

Public Health Report

Communicable diseases

in Northland

2013



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Communicable Diseases 2013

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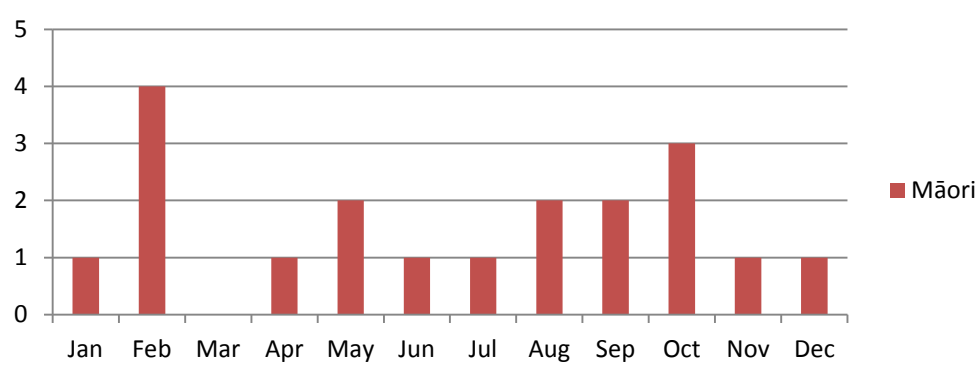
Introduction

Communicable diseases remain important in Northland. This report highlights key notifiable diseases reported to Public Health in 2013:¹ acute rheumatic fever, pertussis, enteric diseases (in particular salmonellosis), and meningococcal disease.

Acute rheumatic fever

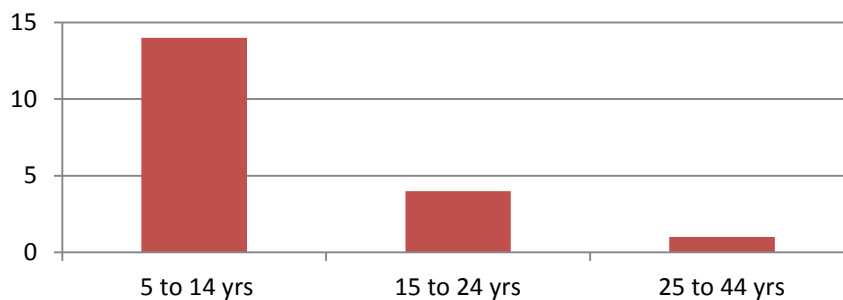
Nineteen cases of acute rheumatic fever (ARF) were notified in 2013, and one recurrence. This compares with 14 acute cases and one recurrence in 2012, and may indicate greater awareness and detection of disease (given reducing rheumatic fever is now a national priority), or a true increase in cases – there has been an upward trend since 2006. Most cases were in the 5 – 14 year age group. However there were a higher number of young adults (aged 15-<25yrs) than in recent years. All cases of ARF reported in 2013 were Māori (Figure 1 and 2). The number of recurrent cases is important as it indicates a possible failure of secondary prevention.

Figure 1: Number of acute rheumatic fever cases by month and ethnicity in Northland, 2013



¹ Only cases that have been confirmed, probable, or suspected using ESR criteria are included in this report. “Confirmed” usually means that the illness is clinically compatible and has been confirmed by laboratory testing. A “probable” case is one that is clinically compatible where laboratory testing has not been done or does not rule out the disease. “Suspect” cases are those that are clinically compatible but laboratory results are not available at the time of notification.

Figure 2: Number of acute rheumatic fever cases by age group (years) and ethnicity in Northland, 2013



Enteric disease

In 2013, 369 cases of enteric disease (gastroenteritis, excluding VTEC/STEC) were notified in Northland. This compares with 358 cases in 2012. The majority of cases were due to campylobacteriosis (60%), salmonellosis (14%), and giardiasis (13%) and were reported amongst those identifying as NZ European (266 cases, 72%). This may reflect access barriers to primary care and other factors, especially for Māori, rather than true lower rates of disease for this group.

Figure 3 shows that numbers of reported cases peak in the spring and summer when conditions are most favourable for the spread of enteric pathogens. While enteritis can affect any age group the young (1-4 year olds) and adults (25 years+) report the highest number of cases, 17% and 62% of the total cases, respectively (Figure 4).

