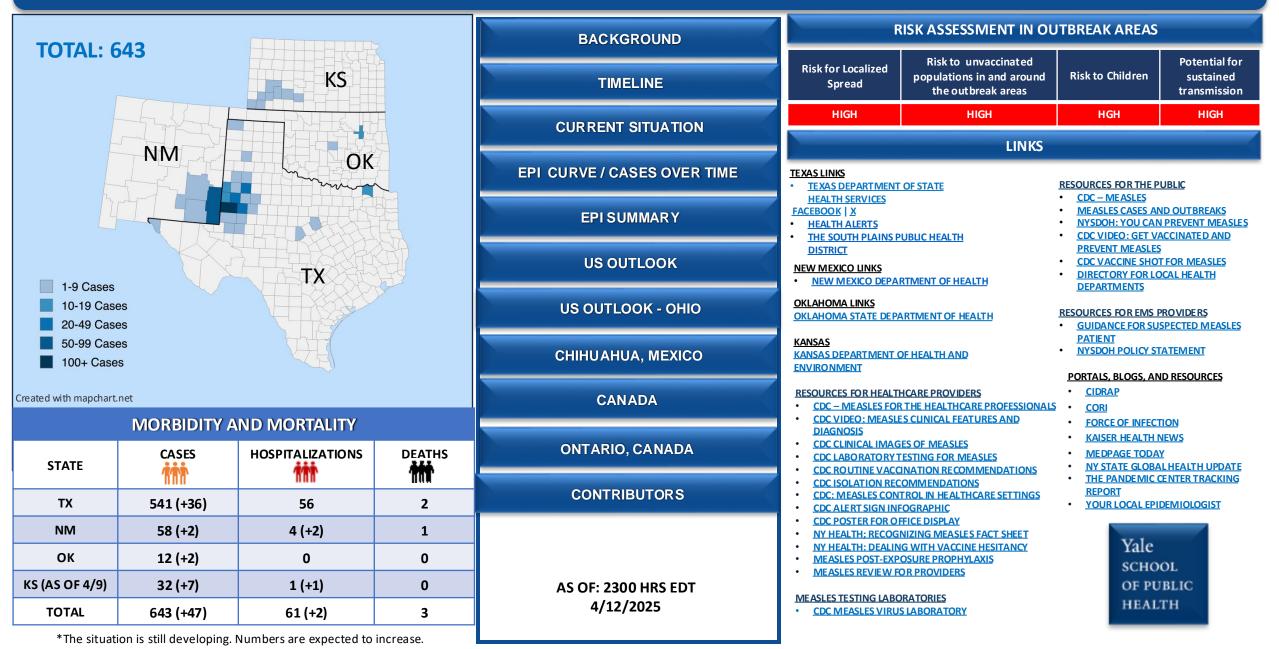
YALE SCHOOL OF PUBLIC HEALTH - ESF-8 VIRTUAL MEDICAL OPERATION CENTER SPECIAL REPORT

MEASLES OUTBREAK - SOUTHWEST U.S. - 2025



BACKGROUND

TYPE OF PUBLIC HEALTH EMERGENCY: LARGE REGIONAL MEASLES OUTBREAK

OVERVIEW: A measles outbreak originating in West Texas has been linked to confirmed cases in New Mexico, with additional cases reported in Oklahoma and Kansas. **61** individuals have required hospitalization, and there have been **3 deaths– 2 children in Texas and 1 adult in New Mexico.** These fatalities mark the first measles-related deaths in the United States since 2015 and the first pediatric measles deaths since 2003.

THE VIRUS: <u>Measles</u> is a highly contagious viral disease transmitted primarily through respiratory droplets expelled by coughing or sneezing. Common 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 high transmissibility. Despite being preventable through the <u>MMR</u> (measles, mumps, and rubella) vaccine, outbreaks persist in communities with low vaccination coverage, increasing the risk of severe complications (<u>CDC</u>).

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:

- Increased vaccination campaigns and community outreach
- Efforts to build trust and combat misinformation
- Coordination with local schools, healthcare providers, hospitals, and community organizations

INTERNATIONAL IMPACTS

There is a confirmed connection between the 2025 measles outbreaks in Mexico and the Texas outbreak. Genetic sequencing has identified that the measles virus circulating in both countries belongs to the same genotype, D8, strongly suggesting a direct epidemiological link between the outbreaks (WHO, <u>EL DIARIO</u>).

The U.S. outbreak began in Texas in January 2025. By February, the Mexican state of Chihuahua reported cases genetically linked to the Texas outbreak, primarily affecting communities with low vaccination coverage. In both countries, under immunized populations have fueled the spread of the virus. In Texas, a significant cluster of cases emerged within a Mennonite community in Gaines County. Similarly, the outbreak began in a Mennonite community in Chihuahua and has since spread to other areas with low immunization rates.

