

HEPATITIS B IN TURKEY

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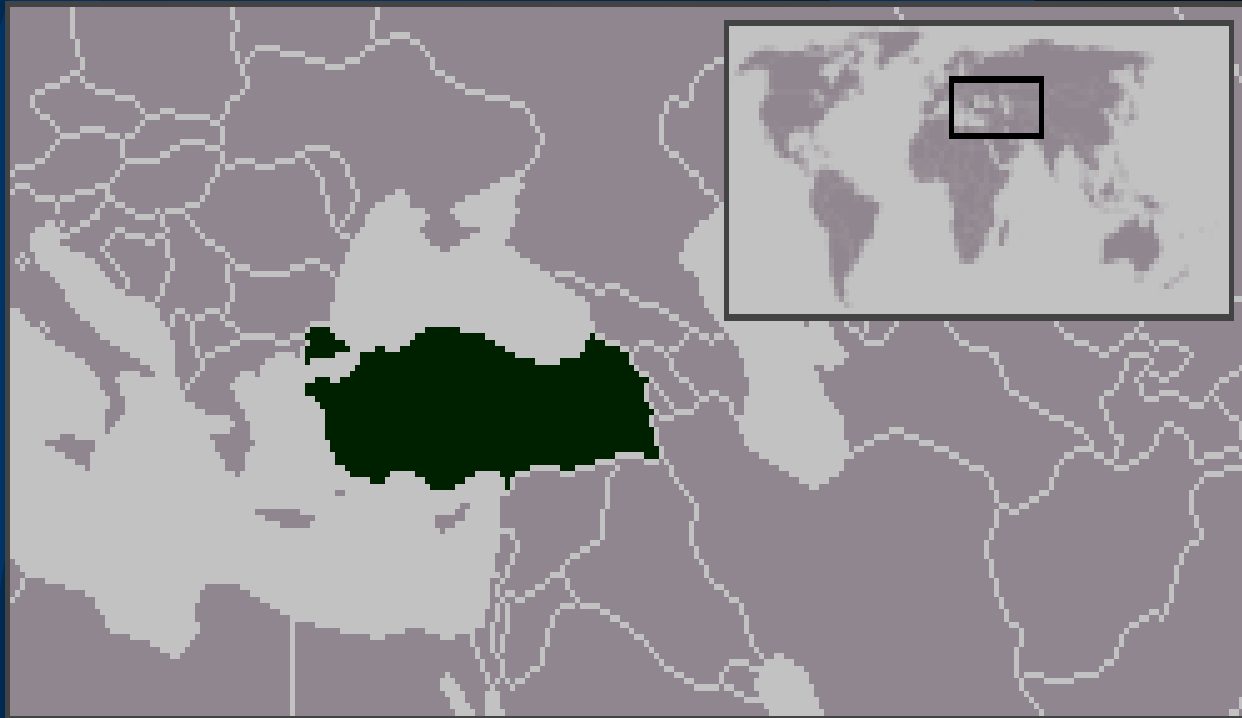
AREA

769. 604 km²

POPULATION

67 803 927

0-4	Ages	10 %
5-9	Ages	10 %
10-14	Ages	10 %
15-64	Ages	64 %
65+	Ages	6 %



URBAN POPULATION	65 %
RURAL POPULATION	35 %
LIFE EXPECTANCY AT BIRTH (years)	68.7
PROPORTION OF THE LITERATE POPULATION	87 %
PER CAPITA INCOME	3400 USD



Turkey is an intermediate endemicity country for Hepatitis B infections

- 2/3 of acute viral hepatitis among children is hepatitis A,
- 60% of acute viral hepatitis among adults is Hepatitis B in our country.
- HBsAg positive 5%
- Anti HBs positive 25-30 %

- Almost 1/3 of our population has already infected by Hepatitis B virus
- Approximately 3-4 million carriers
- nearly 350 hepatocellular Carcinoma

HBsAg positivity based on the surveys from universities in Turkey

- Chronic liver and cirrhotic patients 57.3 %
- Barber and coiffeur 12.3 %
- Hemodialysis patients 10.1 %
- Female sex workers 9.6 %
- Soldier donors 7.4 %
- Civilian donors 5.2 %
- Health staff 4.8 %
- Pregnants 4.4%

HEPATITIS B PREVENTION AND CONTROL PROGRAM

- **Objective:** to decrease morbidity and mortality of hepatitis B
- **Strategies:**
 - * Surveillance
 - * Immunization
 - * Education
 - * Safe blood supply and blood products
 - * Safe injection practices

SURVEILLANCE

- Notification system
- Collection and management of data
- New case definition

Acute Hepatitis B Case Definition

Hepatitis B clinical definition

having sudden onset of jaundice, dark urine, malaise, fatigue, nausea, vomiting, anorexia, right upper quadrant abdominal pain.