Figure 3: Number of enteric cases by month in Northland, 2013

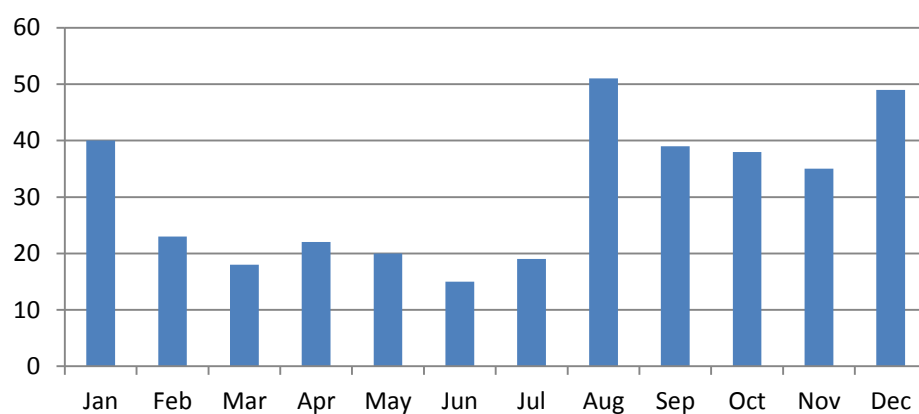
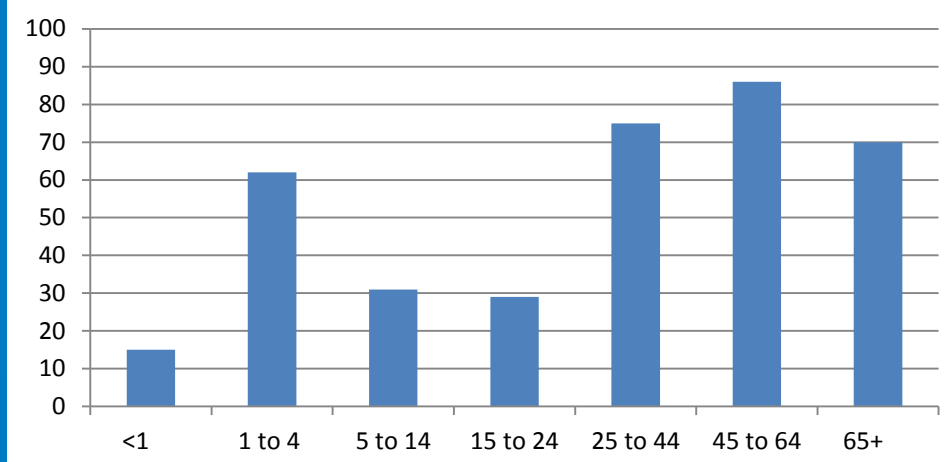


Figure 4: Number of enteric disease cases by age group (years) in Northland, 2013



In 2013 there was an outbreak of salmonellosis (*Salmonella infantis*) epidemiologically connected to a food premises in Whangarei. Between April and May twelve cases were notified to the Medical Officer of Health by Direct Laboratory Notification (DLN). Ten cases had consumed food from the premises while the other two were believed to be secondary cases. A range of food items were tested and *S.infantis* was cultured from one of these samples.²

Investigation of the premises in question identified a number of issues that may have contributed to this outbreak. The duration of the outbreak was undoubtedly shortened by the cooperation of the owners in addressing these deficiencies. The identification and management of outbreaks such as this depends on notification by laboratories, as well as timely notification by general practitioners.

Meningococcal disease

Four cases of meningococcal disease were notified in Northland in 2013, compared to 3 cases in 2012. Three of the four cases were European and all were serogroup B (compared with 2 serogroup B and one serogroup C in 2012). The emergency immunisation campaign following an outbreak of serogroup C cases in Northland in 2011 may be one reason for the decline in serogroup C meningococcal cases seen in 2012 and 2013.

