

Journées Régionales de Pathologies Infectieuses

Les infections à mycoplasme sont-elles plus graves qu'avant ?



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CHU de Lille





Une épidémie attendue ?

Une épidémie attendue ?

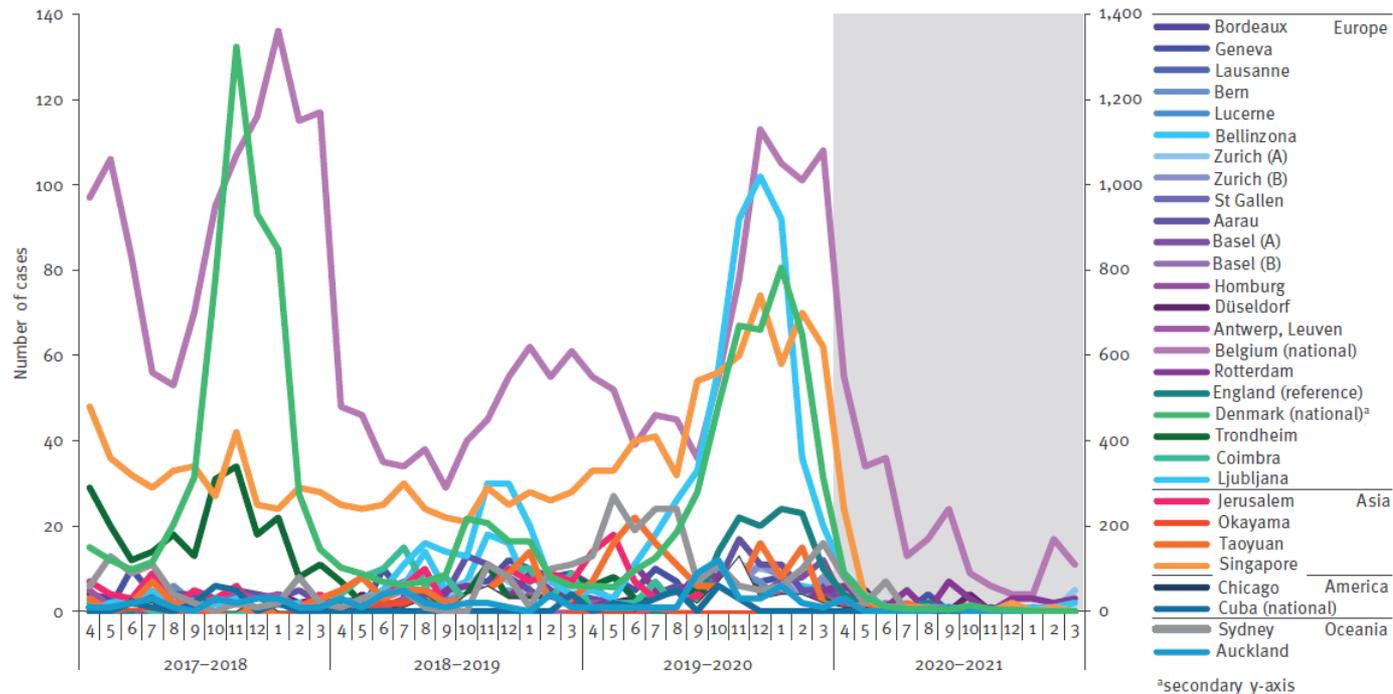
RESEARCH

Mycoplasma pneumoniae detections before and during the COVID-19 pandemic: results of a global survey, 2017 to 2021



Patrick M Meyer Sauteur¹, Michael L Beeton², Søren A Uldum³, Nathalie Bossuyt⁴, Melissa Vermeulen⁴, Katherine Loens⁵, Sabine Pereyre⁶, Cécile Bébéar⁶, Darja Keše⁷, Jessica Day⁸, Baharak Afshar⁸, Victoria J Chalker⁸, Gilbert Greub⁹, Ran Nir-Paz^{10,11}, Roger Dumke¹², ESGMAC–MyCOVID Study Team¹³

A. Direct test methods (PCR, antigen test or culture)



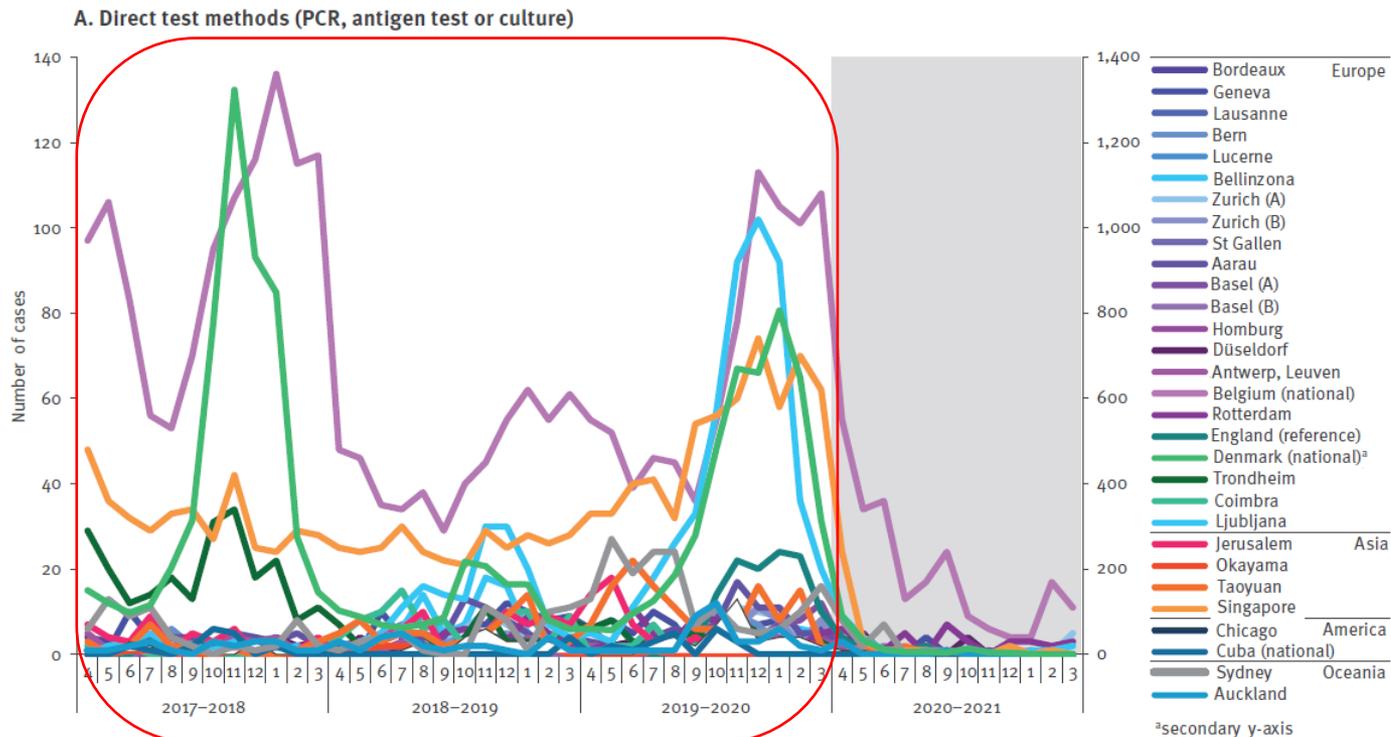
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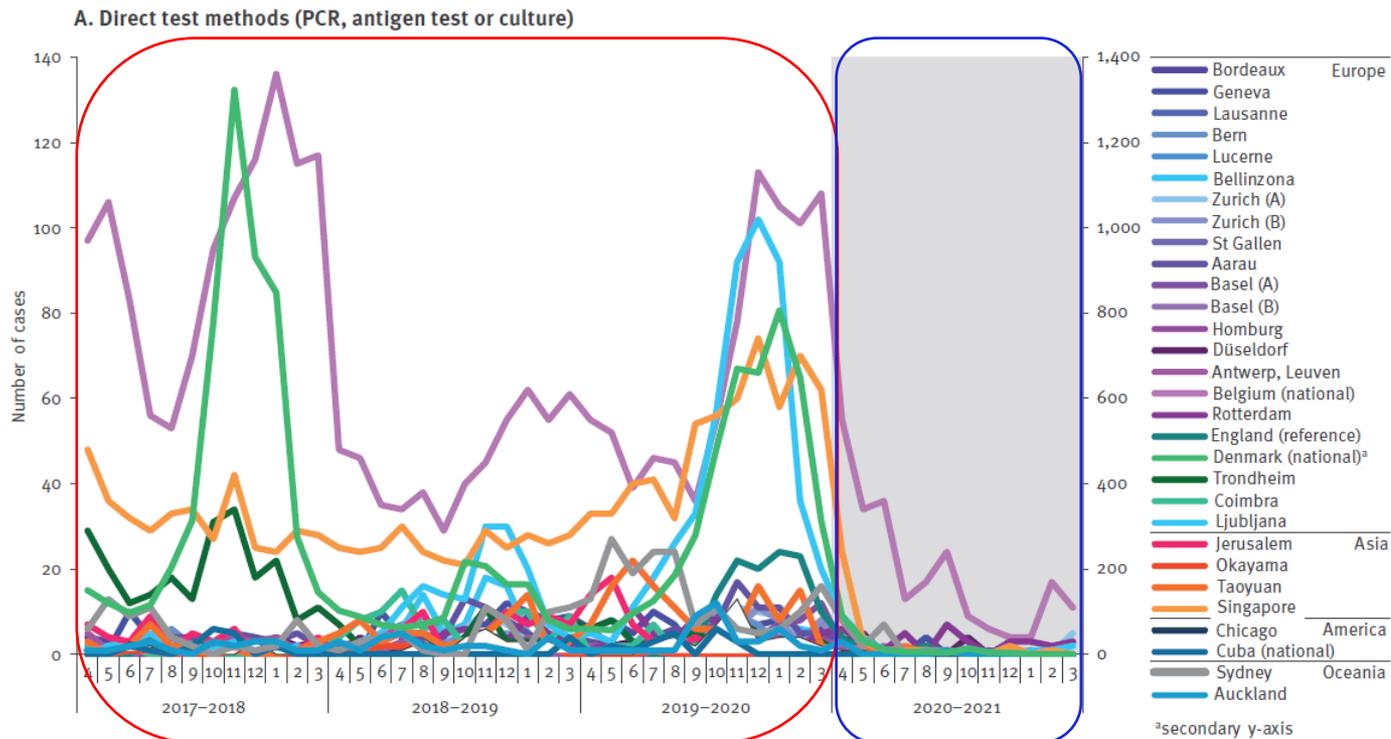
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Une épidémie attendue ?

Mycoplasma pneumoniae
beyond the COVID-19
pandemic: where is it?