Raised urine bilirubin and serum ALT level

Laboratory criteria for diagnosis

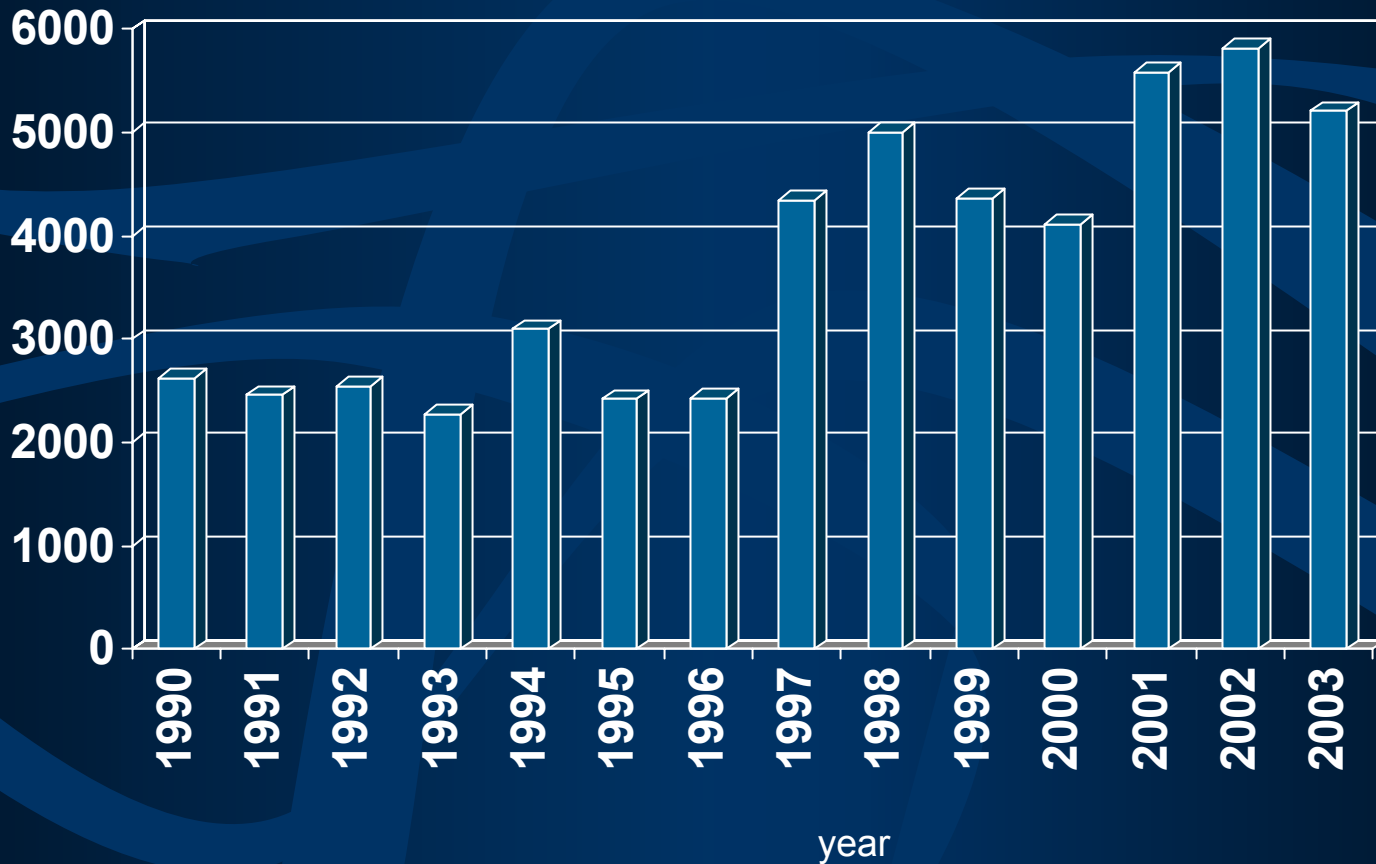
HbsAg and / or anti HBc IgM positivity.

confirmed case

A case that meets the clinical case definition and is laboratory confirmed.

