

*epi*TRENDS

Epidemiology and Public Health Practice in WA

A Monthly Bulletin on Epidemiology and Public Health Practice in Washington

September 2026 Volume 31, Number 9

Diphtheria

Diphtheria remains a global challenge. During this calendar year, diphtheria cases have been reported from several continents including the Americas. Related syndromes are also increasing.

Diphtheria

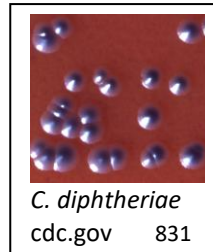
The disease diphtheria is an infection with **toxigenic** *Corynebacterium diphtheriae* at any anatomic site. Incorporation of specific viruses carrying the tox gene results in toxin production. Humans are the only reservoir, with spread through respiratory droplets or fomites to close contacts.

Infections outside the respiratory tract or a carrier state may occur. Nontoxigenic *C. diphtheriae* strains can cause infections but for national surveillance purposes these are not counted as diphtheria.

Most respiratory infections involve the pharynx and tonsils, with a gray pseudomembrane over affected tissues; the name for diphtheria was derived from the Greek term for “leather” to describe the coating. There can also be laryngeal involvement or swelling of the soft tissues in the neck, the latter commonly called “bull neck”, with higher risk of complications including airway obstruction. The toxin inhibits cellular protein synthesis and if absorbed systemically can cause myocarditis or neuritis. Fatal outcomes may result from diphtheria, particularly with obstructed airways.

Tracheostomy was an early intervention in treatment. By 1890, antitoxin and serum therapy were being used. The Iditarod race commemorates sled dogs carrying antitoxin to Nome, Alaska, during a 1925 outbreak of diphtheria. The first vaccines were introduced in 1914 and antibiotics became available for therapy after World War II.

Diphtheria was a common childhood infection with periodic epidemics including in hospital settings. Rates for the state peaked in 1924 with 123 cases/100,000 population and 96 deaths. The same year there were reports of 23 deaths due to measles, 77 due to pertussis, 11 due to polio, and 8 due to smallpox. The last case of toxigenic diphtheria reported in Washington was in 1979.



Tao Kwan-Gett, MD, MPH
State Health Officer

Scott Lindquist, MD, MPH
State Epidemiologist,
Communicable Disease

Marcia J. Goldoft, MD
Scientific Editor

You may subscribe, update
subscription preferences or
unsubscribe to *epi*TRENDS
at [Department of Health
website](https://www.doh.wa.gov/epiTRENDS).

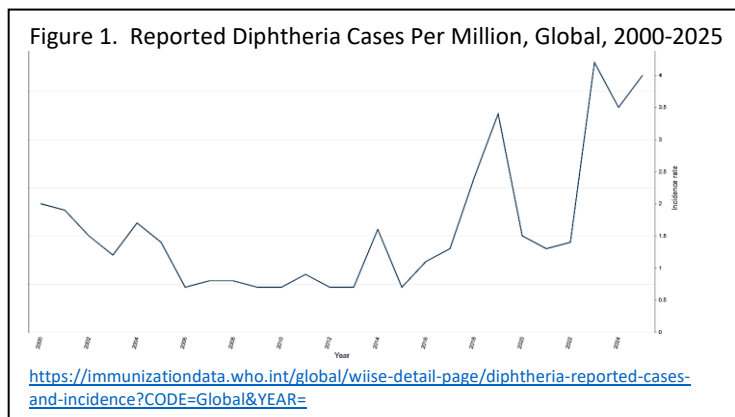
To request this document in
another format, call 1-800-
525-0127. Deaf or hard of
hearing customers, please
call 711 (Washington Relay)
or email
doh.information@doh.wa.gov

Diphtheria in 2026

In the pre-vaccine era, diphtheria affected hundreds of people each year in this country. Since 1980, fewer than ten cases have been reported annually in the United States, with the last confirmed case of respiratory diphtheria in 1997. Note that since 2019 the case definition for reporting includes toxigenic infections at any body site, not just respiratory diphtheria.

Globally diphtheria incidence rates were lowest between 2006 and 2016, less than one per million. In the past few years rates have about quadrupled (Figure 1). Currently there are outbreaks affecting several countries.

Through early September of 2026, Australia had recorded about 560 cases of diphtheria, although a decrease in testing availability in some regions of the country may have resulted in missed cases. That compares with a previous peak of 31 cases in 2022 for the country. Disease reports in Australia have been declining since June 2026.



In the Americas during the first five months of 2026, 163 confirmed diphtheria cases and five associated deaths were reported in three countries: Brazil (2 cases), Haiti (159 cases), and Peru (2 cases). In comparison, during 2020 through 2024, the Americas had an annual average of 61 diphtheria cases (range 18 to 87 cases/year). The outbreak in Haiti started in 2025 with 58 reported cases that year.