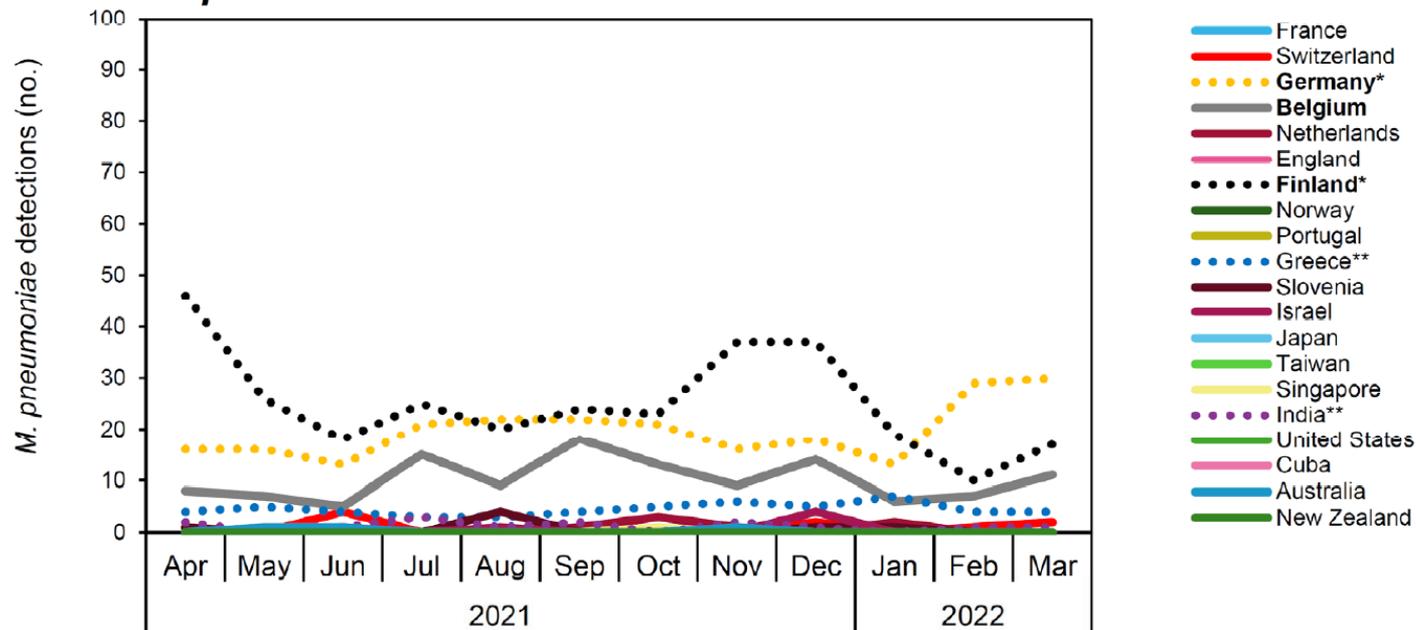
Correspondence

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patrick.meyersauter@kispi.uzh.ch



B

M. pneumoniae detection

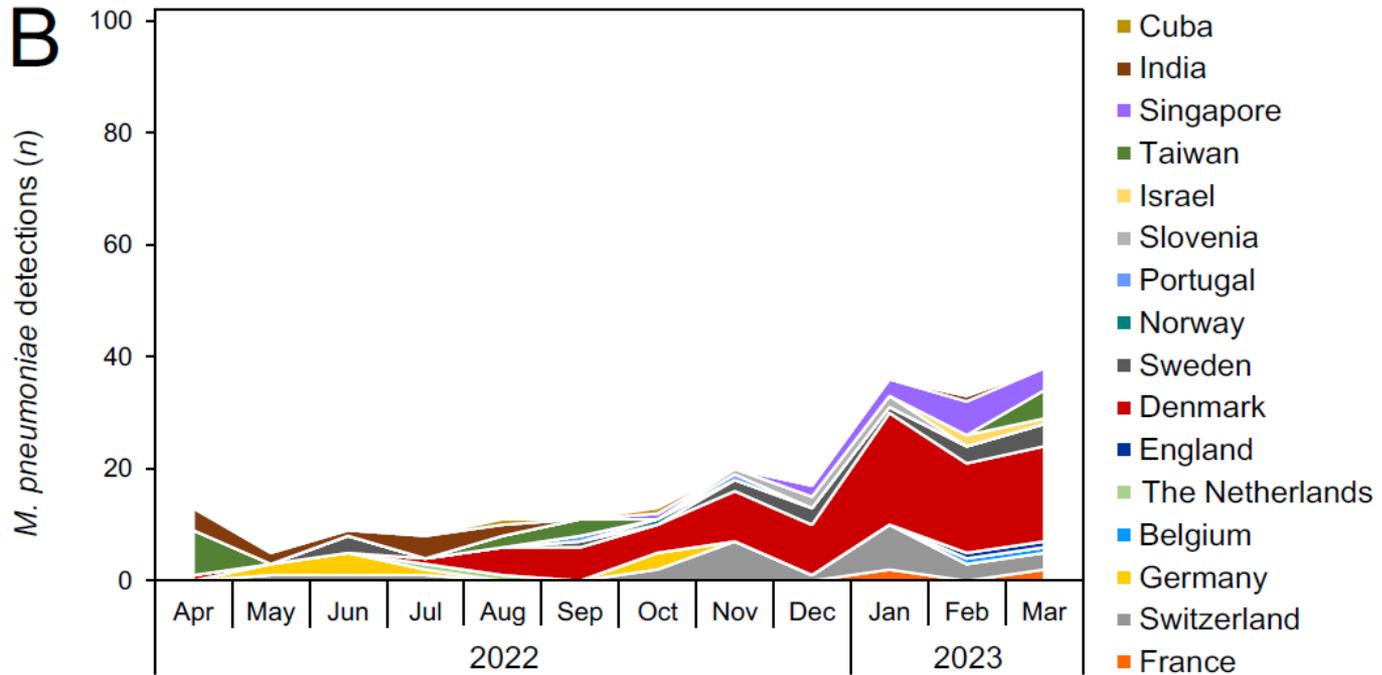


Une épidémie attendue ?

Mycoplasma pneumoniae: gone forever?

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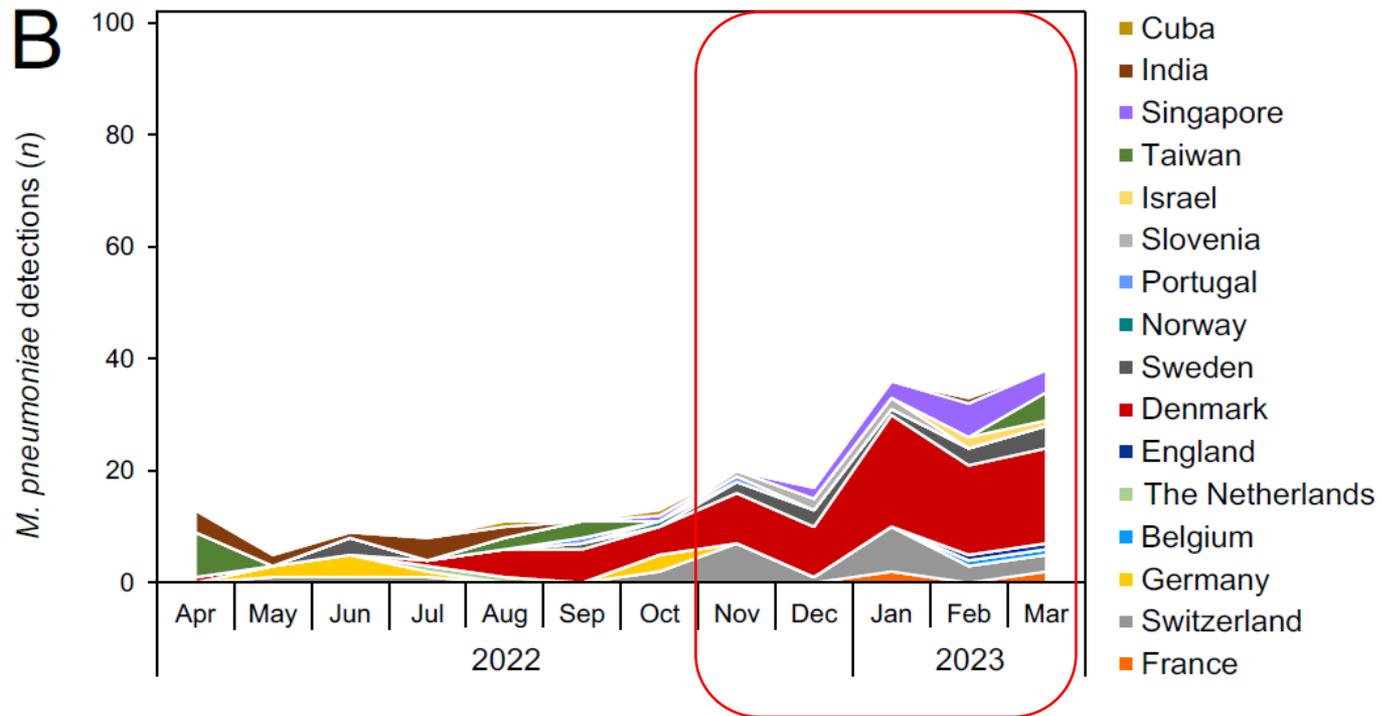


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Une épidémie attendue ?

Mycoplasma pneumoniae: gone forever?

