

**SCREENING AND
PREVENTION**

FOR VIRAL HEPATITIS
AND HIV IN CEE

*Common challenges
joint solutions*

2018
June 28-29
SOFIA

Hepatitis B immunization in Bulgaria - the story of a successful example

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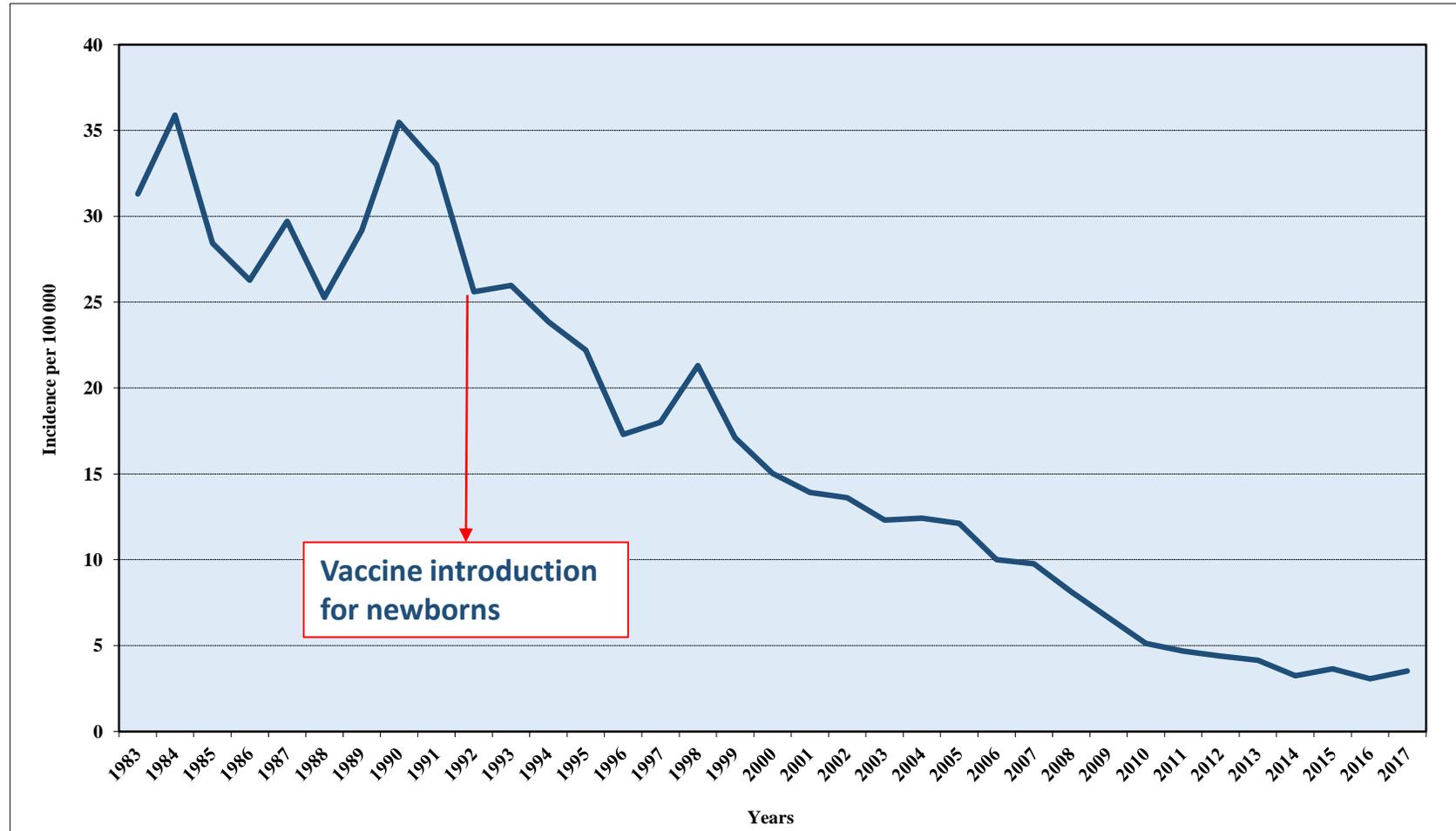


Key facts

- ◆ Hepatitis B is a viral infection that attacks the liver and can cause both acute and chronic disease.
- ◆ The virus is transmitted through contact with the blood or other body fluids of an infected person.
- ◆ An estimated 257 million people are living with hepatitis B virus infection (defined as hepatitis B surface antigen positive).
- ◆ In 2015, hepatitis B resulted in 887 000 deaths, mostly from complications (including cirrhosis and hepatocellular carcinoma).
- ◆ Hepatitis B is an important occupational hazard for health workers.
- ◆ **However, it can be prevented by currently available safe and effective vaccine.**
- ◆ An estimated 1.6% of the general population is infected of the population the WHO European Region.

