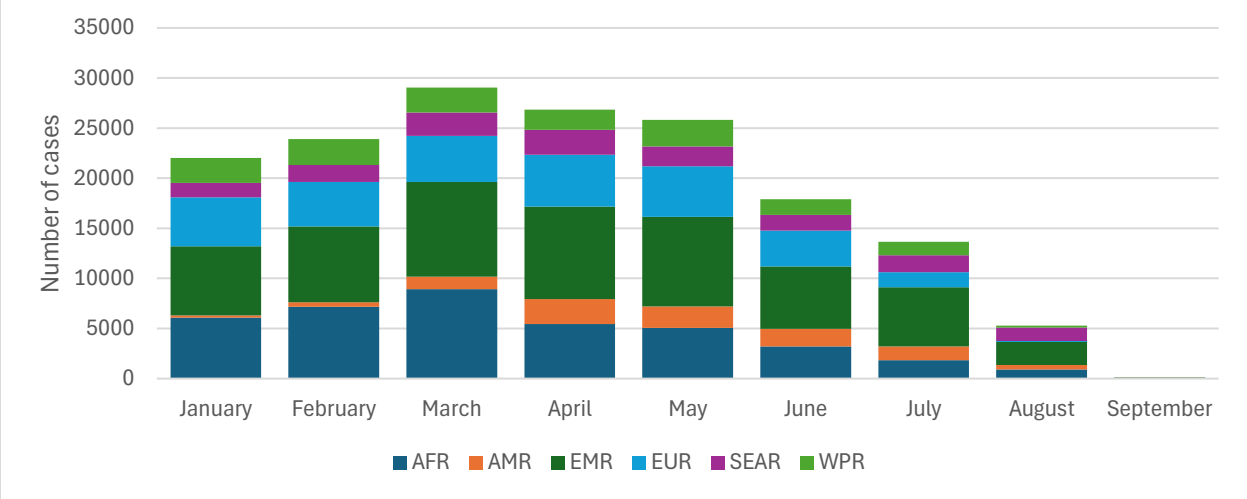
Epidemiological Update Measles in the Americas Region

19 September 2025

Global Summary

According to monthly measles and rubella surveillance data published by the World Health Organization (WHO) in 2025, as of 9 September 2025, 360,321 suspected measles cases were reported in 173 Member States across the six WHO regions, of which 164,582 (45.6%) were confirmed[1]. Thirty-four percent of cases were reported in the WHO Eastern Mediterranean Region (EMR), followed by the WHO Africa Region (AFR) with 23% of cases and the WHO European Region (EUR) with 18% of cases (**Figure 1**) *(1)*.

Figure 1. Distribution of measles cases by month and WHO Region, 2025 (9 September 2025).



WHO Regions: AFR: Africa Region; **AMR**: Americas Region; **EMR**: Eastern Mediterranean Region; **EUR**: European Region; **SEAR**: South-East Asia Region; **WPR:** Western Pacific Region.

Source: Adapted from data published by the World Health Organization. Immunization data—Provisional measles and rubella data. Geneva: WHO; 2025 [cited 16 September 2025]. Available at: https://immunizationdata.who.int/global?topic=Provisional-measles-and-rubella-data&location=.

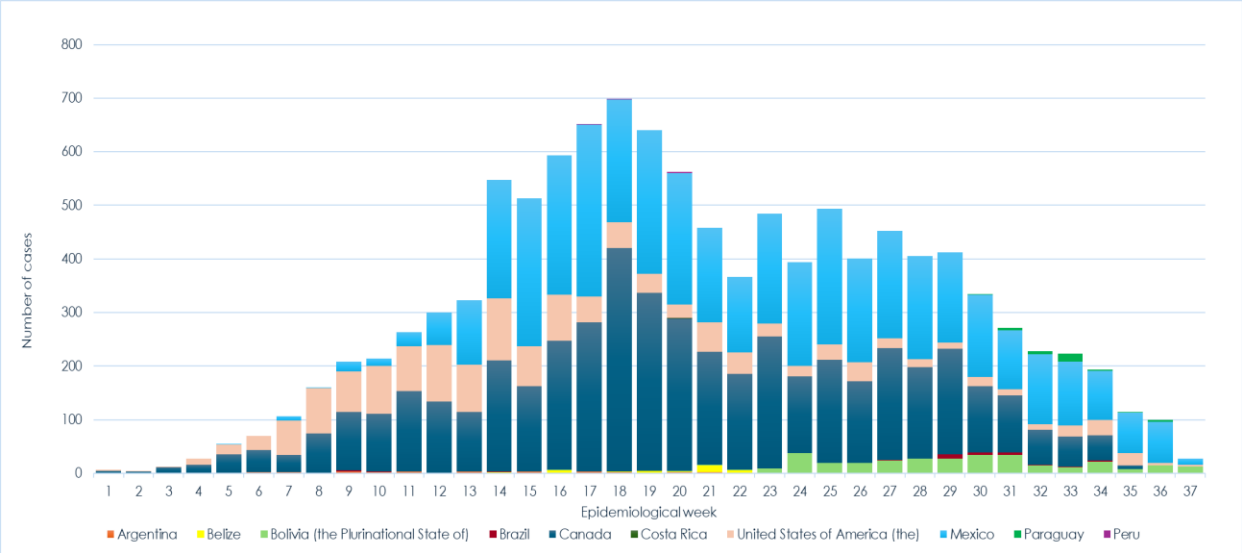
[1] Includes cases confirmed by laboratory, clinical, or epidemiological criteria.

Suggested citation: Pan American Health Organization/World Health Organization . Epidemiological Update: Measles in the Americas Region, 19 September 2025. Washington, D.C.: PAHO/WHO; 2025.

Summary of the Situation in the Americas Region

In 2025, between epidemiological week (EW) 1 and EW 37, 11,313 measles cases were confirmed in the Americas Region, including 23 deaths, in Argentina (n= 35 cases), Belize (n= 34 cases), the Plurinational State of Bolivia (n= 320 cases), Brazil (n= 28 cases), Canada (n= 4,849, including one death)[2] , Costa Rica (n= 1 case), Mexico (n= 4,553 cases, including 19 deaths), Paraguay (n= 35 cases), Peru (n= 4 cases), and the United States of America (n= 1,454, including three deaths) (**Figure 2**) *(2-13)*. This total represents a 31-fold increase compared with the 358 measles cases reported during the same period in 2024 *(14)*.

