YALE SCHOOL OF PUBLIC HEALTH - ESF-8 VIRTUAL MEDICAL OPERATION CENTER SPECIAL REPORT

MEASLES – THE AMERICAS 2025

MORBIDITY AND MORTALITY

COUNTRY	NUMBER OF STATES/PROVINCES	CASES	HOSPITALIZATIONS	DEATHS
NORTH AMERICA				
US	40	1,356	171	3
CANADA	10	4,559	335	1
MEXICO	20	3,994	551	14
CENTRAL AMERICA				
BELIZE	2	34	1	0
COSTA RICA	1	1	0	0
SOUTH AMERICA				
BOLIVIA	8	229	0	0
BRAZIL	4	13	0	0
ARGENTINA	3	35	2	0
PERU	1	4	0	0

Yale SCHOOL OF PUBLIC HEALTH

8/10/2025
2300 HRS EDT

RISK ASSESSMENT IN OUTBREAK AREAS

Risk for Localized Spread	Risk to unvaccinated populations in and around the outbreak areas	Risk to Children	Potential for sustained transmission
HIGH	HIGH	HGH	HIGH

LINKS

UNITED STATES

CDC

TEXAS LINKS

- TEXAS DEPARTMENT OF STATE HEALTH SERVICES

NEW MEXICO LINKS

- NEW MEXICO DEPARTMENT OF HEALTH

OKLAHOMA LINKS

- OKLAHOMA STATE DEPARTMENT OF HEALTH

KANSAS

- KANSAS DEPARTMENT OF HEALTH AND ENVIRONMENT

CANADA

- MEASLES AND RUBELLA WEEKLY MONITORING REPORT
- ALBERTA DASHBOARD
- BRITISH COLOMBIA
- MANITOBA HEALTH
- NEW BRUNSWICK
- NOVA SCOTIA
- PUBLIC HEALTH ONTARIO
- PRINCE EDWARDS ISLAND
- QUEBEC
- SASKATCHEWAN

MEXICO

INFORME DIARIO DEL BROTE DE SARAMPIÓN EN MÉXICO, 2025

MEASLES TESTING LABORATORIES

- CDC MEASLES VIRUS LABORATORY

RESOURCES FOR THE PUBLIC

- CDC – MEASLES
- MEASLES CASES AND OUTBREAKS
- NYSDOH: YOU CAN PREVENT MEASLES
- CDC VIDEO: GET VACCINATED AND PREVENT MEASLES
- CDC VACCINE SHOT FOR MEASLES
- DIRECTORY FOR LOCAL HEALTH DEPARTMENTS

RESOURCES FOR EMS PROVIDERS

- GUIDANCE FOR SUSPECTED MEASLES PATIENT
- NYSDOH POLICY STATEMENT

PORTALS, BLOGS, AND RESOURCES

- CIDRAP
- CORI
- FORCE OF INFECTION
- IVAC
- KAISER HEALTH NEWS
- MEDPAGE TODAY
- NY STATE GLOBAL HEALTH UPDATE
- THE PANDEMIC CENTER TRACKING REPORT
- YOUR LOCAL EPIDEMIOLOGIST

BACKGROUND

TYPE OF PUBLIC HEALTH EMERGENCY: LARGE MULTINATIONAL MEASLES OUTBREAK

OVERVIEW: The Americas have experienced a 29-fold increase in cases compared to this time last year (PAHO). According to the PAHO's latest report, there were 16,088 suspected cases and 9,756 confirmed cases (PAHO). There have been 18 deaths. Nine countries have reported cases in 2025, with Canada (4559 cases, 1 death), Mexico (3,994 cases, 14 deaths), and the United States (1,356 cases, 3 deaths) accounting for the vast majority. Other affected countries include Bolivia (229 cases), Argentina (35), Belize (34), Brazil (13), Peru (4), and Costa Rica (1). There have been 34 cases in the Caribbean, although PAHO has not specified which countries. The sharp rise in cases highlights the urgent need to close gaps in routine immunization, improve access to care, and address vaccine hesitancy.

CONTEXT: The Americas were the only region to achieve measles elimination, and endemic circulation of measles was halted in 2002. However, there has been a major resurgence of measles this year, with large outbreaks in Canada, United States, and Mexico. These outbreaks are commonly seeded by international travel in other regions, then fueled by domestic transmission among communities with low vaccination rates. Large social gatherings, including religious conferences, have led to measles being imported to several countries.

THE VIRUS: Measles is a highly contagious viral disease transmitted primarily through respiratory droplets from coughing or sneezing. **Symptoms include high fever, cough, runny nose, conjunctivitis, and a characteristic red, blotchy rash.** The virus can remain airborne or infectious on surfaces for up to two hours, contributing to its rapid spread.

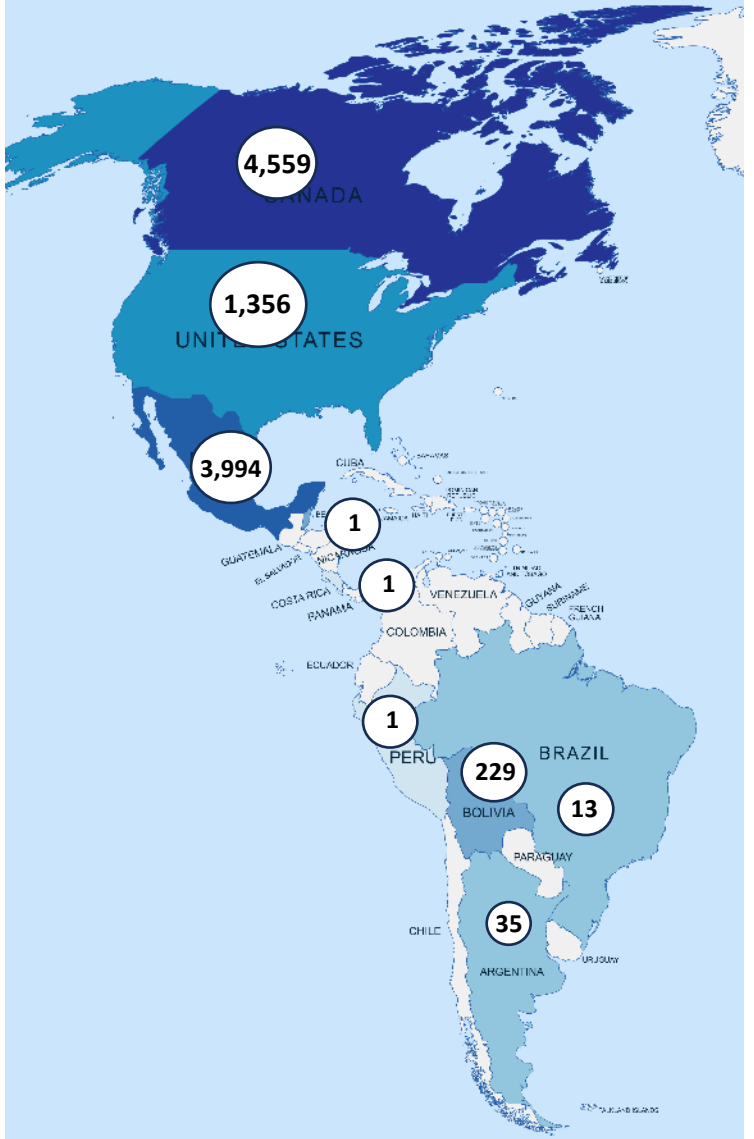
VACCINATION: Although entirely preventable through the MMR (measles, mumps, and rubella) vaccine, outbreaks continue to occur in under-vaccinated communities, leading to serious health outcomes and increased transmission risk (CDC). Since 2019, vaccination rates have declined globally, leading to a worldwide increase in measles cases. This drop reflects a convergence of complex factors, including socioeconomic inequities, limited access to healthcare, under-resourced public health systems, and localized vaccine hesitancy (JAMA). Overall, the vaccination rate for the Americas region is 88% and 77% for the first and second doses, respectively.

REGIONAL TRENDS:

- *Canadian and Mexican outbreaks continue to grow rapidly.*
- *The outbreak in the United States appears to be slowing down compared to the peak in the spring. However, transmission is ongoing, and low vaccination rates among children is a risk for the upcoming school year.*
- *Smaller outbreaks in other countries have been contained, including Belize.*
- *Countries are launching vaccination campaigns in response to the outbreak.*
- *The most affected age groups are children under 5 years and adolescents aged 10–19 years.*