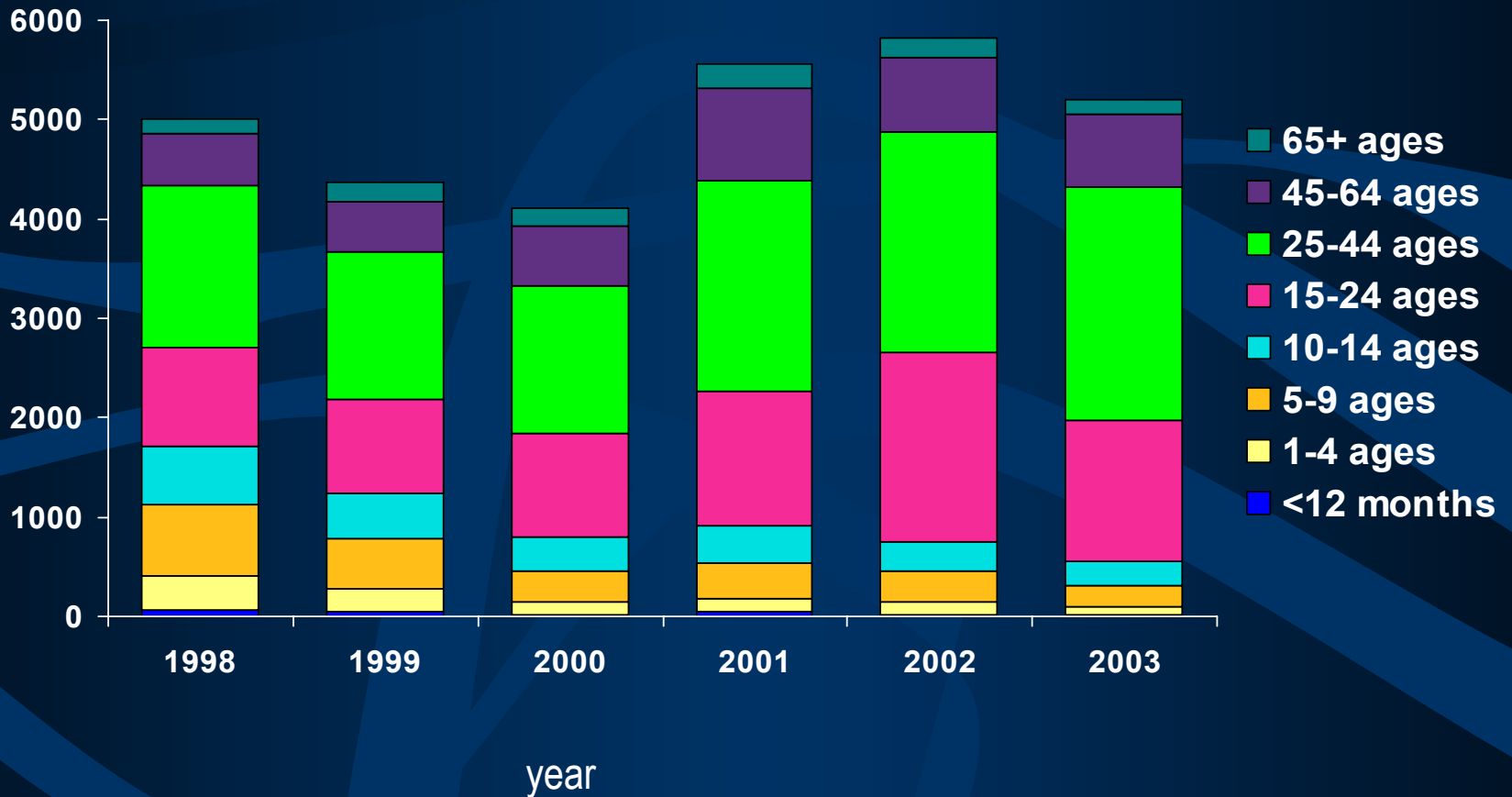
Annual number of reported Hepatitis B cases, Turkey 1990-2003