Figure 2. Confirmed* measles cases by epidemiological week of rash onset or notification and country in the Americas Region, 2025 (as of EW 37).



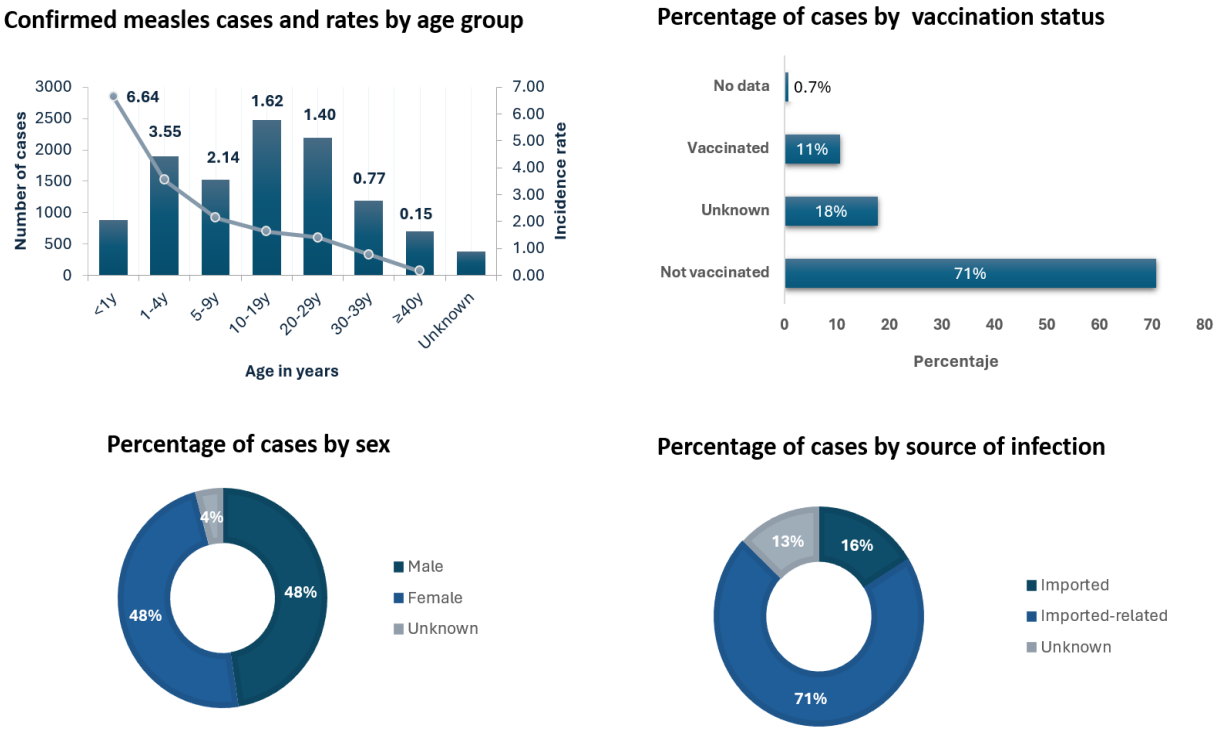
***Note:** Includes confirmed and probable cases for Canada.
Source: Adapted from data provided by the respective countries *(2-13)*.

The distribution of confirmed measles cases in the Americas Region by epidemiological week shows a gradual increase in cases starting in EW 3 of 2025, with the highest number of cases recorded in EW 18 related to outbreaks in vaccine-resistant communities in several countries in the Americas Region. There has also been a slow decline in the number of cases reported in the last four epidemiological weeks (EW 32-36) *(2-14)*.

According to the information available on confirmed cases (n= 11,248), the age group with the highest proportion of cases is 10-19 years (22%), followed by the 20-29 age group (19%) and the 1-4 age group (17%). However, the incidence rate is highest among children under one year of age (6.6 cases per 100,000 population), followed by the 1-4 age group (3.6 cases per 100,000 population) and the 5-9 age group (2.1 cases per 100,000 population) *(14)*. With regard to vaccination history, 71% of cases were unvaccinated and in 18% of cases this information was unknown or absent. Regarding the source of infection, 71% of cases were classified as associated with importation, and 16% as imported (**Figure 3**) *(14)*.

[2] In Canada, measles cases include confirmed and probable cases.

Figure 3. Percent distribution of confirmed measles cases by age group, sex, vaccination status, and source of infection in the Americas Region as of EW 36 of 2025.

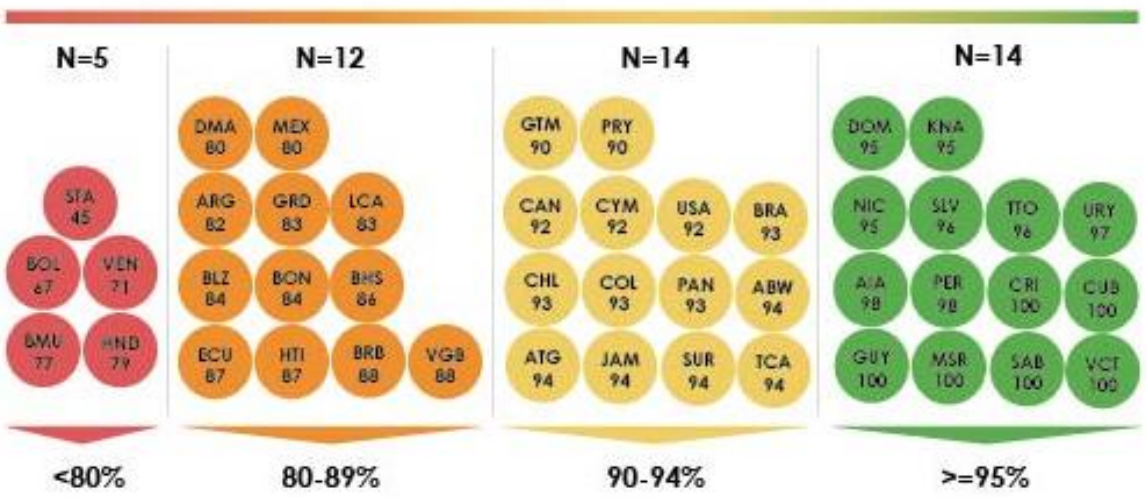


Source: Adapted from Pan American Health Organization. Integrated Surveillance Information System (ISIS) for poliomyelitis, measles, rubella, and congenital rubella syndrome, and country reports to PAHO Comprehensive Immunization. Washington, D.C.: PAHO; 2025 [cited 15 September 2025]. Unpublished.

