LIFTING DISRUPTION OF INVASIVE PNEUMOCOCCAL DISEASE (IPD) CASES FOLLOWING THE COVID-19 PANDEMIC: IPD IN THE YOUNGEST CHILDREN IN BELGIUM AFTER RE-SWITCH FROM PCV10 TO PCV13

E-poster 1115

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BACKGROUND

Restrictive measures to contain the COVID-19 pandemic
→ important reduction in invasive pneumococcal disease (IPD) cases worldwide in 2020-2021 (Brueggemann *et al*. 2021/2023).

In Belgium:
after re-emergence of serotype 19A IPD in children following the switch from 13-valent pneumococcal conjugate vaccine (PCV13) to PCV10 in 2015-2016
→ PCV13 (2+1) reinstalled mid-2019 in the childhood vaccination programme.

MATERIALS AND METHODS

Stable laboratory-based surveillance of IPD in Belgium based on about 100 laboratories sending their strains to the National Reference Centre for Pneumococci, for capsular typing by Quellung reaction.

Only data on IPD strains from children <2 years old were included.

RESULTS

107 IPD cases in youngest children for 2022 (Figure 1)
- +34% and +15% compared to 2020 (n=80) and 2021 (n=93)
- -24 % compared to the pre-COVID year 2019 (n=142)
- exceeded cases of the years 2014 to 2016

Serotype coverage of pneumococcal vaccines PCV13, PCV15 and PCV20 based on IPD cases is 20%, 32% and 58%, respectively.

19A most prevalent serotype (14.2%) in 2022 (Figure 2)
- similar to 2021 (14.0%)
- continued reduction of 19A following the re-switch from PCV10 to PCV13 in 2019
- high serotype 19A proportion in 2019 (40.3%) and 2020 (42.4%).

Serotypes 33F (10.0%), 10A (9.1%), 11A (9.1%) and 23B (7.3%) next most frequently detected serotypes in 2022.

