

Hellenic Centre for Disease Control and Prevention
(HCDCP)



Viral Hepatitis (A,B&C) Surveillance in Greece

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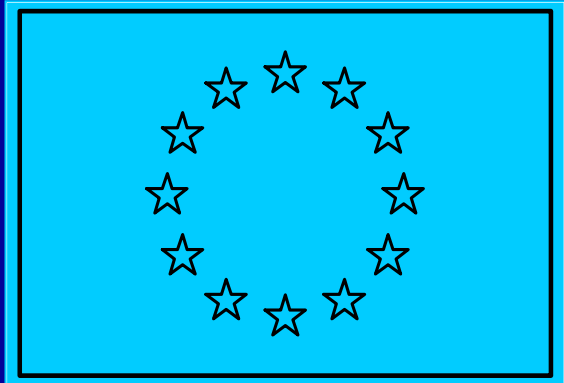
Aims of Infectious Diseases (ID) Surveillance

- Identification / management of
 - new cases
 - outbreaks
- Monitor
 - incidence trends
 - transmission patterns
- Data for Prevention Management
 - Organization
 - Development
 - Evaluation

ID Surveillance in Greece (past)

- 1950:
 - Royal law, code “ΦΕΚ: 262/1950”
 - mandatory recording of new ID cases
- 1992:
 - Establishment of HCDCP
- 1998
 - Initial attempt on ID surveillance

ID Surveillance in Europe



- 19 March 2002 EU Decisions
 - 2002/253/EK, EU Council
 - 2119/98/EK, EU Parliament
- Definition of:
 - ID case that need notification
 - 41 ID under surveillance
 - Additional bio-terrorist ID under surveillance

ID Surveillance in Greece (current)

- Complying with the EU decisions
- 2003:
 - Public law code “3172/2003 ΦΕΚ 197”
 - Epidemiological Surveillance responsibility of HCDCP

HCDCP 2003

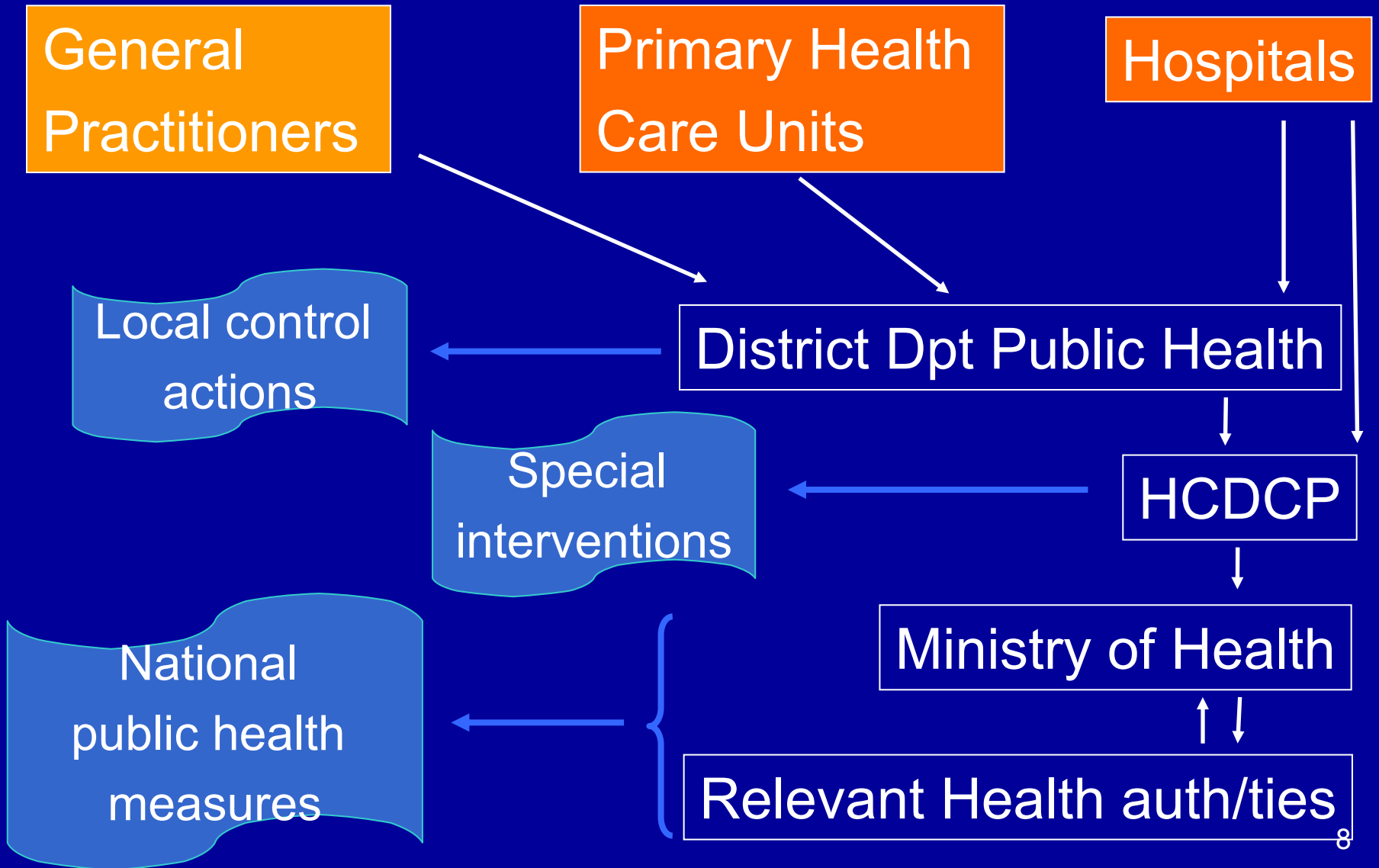
- New list of diseases for Mandatory Notification System
- Case definition of every notifiable ID
- Standardized Notification form
- Weekly reporting
- Campaign to inform health professionals