Pertussis

The current national outbreak of pertussis began in late 2011. The number of notifications nationally remained high in 2012, but during 2013 the number of cases reported each month declined. However, the pattern in Northland was the opposite, with an *increase* in reported cases (to 154 in 2013 compared with 82 in 2012). This may indicate the pattern of spread up the country and/or an increase in cases notified by primary care, as awareness of the outbreak has increased. Figure 5 shows the number of cases by month in 2013. While monthly numbers appear to be declining it will be interesting to see whether this trend is sustained into 2014. Either way, it is important to recognise that pertussis continues to circulate in Northland. Promoting on time immunisation is the most effective method of protection against this life threatening illness.

² Mills, C & Azor T. An outbreak of *Salmonella infantis* in Northland, May 2013. New Zealand Public Health Surveillance Report. December 2013. 2013; 11: (4) pages 6 - 7. <https://www.epi-cd.org.nz/epi-cd/NEPHSR/2013/NEPHSRDec2013.pdf>

Figure 5: Number of Pertussis cases by Month and Ethnicity in Northland, 2013

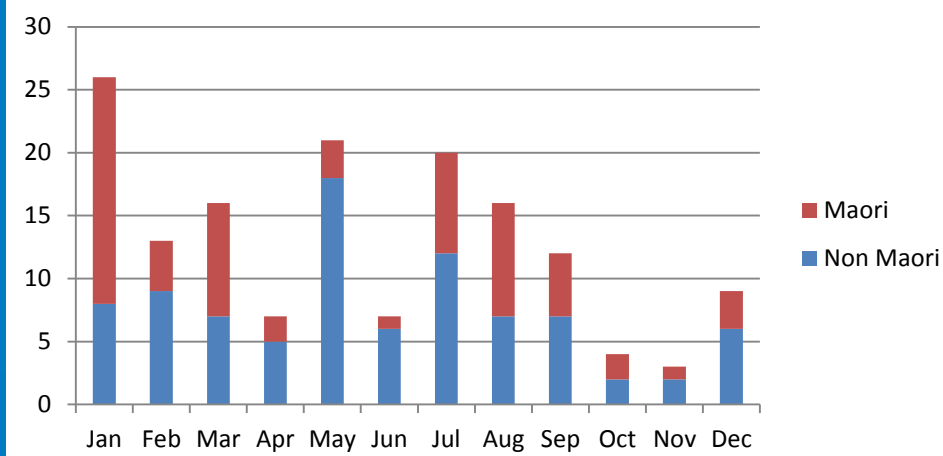
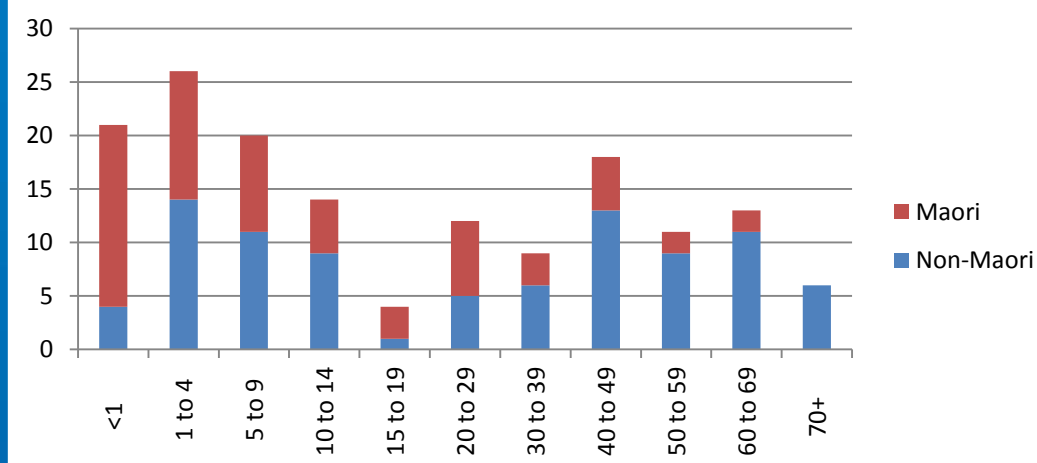


Figure 6 below shows that pertussis is relatively common in the most vulnerable age group - under one year olds. This age group has the highest hospitalisation and mortality rates. Maori babies are over represented. Cases also peak amongst older adults. Adults are a potential source of infection in babies and young infants. Therefore, it is important to offer vaccination to adults who work or have contact with babies and young children. Vaccination is free during outbreak conditions to women in their third trimester of pregnancy (it continues to be free currently).