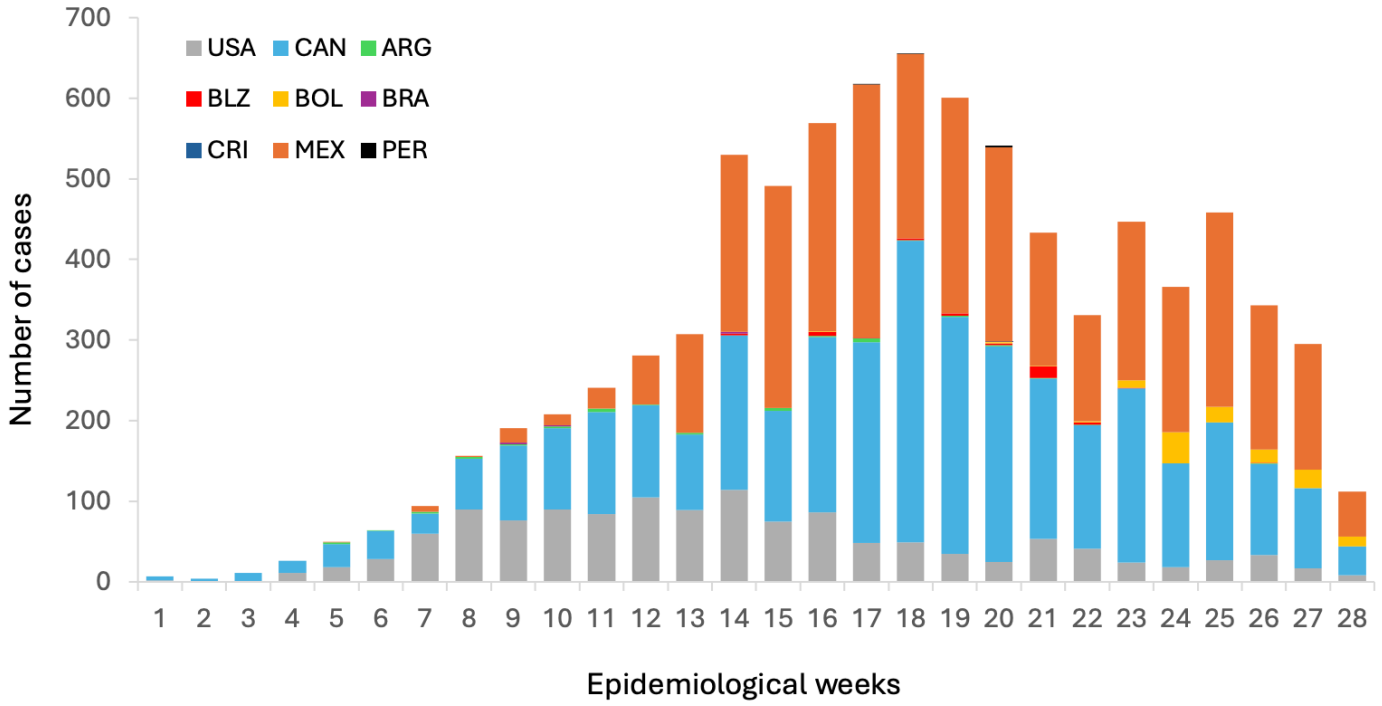
GLOBAL OUTLOOK:

This regional trend reflects the global situation. As of July 2025, World Health Organization (WHO) surveillance data show **239,816 suspected** and **108,074 confirmed** cases in 168 countries. The Eastern Mediterranean Region accounts for the largest share (35%), followed by the African Region (21%) and the European Region (16%).



EPI OVERVIEW

DISTRIBUTION OF CONFIRMED MEASLES CASES BY EPIDEMIOLOGICAL WEEK 1-28, REGION OF THE AMERICAS, 2025



AGE DISTRIBUTION OF CASES BY COUNTRY, EPI WEEK 1-28, 2025

	>1	1-4	5-9	10-19	>20	Unknown
Bolivia	10	45	59	51	29	0
Canada	244	786	940	999	1,089	336
Mexico	364	481	321	553	2,029	0

	<5	5-19	>20	Unknown
USA	382	491	453	7

SUSPECTED AND CONFIRMED MEASLES CASES-EPI WEEK 1-28, 2025

Location	Suspected Cases	Confirmed Cases	Year/ Week of Last Confirmed Case
Bolivia	295	194	2025-30
Colombia	393	0	2020-09
Ecuador	284	0	2018-33
Peru	422	4	2025-20
Venezuela	1156	0	2019-48
Brazil	1445	13	2025-29
Costa Rica	42	1	2025-20
Guatemala	63	0	2018-03
Honduras	167	0	1998-16
Nicaragua	64	0	1994-14
Panama	60	0	2011-20
El Salvador	480	0	2001-19
Caribbean	409	34	2025-26
Cuba	1254	0	2019-24
Dominican Republic	106	0	2011-18
Haiti	214	0	2001-39
Mexico	8427	3748	2025-27
Canada	NR	4394	2025-30
USA	NR	1333	2025-28
Argentina	121	35	2025-26
Chile	83	0	2025-32
Paraguay	603	0	2022-37
Uruguay	0	0	2020-07

* All data as of July 26, 2025 (PAHO)

THE UNITED STATES

TYPE OF PUBLIC HEALTH EMERGENCY: MEASLES

OVERVIEW:

As of 8/10/2025, the United States reported 1,356 measles cases in 2025—the highest total in 33 years. This resurgence poses a serious threat to the nation's measles elimination status, achieved 25 years ago through sustained high vaccination coverage. If outbreaks persist without interruption for more than 12 months, the U.S. risks losing its official designation as an eliminated country.

There have been 32 outbreaks reported in 2025, and 87% of confirmed cases (1,177 of 1,356) are outbreak-associated. For comparison, 16 outbreaks were reported during 2024 and 69% of cases (198 of 285) were outbreak-associated.

The outbreak has resulted in **171 hospitalizations and three confirmed deaths**—including two previously healthy children in Texas and one adult in New Mexico. These mark the first U.S. measles-related deaths since 2015 and the first pediatric fatalities since 2003.

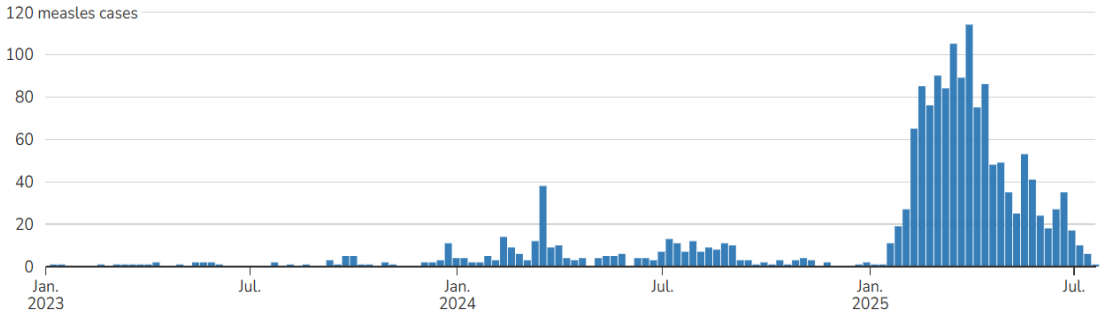
Genetic and epidemiological evidence links this outbreak to the current measles surge in Chihuahua, Mexico, and Ontario, Canada, underscoring clear cross-border transmission.

VACCINATION: Although entirely preventable through the MMR (measles, mumps, and rubella) vaccine, outbreaks continue to occur in under-vaccinated communities, leading to serious health outcomes and increased transmission risk (CDC). Since 2019, national MMR vaccination rates among children have declined—a trend that coincided with the COVID-19 pandemic. This drop reflects a convergence of complex factors, including socioeconomic inequities, limited access to healthcare, under-resourced public health systems, and localized vaccine hesitancy (JAMA).

SOURCES: CENTER FOR OUTBREAK RESPONSE (CORI), CDC, TX MEASLES OUTBREAK, NM MEASLES OUTBREAK, OSDH, KDHE, TRENDS IN COUNTY-LEVEL MMR VACCINATION COVERAGE IN CHILDREN IN THE UNITED STATES, EPIDEMIOLOGICAL UPDATE - MEASLES IN THE AMERICAS REGION, MEASLES AND RUBELLA GLOBAL UPDATE JUNE 2025

MEASLES CASES IN 2025 - CDC

1,356 (+23) CONFIRMED MEASLES CASES (AS OF 8/5/2025)



As of August 5, 2025, a total of 1,356 confirmed* measles cases were reported by 41 jurisdictions: Alaska, Arkansas, Arizona, California, Colorado, Florida, Georgia, Hawaii, Illinois, Indiana, Iowa, Kansas, Kentucky, Louisiana, Maryland, Michigan, Minnesota, Missouri, Montana, Nebraska, New Jersey, New Mexico, New York City, New York State, North Carolina, North Dakota, Ohio, Oklahoma, Oregon, Pennsylvania, Rhode Island, South Carolina, South Dakota, Tennessee, Texas, Utah, Vermont, Virginia, Washington, Wisconsin, and Wyoming.

Age
Under 5 years: 386 (28%)
5-19 years: 501 (37%)
20+ years: 462 (34%)
Age unknown: 7 (1%)

Vaccination Status
Unvaccinated or Unknown: 92%
One MMR dose: 4%
Two MMR doses: 4%

Percent Hospitalized: 13%
Under 5 years: 21% (82 of 386)
5-19 years: 8% (40 of 501)
20+ years: 11% (49 of 462)
Age unknown: 0% (0 of 7)

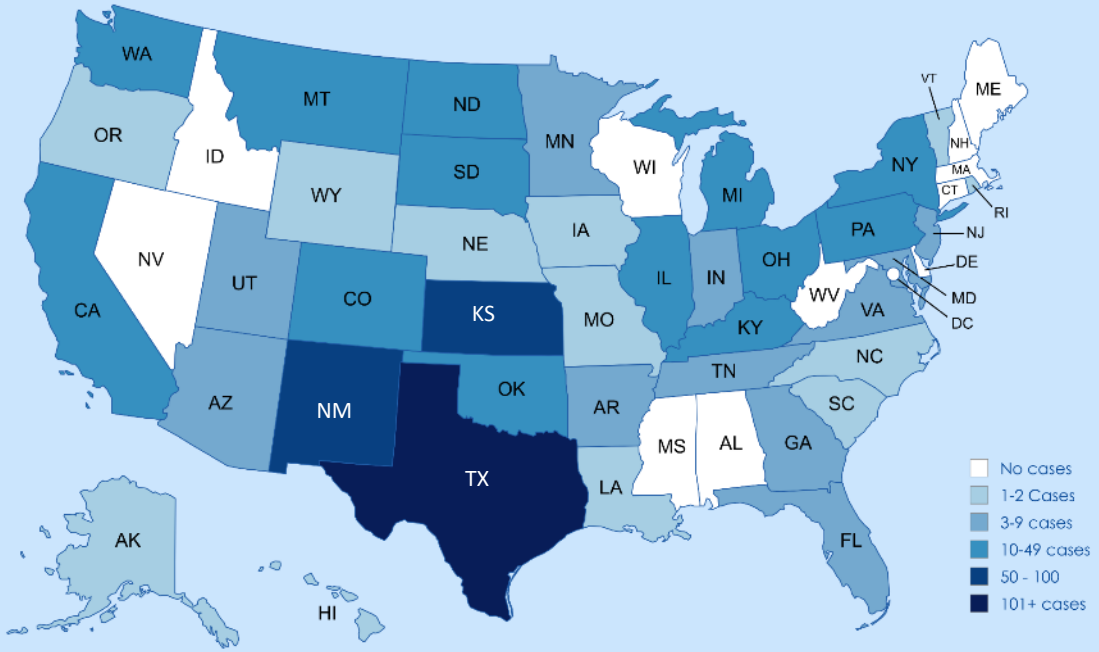
Deaths: 3

There have been 3 confirmed deaths from measles.

