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Given the current situation, in which diphtheria vaccination coverage has remained below optimal levels in recent years, as well as the emergence of new cases in some countries of the Region, the Pan American Health Organization / World Health Organization (PAHO/WHO) calls on Member States to close vaccination gaps and strengthen epidemiological surveillance of vaccine-preventable diseases, and reiterates the importance of strengthening routine immunization programs, microplanning strategies, catch-up vaccination, and follow-up to ensure vaccination, and to maintain a permanent supply of diphtheria antitoxin for the control of potential outbreaks.

### Summary of the situation in the Americas Region

In 2026, between epidemiological week (EW) 1 and EW 21, 163 confirmed cases of diphtheria were reported, including five deaths in the Americas Region, reported between three countries: Brazil (n= 2 cases), Haiti (n= 159 cases, including five deaths), and Peru (n= 2 cases) (1–3).

In 2025, four countries in the Americas Region reported confirmed cases of diphtheria to the World Health Organization (WHO): Brazil (n= 4 cases), Canada (n= 5 cases), Guyana (n= 1 case), and Haiti (n= 62 cases) (4). Between 2020 and 2024, the Americas Region recorded an annual average of 61 confirmed diphtheria cases reported in 10 countries<sup>1</sup> in the Region (an annual range of 18 to 87 cases) (4).

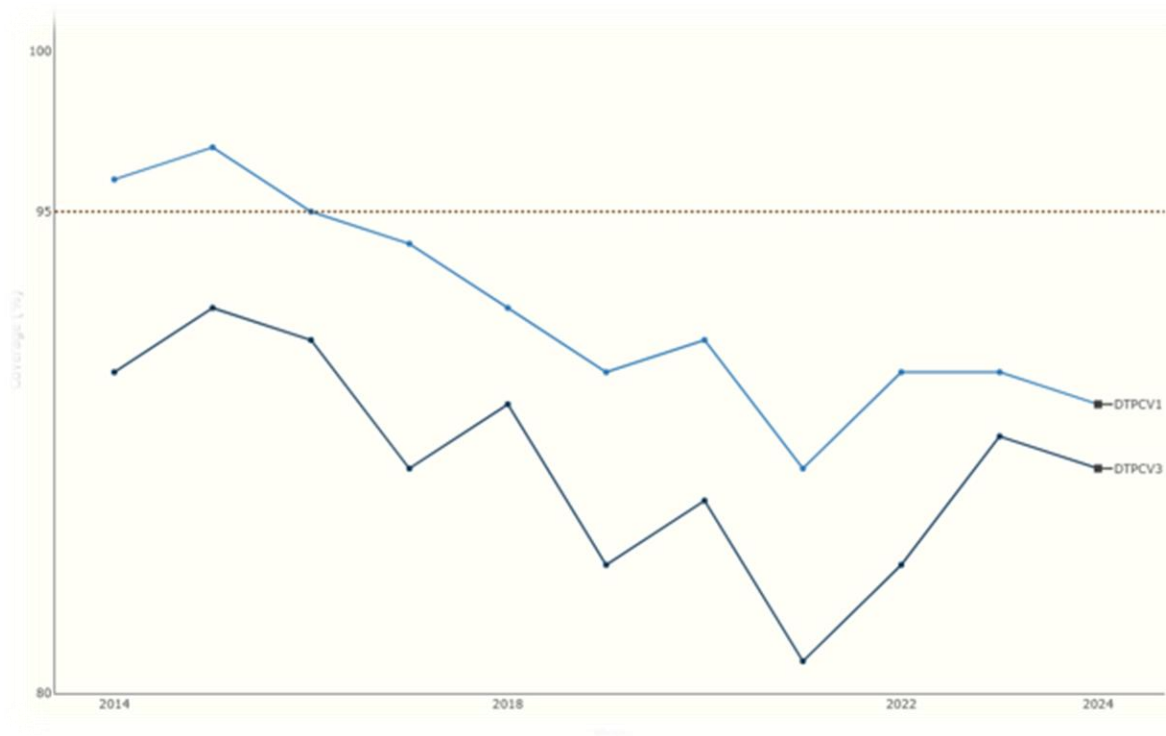
Coverage for the first dose of the diphtheria, tetanus, and pertussis (DTP1) vaccine in the Americas Region showed a slight decrease, falling from 90% in 2023 to 89% in 2024, reversing a positive trend that had been observed in previous years (5). The coverage rate for the third dose of the vaccine (DTP3) in the Americas Region fell from 88% in 2023 to 87% in 2024, reflecting a coverage rate below the 95% regional target (**Figure 1**) (5).

