

# **Outbreaks of C Meningococcal Disease in France Implications for Vaccination Policy**

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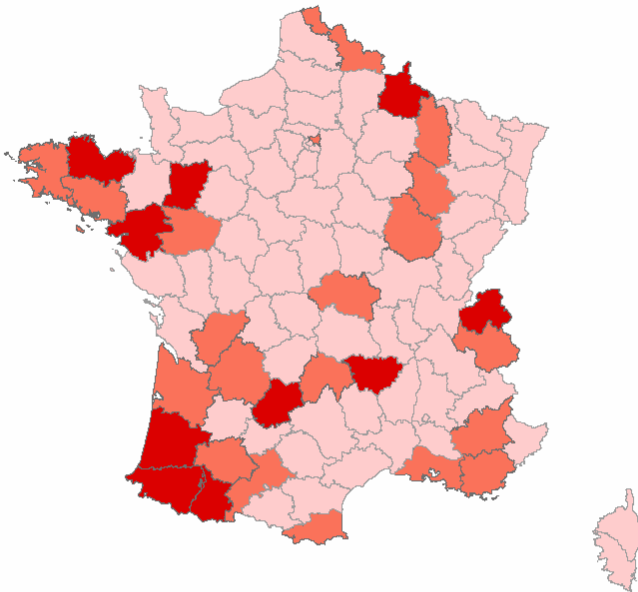
**on behalf of the InVS surveillance team for  
meningococcal disease**

# Surveillance of Meningococcal Disease in France

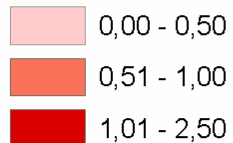
- **Mandatory notifications**
- **Case definition**
  - **Before july 2002 : *N.m* strain isolated from blood or CSF**
  - **Since july : clinical cases added**
    - **Waterhouse-Friderichsen syndrome**
    - **purulent meningitis + positive PCR**
    - **purulent meningitis + petechies**
    - **purulent meningitis + positive latex**

# Current Epidemiology of CMD in France

## IR by department CMD 2002



### Taux d'incidence



- Steady rise since 2001

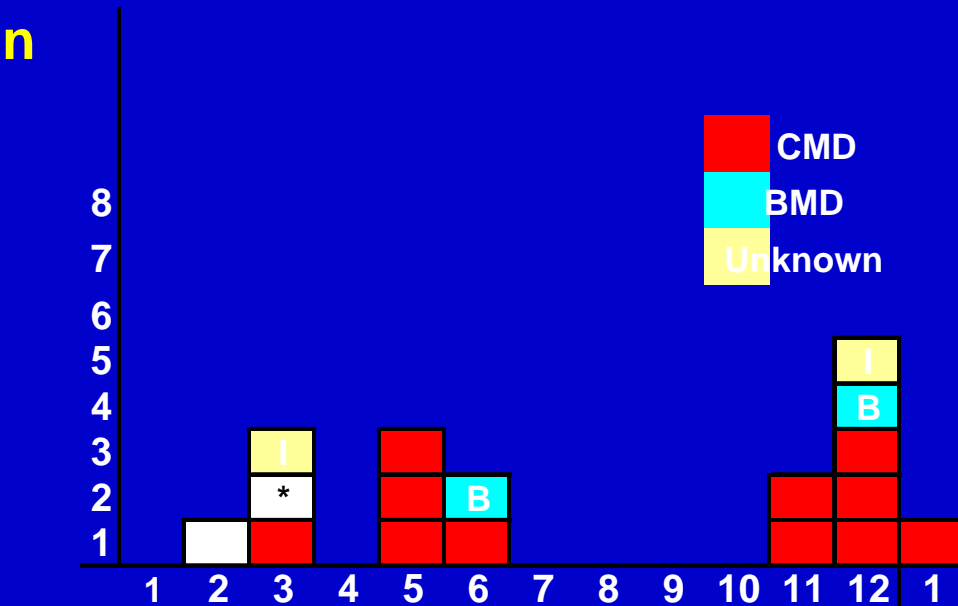
	All MD IR	CMD IR	% C
2000	1.10	0.23	23%
2001	1.29	0.40	35%
2002	1.52	0.56	42%