number of cases



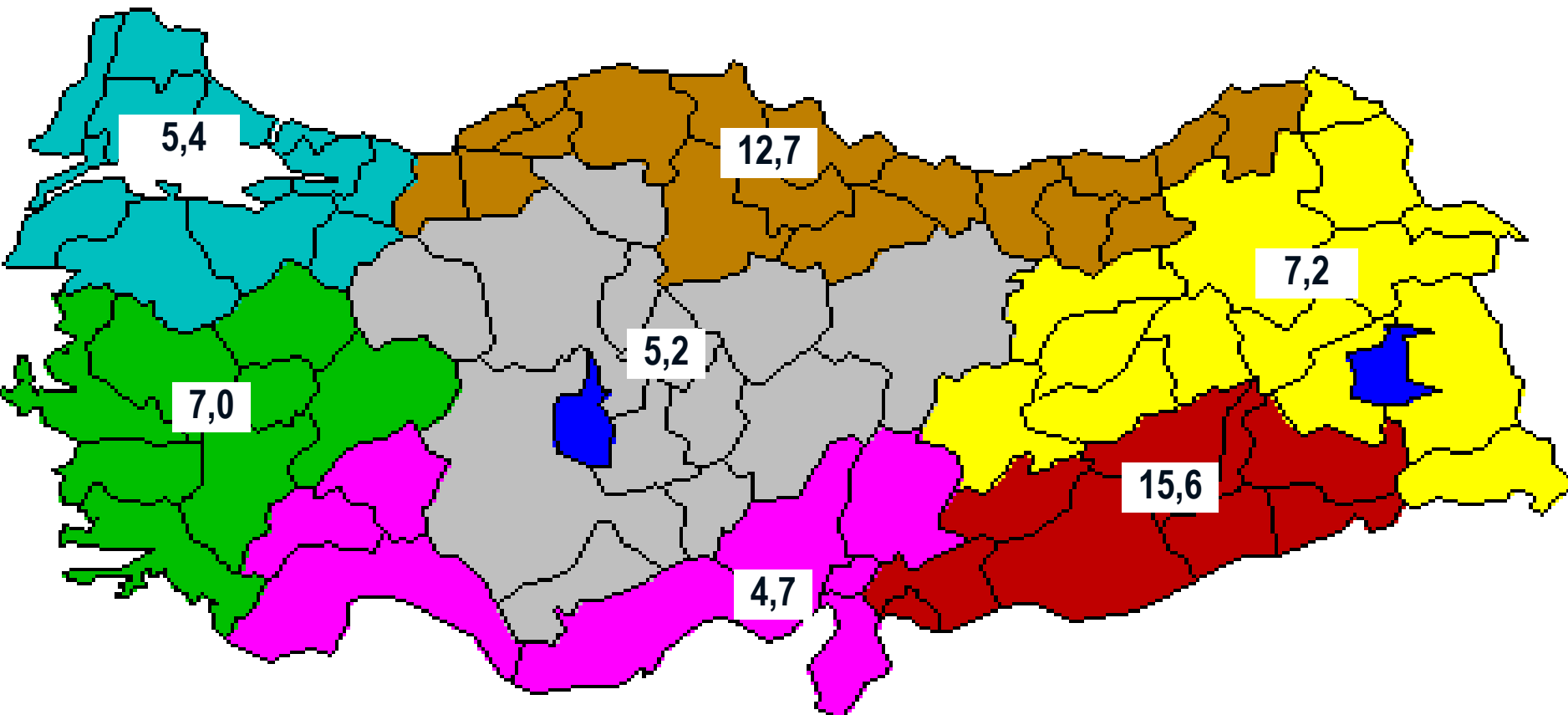
Hepatitis B cases by age in Turkey, 1998-2003

number of cases



Regional Differences in Hepatitis B incidence, Turkey 2003

(1/100.000)



IMMUNIZATION

- Vaccination of infants
- Vaccination of persons at high risk of infection

Vaccination of Infants

Recommended schedule for Hepatitis B vaccine in 1998 by MoH, Turkey

1. alternative	Dose 1	At birth
	Dose 2	3 rd month
	Dose 3	9 th month
2. alternative (infants born outside health facilities)	Dose 1	3 rd month
	Dose 2	4 th month
	Dose 3	9 th month
3. alternative (for infants > 3 month)	Dose 1	Anytime
	Dose 2	1 month after the first dose
	Dose 3	5 months after the 2 nd dose