Vaccination Coverage in the Americas Region

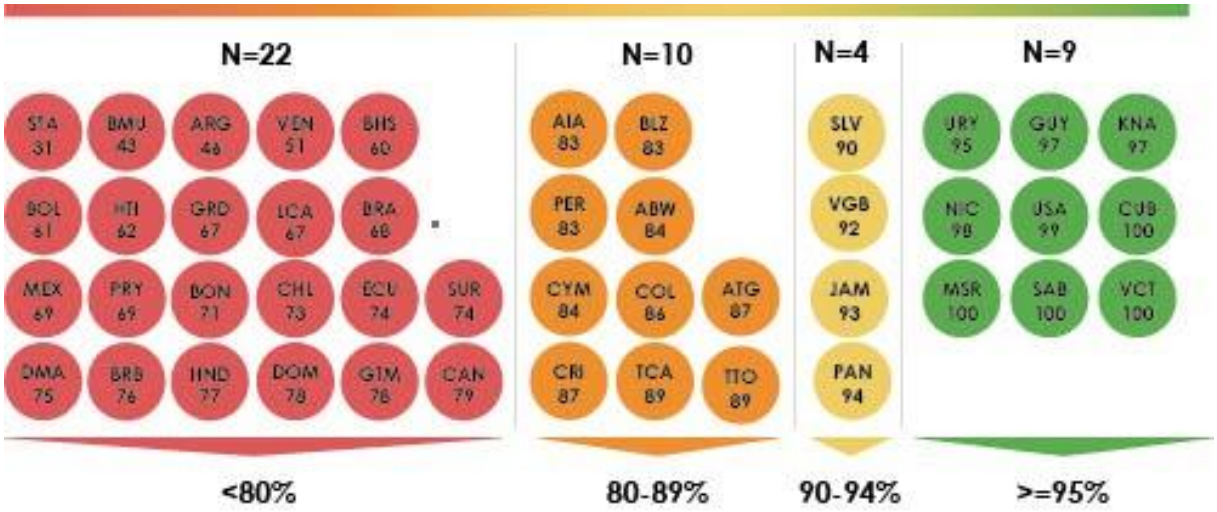
In 2024, there was a slight increase in regional coverage of the first and second doses of the measles, mumps, and rubella (MMR) vaccine compared to 2023: from 87% to 89% for MMR1 and from 76% to 79% for MMR2 *(15)*. Additionally, 45 countries and territories in the Americas reported MMR1 and MMR2 vaccination coverage to PAHO *(15)*. With regard to the administration of the first dose of MMR1, 31.1% (n= 14/45) of the countries and territories in the Region have coverage rates above 95%, 31.1% (n= 14/45) have coverage rates between 90-94%, 27% (n=12/45) have coverage between 80-89%, and 11.1% (n=5/45) have coverage below 80% (**Figure 4**) *(15)*. With regard to the administration of the second dose of MMR2, only 20% of countries and territories (n= 9/45) have coverage levels above 95%, while 48.9% (n= 22/45) have coverage levels below 80% (**Figure 5**) *(15)*.

Figure 4. Distribution of countries and territories* by coverage range for the first dose of the measles, rubella, and mumps vaccine (MMR1), Americas Region, 2024.



Source: Adapted from the Pan American Health Organization/World Health Organization. Immunization coverage throughout the life course in the Americas. Washington, D.C.: PAHO/WHO; 2025 2025 [cited 16 September 2025]. Available at: https://paho-cim.shinyapps.io/immunization-dashboard/#.

Figure 5. Distribution of countries and territories* by coverage range for the second dose of the measles, rubella, and mumps vaccine (MMR2), Americas Region, 2024.



Source: Adapted from Pan American Health Organization/World Health Organization. Immunization coverage throughout the life course in the Americas. Washington, D.C.: PAHO/WHO; 2025 2025 [cited 16 September 2025]. Available at: https://paho-cim.shinyapps.io/immunization-dashboard/#.

***Note**: ABW: Aruba; AIA: Anguilla; ARG: Argentina; ATG: Antigua and Barbuda; BHS: Bahamas; BLZ: Belize; BMU: Bermuda; BOL: Bolivia; BON: Bonaire; BRA: Brazil; BRB: Barbados; CAN: Canada; CHL: Chile; COL: Colombia; CRI: Costa Rica; CUB: Cuba; CYM: Cayman Islands; DMA: Dominica; DOM: Dominican Republic; ECU: Ecuador; GRD: Grenada; GTM: Guatemala; GUY: Guyana; HND: Honduras; HTI: Haiti; JAM: Jamaica; KNA: Saint Kitts and Nevis; LCA: Saint Lucia; MEX: Mexico; MSR: Montserrat; NIC: Nicaragua; PAN: Panama; PER: Peru; PRY: Paraguay; SAB: Saba; SLV: El Salvador; STA: Saint Eustatius; SUR: Suriname; TCA: Turks and Caicos Islands; TTO: Trinidad and Tobago; URY: Uruguay; USA: United States of America; VCT: Saint Vincent and the Grenadines; VEN: Venezuela; VGB: British Virgin Islands.

Epidemiological situation of measles in the Americas Region in 2025 by country

Below is an update on the epidemiological situation of measles in countries, in alphabetical order, that have reported confirmed cases in the Americas in 2025. Since the last epidemiological update on measles in the Americas Region from the Pan American Health Organization/World Health Organization (PAHO/WHO) published on 1 July 2025, the countries that have reported confirmed cases in the Americas Region are Argentina, Belize, Bolivia, Brazil, Canada, Costa Rica, Mexico, Paraguay, Peru, and the United States (**Figure 4**) *(2-13, 16)*.

In **Argentina**, between EW 1 and EW 37 of 2025, 35 measles cases have been confirmed. The confirmed cases were reported in the Autonomous City of Buenos Aires (CABA, per its acronym in Spanish) (n= 13), and the provinces of Buenos Aires (n= 21) and San Luis (n= 1). Six of the cases are imported, 29 are related to importation, and four are confirmed with the source of infection under investigation *(2)*. The cases are distributed across an age range of 5 months to 40 years, with 48% (n= 17) of cases corresponding to children under 5 years of age, 20% (n= 7) to individuals between 5 and 19 years of age, and 31% (n= 11) to adults over 20 years of age. The incidence rate by age group shows that the most affected age group is children under one year of age (5.6 cases per 100,000 population), followed by the group aged 1 to under 5 years (4.7 cases per 100,000 population) *(2)*.

