

## Bulgaria

<b>Population (January 2013):</b>	7 284 552
<b>Human development index (2013):</b>	0.777
<b>HAV vaccine recommendations:</b>	HAV vaccination is recommended but not compulsory and as such not included in the National Immunisation schedule. Recommended for: <ol style="list-style-type: none"> <li>adults and children older than 12 months of age</li> <li>patients with chronic liver disease</li> <li>recipients of regular blood and blood components transfusion;</li> <li>PWID</li> <li>MSM</li> <li>travelers to high endemicity countries</li> <li>people with occupational increased risk for HAV infection, e.g. laboratory personnel, patients and personnel of institutions for mentally retarded people, sewage workers</li> <li>Food handlers</li> <li>for outbreak control.</li> </ol>
<b>Seroprevalence studies by quality score:</b>	score 0: 2 study; score 1: 2 study; score 2: 0 studies
<b>Seroprevalence studies timeframe:</b>	1993–2011

Seroprevalence assessment: **low**  
 Incidence assessment: **intermediate**  
 Susceptibility in adults: **low**

One study conducted in 1985 in Bulgaria (Mikhailov 1993) estimated the HAV seroprevalence as below 5% at age 21 among a sample of 34 heterosexual men. After 2000, one single study was published in scientific literature (Vatev 2009), reporting a seroprevalence of more than 70% at 25 years (Bulgaria\_FFfigure 1) in a larger sample. Two additional grey literature studies conducted on and after 2000 consistently report a seroprevalence of about 22% by the age of 30. Bulgaria may be considered a country currently in transition phase from an intermediate endemicity and is classified as having a low endemicity profile, even though there are strong uncertainties due to the quality of the studies and the likelihood of intra-national variation of HAV seroprevalence.

**Bulgaria\_Table 1. Hepatitis A seroprevalence level by time period**

	Very low endemicity	Low endemicity	Intermediate endemicity
1975–1989	*		
1990–1999			
2000–2013			

*\*This assessment is based on a study with a very small sample size (Mikhailov 1993).*

Incidence data are available for the period 1990 to the present with minor gaps (Bulgaria\_FFfigure 2). The study from Nothdruff et al. shows incidence levels below 100/100 000 during the 1990s, possibly corresponding to the epidemiological transition from high to intermediate endemicity. As TESSy data show, hepatitis A incidence has decreased to below 50 cases per 100 000 in the 2000s, but the country still experiences large outbreaks (2006 and 2011–2012) as clearly shown in FFfigure 2.

The susceptibility was estimated to be between 70–80% by the age of 30 and at the age of 50. Therefore the susceptibility in adults is deemed to be low.

### **Bulgaria\_Figure 1 (panel a). Summary of seroprevalence in Bulgaria, by age and time period**

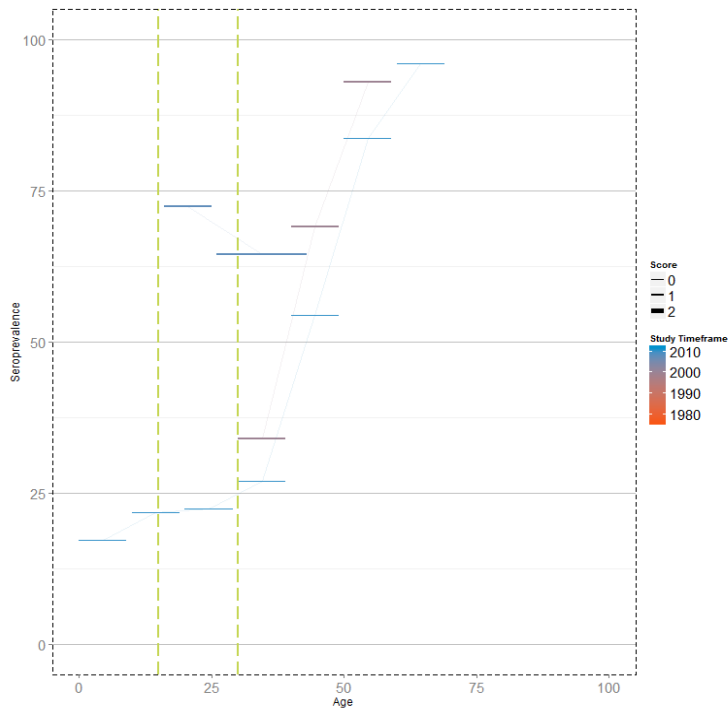
Panel a.1: 1975–1989

No data available

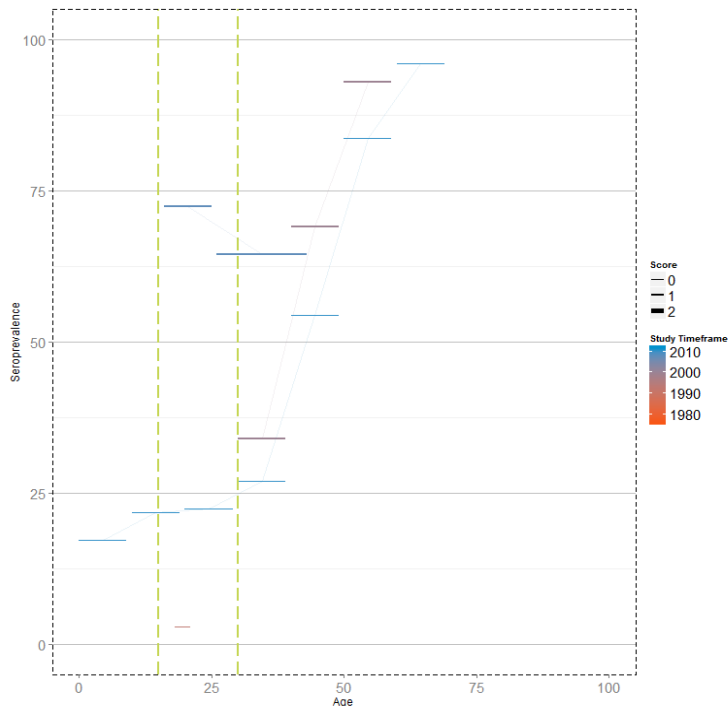
Panel a.2: 1990–1999



Panel a.3: 2000–2013



**Bulgaria\_Figure 1 (panel b).** Summary of seroprevalence in Bulgaria, by age and time period (1975-2013)



**Bulgaria\_Figure 2.** Reported incidence of hepatitis A, Bulgaria 1984–2013\*



\*National data source: personal communication from ECDC National Focal Point/Operational Contact Point, Bulgarian National Centre of Infectious and Parasitic Diseases

## Bibliography

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3. Pavel T, Kevorkian A. The main hepatotropic viruses in Bulgaria. Characteristic, diagnosis, prevalence, specific prophylaxis [Bulgarian]. Sofia: Print; 2014.
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