

Pertussis

As elsewhere, pertussis remains an endemic disease in BC, with cyclical peaks occurring every 3-5 years. Since 2012, there has been a gradual increase in overall pertussis activity in BC. This recent increase follows a period of trough activity levels from 2004 to 2011 and is driven by asynchronous cyclical peaks in certain regions. The reasons for this increase are likely multifactorial but may reflect changes in population-level immunity due in part to recent periods of historically low-level activity in some regions of BC and waning of immunity from acellular vaccine.

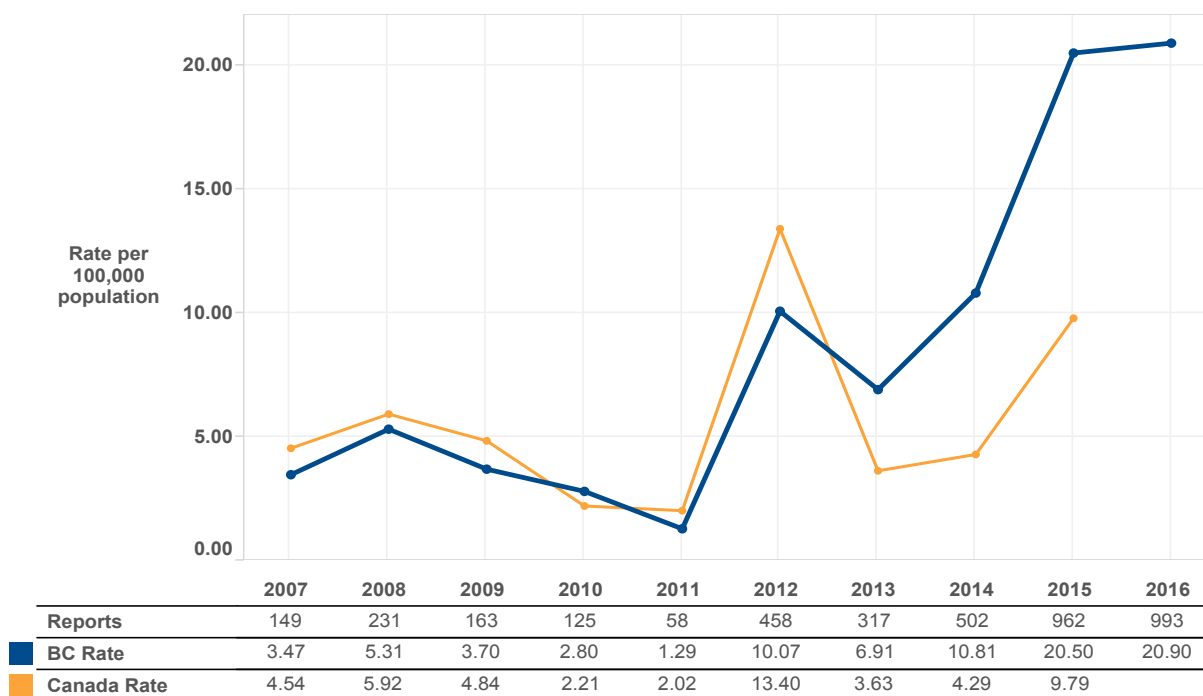
In 2016, pertussis showed cyclical peak activity in BC (Figure 28.1). Overall provincial incidence rates of confirmed pertussis exceeded 20 cases per 100,000, with rates approaching levels previously experienced during epidemics in the late 1990s and early 2000s when pertussis incidence ranged from 20 to 40 per 100,000. Incidence rates were highest in Vancouver Island Health Authority, as well as parts of Interior Health Authority, driven by pockets of regional activity

notably in Central Vancouver Island, North Vancouver Island and Kootenay Boundary HSDAs (Figure 28.2).

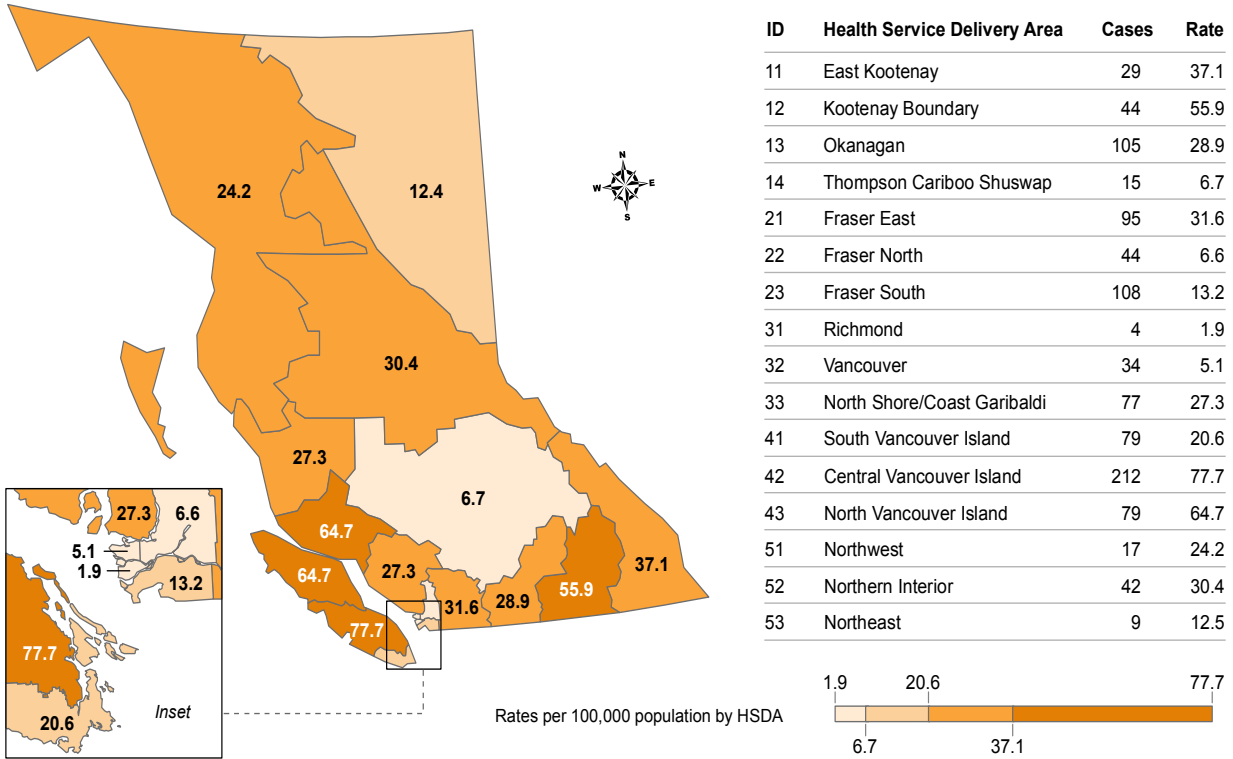
The highest age-specific incidence rates in 2016 were in infants <1 year old followed by pre-teens/teens (10-14 years old) (Figure 28.3). Lower incidence was observed in pre-school-aged children (1-4 years old) and younger school-aged children (5-9 years old). Age-specific incidence was also lower in older teens (15-19 years old) following the Grade 9 booster dose and in adults ≥20 years old. This current age distribution is consistent with prior cyclical peaks emphasizing risk in young infants and pre-teens/teens.



28.1 Pertussis Rates by Year, 2007-2016



28.2 Pertussis Rates by HSDA 2016



28.3 Pertussis Rates by Age Group and Sex, 2016