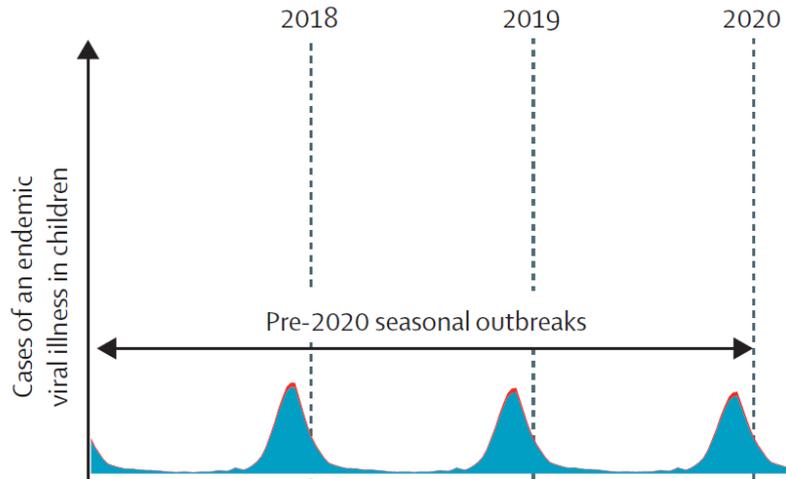
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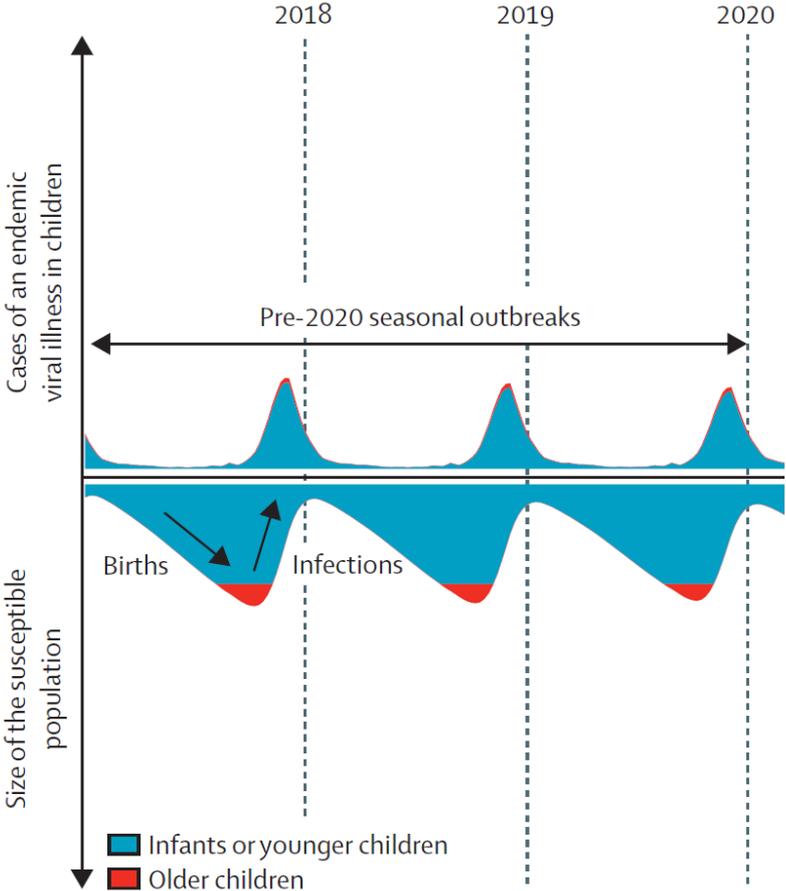


If *M pneumoniae* infections resurge, they might affect the world population,^{4,5} which has not been exposed to *M pneumoniae* for the past 3 years, and result in an increase in rare severe disease and extrapulmonary manifestations.² Our continuous

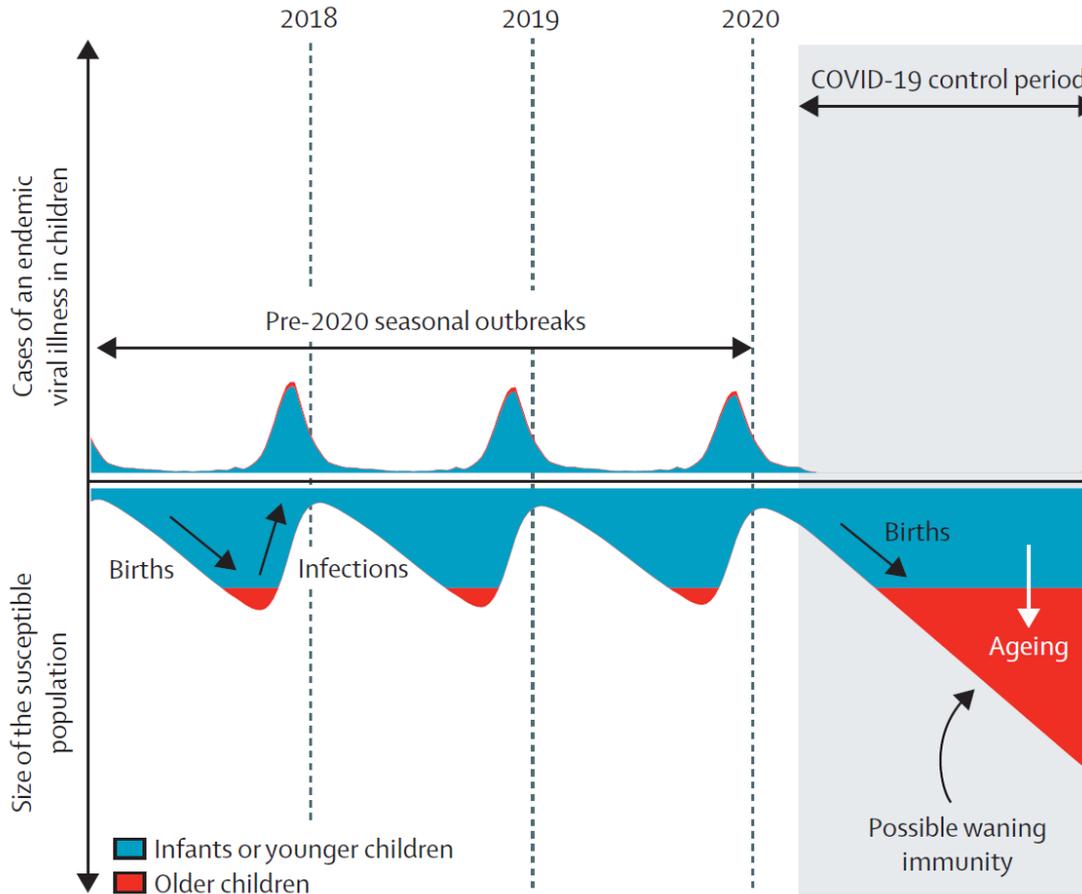
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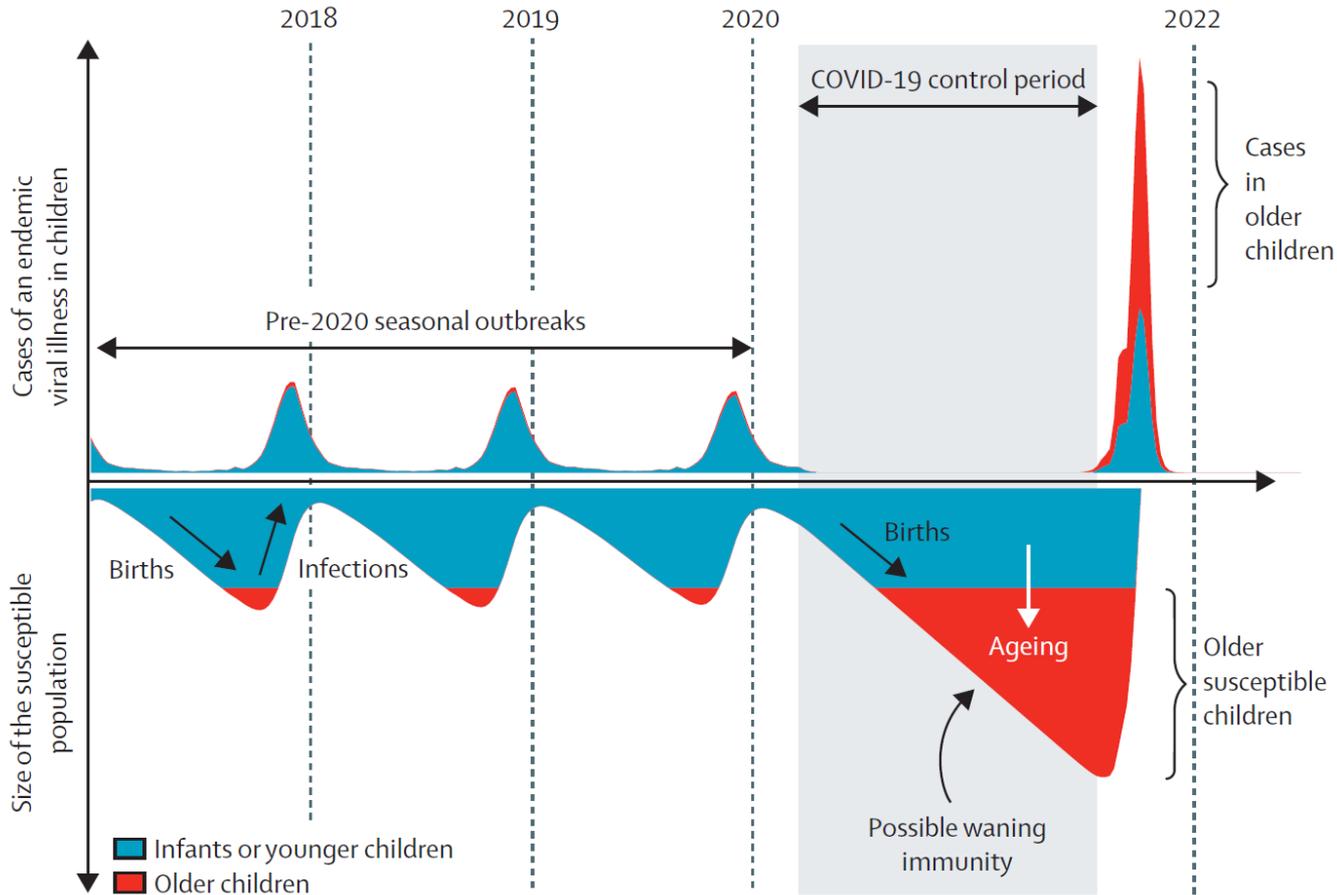
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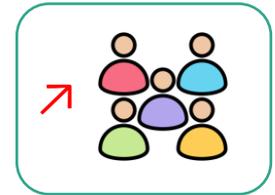
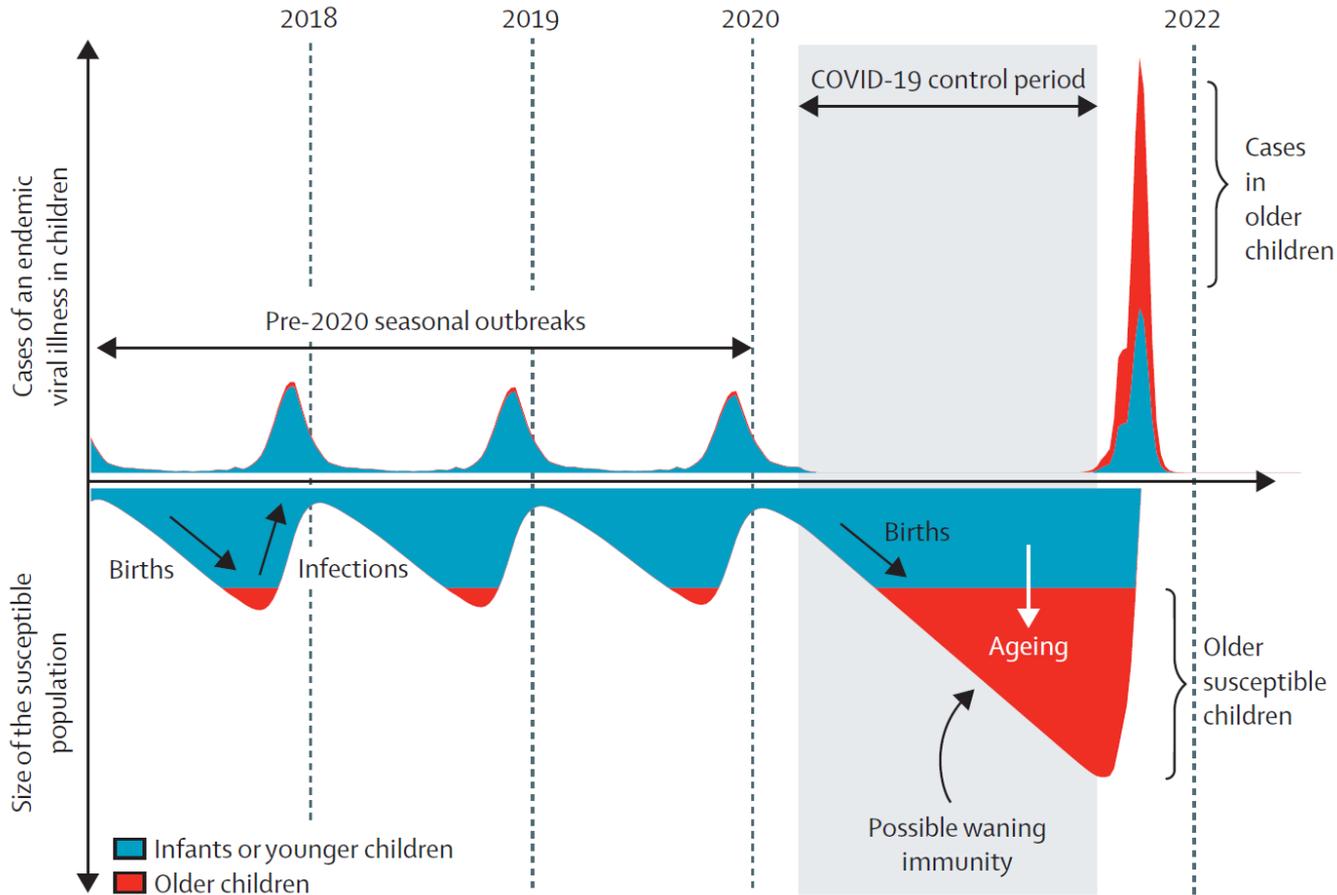
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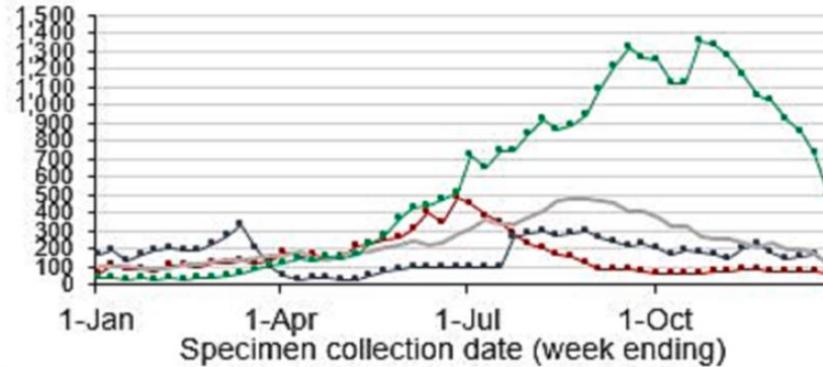
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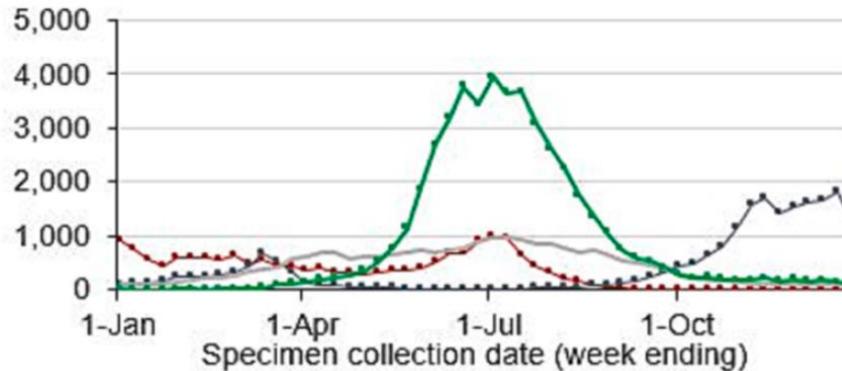
Une épidémie attendue ?



