Meningococcal disease in France in 2000

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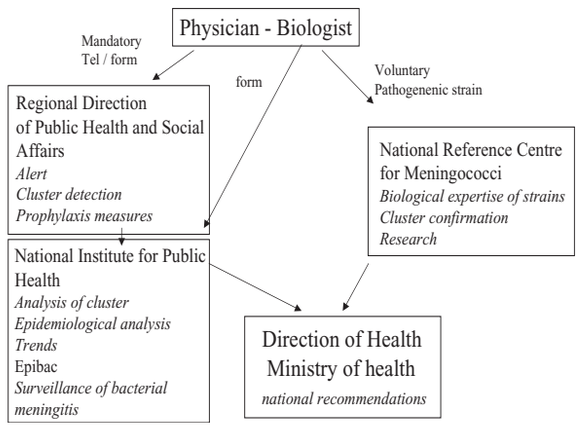
Surveillance of Meningococcal – Disease in France

♦ Three surveillance networks

1 Mandatory notifications (MN).
- Clinician : individual standardised form for meningococcal disease -> local health officer - > InVS.
- Participation : all hospitals in France + overseas departments.

2 National Reference Centre for Meningococci (NRCM).
- hospital laboratory : isolates of N. *meningitidis* -> CNRM.
- Participation : all hospitals in France.

3 Laboratory network (EPIBAC)
- Hospital laboratory : reports of all bacterial septicaemia and meningitis - > InVS.
- Participation : voluntary based, 259 / 406 hospital laboratories in France in 1996 which represent 62% of all hospital admissions.



Sensitivity of the mandatory surveillance system Capture-recapture analysis of confirmed cases

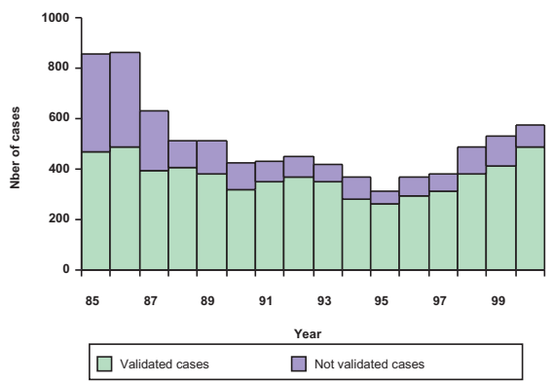
Year	Exhaustivity	95%CI	Cases reported	Cases estimated
1989	50	47-54	384	763
1990	52	49-56	318	608
1991	56	54-58	352	623
1992	55	54-58	368	651
1996	62	59-65	294	469
1999	67	62-72	411	601

Mandatory notification system

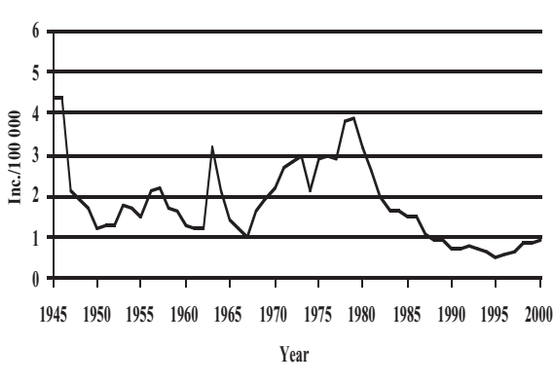
♦ Case definitions

Alert : all case of meningococcal disease.
Surveillance : Laboratory confirmed case of meningococcal disease Positive culture of Neisseria meningitidis from blood or CSF or Presence of antigens anti-meningococus in blood, CSF or urine.