US OUTLOOK

** NOTE: The information on this page has been gathered by reviewing data from state and local health departments, news media sources, and the Center for Outbreak Response Innovation (CORI)*

1,357*



The increase in measles cases can be attributed to falling vaccination rates and increased importation of travel-related cases, which occur when unvaccinated people acquire measles abroad and bring it back to the U.S.

STATE	CASES
TEXAS **	802
NEW MEXICO	97
KANSAS	90
NORTH DAKOTA	36
OHIO	35
MONTANA	30
MICHIGAN	27
OKLAHOMA	20
CALIFORNIA	20
COLORADO	16
PENNSYLVANIA	15
NEW YORK	15
KENTUCKY	14
SOUTH DAKOTA	12
UTAH	11
ILLINOIS	10
WASHINGTON	10
INDIANA	9
WISCONSIN	9
ARKANSAS	8
IOWA	8
MISSOURI	7
WYOMING	7
GEORGIA	6
NEW JERSEY	6
TENNESSEE	6
MINNESOTA	5
ARIZONA	4
FLORIDA	4
MARYLAND	3
VIRGINIA	3
ALASKA	2
HAWAII	2
LOUISIANA	2
NEBRASKA	1
NORTH CAROLINA	1
OREGON	1
RHODE ISLAND	1
SOUTH CAROLINA	1
VERMONT	1
TOTAL	1,357

OUTBREAKS

- SMALL OUTBREAK (3-9)
- MEDIUM OUTBREAK (10 - 49)
- LARGE OUTBREAK (50 OR MORE)

An outbreak of measles is defined as three or more laboratory-confirmed cases that are temporally related and epidemiologically or virologically linked.

As of 1800 hours on 26 July 2025, EDT, there are approximately 1,330 measles cases (including confirmed and suspected cases) across 40 states.

This year, there have been at least ***29 measles outbreaks. Here are some listed below****:*

- ***Texas****, involving 37 counties*
- ***New Mexico****, 6 counties*
- ***Oklahoma****, and the Cherokee Nation in Oklahoma*
- *9 counties in* ***Kansas***
- *Ashtabula and Knox* ***Counties, Ohio***
- *Erie County,* **Pennsylvania**
- *Allen County,* ***Indiana***
- *Bergen County,* ***New Jersey***
- *Metro Atlanta,* ***Georgia***
- *Gallatin County,* ***Montana***
- *Montcalm County,* ***Michigan*** *(linked to Ontario Outbreak) and a 2nd outbreak in Grand Traverse County*
- *Upper Cumberland region,* ***Tennessee***
- *Williams County, Grand Rapids,* ***North Dakota***
- *Faulkner County,* ***Arkansas***
- *Utah County,* ***Utah***
- *Navajo County,* ***Arizona***

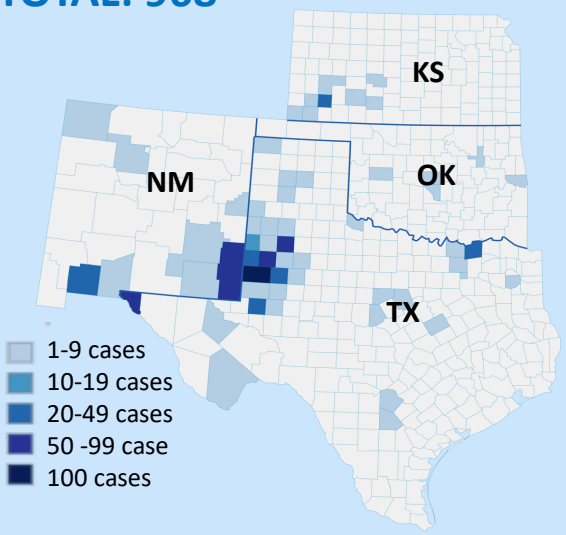
**** TEXAS CASES NOT ASSOCIATED WITH OUTBREAK: 38**

- 1 case – Bell County
- 1 case – Brazoria County
- 3 cases– Collin County
- 1 case – Dallas County
- 2 case – Denton County
- 2 cases – El Paso County
- 1 Case – Fannin County
- 1 Case – Adult, Fort Bend (travel-related)
- 3 cases – Harris County
- 1 case – Harrison County.
- 1 case – Hays County
- 3 cases – Lamar County
- 2 case – Randall County
- 1 case – Adults, Rockwall County (travel-related)
- 1 Case – Scurry County
- 1 case – Shackelford
- 4 cases – Tarrant
- 2 case – Travis County
- 6 cases - Williamson

TEXAS CASES ASSOCIATED WITH THE OUTBREAK: 764

MEASLES: THE US SOUTHWEST OUTBREAK

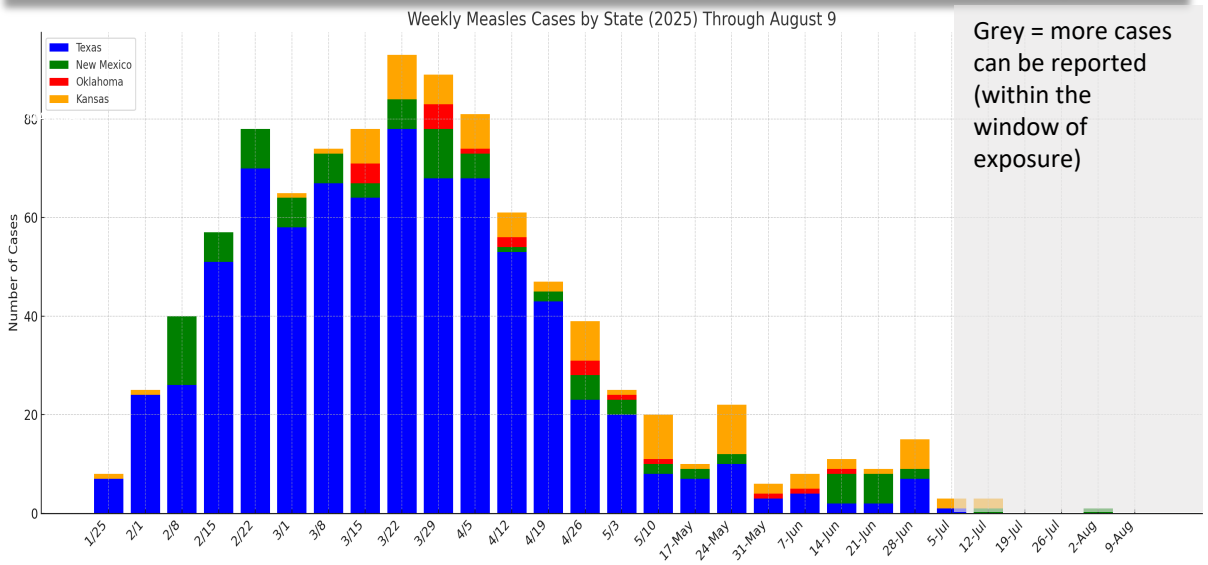
TOTAL: 968



STATE	CASES	HOSPITALIZATIONS	DEATHS
KS	87	8	0
OK	20	0	0
NM	97	7	1
TX	764	99	2
TOTAL	968	114	3

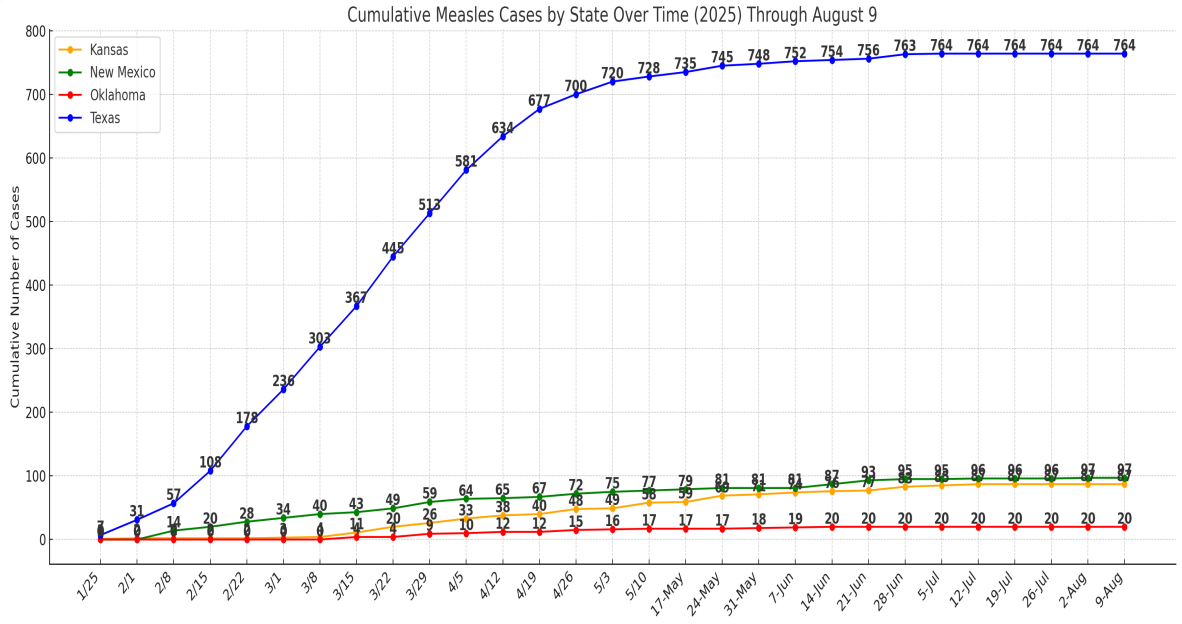
- KS has had no new cases in 4 weeks
- OK has had no new cases in 8 weeks
- NM has had no new cases in 1 week
- TX has had no new outbreaks in 5 weeks