Recommended Vaccine schedule for Hepatitis B in 2003 by MoH, Turkey

	1 st dose	2 nd dose	3 rd dose
Routine immunization	At birth (within the first 72 hours)	2 nd month	9 th month
Babies can not be caught at birth or all persons at high risk groups	Anytime	1 month after the first dose	5 months after the second dose

HBV risk groups

First Priorities

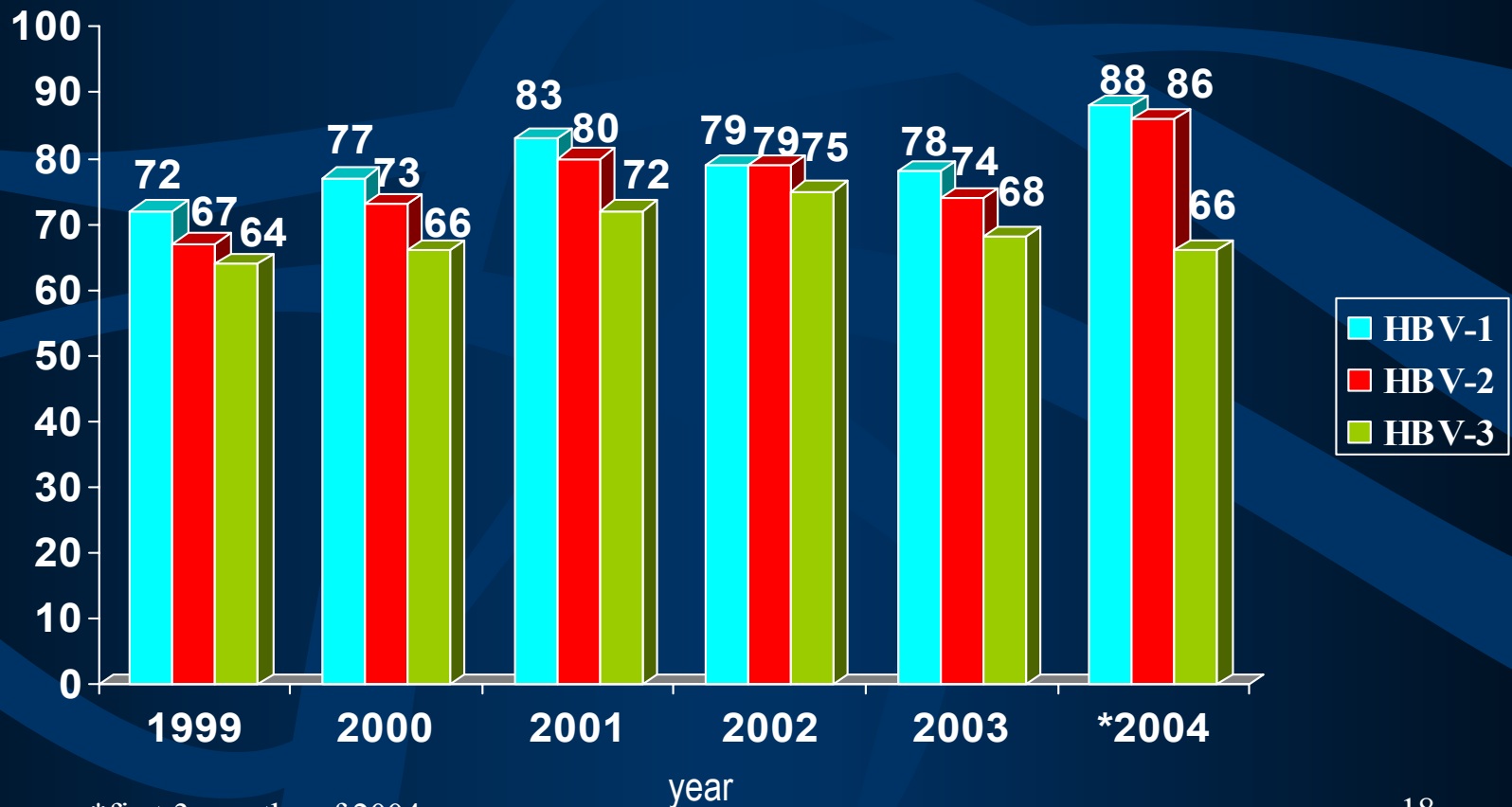
- Health care workers (frequent blood contact)
- Students attending health schools
- Patients of hemodialysis units
- Recipients of certain blood products
- Injection drug users
- Household contacts of HBV carriers
- Female sex workers
- Homosexuals
- Heterosexuals with multiple partners
- Persons have chronic liver diseases
- Prisoners
- Extended travel to areas of high endemicity
- Barbers and coiffeurs