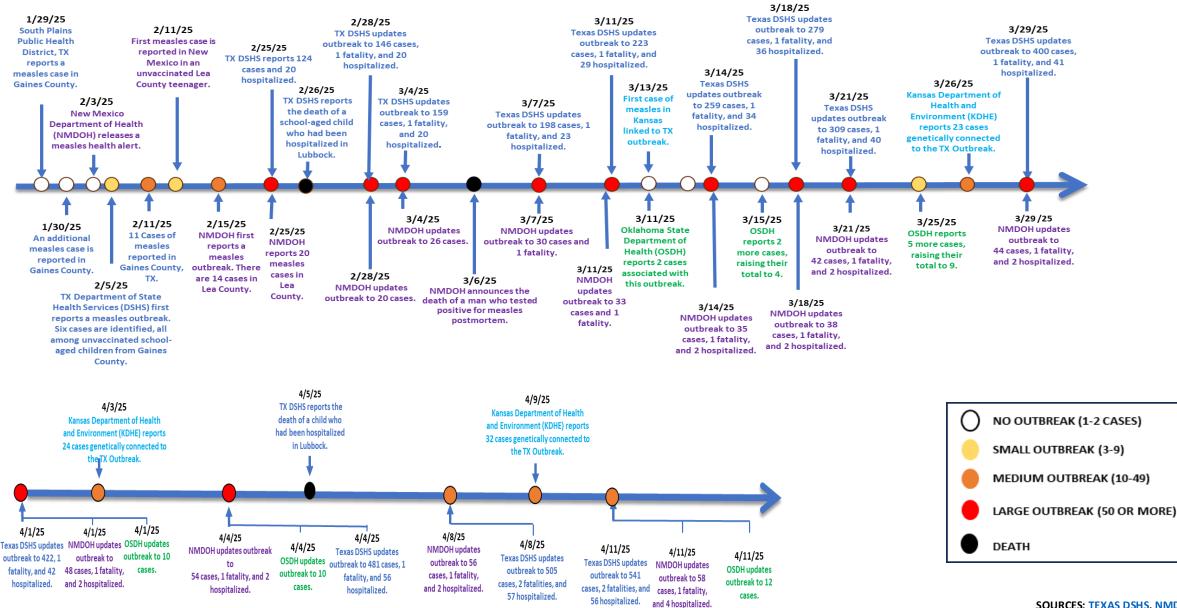
Cross-border movement and international travel have played a role in measles transmission between Mexico and the United States—particularly in regions with strong familial, cultural, and economic ties.

CURRENT NUMBER OF CASES IN CHIHUAHUA: 261 (as of 4/10/2025)

KEY CONSIDERATIONS LINKING THE OUTBREAKS:

- Shared virus genotype: D8
- Low vaccination rates in affected communities
- International travel: The movement of individuals between Mexico and the U.S., including for family, commerce, and seasonal work, has contributed to cross-border transmission.

TIMELINE (JANUARY – APRIL 2025)



SOURCES: TEXAS DSHS, NMDOH, OSDH, KDHE

CURRENT SITUATION

As of 4/11/25, the Southwestern outbreak has **643 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**.

Texas: The Texas DSHS has identified "designated outbreak counties" with ongoing measles transmission: Cochran, Dallam, Dawson, Gaines, Garza, Lynn, Lamar, Lubbock, Terry, and Yoakum.

CURRENT CASE COUNT: 643 (As of 04/11/2025)

- **Texas:** 541 (+36)
- New Mexico: 58 (+2)
- Oklahoma: 12 (+2)
- Kansas: 32 (+8)

HOSPITALIZATIONS: 61 (+3)

- Texas: 56. This is 10.4% of TX cases.
- New Mexico: 4 (+2). This is 6.9% of NM cases.
- Kansas: 1 (New)

DEATHS: 3

- **Texas:** 2
- New Mexico: 1

INTERNATIONAL SPREAD:

- Chihuahua, Mexico: 227 cases
 - An ongoing measles outbreak in Chihuahua, Mexico, began in
 February 2025. The first confirmed case was reported on 2/20/2025.
 - The genotype in Chihuahua, D8, is linked to the outbreak in Texas.
 - Recently, an infant from Colorado contracted measles after visiting Chihuahua.

AGES OF CASES:

WEST TEXAS OUTBREAK						
0-4 Years	5-17 Years	18+ Years	Pending	Total		
171 (+11) (31.6%)	203 (+12) (37.5%)	143 (+13) (26.4%)	24 (4.4%)	541 (+36)		
NEW MEXICO OUTBRI	EAK					
0-4 Years	5-17 Years	18+ Years	Pending	Total		
15 (+2) (25.9%)	16 (+0) (27.6%)	27 (+0) (46.5%)	0	58 (+2)		
KANSAS OUTBREAK						
0-4 Years	5-17 Years	18+ Years	Pending	Total		
10 (+3) (31.3%)	16 (+1) (50%)	6 (+3) (18.8%)	0	32 (+8)		
OKLAHOMA OUTBREA	OKLAHOMA OUTBREAK					
0-4 Years	5-17 Years	18+ Years	Pending	Total		
9 Cases Confi	9 Cases Confirmed, 3 Probable – no ages provided			12 (+2)		

CONTACT TRACING: Texas, New Mexico, Oklahoma, and Kansas are conducting contact tracing to help identify and track positive cases and inform people who may have been exposed.