SOUTHWEST MEASLES OUTBREAK – EPI CURVE (WEEK ENDING 8/9/25)



Grey = more cases can be reported (within the window of exposure)

SOUTHWEST MEASLES OUTBREAK – CUMULATIVE CASES OVER TIME (WEEK ENDING 8/9/2025)



AGE OF CASES

WEST TEXAS OUTBREAK

0-4 Years	5-17 Years	18+ Years	Pending	Total
225 (29%)	286 (37%)	247 (32%)	6 (0.8%)	764

NEW MEXICO OUTBREAK

0-4 Years	5-17 Years	18+ Years	Pending	Total
24 (25%)	22 (21%)	51 (54%)	0	97

KANSAS OUTBREAK

0-4 Years	5-17 Years	18+ Years	Pending	Total
37 (42.5%)	33 (38%)	17 (19.5%)	0	87

OKLAHOMA OUTBREAK

0-4 Years	5-17 Years	18+ Years	Pending	Total
17 Cases Confirmed, 3 Probable – no ages provided				20

MEXICO

OVERVIEW:

- The origin of the outbreak is traced to a large Mennonite community near Cuauhtémoc, where vaccination rates are estimated at only 50–70%. It was introduced into the community when an unvaccinated 8-year-old who became infected during a visit to relatives in Texas and returned to Mexico, where the virus rapidly spread through schools, churches, and neighboring communities.

- The outbreak has since expanded into Indigenous and working-class populations, including individuals with underlying health conditions that increase the risk of severe illness and death. 20 states and 82 municipalities have confirmed measles cases.

- To date, Mexico has reported 14 measles-related deaths—13 in Chihuahua and 1 in Sonora—all among unvaccinated individuals.
- Approximately 70% of deaths have been among the Rarámuri, an indigenous people. The combination of low vaccine coverage, geographic barriers, and pre-existing health vulnerabilities (like malnutrition) has amplified the impact.

- Chihuahua remains the epicenter, accounting for 93.29% of all confirmed measles cases in Mexico and 93% of all deaths.

- The 0–4-year-old group reported the highest incidence rate (8.82 cases per 100,000 inhabitants under 4 years of age), followed by the 25–29-year-old and 30–34-year-old groups with incidence rates of 5.04 and 4.22, respectively.

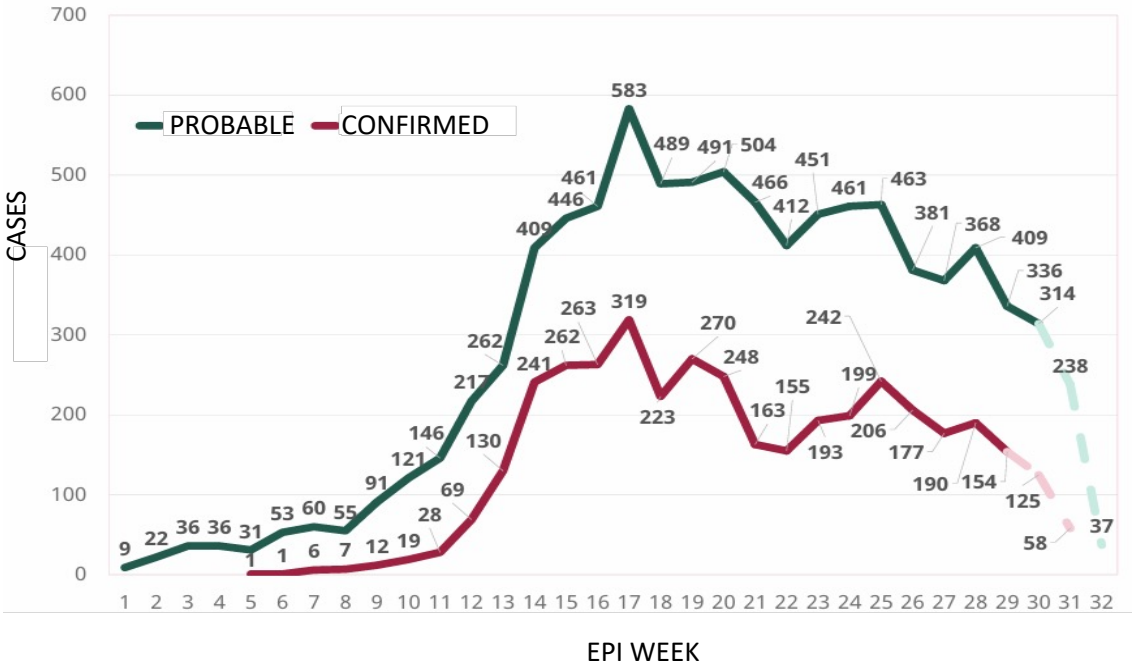
RESPONSE MEASURES & VACCINATION EFFORTS

Mexico's Ministry of Health has rolled out a **Rapid Response Plan**, which includes:

- Enhanced **surveillance and laboratory diagnostics**,
- Quicker **identification and isolation** of cases, and
- Strengthened **control measures** in health clinics and within communities to disrupt transmission chains.

Juárez Shield Strategy: In response to the rapidly escalating situation, the government launched the **"Juárez Shield Strategy"**—a mass vaccination campaign targeting individuals aged **6 months to 49 years**, across Chihuahua. The goal is to deliver 500,00 doses to the three largest municipalities in Chihuahua (Juárez, Chihuahua City, and Cuauhtemoc) and vaccinate children before the start of the new school year in late August.

