

EPIDEMIOLOGY OF MENINGOCOCCAL DISEASE IN GREECE (2003-04)


- **NATIONAL MENINGOCOCCAL REFERENCE
LABORATORY, NSPH**

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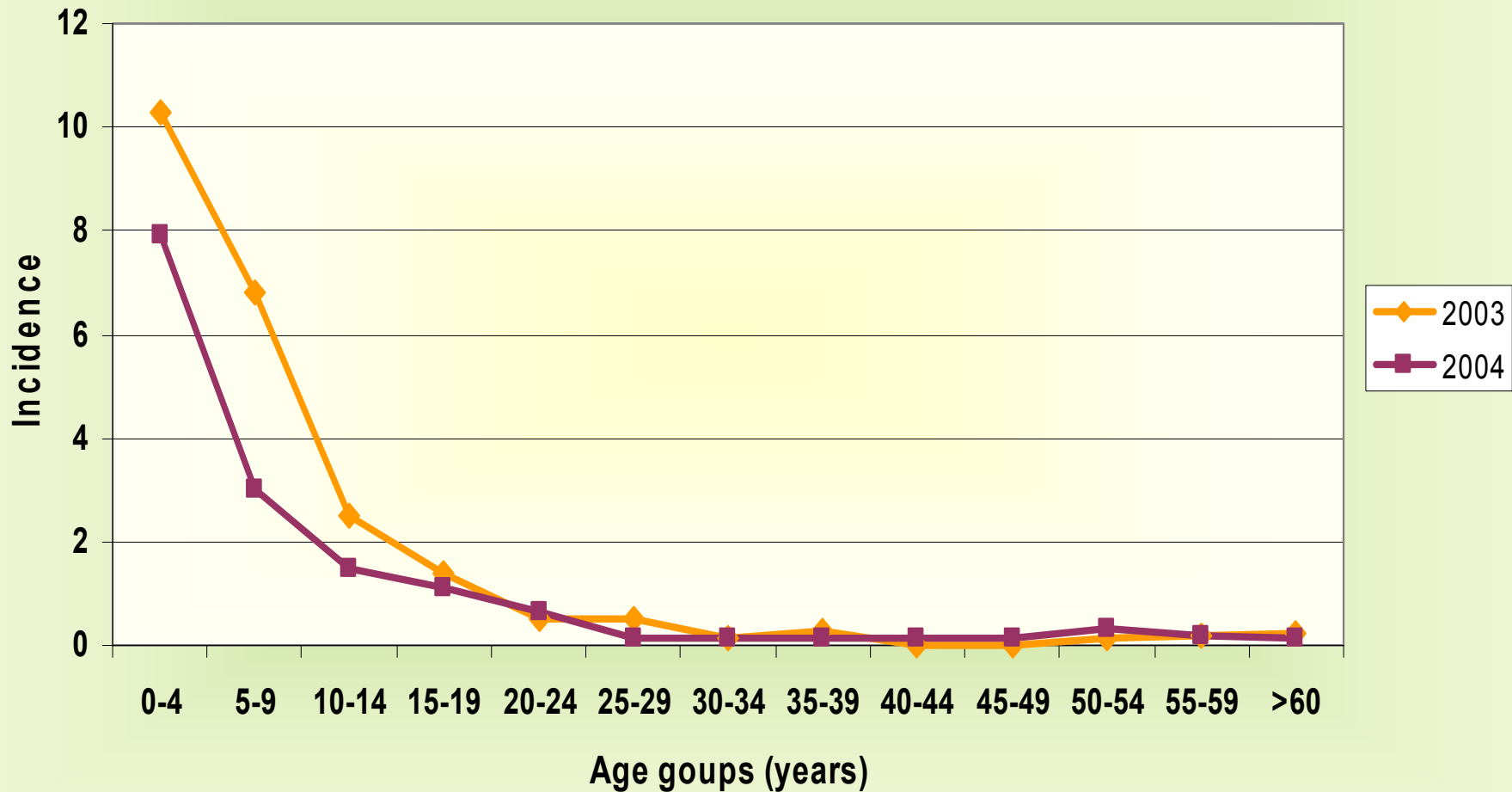
Methods

- **Passive surveillance-mandatory notification** is used for collecting the epidemiological data
- **Nearly 90% of the cases are sent to the National Meningococcal Ref Laboratory**
- **Clinical records are always reconciled with lab records on a national scale**
- **PCR and culture analysis is used for confirmation**

