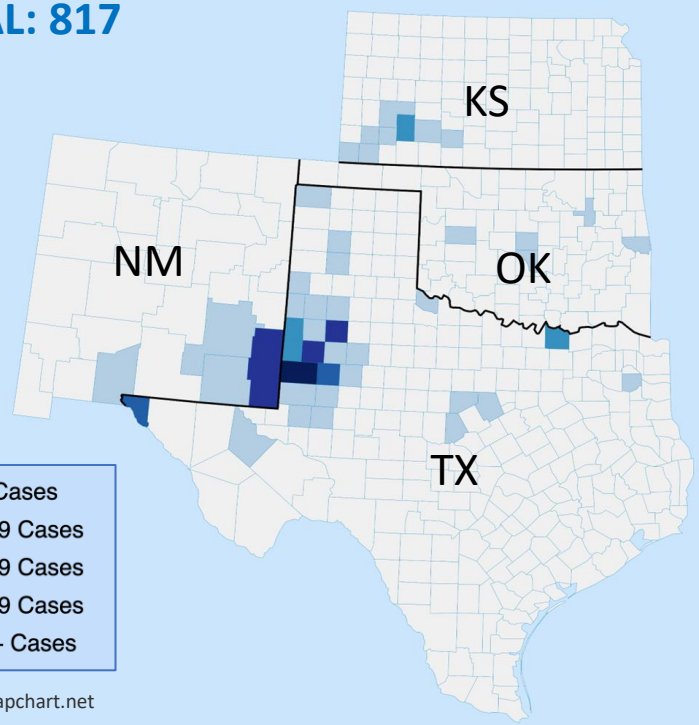
YALE SCHOOL OF PUBLIC HEALTH - ESF-8 VIRTUAL MEDICAL OPERATION CENTER SPECIAL REPORT

MEASLES OUTBREAK - SOUTHWEST U.S. - 2025

TOTAL: 817



Created with mapchart.net

MORBIDITY AND MORTALITY

STATE	CASES	HOSPITALIZATIONS	DEATHS
TX	688 (+20)	89 (+2)	2
NM	67 (+2)	7	1
OK	16 (1)	0	0
KS	46	1	0
TOTAL	817 (+22)	97(+2)	3

*The situation is still developing. Numbers are expected to increase.

5/3/2025
1900 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

TEXAS LINKS
- TEXAS DEPARTMENT OF STATE HEALTH SERVICES

FACEBOOK | X
- HEALTH ALERTS
- THE SOUTH PLAINS PUBLIC HEALTH DISTRICT

NEW MEXICO LINKS
- NEW MEXICO DEPARTMENT OF HEALTH

OKLAHOMA LINKS
OKLAHOMA STATE DEPARTMENT OF HEALTH

KANSAS
KANSAS DEPARTMENT OF HEALTH AND ENVIRONMENT

RESOURCES FOR HEALTHCARE PROVIDERS
- CDC – MEASLES FOR THE HEALTHCARE PROFESSIONALS
- CDC VIDEO: MEASLES CLINICAL FEATURES AND DIAGNOSIS
- CDC CLINICAL IMAGES OF MEASLES
- CDC LABORATORY TESTING FOR MEASLES
- CDC ROUTINE VACCINATION RECOMMENDATIONS
- CDC ISOLATION RECOMMENDATIONS
- CDC: MEASLES CONTROL IN HEALTHCARE SETTINGS
- CDC ALERT SIGN INFOGRAPHIC
- CDC POSTER FOR OFFICE DISPLAY
- NY HEALTH; RECOGNIZING MEASLES FACT SHEET
- NY HEALTH: DEALING WITH VACCINE HESITANCY
- MEASLES POST-EXPOSURE PROPHYLAXIS
- MEASLES REVIEW FOR PROVIDERS

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
- KAISER HEALTH NEWS
- MEDPAGE TODAY
- NY STATE GLOBAL HEALTH UPDATE
- THE PANDEMIC CENTER TRACKING REPORT
- YOUR LOCAL EPIDEMIOLOGIST

Yale SCHOOL OF PUBLIC HEALTH

BACKGROUND

TYPE OF PUBLIC HEALTH EMERGENCY: LARGE REGIONAL MEASLES OUTBREAK

OVERVIEW:
A measles outbreak originating in **West Texas** has spread in the US to **New Mexico, Oklahoma, and Kansas**, resulting in **97 hospitalizations** and **3 confirmed deaths** — including **two previously healthy children** in Texas and **one adult** in New Mexico. These are the **first U.S. measles deaths since 2015**, and the **first pediatric deaths since 2003**. Genetic and epidemiological evidence suggests this outbreak has also seeded the current outbreak in Chihuahua, Mexico, indicating clear cross-border transmission.

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 distinctive **red, blotchy rash**. The virus can remain **airborne or infectious on surfaces for up to two hours**, contributing to its rapid spread.

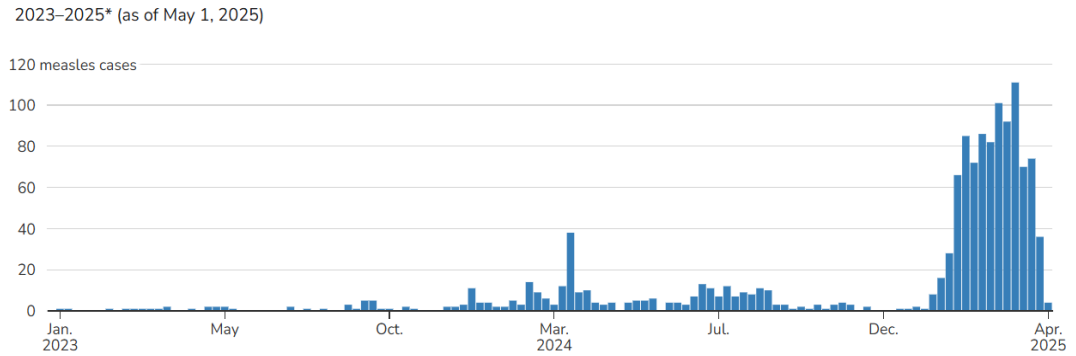
Despite being preventable through the MMR (measles, mumps, and rubella) vaccine, outbreaks continue to occur in under-vaccinated communities, leading to severe health outcomes and increased transmission risk (CDC).

FACTORS DRIVING THIS OUTBREAK:
- Low vaccination rates
- High levels of vaccine hesitancy and misinformation
- Community mistrust in public health authorities, heightened by post-pandemic attitudes

PUBLIC HEALTH RESPONSE:
- Emergency vaccination campaigns and targeted outreach.
- Focused messaging to combat misinformation and rebuild community trust.
- Multi-sector coordination involving schools, healthcare providers, and local organizations.

MEASLES CASES IN 2025 - CDC

935 (+51)CONFIRMED MEASLES CASES (AS OF 5/1/25)



As of May 1, 2025, a total of 935 confirmed* measles cases were reported by 30 jurisdictions: Alaska, Arkansas, California, Colorado, Florida, Georgia, Hawaii, Illinois, Indiana, Kansas, Kentucky, Louisiana, Maryland, Michigan, Minnesota, Missouri, Montana, New Jersey, New Mexico, New York City, New York State, Ohio, Oklahoma, Pennsylvania, Rhode Island, Tennessee, Texas, Vermont, Virginia, and Washington.

Age
Under 5 years: **285 (30%)**
5-19 years: **353 (38%)**
20+ years: **284 (30%)**
Age unknown: **13 (2%)**

Vaccination Status
Unvaccinated or Unknown: **96%**
One MMR dose: **2%**
Two MMR doses: 2%

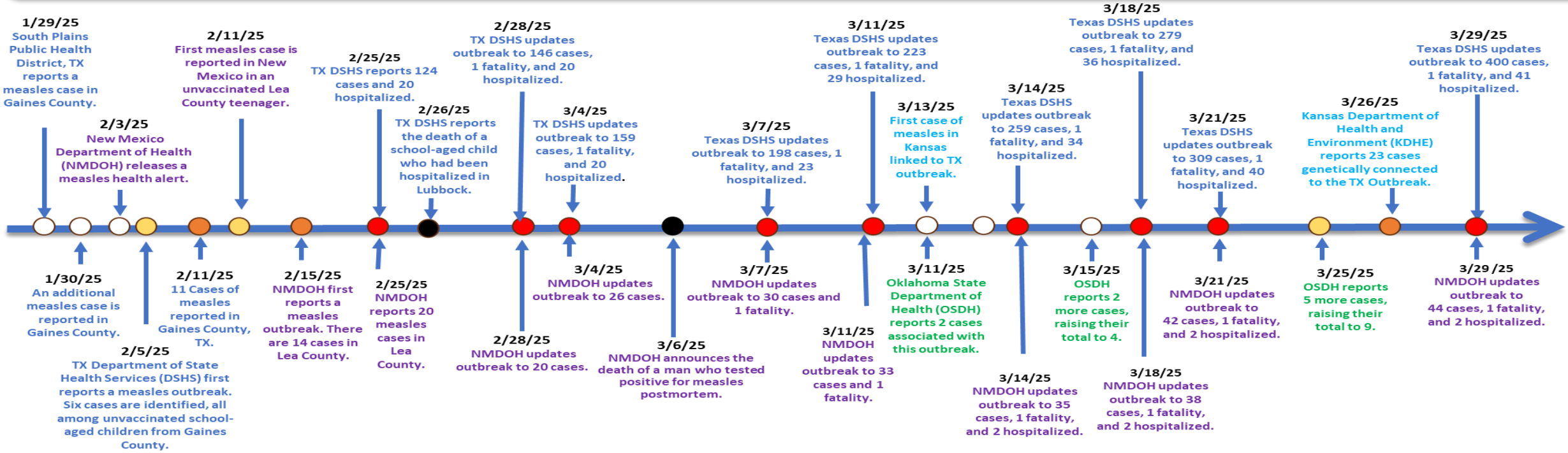
Percent Hospitalized, by Age Group
Under 5 years: **23% (66 of 285)**
5-19 years: **8% (30 of 353)**
20+ years: **8% (34 of 284)**
Age unknown: **15% (2 of 13)**