Regarding the vaccination history of the cases, 40% (n= 14) were unvaccinated or had an unknown vaccination history, 14% had received a single dose of MMR (n= 5), and 23% had received two doses of MMR (n= 8). Of the cases, 6% required hospitalization (n= 2) *(2)*. According to the genotyping performed on samples from confirmed cases (n= 27 samples), the following genotypes have been identified: B3 DSID 9240, D8 DSID 5963 Patán lineage, D8 DSID 9171 MVs/Ontario lineage.CAN/47.24, and genotype B3 DSID 6418 MVs/Quetta lineage.PAK/44.20 *(2)*.

In Argentina, in 2024, vaccination coverage for MMR reached 83% nationwide for the first dose and 47% for the second dose. Expanded cohort coverage for MMR2 is 72% *(2)*.

In **Belize**, between EW 1 and EW 26 of 2025, 34 measles cases have been confirmed. Of these, ten were confirmed by laboratory tests and 24 by epidemiological link. Confirmed cases have been identified in the districts of Cayo (n= 33) and Corozal (n= 1). Of the total confirmed cases, four are imported and 30 are import-related. The imported cases have a history of travel to Mexico between January and April 2025. The cases are distributed across an age range of 0 to 45 years, with 21% (n= 7) under 5 years of age, 59% (n= 20) between 5 and 19 years of age, and 21% (n= 7) over 20 years of age. Regarding measles vaccination history, 100% (n= 34) were unvaccinated or had an unknown vaccination history at the time of diagnosis. Only one case required hospitalization. On 21 July 2025, the Ministry of Health and Welfare reported the end of the measles outbreak after two complete incubation periods without new cases *(3)*.

In **Bolivia**, between EW 16 and EW 37 of 2025, 320 measles cases have been confirmed in eight departments. The confirmed cases were reported in the departments of Beni (n= 5), Chuquisaca (n= 5), Cochabamba (n= 7), La Paz (n= 18), Oruro (n= 7), Pando (n= 1), Potosí (n= 6), and Santa Cruz (n= 271), accounting for 85% of cases *(4)*. Of the total cases, 25% correspond to children between 5 and 9 years of age (n= 79), followed by the 1-4 age group with 22% of cases (n= 71) and the over-20 age group with 20% of cases (n= 64) *(4)*.

Regarding the vaccination history of the cases, 84% (n= 269) were not vaccinated or had an unknown vaccination history, 5% had a first dose of MR/MMR (n= 17), 8% had a second dose of MR/MMR (n= 25) and 3% had third or fourth doses of MR/MMR (n= 9). Of the 320 confirmed cases, 8% (n= 26) have required hospitalization and no related deaths have been recorded *(4)*.

According to the genotyping performed on samples from the first two confirmed cases, genotype D8 DSID 9171 has been identified *(4)*.

In Bolivia, in 2024, national vaccination coverage for MMR reached 67% for the first dose and 61% for the second dose *(15)*.

In **Brazil**, between EW 1 and EW 37 of 2025, 28 measles cases have been confirmed in the Distrito Federal and five states. Of the total cases, six are imported cases, 19 are import-related, and three have an unknown source of infection. The confirmed cases were reported in the Distrito Federal (n= 1), and the states of Maranhão (n= 1), Rio de Janeiro (n= 2), São Paulo (n= 1), Rio Grande do Sul (n= 1), and Tocantins (n= 22 cases) *(5)*. The cases are distributed across the following age groups: 25% (n= 7) of cases correspond to children under 5 years of age, 21% (n= 6) to individuals between 5 and 19 years of age, and 54% (n= 15) to adults over 20 years of age. The incidence rate by age group shows that the most affected age group is children under 5 years of age (0.054 cases per 100,000 population), followed by the 5-19 age group (0.014 per 100,000 population) and the over-20 age group (0.010 per 100,000 population) *(5)*.

Regarding the vaccination history of the cases, 93% (n= 26) were unvaccinated or had an unknown vaccination history, and 7% had received two doses of the MMR vaccine (n= 2). Eleven percent of the cases required hospitalization (n= 3), and no related deaths have been reported *(5)*.

Between EW 9 and EW 34 of 2025, 18 confirmed measles cases were characterized by genomic analysis in Brazil. Phylogenetic analyses performed with reference strains revealed that two sequences detected in the state of Rio de Janeiro, in EW 9 and EW 10, belong to genotype B3, with 99.8% genomic identity to the strain named MVs/Quetta.PAK/44.20 and the distinct sequence DSId (9299). In the Federal District, a sequence belonging to genotype D8 DSId (9267) was identified in EW 9, with 99.8% genomic identity to the strain MVs/Pasaman Barat.IDN/13.22. In EW 14 and EW 15, genotype B3 DSId (8841), corresponding to the MVs/New South Wales.AUS/10.24 strain, was detected in the states of São Paulo and Rio Grande do Sul, respectively. Between EW 29 and EW 34, 13 measles cases were genomically characterized in the state of Tocantins, all belonging to genotype D8, lineage MVs/Ontario.CAN/47.24 and DSId *(5)*.

In Brazil, in 2024, national MMR vaccination coverage reached 96% for the first dose and 80% for the second dose *(5)*.

In **Canada**, between EW 1 and EW 35 of 2025, 4,849 measles cases (4,497 confirmed and 352 probable) were reported, including one death, in ten provinces: Alberta (n= 1,825), British Columbia (n= 256), Manitoba (n= 207), New Brunswick (n= 16), Northwest Territories (n= 1), Nova Scotia (n= 54), Ontario (n= 2,377), Prince Edward Island (n= 3), Quebec (n= 36), and Saskatchewan (n= 74). The number of weekly cases peaked in EW 18 of 2025 and has been

steadily declining since then. One death was reported in a congenital measles case who was born prematurely and had other underlying medical conditions. The number of measles cases reported to date in 2025 far exceeds the 147 confirmed cases detected in 2024 and represents the highest annual number of cases since elimination was achieved in 1998 *(6, 7)*.