PROBABLE AND CONFIRMED MEASLES CASES BY EPIDEMIOLOGICAL WEEK AND DATE OF RASH ONSET, MEXICO 2025

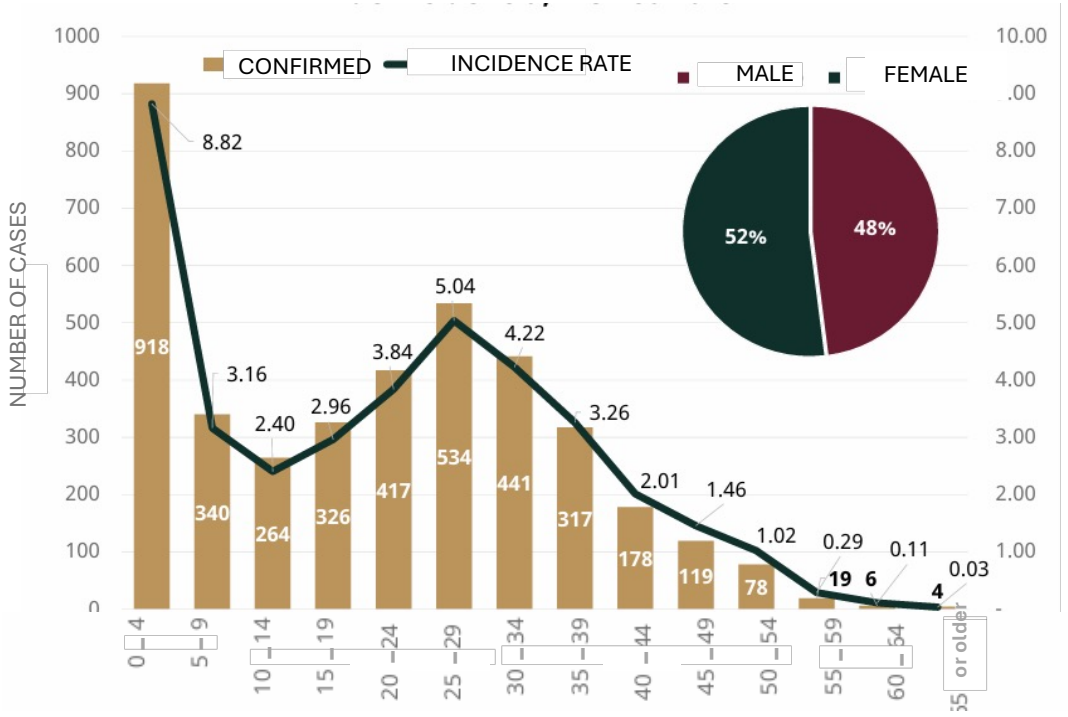


Source: DAILY REPORT

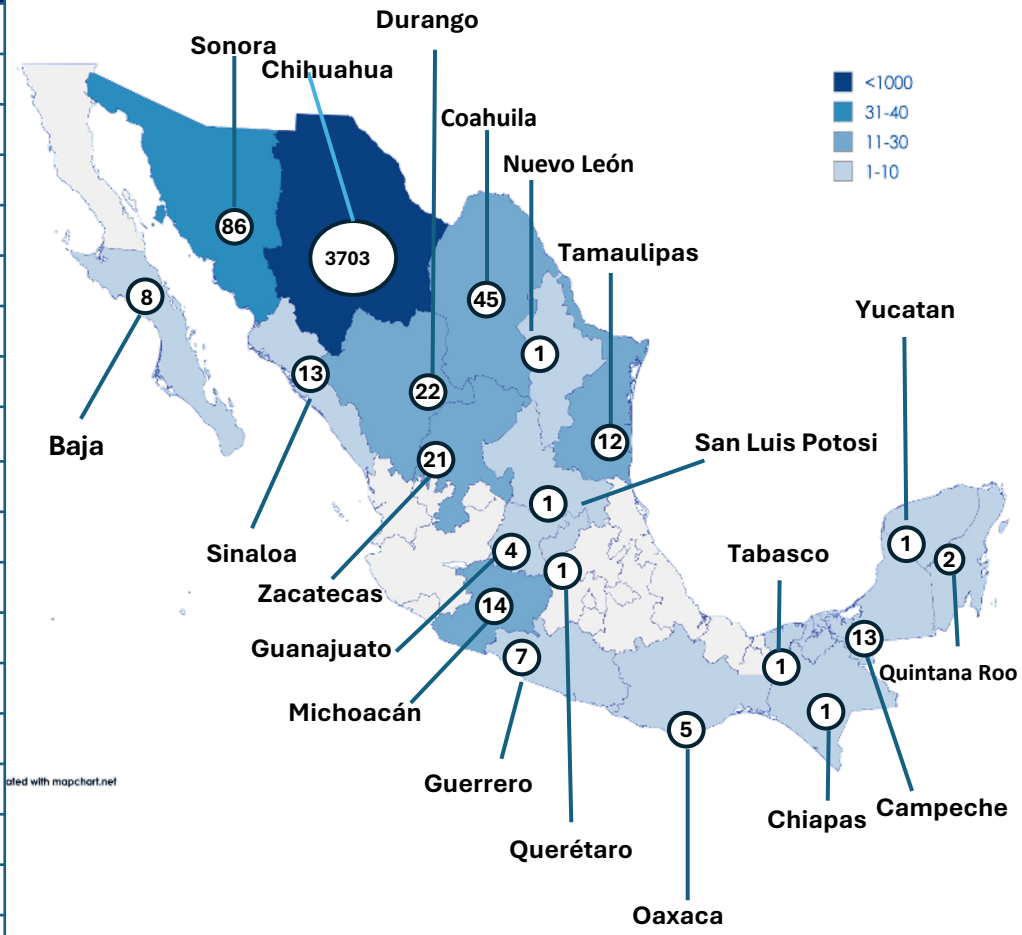
MEXICO

Data as of 8/10/2025

CONFIRMED MEASLES CASES BY SEX, AGE GROUP, AND INCIDENCE RATE



CONFIRMED MEASLES CASES	
STATE	CASES
BAJA CALIFORNIA SUR	8
CAMPECHE	13(+1)
CHIAPAS	1
CHIHUAHUA	3,736 (+156)
COAHUILA	45
DURANGO	22 (+1)
GUANAJUATO	4
GUERRERO	7 (+2)
MICHOACÁN	14
NUEVO LEÓN	1
OAXACA	5 (+1)
QUERÉTARO	1
QUINTANA ROO	2
SAN LUIS POTOSI	1
SINALOA	13 (+1)
SONORA	86 (+2)
TABASCO	1
TAMAULIPAS	12
YUCATAN	1
ZACATECAS	21
TOTAL	3,994 (+164)



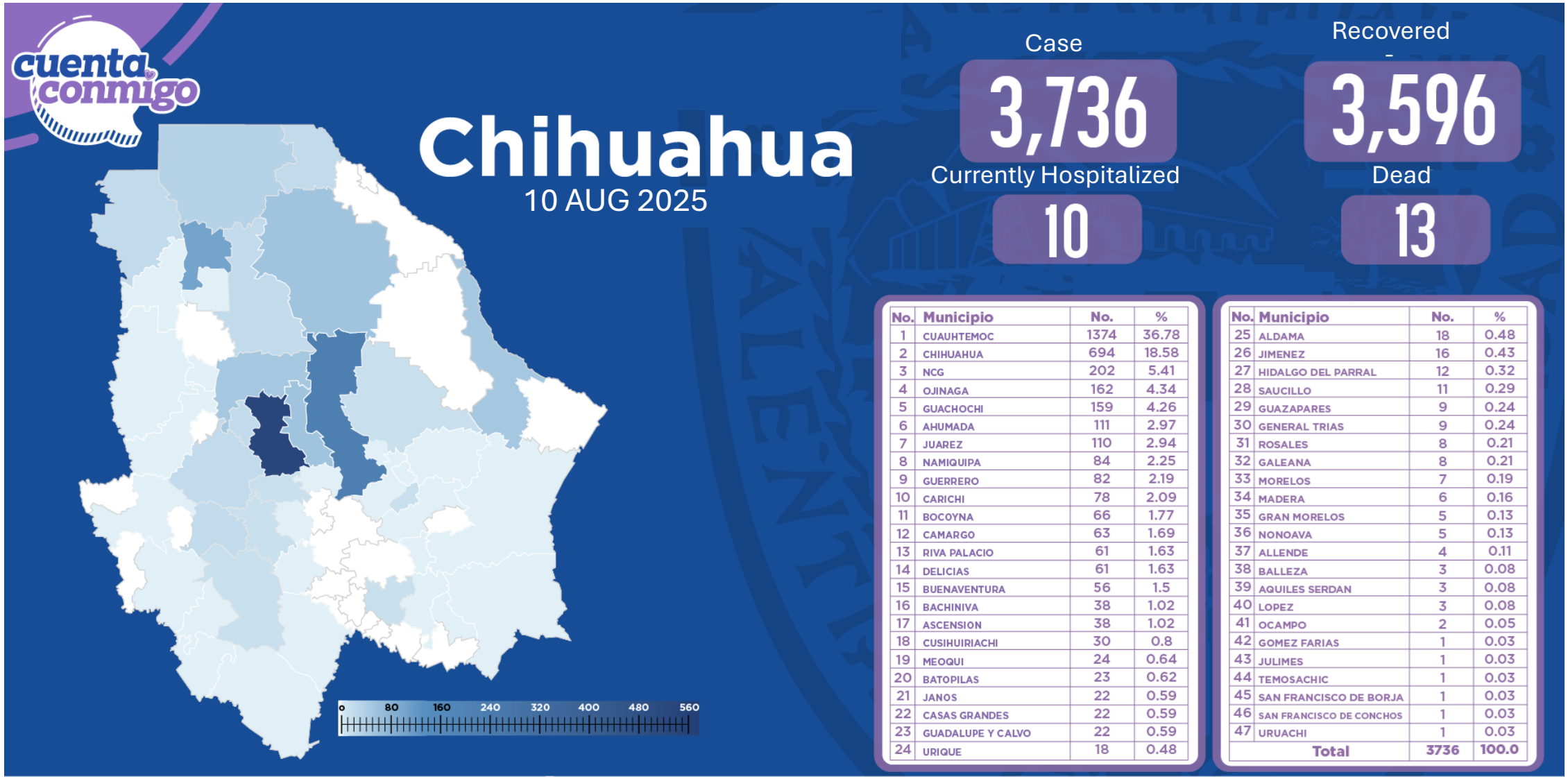
3994 CASES
14 DEATHS

Source: DAILY REPORT

MEXICO – DEATHS FROM MEASLES 2025

#	Patient Description	Age	Location (State)	Vaccinated?	Date	Underlying Conditions / Notes	Source(s)
1	Adult male, Mennonite community	31	Ascensión, Chihuahua	No	11 Apr 25	Diabetes	DW
2	Boy, Mennonite community	11 months	Namiquipa, Chihuahua	No	20 May 25	mother unvaccinated, no passive immunity, underlying renal condition)	Chihuahua Secretaría de Salud; TV Azteca
3	Girl, agricultural laborers	1 year old	(Originally from Chihuahua) Died in Sonaro	No	20 May 25	Severe malnutrition	Informador.mx La Secretaría de Salud de Sonora
4	Boy, Mennonite community	7 years	Ojinaga, Chihuahua	No	20 May 25	Underlying health problem (leukemia)	Chihuahua Secretaría de Salud; TV Azteca
5	Adult male, Rarámuri	45 years	Carichí, Chihuahua	No	29 May 25	—	N+ Noticias
6	Girl, Rarámuri	2 years, 11months	Ojinaga, Chihuahua	No	2 June 25	Dehydration, diarrhea, pneumonia	Chihuahua Secretaría de Salud
7	Girl, Rarámuri	4 years	Guachochi, Chihuahua	No	5 Jun 25	Moderate malnutrition, pneumonia	N+ Noticias
8	Boy, Mixtec community	5 years	(Originally from Sinaloa) Died in Chihuahua	No	15 Jun-25	Severe malnutrition, anemia, respiratory issues, pneumonia	N+ Noticias
9	Woman, Rarámuri	27 years	Meoqui, Chihuahua	No	16 Jun-25	pneumonia, no comorbidities	N+ Noticias
10	Boy, agricultural laborer family	2 years 11 months	Campo Nueva Holanda, Ojinaga, Chihuahua	No	27 June	Dehydration and diarrhea	Chihuahua Secretaría de Salud
11	Woman, Rarámur	48 years old	San José Baqueachi, Carichí, Chihuahua	No	13 July	Complications from pneumonia, no comorbidities	Chihuahua Secretaría de Salud
12	Man, Rarámur	46 years old	Cuauhtémoc, Chihuahua	No	21 July	Respiratory failure and pneumonia	Chihuahua Secretaría de Salud
13	Girl, Rarámur	6 years old	Carichí, Chihuahua	No	30 July 25	Respiratory failure and pneumonia	N+ Noticias Secretaría de Salud del Estado de Chihuahua
14	Man, Rarámur	54 years old	Bocoyna, Chihuahua	No	30 July 25	Respiratory failure and pneumonia	N+ Noticias Secretaría de Salud del Estado de Chihuahua

