

# Invasive Meningococcal Disease Monthly Report July 2022

This report summarises invasive meningococcal disease notifications and trends nationally from 1 January to 31 July 2022. Information is based on data recorded in EpiSurv and at ESR's Special Pathogens Unit as at 11 August 2022. Data presented may be further updated and should be regarded as provisional.

## Summary

Between 1 January and 31 July 2022:

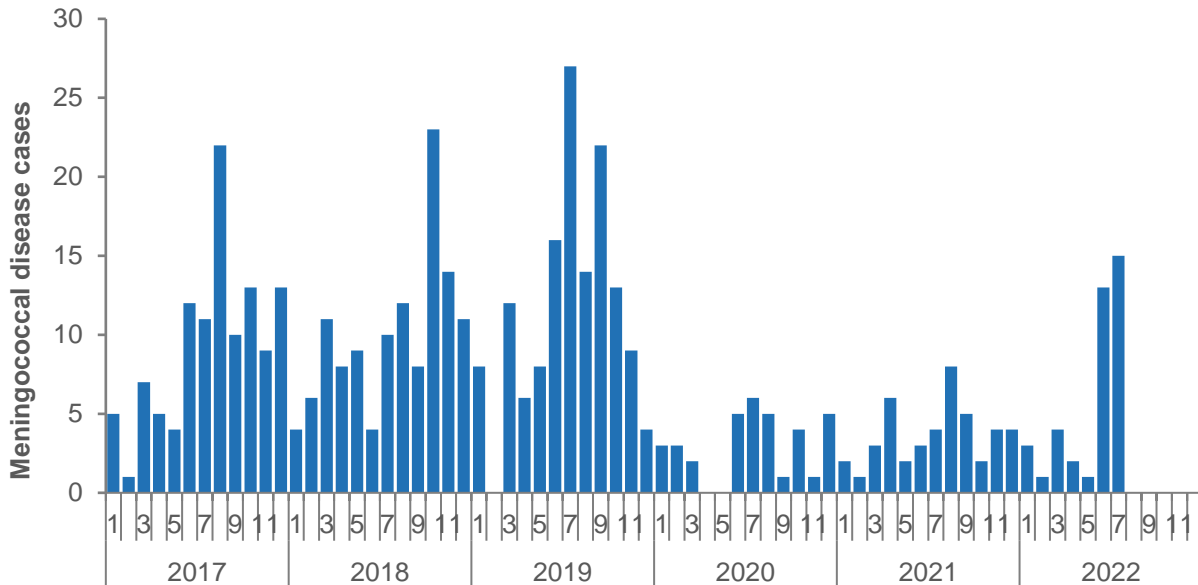
- there have been 39 cases (37 confirmed and 2 probable) of invasive meningococcal disease reported. This number is higher than for the same period in 2020, and 2021, but lower than the same period in 2017, 2018 and 2019;
- there has been one death in a child aged under five years;
- group B is the dominant group type. The group was identified in 31 cases to date in 2022: 25 (81%) were group B, four (13%) were group Y, and two (6%) were group W;
- half (51%) of the cases are in Māori and Pacific children aged under 5 years;
- the cases are geographically dispersed.

## National trends

Between 1 January and 31 July 2022, there was a total of 39 cases of meningococcal disease (37 confirmed and 2 probable). There was one death in a child aged under five years (group B, PorA type P1.7-2,4).