Of the 4,849 cases reported in 2025, 97% (n= 4,720) were exposed in Canada, 2% (n= 85) were imported cases, and 1% (n= 44) have a source of exposure that is unknown or under investigation. Forty-four percent of cases were between 5 and 17 years of age, followed by 30% of cases over 18 years of age and 20% of cases between 1 and 4 years of age. In terms of vaccination history, 88% were unvaccinated, 3% had received one dose of a measles-containing vaccine, 5% had received two or more doses of a measles-containing vaccine, and 5% had unknown vaccination status. The vaccination history by age group is as follows: the percentage of cases that had received one or more doses of a measles-containing vaccine is 2% in children aged 1 to 4 years, 3% in individuals aged 5 to 17 years, and 19% in adults aged 18 years and older. Eight percent of cases were hospitalized (n= 364). Among confirmed cases with genotyping information available, genotype D8 was identified in 1,198 cases and genotype B3 in 33 cases *(6, 7)*.

A multi-jurisdictional outbreak is active in Canada, and 97% of cases (4,333 confirmed and 352 probable) reported in 2025 are related to this outbreak. The outbreak mainly affects unvaccinated people in communities with low levels of coverage who interact with each other. The outbreak began in late 2024. Between 27 October 2024 and 30 August 2025, 4,772 cases (4,390 confirmed and 382 probable) related to this outbreak have been reported in ten provinces and territories (Alberta, British Columbia, Manitoba, New Brunswick, Northwest Territories, Nova Scotia, Ontario, Prince Edward Island, Quebec, and Saskatchewan). Since late April 2025, cases associated with this outbreak have been steadily declining. The outbreak originated from an imported case who attended an event in New Brunswick in October 2024, which was attended by people from multiple provinces. Most cases related to this outbreak were unvaccinated (89%) or had unknown vaccination status (5%). The measles strain circulating in this outbreak is wild-type genotype D8 *(6, 7)*.

In addition to the multijurisdictional outbreak described above, seven outbreaks have been reported between EW 1 and EW 35 of 2025, six of which have been declared over as of August 30, 2025. These outbreaks consist of two or more epidemiologically or virologically related cases and are directly linked to imported cases *(6, 7)*.

In **Costa Rica**, between EW 1 and EW 24 of 2025, one imported case of measles has been confirmed in the province of Guanacaste. The case involves an 18-year-old female who entered the country on 3 May 2025, arriving from Canada. The case had no history of vaccination. The patient began experiencing symptoms on 11 May with fever and general malaise, developing a rash on 12 May. She was hospitalized on 13 May as a precautionary measure, without developing any complications associated with the disease. The case was confirmed by RT-PCR on 15 May by the Costa Rican Institute for Research and Teaching in Nutrition and Health (INCIENSA, per its acronym in Spanish). No secondary cases or deaths have been reported *(8)*.

In **Mexico**, between EW 1 and EW 37 of 2025, 4,553 measles cases have been confirmed, including 19 deaths, in 23 states. Cases were reported in Baja California Sur (n= 8), Campeche (n= 14), Chiapas (n= 1), Chihuahua (n= 4,231, including 18 deaths), Mexico City (n= 6), Coahuila (n= 54), Durango (n= 22), Guanajuato (n= 4), Guerrero (n= 47), Jalisco (n= 1), Mexico

(n= 2), Michoacán (n= 15), Nuevo León (n= 1), Oaxaca (n= 5), Querétaro (n= 1), Quintana Roo (n= 2), San Luis Potosí (n= 1), Sinaloa (n= 14), Sonora (n= 88, including one death), Tabasco (n= 2), Tamaulipas (n= 12), Yucatán (n= 1), and Zacatecas (n= 21) *(9)*.

Of the confirmed cases, 52% are female (n= 2,367). The most affected age group was 0 to 4 years old with 24% (n= 1,109), followed by the 25 to 29 age group with 13% (n= 586). The incidence rate by age group shows that the most affected age group is 0 to 4 years (10.6 cases per 100,000 population), followed by the 25 to 29 age group (5.5 cases per 100,000 population) *(9)*. Regarding the vaccination history of the cases, of the 4,353 cases with information, 84% (n= 3,591) had no history of vaccination, 4.5% (n= 190) had received one dose of MMR, and 4.5% (n= 190) had received two or more doses of MMR documented in the national vaccination record *(17)*. Nineteen cases, all from the state of Chihuahua required hospitalization *(17)*. The national incidence rate of measles is 3.41 cases per 100,000 population *(9)*.

According to the genotyping performed on samples from confirmed cases (n= 110), genotypes D8 and genotype B3 have been identified *(17, 18)*.

Nineteen deaths have been confirmed from complications of measles, all in people with no history of vaccination, with comorbidities in some cases. The deaths are distributed between the states of Chihuahua (n= 18) and Sonora (n= 1) *(9)*.

In Mexico, in 2024, national vaccination coverage for MMR reached 80% for the first dose and 69% for the second dose *(15)*.

In **Paraguay**, between EW 30 and EW 37 of 2025, 35 measles cases were confirmed, all of which were reported in the department of San Pedro. Of the total number of cases, one was imported and 34 were related to importation. The confirmed cases were reported in the district of Nueva Germania (n= 13) and the municipalities of Santa Rosa de Aguaray (n= 8) and Tacuatí (n= 14). Of the 35 cases, a total of 26 were confirmed by laboratory (RT-PCR), two by positive IgM, and seven cases were confirmed by epidemiological link and clinical criteria *(10)*.

In terms of demographic characteristics, 60% of cases (n= 21) are female, ranging in age from 3 months to 54 years, with an average age of 10 years. Fifty-one percent (n= 18) of cases correspond to children under 5 years of age, 40% (n= 14) to individuals aged 5-19 years, and 9% (n= 3) to adults over 20 years of age. The incidence rate shows that the most affected age group is 1 to 4 years old (3.7 cases per 100,000 population), followed by children under 1 year old (3.1 per 100,000 population) and 15 to 19 years old (1.0 cases per 100,000 population) *(10)*.

Regarding measles vaccination history, 89% of cases (n= 31) were unvaccinated or had an unknown vaccination history, while 5% had received a single dose of MMR (n= 2) and 5% had received two doses of MMR (n= 2). Twenty-six percent of cases required hospitalization (n= 9), and no related deaths have been reported *(10)*. The Regional Reference Laboratory has reported genotype D8 in five samples sent from the National Reference Laboratory *(10)*. In Paraguay, in 2024, national vaccination coverage for MMR reached 90% for the first dose and 69% for the second dose *(19)*.

In **Peru**, between EW 19 and EW 37 of 2025, four measles cases have been confirmed, all of which were reported in the department of Lima. Of the total number of cases, two are imported cases and two are related to importation. The cases are distributed across an age range of 8 to 34 years, with two cases corresponding to individuals between 5 and 19 years of age and two to adults over 20 years of age. Regarding measles vaccination history, three of the cases were unvaccinated or had an unknown vaccination history, and one had received two doses of MMR vaccine. Of the cases, two required hospitalizations, and no related deaths have been reported *(11)*.