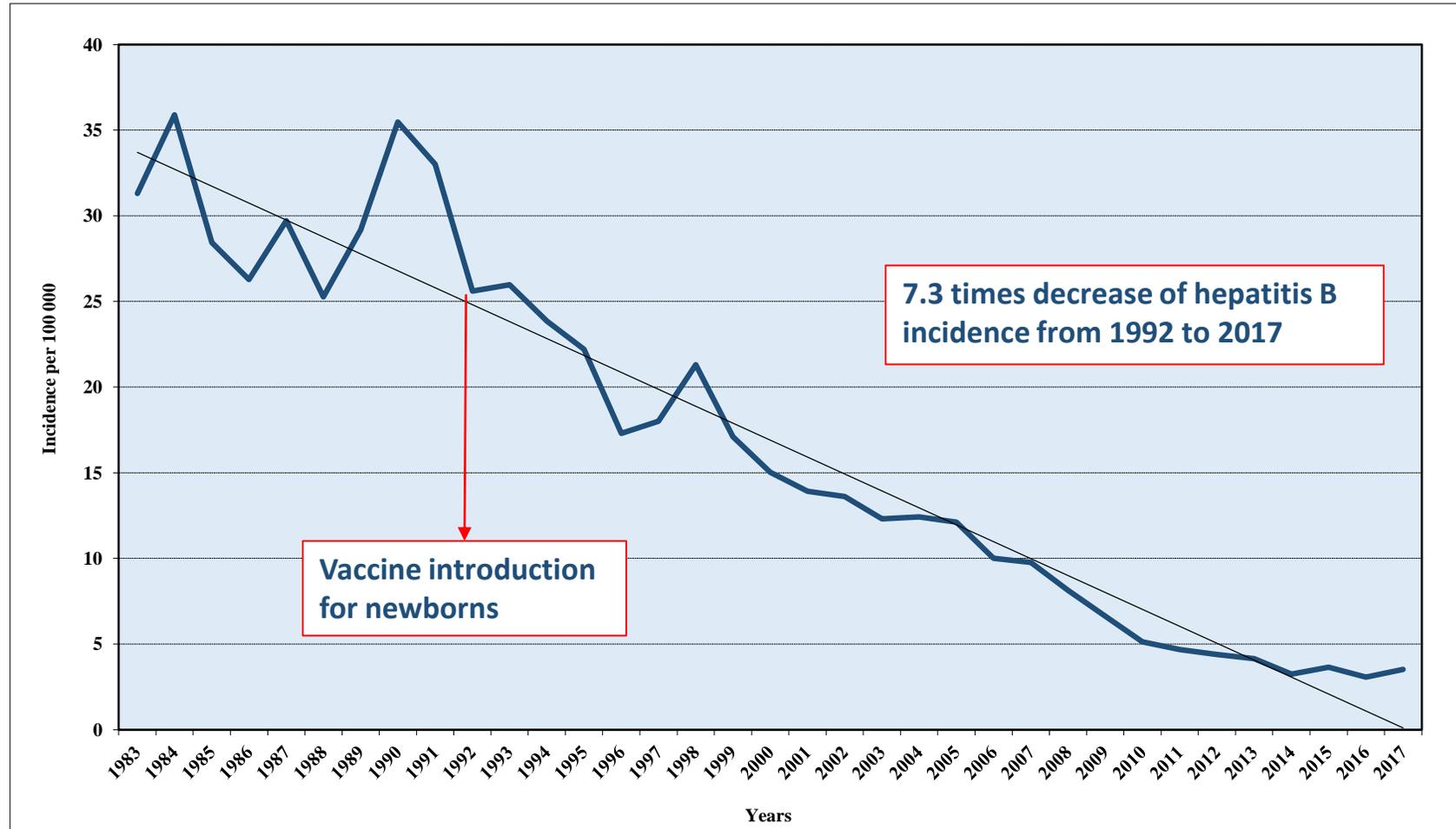


Acute viral hepatitis B in Bulgaria, 1983 – 2017





Acute viral hepatitis B in Bulgaria, 1983 – 2017

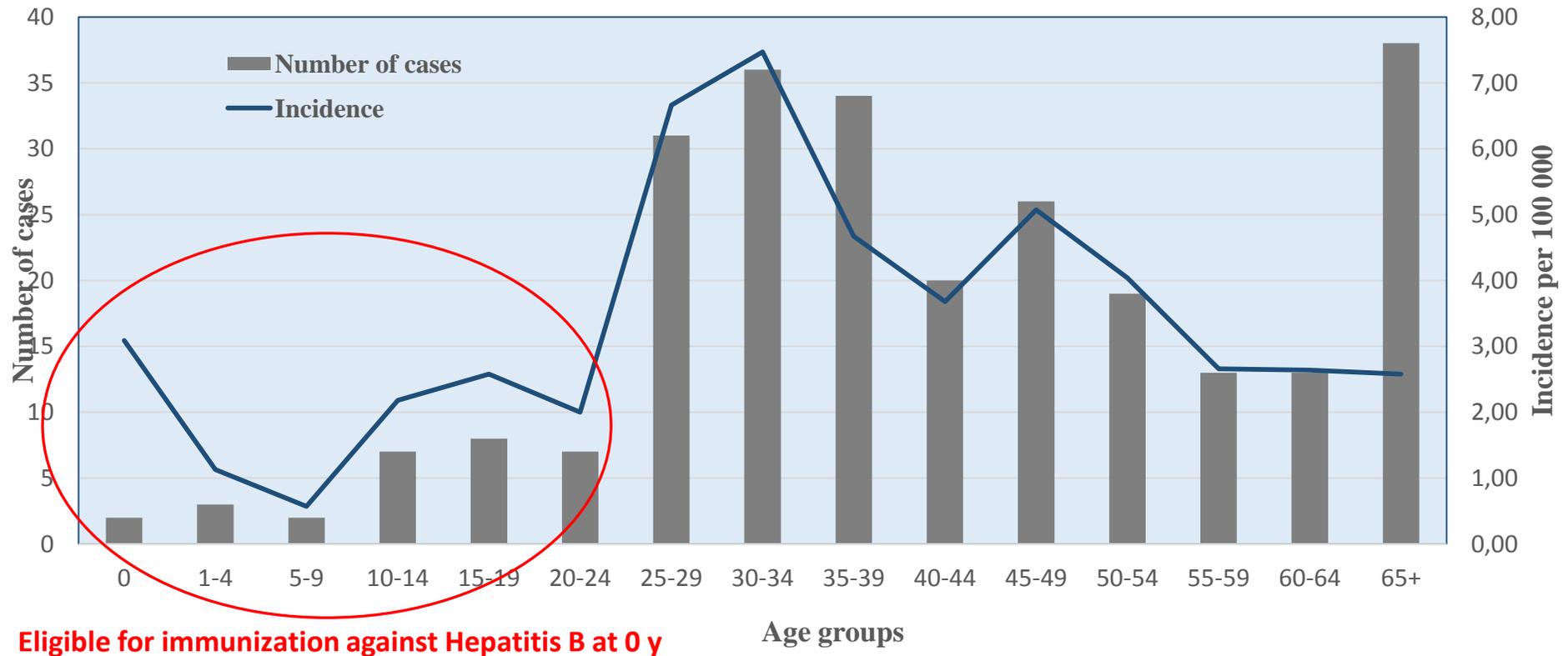




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Age distribution of hepatitis B in Bulgaria in 2017





Hepatitis B immunization – top priority for public health

- The likelihood that infection becomes chronic depends upon the age at which a person becomes infected. Children less than 6 years of age who become infected with the hepatitis B virus are the most likely to develop chronic infections.
- In infants and children:
 - 80–90% of infants infected during the first year of life develop chronic infections;
 - and
 - 30–50% of children infected before the age of 6 years develop chronic infections.
- In adults:
 - less than 5% of otherwise healthy persons who are infected as adults will develop chronic infection;
 - and
 - 20–30% of adults who are chronically infected will develop cirrhosis and/or liver cancer.