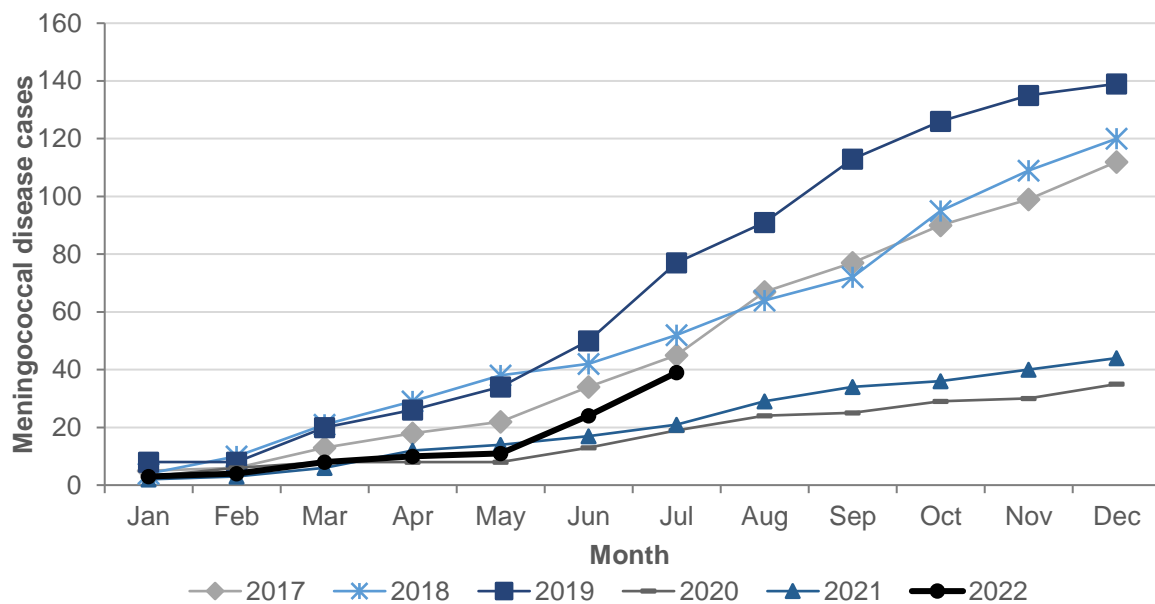
In New Zealand, meningococcal disease follows a seasonal pattern with case numbers peaking in winter and continuing into spring (Figure 1). This seasonal increase in disease has been seen in 2022 with an increase in the number of cases reported in June and July (13 and 15 cases respectively) compared with May (1 case).

Figure 1. Number of meningococcal disease cases by month and year, 2017–2022



To date, the total number of cases in 2022 is higher than for the same period in 2020 and 2021, but lower than in 2017, 2018 and 2019 (Figure 2).

Figure 2. Cumulative number of meningococcal disease cases by month, January 2017 to 31 July 2022

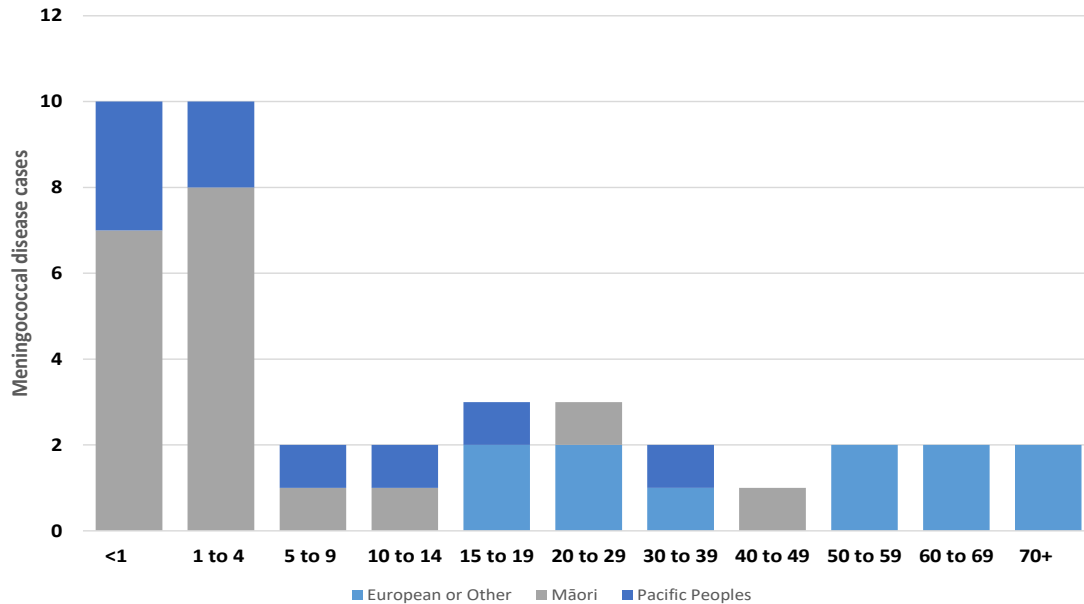


## Meningococcal disease by ethnic group and age group

Half (51%, 20/39) of the cases in 2022 to date are in Māori and Pacific children aged under 5 years (Figure 3).

Overall, 49% of meningococcal disease cases in New Zealand in 2022 to date have been in Māori, 28% are in European or Other ethnic groups, while 23% are in Pacific peoples.