Adenovirus



RSV

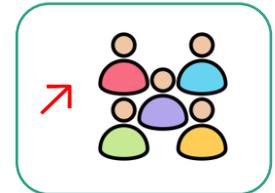


—●— 2022

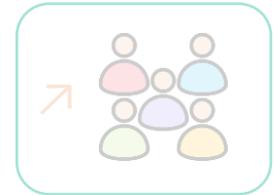
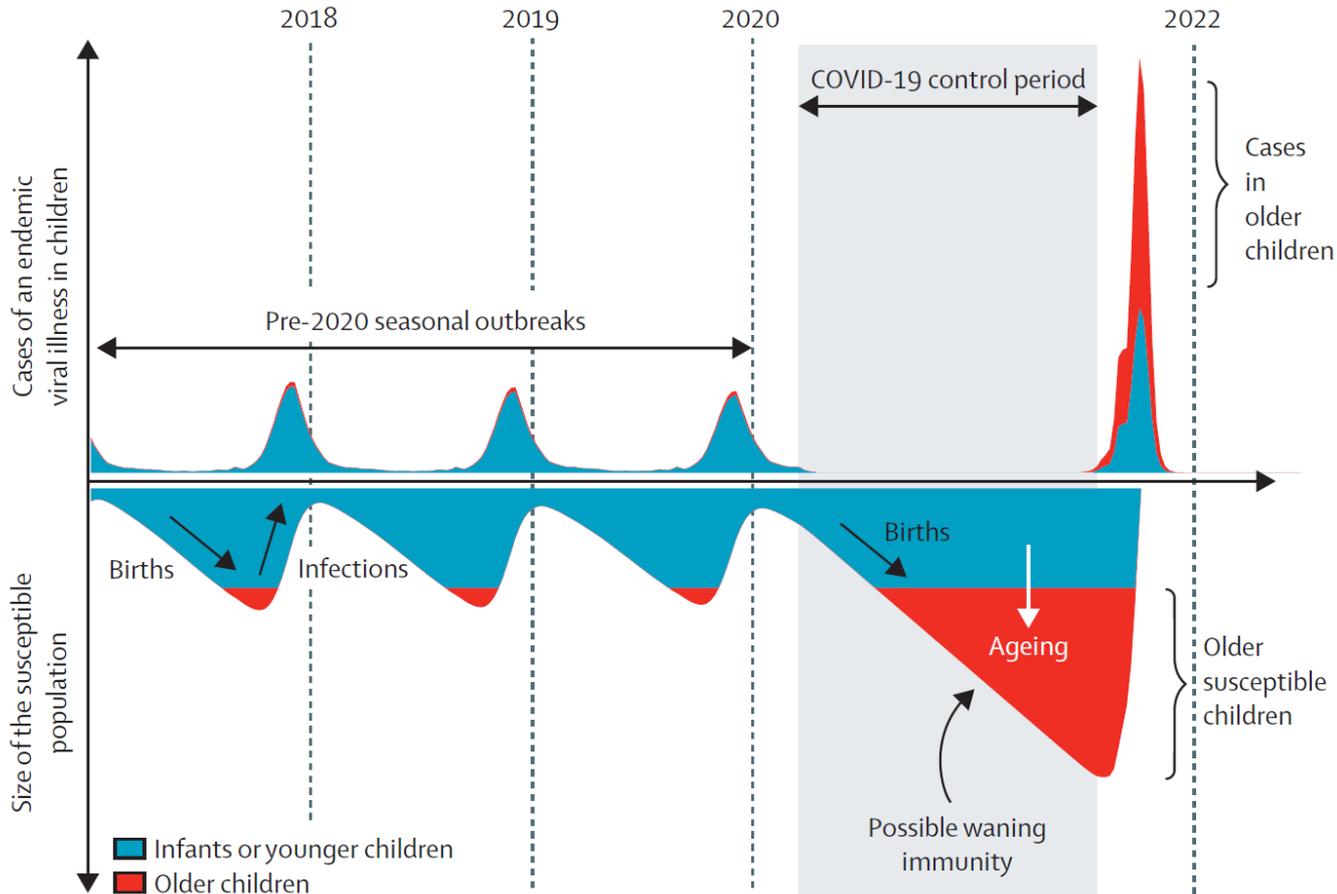
—●— 2021

—●— 2020

— Average 2016–2019



Une épidémie attendue ?



Une épidémie attendue ?

Case Reports

Fulminant *Mycoplasma pneumoniae* Infection

Report of a fatal case, and a review of the literature¹⁻²

RICHARD J. KOLETSKY and ALLAN J. WEINSTEIN



Patiente 30 ans



Décès < 24h



Atteinte
multiviscérale



Une épidémie attendue ?

Case Reports

Fulminant *Mycoplasma pneumoniae* Infection

Report of a fatal case, and a review of the literature¹⁻²



RICHARD J. KOLETSKY and ALLAN J. WEINSTEIN

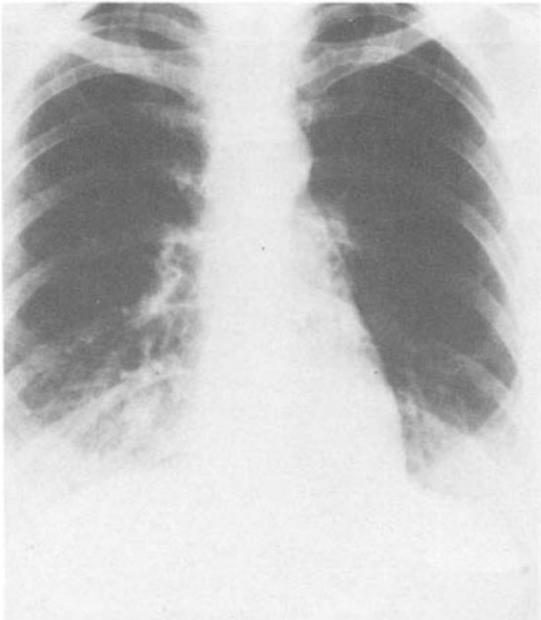


Fig. 1. Normal chest film on hospital admission.