Standardized Notification form

- Demographics
- Risk factors
- Clinical characteristics
- Laboratory results

ΥΠΟΥΡΓΕΙΟ ΥΓΕΙΑΣ ΚΑΙ ΚΟΙΝΩΝΙΚΗΣ ΑΣΦΑΛΕΓΓΥΗΣ ΚΕΝΤΡΟ ΕΛΕΓΚΟΥ ΕΙΔΙΚΩΝ ΛΟΙΜΩΣΕΩΝ Τμήμα Επιδημιολογικής Επιτήρησης και Παρέμβασης Μακροδονίας 6-8 • 104 33 Αθήνα		Τηλ. 210.8899.000 Φαξ: 210.8818.868 • E-mail: epiid@keel.org.gr Φαξ για δηλώσεις νοσημάτων: 210.8842.011	
ΔΕΛΤΙΟ ΔΗΛΩΣΗΣ ΛΟΙΜΩΔΟΥΣ ΝΟΣΗΜΑΤΟΣ - ΥΔ11 ΗΠΑΤΙΤΙΔΑ Α, ΟΞΕΙΑ			
▶ Ημερομηνία δήλωσης: ____/____/____		ΣΥΜΠΛΗΡΩΝΕΤΑΙ ΑΠΟ ΔΙΝΣΗ ΥΓΕΙΑΣ ΝΟΜΟΥ	
▶ Μονάδα υγείας / ιδιωτής που δηλώνει το κρούσμα:		NOM <input type="text"/>	
ΑΣΘΕΝΗΣ			
1.1 Επώνυμο:		▶ Όνομα:	
1.2 Ημ/νία γέννησης: ____/____/____		Η Ηλικία: ____ ετών μηνών ημερών (ΣΗΜΕΙΩΝΕΤΑΙ ΜΟΝΟ ΕΑΝ ΕΙΝΑΙ ΑΓΝΩΣΤΗ Η ΗΜΕΡΙΑ ΓΕΝΝΗΣΗΣ) (ΒΑΛΤΕ ΣΕ ΚΥΚΛΟ ΑΝΑΛΟΓΩΣ)	
1.3 Φύλο: <input type="checkbox"/> Άρρεν <input type="checkbox"/> Θήλυ			
1.4 Τόπος κατοικίας: ▶ Νομός:		▶ Πόλη/χωριό:	
Στοιχεία για επικοινωνία: ▶ Δ/νση:		▶ Τηλ.:	
ΠΑΡΑΓΟΝΤΕΣ ΚΙΝΔΥΝΟΥ			
2.1 Υπάρχει σύνδεση με άλλο κρούσμα; <input type="checkbox"/> ΟΧΙ <input type="checkbox"/> ΝΑΙ → Σχέση:			
2.2 Πηγαίνει σχολείο, παιδ. σταθμό, σχολή ή ζει σε ομαδική διαβίωση; <input type="checkbox"/> ΟΧΙ <input type="checkbox"/> ΝΑΙ → Ποιός:			
2.3 Ανήκει σε ειδική πληθυσμιακή ομάδα; <input type="checkbox"/> ΟΧΙ <input type="checkbox"/> ΝΑΙ → Ποιά:			
2.4 Έχει αλλοδαπή εθνικότητα; <input type="checkbox"/> ΟΧΙ <input type="checkbox"/> ΝΑΙ → Χώρα:		ΕΑΝ ΑΛΛΟΔΑΠΟΣ: ▶ Είναι: <input type="checkbox"/> Μετανάστης <input type="checkbox"/> Ταξιδιώτης <input type="checkbox"/> Άλλο →	
2.5 Ταξίδεψε πρόσφατα στο εξωτερικό; (κατά τις 2-6 εβδομ. πριν από έναρξη νόσου) <input type="checkbox"/> ΟΧΙ <input type="checkbox"/> ΝΑΙ → Πού-πότε:			
2.6 Εργάζεται σε παιδικό σταθμό; <input type="checkbox"/> ΟΧΙ <input type="checkbox"/> ΝΑΙ → Ποιά:			
2.7 Εργάζεται σε χειρισμό τροφίμων; <input type="checkbox"/> ΟΧΙ <input type="checkbox"/> ΝΑΙ → Πού:			
2.8 Έχει χρόνια ηπατοπάθεια; <input type="checkbox"/> ΟΧΙ <input type="checkbox"/> ΝΑΙ → Τι:			
2.9 Εμβολιασμός για Ηπ. Α; <input type="checkbox"/> ΟΧΙ <input type="checkbox"/> ΝΑΙ → Ημερομηνία τελευταίας δόσης: ____/____/____ → Αριθ. δόσεων:			
ΚΛΙΝΙΚΑ ΧΑΡΑΚΤΗΡΙΣΤΙΚΑ			
3.1 Ημ/νία έναρξης συμπτωμάτων: ____/____/____		ΣΥΜΠΛΗΡΩΝΕΤΑΙ ΑΠΟ ΔΙΝΣΗ ΥΓΕΙΑΣ Η ΚΕΕΛ ΑΦΗΣΤΕ ΚΕΝΟ <input type="checkbox"/> Επιβεβαιωμένο	
3.2 Νοσηλεία σε Νοσοκομείο; <input type="checkbox"/> ΟΧΙ <input type="checkbox"/> ΝΑΙ		Κατάταξη κρούσματος: <input type="checkbox"/> Πιθανό	
ΕΑΝ ΝΟΣΗΛΕΙΑ: ▶ Νοσοκομείο:		→ Ημ/νία εισαγωγής: ____/____/____	
3.3 Ίκτερος; <input type="checkbox"/> ΟΧΙ <input type="checkbox"/> ΝΑΙ		3.4 Κεραυνοβόλος οξεία ηπατίτιδα; <input type="checkbox"/> ΟΧΙ <input type="checkbox"/> ΝΑΙ	
3.5 Έκβαση: <input type="checkbox"/> Ίαση <input type="checkbox"/> Ακόμη ασθενής <input type="checkbox"/> Θάνατος → Ημ/νία θανάτου: ____/____/____			
▶ Ο/η θεράπων ιατρός:		Υπογραφή (& σφραγίδα):	
▶ Τηλέφωνα για συνενόηση:			
ΕΡΓΑΣΤΗΡΙΑΚΑ ΕΥΡΗΜΑΤΑ			
Ηπ. Α 4.1 Ολικό anti-HAV: <input type="checkbox"/> APN <input type="checkbox"/> ΘΕΤ <input type="checkbox"/> ΑΓΝ		4.2 anti-HAV IgM: <input type="checkbox"/> APN <input type="checkbox"/> ΘΕΤ <input type="checkbox"/> ΑΓΝ	
Ηπ. Β 4.3 HBsAg: <input type="checkbox"/> APN <input type="checkbox"/> ΘΕΤ <input type="checkbox"/> ΑΓΝ		4.4 anti-HBc IgM: <input type="checkbox"/> APN <input type="checkbox"/> ΘΕΤ <input type="checkbox"/> ΑΓΝ	
Ηπ. C 4.5 anti-HCV (EIA): <input type="checkbox"/> APN <input type="checkbox"/> ΘΕΤ <input type="checkbox"/> ΑΓΝ		4.6 Άλλο εύρημα:	
Βιοχημ. 4.7 SGOT/AST (U/L):		4.8 SGPT/ALT (U/L):	
▶ Ο/η εργαστηριακός ιατρός:		Υπογραφή (& σφραγίδα):	

Surveillance flow chart



Problems

- Physician Compliance
- Data quality
- Inappropriate concept of involved health personnel
 - Additional Clerkship work and not
 - Information that will guide rational action towards ↓ ID

- Surveillance of Viral Hepatitis in Greece is based on the mandatory notification system.

