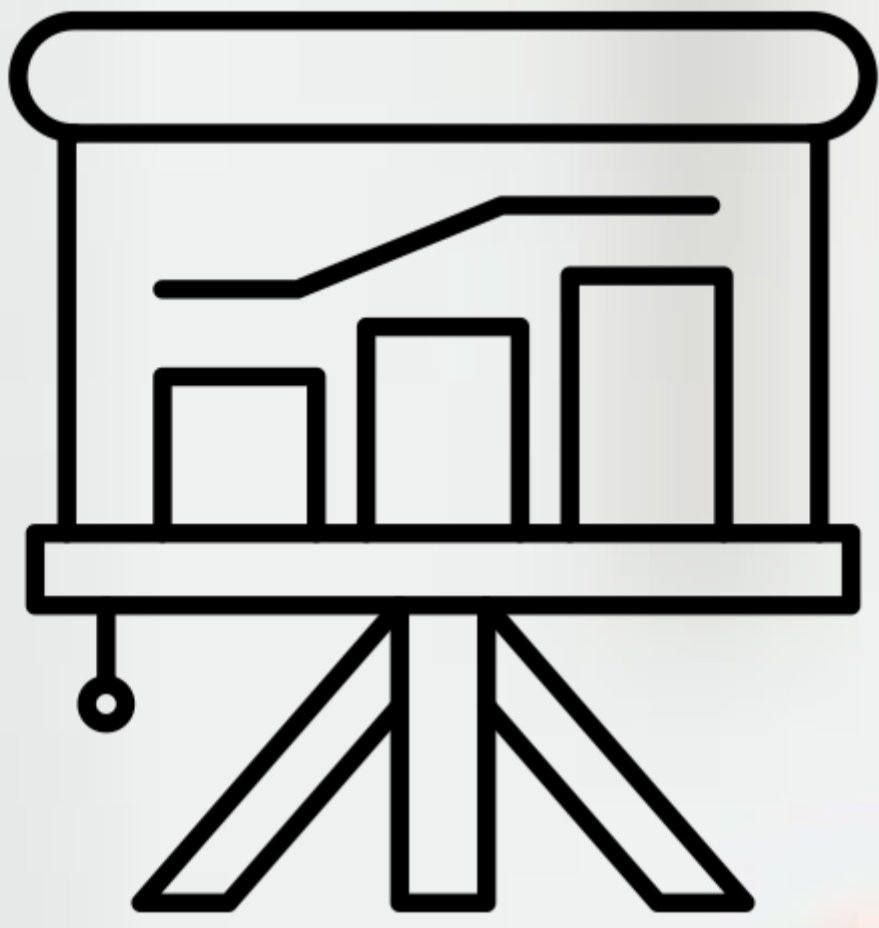


# Is a chemoprophylaxis recommended in case of invasive *Haemophilus influenzae* non-b cases?

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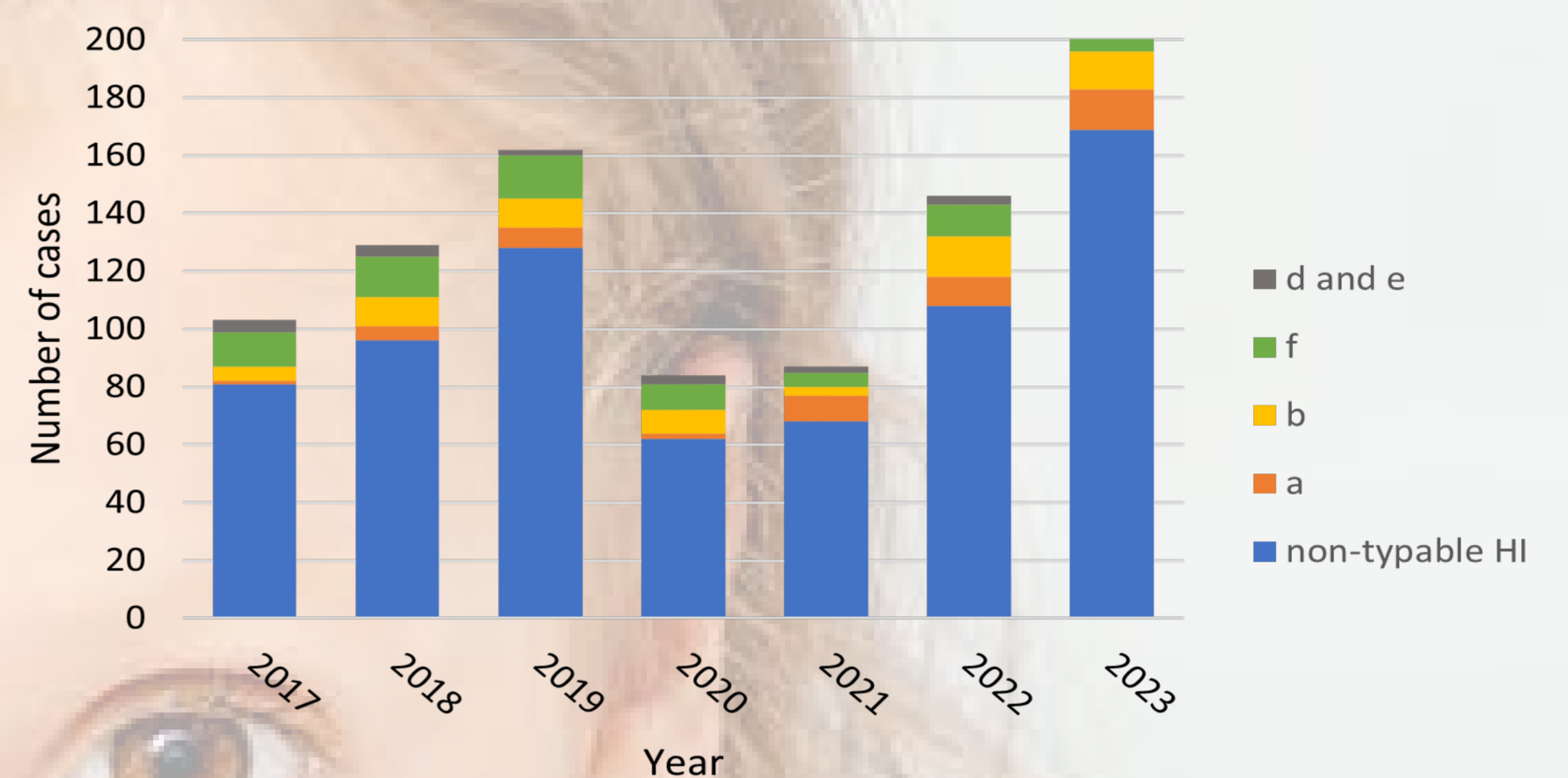
## Context



- Generalized vaccination in 1993 → dramatic decrease in invasive *Haemophilus influenzae* type b (Hib).
- Currently, the majority of invasive cases are caused by non-Hib strains (see Fig 1.)

Figure 1: Number of invasive cases of *H. influenzae* by serotypes and year, 2017-2023, Belgium.

(source: national reference center for *H. influenzae*, LHUB-ULB site Anderlecht)



## Literature review



### 1) Pubmed and Embase from 2000 to 2023 (in English, French and Dutch),

["*Haemophilus influenzae*" • "*Haemophilus influenzae* invasive" • "*Haemophilus* infections" • "bacterial meningitis"]

+

["antibiotic prophylaxis" • "post exposure prophylaxis" • "secondary cases" • "communicable disease control"]