MEXICO: CHIHUAHUA'S OUTBREAK



No.	Municipio	No.	%
1	CUAUHTEMOC	1374	36.78
2	CHIHUAHUA	694	18.58
3	NCG	202	5.41
4	OJINAGA	162	4.34
5	GUACHOCHI	159	4.26
6	AHUMADA	111	2.97
7	JUAREZ	110	2.94
8	NAMIQUIPA	84	2.25
9	GUERRERO	82	2.19
10	CARICHI	78	2.09
11	BOCOYNA	66	1.77
12	CAMARGO	63	1.69
13	RIVA PALACIO	61	1.63
14	DELICIAS	61	1.63
15	BUENAVENTURA	56	1.5
16	BACHINIVA	38	1.02
17	ASCENSION	38	1.02
18	CUSIHUIRIACHI	30	0.8
19	MEOQUI	24	0.64
20	BATOPILAS	23	0.62
21	JANOS	22	0.59
22	CASAS GRANDES	22	0.59
23	GUADALUPE Y CALVO	22	0.59
24	URIQUE	18	0.48

No.	Municipio	No.	%
25	ALDAMA	18	0.48
26	JIMENEZ	16	0.43
27	HIDALGO DEL PARRAL	12	0.32
28	SAUCILLO	11	0.29
29	GUAZAPARES	9	0.24
30	GENERAL TRIAS	9	0.24
31	ROSALES	8	0.21
32	GALEANA	8	0.21
33	MORELOS	7	0.19
34	MADERA	6	0.16
35	GRAN MORELOS	5	0.13
36	NONOAVA	5	0.13
37	ALLENDE	4	0.11
38	BALLEZA	3	0.08
39	AQUILES SERDAN	3	0.08
40	LOPEZ	3	0.08
41	OCAMPO	2	0.05
42	GOMEZ FARIAS	1	0.03
43	JULIMES	1	0.03
44	TEMOSACHIC	1	0.03
45	SAN FRANCISCO DE BORJA	1	0.03
46	SAN FRANCISCO DE CONCHOS	1	0.03
47	URUACHI	1	0.03
	Total	3736	100.0

Fuente: Secretaría de Salud

SOURCE OF GRAPHIC: MediChihuahua

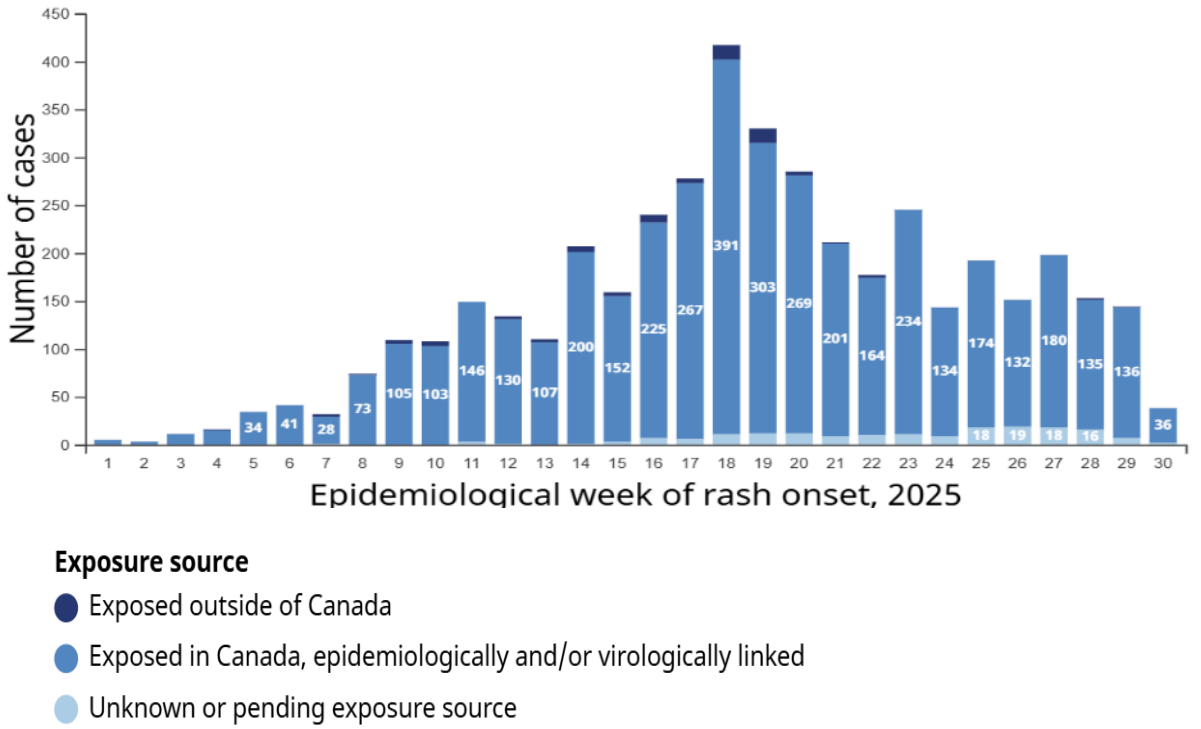
GOBIERNO DEL ESTADO DE CHIHUAHUA | SECRETARÍA DE SALUD

MediChihuahua

CANADA

- There is a multijurisdictional measles outbreak in Canada.
- As of 10 August 2025 , a total of **4,559 measles cases** (4,067 confirmed, 327 probable) have been reported by 10 jurisdictions (Alberta, British Columbia, Manitoba, New Brunswick, Northwest Territories, Nova Scotia, Ontario, Prince Edward Island, Quebec, Saskatchewan).
- Of the 4,599 measle cases the vast majority are linked from an imported case at a large gathering in New Brunswick during October 2024, which spread to other provinces and across Canada's boarders. The measles strain circulating in this outbreak is wild-type (genotype D8).
- **31** health units within 8 jurisdictions (Alberta, British Columbia, Manitoba, New Brunswick, Nova Scotia, Ontario, Prince Edward Island, Saskatchewan) have reported new cases.
- There has been one death reported by Ontario in a congenital case of measles who was born pre-term and had other underlying medical conditions.
- Although **Ontario** has the most cases, in recent weeks, the number of cases have steadily declined. **Alberta** has become Canada's new hotspot for measles with most cases per capita and a rising rate of infection.

Epidemiological curve for measles cases, by epidemiological week 30 (7/27/2025) of rash onset and exposure source, 2025 (n=4,394)



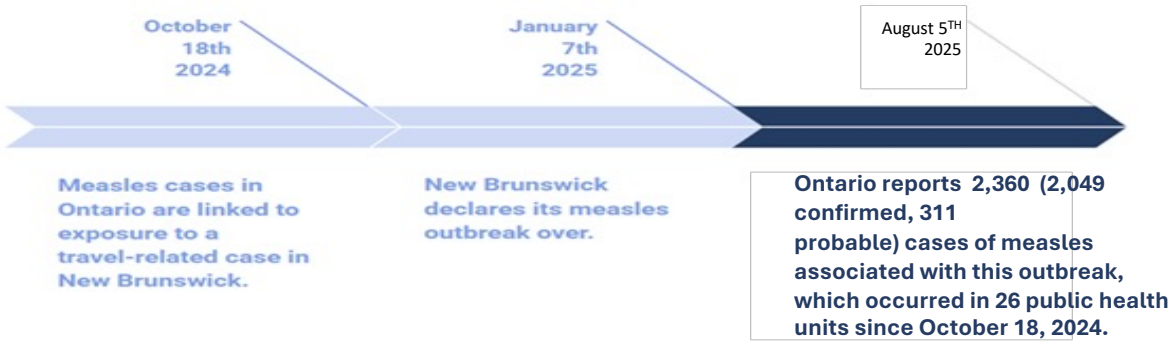
KEY FACTORS BEHIND THE OUTBREAK

- **Vaccine hesitancy** remains a major driver, especially among religious or close-knit communities such as **Mennonite groups**, where public health messaging may have limited reach
- **COVID-19 disruptions** have undermined routine immunizations, dropping national vaccination coverage from **90% in 2019 to 83% in 2023.**
- **Legal Framework**: Ontario's legal framework allows **religious and personal exemptions** from school vaccination mandates, which are reportedly easy to obtain in many cases. In Alberta, allowing students to attend public schools without proof of immunization.