Acute Hepatitis A (a-HepA)

a-HepA - Clinical criteria[®]

Acute illness with:

- Discrete onset of symptoms (e.g. fatigue, abdominal pain, loss of appetite, intermittent nausea, vomiting)

and

- Jaundice **or** elevated serum aminotransferase levels

a-HepA - Lab criteria[®]

- IgM anti-HAV positive
 - or
- HAV RNA positive
 - or
- Detection of HAV antigen in stools

a-HepA, Case Classification[®]

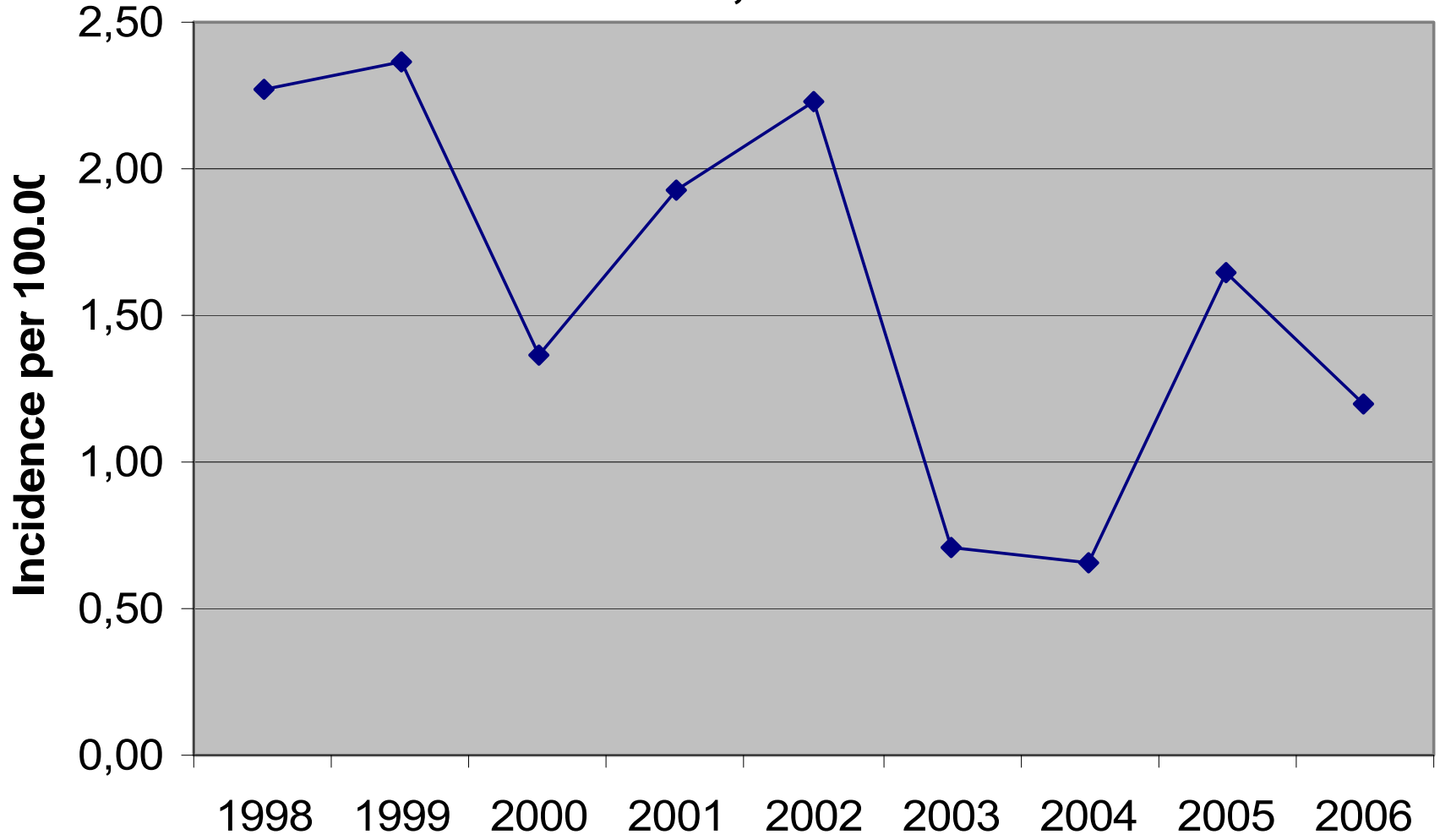
- **Confirmed:**
 - meets the clinical case definition and
 - is laboratory confirmed

- **Probable:**
 - meets the clinical case definition and
 - has epidemiologic link to a case of a-HepA

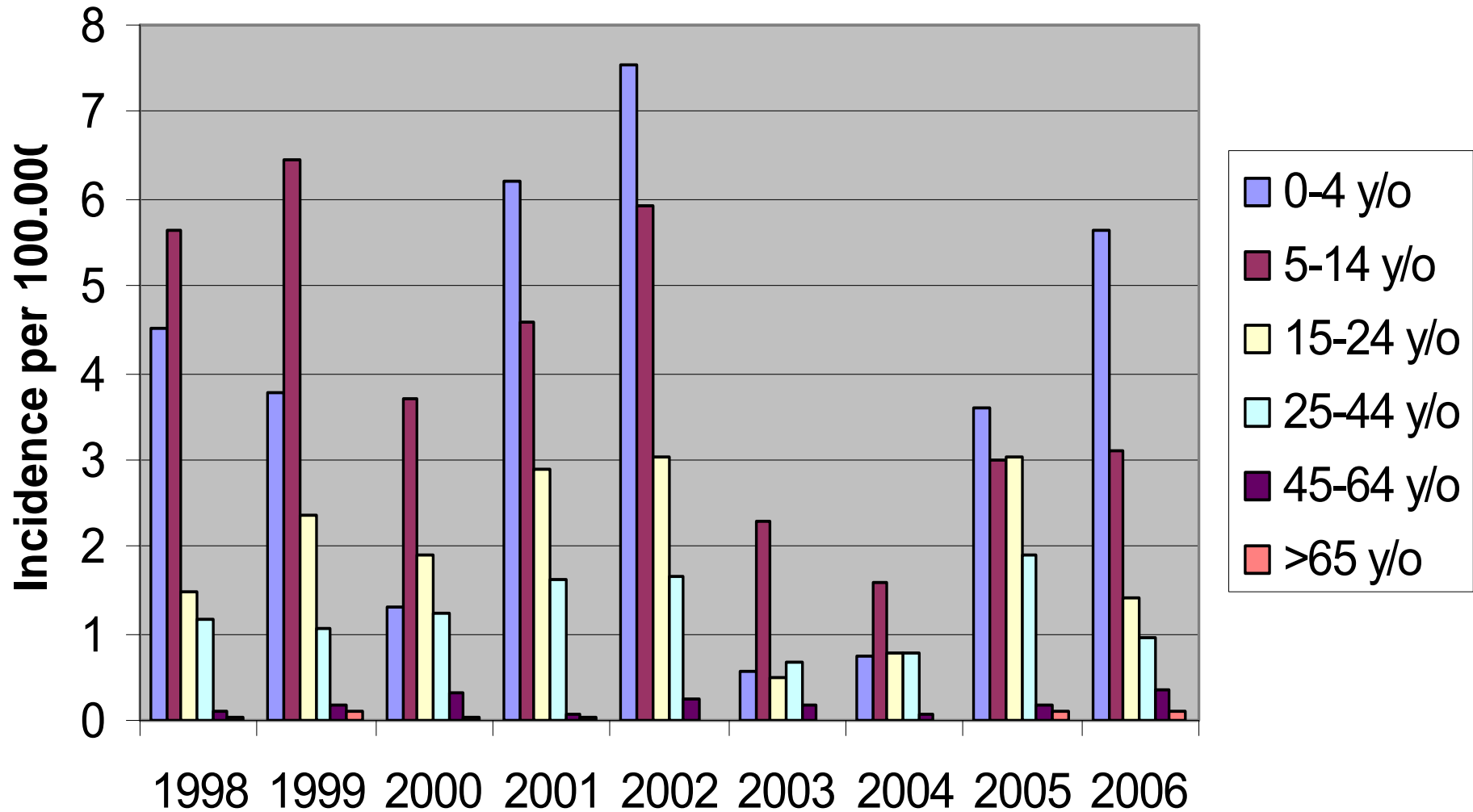
Limitation:

The case definition doesn't include asymptomatic cases which are IgM anti-HAV positive.