In 2024, regarding DTP3 coverage, six countries and one territory<sup>2</sup>—out of the 45 countries and territories in the Americas Region that reported data—had coverage below 80%, which increases the risk of disease outbreaks. In addition, seven countries reported dropout rates exceeding 10% between the first and third doses of the DTP vaccine (5).

<sup>1</sup> Brazil, Canada, Chile, Colombia, the Dominican Republic, Ecuador, Haiti, Peru, the United States of America, and Venezuela (Bolivarian Republic of)

<sup>2</sup> Argentina, Bolivia (Plurinational State of), Honduras, Mexico, Panama, Sint Eustatius, and Venezuela

**Figure 1.** Trends in regional DPT1 and DPT3 vaccination coverage in the Americas Region, 2014–2024.



**Source:** Adapted from the Pan American Health Organization. Lifecycle Immunization Coverage in the Americas—Routine Immunization Dashboard. Washington, D.C.: PAHO/WHO; 2026 [cited 10 June 2026]. Available from: <https://paho-cim.shinyapps.io/immunization-dashboard/#> (5).

### Epidemiological situation of diphtheria by country in the Americas Region

The following is a summary of the epidemiological situation of diphtheria in the three countries in the Americas Region that have reported confirmed cases in 2026, listed in alphabetical order.

In **Brazil**, between EW 1 and EW 21 of 2026, two confirmed cases of diphtheria were reported, by laboratory criteria (n= 1 case) and by clinical criteria (n= 1 case). The confirmed cases were reported in the states of Maranhão (n= 1 case) and Piauí (n= 1 case). Regarding distribution by age group, cases were among the 15–19-years of age group (n= 1 case) and the 20–29-years of age group (n= 1 case) (1).

In 2025, four confirmed cases of diphtheria were reported, in the states of Paraná (n= 1 case) and Rio Grande do Sul (n= 3 cases). Regarding distribution by age group, cases were reported among the 15–19-years of age group (n= 1 case) and the 30 and older years of age group (n= 3 cases) (1).

In Brazil in 2025, DPT3 coverage was 88.4%, a decrease from 2024 (90.4%). In 2025, 88.9% of municipalities achieved 80% or higher DPT3 coverage; the remaining municipalities fell below this threshold. The dropout rate shows a decrease compared to 2024 (91.7%) (1). In 2025, nearly 1.03% of children who received a first dose of DPT did not complete their DPT3 schedule (1).

In **Haiti**, between EW 1 and EW 21 of 2026, 1,616 suspected cases<sup>3</sup> of diphtheria were reported, including 13 deaths; of which 159 cases were confirmed (157 by laboratory testing [RT-PCR] and two by epidemiological link), including five confirmed deaths (**Table 1, Figure 2**) (2). Confirmed cases have been reported in all ten departments of the country; the greatest proportion have been identified in the departments of Ouest (n= 58 cases), followed by Sud-Est (n= 36 cases), and Nord-Est (n= 27 cases). During 2026, the highest proportion of confirmed cases occurred among the 20 years and older age group, accounting for 40% of cases (n= 63 cases), followed by the 5–9 years age group with 19% (n= 30 cases) and the 1–4 years of age group with 14% of cases (n= 22 cases) (2). For the same period, the highest cumulative incidence rates of confirmed cases were recorded in the departments of Ouest (1.38 cases per 100,000 population) and Sud-Est (4.62 cases per 100,000 population). Regarding the vaccination status of confirmed cases, 55% were not vaccinated or had an unknown vaccination status (n= 87 cases) (2).

