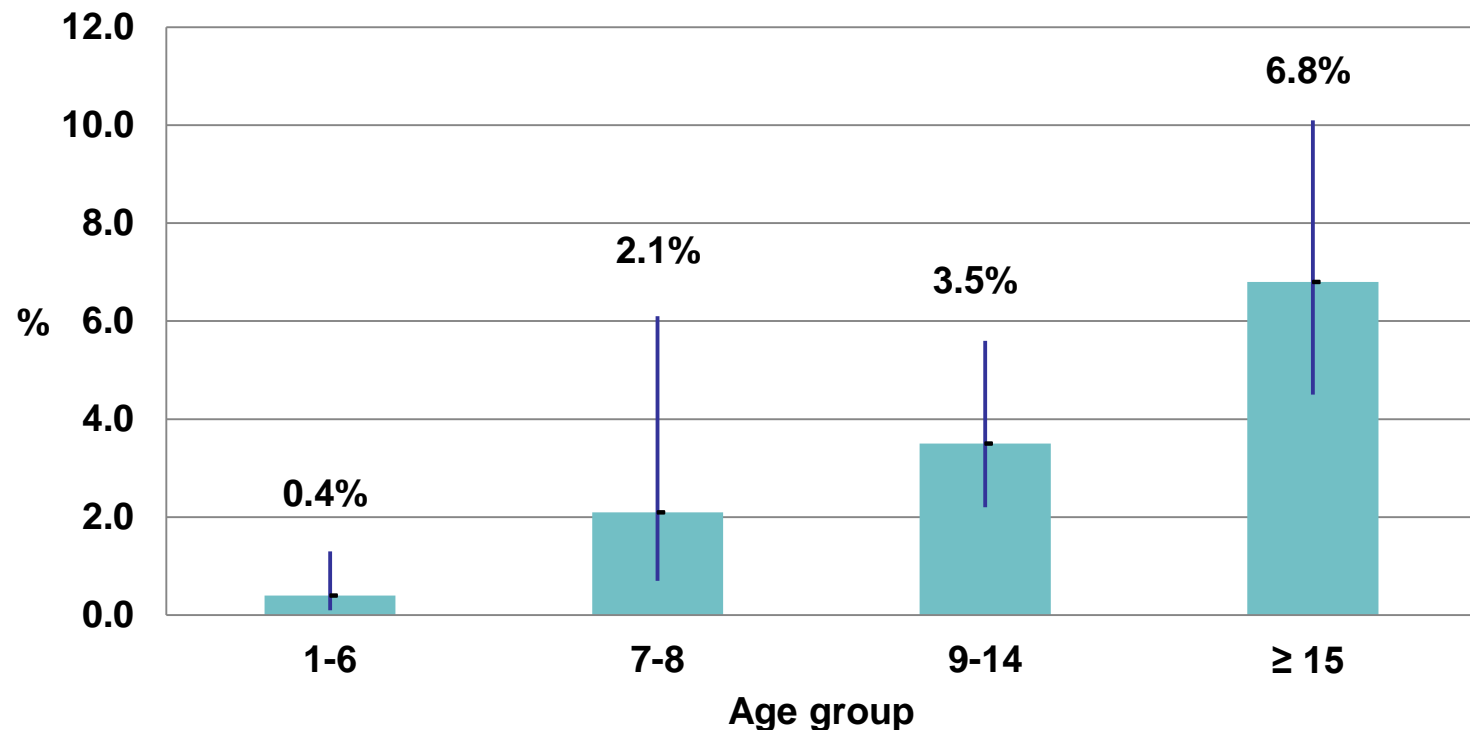
Hepatitis B birth dose coverage

Hepatitis B birth dose coverage (%)	No of countries
≥ 90	20
< 90	2*
Total:	22

* BiH, Ukraine

Source: WHO/UNICEF
estimate

Hepatitis B vaccine impact in Tajikistan; HBsAg prevalence by age groups



Khetsuriani Vaccine, 2015

Pregnant women screening coverage

Coverage	N of countries
>90%	13
<90%	3
No data	11

Sources:

- Antenatal screening for HIV, hepatitis B, syphilis and rubella susceptibility in the EU/EEA; survey, ECDC, 2015
- Hepatitis B and C in the EU neighbourhood: prevalence, burden of disease and screening policies; literature review; ECDC, 2010
- Radoń-Pokracka Ginecolgia Polska, 2017
- Rufini Epidemiol Prev. 2016
- Karatapanis Eur. J Gastroenterol Hepatol., 2012
- Op de Coul BMC Infect Dis. 2011
- Giraudon Euro Surveill. 2009

Global health sector strategy on viral hepatitis 2016-2021

GLOBAL HEALTH SECTOR STRATEGY ON
VIRAL HEPATITIS
2016–2021

TOWARDS ENDING VIRAL HEPATITIS

Goal: eliminate viral hepatitis as major
public health threat by 2030



Hepatitis B immunization targets	Baseline 2015	2020 Targets	2030 Targets
Childhood vaccine coverage (third dose coverage)	82% in infants	90%	90%
Hepatitis B birth dose coverage or other approach to prevent mother-to-child transmission	38%	50%	90%

Development of regional viral hepatitis action plan: wide participatory process

- Advisory Committee
- Member States consultation
- Web consultation



Action plan for the health sector response to viral hepatitis in the WHO European Region

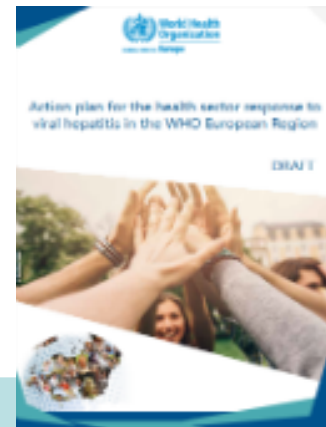
Hepatitis B control target: **0.5%** HBsAg prevalence in vaccinated cohorts

Hepatitis B Immunization targets:

2018 Milestone		2020 Target	
90% coverage with three doses of HBV vaccine		95% coverage with three doses of HBV vaccine	
National guidelines on risk group HAV and HBV vaccination developed and implemented			



Action plan for the health sector response to viral hepatitis in the WHO European Region (Cont'd)



Prevention of perinatal Hep B transmission targets:

	2018 Milestone	2020 Target
Universal newborn vaccination	85% hep B birth dose coverage	90% hep B birth dose coverage
Screening of pregnant women and post-exposure prophylaxis of newborns	85% screening coverage 90% coverage with post-exposure prophylaxes	90% screening coverage 95% coverage with post-exposure prophylaxes

WHO support in strengthening hepatitis B control

- Support in development of national comprehensive action plans, including:
 - Hepatitis B vaccination strategies and priority actions
 - National control targets aligned with regional goal
- Regional Meeting for National Immunization Programme Managers (October 2017)
 - Hepatitis B control session

European Vaccine Action Plan 2015-2020

- Defines regional vision and goals for immunization and control of vaccine-preventable diseases:
 - Goal 3: Hepatitis B control through immunization
- Provides priority actions to ensure equitable extension of immunization and stimulating the demand for immunization among all population groups



Monitoring of control targets achievement

- Working group of European Technical Advisory Group (ETAGE):
 - Provides advice to WHO EURO on how to support countries in strengthening hepatitis B control
 - Monitors the progress towards achievement of regional control targets
 - Defines process and criteria and confirm the achievement of the targets by member states

Conclusions

- Significant progress in implementation of hepatitis B vaccination and prevention of perinatal transmission of hepatitis B virus
- Need to strengthen hepatitis B control to achieve regional targets:
 - Introduction of universal immunization in remaining countries
 - Improvement of timeliness of birth dose
 - Evaluation of effectiveness and of screening of pregnant women and post-exposure prophylaxis of newborns at risk to ensure high coverage