Acute Hepatitis A: incidence per 100.000 inhabitants, Greece

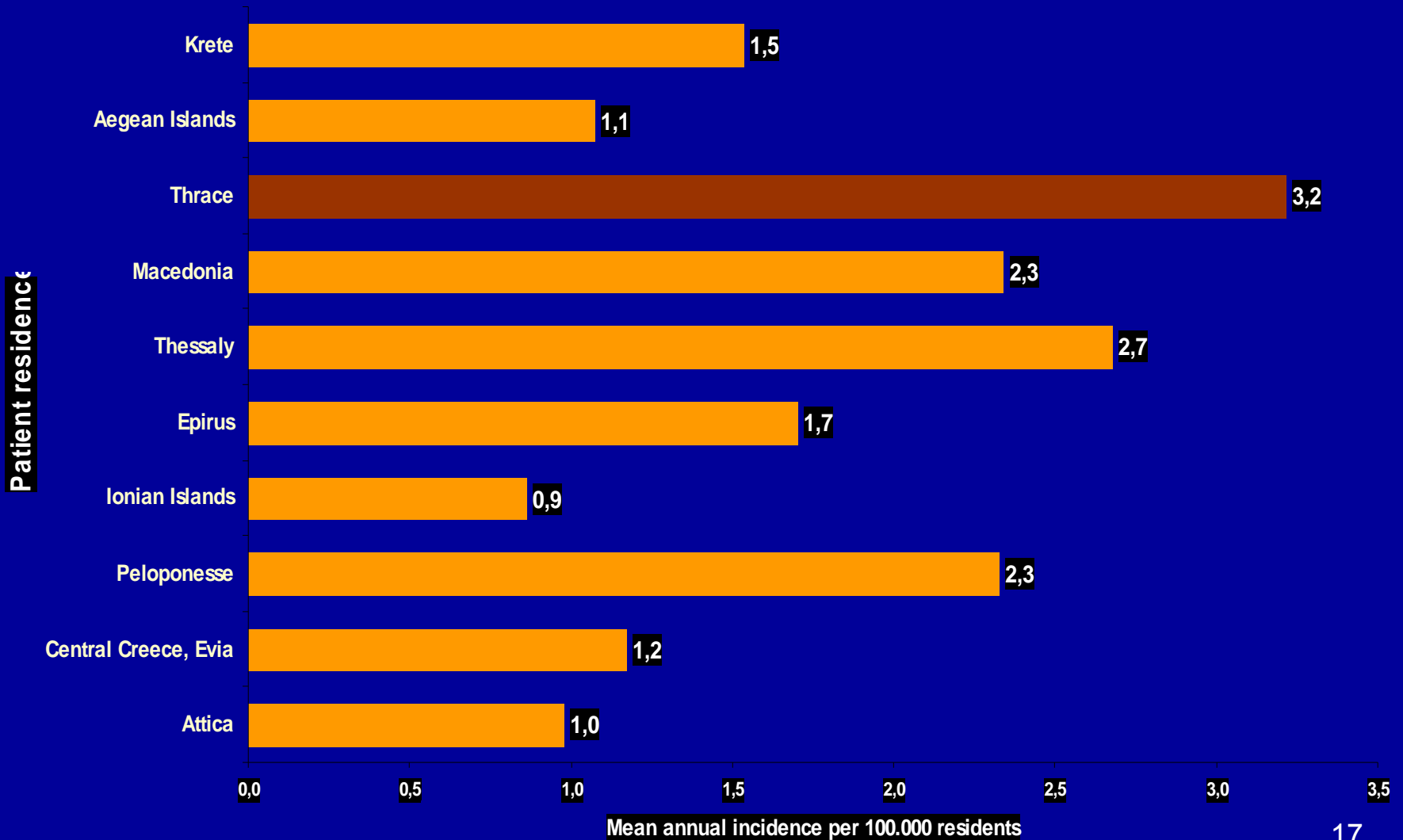


Acute Hepatitis A: incidence / age group



Acute Hepatitis A: 1998-2006

Mean annual incidence / geographical region



Acute Hepatitis B (a-HepB)

a-HepB - Clinical criteria[®]

An acute illness with:

- Discrete onset of symptoms (e.g. fatigue, abdominal pain, loss of appetite, intermittent nausea, vomiting)

and

- Jaundice or elevated serum aminotransferase levels

a-HepB - Lab criteria[®]