In 2025, 988 suspected cases of diphtheria were reported in Haiti, including 31 deaths; of which, 58 cases were laboratory confirmed by RT-PCR, including four confirmed deaths (**Table 1, Figure 2**). In 2025, confirmed cases were reported in all ten departments of the country; the greatest proportion of confirmed cases were identified in the Nord department (n= 16 cases), followed by Nord-Ouest (n= 15 cases), and Ouest (n= 12 cases). During 2025, the highest proportion of confirmed cases occurred among the 5–9 years of age group, representing 34% of cases (n= 20 cases), followed by the 10–14 years of age group with 33% (n= 19 cases), and the 20 years and older age group with 12% (n= 7 cases) (2). For the same period, the highest cumulative incidence rates of confirmed cases were recorded in the departments of Nord (1.34 cases per 100,000 population) and Nord-Ouest (1.85 cases per 100,000 population). Regarding the vaccination history of confirmed cases, 76% were unvaccinated or had an unknown vaccination history (n= 44 cases) (2).

**Table 1.** Suspected and confirmed cases of diphtheria reported in Haiti, 2022–2026 (through EW 21 of 2026)

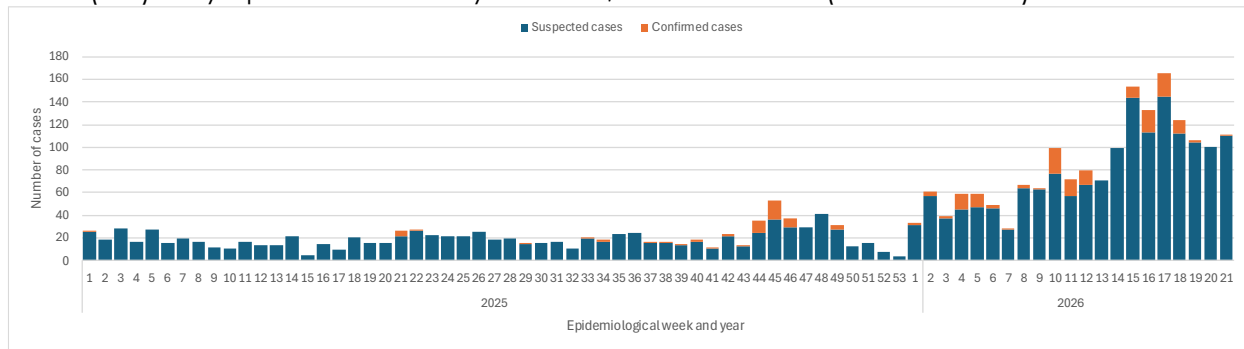
Year	Suspected cases	Confirmed cases	Confirmed deaths	Case fatality rate (%)
<b>2022</b>	211	36	11	31
<b>2023</b>	171	10	3	30
<b>2024</b>	803	75	16	21
<b>2025</b>	988	58	4	7
<b>2026</b>	1,616	159*	5	3
<b>Total</b>	<b>3,789</b>	<b>338</b>	<b>39</b>	<b>12</b>

\*157 by laboratory testing [RT-PCR] and two by epidemiological link

**Source:** Adapted from Haiti International Health Regulations National Focal Point (IHR NFP). Communication received on 8 June 2026, via email. Port-au-Prince; 2026. Unpublished (2).

<sup>3</sup> The Haiti Ministry of Public Health and Population (MSPP) defines a suspected case as any person, of any age, who presents with laryngitis, pharyngitis, or tonsillitis accompanied by pseudomembranes attached to the tonsils, pharynx, and/or nasal passages, along with neck swelling (2).