According to the genotyping performed on samples from confirmed cases (n= 2), genotype D8 DSID 9171 and genotype MVs/Ontario.CAN/47.24 (DSId 9171) have been identified. In Peru, in 2024, national vaccination coverage for MMR reached 97% for the first dose and 83% for the second dose *(11)*.

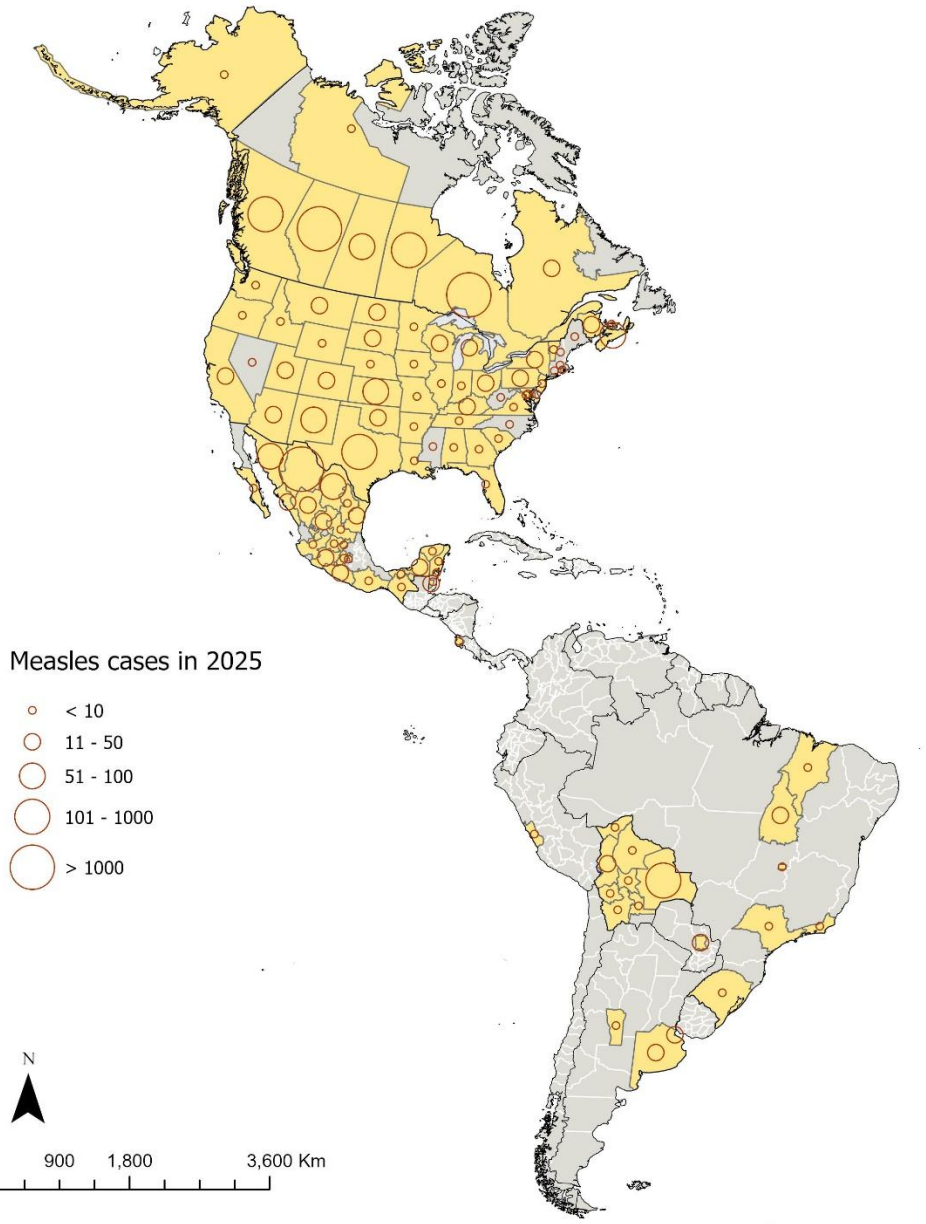
In the **United States**, between EW 1 and EW 37 of 2025, 1,454 confirmed measles cases have been reported, including three deaths. Of these, 1,433 measles cases were reported by 42 jurisdictions: Alabama (n= 1), Alaska (n= 3), Arizona (n= 34), Arkansas (n= 8), California (n= 20), Colorado (n= 27), Florida (n= 6), Georgia (n= 6), Hawaii (n= 2), Idaho (n= 3), Illinois (n= 10), Indiana (n= 8), Iowa (n= 8), Kansas (n= 90), Kentucky (n= 13), Louisiana (n= 2), Maryland (n= 3), Michigan (n= 27), Minnesota (n= 5), Missouri (n= 6), Montana (n= 31), Nebraska (n= 1), New Jersey (n= 10), New Mexico (n= 100, including one death), New York City (n= 9), New York State (n= 7), North Dakota (n= 36), Ohio (n= 33), Oklahoma (n= 17), Oregon (n= 1), Pennsylvania (n= 16), Rhode Island (n= 1), South Carolina (n= 3), South Dakota (n= 12), Tennessee (n= 6), Texas (n= 803, including two deaths), Utah (n= 15) Vermont (n= 2), Virginia (n= 4), Washington (n= 10), Wisconsin (n= 25), and Wyoming (n= 9). A total of 21 measles cases were reported among international visitors to the United States *(12, 13)*. Of the total cases, 86% (n= 1,249) are associated with outbreaks (defined as three or more cases), with 37 outbreaks identified this year. On 18 August, the Texas Department of State Health Services reported the end of the measles outbreak centered in West Texas after 42 days without new cases in any of the counties that previously showed evidence of ongoing transmission *(12, 20)*.

Twenty-eight percent (n= 404) of cases correspond to children under 5 years of age, 38% (n= 554) to individuals between 5 and 19 years of age, 34% (n= 489) to adults over 20 years of age, and 0% (n= 7) to individuals of unknown age. The incidence rate by age group shows that the most affected age group is children under one year of age (3.0 cases per 100,000 population), followed by the age group from 1 to under 5 years (1.9 per 100,000 population).