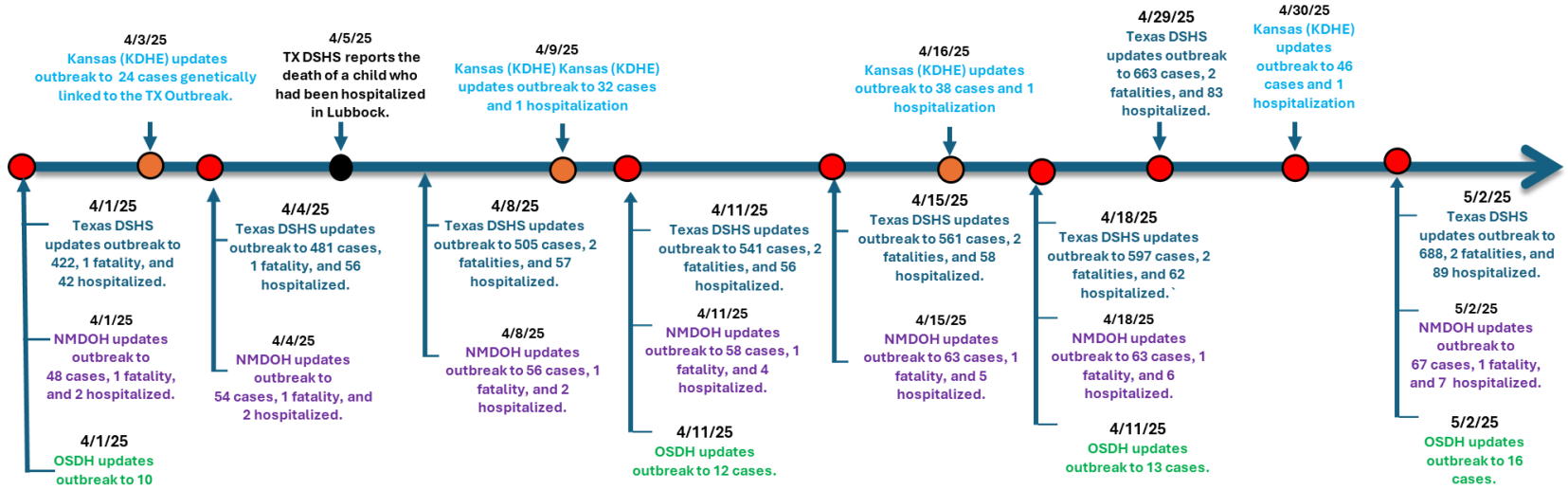
Deaths: 3

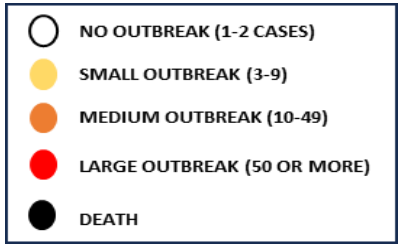
There have been 3 confirmed deaths from measles.

SOURCES: CENTER FOR OUTBREAK RESPONSE (CORI), CDC, TX MEASLES OUTBREAK, NM MEASLES OUTBREAK, OSDH, KDHE

TIMELINE (JANUARY – MAY 2025)







SOURCES: TEXAS DSHS, NMDOH, OSDH, KDHE

CURRENT SITUATION

As of 5/3/25, the Southwestern outbreak has **817 cases,** including confirmed and pending cases across **Texas, New Mexico, Oklahoma**, and **Kansas**. Experts warn this is **likely a severe undercount**. The situation remains fluid, with case numbers expected to rise. Experts project the outbreak could last **up to a year**.

CURRENT CASE COUNT: 817 (As of 05/3/2025)

- **Texas: 688 (+20)**(62% of these cases are in Gaines County).
- **New Mexico: 67 (+1**)(92.4% of the cases are from Eddy County)
- **Oklahoma: 16 (+1)**
- **Kansas**: **46** 32% of the cases are from Gray County)

HOSPITALIZATIONS: 97 (+2)

- **Texas: 89 (+2)** This is 13.02% of all TX cases.
- **New Mexico: 7** - This is 10.6% of all NM cases.
- **Kansas**: **1** This is 2.7% of all KS cases.

DEATHS: 3

- **Texas: 2** – This is 0.31% of all cases
- **New Mexico: 1** – This is 1.54% of all cases

US NATIONAL CASE COUNT: 967 (Confirmed and suspected):

INTERNATIONAL SPREAD (As of 4/2/2025)

- **Mexico – 865** (+58)
  - **Chihuahua, Mexico: 844** (+58) cases, 3 hospitalizations, 1 fatality
- **Canada: 1,531 (+270)** (This reflects Ontario's Outbreak, which began 11/24)
  - **Ontario, Canada – 1243** (+223) cases, 84 hospitalizations.
- **Europe: 6,814**

NOTE: Measles has been confirmed in 6 countries in the WHO Region of the Americas, an 11-fold increase compared to the same period in 2024. The majority of cases have occurred among people between 1 to 29 years, who are either unvaccinated or have an unknown vaccination status. (WHO)

TEXAS:

- The outbreak continues, though it appears to be slowing in some areas. As of 5/2/2025, DSHA estimates that fewer than 10 confirmed cases—approximately 1.0%—remain actively infectious, based on rash onset dates within the past week. However, this figure may underestimate the true number due to reporting delays.
- **El Paso County is experiencing a significant uptick in measles**. Since 4/4/2025, the county has reported **43** confirmed cases with **four hospitalizations**. The majority of these involve unvaccinated individuals or those with unknown vaccination histories For the first time Gaines County did not report any new cases and currently stands 396 cases, which account for 60% of the outbreak.
- The outbreak has been exacerbated by declining vaccination rates, particularly in communities with high nonmedical exemption rates. Gaines County, for instance, has one of the highest exemption rates in the state, with nearly 1 in 5 incoming kindergartners in the 2023–2024 class not receiving the MMR vaccine.
- DSHS has identified "designated outbreak counties" with ongoing measles transmission: **Cochran, Dallam, Dawson, Gaines, Garza, Lynn, Lamar, Lubbock, Terry, and Yoakum.**

NEW MEXICO: Cases appear to be stable.

OKLAHOMA: Cases appear to be stable.

KANSAS:

- As of 4/30/2025, Kansas is experiencing a growing measles outbreak, with 46 confirmed cases reported by the Kansas Department of Health and Environment (KDHE)—a 24% increase from the 37 cases reported two weeks earlier. It is highly likely that the number of cases is being under-reported.
- The outbreak remains localized to eight counties in the southwestern part of the state: Finney, Ford, Grant, Gray, Haskell, Kiowa, Morton, and Stevens.
- Most cases (38) involve individuals under the age of 18, including 28 children under 10. Of the 46 confirmed cases, 39 were unvaccinated, three were fully vaccinated, one had an incomplete vaccination series, and vaccination status is unknown for the remaining three.
- The first case was reported on 3/14/2025 in Stevens County. Genetic sequencing links the outbreak to the larger Texas cluster, particularly in Gaines County, though the precise exposure source remains unclear.

SOURCES: TEXAS DSHS, NMDOH, OSDH, KDHE, MEDICHIHUAHUA WHO - MEASLES – REGION OF THE AMERICAS 4/28/2025

CURRENT SITUATION

AGES OF CASES:

WEST TEXAS OUTBREAK				
0-4 Years	**5-17 Years**	**18+ Years**	**Pending**	**Total**
202 **(2)** (30%)	**249 (3)** (37%)	212 **(14)** (29%)	25(+1) (4%)	688 **(+20)**
NEW MEXICO OUTBREAK				
0-4 Years	**5-17 Years**	**18+ Years**	**Pending**	**Total**
18 (27%)	19 (28.3%)	30 (+2) (44.7%)	0	67 (+2)
KANSAS OUTBREAK				
0-4 Years	**5-17 Years**	**18+ Years**	**Pending**	**Total**
14 (30%)	24 (51%)	8 (19%)	0	46 (+9)
OKLAHOMA OUTBREAK				
0-4 Years	**5-17 Years**	**18+ Years**	**Pending**	**Total**
12 Cases Confirmed, 3 Probable – no ages provided			3	15

Genotype D8 Lineage: MVs/Ontario.CAN/47.24 — Cross-Border Circulation Summary (2024–2025)

The detection of measles virus lineage MVs/Ontario.CAN/47.24 across Canada, the United States, and Mexico supports the hypothesis of a travel-associated importation event—likely originating in Canada or involving individuals with recent international travel—in late 2024 or early 2025.

Initially identified in Ontario, this lineage has since been documented in multiple provinces on Canada, US states, including Texas, New Mexico, Oklahoma, Kansas, and northern Mexico, particularly Chihuahua and Durango.

Its wide geographic spread and consistent genetic profile highlight the persistence of cross-border transmission, especially in regions with low vaccination coverage. Many of the reported cases have **occurred in communities with high rates of nonmedical exemptions or limited access to immunization, where population immunity is insufficient to prevent sustained outbreaks.**

The emergence of MVs/Ontario.CAN/47.24 in both rural and urban settings underscores **gaps in regional surveillance systems** and the urgent need for **improved coordination across borders in outbreak detection, case investigation, and immunization efforts**. Its continued spread serves as a critical reminder of measles' high transmissibility and the threat posed by even a single imported case in under immunized populations.