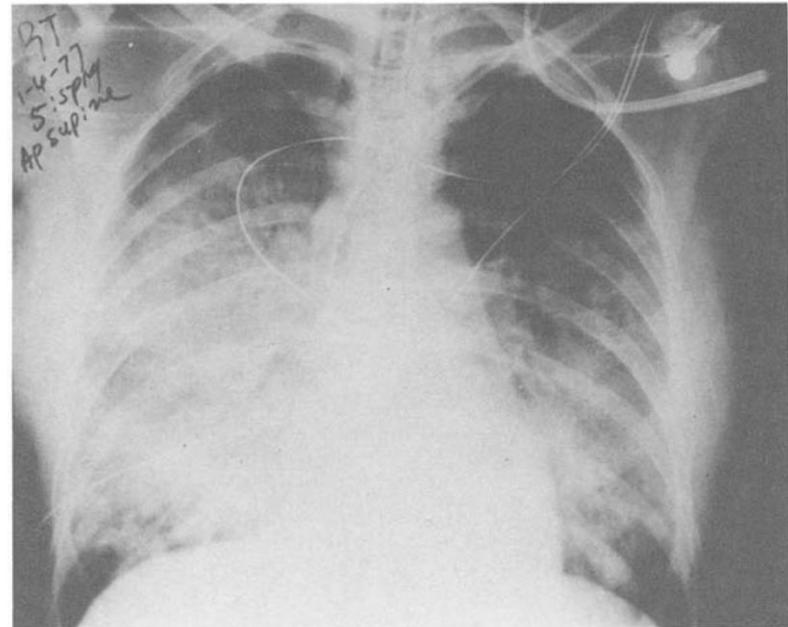


Fig. 2. Chest film, taken 20 h after admission, demonstrating massive bilateral pneumonia.



Retour sur l'épidémie

Retour sur l'épidémie



WEEKLY BULLETIN

Communicable Disease Threats Report

5. Increase in respiratory infections due to *Mycoplasma pneumoniae* in the EU/EEA during the 2023/2024 season

<https://www.ecdc.europa.eu/sites/default/files/documents/communicable-disease-threats-report-week-49-2023.pdf>

Retour sur l'épidémie

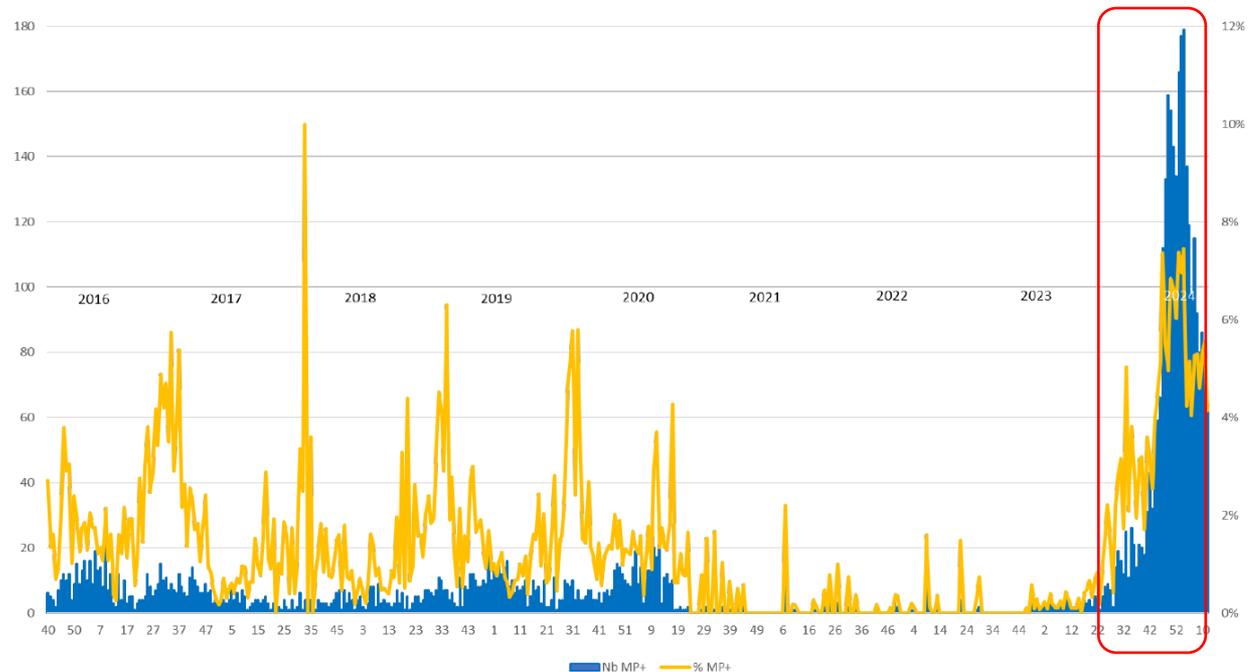


France

Automne 2015
Printemps 2024

Données
hospitalières

Figure 4. Nombre et taux hebdomadaire de détection par PCR de *Mycoplasma pneumoniae* tous âges confondus, semaines 40/2015 à 12/2024, réseau de laboratoires hospitaliers RENAL



Retour sur l'épidémie

France
78 centres
1311 sujets
adultes

Sept 2023 – Fev 2024

Hospitalisations \geq 24h



MYCAD 

infections à **MYC**oplasme chez les **AD**ultes **hO**spitalisés

Retour sur l'épidémie

France
78 centres
1311 sujets
adultes

Sept 2023 – Fev 2024

Hospitalisations \geq 24h



	TOTAL (n=1311)	NON-SEVERE FORM (n=887)	SEVERE FORM (n=424)	P
Age, mediane, IQR	43 [31-63]	42 [32-61]	45.5 [32-65]	0,048
Sexe masculin, n, %	719 (55)	254 (59)	465 (52)	0,01
Tabac actif, n, %	262 (19,9)	165 (18,6)	97 (22,9)	0,07
Comorbidités respiratoires				
BPCO, n, %	84 (6,4)	47 (5,3)	37 (8,7)	0,018
Asthme, n, %	141 (10,7)	92 (10,3)	49 (11,6)	0,5
Pneumonie interstitielle diffuse, n, %	12 (0,9)	8 (0,9)	4 (0,9)	0,9
Comorbidités cardio-vasculaires				
HTA, n, %	264 (20,1)	153 (17,3)	111 (26,2)	< 0,001
Diabète, n, %	108 (8,2)	64 (7,2)	44 (10,4)	0,051
Obésité BMI \geq 30, n, %	182 (13,9)	101 (11,4)	81 (19,1)	< 0,001
Ins cardiaque chronique, n, %	39 (3)	27 (3)	12 (2,8)	0,83
Alcoolisme, n, %	33 (2,5)	15 (1,7)	18 (4,3)	0,006
Hépatopathie chronique, n, %	23 (1,7)	7 (0,7)	16 (3,8)	< 0,001
Ins rénale chronique, n, %	21 (1,6)	12 (1,4)	9 (2,1)	0,29
Immunodépression				
VIH, n, %	6 (0,5)	6 (0,7)	0 (0)	0,09
Néoplasie solide active, n, %	38 (2,9)	25 (2,8)	13 (3,1)	0,80
Hémopathie active, n, %	50 (3,8)	35 (4)	15 (3,5)	0,71
Transplantation d'organe solide, n, %	11 (0,8)	8 (0,9)	3 (0,7)	0,72

Retour sur l'épidémie

France
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adultes

Sept 2023 – Fev 2024

Hospitalisations \geq 24h



>20% de patients avec manifestations extra-respiratoires



Anémie hémolytique auto-immune

n=44 (3.4%)

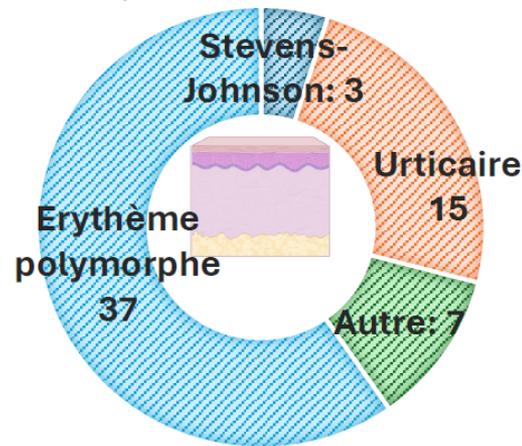


Myocardites
n=17 (1.3%)

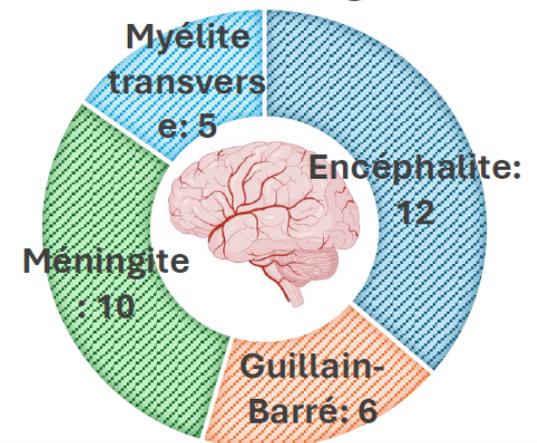


Arthrites
n=6 (0.5%)

4,5 % cutaneous



2,4 % neurological



Retour sur l'épidémie

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Sept 2023 – Fev 2024

Hospitalisations \geq 24h



Transfert en soins intensifs : 31.6% (n=415)

- 15,4% Ventilation mécanique invasive
- 21,2% Ventilation non-invasive
- 48,7% Optiflow

% effectif total

4,9%

6,7%

15,4%

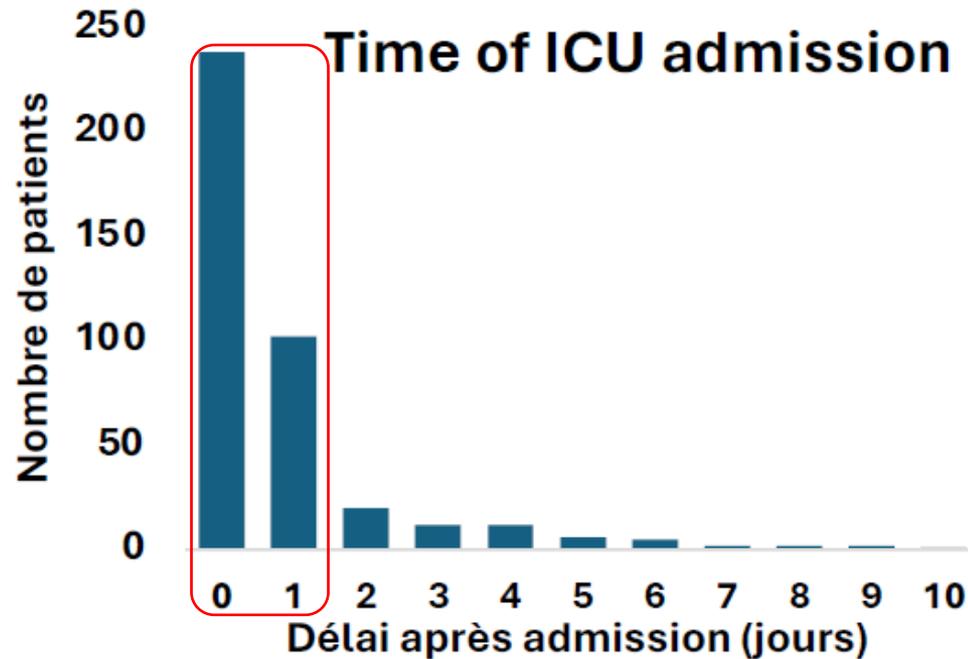
27%

Retour sur l'épidémie

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Sept 2023 – Fev 2024

Hospitalisations $\geq 24h$

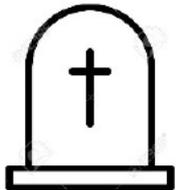


Retour sur l'épidémie

France
78 centres
1311 sujets
adultes

Sept 2023 – Fev 2024

Hospitalisations \geq 24h



Mortalité intra-hospitalière: 2,14% (28/1311)
dont 71% attribuable à l'infection Mp d'après le clinicien

Retour sur l'épidémie

Pays-Bas
2 centres
17 sujets

2023 – 2024

Admissions réa



Table 1. Characteristics of *Mycoplasma pneumoniae*-infected patients admitted to the intensive care unit.