Regarding the vaccination history of the cases, 92% were unvaccinated or had an unknown vaccination history, 4% had received a single dose of the MMR vaccine, and 4% had received two doses. Among the confirmed vaccinated cases, 26% are under 5 years of age, 14% are between 5 and 19 years of age, and 59% are adults over 20 years of age. Twelve percent (n= 180) of cases required hospitalization, mainly in children under 5 years of age, with 21% (n= 86) of cases requiring hospitalization in this age group (n= 404). MMR vaccine coverage in children has declined in recent years, from 95.2% during the 2019-2020 school year to 92.5% during the 2024-2025 school year *(12, 21)*.

Of the 571 rRT-PCR-positive samples from confirmed measles cases that have undergone genotyping to date, 91% (n= 517) were genotype D8 and 9% (n= 54) were genotype B3. Among the D8 genotype detections, the majority, 88% (n= 453), were identified as distinctive sequence ID (DSId) 9171 *(12)*.

Figure 6. Geographic distribution of confirmed measles cases at the subnational level (in yellow) in the Americas Region, 2025 (as of EW 37)



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The designations employed and the presentation of the material in these maps do not imply the expression of any opinion whatsoever on the part of the Secretariat of the Pan American Health Organization concerning the legal status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers or boundaries. Dotted and dashed lines on maps represent approximate border lines for which there may not yet be full agreement.
Map production:
PAHO Health Emergencies Department (PHE)
Health Emergency Information and Risk Assessment Unit (HIM)

PAHO
Pan American Health Organization
World Health Organization
Americas Region

Source: Adapted from data provided by the respective countries *(2-13)*.

Guidance for Member States

In the current context of persistent measles cases in the Americas Region so far in 2025, the Pan American Health Organization/World Health Organization (PAHO / WHO) recommends that Member States intensify their efforts to sustain the elimination of measles, rubella, and congenital rubella syndrome.

Taking into account the aforementioned risk factors and the current regional context, the following recommendations are offered regarding vaccination, surveillance, and rapid response *(22, 23)*:

Vaccination

a. Countries with active outbreaks:

- In countries with community transmission, long chains of transmission, wide geographic spread, and difficulty in identifying the source of infection, implement indiscriminate mass vaccination activities (an additional dose of MMR or MR vaccine) for affected groups.
- In countries with outbreaks with short chains of transmission, a limited number of cases in clearly identified geographic areas, and known sources of transmission:

    i. Implement a vaccination blockade within the first 72 hours in a 25-block radius around the case's residence (a 5-by-5 block area with the case's residence at the center) and following the route of travel of confirmed cases during their period of transmissibility. Conduct joint active community case finding.

    ii. Implement documented sweeping if the intervention occurs after the first 72 hours or if the blockade was ineffective. Sweeping should be implemented in an area larger than that of the vaccination blockade. Consider an area of five blocks around the case's residence (area of 121 blocks). Conduct active community case finding during this activity.

    iii. Conduct rapid vaccination monitoring in the areas where interventions were carried out to determine which areas require additional vaccination interventions. Conduct active community case finding during this activity.

b. All countries:

- **Vaccinate all close contacts** of confirmed and suspected cases, up to 39 years of age (or according to local epidemiological analysis), with an additional dose of measles-rubella (MR) or MMR vaccine, as appropriate, within the first 72 hours. This should include the route of travel of confirmed cases during the period of disease transmissibility.
- **Maintain a reserve of MR and/or MMR vaccine** and syringes/supplies for prevention and control actions in response to imported cases.
- **Implement vaccination intensification activities** based on the results of the measles and rubella risk analysis, with the aim of closing coverage gaps, prioritizing municipalities at highest risk.

- **Strengthen microplanning of routine vaccination services** to achieve vaccination coverage of at least 95% with two doses of the MMR vaccine. PAHO has developed guidelines that can be very useful for this work.
- **Offer vaccination to travelers** through medical brigades or fixed vaccination posts, ensuring access at strategic locations. Implement zero doses in children aged 6 to 11 months who are traveling to areas with active transmission of the disease.
- **Increase efforts to achieve vaccination coverage in vaccine-hesitant populations**, including awareness-raising activities targeting local authorities, community and religious leaders, as well as other key social actors and government sectors, such as the education sector. In addition, carry out complementary vaccination activities in host communities or areas surrounding vaccine-hesitant populations to close vaccination gaps and strengthen population immunity.

Surveillance

a. Countries with active outbreaks:

- Activate trained rapid response teams, incorporating all relevant sectors.
- Implement the situation room for data analysis and decision-making. This should include detailed analysis of cases, including their route of travel and analysis of vaccination activities implemented.
- In areas with community transmission, it is recommended to use a more specific case definition (fever and maculopapular rash, accompanied by cough, coryza, or conjunctivitis) and to document the change in definition.
- Additionally, to optimize the use of laboratory resources, classify confirmed cases based on clinical criteria (presence of fever, rash, cough, coryza, and conjunctivitis) and epidemiological link, so as not to delay the implementation of response actions.
- Administer vitamin A immediately after diagnosis of measles and repeat the following day in children aged 6 to 59 months, regardless of previous vitamin A doses received. The recommended dose is 50,000 IU for infants under 6 months of age, 100,000 IU for infants aged 6 to 11 months, and 200,000 IU for children aged 12 months and older. If the case presents clinical ophthalmic signs of vitamin A deficiency, such as Bitot's spots, a third dose should be administered 4–6 weeks later *(24)*.

b. All countries:

- **Strengthen epidemiological surveillance** in areas considered high risk, border areas, and areas with epidemiological silence by implementing active searches in both health services and the community.
- **Adopt and adapt PAHO's recent guidance** on active case-finding for acute flaccid paralysis, measles, and rubella, following the recommendations of the Regional Commission for Measles, Rubella, and Congenital Rubella Syndrome issued at its 2024 meeting, available from: https://www.paho.org/en/documents/guidance-active-case-finding-acute-flaccid-paralysis-measles-and-rubella *(25)*.

- **Obtain serum, nasopharyngeal swab, and urine samples** *(26)* in all suspected cases of measles or rubella for laboratory confirmation through serological and real-time RT-PCR molecular testing, as well as genomic sequencing to document the genotype and lineage associated with the infection.

- **Classify suspected cases** with positive IgM results considering clinical, epidemiological, and laboratory criteria, with the participation of surveillance, laboratory, and immunization delegates, as well as the national commission for the sustainability of measles and rubella elimination.