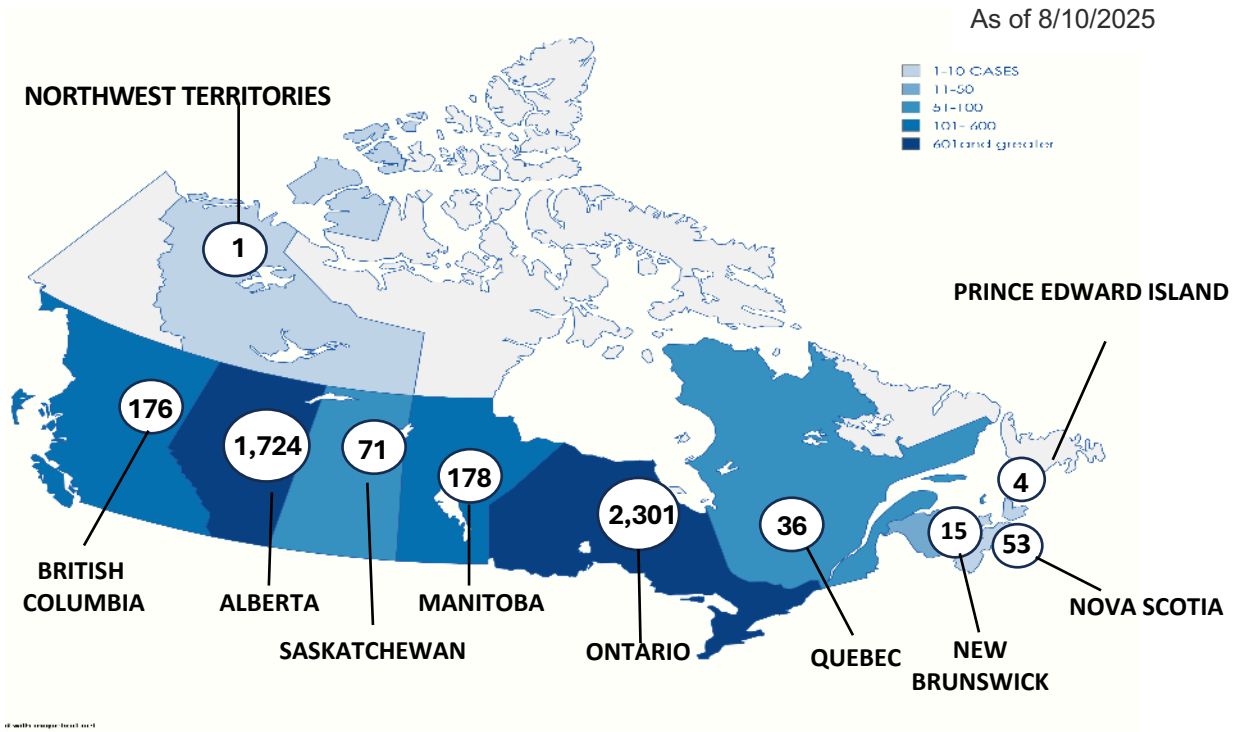
SOURCES: MANITOBA HEALTH, ALBERTA DASHBOARD, QUEBEC, PUBLIC HEALTH ONTARIO, SASKATCHEWAN, CA MEASLES AND RUBELLA WEEKLY MONITORING REPORT, BC, NEW BRUNSWICK, NOVA SCOTIA

CANADA

Brief Timeline of Outbreak



MEASLES 2025	
PROVINCE	CASES
ONTARIO	2,301 (+23) (2,013 confirmed, 288 probable)
ALBERTA	1,724 (+186)
MANITOBA	178 (+167 confirmed, 11 probable)
BRITISH COLUMBIA	176 (+30) (160 confirmed, 16 probable)
SASKATCHEWAN	71 (+7)
QUEBEC	36
PRINCE EDWARD ISLAND	4 (+2)
NOVA SCOTIA	53 (+23) (Since 7 JUL)
NORTHWEST TERRITORIES	1
NEW BRUNSWICK	15 (Since 9 JUL 2025)
TOTAL	4,559 (Confirmed and probable)



4,559 Cases
1 Death

SOURCES: MANITOBA HEALTH, ALBERTA DASHBOARD, QUEBEC, PUBLIC HEALTH ONTARIO, SASKATCHEWAN, CA MEASLES AND RUBELLA WEEKLY MONITORING REPORT, BC, NEW BRUNSWICK, NOVA SCOTIA

CANADA OUTLOOK: ONTARIO's OUTBREAK
(OCTOBER 18, 2024 TO AUGUST 5, 2025)

MORBIDITY AND MORTALITY			
PROVINCE	CASES	HOSPITALIZATIONS	DEATHS
ONTARIO*	2,360 (2049 confirmed, 311 probable)	165 (+4)	1

As of August 5, 2025, Ontario has reported a total of 2,360 measles cases (2,049 confirmed, 311 probable) associated with this outbreak (Figure 1) occurring in 26 public health units

Among all outbreak cases, the majority (73.1%, n=1,725) were infants, children and adolescents (19 years old or younger), while 26.4% (n=622) were adults, and 0.6% (n=13) had unknown age

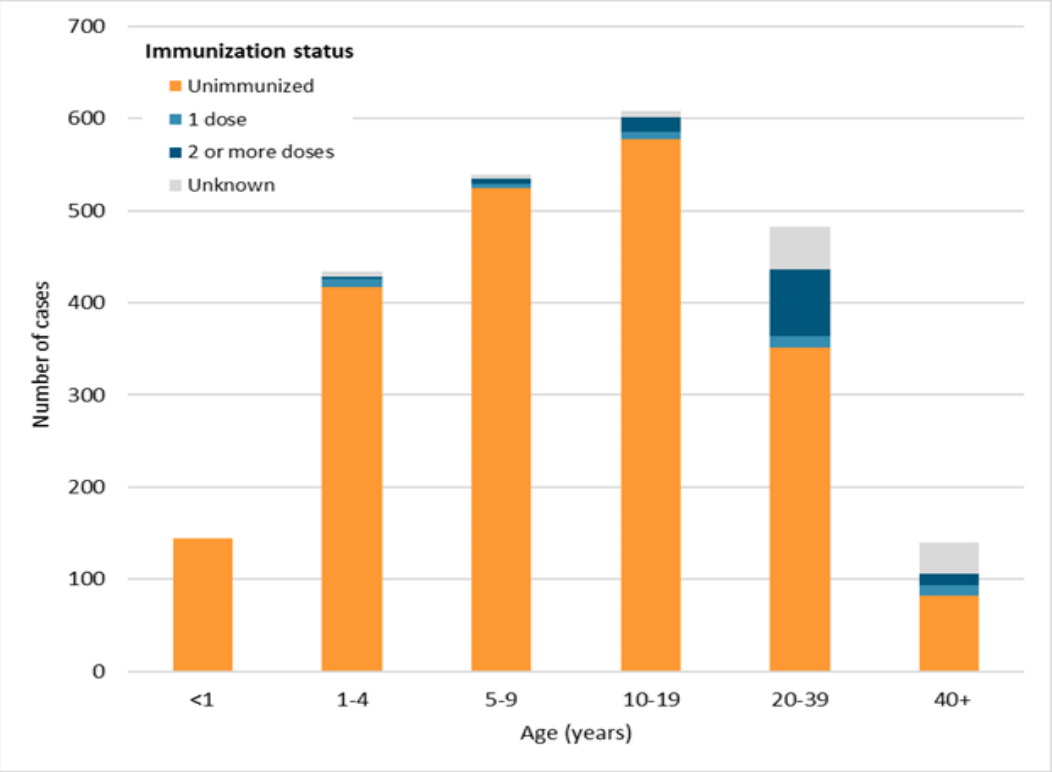
Almost all infant, child and adolescent outbreak cases (96.3%, n=1,662) were unimmunized, while 69.6% (n=433) of adults were unimmunized

98.2% (n=2,256) of outbreak cases were born in or after 1970

- Of these, 82.4% (n=42) were unimmunized, 2.0% (n=1) received one dose of measles-containing vaccine, 9.8% (n=5) received two or more doses, and 5.9% (n=3) had unknown immunization status.
- There have been nine cases of congenital measles (i.e., measles diagnosed in the first 10 days of life)

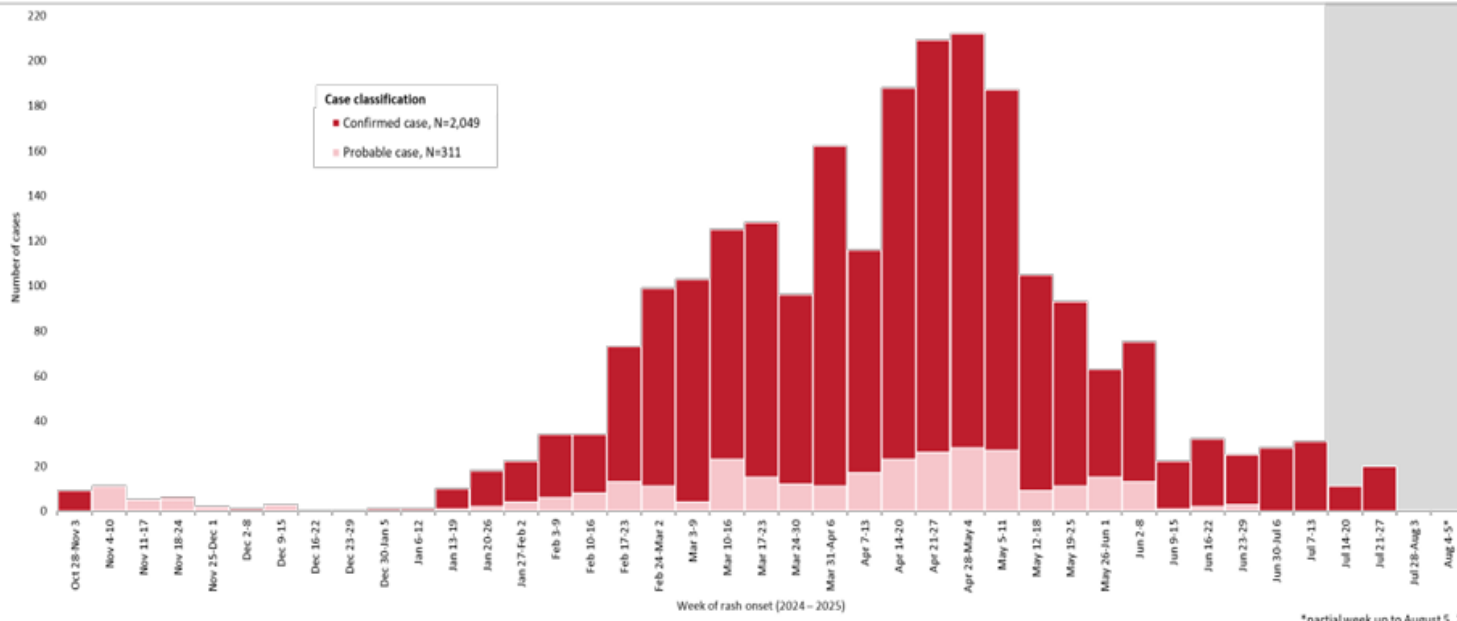
- A total of 2.4% (n=51) of outbreak cases were pregnant at the time of their measles infection.
- Overall, 7.0% (n=165) of outbreak cases were hospitalized and 0.5% (n=12) were admitted to the intensive care unit (ICU)
  - 94.5% (n=156) of hospitalized cases were unimmunized, of whom 122 were infants, children and adolescents.
  - The median length of stay among discharged hospitalized cases was three days (range: 1–54 days) and the median length of stay among ICU admissions was three and a half days (range: 1–54 days).
- There was one death that occurred in a congenital case of measles who was born pre-term.