- Variations by department
- Clinical characteristics in 2002
  - Case Fatality ratio: 18%
  - Waterhouse-Friderichsen syndrome : 35%
  - Cases under 5 years: 37%

# Puy de Dome - Dec 2001

pop : 604300, n = 11

MD incidence in Puy de Dome in 2001



- Rapid rise in CMD cases
- IR CMD 2001
  - Department : 1.7
  - Clermont Ferrand city : 5.1
- 2 clonal complexes
- CFR : 27%
- Waterhouse-Friderichsen syndrome : 64%
- Cases under 5 y : 55%

## Puy de Dome

# Vaccination campaign: 16 Jan– 9 Feb 2002

- **Population targetted : 80 000**
  - **Children 2 months up to 20 years**  
living or studying in the area including all CMD cases
  - **Adults 20-24 years old if living in dormitories or in close communities or working with children**
- **Conjugate meningococcal vaccine free of charge**
- **Mass media information**
- **Vaccine delivered in schools, day care centers, child health clinics , private practices**
- **Active pharmaco-vigilance procedures**

# Puy-de-Dome

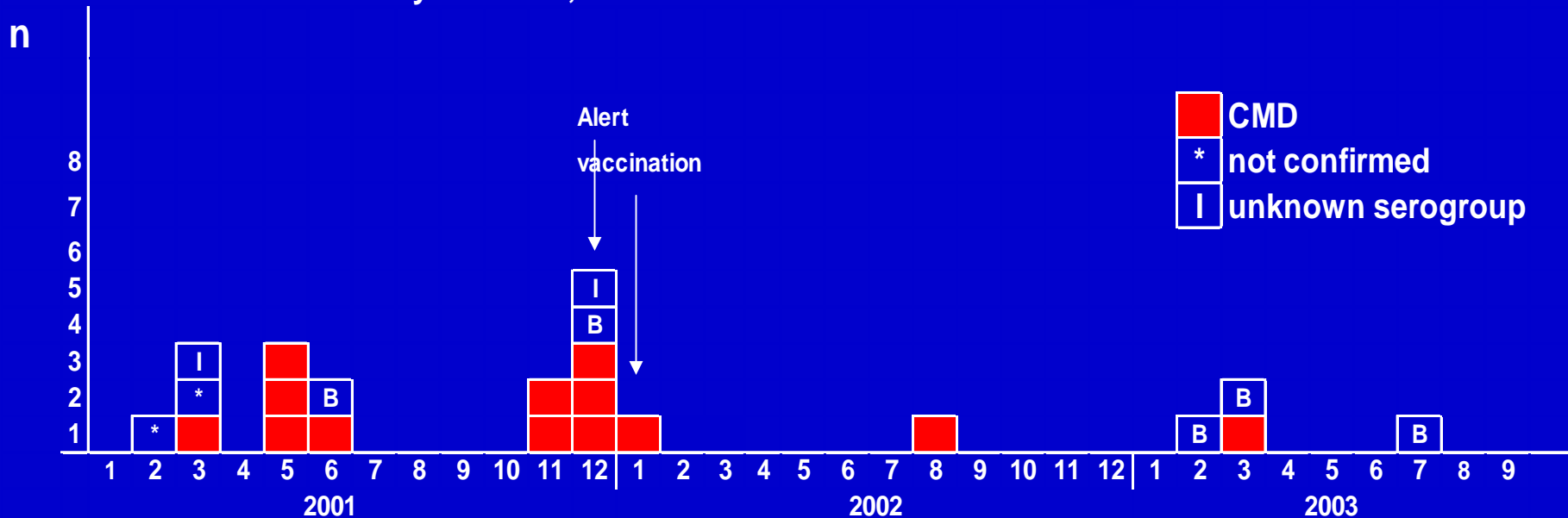