CANADA: Genotype D8, specifically lineage **MVs/Ontario.CAN/47.24**, was first detected in **Ontario** in late 2024. By early 2025, the lineage had been identified in **57 confirmed cases**, primarily in Ontario, with additional cases reported in **Quebec, Manitoba, and British Columbia**. Most cases occurred among **unvaccinated individuals**. (Source: PAHO)

UNITED STATES: Although specific lineages are not always reported, **genotype D8** has been the predominant strain in recent outbreaks across **Texas, New Mexico, Oklahoma, and Kansas**. Genetic sequencing has linked the virus circulating in the U.S. to the same D8 lineage found in Canada and Mexico, suggesting **cross-border transmission**. However, the precise source of initial introduction remains undetermined. (Source: WHO)

MEXICO: In February 2025, a case of measles in **Chihuahua** was confirmed to be of **genotype D8, lineage MVs/Ontario.CAN/47.24**. Contact tracing and enhanced surveillance efforts identified **17 additional related cases**, confirming **local transmission** of this lineage. (Source: El Diario de Chihuahua, PAHO)

SOURCES: TX MEASLES OUTBREAK, NM MEASLES OUTBREAK, OSDH, KDHE, WHO, MMWR 4/24/205, WHO - MEASLES – REGION OF THE AMERICAS 4/28/2025, MEASLES IN ONTARIO 4/24/2025

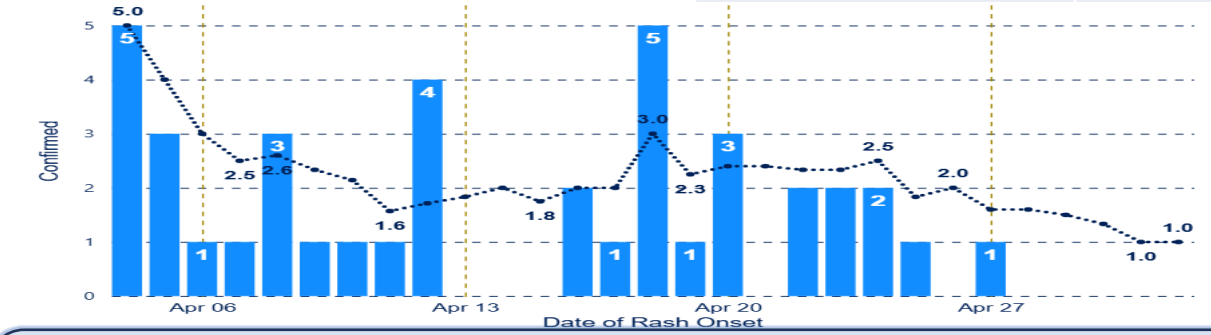
CURRENT SITUATION: EL PASO

CONFIRMED CASES BY AGE			
AGE	CASES	HOSPITALIZATIONS	DEATHS
0-4	12 (+1)	2	0
5-17	4 (+2)	0	0
18+	27 (+2)	2	0
TOTAL	43 (+5)	4	0

VACCINATION STATUS	
STATUS	NUMBER
UNVACCIANTED	19 (+3)
UNKNOWN	15 (+2)
1 DOSE	6
2 DOSES	3
TOTAL	43

HOSPITALIZATIONS	
HOSPITALIZATION STATUS	NUMBER
CURRENT	0
PREVIOUSLY	4
TOTAL	4

CASES BY GENDER	
GENDER	CASES
MALE	18
FEMALE	25
TOTAL	43



- With a population of 679,000, El Paso's **first 5 confirmed cases** were reported on 4/4/2025. As of 5/2/2025, the City of El Paso Department of Public Health reports 43 confirmed measles cases in the region, with 27 of those cases involving people 18 years old and older and 12 cases under the age of 4.
- As of May 2025, the vaccination rate in El Paso County stands at 96%. However, there is reason for concern about unvaccinated pockets within the community. Based on population, this would put 27,000 individuals at risk.
- In El Paso, cross-border dynamics with Juárez, Mexico, add unique challenges. High levels of daily binational travel have contributed to the spread of measles. Through contact tracing and sequencing data, a large outbreak in the Mexican state of Chihuahua has been directly linked to the ongoing outbreak in Gaines, Texas. The genotype D8 is now confirmed on both sides of the U.S.-Mexico border.
- Public health outreach faces obstacles such as language barriers, pervasive misinformation, and concerns among undocumented populations who may avoid seeking care for fear of deportation.
- Earlier cases in El Paso involved exposures at **high-traffic locations** such as malls, retail stores, and restaurants, underscoring the risk of transmission in urban public spaces.
- Measles cases have been reported in three Ysleta Independent School District (YISD) high schools (Eastwood, Bel Air, and Hanks), triggering schoolwide alerts and reinforcing the need for improved vaccination record reviews and contact tracing in school settings.

THE BOTTOM LINE:

Due to their unique community vulnerabilities, the rates of measles transmission have been steadily increasing in urban areas such as Lubbock, TX, and El Paso, TX. Cases linked to public venues like schools, retail settings, and other public spaces, or congregate settings such as the county jail, reveal how urban density accelerates the risk of measles exposure. Trusted community messengers who can spread awareness about the safety and necessity of the MMR vaccine are critical at this time.

SOURCES: DSHS, KVIA, KTSM, KFOX, KISS.FM, YISD, PBS, EL PASO MEASLES OUTBREAK DASHBOARD, KTSM

CURRENT SITUATION: VACCINATION STATUS

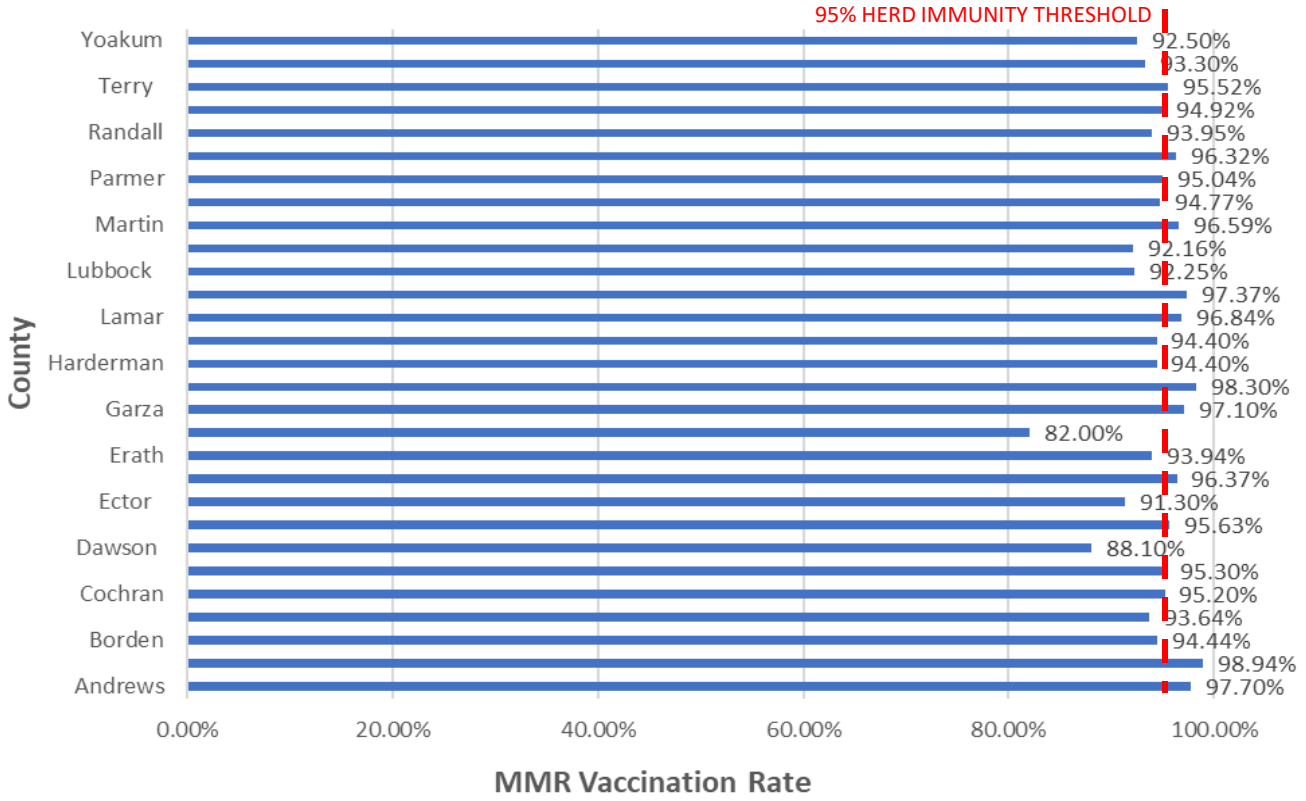
STATE	VACCINATED WITH 1 DOSE	VACCINATED WITH 2 DOSES	UNVACCINATED/ UNKNOWN	TOTAL CASES
TX	13	17	658*	688*

NOTE: The TX unvaccinated/unknown category includes people with no documented doses of measles vaccine more than 14 days before symptom onset.

STATE	VACCINATED WITH AT LEAST ONE DOSE	NOT VACCINATED	UNKNOWN	TOTAL CASES
NM	7	47	12	66

STATE	VACCINATED WITH ONE DOSE	VACCINATED WITH TWO DOSES	UNVACCINATED	TOTAL CASES
OK	0	1	15	16

STATE	AGE APPROPRIATELY VACCINATED	NOT AGE APPROPRIATELY VACCINED	NOT VACCINATED	Pending Verification /Unable to Verify	TOTAL CASES
KS	3	1	39	3	46

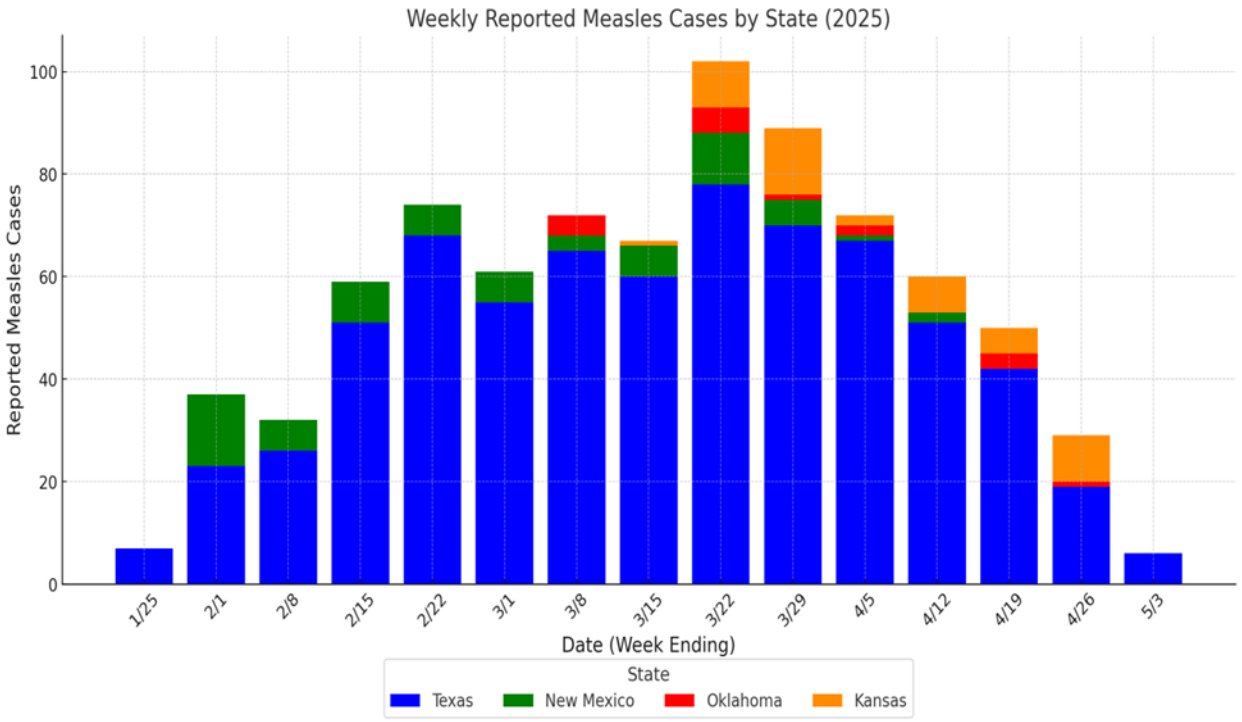


Among the affected counties in TX, 15 out of 29 are below a 95% vaccination rate, the recommended rate for herd immunity (SOURCE: Annual Report on Immunization Status and CORI).