	Total
Age (years) [median (IQR)]	44.0 (29.0 to 62.0)
Sex (female)	3 (17.6)
BMI (kg/m ²) median (IQR)	26.3 (22.4 to 28.5)
Cardiovascular disease	4 (23.5)
Preexisting respiratory disease (COPD, etc.)	2 (11.8)
Chronic renal insufficiency	1 (5.9)
Neurological disorder	1 (5.9)
Malignancy	1 (5.9)
Diabetes Mellitus	2 (11.8)
Auto-immune disease	2 (11.8)
Immune suppression	1 (5.9)
Smoking (current or previous)	6 (35.3)
Harddrugs use	2 (11.8)
Hypoxia as the reason for ICU admission	14 (82.4)
Hemodynamic instability as a reason for ICU admission	3 (17.6)

Retour sur l'épidémie

Pays-Bas
2 centres
17 sujets

2023 – 2024

Admissions réa



	Total
APACHE score on admission [median (IQR)]	45.0 (37.0 to 52.0)
SAPS II on admission median (IQR)	21.0 (18.0 to 24.0)
Leukocyte on admission ($\times 10^9/L$) median (IQR)	11.3 (9.2 to 17.1)
CRP (mg/L) on presentation median (IQR)	169 (102 to 304)
Non-invasive ventilation including high flow	13 (76.5)
Duration of non-invasive ventilation (hours/days) median (IQR) *	72 (24–108) 3 (1–4.5)
Invasive mechanical ventilation (IMV)	5 (29.4)

Data were presented as numbers and percentages or indicated otherwise. IQR: interquartile range. Data were available for n patients: *: 13 patients, †: 5 patients, ‡: 7 patients, §: 5 patients, ¶: 4 patients, **: 14 patients, ††: 6 patients. None received renal replacement therapy. Mortality was 0% in this retrospective cohort.

Retour sur l'épidémie

Pays-Bas
2 centres
17 sujets

2023 – 2024

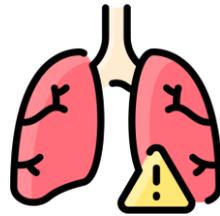
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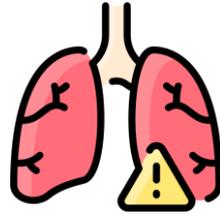
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Retour sur l'épidémie



**Défaillance
respiratoire**

Retour sur l'épidémie

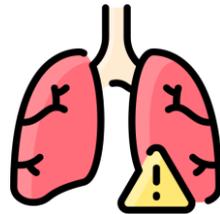


Défaillance
respiratoire



Réa → 30%
Intubation → 5%

Retour sur l'épidémie



Défaillance
respiratoire



Réa → 30%
Intubation → 5%

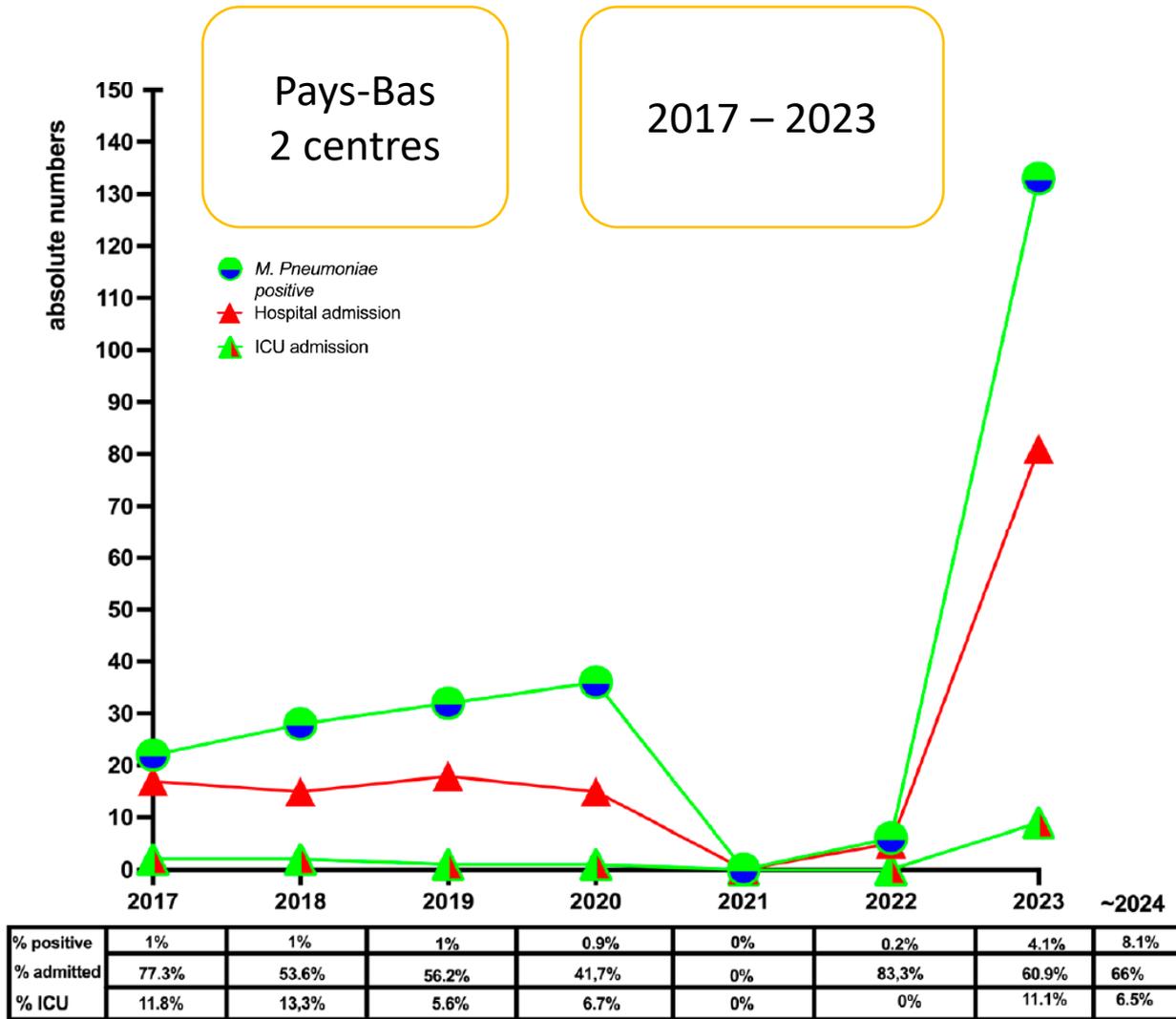


Guérison

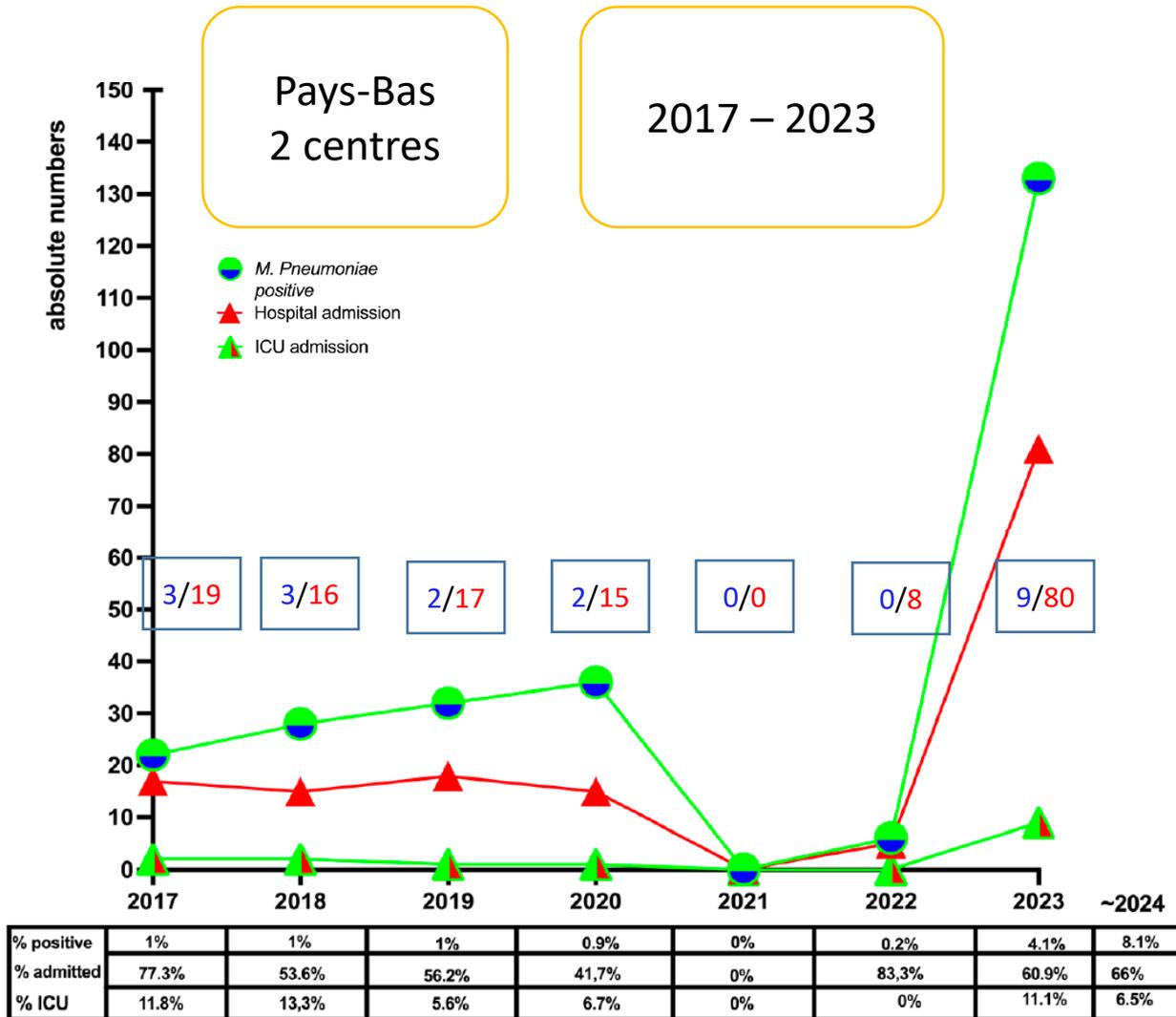


C'était mieux avant ?