## Impact of the vaccination campaign

- Vaccine coverage

2 months-20 years living or studying in the zone : 73%

- Epidemiological impact

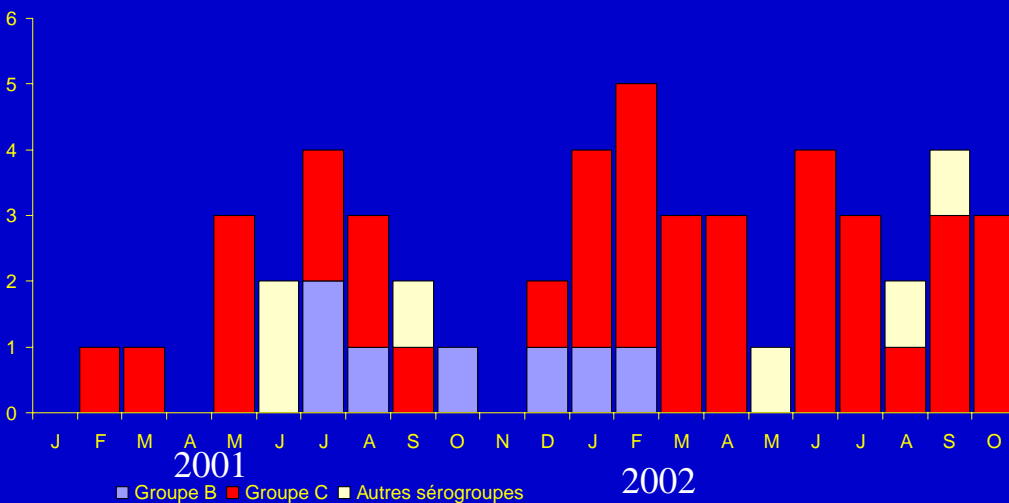
MD Puy de Dome, 2001-2003



# South West - Oct 2002

pop : 1 149 700, n = 25

## MD incidence in South West 2001 and 2002



- **Global IR : 2.2/100 000**
  - Landes : 1.8
  - Pyrénées Atlantiques : 2.0
  - Hautes Pyrénées : 3.1
- **ET37 clonal complex**
- **CFR : 20%**
- **Waterhouse-Friderichsen syndrome : 56%**
- **Children under 5 y: 32%**

## South West

# Vaccination campaign 21 Oct–21 Dec 2002

- **Population targetted : 315 000**
  - Same as in Puy de Dome
  - All 3 districts
- **Vaccine**
  - Exclusively Conjugate Vaccine for below 2 years
  - Conjugate vaccine recommended 2-6 years
  - After 6 years choice to use Polysaccharidic or conjugate vaccine
- **Parents information through mail using social security registers**
- **Mainly private practice**
- **Active pharmaco-vigilance procedures**