Second Priorities

- Institutions for the mental retarded
- Dormitories
- Fire brigade staff
- Troops, police officers (special units being under the risk)
- Other staff taking a part at the accidents and disasters

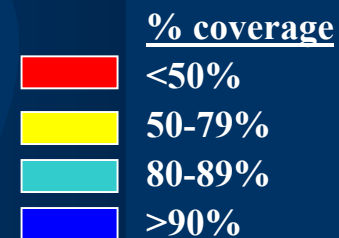
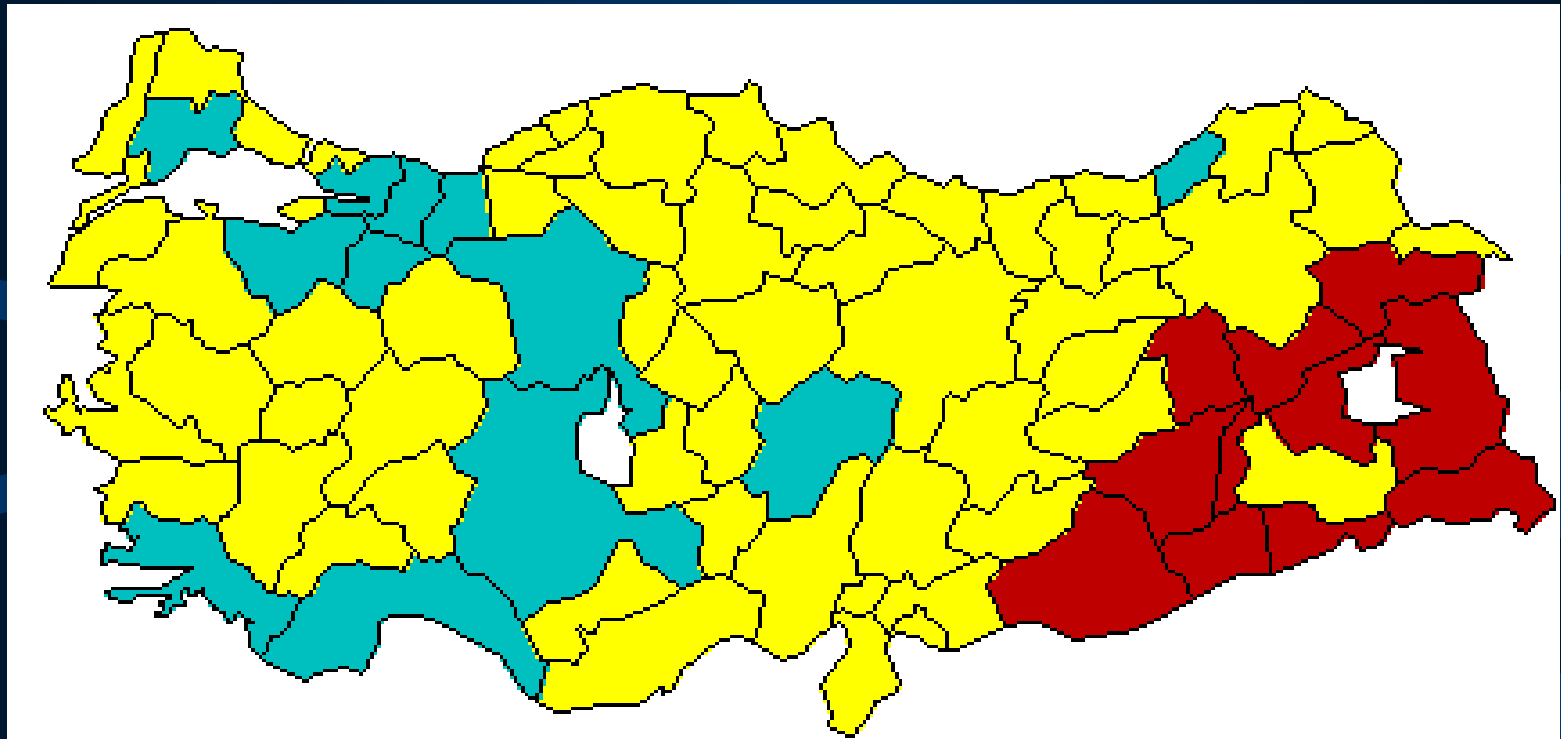
Hepatitis B vaccination coverage rate among children <12 months of age by year-Turkey, 1999-2004

