



# Surveillance, epidemiology and prevention of Hepatitis B in Hungary

## Results of the EUROHEP.NET feasibility survey

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**Surveillance system : 1993 hepatitis B**

mandatory reporting	yes	passive
voluntary reporting	no	
sentinel	no	
laboratory	yes	passive

Flow chart of the surveillance system

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    graph TD
      A[clinical records] --> B[lab reports]
      A --> C[Individual and aggregated data]
      B --> C
      C --> D[local authority: Municipal Institute of NPH-Medical Officer Service]
      D --> E[Individual and aggregated data]
      E --> F[regional authority: County Institute of NPH-Medical Officer Service]
      F --> G[continuous reporting aggregated data]
      G --> H[National Centre of Epidemiology: continuous, Week, monthly and yearly analysis of the reported cases, yearly of lab reports]
      H --> I[Office of the Chief Medical Officer]
      H --> J[Ministry of Health]
      H --> K[Central Statistical Office]
    
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**CASE DEFINITION**

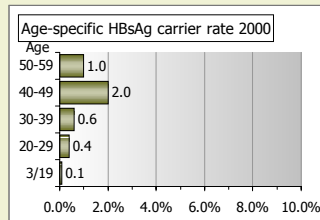
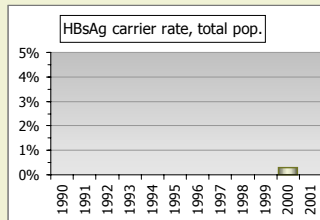
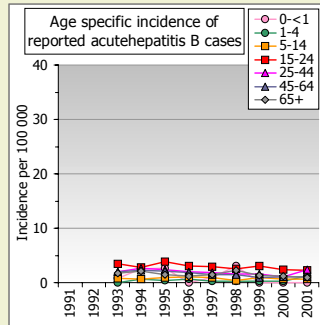
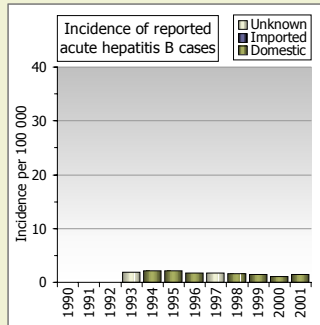
- EC Hepatitis B case definition is used:
- Probable:** clinical picture compatible with hepatitis (e.g. discrete onset of symptoms and jaundice or elevated serum aminotransferase levels) and HBsAg positive.
- Confirmed:** clinical case definition and laboratory confirmation (IgM antibody to antiHBc or HBV nucleic acid in serum).

### OBJECTIVES and METHODS

The EUROHEP.NET project is a concerted action, supported by the Quality of Life Programme of the fifth framework of the European Community for research. This project addresses issues related to surveillance and prevention of hepatitis A and B in the EU countries, Associated States and Israel. The overall goal is to study the feasibility of a future network on surveillance and prevention and to facilitate the progress of these countries towards enhanced control of hepatitis A and B.

Early 2003, EUROHEP.NET sent a feasibility survey to all participating countries to take stock of the country-specific surveillance and prevention activities for hepatitis A and B. The first achievement of this EU concerted action is to provide in a standardized/comparative way an overview of the different surveillance systems, epidemiology, burden of disease and prevention programmes for these infectious diseases.

### EPIDEMIOLOGY<sup>1</sup>



### BURDEN OF DISEASE<sup>2,3</sup>

Hepatitis B	1997	1998	1999	2000	2001
Acute hepatitis B: Hospitalised cases/100000	1.69	1.52	1.35	1.12	1.41
Acute hepatitis B: Hospitalisation days per case <sup>2</sup>	19.8	22.1	24.10	13.90	13.49
Chronic hepatitis B: Hospitalised cases/100000					
Chronic hepatitis B: Hospitalisation days per case					
Total: Hospitalised cases/100000					
Total: Hospitalisation days per case					
Deaths	5	4	3	2	2
Mortality (total number of deaths per 100 000) <sup>3</sup>	0.05	0.04	0.03	0.02	0.02
Cirrhosis cases	6259	6669	6550	6146	5689
Total number of patients with hepatocellular cancer			660	1024	980
Total number of liver transplants not hep B specific	16	19	22	23	19
Proportion of liver transplants due to hepatitis B					

### COMMENTS

- Surveillance is passive for hepatitis B and based on clinical and laboratory reporting.
- Underreporting is minimal as diagnosed acute viral hepatitis cases receive hospital treatment that includes testing the aetiology.
- EC case definition is used for surveillance purposes.
- Hepatitis B is considered low endemic since HBsAg carrier rate is below 2%, although the HBV infections occur regularly on a low level.
- The seroepidemiological study of the Hungarian population performed in 2000 included data about previous hepatitis B infections, however, specific studies on the gipsy population, who are likely to be more at risk, have not been done. (The prevailing law does not allow it).
- There is a universal vaccination programme for adolescents at the age of 14 years. The firms winning the tender of public procurement deliver vaccines for the mandatory hepatitis B vaccination. The price of the vaccines is not proclaimed. Engerix B and HBvaxII are used.

### PREVENTION by active immunisation

Universal programme	starting in	starting at age	schedule	coverage rate 2001
universal screening policy for pregnant women	1995			97%
vaccination of infants				
vaccination of adolescents*	1999	14 y	0,1,6	99.9%

\* mandatory vaccination

Risk group programmes	available (since)	booster	reimbursed
injecting drug users	no		
men who have sex with men	no		
attendees of STI clinics	no		
dialysis patients*	1986	yes	yes
groups with occupational risk*	1986		yes
household contacts of known hepatitis B carriers	1996		yes
hospitalised patients	no		
neonates born to HBsAg positive mothers*	1995		yes
other risk groups*	yes		yes

\* mandatory vaccination

### FOOTNOTES

- The completeness of the acute hepatitis B case reporting system is more than 90%. The information system regarding HBV carriers and chronic disease is not fully comprehensive.
- The source for hospitalisation data and mortality are official notification and epidemiological investigation.
- Source of the mortality data are clinical records on acute hepatitis B cases.
- Hepatitis B vaccination is mandatory for first grade students of medical schools.