Diphtheria in Australia

Quick facts

Diphtheria cases dropped to nearly zero in Australia following the introduction of a school-based vaccination program in the 1930s.

Diphtheria outbreaks still occur in some countries, posing a risk for unvaccinated travellers.

What is diphtheria?

Diphtheria is a highly contagious, and potentially life-threatening, bacterial disease caused by *Corynebacterium diphtheria* or *Corynebacterium ulcerans*. Diphtheria usually affects a person's nose, throat and windpipe, but it can also infect their skin. The skin infection is not generally severe, but the bacteria can spread to others and may cause the more severe respiratory form of illness.

Diphtheria is spread following close contact with an infected person by breathing in droplets when they cough or sneeze, or by direct contact with infected wounds.

Symptoms of respiratory diphtheria start with a sore throat, mild fever and chills. Severe cases may experience airway swelling, making it hard to breathe and swallow.

Vaccination against diphtheria

Widespread vaccination against diphtheria began in Australia in 1932 with a school based program. Diphtheria vaccination has been part of the Australian National Immunisation Program (NIP) since 1975. The NIP provides diphtheria vaccination for infants, young children and through state and territory school vaccination programs.
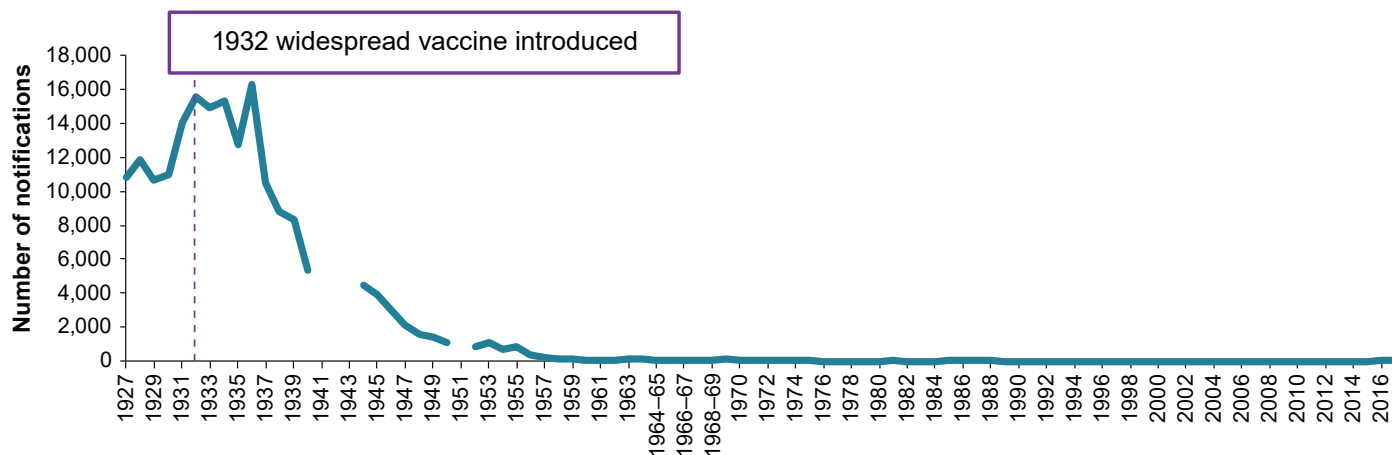
Although diphtheria infection is now rare in Australia, vaccination is still important because diphtheria outbreaks still occur in some countries, which poses a risk for unimmunised travellers and their contacts in Australia.

In 2017, 94% of Australian 5 year olds were fully vaccinated against diphtheria; however, vaccination rates vary by where a child lives.

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Diphtheria notifications

Diphtheria is a notifiable disease in Australia, which means that diagnosed cases are reported to state or territory health departments. This way, a public health response can be undertaken to try and prevent further cases.

Vaccination has been extremely effective at reducing the number of cases of diphtheria. Today, diphtheria is extremely rare in Australia, with only 8 cases occurring in 2017, of which 1 was respiratory diphtheria. Most cases occurring in Australia are in people who became infected overseas or are related to imported cases.
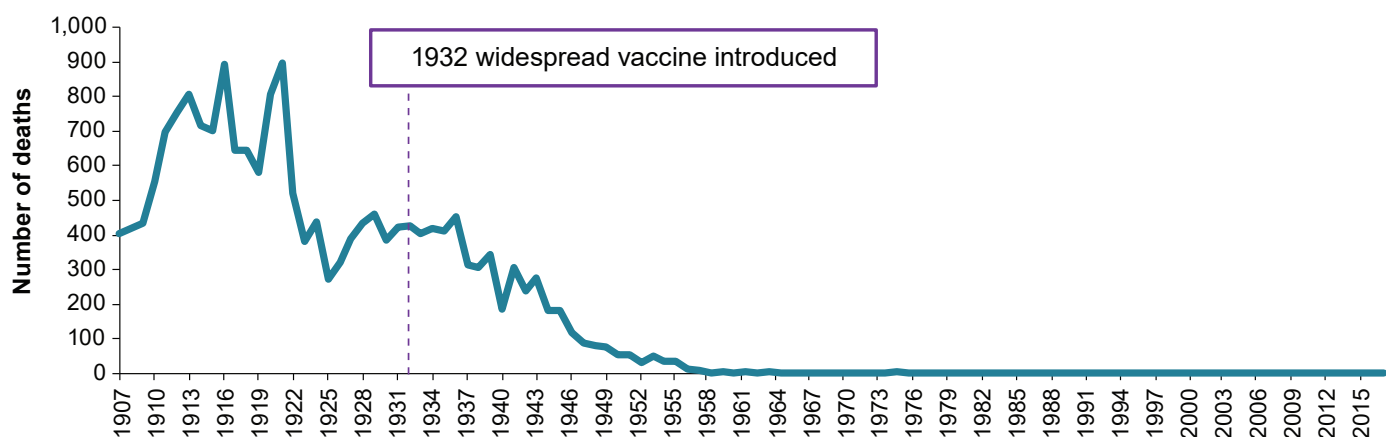

Sources: AIHW analysis of NNDSS data extracted on 03 August 2018; Hall R 1993. Notifiable diseases surveillance, 1917 to 1991. Communicable Diseases Intelligence 17:226–236.

Hospitalisations and deaths due to diphtheria

Hospitalisations and deaths due to diphtheria are rare in Australia. Between 1994 and 2016, there were 42 hospital admissions for diphtheria in Australia, with 3 or fewer hospitalisations each year since 1996.

Between 1997 and 2016, diphtheria caused 3 deaths in Australia. The highest number of deaths reported in a single year in Australia was 898 in 1921, before the introduction of widespread vaccination (see figure).

Sources: AIHW analysis of National Mortality database; AIHW 2010 GRIM books.