

Public health risk assessment of measles in the context of religious mass gatherings in South America: Implications for the Americas Region

8 October 2026

Risk assessment based on data available as of 8 October 2026

Overall risk
Regional
Very High

Confidence in the available information
Regional
High

General Risk Statement

This Rapid Risk Assessment (RRA) aims to assess the public health risk in the Americas Region associated with the mass movement of people due to religious events that will take place in some South American countries (Argentina, Peru, and Uruguay) in the context of the current measles outbreaks and cases reported in 2026 in several countries within and outside the Region, as well as existing immunity gaps in the population.

The incidence of measles has increased significantly throughout the Americas Region during this year. In 2026, between epidemiological week (EW) 1 and EW 40, 55,792 cases of measles, including 77 deaths, were confirmed in 16 countries and one territory in the region, representing a 4.6-fold increase in the number of cases compared with the same period of the previous year. Cases were reported in Argentina (n = 1 case), Belize (n = 15 cases), the Plurinational State of Bolivia (n = 120 cases, including one death), Bonaire (n = 1 case), Brazil (n = 39 cases), Canada (n = 1,121 cases), Chile (n = 1 case), Colombia (n = 15 cases), Costa Rica (n = 5 cases), El Salvador (n = 58 cases), Guatemala (n = 34,355 cases, including 50 deaths), Honduras (n = 15 cases), Mexico (n = 13,595 cases, including 23 deaths), Panama (n = 9 cases), Peru (n = 2,553 cases, including one death), the United States of America (n = 3,887 cases, including two deaths), and Uruguay (n = 2 cases) (1).

In this epidemiological context, holding mass gathering events of various kinds, including religious gatherings, leads to increased domestic and international travel, which can facilitate the importation, exportation, and subsequent spread of the measles virus between countries.

The classification of the risk as **“Very High”** is based on the fact that the main factors underlying the assessment conducted on 5 August 2026 still persist, compounded by the high levels of domestic and international travel and the high concentration of people expected to attend these mass gathering events:

- **The persistence of active outbreaks in countries across the Region**, including the detection of cases not linked to known transmission chains, the recent emergence of cases in new geographic areas, and the impact on indigenous populations and communities or groups that are reluctant to get vaccinated (1).
- **The increase in mortality observed in 2026 compared with 2025**, disproportionately affecting indigenous populations with high levels of malnutrition and limited access to health services (1).
- **The persistence of suboptimal vaccination coverage ($\leq 95\%$) in most countries and territories in the Region**. According to vaccination coverage data for measles, mumps, and rubella (MMR) reported by 43 countries and territories in the Americas in 2025, only 26% of them achieved coverage exceeding 95% for the first dose of MMR, with the same proportion achieving this level of coverage for the second dose of MMR as well. Regional coverage was 88% for the first dose and 85% for the second (2).

- **The increase and geographic concentration of the susceptible population¹** as a result of persistently low vaccination coverage. Various factors contribute to this situation, including immunization gaps that accumulated during the COVID-19 pandemic, increasing vaccine hesitancy in some communities and population groups, operational difficulties in implementing vaccination in a timely manner as a control measure, and barriers to accessing health services that particularly affect vulnerable populations, including indigenous peoples, migrants, and displaced persons (1, 4).
- Added to this, is **the high concentration of people and high mobility between countries within and outside the region**, associated with the holding of international mass gatherings. Adolescents and young adults have been one of the groups most affected by measles outbreaks and, in turn, constitute the population that most frequently travels to participate in religious events.

The public health risk associated with measles in the Americas Region, in the context of religious mass gatherings, especially in countries with suboptimal vaccination coverage, continues to be classified as “Very High,” with a “High” level of confidence based on the available information.

This rapid risk assessment will be revised in the event of a change in the epidemiological, clinical, or virological situation or in the broader context.

Criteria		Assessment		Risk	Rationale
		Probability	Consequences		
Potential Risk to Human Health	Regional	Almost Certain	Moderate	High	• Measles can cause severe illness and complications in people of any age; however, infants and adults are at higher risk of developing severe forms of the disease, complications, and fatal outcomes (4–6). • Measles can cause prolonged immunosuppression, increasing susceptibility to other serious secondary infections even months after the illness, which can contribute to higher morbidity and mortality, especially in immunocompromised individuals (4–6). • In populations with high levels of malnutrition, a lack of adequate health care, and low risk perception, measles can have a case fatality rate as high as 10% (3). • In 2026, between EW 1 and 40, 77 measles-related deaths were identified in the Americas Region; this number exceeds the total recorded during 2025 (n = 29 deaths) (1). The deaths were reported in Guatemala (n = 50), Mexico (n = 23), the United States (n = 2), Bolivia (n = 1), and Peru (n = 1). In Guatemala, children under one year of age had a mortality rate 17 times higher and a case fatality rate four times higher than the overall rates (1). • There is no specific antiviral treatment for measles (3). • Children under 5 years of age and vulnerable populations (indigenous peoples, migrants, and displaced persons) have been disproportionately affected by the disease during outbreaks in the Region. Factors such as malnutrition and barriers to timely access to health services can increase the risk of complications and fatal outcomes (7).