- IgM anti-HBc positive
- or
- HBV DNA positive

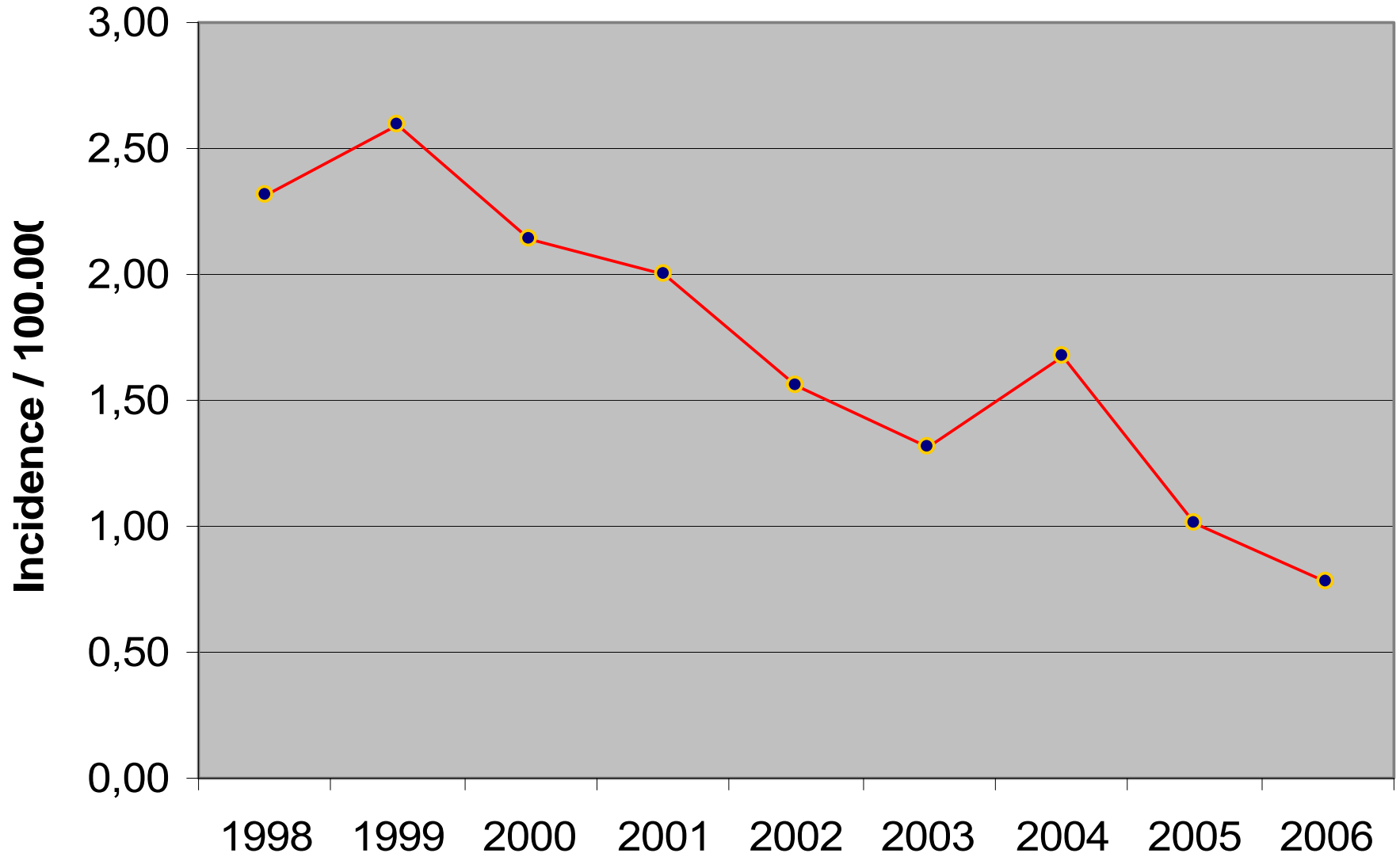
a-HepB, Case Classification[®]

- **Confirmed:**
 - meets the clinical criteria and
 - is laboratory confirmed
- **Probable:**
 - meets the clinical criteria and
 - has positive HBsAg.

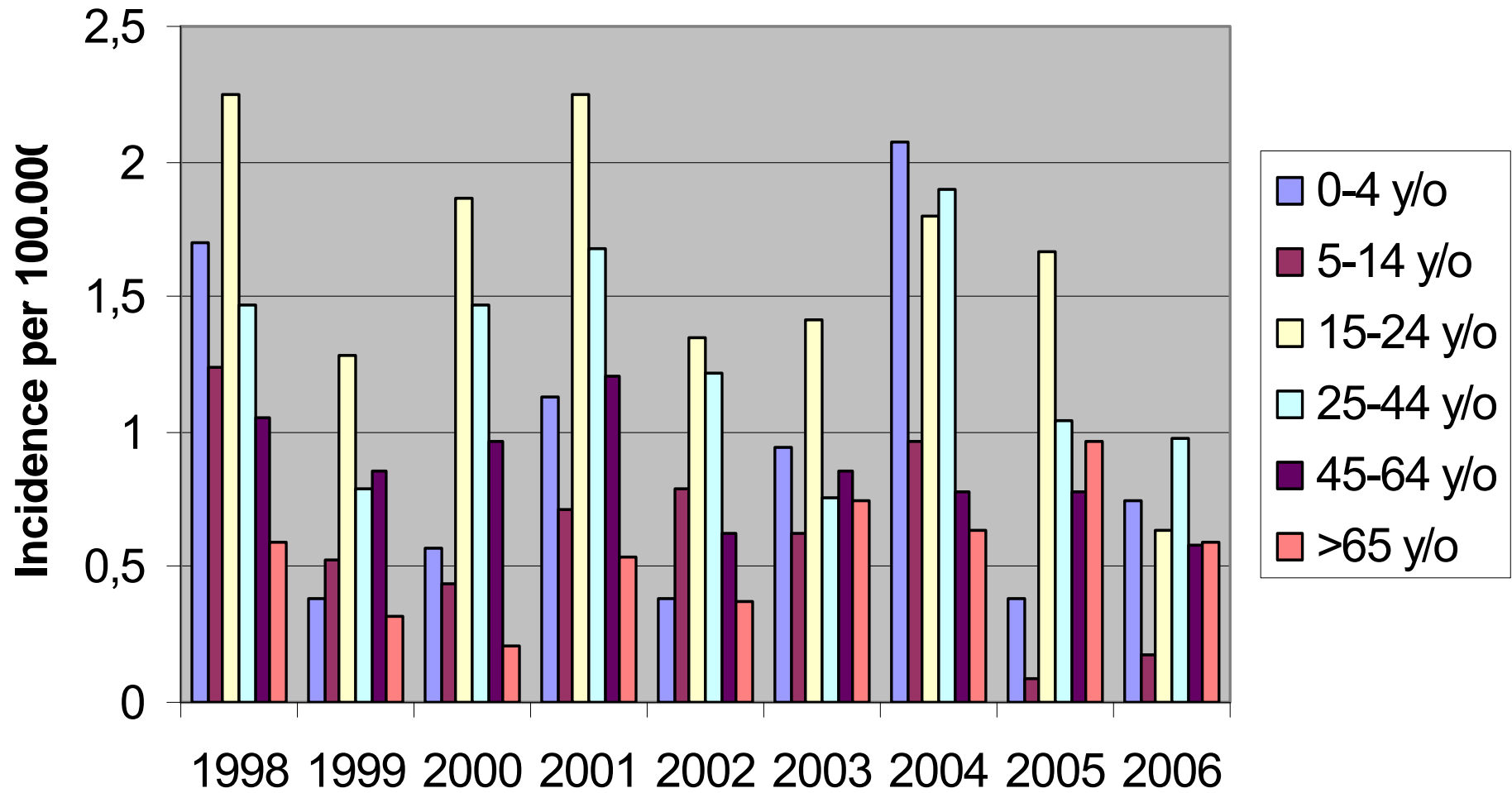
Limitations:

- HBsAg +, asymptomatic infants <12 m/o: should notified
- Other asymptomatic cases, anti-HBc IgM + or HBsAg +: should not notified