In Sub-Saharan Africa, diphtheria reports began increasing in several areas during 2022 with multiple countries affected. Outbreaks in Africa tend to affect populations that are susceptible (unvaccinated or under-vaccinated) and living in crowded conditions (e.g., resulting from migration, rapid urbanization, or congregation in refugee camps).

Due to these recent outbreaks of diphtheria, Centers for Disease Control and Prevention issued travel notices at the lowest level (Level 1 – practice usual precautions) on June 25th for Haiti and on August 25th for eight countries in Sub-Saharan Africa (Chad, Guinea, Niger, Nigeria, Mali, Mauritania, Senegal, Somalia). Travelers to affected regions should be up to date with diphtheria vaccinations including an adult Td or Tdap booster within the prior 10 years.

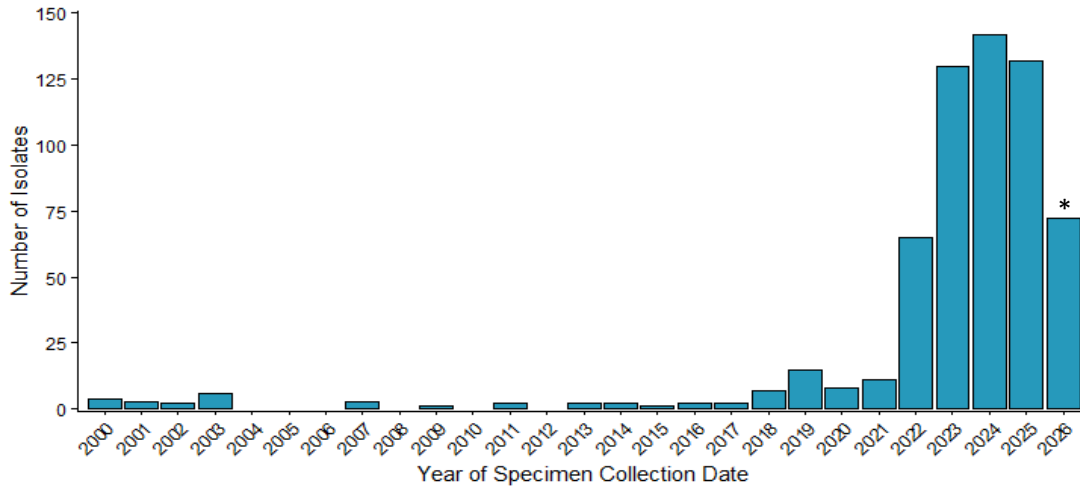
Nontoxigenic *C. diphtheriae* infections in Washington

Nontoxigenic *C. diphtheriae* detections are mainly from polymicrobial skin wounds, with a smaller percent having invasive disease such as bacteremia or septic arthritis. Most case-patients are found to be experiencing homelessness or report substance use at the time of specimen collection, without significant risk factors for toxigenic diphtheria. A detailed analysis of medical records for case-patients in Washington was published in MMWR (See Resources).

Nationally, the reported incidence of nontoxigenic *C. diphtheriae* infections has increased since 2018, with a more substantial increase beginning in 2022. Nontoxigenic infections are not nationally notifiable and do not meet the current national case definition, which requires toxin production to classify a case as Confirmed.

Starting in 2022 there has been a major increase in isolates submitted for diphtheria testing at Washington State Public Health Laboratories (Figure 2). This likely reflects an increase in cutaneous nontoxicogenic infections, though some laboratories also implemented technologies which increased their ability to identify *C. diphtheriae* in cultures.

Figure 2 Annual counts of *C. diphtheriae* isolates received at Washington State Public Health Laboratories, 2000 to 2026 year-to-date



*Preliminary data as of September 8, 2026, subject to change.

The primary risk factors for toxigenic disease include:

1. International travel to a region where toxigenic diphtheria is circulating
2. A clinical presentation suggestive of toxigenic disease, e.g., an adherent pseudomembrane in the back of the throat
3. Un- or under-vaccinated status for diphtheria toxoid vaccine.

When case-patients lack these risk factors, the likelihood of toxigenic disease is low. If a patient has one or more risk factors for toxigenic infection, investigators from local health jurisdictions can contact Washington State Department of Health's Office of Communicable Disease Epidemiology to request expedited toxin testing, or for a consultation with a vaccine-preventable disease epidemiologist.

Resources

WHO global diphtheria case counts: <https://immunizationdata.who.int/global/wiise-detail-page/diphtheria-reported-cases-and-incidence?CODE=Global&YEAR=>

PAHO diphtheria in the Americas: <https://www.paho.org/en/documents/epidemiological-alert-diphtheria-americas-region-11-june-2026>

CDC travel notices: <https://wwwnc.cdc.gov/travel/notices>

Diphtheria in Australia: <https://www.cdc.gov.au/resources/collections/diphtheria-australia-epidemiological-updates>

Washington nontoxicogenic cases: <https://www.cdc.gov/mmwr/volumes/73/wr/mm7317a4.htm>