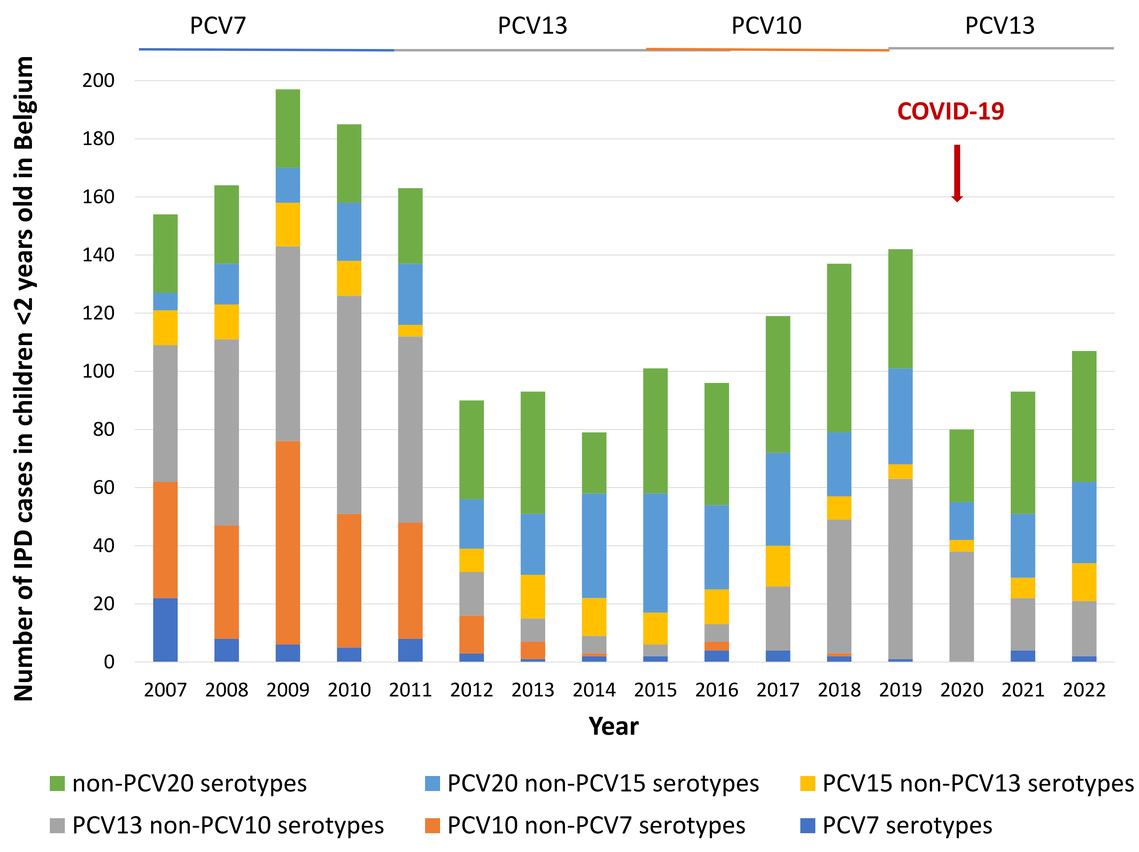

Figure 1: Evolution of number of IPD cases in children <2 years old (2007-2022) with categorization of serotypes based on their inclusion in pneumococcal conjugate vaccines (PCV)

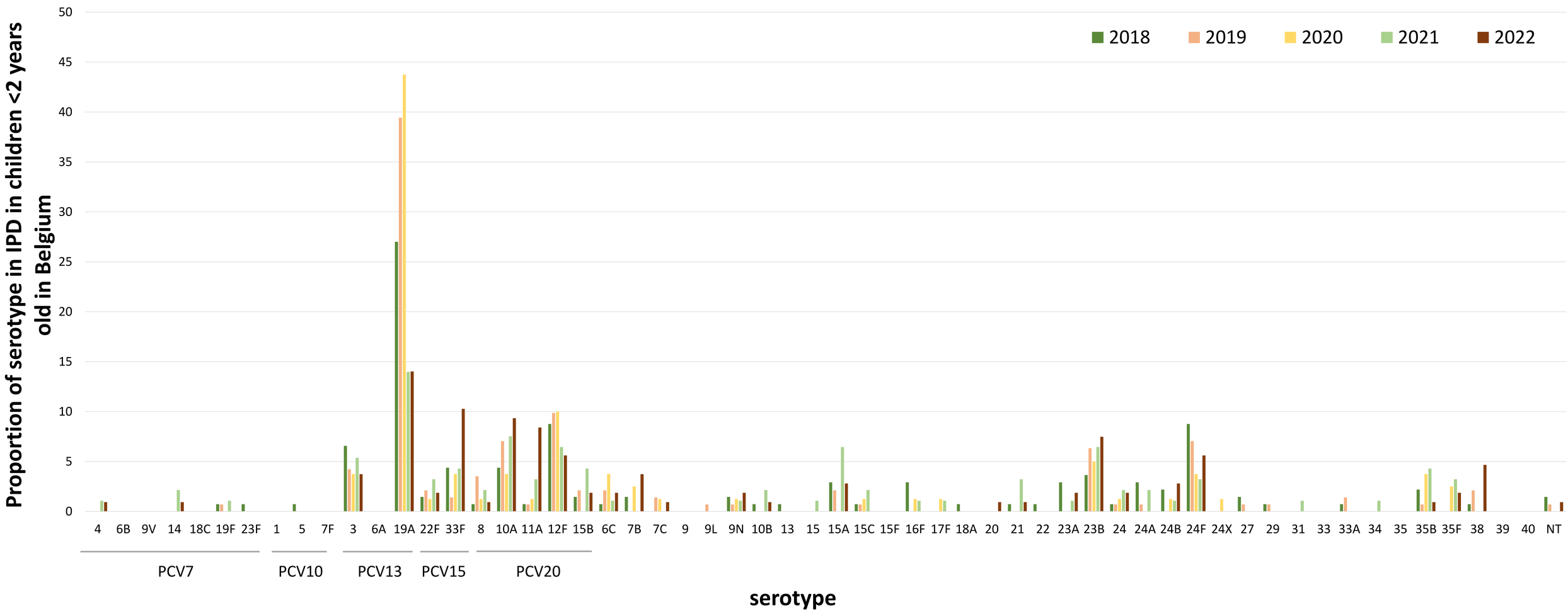

Figure 2: Serotype distribution of IPD isolates from children <2 years old period 2018-2022. NT= non-typable

CONCLUSION

In 2022, the IPD epidemiology (number of cases) in young children is no longer disturbed by the COVID-19 pandemic, although the number of cases is still lower compared to 2019.
Two to three years post PCV10-PCV13 switch, a reduction of the proportion of serotype 19A IPD was observed.