Acute Hepatitis B: incidence per 100.000 inhabitants, Greece

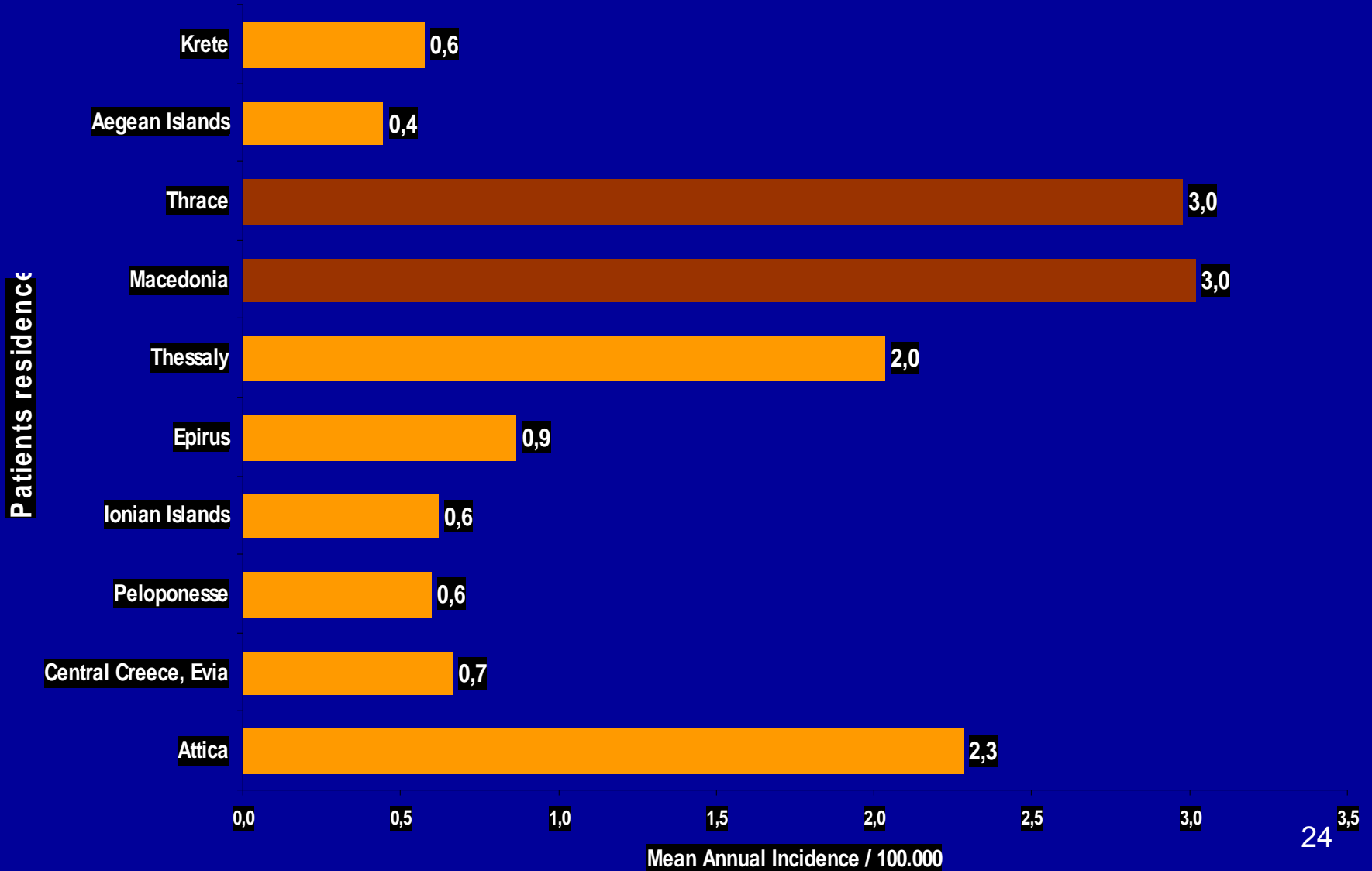


Acute Hepatitis B: incidence / age group

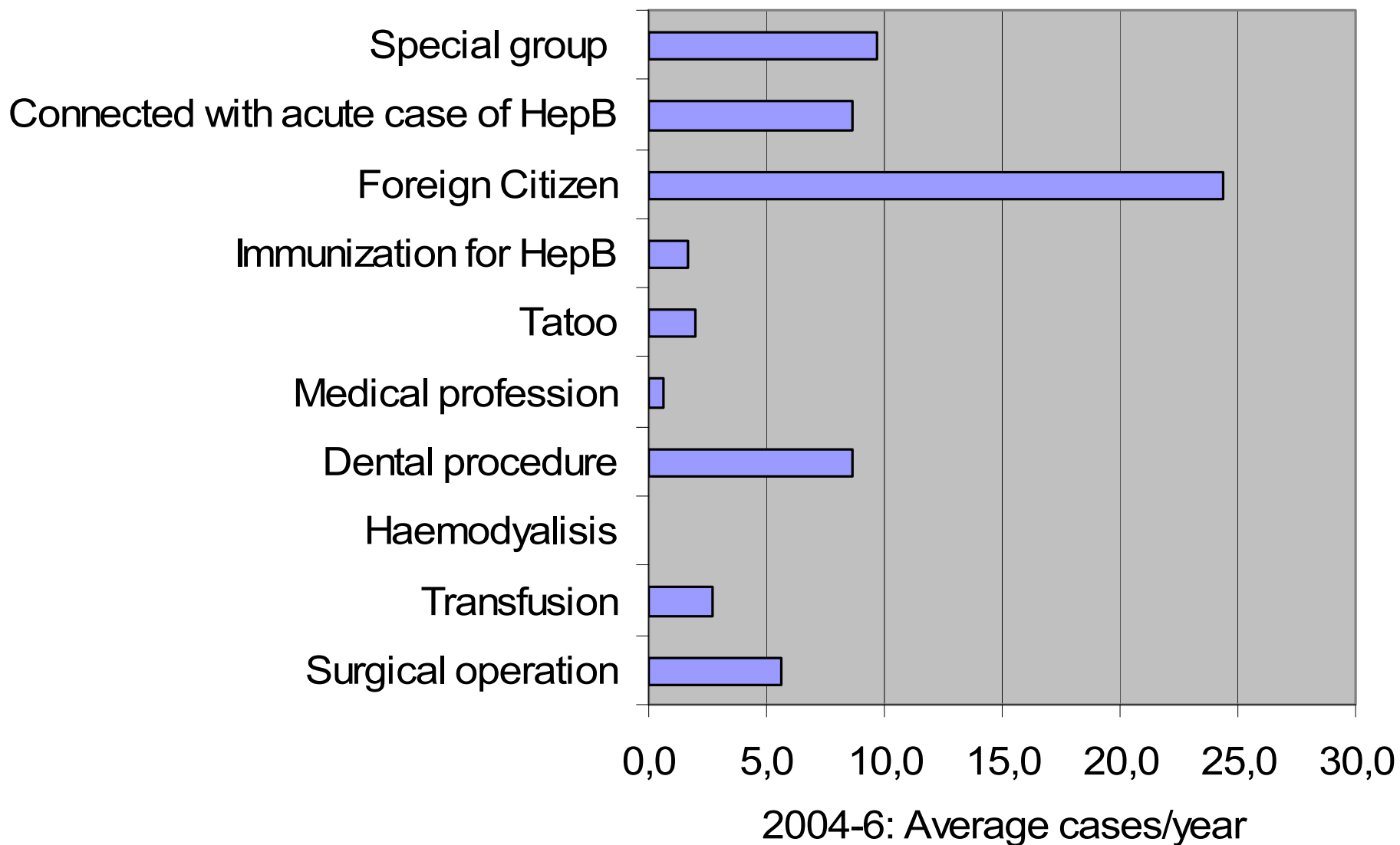


Acute Hepatitis B: 1998-2006

Mean annual incidence/geographical region



Acute Hepatitis B: Average cases/year 2004-2006, Greece



Hepatitis C

1. Acute
2. Asymptomatic/confirmed by anti-HCV,
1st diagnosis

Acute Hepatitis C (a-HepC)

a-HepC - Clinical criteria[®]