SOURCES: TX MEASLES OUTBREAK, NM MEASLES OUTBREAK, OSDH, AP -3/21/2025, NYT

EPI CURVE AND CASES OVER TIME

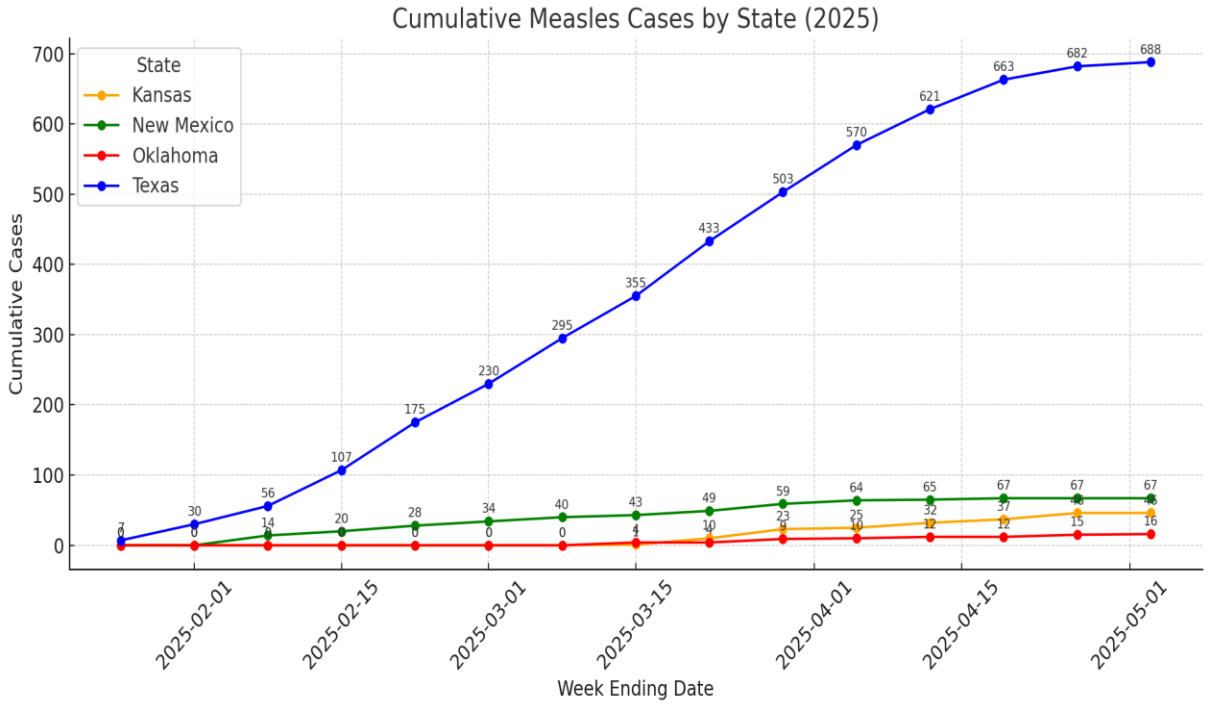
SOUTHWEST MEASLES OUTBREAK – EPI CURVE (AS OF 5/3/2025)



The number of new cases per week remains high.

- **TX:** Reported first case the week of 1/25/25.
- **NM:** Reported first cases the week of 2/10/25.
- **OK:** Reported first cases the week of 3/10/25.
- **KS:** Reported first case on 3/13/25.

SOUTHWEST MEASLES OUTBREAK – CUMULATIVE CASES OVER TIME (AS OF 4/3/2025)



Cases are rising, but at a slower pace in some areas.

- **TX:** A total of 688* cases across 29 counties.
- **NM:** A total of 67 cases across 4 counties.
- **OK:** A total of 16 cases have been.
- **KS**: A total of 46 cases across 8 counties.

*This includes an additional 5 cases from El Paso that were reported after TX had published its numbers on Friday 5/2/2025.

SOURCES: TX DSHS, NMDOH, OSDH, KDHE, CENTER FOR OUTBREAK RESPONSE (CORI)

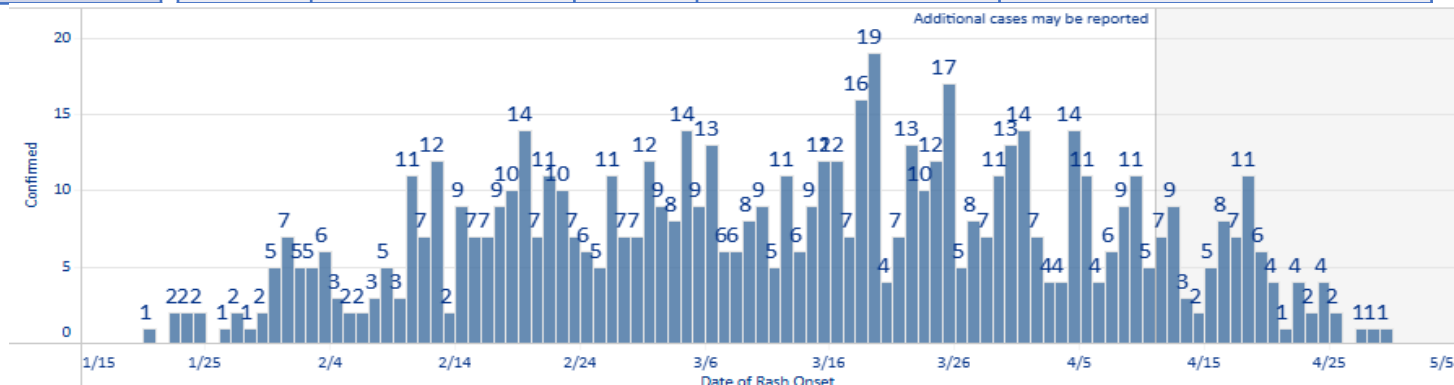
EPI SUMMARY - TEXAS

(n=653) AS OF 4/26

COUNTY	MEASLES CASES (NUMBER OF NEW CASES)	% of TOTAL CASES	% KINDERGARTENERS VACCINATED (2023-2024)	# OF SCHOOL DISTRICTS IN EACH COUNTY WITH MMR BELOW 95%
Andrews	3	0.32 %	97.70%	0
Bailey	2	0.32 %	98.94%	0
Borden	1	0.2%	94.44%	1
Brown	1	0.2%	93.64%	5
Cochran	14	1.9%	95.20%	1
Dallam	7	1.1%	95.30%	2
Dawson	26 (+1)	3.7%	88.10%	4
Eastland	**2 (NEW)**		95.63	2
Ector	11 (+1)	1.6%	91.30%	5
El Paso	43 (+5)	3.2%	96.37%	8
Erath	1	0.2%	93.94%	5
Gaines	396	61.9%	82.00%	3
Garza	2	0.3%	97.10%	0
Hale	5	0.8%	98.30%	2
Harderman	1 (NEW)	0.8%	94.40%	3

COUNTY	MEASLES CASES (NUMBER OF NEW CASES)	% of TOTAL CASES	% KINDERGARTENERS VACCINATED (2023-2024)	# OF SCHOOL DISTRICTS IN EACH COUNTY WITH MMR RATES BELOW 95%
Hockley	6 (+1)	0.8%	94.40%	3
Lamar	17	1.8%	96.84%	0
Lamb	1	0.2%	97.37%	1
Lubbock	50(+2)	7.5%	92.25%	8
Lynn	2	0.3%	92.16%	2
Martin	3	0.5%	96.59%	1
Midland	3	0.5%	94.77%	4
Parmer	4	0.6%	95.04%	1
Potter	2 (+1)	0.2%	96.32%	3
Randall	1	0.2%	93.95%	1
Reeves	1	0.2%	94.92%	1
Terry	59	8.7%	95.52%	2
Upshur	**5 NEW**		93.30	2
Yoakum	19	3.0%	92.50%	1

OUTBREAK CASES BY DATE OF RASH ONSET



SOURCES: Measles Outbreak – May 2, 2025 | Texas DSHS

EPI SUMMARY (KS, NM, OK)