Rapid response

- **Review and, if necessary**, **adjust operational preparedness and rapid response plans**, strengthening the capacity of health systems, mainly in the risk areas mentioned in the ***Vaccination*** section.
- **Initiate a timely response to imported cases of measles or rubella**, including the activation of trained rapid response teams and the implementation of national rapid response protocols *(27, 28)*.
- **Establish appropriate in-hospital management of cases** to prevent nosocomial transmission, particularly during outbreaks. This involves maintaining an adequate flow of patients to isolation rooms (at any level of care), avoiding contact with other patients in common areas such as waiting rooms and hospital wards.
- **Train health personnel**, with an emphasis on rapid response teams, in responding to outbreaks. PAHO offers self-paced online courses for this purpose available from: 1) Rapid response to measles and rubella outbreaks in the Americas (in Spanish) https://campus.paho.org/es/curso/brotes-sarampion-rubeola *(27);* and 2) Measles outbreak in the post-elimination era: case study. https://campus.paho.org/en/course/measles-case-study *(28)*.
- **Activate administrative measures** that facilitate the allocation of resources and coordinate work with the different related sectors (education, tourism, transportation, labor, among others) to implement rapid response measures to measles outbreaks.

Mass events and international travelers

With regard to mass events and international travelers in the Americas Region, consider the following recommendations:

- **Regarding travelers**

  Before travel

  PAHO/WHO recommends that Member States advise all travelers aged six months[3] and older who cannot show proof of vaccination or immunity to **receive a dose of measles and rubella vaccine at least two weeks before traveling to areas where measles or rubella transmission has been documented.**

[3] The dose of measles, rubella, and mumps (MMR) or measles and rubella (MR) vaccine administered to children aged 6 to 11 months does not replace the first dose of the recommended schedule at 12 months of age.

Health authorities are advised to inform travelers before departure about the signs and symptoms of measles and rubella, which include:

- Fever,
- Rash,
- Cough, runny nose, or conjunctivitis (red eyes),
- Joint pain,
- Lymphadenopathy (swollen lymph nodes).

<u>During travel</u>

It is recommended that travelers who develop symptoms during their trip that make them suspect they have contracted measles or rubella do the following:

- Seek immediate care from a healthcare professional.
- Avoid close contact with other people for seven days from the onset of the rash to reduce the risk of transmission (the period of measles transmissibility is four days before to four days after the onset of the rash, and the period of rubella transmissibility is seven days before to seven days after the onset of the rash; since it is difficult to differentiate between the two diseases, it is recommended to use the longer period). Wearing a mask during this same period will further reduce the risk of transmission.
- Stay in the location you are staying (e.g., hotel or home, etc.), except to go to the doctor or as recommended by your healthcare professional. When going out, always wear a mask during the period of transmissibility. Wear a mask in your place of accommodation, with the room closed, if you are living with unvaccinated people.
- Avoid traveling and visiting public places.

Health authorities should note that a **measles vaccination certificate is not a requirement for entry** into countries under the IHR (2005).

<u>Upon your return</u>

- If travelers suspect that they have contracted measles or rubella upon their return, they should contact their healthcare center and inform their doctor about their trip.

- **Regarding doctors and other healthcare professionals**

  PAHO/WHO recommends:

  - Promoting and verifying full vaccination (two doses) against measles and rubella for health sector personnel, including medical, laboratory, administrative, cleaning, and security staff, among others.
  - Raising awareness among private sector health workers of the need for immediate notification of all suspected cases of measles or rubella to ensure a

timely response by national public health authorities in accordance with national surveillance and rapid outbreak response system standards.

- Reminding health personnel of the need to inquire about patients' travel history and vaccination status.

- **Identification and contact tracing of confirmed cases of measles or rubella**
  - Carry out identification and contact tracing activities for identified contacts present in the national territory, in accordance with the country's guidelines and directives.
  - Take into account the international implications that may arise in contact tracing, and consider the following scenarios and operational aspects in carrying out these activities:

    a. When a case is identified by the national authorities of another Member State and the national authorities are asked to locate the contact(s) whose most likely place of residence is their country. National authorities are urged to use all available coordination mechanisms to locate these individuals. The information available for this action may be limited, and efforts should be rational and based on existing resources. Health services should be alerted to the possibility of such contacts so that they can be vigilant and detect any suspected cases in a timely manner.

    b. When a case is identified at the local level and depending on when detection occurs in the natural history of the disease, it may require:

       - *Current case*: national authorities should obtain information on the possible source of infection and the location of contacts abroad and inform the relevant national authorities of the country where the case is presumed to have been infected or where the contact is located.

       - *Retrospectively identified case*: based on the case's travel history, national authorities should inform the national authorities of the relevant country, as this situation could be the first sign of virus circulation or an outbreak in the other country/countries concerned.

         i. Conduct active institutional and community searches to rapidly detect cases among contacts who have not been identified in the outbreak investigation, following the route of travel of the case(s).

<u>Operational observations</u>

For the international search for contacts of confirmed cases of measles or rubella, one of the following two scenarios of exposure to a confirmed case may occur:

- **When there is no involvement of international means of transport (e.g., airplanes, cruise ships, trains**), national authorities should communicate with their counterparts in other countries through the National Focal Point (NFP) for the International Health Regulations (IHR) or through other existing bilateral and multilateral programmatic mechanisms, with a copy to the WHO Regional Focal Point for the IHR. If deemed necessary, national authorities may request support from the WHO Regional Contact Point for the IHR in the Americas to facilitate communications related to international contact tracing.

- **When international means of transport (e.g., airplanes, cruise ships, trains) are involved**, national port health authorities or their equivalents should activate existing mechanisms to obtain relevant information from companies (e.g., airlines) in order to locate travelers, or establish such mechanisms if they are not in place. For subsequent communication between national authorities, see the previous point.

PAHO/WHO recommendations regarding advice for travelers are available in the Epidemiological Update on measles published by PAHO/WHO on 28 February 2025 *(29)*.

Channels for disseminating guidance

PAHO/WHO recommends that national authorities consider disseminating the guidance in this epidemiological update through:

- Public awareness campaigns to promote and improve travelers' health before and after their trip so that they adopt responsible behaviors regarding measles vaccination and are aware of the signs and symptoms of measles. It is also recommended to consider health care services or clinics for travelers, airports, ports, train and bus stations, airlines operating in the country, among others.
- Travel agencies, tourism-related entities, and diplomatic corps should also be aware of and disseminate the necessary recommendations that travelers should consider before traveling.
- Communication to doctors and other health workers of the contents of existing national surveillance guidelines, as well as timely dissemination of any new protocols that the country develops in relation to travelers.

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