

SEASONAL DISEASES

Pneumococcal disease

Reduction in invasive pneumococcal disease in South Africa, January through July 2020

Seven hundred and thirty-five cases of laboratory-confirmed invasive pneumococcal disease (IPD) have been reported to the NICD surveillance programme from January to July 2020. This is a 44% reduction in IPD from the same time period in 2019 (1 309 cases reported January to July 2019), Figure 1.

In 2020, 64% (471/735) of isolates were cultured from blood specimens, 29% (214/735) from cerebrospinal fluid and 7% (50/735) from other invasive specimen types. Of those cases with known age, 18% (125/699) occurred amongst children <5 years.

There were 436 *Streptococcus pneumoniae* isolates available for serotyping and with known patient age; 17% (74/436) were in those aged <5 years, and 83% (362/436) in those ≥5 years. Twenty-five percent (108/436) were serotypes in the 13-valent pneumococcal conjugate vaccine (PCV13). Of the 74 isolates in the <5 year-old age category, 22% (16/74) were PCV13. For the age category ≥5 years, PCV13 accounted for 25% (92/362) of the

isolates. The most common disease causing serotypes in both age categories were serotypes 8 (n=68), 3 (n=34) and 19F (n=33).

The decrease in IPD episodes was seen in both the <5 years and ≥5 years age categories, and coincided with the implementation of the lockdown period beginning 28 March 2020. This reduction in IPD occurred at a time when pneumococcal disease incidence usually increases over the autumn to winter months. It may be related to reduced transmission of both bacterial and non-SARS-CoV-2 viral respiratory pathogens through various measures implemented to reduce respiratory droplet spread, such as mask wearing, physical distancing, and school/university/work-place closures. Reduced health-seeking behaviour during the national lockdown may also have impacted on this reduction in IPD. As lockdown measures ease we may begin to see an increase in IPD. IPD surveillance is ongoing and all clinical microbiology laboratories are encouraged to submit their isolates to the NICD for surveillance purposes.

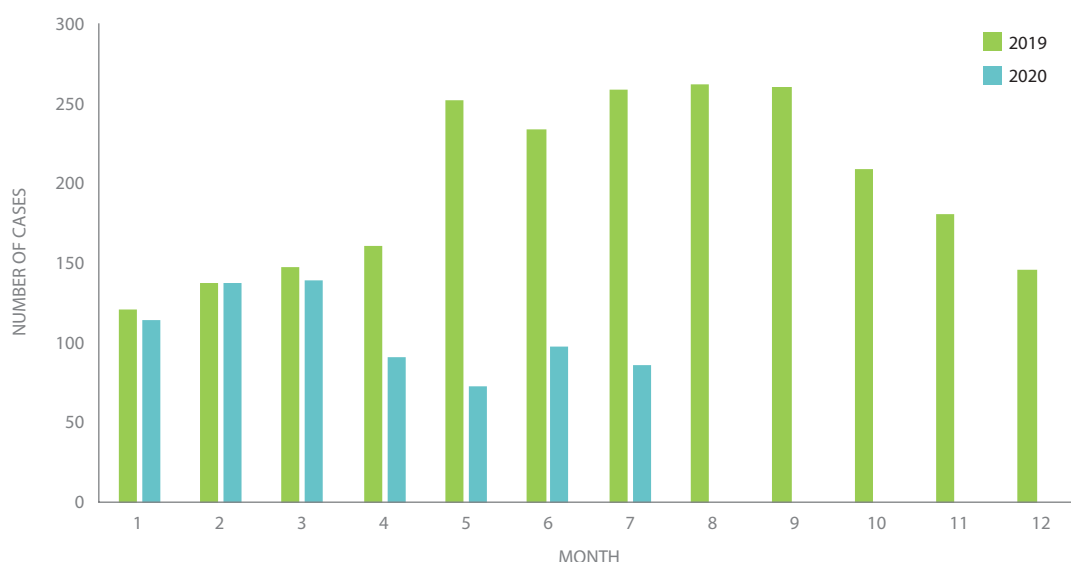


Figure 1. Number of laboratory-confirmed invasive pneumococcal disease episodes in South Africa, reported to NICD January 2019 through July 2020 (n=2044)