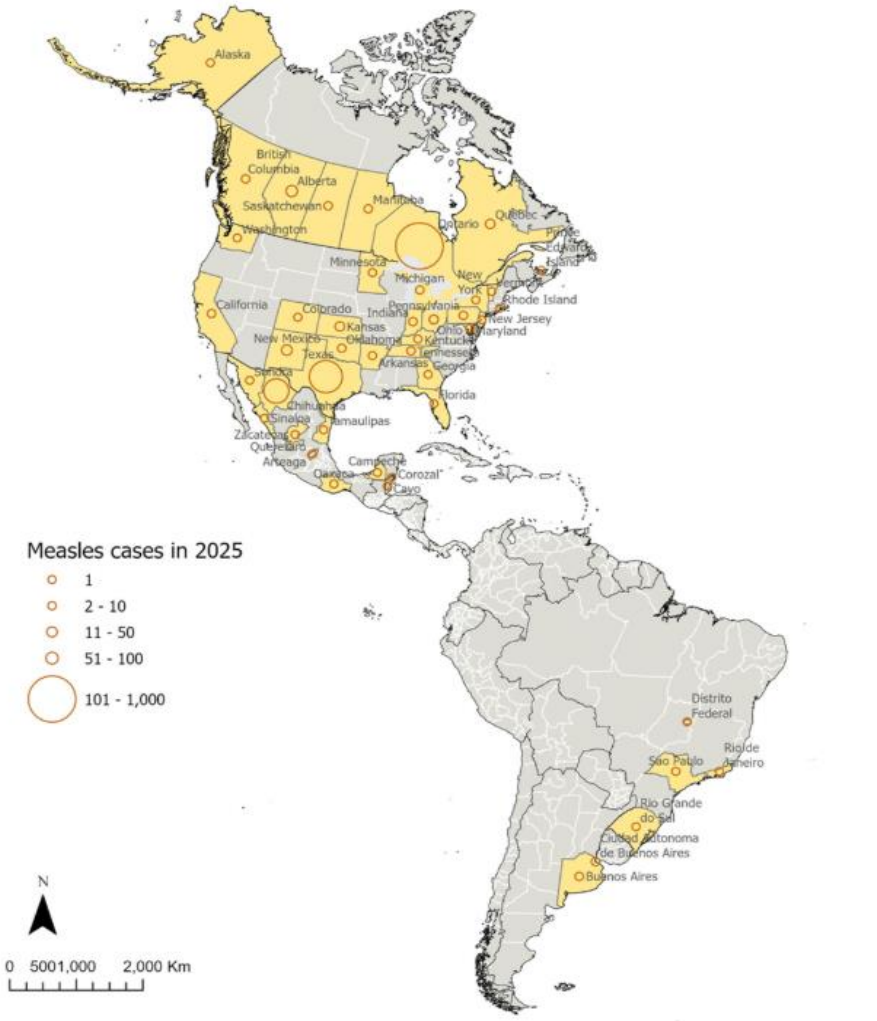
COUNTY	MEASLES CASES (NUMBER OF NEW CASES)	% of TOTAL CASES	% KINDERGARTENERS VACCINATED (2023-2024)
KANSAS (n=46) AS OF 5/2/2025			
Finney	Between 1- 5		98%
Ford	Between 1- 5		87%
Grant	Between 1- 5		99%
Gray	15	32.61%	66%
Haskell	8	21.6%	58%
Kiowa	6	16.2%	92%
Morton	Between 1- 5		82%
Stevens	7	18.9%	83%
NEW MEXICO (n=67) AS OF 5/2/2025			
Chaves	1	1.5%	98%
Doña Ana	1 (+1)	1.5%	
Eddy	3	3.%	93%
Lea	61	94%	94%

Note: Those 18 years or younger have a 95% vaccination rate. 63% of adults have received one shot of MMR, and only 55% have received both shots, according to local health officials, though they noted that there may be vaccinated adults whose records have not been added to the system. Adults make up more than half of reported cases in New Mexico.

OKLAHOMA (n=16) AS OF 5/2/2025			
Tulsa and Cherokee Nation	16	Insufficient Information	89.5%

SOURCES: NM MEASLES OUTBREAK,, OSDH,

THE AMERICAS



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

On 4/28/2025, WHO published the *Measles – Region of the Americas Report*.

- As of 18 April 2025, the WHO Region of the Americas had reported **2,318 confirmed measles cases and three deaths** across six countries—**an 11-fold increase from the same period in 2024.**
- Most cases involve unvaccinated individuals aged 1–29 or with unknown vaccination status, with many linked to international travel.
- Global under-vaccination, including 22 million children missing their first measles dose in 2023, has fueled the resurgence.
- The cases have been reported from six countries:
  - Argentina (n= 21 cases)
  - Belize (n= 2 cases)
  - Brazil (n= 5 cases)
  - Canada [1] (n=1069 cases)
  - Mexico [2] (n= 421 cases including one death
  - United States of America [3] (n=800 cases, including two deaths).

The overall risk of measles in the Americas Region is considered high due to several factors:

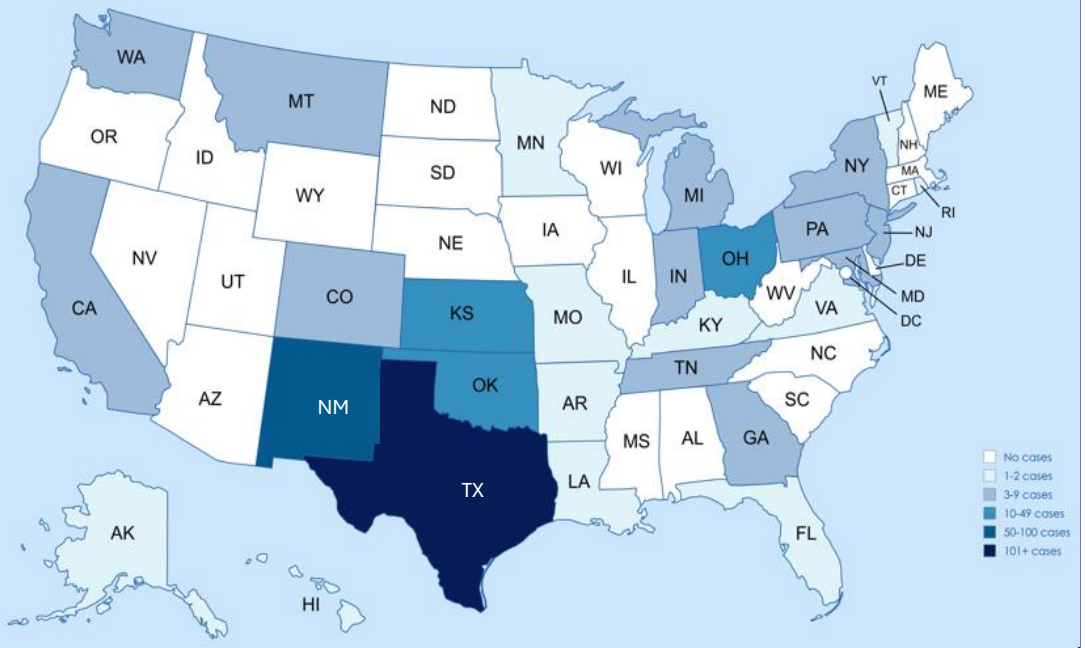
- Ongoing virus circulation from imported cases has led to outbreaks with extended transmission chains, secondary cases, and virus spread to new areas and countries in 2025.
- Suboptimal vaccination coverage persists across the region. In 2023, only 28.6% of countries achieved over 95% coverage for the first MMR dose (MMR1), and just 16.7% for the second dose (MMR2). Regional coverage was 87% for MMR1 and 76% for MMR2. Data for 2024 is still being consolidated.
- An increasing number of susceptible individuals due to continued low coverage, driven by factors like the COVID-19 pandemic, vaccine hesitancy, and limited access to healthcare, especially among vulnerable groups such as migrants, displaced persons, and Indigenous populations.

World Health Organization (28 April 2025). Disease Outbreak News; Measles in the Region of the Americas

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)*

967*



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 **	702
NEW MEXICO	67
KANSAS	46
OHIO	38
OKLAHOMA	16
PENNSYLVANIA	13
CALIFORNIA	10
MICHIGAN	9
INDIANA	8
MONTANA	7
TENNESSEE	6
COLORADO	5
WASHINGTON	5
ARKANSAS	4
NEW YORK	4
GEORGIA	3
ILLINOIS	3
MARYLAND	3
NEW JERSEY	3
ALASKA	2
FLORIDA	2
HAWAII	2
LOUISIANA	2
MINNESOTA	2
KENTUCKY	1
MISSOURI	1
RHODE ISLAND	1
VERMONT	1
VIRGINIA	1
TOTAL	967

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 4/30/2025, 2300 hrs. EDT, there are approximately **977** measles cases (including confirmed and suspected cases) across 29 states.*

*Currently, there are **eight measles outbreaks**:*

1. *West Texas, involving 29 counties in **Texas**, 4 counties in **New Mexico**, 2 counties in **Oklahoma**, and the Cherokee Nation in Oklahoma*
2. *8 counties in **Kansas***
3. *Ashtabula and Knox Counties, **Ohio***
4. *Erie County**,** **Pennsylvania***
5. *Allen County, **Indiana***
6. *Bergen County, **New Jersey***
7. *metro Atlanta, **Georgia***
8. *Gallatin County, **Montana***
9. *Montcalm County, **Michigan** (linked to Ontario Outbreak)*
10. *Upper Cumberland region - **Tennessee***

**** TEXAS CASES NOT ASSOCIATED WITH OUTBREAK: 14**

- 1 case – Atascosa County
- 1 case – Brazoria County
- 1 case – Collin County
- 1 case – Adult, Fort Bend (travel-related)
- 4 cases – Harris County
- 2 cases – Adults, Rockwall County (travel-related)
- 1 case - Shackelford
- 2 case – Travis County
- 18 cases – Upshur County

TEXAS CASES ASSOCIATED WITH THE OUTBREAK: 688

MEXICO OUTLOOK

THE MEASLES OUTBREAK IN MEXICO: OVERVIEW

*Data as of Friday, 5/2/2025

- **Measles Outbreak in Mexico: 865 Cases - First Death Reported:** Mexico is grappling with a measles outbreak. The state of **Chihuahua has been hit hardest, reporting 844 cases** and the country's first measles-related death — a 31-year-old unvaccinated man with diabetes and kidney complications.
- **Low Immunization & Cross-Border Spread:** The outbreak traces back to Texas, where rising anti-vaccine sentiment has contributed to increased infections. In Mexico, declining childhood vaccination rates — particularly in Chihuahua, where coverage in some age groups is as low as 21.2% — have heightened vulnerability. In terms of vaccination history, 92.4% had no vaccination history, while 3.8% had received one dose of the MMR vaccine, and another 3.8% had received two doses.
- **The Most Affected Age Group:** 25 to 44-year-olds are the most affected age group, with 34.4% of cases, followed by 5 to 9-year-olds, with 13.5% of cases.
- On 4/25/2025, the Mexican Health Ministry issued a medium-level travel alert for the United States and Canada due to a significant increase in measles cases in both countries.