Coverage rate (%)



*first 3 months of 2004

HBV-3 Vaccine Coverage among children < 12 months of age by province in Turkey- 2003

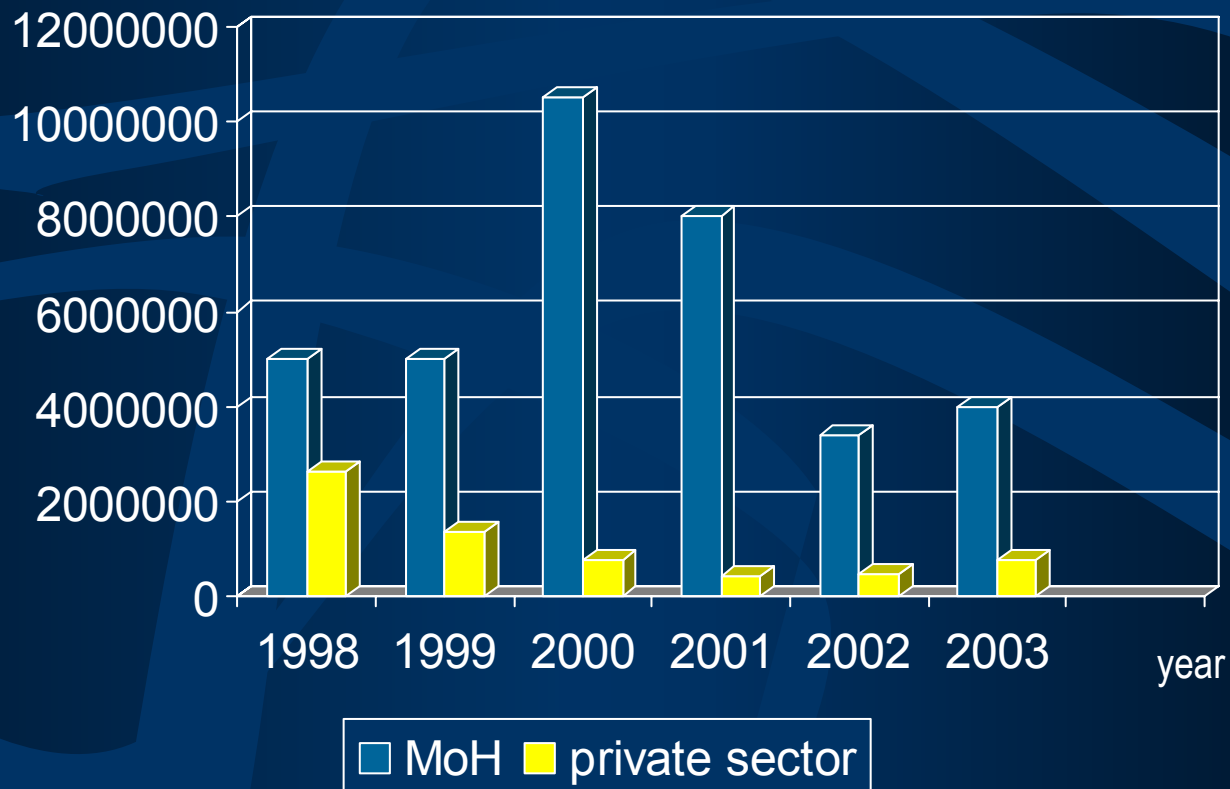


Cost of Hepatitis B vaccine in Turkey, 2003

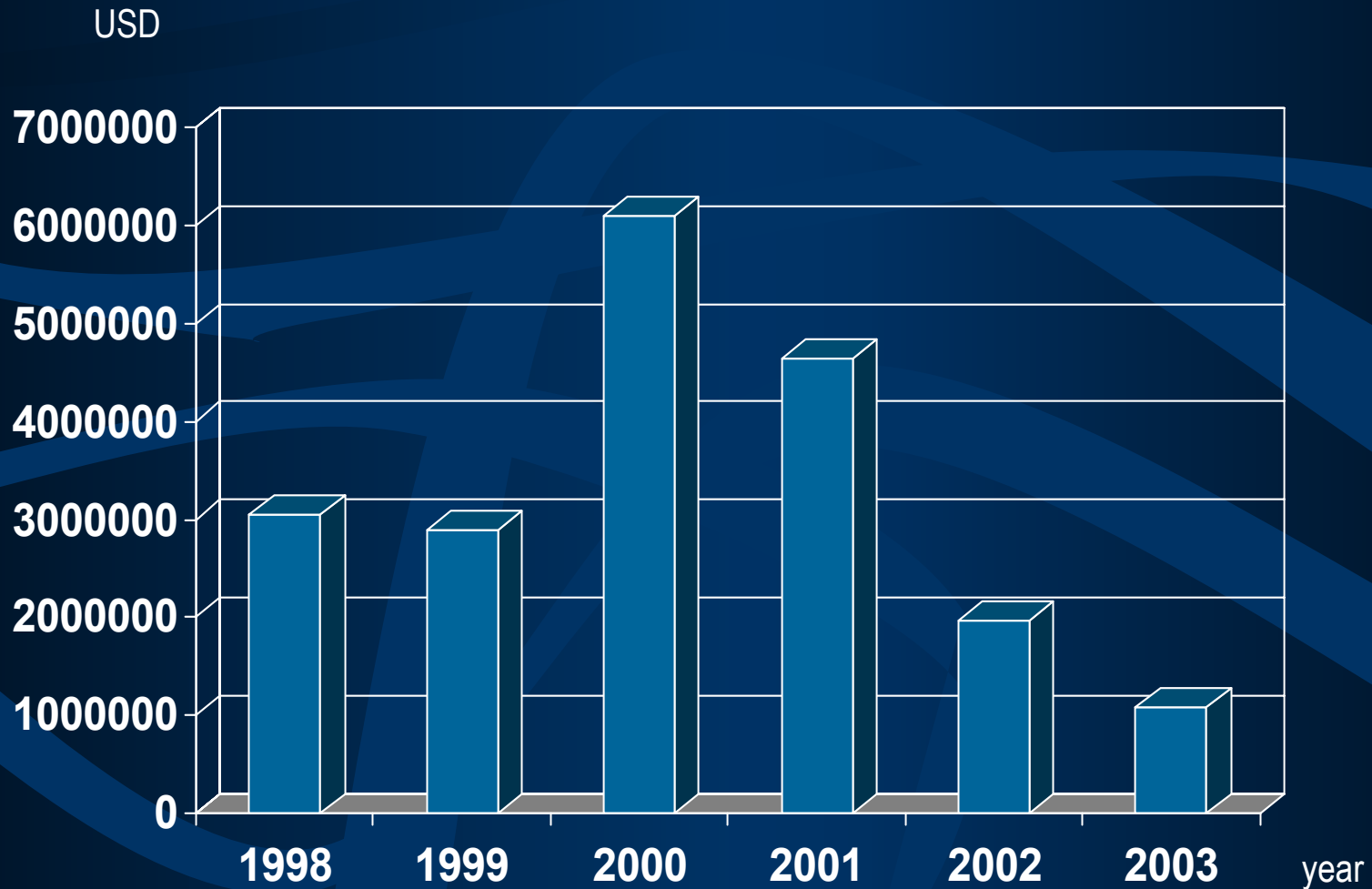
	Pediatric dose	Adult dose
MoH	0,27 \$	0,54 \$
Private sector	11 \$	14 \$

Comparison of Hepatitis B Vaccine purchased by MoH and imported by private sector in Turkey, 1998-2003

Vaccine dose



Allocated fund for Hepatitis B vaccines by MoH in Turkey, 1998-2003



EDUCATION

- Public education
- Education of people at the high risk groups
- Education and training of health care workers about disease, routes of transmission, protection , vaccine schedule and surveillance.

SAFE BLOOD SUPPLY AND BLOOD PRODUCTS

- HBsAg screening is an obligatory test
- approximately 1 400 000 donors in every year
- HBsAg positivity rate is 3-5%

SAFE INJECTION PRACTICES

- Use of personal protective equipment
- Use of disposable materials
- Disinfection of the tools
- Management of health care waste

Problems and suggestions about Hepatitis B for Turkey

- Difficulty in reaching all infants
- Low rates of vaccine coverage
- Drop out rate
- inadequate notification
- Misperceptions