**Figure 3. Number of meningococcal disease cases by prioritised ethnicity and age group, 1 January to 31 July 2022**

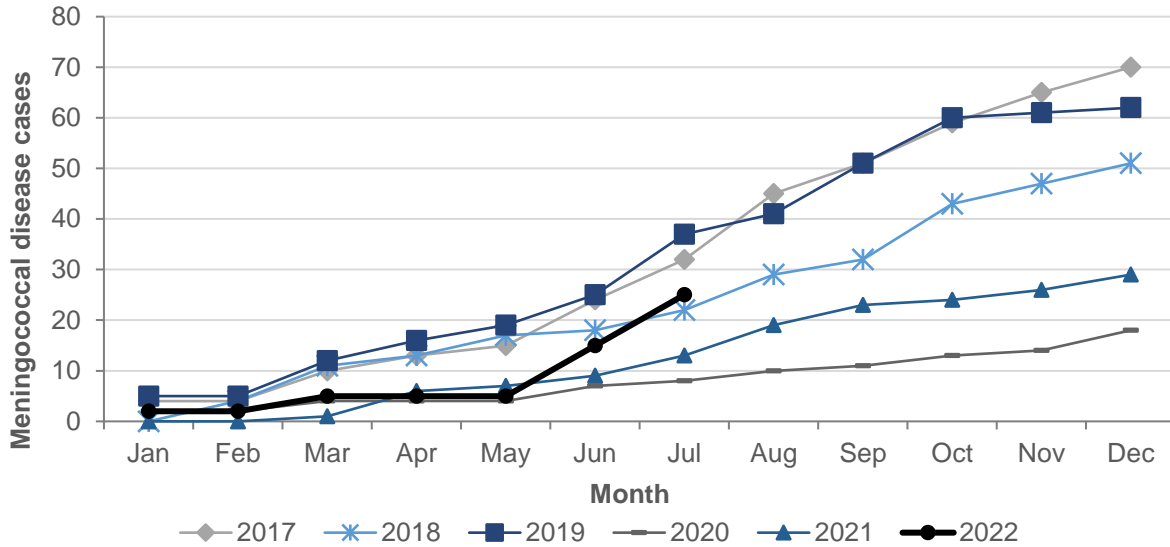


## Meningococcal disease by group

Of the 39 cases notified from 1 January to 31 July 2022, the group was identified in 31 cases: 25 (81%) were group B, four (13%) were group Y, and two (6%) were group W.

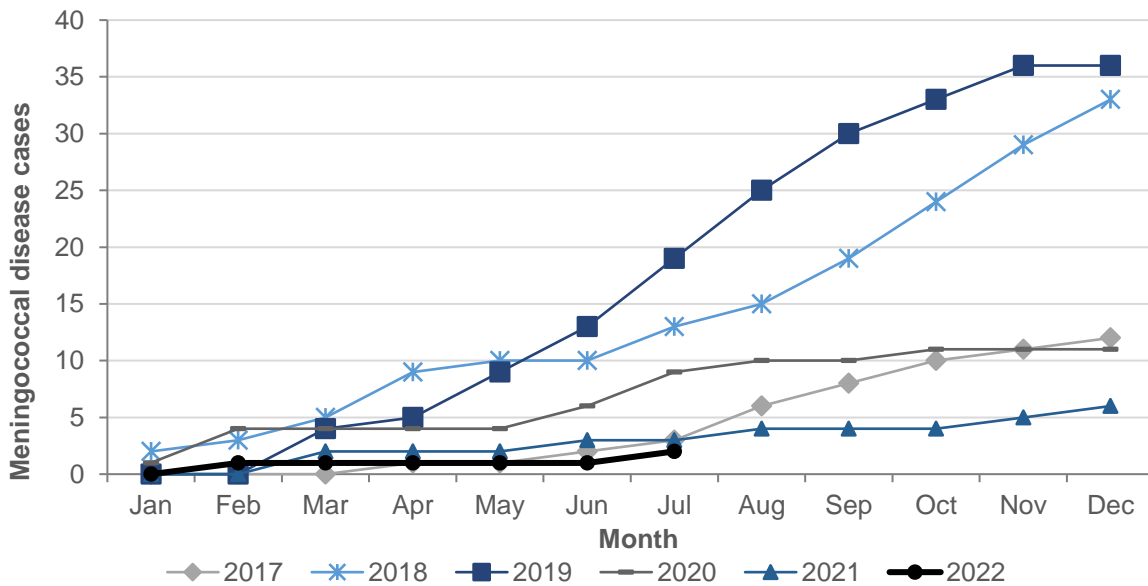
For group B cases, the number of cases to date is higher than for the same period in 2018, 2020, and 2021, but lower than in 2017 and 2019 (Figure 4).