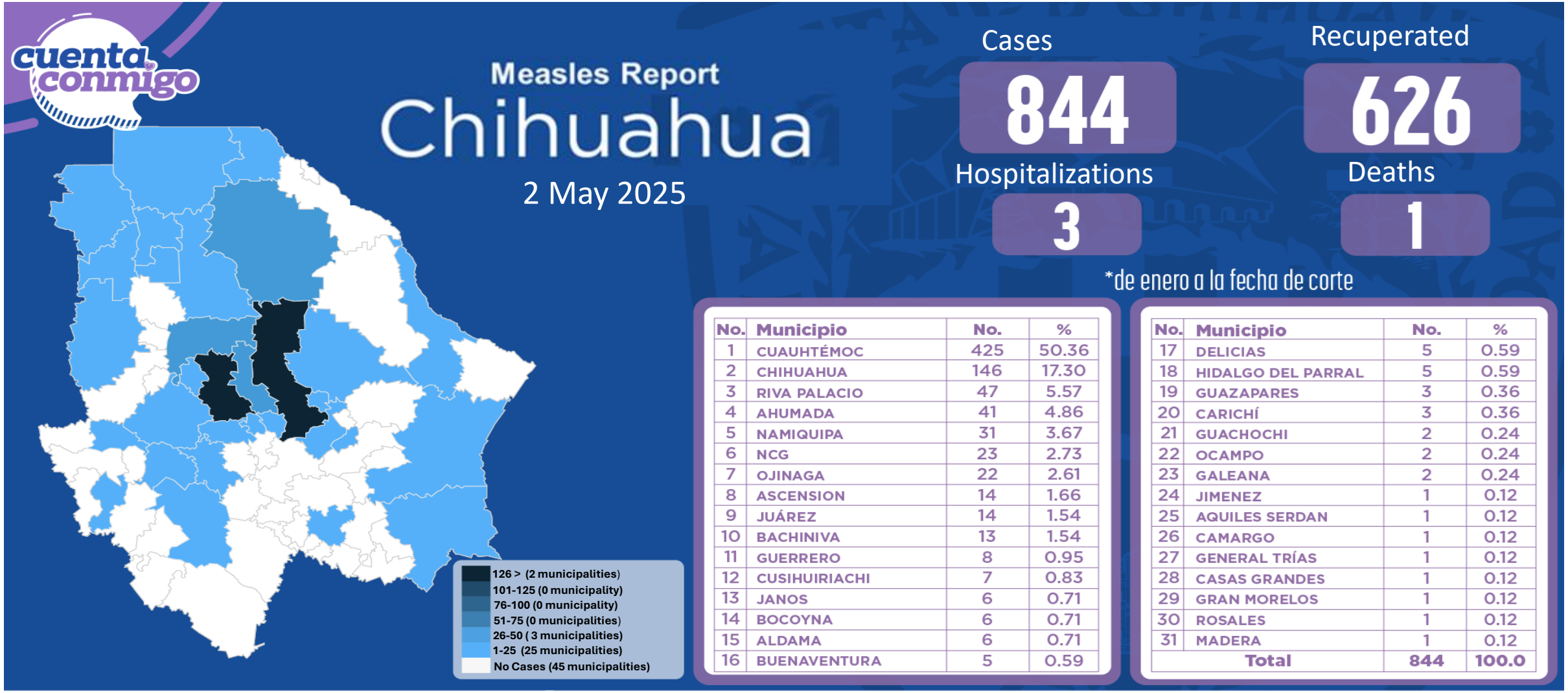
MORBIDITY	
STATE	**CASES**
CAMPECHE	4
CHIHUAHUA	844
DURANGO	2
OAXACA	4
QUERÉTARO	1
SINALOA	1
SONORA	5
TAMAULIPAS	2
QUERÉTARO	1
ZACATECAS	1
TOTAL	865

VACCINES ADMINISTERED (JAN-MAR 2025)	
TYPE OF VACCINES	**VACCINATIONS GIVEN**
Measles, Mumps and Rubella (MMR)	669,209
Measles and Rubella	46,068
Total	715,277

Vaccination Campaign Underway: Between January and March, over 715,000 people were vaccinated as part of the national response. Authorities have implemented "vaccine cordons," targeting healthcare workers and close contacts of confirmed cases to curb the spread. **On April 15, the Secretary of Health** urged the need for measles vaccination, and the triple viral vaccine against measles, mumps, and rubella will be administered during the **First National Vaccination Week of 2025 from April 26th 2025 to May 3rd 2025.**

SOURCE: MEDICHIHUAHUA, EPI REPORT GOV MEXICO, ELFINANCIERO, EL PAIS, EL DIARIO

MEXICO OUTLOOK: CHIHUAHUA



No.	Municipio	No.	%
1	CUAUHTÉMOC	425	50.36
2	CHIHUAHUA	146	17.30
3	RIVA PALACIO	47	5.57
4	AHUMADA	41	4.86
5	NAMIQUIPA	31	3.67
6	NCG	23	2.73
7	OJINAGA	22	2.61
8	ASCENSION	14	1.66
9	JUÁREZ	14	1.54
10	BACHINIVA	13	1.54
11	GUERRERO	8	0.95
12	CUSIHUIRIACHI	7	0.83
13	JANOS	6	0.71
14	BOCOYNA	6	0.71
15	ALDAMA	6	0.71
16	BUENAVENTURA	5	0.59

No.	Municipio	No.	%
17	DELICIAS	5	0.59
18	HIDALGO DEL PARRAL	5	0.59
19	GUAZAPARES	3	0.36
20	CARICHÍ	3	0.36
21	GUACHOCHI	2	0.24
22	OCAMPO	2	0.24
23	GALEANA	2	0.24
24	JIMENEZ	1	0.12
25	AQUILES SERDAN	1	0.12
26	CAMARGO	1	0.12
27	GENERAL TRÍAS	1	0.12
28	CASAS GRANDES	1	0.12
29	GRAN MORELOS	1	0.12
30	ROSALES	1	0.12
31	MADERA	1	0.12
	Total	**844**	**100.0**

Fuente: Secretaría de Salud

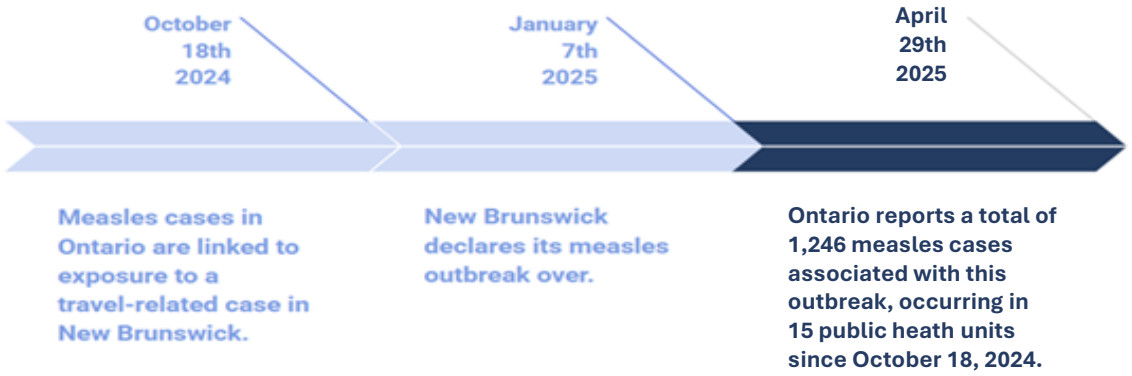
SOURCE OF GRAPHIC: MediChihuahua

GOBIERNO DEL ESTADO DE CHIHUAHUA | SECRETARÍA DE SALUD

MediChihuahua

CANADA OUTLOOK

Brief Timeline of Outbreak



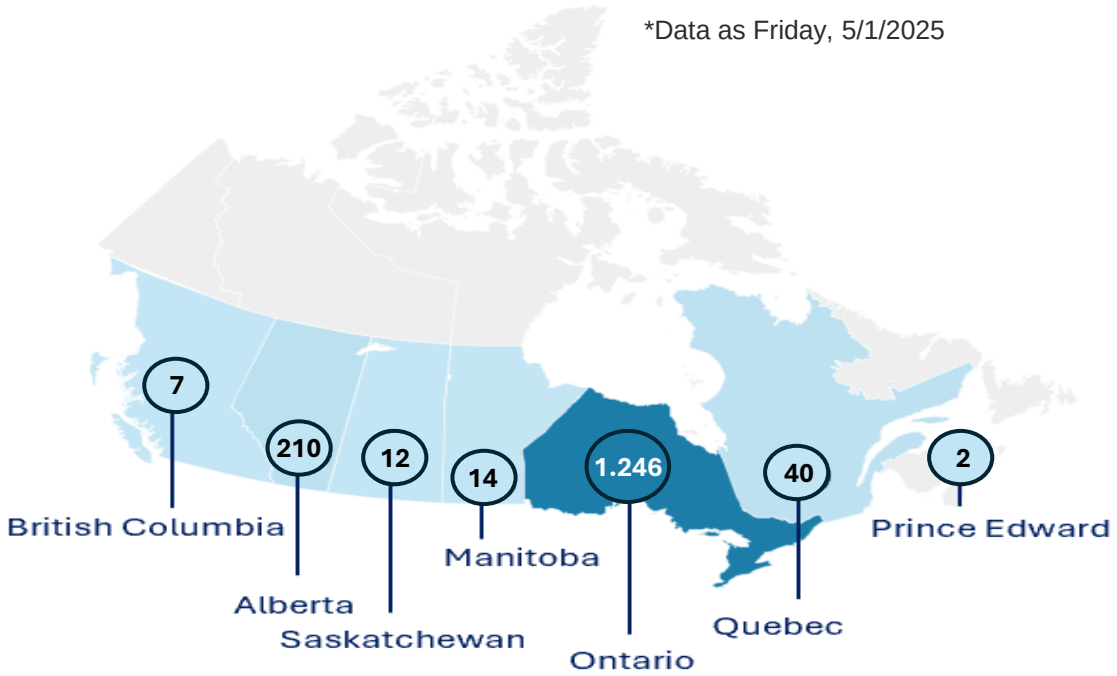
CANADA OUTBREAK:

- An ongoing outbreak of measles in Ontario has been traced back to a large gathering in New Brunswick last fall that was attended by guests from Mennonite communities. On October 18, 2024, exposure to a travel-related case in New Brunswick led to measles cases in Ontario. **The Ontario outbreak continues to escalate**.
- **Alberta is seeing a large number of cases since Easter.**
- Manitoba has also reported measles cases related to this outbreak.
- New Brunswick declared their outbreak over on 1/7/2025.
- Quebec declared its outbreak on 4/22/2025 after no new cases in 32 days.