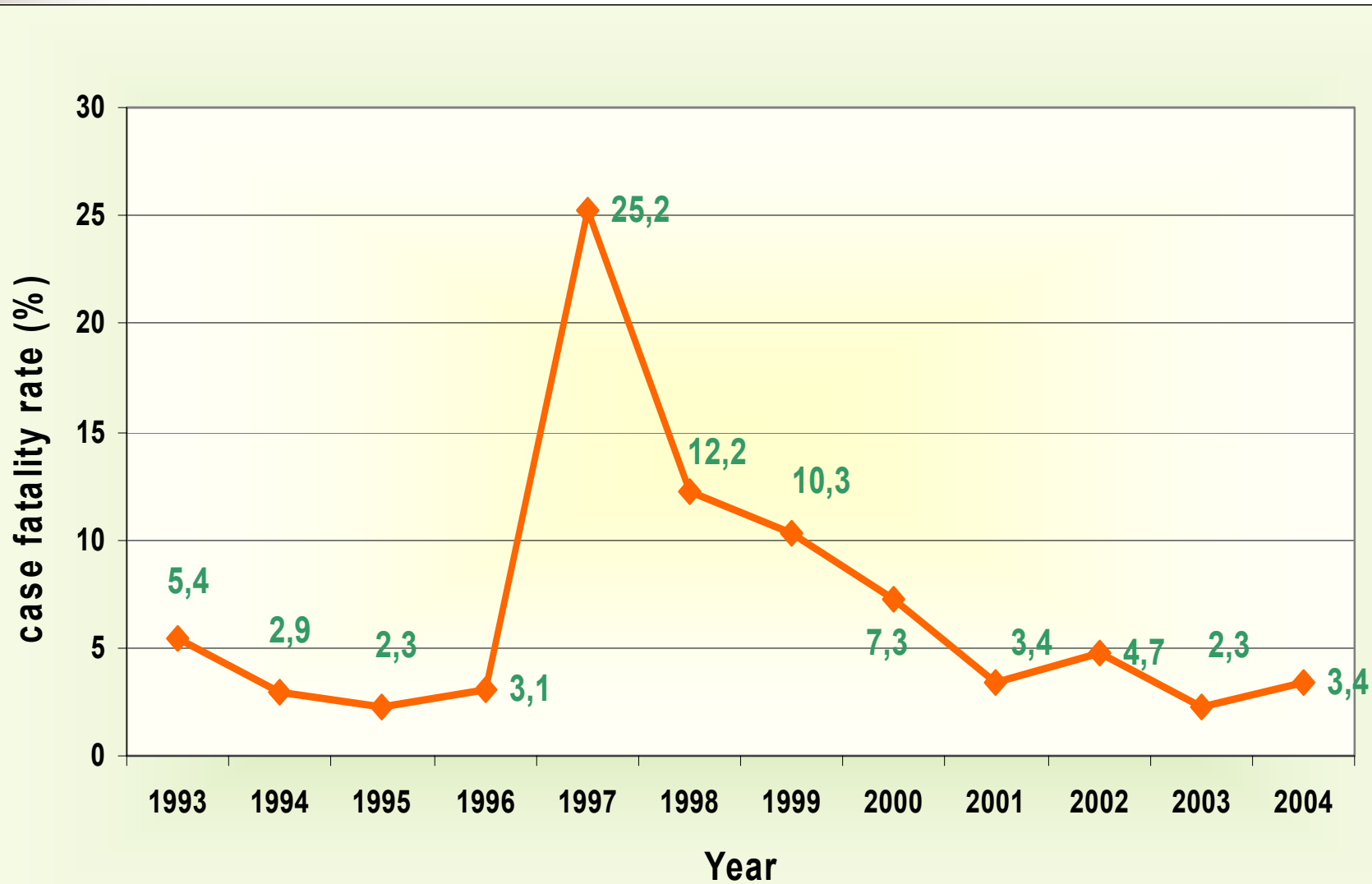
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- **Conjugated MenC vaccine was introduced in January 2001**
 - immunization of children 1-14 years through private pediatricians
 - Approximately 1,200,000 doses were sold
 - Estimated population between 1-14 years is 1,639,774 indicating that about **73.2%** received the vaccine

Results

Invasive meningococcal disease and incidence rate (per 100,000) age group for the years 2003-04