C'était mieux avant ?



C'était mieux avant ?



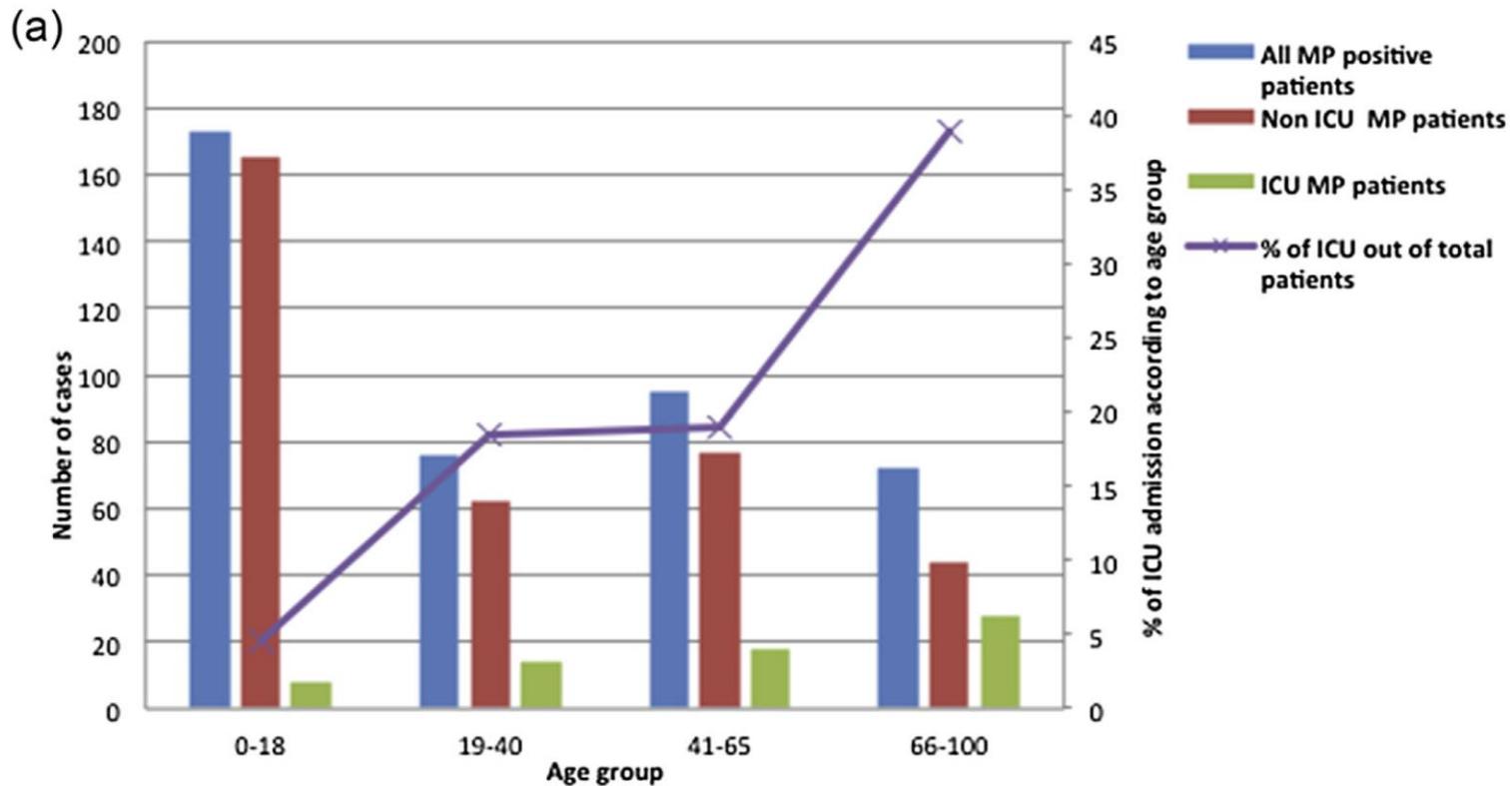
Admissions réa/
hospitalisations

C'était mieux avant ?

Israël
Jérusalem

2007 – 2012

Tests positifs = 416
Hospitalisations = 334
Admissions réa = 68

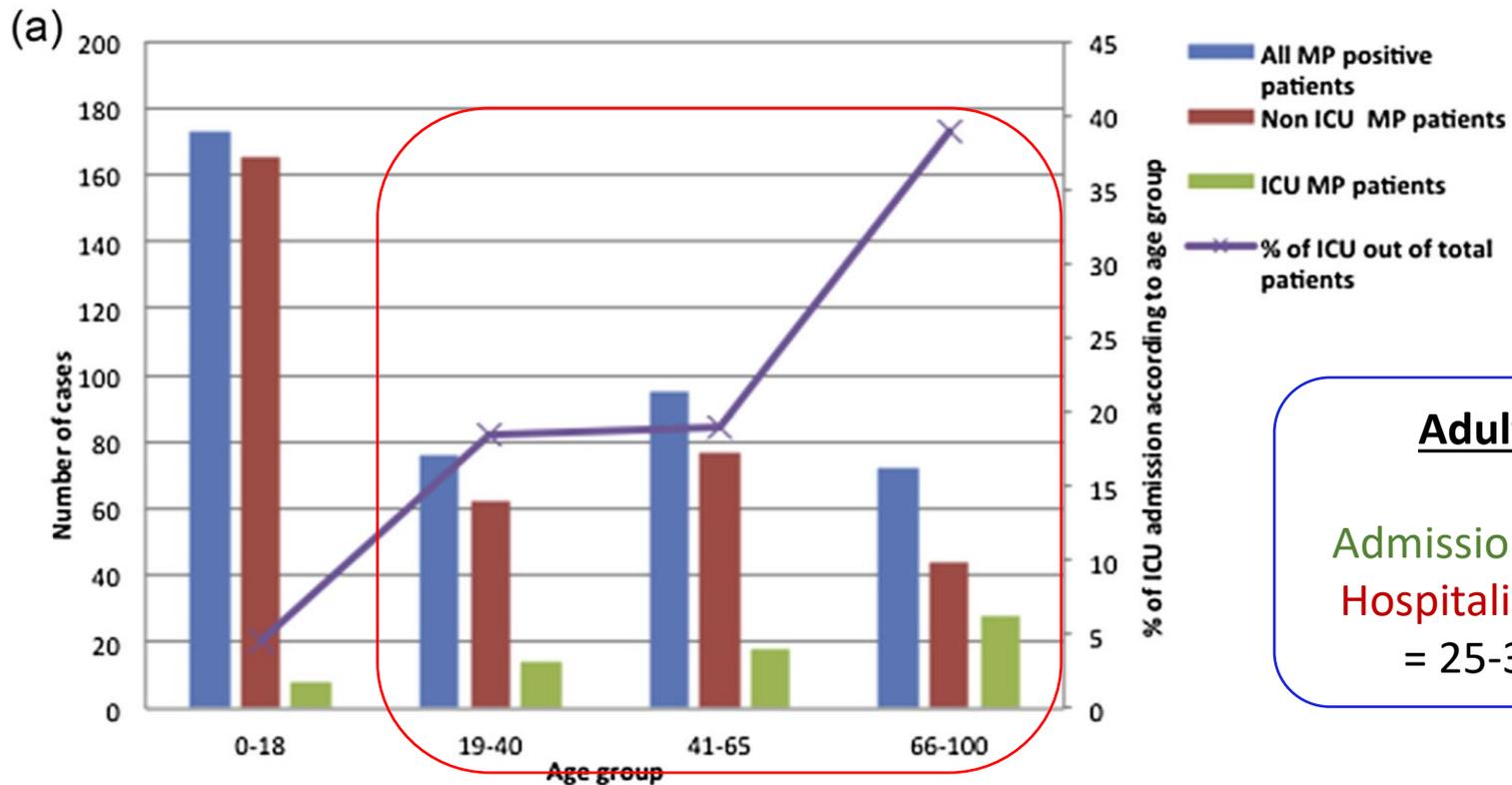


C'était mieux avant ?

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Adultes

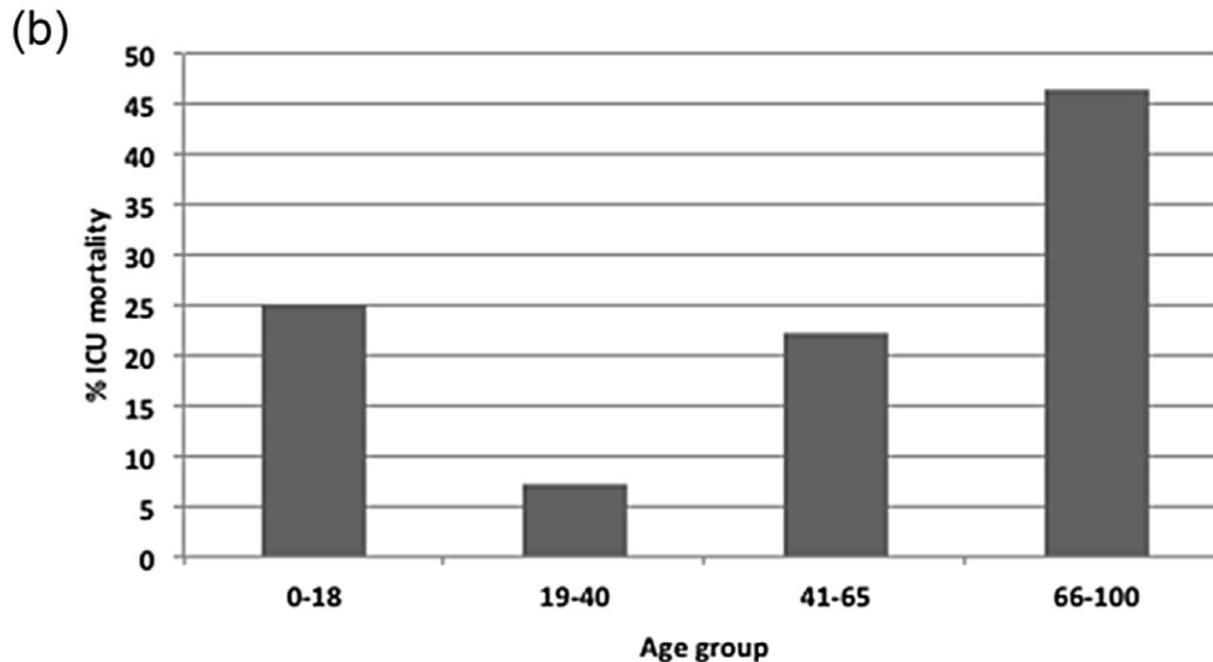
Admissions réa /
Hospitalisations
= 25-30%

C'était mieux avant ?