**Figure 2.** Distribution of suspected and confirmed cases of diphtheria by epidemiological week (EW) of symptom onset and year. Haiti, 2025 and 2026 (EW 21 of 2026).



**Source:** Adapted from Haiti International Health Regulations National Focal Point (IHR NFP). Communication received on 8 June 2026, via email. Port-au-Prince; 2026. Unpublished (2).

In Haiti in 2025, DPT3 coverage was 77%. In 2025, 44% of municipalities achieved 80% or higher DPT3 coverage; the remaining municipalities fell below this threshold. The dropout rate has increased compared to 2024. In 2025, the dropout rate indicates that 7% of children who received a first dose of DPT did not complete their DPT3 schedule (2).

In **Peru**, in 2026 there have been two confirmed diphtheria cases reported. Initially, during EW 6 of 2026, a probable case of diphtheria was reported in a 12-year-old male residing in Utcubamba, Amazonas Department. The case presented with onset of symptoms on 27 January, had no history of recent travel, and had no documented history of diphtheria vaccination. The case was laboratory confirmed on 16 April through isolation of *Corynebacterium diphtheriae*, which carried the *tox* gene and was capable of producing toxin (Elek-positive), confirming its toxigenic nature. Phylogenetic analysis placed the isolate within the Gravis lineage. Additionally, the investigation identified a direct contact who tested positive for *Corynebacterium diphtheriae* and for the *tox* gene via real-time PCR, although bacterial isolation was not achieved; therefore, the case was confirmed through epidemiological linkage (3). In Peru, no confirmed cases of diphtheria had been reported since 2020; the last cases that year occurred during an outbreak in the city of Lima, with four confirmed cases (3).

In Peru in 2025, DPT2 coverage stood at 69.8%, showing a slight increase compared to 2024 and reversing the downward trend of recent years. In 2025, 50% of municipalities achieved 80% or higher DPT3 coverage; the remaining municipalities are below this threshold (3).

## Guidance for Member States

The Americas Region is slowly recovering its immunization coverage rates for most antigens, including the diphtheria, tetanus, and pertussis (DTP) vaccine; however, optimal vaccination coverage levels of  $\geq 95\%$  have not yet been achieved. Given that the causative agent of diphtheria has not been eliminated and that the disease could become endemic again due to declining vaccination rates, waning immunity over time, and a lack of booster doses, the Pan American Health Organization (PAHO) reiterates to Member States the following recommendations regarding vaccination, surveillance, laboratory diagnosis, clinical management, and risk communication.

## Vaccination:

Member States are recommended to ensure vaccination coverage of  $\geq 95\%$  with the primary series (3 doses) of DPT vaccine and with boosters (3 doses), uniformly across all subnational levels of the country. This vaccination schedule ensures protection throughout adolescence and adulthood (up to age 39 and possibly beyond) (6, 7). It should be noted that the unvaccinated population or those with an incomplete vaccination schedule are at risk (6, 7).

The primary series begins at 6 weeks of age and must be completed with the third dose at 6 months. Booster doses are subsequently administered at 12–23 months, 4–7 years, and 9–15 years (Table 2) (6, 7). To prevent new cases, it is urgent to increase coverage of both the primary series (3 doses) and the recommended boosters (3 doses) among children, adolescents, and adults (6).

**Table 2.** Recommended vaccination schedule for the Americas Region

Vaccination Schedule	Primary			Booster		
	1 <sup>a</sup> (DTP1)	2 <sup>a</sup>	3 <sup>a</sup> (DTP3)	4 <sup>a</sup>	5 <sup>a</sup>	6 <sup>a</sup>
	2 months / 1st contact	4 months	6 months	12–23 months*	4–7 years**	9–15 years***
	With DTP	With DTP	With DTP	With DTP	Td/DT/With DTP	Td/TdaP

\* Pertussis booster dose: A booster dose is recommended for children aged 1 to 6 years, preferably during the second year of life.

\*\* For children under 7 years of age, combinations of whole-cell diphtheria, tetanus, and pertussis (DTwP) or acellular diphtheria, tetanus, and pertussis (DTaP) may be used.