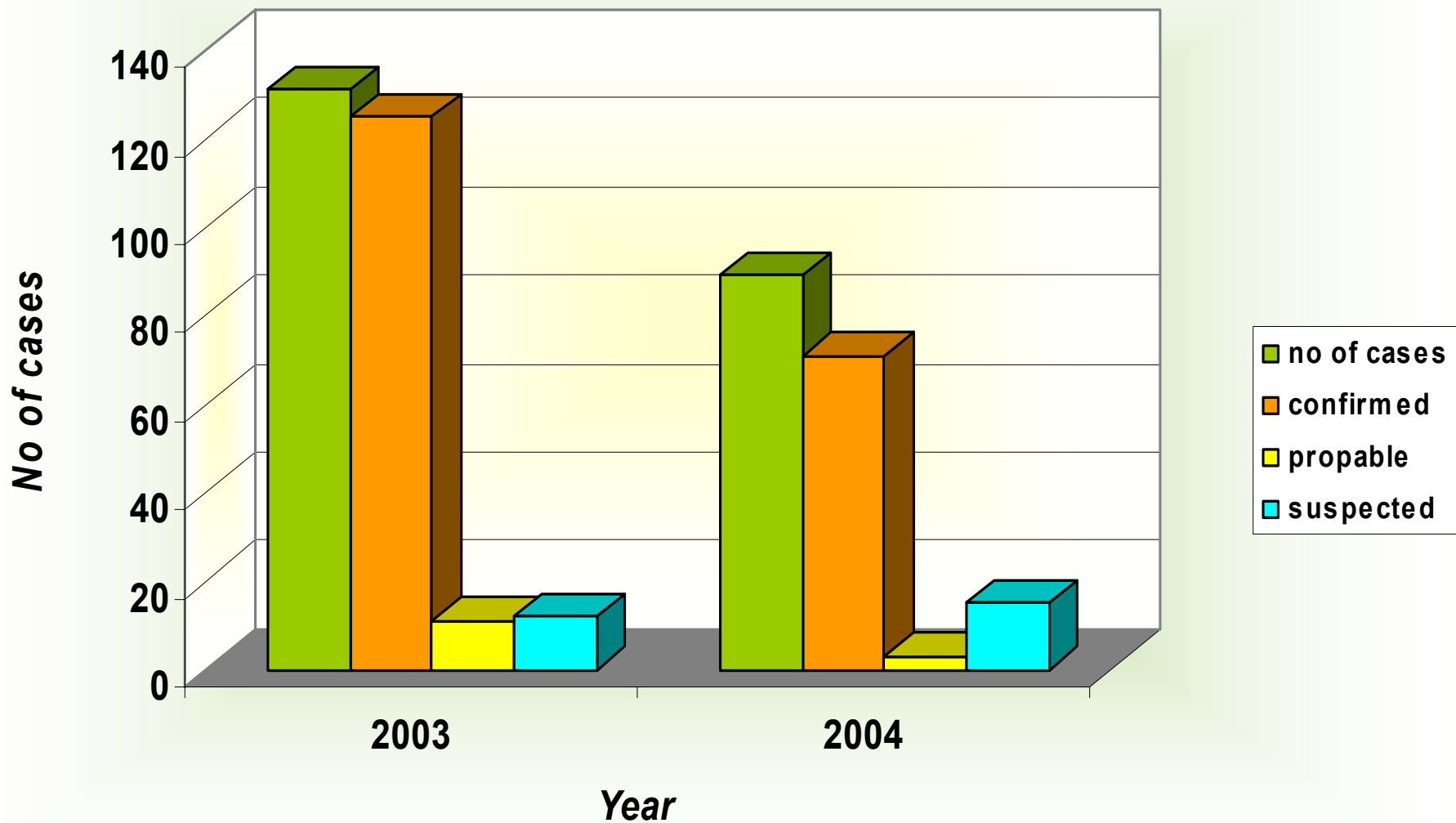
Case fatality rate (1993-2004)