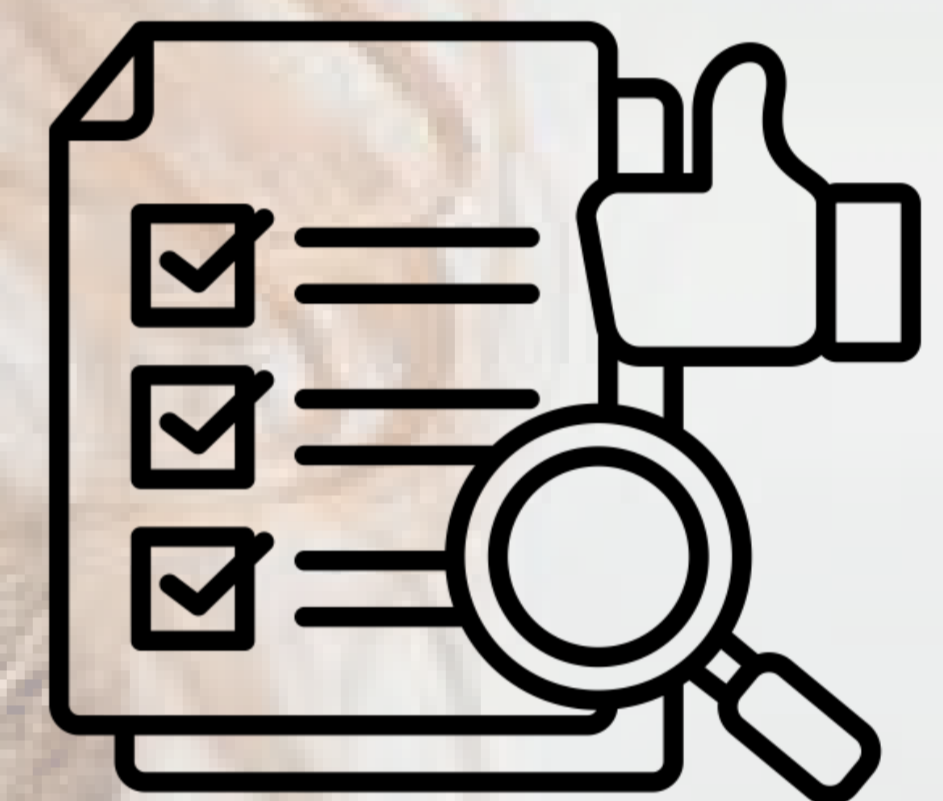
### 2) Research reports and government documents in Google scholar

cf. supra

### 3) Standards books:

- the American Academy of Pediatrics (AAP) Red Book • the Plotkin's vaccines • the Mandell's Principles and Practice of Infectious Diseases.

## Results



### • 5 articles

- 1 excluded because lack of specificity (no difference between meningococcus and Hib chemoprophylaxis)

### • 5 regional/national guidelines

- with one duplicate

### • 3 mentions in reference books.

### → Invasive Hib: no changes since 2000

### → Non-Hib: secondary cases of Hia in some North American Indigenous populations

- AAP 'consider chemoprophylaxis under certain conditions' for close contacts of **serotype a**
- Ulanova et al. (2014) chemoprophylaxis 'might be beneficial' for Hia infections, but no data on drug choice, dosage or effectiveness.

## TAKE HOME MESSAGE

- The American Academy of Pediatrics recommends to consider the same chemoprophylaxis for *Haemophilus Influenzae* serotype a than for Hib.
- **But** this recommendation is based on limited evidence, in a specific population and not included in guidance of the CDC nor any other organisation we could identify.

### References:

- American Academy of Pediatrics. [*Haemophilus influenzae* Infections] In: Kimberlin DW, Barnett ED, Lynfield R, Sawyer MH, eds. Red Book: 2021 Report of the Committee on Infectious Diseases. Itasca, IL: American Academy of Pediatrics: 2021.
- Ulanova M, Tsang RSW. *Haemophilus influenzae* serotype a as a cause of serious invasive infections. Lancet Infect Dis. 2014 Jan;14(1):70–82.