Immunization calendar

🔴 Bulgarian immunization schedule against Hepatitis B (for newborns)

Other sites: ECDC European Antibiotic Awareness Day ESCAIDE - Scientific conference



Vaccine Scheduler

Hepatitis B: Recommended vaccinations

◀ Back to search Export to spreadsheet

- General recommendation
- Recommendation for specific groups only
- Catch-up (e.g. if previous doses missed)
- Vaccination not funded by the National Health system
- Mandatory vaccination

	Birth	Months				
		1	2	3	4	6
Bulgaria	HepB ¹	HepB ²	HepB ³	HepB ³	HepB ³	HepB ²

Footnotes:

1. Administration within 24 hours after birth.
2. When using a monovalent vaccine, doses are administered at 1 and 6 months
3. When using a combination vaccine (e.g. hexavalent vaccine), doses are administered at 2, 3 and 4 months

Ensure the adequate coverage irrespectively of multivalent vaccines availability



Who performs hepatitis B vaccines in Bulgaria?

- ◆ A physician at newborn ward;
- ◆ General practitioner;
- ◆ A physician at immunization center at Regional health inspectorates.

Vaccines are purchased and provided by Ministry of Health.



People in high-risk groups may acquire the infection and they should also be vaccinated - recommended immunization

- ◆ HCWs
- ◆ dialysis patients and patients with chronic diseases, recipients of solid organ transplantations;
- ◆ persons who inject drugs;
- ◆ household and sexual contacts of people with chronic HBV infection;
- ◆ people with multiple sexual partners;
- ◆ army and police officers;
- ◆ travelers to endemic areas;
- ◆ HIV carriers;
- ◆ All born before 1992.

HCWs and Hepatitis B immunization

Ordinance No 3 of Medical standart of prevention and control of healthcare-associated infections

- Specific requirements for the protection of staff in certain infections (including those caused by HIV, HVV, HVV, etc.)
 - 8.1. The medical staff of medical establishments must be insured against the risk of infection and the occurrence of infections related to the medical care of patients.
 - 8.2. The employer shall provide the necessary organizational and technical conditions to reduce the risk of occupational exposure of medical personnel under the applicable regulations (Ordinance No. 4 of 2002 on the Protection of Workers from Risks Related to Exposure of Biological Agents at Work, SG No. 105/2002, Ordinance No. 2 of 2005 on the organization of prophylaxis and control of nosocomial infections, promulgated, State Gazette, issue 8 of 2005, Ordinance No. 15 of 2005 on the immunizations in Republic of Bulgaria, promulgated, State Gazette, issue 45 of 2005).
 - 8.2.1. Periodically, but not less frequently than every 5 years, for the entire medical staff of the medical establishment, as well as for newly recruited and potentially exposed medical and non-medical personnel, the employer shall provide an assessment of the risk of infection and related medical care infections. The risk assessment shall be based on data on the type of activity carried out and the associated risk, data on the type and duration of the immunizations performed, the communicable diseases communicated by the worker concerned as well as on his current immune status with respect to HIV, HVV, HCV and tuberculosis. If necessary, serological tests, skin tuberculin test, etc. are performed.
 - 8.2.2. If there is a risk to a worker who has no immunity to the biological agent, the employer offers and provides the appropriate immunization.
 - 8.2.2.1. The recommended immunizations for the personnel are carried out according to Ordinance No. 15 of 2005 on immunizations in the Republic of Bulgaria and include: immunization **against hepatitis B**, flu (every year), measles, mumps and rubella for age groups outside the immunization calendar. In other cases, other immunizations (against hepatitis A, meningococcal infections, etc.) may be administered.
 - 8.2.2.3. Immunization is offered free of charge to all workers and trainees providing health care and related work activities at work.
 - 8.2.2.4. For healthcare workers routinely exposed to a higher risk of hepatitis B (surgery doctors, dental practitioners, nurses and dental assistants) after immunization (eg after 2 to 4 months after the 3rd dose), and at any later time, it is advisable to check the HBV-HBs surface antigen (HBs) antibody titre, with a level of ≥ 10 mIU / ml considered to be sufficiently protective.

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Hepatitis B in Bulgaria, distributed per vaccine and age, 2009-2017

No of administered Hepatitis B vaccine doses	No of cases per age groups							Total	% of cases per vaccine doses
	< 1	1-4 y	5-9 y	10-14 y	15-19 y	20-29 y	>30 y		
0	2	0	2	6	115	379	807	1311	46,41
1	2	0	1	4	5	3	0	15	0,53
2	4	1	0	1	0	0	2	8	0,28
3	0	15	33	39	47	14	1	149	5,27
No data	1	0	5	10	42	402	882	1342	47,50
Total	9	16	41	60	209	798	1692	2825	
% of cases per age groups	0,32	0,57	1,45	2,12	7,40	28,25	59,89		



Conclusions

- need to maintain high vaccine coverage;
- increase public awareness in terms of immunization;
- strong governmental will.

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Thank you!