¹ Any person who is not immune (unvaccinated and has not previously had the disease, or vaccinated but has not developed immunity)

Criteria		Assessment		Risk	Rationale
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Risk of Spread	Regional	Highly Likely	Major	Very High	- Measles is a highly contagious viral disease transmitted through the air and respiratory droplets. Its high transmissibility facilitates the rapid spread of the virus when it is introduced into susceptible populations, particularly in settings with high population density and suboptimal vaccination coverage (3). Secondary attack rates among susceptible household contacts have been reported to range from 75% to 90%. Given the high efficiency of measles transmission, outbreaks have been reported in populations where only 3% to 7% of people were susceptible (8). - High levels of domestic and international travel, including that associated with large-scale religious events, such as those planned for the coming months in South America, can increase opportunities for exposure and facilitate the importation and exportation of the virus, leading to its subsequent spread between areas with active transmission and susceptible populations. - Religious mass gatherings create conditions that are particularly conducive to measles transmission: close and prolonged contact among attendees, high concentrations of people, shared accommodations, crowds at transportation hubs and on public transit, and repeated interactions over several days. - Two of the measles outbreaks reported in 2025, which progressed to community transmission and spread nationwide, originated at religious mass gathering events. - Measles transmission can occur several days before the onset of the characteristic rash (6), meaning that infected individuals, not yet suspected of having measles, may attend social activities and mass gatherings and travel domestically and internationally, thereby increasing the risk of spreading the virus. - Persistence of active outbreaks and the spread of outbreaks to new areas in the Americas Region (1). - Difficulty in maintaining adequate vaccination coverage in recent years among the general population, particularly among those reluctant to be vaccinated, migrants, indigenous peoples, and other populations with limited access within the Americas Region. This has led to an increase in the susceptible population and the formation of pockets of susceptible individuals that tend to cluster geographically (4). - Immunization gaps that accumulated during the COVID-19 pandemic have created a pathway for the measles epidemic to spread globally (9–11). It is estimated that approximately 1.6 million children did not receive any doses of the measles vaccine in the Americas Region in 2025. - The global resurgence of cases, particularly in regions and countries with historically low levels of viral circulation, increases the likelihood of imported cases resulting from unvaccinated travelers arriving from areas with ongoing high transmission.

Criteria		Assessment		Risk	Rationale
		Probability	Consequences		
Risk of insufficient prevention and control capacity with available resources	Regional	Highly Likely	Major	Very High	- Contact identification, tracing, follow-up, and timely vaccination can be particularly challenging during international mass gathering events, as exposed individuals may quickly travel across multiple jurisdictions and countries before cases are detected. - High demand and limited vaccine supply to address outbreaks could result in longer waiting times for access to the measles vaccine, which could limit vaccination campaigns to specific populations or age groups, depending on the situation in Member States. - Vaccine hesitancy is a significant problem in general, and particularly in some affected communities in countries of the Americas Region. Misinformation could encourage vaccine refusal, which could delay the implementation of vaccination activities in response to the outbreak. During 2025 and 2026, outbreaks and cases have been observed in communities with low vaccination coverage and vaccine hesitancy (1). - Despite improvements in measles-rubella surveillance indicators, there are still countries that do not meet the minimum reporting rate of two suspected cases per 100,000 inhabitants consistently nationwide, in addition to other indicators (9–11). This could delay detection, reporting, confirmation, and rapid response efforts. - The occurrence of simultaneous outbreaks of arboviral diseases characterized by fever and rash in some countries of the Americas Region may hinder the timely detection of cases, especially in areas where health personnel are not trained to perform an adequate differential diagnosis. - Frequent turnover of health care personnel creates gaps in the knowledge and skills needed to respond rapidly to measles and rubella outbreaks. - The capacity of health services may be overburdened due to the impact of concurrent public health emergencies. Furthermore, the response, especially to large measles outbreaks, requires additional financial and human resources, which demand a significant effort from Member States.

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