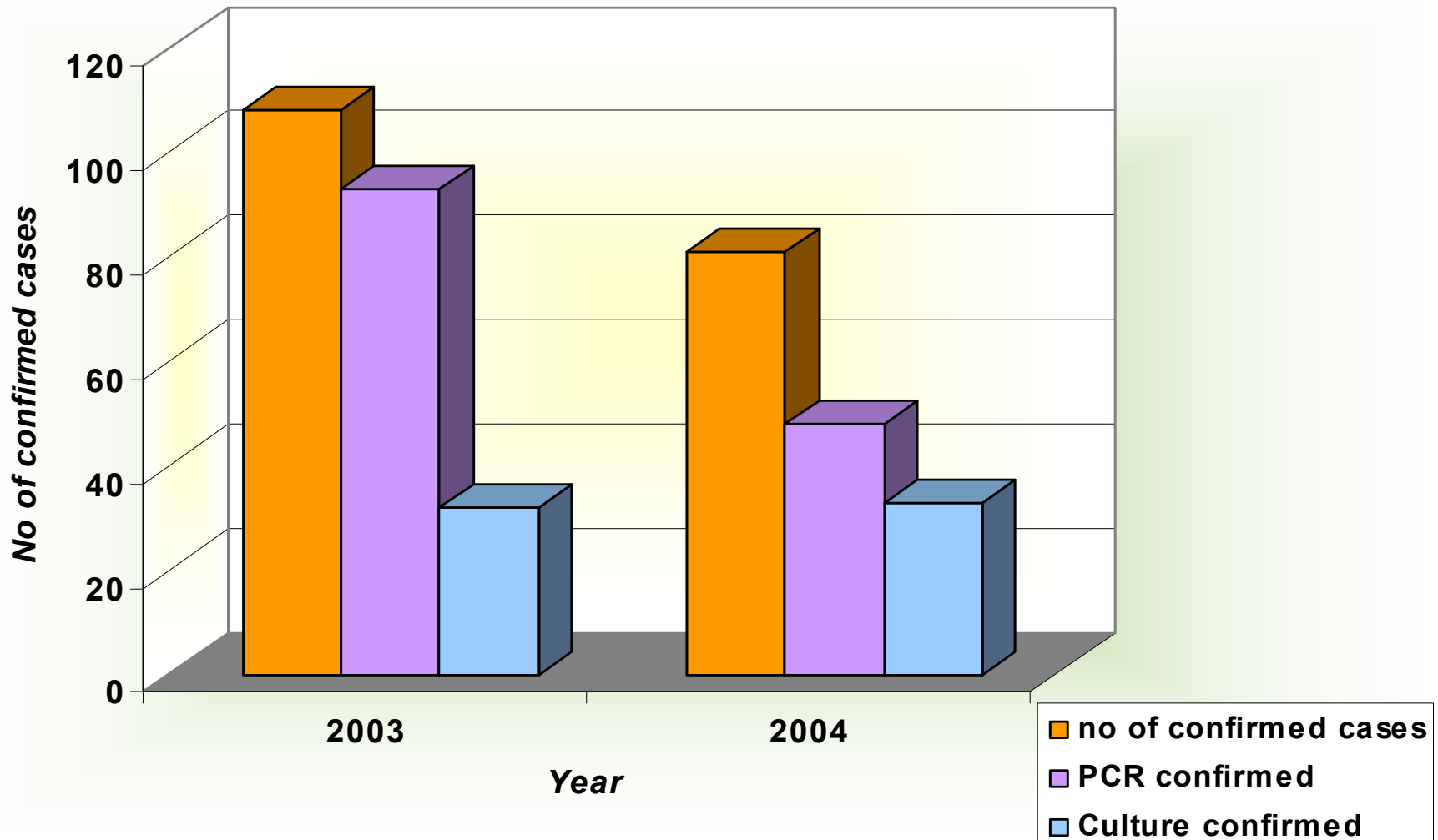
CASE FATALITY RATE PER AGE GROUP (2003-2004)

AGE	No of cases		No of deaths		Case fatality	
	2003	2004	2003	2004	2003	2004
<1	20	17	0	1	0	5.88
1-4	32	23	1	0	3.12	0
5-9	36	16	0	1	0	6.25
10-14	15	9	1	1	6.66	6.66
15-19	10	8	1	0	10.0	0
20-24	4	5	0	0	0	0
25-44	7	4	0	0	0	0
45-60	2	4	0	0	0	0
>60	4	3	0	0	0	0