IMMUNIZATION STATUS OF MEASLES OUTBREAK CASES BY AGE GROUP: OCTOBER 28, 2024 – AUGUST 5, 2025



Age group	<1	1-4	5-9	10-19	20-39	40+
Unimmunized	100.0%	96.1%	97.2%	94.9%	72.8%	58.6%
1 dose	0.0%	2.1%	0.9%	1.3%	2.7%	8.6%
2 or more doses	0.0%	0.5%	0.9%	2.6%	14.9%	8.6%
Unknown	0.0%	1.4%	0.9%	1.2%	9.5%	24.3%

NUMBER OF MEASLES CASES BY WEEK OF RASH ONSET, 10/28/2024 – 07/22/2025



CANADA OUTLOOK: ALBERTA'S OUTBREAK

MORBIDITY AND MORTALITY			
PROVINCE	CASES	HOSPITALIZATIONS	DEATHS
Alberta	1,724 (+186)	136 (+8) (15 ICU)	0

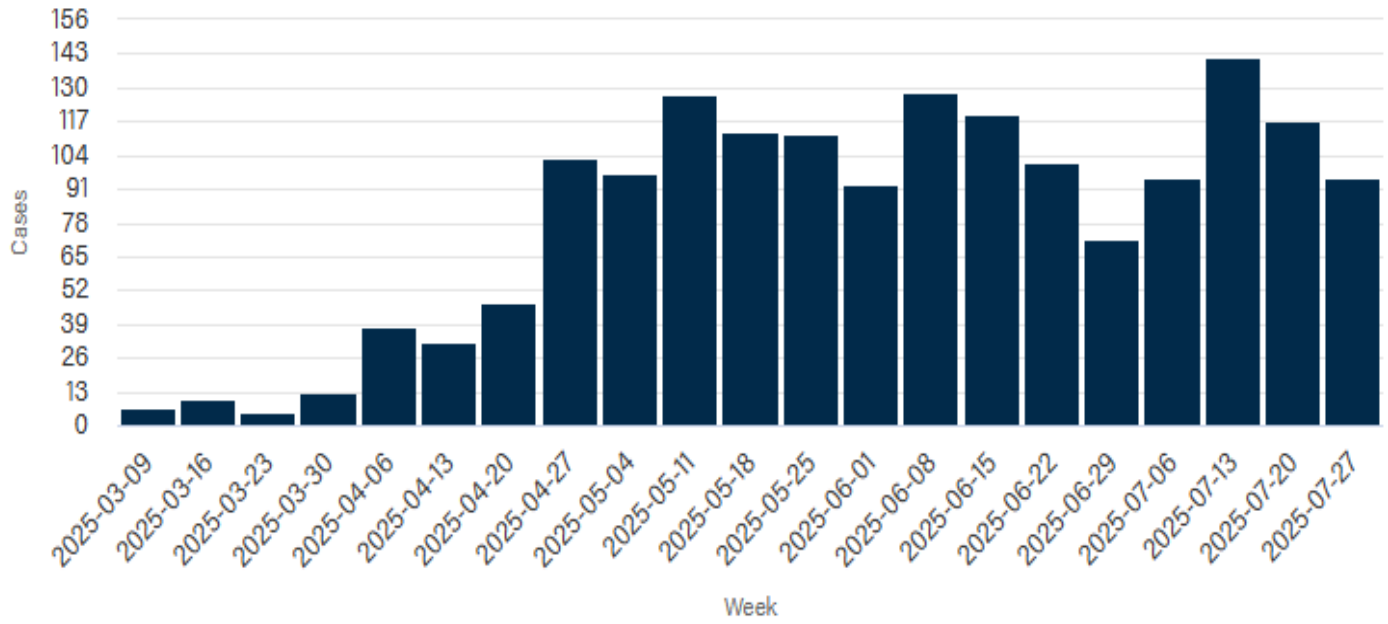
IMMUNIZATION STATUS	COUNT
Unimmunized	1,478
1 dose	51
2 or more doses	74
Unknown	123
Total	**1,724**

HOSPITALIZATION	
Hospitalizations	136
ICU Admissions (ICU admissions are included in the total count of hospitalizations)	15
Currently Hospitalized	2

Multi-Jurisdictional Outbreak

- Measles transmission is currently occurring in Alberta, affecting individuals of all ages – including infants, children, and adults. Most reported cases have been in children under 5 years old and those aged 5 to 17 who are not immunized.
- Cases have been reported in all zones of the province, with the highest numbers in the north, south, and central zones. Due to the number of people in these areas who may not be immune to measles, some cases are likely going undetected or unreported.
- Alberta Health Services shares known public exposure locations for the Edmonton, Calgary, Central, and parts of the North Zone. A standing exposure advisory has been issued for the South Zone and areas of the North Zone. Site-specific exposure advisories will no longer be issued in these locations.

NUMBER OF MEASLES CASES BY WEEK OF RASH ONSET, 1/1/2025 – 07/27/2025



OUTLOOK – CENTRAL AND SOUTH AMERICA

ARGENTINA

There have been 35 laboratory or epidemiologically confirmed cases, 2,334 notifications that were discarded after further evaluation, and 390 cases under investigation. Of the confirmed cases, 21 are in the province of Buenos Aires, 12 are in the Autonomous City of Buenos Aires, and one is in the province of San Luis. Notifications reached a peak around late March-early April. Most jurisdictions have more notifications than is expected for this time of year.

6 of the cases were imported, 19 were acquired domestically through a known epidemiological connection, and 10 have an unknown origin. The cases with an unknown link are mostly clustered around late April and early May, indicating that some cases were not detected by the surveillance system. In several cases, genetic testing was able to confirm that the unlinked cases were related to the first imported cases. After the outbreak in Buenos Aires in April, analyses identified 12 cases as being infected with the B3 genotype and 1 travel-associated case with D8 who had recently visited Thailand.

Argentina achieved measles elimination in 2000, but vaccination rates are below herd immunity levels. As of 2024, 82% of Argentinians received the first dose of a measles-containing vaccine, and 46% received both.

BRAZIL

In 2025, there have been 11 confirmed cases of measles in Brazil, with 6 more under investigation. Of the 5 cases that were identified by early May, 2 were imported and 3 had an unknown origin. Brazil was officially declared measles-free in 2016 but lost its status in 2018 before being recertified in 2022. In response to the outbreak in Bolivia, Brazil launched a week-long vaccination campaign in areas near the border.

BOLIVIA

As of July 27, 2025, Bolivia has reported 175 confirmed cases of measles across 8 jurisdictions, up from 75 cases at the end of June. 84% of cases are in Santa Cruz, with La Paz (11), Potosí (5), Cochabamba (3), Chuquisaca (3), Beni (3), Oruro (2), and Pando (1) also affected. In response, the Bolivian government has administered 745,161 doses of vaccine. According to the Bolivian Ministry of Health, the virus spread through two main chains of transmission: among the Mennonite community and at a religious event with 30,000 attendees from many different countries. The first case was related to a Russian citizen who attended the aforementioned event. To date, the Ministry of Health has administered 745,161 doses of measles vaccine in response to the outbreak. Latest available data indicates 67% of Bolivians have received a single dose of measles vaccine and 61% received both doses.

BELIZE

There have been 34 cases of measles in Belize in 2025. The outbreak began in early April with two Argentinian males who had traveled to Chihuahua, Mexico for a religious gathering. These were the first measles case in Belize since 1991. All cases were unvaccinated, and there was only one hospitalization. On July 21, **the Ministry of Health and Wellness announced that they had contained the outbreak, as two incubation periods had passed without any further cases**. Vaccination coverage in Belize is 84% and 83% for the first and second doses, respectively.

SOURCES: Argentina DIRECCIÓN DE EPIDEMIOLOGÍA, Brazil Ministério de Saúde, Bolivia Ministerio de Salud, Belize MOHW, WHO DON, CNN, WHO

CONTRIBUTORS

The Virtual Medical Operations Center Briefs (VMOC) were created as a service-learning project by the Yale School of Public Health faculty and graduate students in response to the 2010 Haiti Earthquake. Each year, students enrolled in Environmental Health Science Course 581—Public Health Emergencies: Disaster Planning and Response produce the VMOC Briefs. These briefs compile diverse information sources—including status reports, maps, curated news articles, and web content— into a single, easily digestible document that can be widely shared and used interactively.

Key features of this report include:

- **Comprehensive Overview:** Provides situation updates, maps, relevant news, and web resources.
- **Accessibility:** Designed for easy reading, wide distribution, and interactive use.
- **Collaboration:** The “unlocked" format enables seamless sharing, copying, and adaptation by other responders.

The students learn by doing, quickly discovering how and where to find critical information and presenting it in an easily understood manner.

Yale MPH Student Contributors: Our semester has come to a close. Congratulations to all our graduates who worked tirelessly on this report throughout the semester. Over the summer months, volunteers will step in to continue the reports.

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