Figure 6: Number of pertussis cases by age group (years) and ethnicity in Northland, 2013

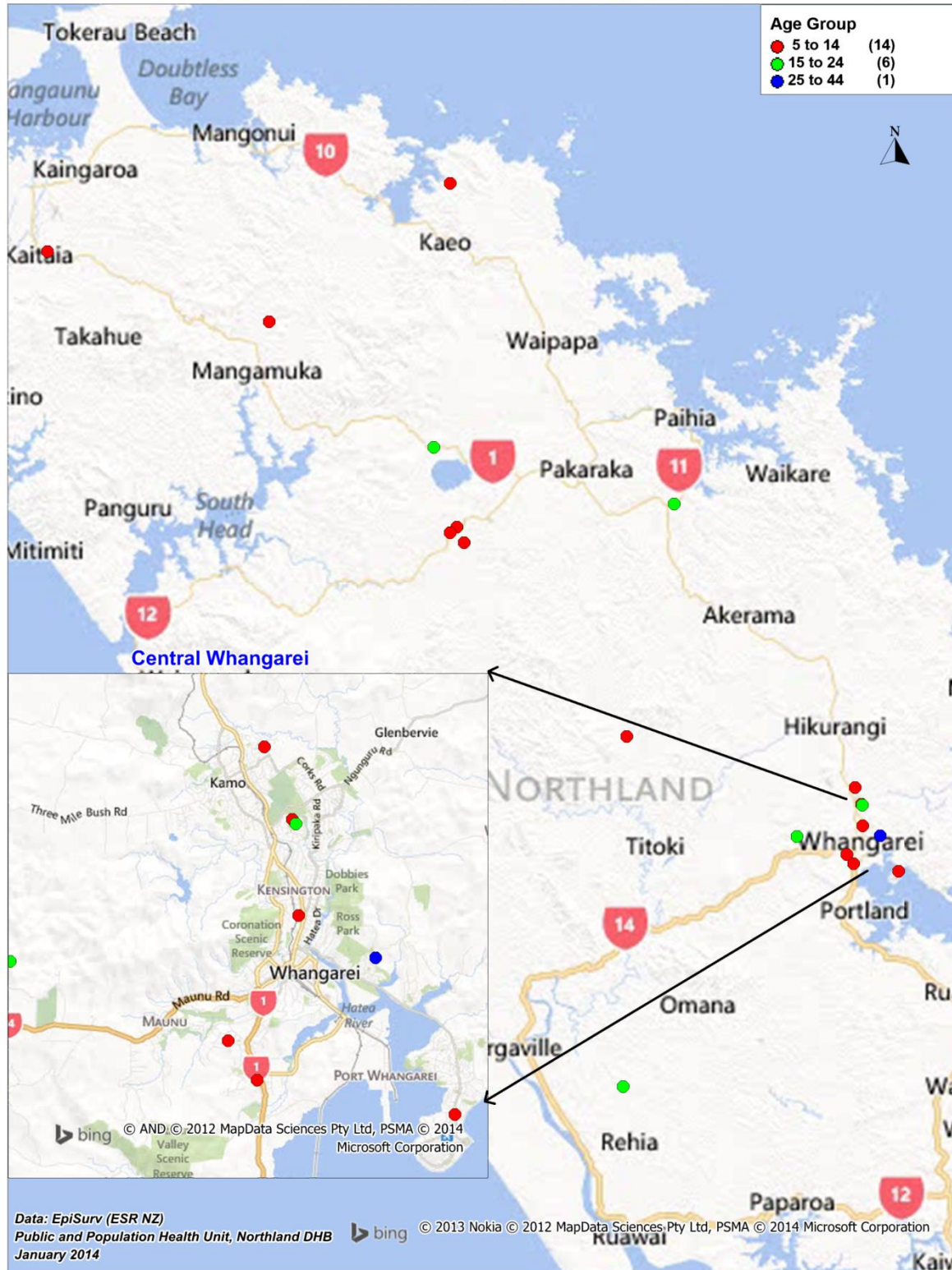


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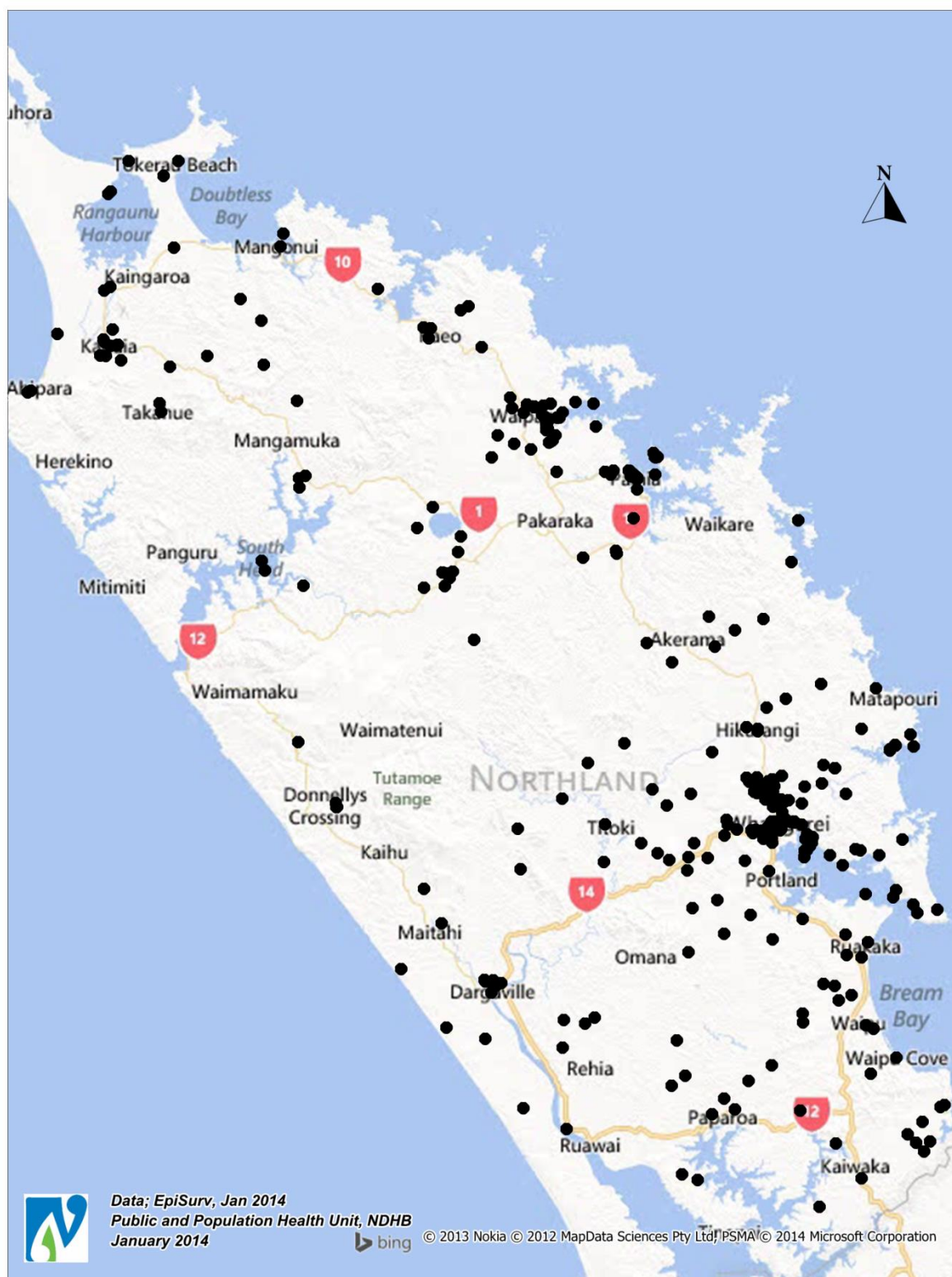
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Appendix: Maps

Acute Rheumatic Fever Notifications to EpiSurv from Northland by Age Groups - 2013



Enteric Diseases Notifications to EpiSurv from Northland 2013



Pertussis Notifications to EpiSurv from Northland by Age Groups 2013