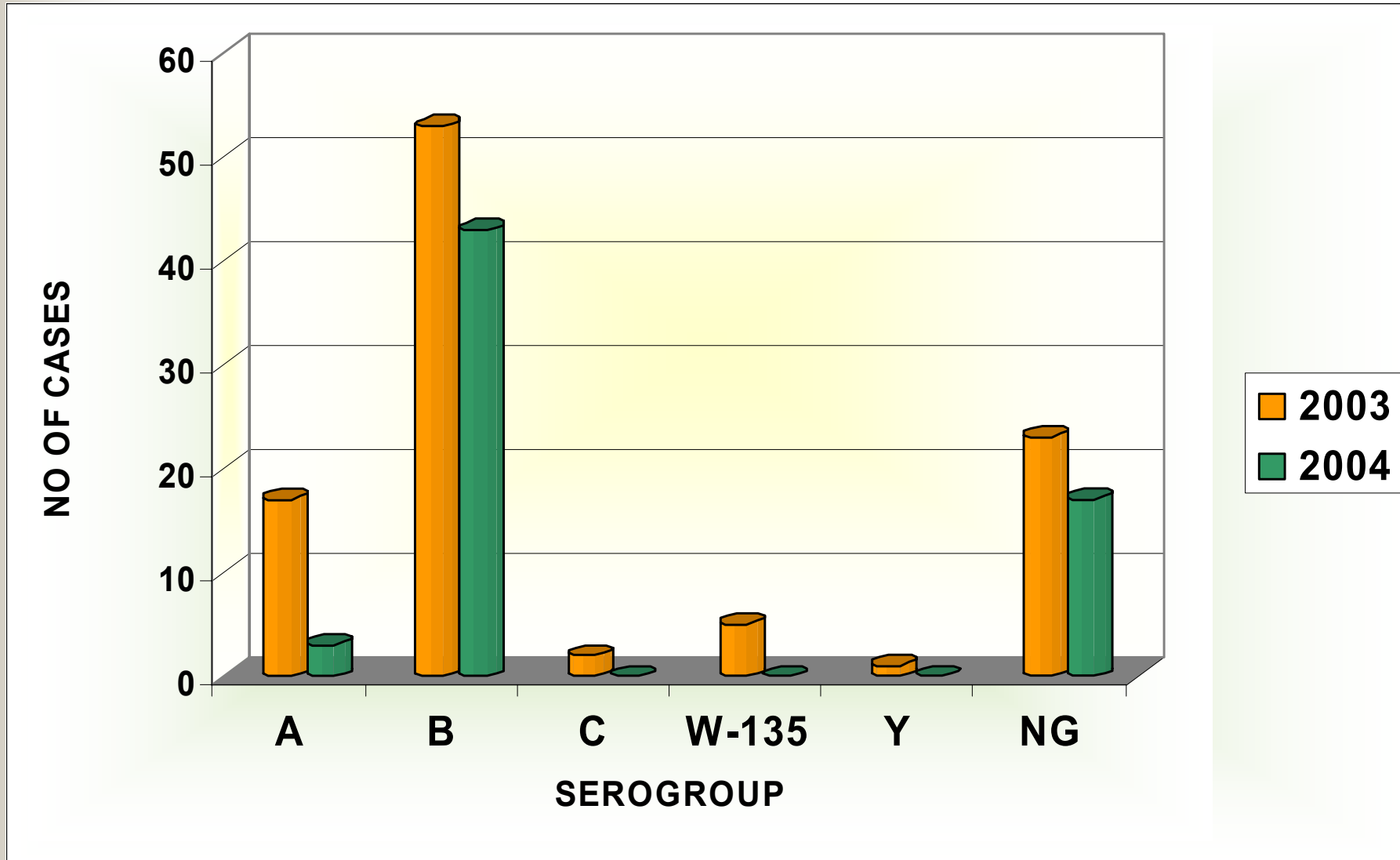
Distribution of M/C cases per year



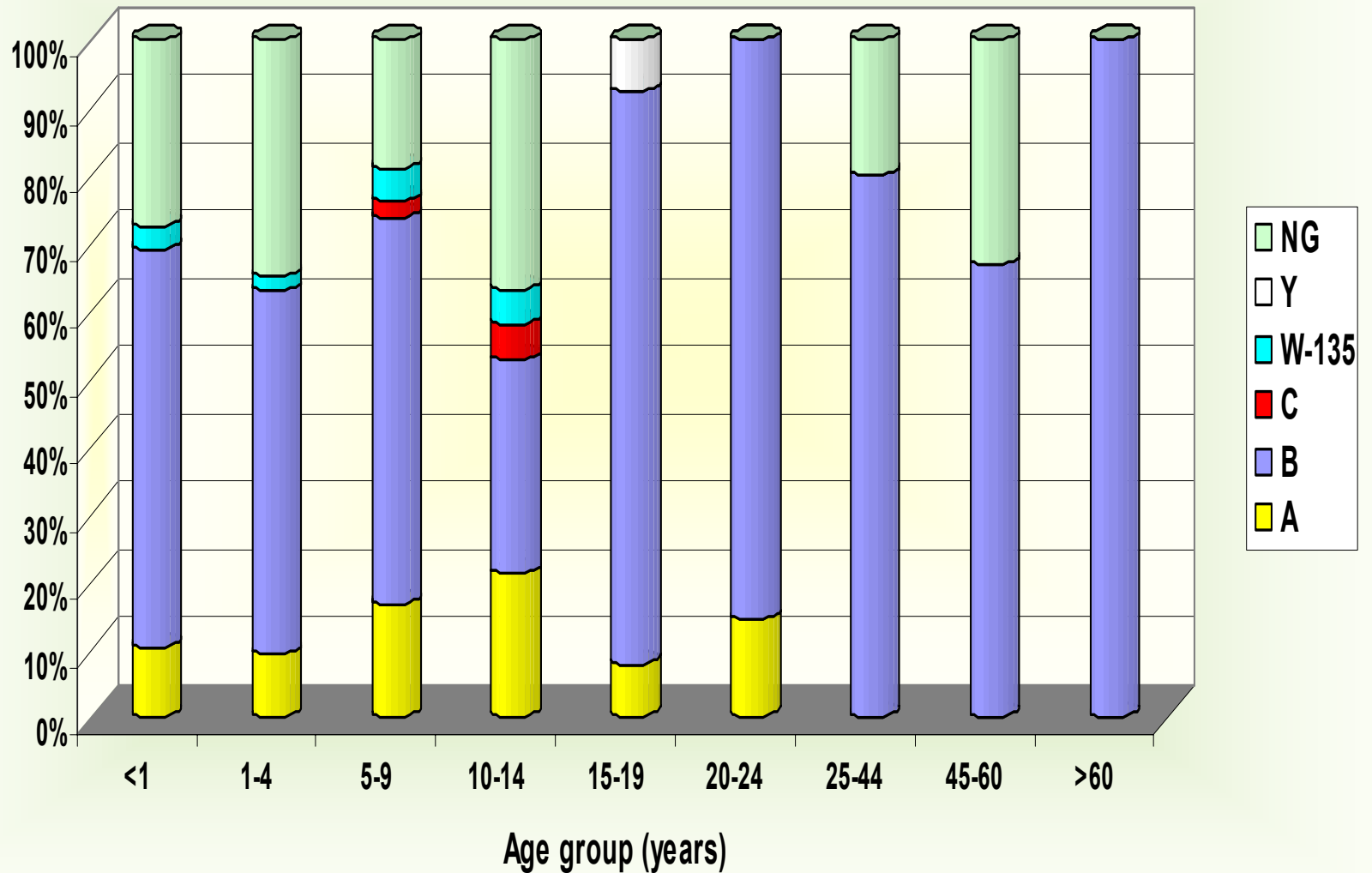
Proportion of PCR and cultured confirmed cases (2003-2004)



Distribution of the M/C Strains and Biological Samples Examined in to Serogroups (2002-2003)



Distribution of serogroups in relation to age groups (2003-04)



Distribution of serotypes and subtypes of the M/C isolates (2002-2003)

Serogroup B										
ST/SBT	P1.2	P1.4	P1.5	P1.6	P1.7	P1.9	P1.10	P1.14	P1.15	NT
1			2							
4	1	4	5	1	1	4	1	11		1
14	1									
15			1	1	8		1	2	1	
NT			1							
Serogroup C										
2a			2							



Antibiotic sensitivities of M/C strains

- **Penicillin** : 18.8% (2003) and 6.25% (2004) of the strains exhibited reduced susceptibility
- **ALL ISOLATES EXAMINED WERE SENSITIVE TO:**
Cefotaxime, rifampicin, cefaclor, chloramphenicol, ciprofloxacin, ceftriaxone and tetracycline.



Conclusions

- The highest incidence and case fatality rates were observed in age groups <1, 5-9 and 10-14 years of age
- Nearly **80%** of the cases are confirmed **mainly by PCR** and to lesser extent **by culture** (*due to early treatment with antibiotics*)
- The most prevalent serogroup is B with predominant phenotypes **B:4:P1.14 (ST-162 complex)** and **B:15:P1.7 (ST-32 complex)**
- **Only 2 strains** with phenotypic characteristics **C:2a:P1.5 (ST-11)** were isolated during the year **2003**, whilst **no M/C strains** with the above phenotype **were isolated during 2004**