# South West

## Impact of the vaccination campaign

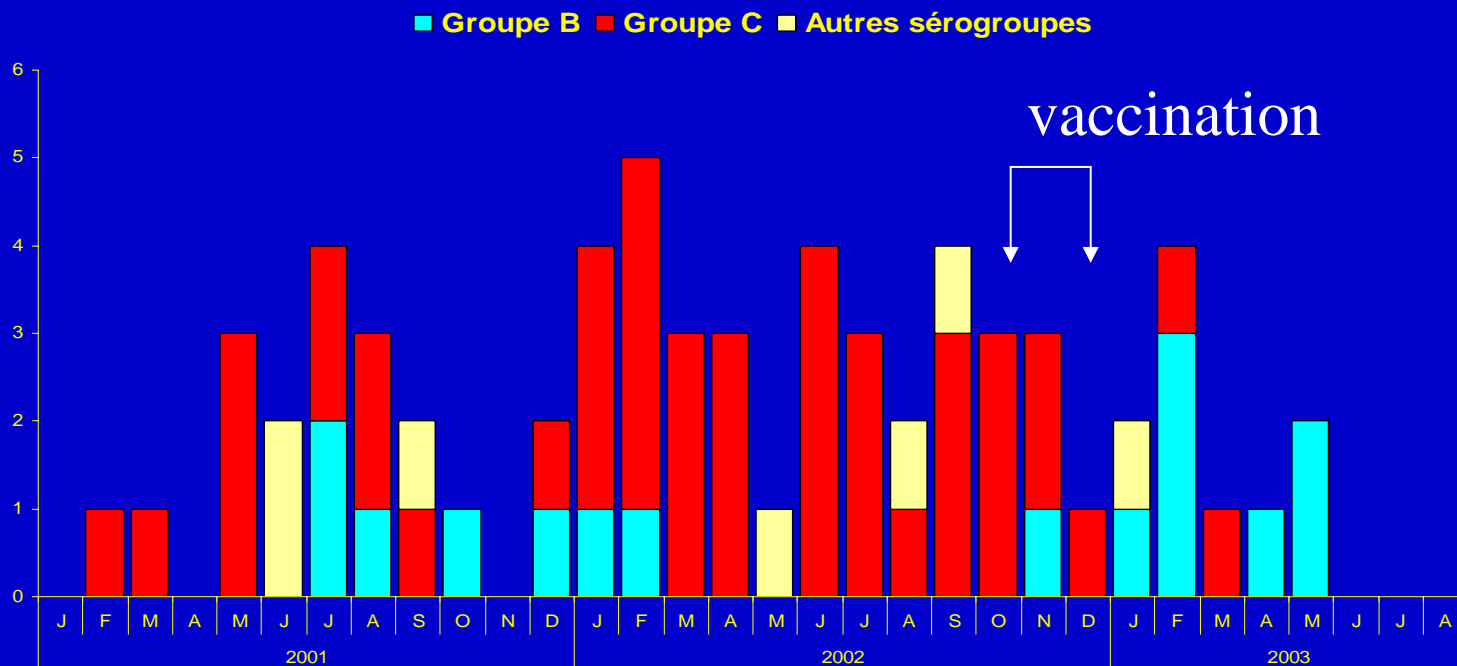
### • Vaccine coverage school children

Hautes Pyrenées : 87% [83-90]

Pyrénées Atlantiques : 79% [74 - 83]

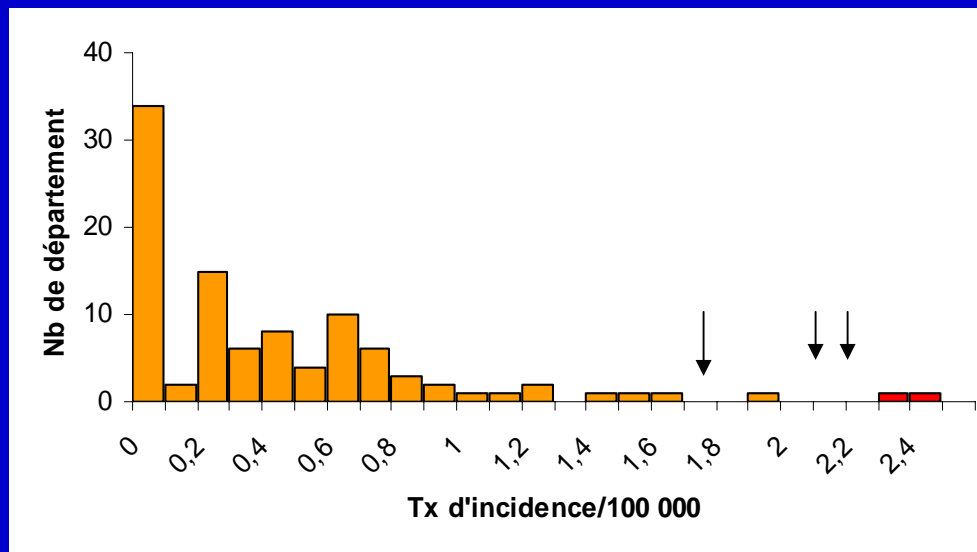
Landes : 87% [84 - 91]

### • Epidemiological impact :



# National recommendations following the 2 vaccination campaigns

- Enhanced surveillance for CMD
- Weekly analysis
- Alert threshold :
  - at least 5 cases in last 52 weeks
  - IR of at least 2/100 000 in last 52 weeks



# Aknowledgments

- **Cire Aquitaine and Cire Midi-Pyrénées :**  
**Charles Hemery, Valérie Schoewbel, Martine Charron**
- **CNRM :** Jean-Michel Alonso, Muhamed Taha
- **DDASS Puy de Dome and DDASS South West :** all public health doctors
- **DGS :** Paule Deutsch, Vincent Pierre, Isabelle Quatresous, Thanh le Luong
- **InVS :** Daniel Levy-Bruhl, Isabelle Bonmarin, Dounia Bitar