Cases of Meningococcal Disease, France 1985-2000



Incidence rate of Meningococcal Disease in France,1945-2000



Age distribution of confirmed cases of Meningococcal disease, France 2000

Age group	cases	Inc. Rate / 100 000	% age group
<1	101	14,0	0,21
1-4	97	3,4	0,20
5-9	33	0,9	0,07
10-14	38	1,0	0,08
15-19	63	1,6	0,13
20-24	45	1,1	0,09
25-44	46	0,3	0,09
45-64	38	0,3	0,08
65 +	28	0,3	0,06
Total	489	0,8	1,00

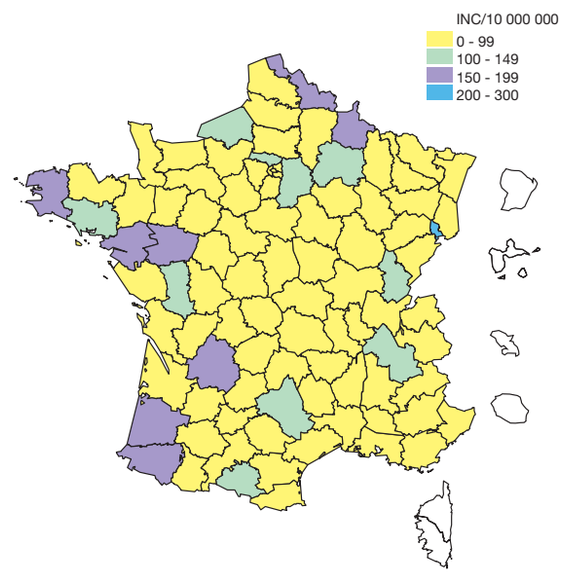
Number of deaths and case fatality rate per age groups, France 2000

Age group	Death	CFR
< 1	19	0.19
1-4	8	0.08
5-9	2	0.06
10-14	5	0.13
15-19	6	0.10
20-24	2	0.04
25-44	1	0.02
45-64	7	0.18
65 +	9	0.32
Total	59	0.12

More frequent serogroup, France 2000

Serogroup	Cases	%	Inc. Rate	CFR
B	297	65.1	0.51	9.4
C	104	22.8	0.18	16.3
W135	37	8.1	0.06	24.3

Regional inc. rate of meningococcal disease in France in 2000



Clusters of meningococcal disease in France,1989-2000

Year	Clusters	Secondary cases		Co-primary cases	
	n	n	(%)	n	(%)
1988	20	21	(4,8)	7	(1,6)
1989	15	15	(3,6)	2	(0,5)
1990	7	7	(2,0)	0	(0,0)
1991	7	4	(1,0)	3	(0,8)
1992	5	4	(1,0)	1	(0,3)
1993	7	10	(2,6)	3	(0,8)
1994	5	6	(1,9)	0	(0,0)
1995	5	5	(1,7)	1	(0,3)
1996	4	4	(1,4)	0	(0,0)
1997	5	5	(1,6)	0	(0,0)
1998	6	7	(1,8)	1	(0,2)
1999	7	4	(0,9)	3	(0,7)
2000	9	8	(1.6)	1	(0.1)

Secondary cases : 24 hours to 6 months after index case
Co-primary cases : less than 24 hours after index case

♦ Description of specific clusters

- Cluster of 3 cases, 2 deaths, serogroup C same college 11-15 years scholl children. Rifampicin and C vaccination for all school children.
- Cluster of 4 cases, serogroup B, among muslim community in two suburbs of a small town. Rifampicin for all residents of the two affected suburbs, 3000 inhabitants.
- Hyper-endemic situation in the department of Loire Atlantique, 21 cases reported in 1 135 000 population annually in 1999 and 2000. Serogroup B ST-5 predominant.

Main recent characterisitcs of meningococcal disease in France in 2000

- Incidence rate around 1 / 100 000 population. Steady increase in incidence from 1996 to 2000 of ≈ 13% / year.
- France belong to countries with low incidence rate.
- 40% of cases occurred among 0-4 years population.
- Serogroup B predominant ≈ 60-70%.
- Serogroup C stable ≈ 20-30%.
- Increase in serogroup W135 partly due to the W135 outbreak associated with Hajj.

Prospectives

- New case definition for reporting in 2001 to include clinical cases of MD.
- Monitoring of serogroup C incidence per region in the perspective of marketting of C conjugate vaccine.

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