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Jérusalem

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Hospitalisations = 334
Admissions réa = 68



Mortalité

Réa = 30%
Hospit = 6%
Tests positifs = 5%

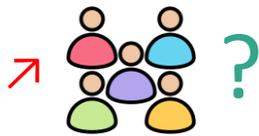


Que retenir ?

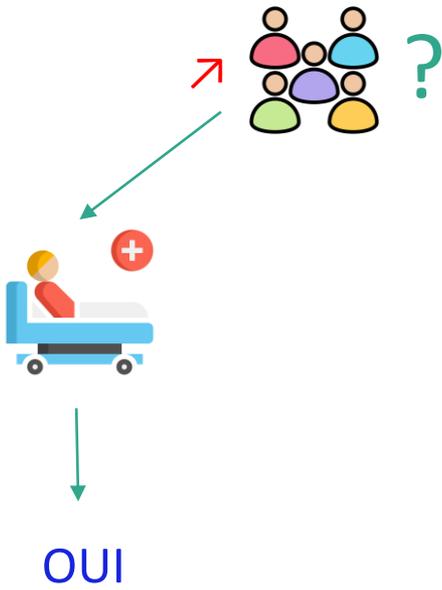
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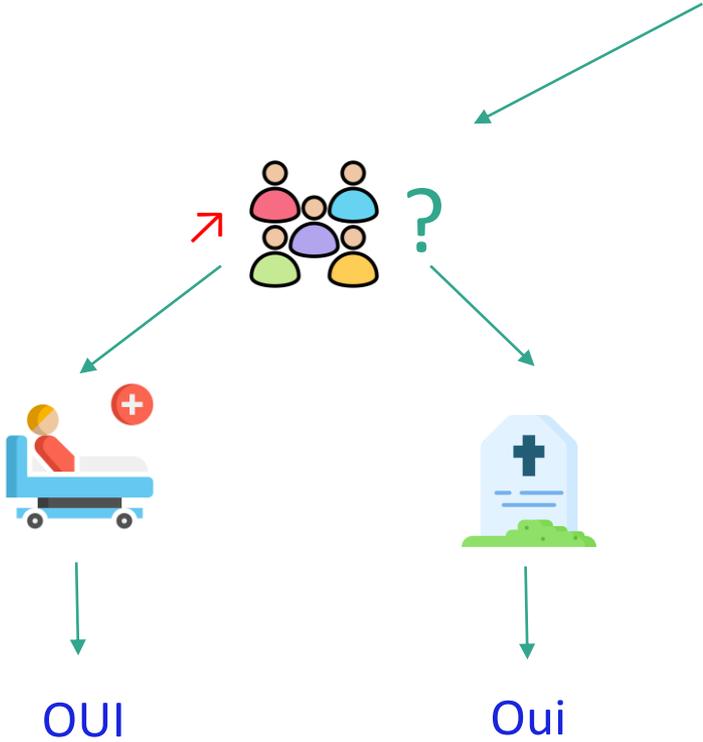
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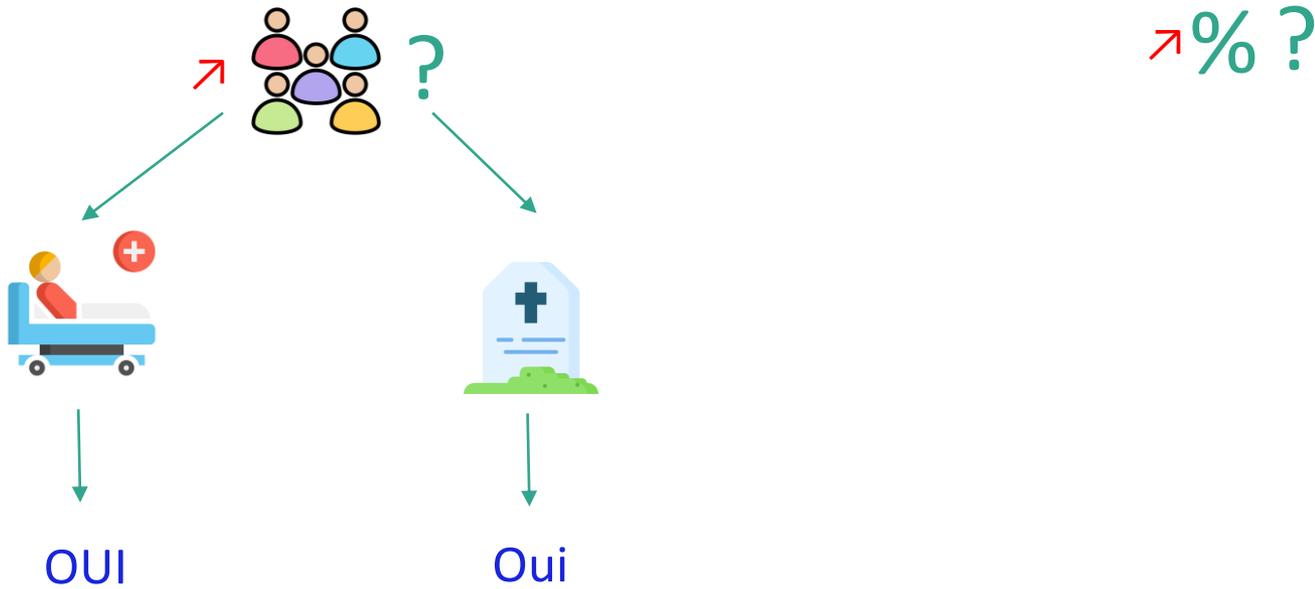
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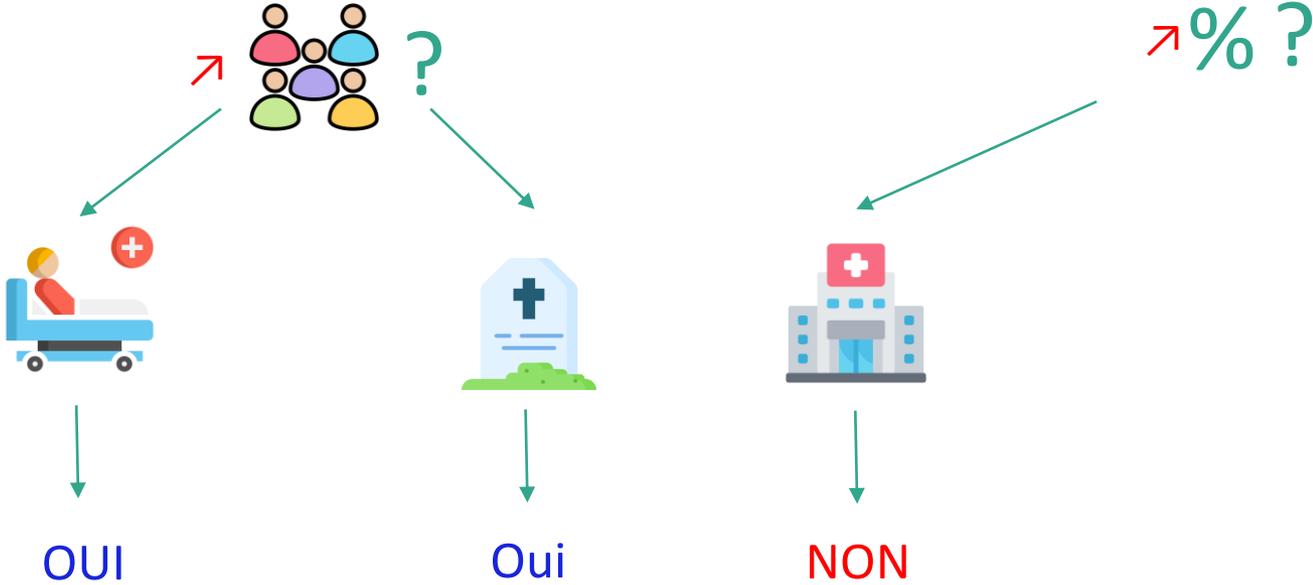
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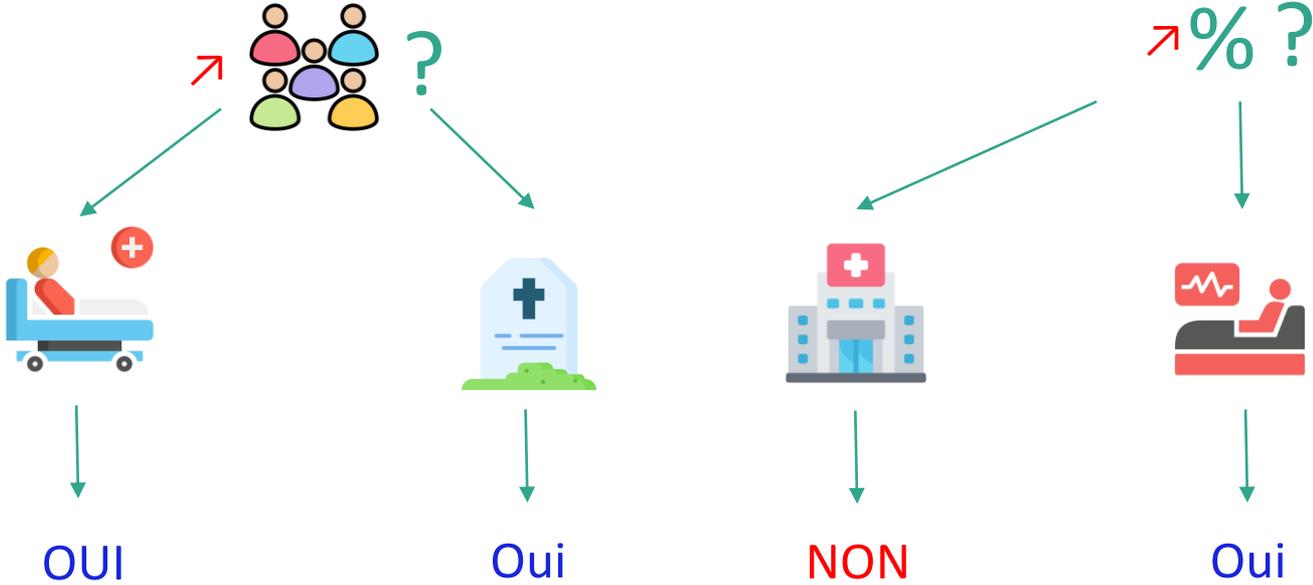
Que retenir ?



Que retenir ?



Que retenir ?



Que retenir ?