Figure 4. Cumulative number of group B meningococcal disease cases by month, January 2017 to July 2022



Prior to 2020, there was an increase in group W cases (Figure 5). The number of group W cases in 2022 to date is similar to the same period in 2017 and 2021 and lower than 2018, 2019 and 2020.

Figure 5. Cumulative number of group W meningococcal disease cases by month, January 2017 to July 2022



There have been no cases of group C since 2020, and the last case of group E was reported in 2019.

## Meningococcal disease by district and group

Meningococcal cases in 2022 to date are geographically dispersed throughout the country (Table 1). Bay of Plenty reported the highest number of cases (5 cases), followed by Northland, Waitemata and Counties Manukau (4 cases each) districts.

**Table 1. Number of meningococcal disease cases by group and district, 1 January to 31 July 2022**

District	Group					Group unknown <sup>1</sup>	Not lab-confirmed	Total
	B	W	Y	C	E			
Northland	3	0	0	0	0	1	0	4
Waitemata	4	0	0	0	0	0	0	4
Auckland	1	0	0	0	0	0	0	1
Counties Manukau	1	0	0	0	0	1	2	4
Waikato	3	0	0	0	0	0	0	3
Lakes	1	0	0	0	0	0	0	1
Bay of Plenty	2	1	1	0	0	0	1	5
Tairāwhiti	0	0	0	0	0	2	0	2
Taranaki	0	0	0	0	0	0	0	0
Hawke's Bay	0	0	0	0	0	0	0	0
Whanganui	2	0	0	0	0	1	0	3
MidCentral	0	0	0	0	0	0	0	0
Hutt Valley	1	0	0	0	0	0	0	1
Capital & Coast	0	0	0	0	0	0	0	0
Wairarapa	1	0	0	0	0	0	0	1
Nelson Marlborough	2	0	1	0	0	0	0	3
West Coast	0	0	0	0	0	0	0	0
Canterbury	2	1	0	0	0	0	0	3
South Canterbury	0	0	1	0	0	0	0	1
Southern	2	0	1	0	0	0	0	3
<b>Total</b>	<b>25</b>	<b>2</b>	<b>4</b>	<b>0</b>	<b>0</b>	<b>5</b>	<b>3</b>	<b>39</b>

<sup>1</sup> Includes non-groupable and laboratory-confirmed cases where a sample was not received by ESR

## Group B trends

Table 2 shows the trends in selected group B PorA types since 2017. The PorA types included in the table are those detected to date in 2022 as well as those that were most common in previous years.

Table 2. Number of group B meningococcal disease cases by selected PorA type, 2017 to 31 July 2022

PorA type	Year					
	2017	2018	2019	2020	2021	2022 <sup>1</sup>
P1.17,16-3	2	2	0	1	1	0
P1.18-1,3	0	0	2	0	0	1
P1.18-1,34	3	3	3	0	0	0
P1.19,15	2	0	1	1	1	0
P1.19-1,26	0	3	1	0	0	0
P1.22,14	9	3	5	0	2	0
P1.22,9	2	1	1	0	1	0
P1.22-11,15-25	0	0	1	0	0	0
P1.5,2	0	0	0	0	1	1
P1.5-1,10-7	0	0	0	0	0	1
P1.5-2,10-1	0	5	1	0	1	0
P1.7,16-3	0	0	0	0	0	1
P1.7,16-26	5	2	4	0	1	2
P1.7,16-53	0	2	2	0	1	0
P1.7-12,14	12	3	14	3	12	7
P1.7-12,15	0	0	0	0	0	1
P1.7-12,16-3	0	0	0	0	0	1
P1.7-13,4	0	0	0	0	0	1
P1.7-2,4 <sup>2</sup>	27	16	19	9	8	6
P1.7-36,14	0	0	0	2	0	1

<sup>1</sup> Data to 31 July 2022

<sup>2</sup> 1991 to 2007 New Zealand epidemic strain

During 2022, 11 different PorA types have been identified across the 25 group B cases, and these have been geographically dispersed.

The most common PorA types are B:P1.7-2,4 (the 1991–2007 New Zealand epidemic strain) and B:P1.7-12,14.

Of note: there has been a significant increase in the relative proportion of B:P1.7-12,14 within the group B meningococci detected from 2013 to 2022 to date. The strain was first detected in 2015 with no cases prior to that time. Whole genome sequencing has identified the strain to be clonal complex ST-1572, which is relatively rare internationally as indicated by data submitted to the public databases for molecular typing and microbial genome diversity (PubMLST), noting that not all countries submit data to this database (<https://pubmlst.org/>).