An acute illness with:

- Discrete onset of symptoms (e.g. fatigue, abdominal pain, loss of appetite, intermittent nausea, vomiting)

and

- Jaundice or elevated serum aminotransferase levels

a-HepC - Lab criteria[®]

- Anti-HCV positive and
 - IgM anti-HAV negative and
 - IgM anti-HBc negative
- or
- HCV RNA positive

a-HepC, Case Classification[®]

- **Confirmed:**
 - meets the clinical criteria and
 - is laboratory confirmed

- **Probable:**
 - n/a

Asymptomatic
Confirmed by anti-HCV (+)
1st diagnosis

Newly diagnosed as-HepC, Clinical criteria

Asymptomatic= no clinical manifestations

- May have chronic liver disease ranging from
 - Mild
 - Severe (cirrhosis, cancer)

Newly diagnosed as-HepC, Lab criteria

- Anti-HCV positive (repeat reactive) by EIA,
and
- Verified by an additional assay p.e.
 - RIBA or
 - RT-PCR for HCV RNA

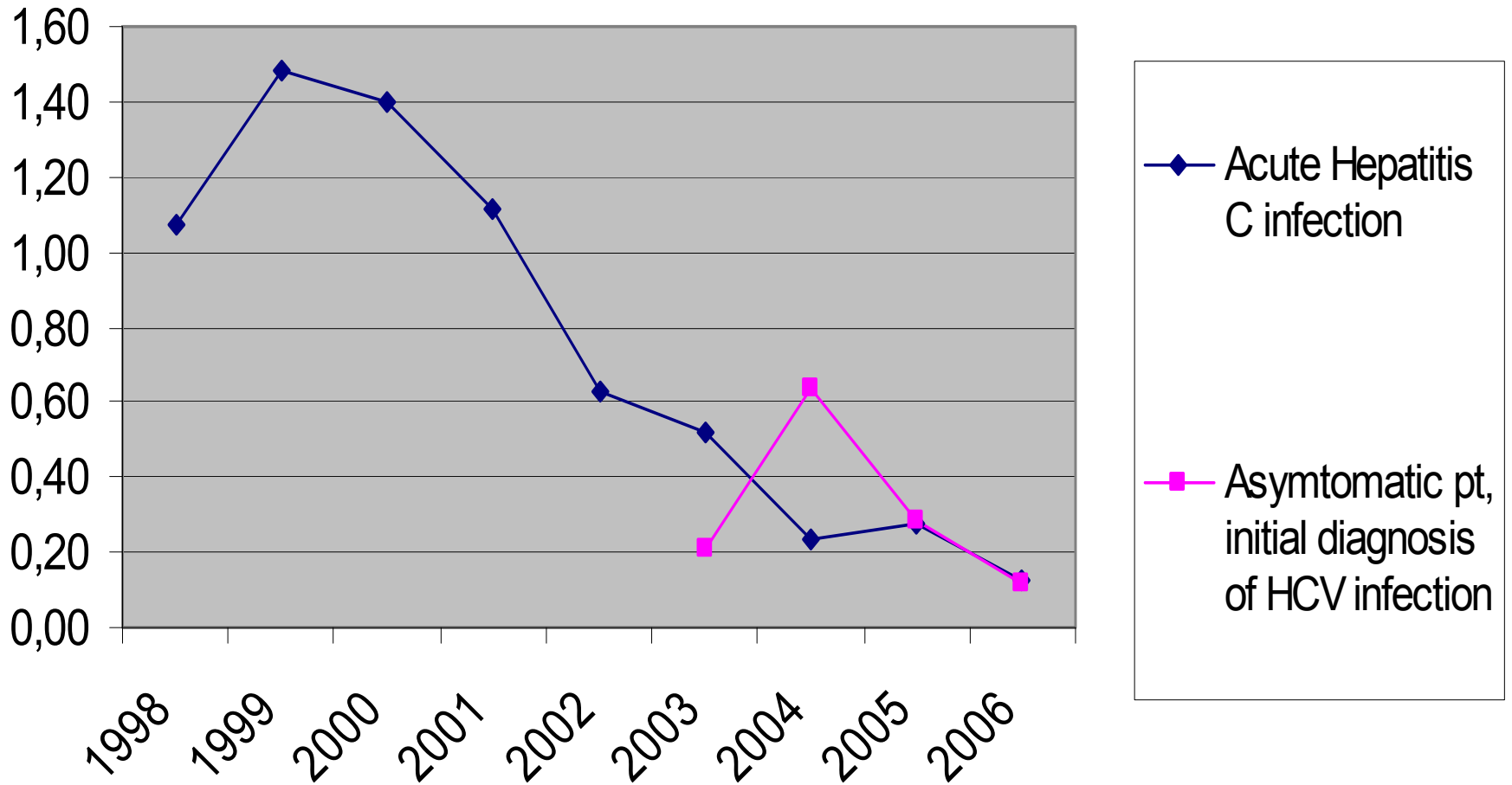
OR

- HCV RNA positive

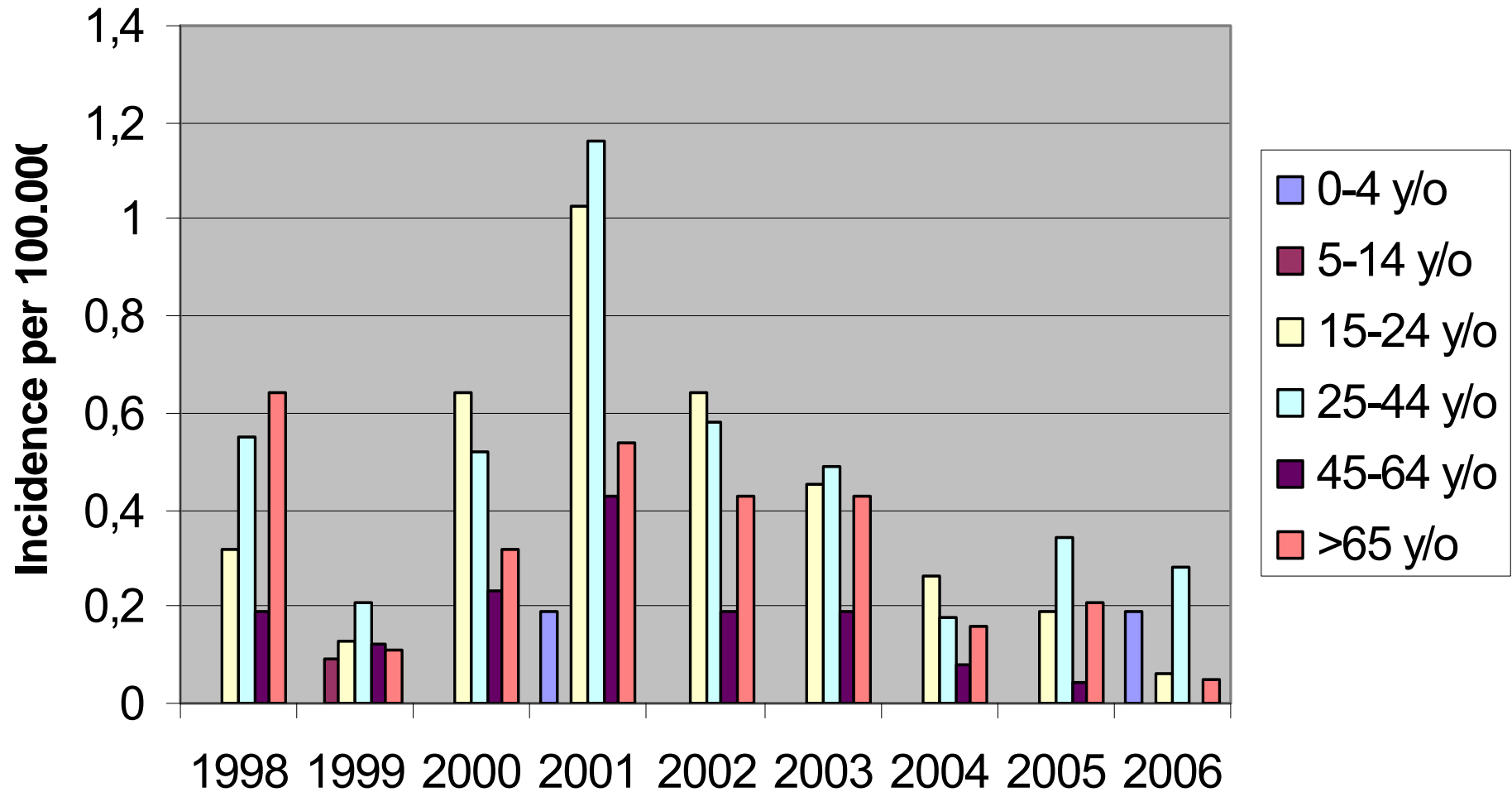
Newly diagnosed as-HepC, Case Classification

- **Confirmed:**
 - Asymptomatic Case diagnosed for first time and
 - is laboratory confirmed
- **Probable:**
 - n/a

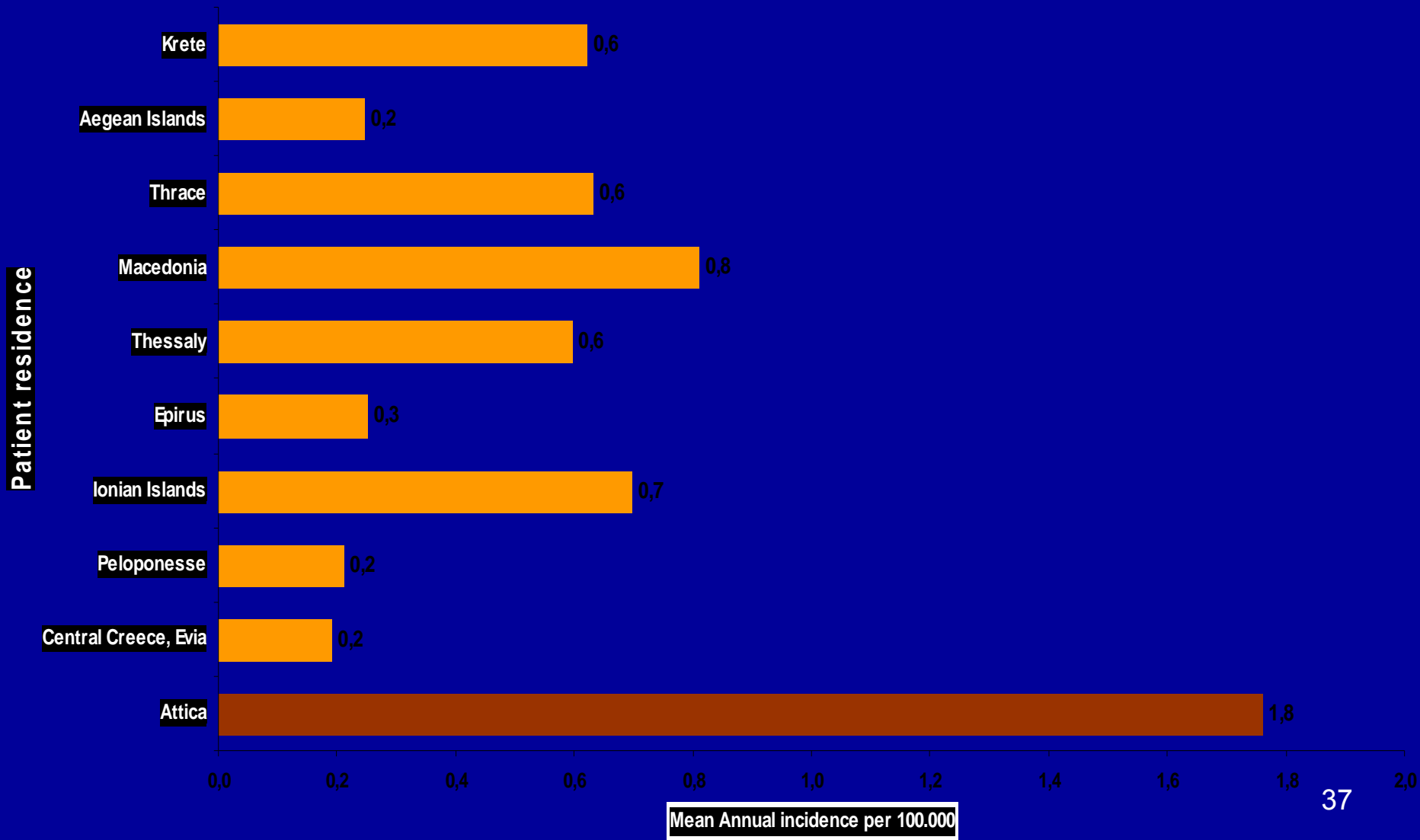
Hepatitis C: incidence per 100.000 inhabitants, Greece



Acute Hepatitis C: incidence / age group



Acute Hepatitis C: Mean annual incidence/geographical region



Chronic Hepatitis B & C

- COHORT STUDY 2003
 - National epidemiological study
 - Sponsored by HCDCP
 - 25 hepatology centers

Aim:

Evaluate epidemiology / natural course of chronic Hepatitis B & C

Prevalence of Hepatitis in Greece?

National Seroprevalence Study