\*\*\* Whole-cell pertussis vaccines are not recommended for children older than 7 years

**Source:** Adapted from the Pan American Health Organization. Technical Advisory Group (TAG) on Vaccine-Preventable Diseases, TAG recommendations for Pertussis (whooping cough); Washington, D.C.: PAHO; 2019. Available from: <https://www.paho.org/sites/default/files/2025-01/1999-2024-tag-recommendations-pertussis.pdf> (8) and from the Pan American Health Organization. Control of diphtheria and pertussis: Field guide. Washington, D.C.: PAHO; 2025. Available from: <https://www.paho.org/en/documents/control-diphtheria-and-pertussis-field-guide> (6).

It is necessary to take advantage of every contact with the health system to complete vaccination schedules. This includes reaching the unvaccinated population in densely populated areas, verifying vaccination status upon school entry or in other institutions with similar requirements, and administering Td or Tdap during prenatal care and for wound prophylaxis (7).

Vaccination during pregnancy is recommended because transplacental maternal antibodies provide passive immunity to the newborn during the first months of life. It is recommended that pregnant women receive one dose of the vaccine during the second or third trimester of each pregnancy, ideally at least 15 days before delivery, to transfer protection to the newborn (6).

Although travelers are not at special risk of contracting diphtheria, national authorities are advised to remind travelers heading to areas with diphtheria outbreaks to ensure they are properly vaccinated prior to travel in accordance with the national immunization schedule established in each country (7).

## Surveillance

Countries are encouraged to strengthen diphtheria surveillance to monitor disease trends, identify outbreaks and conduct contact tracing, and evaluate the impact of the vaccination strategy and control measures implemented. All suspected cases should undergo laboratory

testing for definitive case classification. Effective control of diphtheria depends on robust surveillance systems that include case reporting, laboratory confirmation, and vaccination monitoring (6).

### **Laboratory diagnosis**

Laboratory confirmation is essential to ensure an accurate diagnosis and appropriate treatment. Laboratory diagnosis is performed by culturing the microorganism on selective media, conducting biochemical tests, and performing the Elek test, which confirms the production of diphtheria toxin. Polymerase Chain Reaction (PCR) detects the presence of the diphtheria toxin gene (*tox*) and is useful for detecting the presence of the bacterium, especially in samples that have been difficult to obtain, handle, or transport, or in cases where antimicrobial treatment has been initiated prior to sample collection (6).

The Elek test is recommended to confirm toxin production, primarily in sporadic cases and in countries with active outbreaks that report cases in new locations or that present cases without a direct epidemiological link to a confirmed case (6).

### **Clinical Management**

PAHO/WHO urges countries to maintain a supply of diphtheria antitoxin (DAT) for timely use and to reduce the case-fatality rate, and to train hospital staff on its use and administration. PAHO emphasizes that DAT should be administered immediately and without prior susceptibility testing, as treatment cannot be delayed (6).

Timely initiation of antibiotic therapy, in combination with DAT, is essential. Although macrolides (such as azithromycin or erythromycin) are often preferred given the increasing resistance to penicillin, it is vital to rely on local antimicrobial susceptibility testing to select the optimal treatment (6).

In light of ongoing diphtheria outbreaks, PAHO/WHO urges Member States to urgently intensify their response by ensuring the timely supply of DTP, strict contact tracing, and the rapid closure of vaccination gaps to achieve coverage rates above 95% (9). Vaccination is key to preventing cases and outbreaks; and proper clinical management reduces complications and mortality.

### **Risk Communication**

PAHO/WHO recommends conducting training courses for physicians and health personnel on the epidemiology of diphtheria, clinical presentation, laboratory diagnosis, management, epidemiological investigation, and outbreak response (6).

Likewise, it is recommended to promote the dissemination of public health messages to the general population to improve early recognition, reporting, and prompt initiation of treatment for cases.

## References

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