MORBIDITY IN 2025	
PROVINCE	**CASES**
ONTARIO	1,246* (+223)
ALBERTA	210 (+40)
MANITOBA	14 (+1)
BRITISH COLUMBIA	7 (+1)
SASKATCHEWAN	12
QUEBEC	40
PRINCE EDWARD ISLAND	2
TOTAL	1,531 (+270)

* From October 18, 2024 to April 23, 2025, Ontario has reported a total of 1,020 measles cases (884 confirmed, 136 probable) associated with this outbreak occurring in 15 public health units

*Data as Friday, 5/1/2025



SOURCES: MANITOBA HEALTH , ALBERTA DASHBOARD, CBC, QUEBEC, PUBLIC HEALTH ONTARIO, CBC NEWS, THE GLOBE AND MAIL, SASKATCHEWAN, CBC CA **MEASLES AND RUBELLA WEEKLY MONITORING REPORT** BC

CANADA OUTLOOK: ONTARIO

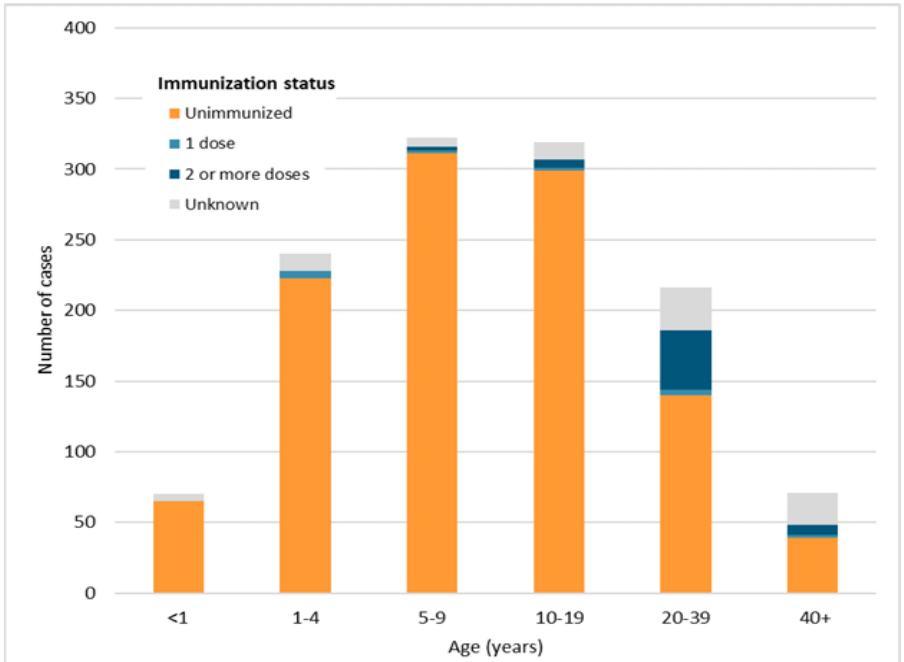
MORBIDITY AND MORTALITY

PROVINCE	CASES	HOSPITALIZATIONS	DEATHS
ONTARIO	1,243 (+223)	84 (+8)	0

ONTARIO:

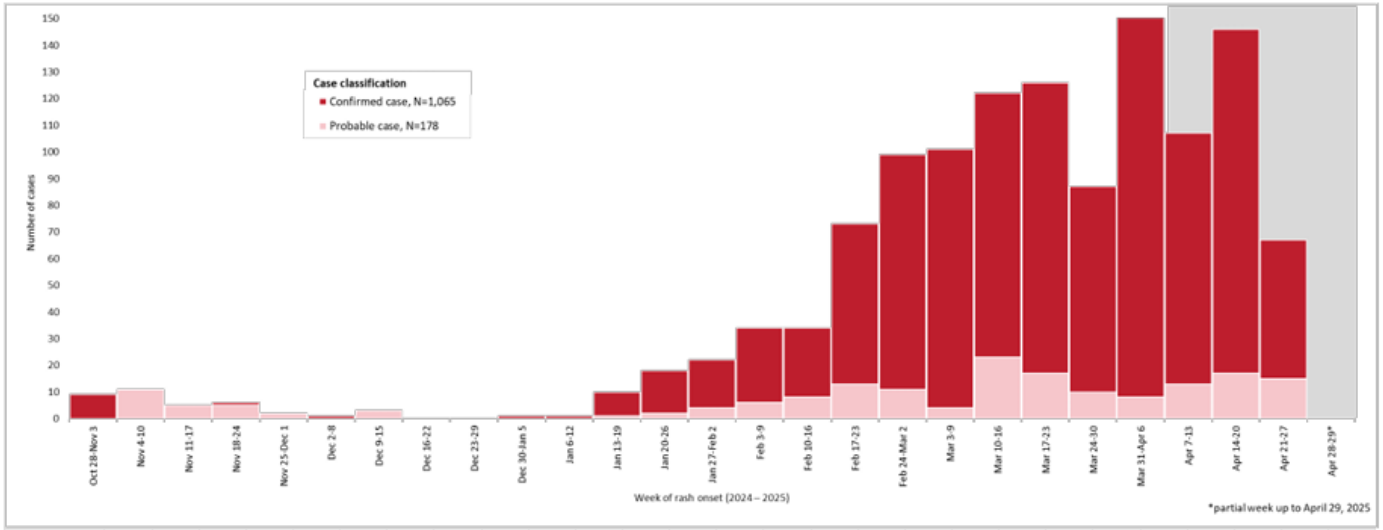
- 76.5% (n=951) were in infants, children and adolescents, while 23.1%
- (n=287) were in adults, and 0.4% (n=5) had unknown age
- 2.0% (n=25) of outbreak cases were pregnant.
- (n=1,222) of outbreak cases were born in or after 1970.
- Among infants, children, and adolescents, 94.4% (n=898) were unimmunized, while among adults, 62.4% (n=179) were unimmunized.
- 84 outbreak cases have required hospitalization, and eight were admitted to the ICU. Among all hospitalizations, 80 were unimmunized, including 63 children.

IMMUNIZATION STATUS OF MEASLES OUTBREAK CASES BY AGE GROUP: OCTOBER 28, 2024 – APRIL 29, 2025



Age group	<1	1-4	5-9	10-19	20-39	40+
Unimmunized	92.9%	92.9%	96.6%	93.7%	64.8%	54.9%
1 dose	0.0%	2.1%	0.6%	0.6%	1.9%	2.8%
2 or more doses	0.0%	0.0%	0.9%	1.9%	19.4%	9.9%
Unknown	7.1%	5.0%	1.9%	3.8%	13.9%	32.4%

NUMBER OF MEASLES CASES BY WEEK OF RASH ONSET, 10/28/2024 – 04/29//25



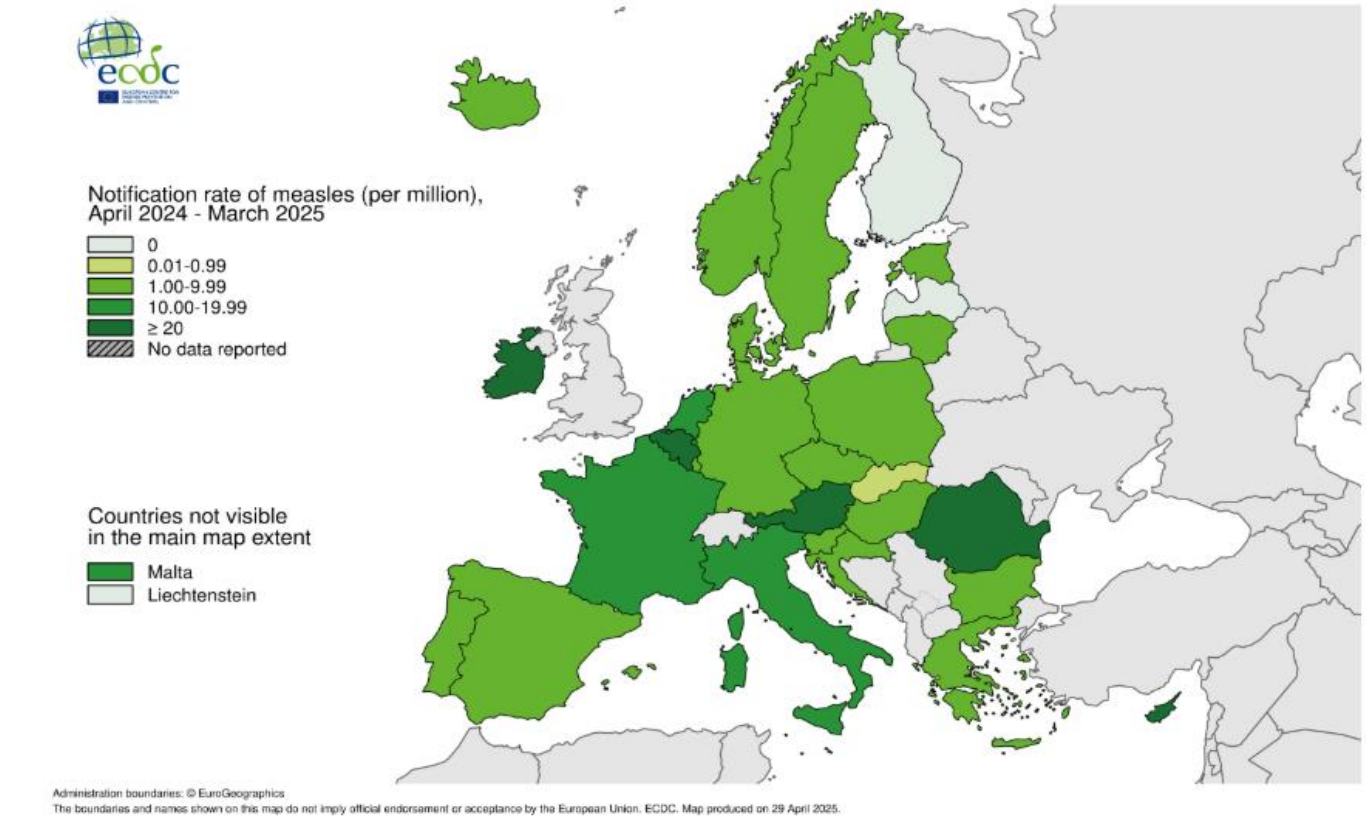
Week of rash onset	Oct 28-Nov 3	Nov 4-10	Nov 11-17	Nov 18-24	Nov 25-Dec 1	Dec 2-8	Dec 9-15	Dec 16-22	Dec 23-29	Dec 30-Jan 5	Jan 6-12	Jan 13-19	Jan 20-26	Jan 27-Feb 2	Feb 3-9	Feb 10-16	Feb 17-23	Feb 24-Mar 2	Mar 3-9	Mar 10-16	Mar 17-23	Mar 24-30	Mar 31-Apr 6	Apr 7-13	Apr 14-20	Apr 21-27	Apr 28-29*
Confirmed case	9	0	0	1	0	1	0	0	0	1	1	9	16	18	28	26	60	88	97	99	109	77	150	94	129	52	0
Probable case	0	11	5	5	2	0	3	0	0	0	0	1	2	4	6	8	13	11	4	23	17	10	8	13	17	15	0
Total	**9**	**11**	**5**	**6**	**2**	**1**	**3**	**0**	**0**	**1**	**1**	**10**	**18**	**22**	**34**	**34**	**73**	**99**	**101**	**122**	**126**	**87**	**158**	**107**	**146**	**67**	**0**

SOURCES: PUBLIC HEALTH ONTARIO

EUROPE – 4/1/2024 – 3/31/2025

EUROPEAN MEASLES VACCINATION RATES (MARCH 1, 2024 TO FEBRUARY 28, 2025)				
VACCINATED WITH 1 DOSE	VACCINATED WITH 2 DOSES	VACCINATED WITH UNKNOWN # OF DOSES	UNVACCINATED	TOTAL CASES (WITH KNOWN AGE AND VACCINE STATUS)
2,378 (8.9%)	1,213 (4.5%)	50 (0.2%)	22,992 (86.2%)	26,669 (100%)

NUMBER OF MEASLES CASES PER 1,000,000 POPULATION BY COUNTRY, EU/EEA, 2024



EUROPEAN MEASLES NOTIFICATION RATES (MARCH 1, 2024 TO FEBRUARY 28, 2025)	
(<1 Years)	1-4 Years
928.4 cases per million	542.6 cases per million

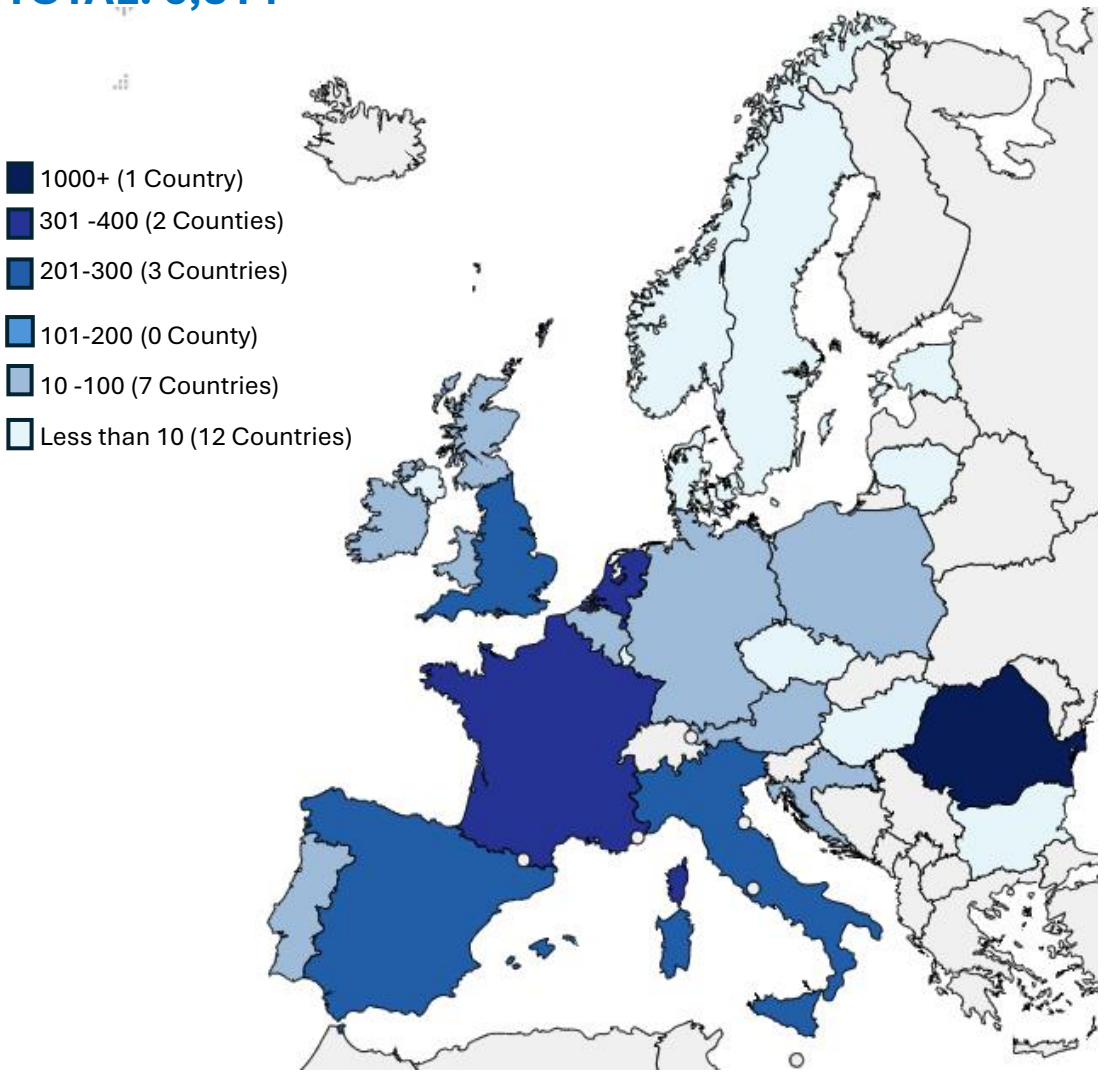
- From 4/1/2024 and 3/31/2025. 30 EU/EEA Member States reported a total **of 26,222 cases of measles**.
- Between 4/1/2024 and 3/31/2025, of the 26,222 cases with known age, 11,654 (44.4%) were in children under five, and 7,255 (27.7%) cases were aged 15 years or older. The highest notification rates were observed in infants under one year (849.7 cases per million) and children aged 1-4 years (491.7 cases per million).
- Of 24,337 cases (100.0% of all cases) with a known age and vaccination status, 20 893 (85.8%) were unvaccinated, 2, 185 (9.0%) were vaccinated with one dose of a measles-containing vaccine, 1 180 (4.8%) were vaccinated with two or more doses, and 48 (0.2%) were vaccinated with an unknown number of doses.
- Romania (13) and France reported to ECDC that during the 12 months, 14 deaths (case fatality rate (CFR): 0.1) were attributable to measles.
- The highest number of cases were reported by Romania (21 620), Italy (1 026), France (695), Germany (560) and Belgium (540)

EUROPEAN CENTRE FOR DISEASE PREVENTION AND CONTROL. MEASLES AND RUBELLA MONTHLY REPORT, 29 APRIL 2025.

EUROPE - 2025

EUROPEAN MEASLES CASES AND DEATHS BY COUNTRY		
COUNTRY	**CASES**	**DEATHS**
AUSTRIA	78	0
BELGIUM	73	0
BULGARIA	1	0
CYPRUS	9	0
CZECHIA	9	0
DENMARK	1	0
ENGLAND	213	0
ESTONIA	3	0
FRANCE	345	0
GERMANY	85	0
HUNGARY	2	0
IRELAND	43	0
ITALY	227	0
LITHUANIA	2	0
LUXENBOURG	1	0
NETHERLANDS	347	0
NORTHERN IRELAND	3	0
NORWAY	2	0
POLAND	34	0
PORTUGAL	2?	0
ROMANIA	5,104	4
SCOTLAND	25	0
SPAIN	202	0
SWEDEN	3	0
WALES	2	0
TOTAL	**6814**	**4**

TOTAL: 6,814



KEY CAUSES OF THE 2025 MEASLES OUTBREAK IN EUROPE:

1. **Low Vaccination Rates:** Several countries fell below the 95% coverage for herd immunity (e.g., Romania at 62%).
2. **COVID-19 Disruptions:** Millions missed routine MMR vaccinations between 2020 and 2022.Vaccine
3. **Misinformation:** Hesitancy driven by safety fears reduced uptake.
4. **High Case Burden in** Key Countries: Romania, Italy, France, Spain, England, and the Netherlands report large outbreaks.
5. **Seasonal Surges & Travel:** Infections peaked early in the year and spread across borders via travel.

SOURCES: COMMUNICABLE DISEASE THREAT REPORT - WEEK 16, 12-18 APRIL 2025, MONTHLY MEASLES AND RUBELLA MONITORING REPORT – MARCH 2025. EUROPEAN CENTRE FOR DISEASE PREVENTION AND CONTROL. MEASLES AND RUBELLA MONTHLY REPORT - 29 APRIL 2025, EURO NEWS, PUBLIC HEALTH WALES, PH SCOTLAND, UK HEALTH SECURITY AGENCY

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: Members of EHS 581 - Public Health Emergencies: Disaster Planning and Response (Spring 2025)

Pargoal Arab
Alyssa Chetrick
Dr. Vanessa Evardone, MD
Dr. Jay Cliffe, MD
Liv Delgado
Lucy Gilchrist
Monica Gomes
Anne Habeck
Nayeli Gonzalez-Vazquez
Tianmei Han
Nathan Lai
Rachel Kane
Kei Kohmoto
Elly Maldur
Phoebe Merrick
Shoa Moosavi (Editor)
Alexandra Nechaev
Dr. Barbara Odac, MD
Megan Pillar
Kiswa Rahman
Bryn Redal
Sara Rodrigue
Katelyn Rudisill
Christina Tong
Sebastian Salzar
Ling Xiao
Eliot Zhang

LTC (R) Joanne McGovern – Joanne.McGovern@yale.edu
Lecturer, Department of Environmental Health Sciences, Yale School of Public Health

Emily Locke (Teaching Fellow EHS 581)