DNA SEQUENCING: Texas submitted 92 identical DNA sequences of genotype D8. Ten sequences from New Mexico and one from Kansas matched those from Texas. Additionally, Texas reported three genotype D8 sequences with single nucleotide substitutions. 19 genotype D8 sequences have been reported from the affected states (WHO).

CURRENT SITUATION

DAYCARE EXPOSURES

TEXAS:

- As of April 12, 2025, the measles outbreak at Tiny Tots U Learning Academy in Lubbock, Texas, has resulted in at least <u>seven confirmed cases</u> among children, with two hospitalizations.
- At the Tiny Tots U Learning Academy, a center with approximately 230 infants, toddlers and preschool-age children. The children who have tested positive at the day care so far are between the ages of 5 months and 3 years old.
- The outbreak began when an infectious child transmitted the virus to two others, leading to further spread within the daycare.
- The daycare is implementing measures such as isolating unvaccinated children and those too young to be vaccinated. Unvaccinated attendees are required to stay home for 21 days following their last exposure.
- In response, Lubbock Public Health has updated vaccination guidelines, recommending that infants receive their first MMR vaccine dose at 6 months old instead of the standard 12 months. Children who have received only one dose are advised to get their second dose earlier than the usual schedule.

NEW MEXICO:The <u>New Mexico Department of Health</u> notified the public about a potential measles exposure from an unvaccinated child with measles at multiple locations in Hobbs, including a daycare center - Friday, April 4 and Tuesday, April 8, from 10:30 a.m. - 6:45 p.m. at the Kidz City Daycare

UPDATED SET OF VACCINE RECOMMENDATION FOR TEXAS

The Texas Department of State Health Services this week released an <u>updated set of</u> <u>vaccine recommendations</u> for 10 West Texas counties at the center of an ongoing measles outbreak Those counties include: Cochran, Dallam, Dawson, Gaines, Garza, Lamar, Lynn, Lubbock, Terry and Yoakum.

The recommendations for those living or traveling to the outbreak counties covers Texans of all ages, not just young children. The agency stressed that vaccination is the best defense against measles and that two doses of the measles-mumps-rubella or MMR vaccine prevents more than 97% of measles infections.

Among DSHS' recommendations for outbreak areas:

- Children 6 to 11 months receive an "outbreak" dose of the MMR vaccine if they live or are traveling to an outbreak county
- Children over 12 months old who have not been vaccinated with the MMR vaccine receive one dose and follow up with a second at least 28 days later
- Teens and adults should also be up to date on their MMR vaccination
- Adults born between 1957 and 1968 who only received one MMR vaccine from that time period should consider getting one dose of the current vaccine
- Adults born before 1957, pregnant women, and people with severe immunodeficiency are not recommended to receive any dose of MMR vaccine

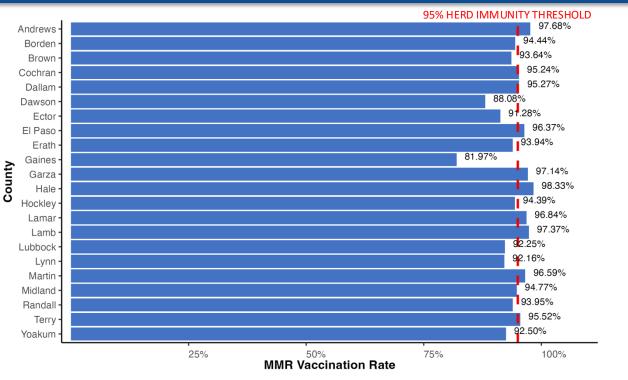
CURRENT SITUATION – VACCINATION STATUS

STATE	VACCINATED	VACCINATED	UNVACCINATED/	TOTAL
	WITH 1DOSE	WITH 2 DOSES	UNKNOWN	CASES
тх	4 (+1)	7 (+0)	530 (+35)*	541 (+36)

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	6 (+0)	41 (+2)	11 (+0)	58 (+2)

STATE	VACCINATED WITH AT LEAST ONE DOSE		UNVACCINATED / UNKNOWN			TOTAL CASES
ОК	0			12 (+2)		12 (+2)
STATE	AGE APPROPRIATELY VACCINATED	APPRO	DT AGE DPRIATELY CCINED	NOT VACCINATED	Pending Verification/ Unable to Verify	TOTAL CASES
KS	1		1	27 (+6)	3 (+1)	32 (+8)

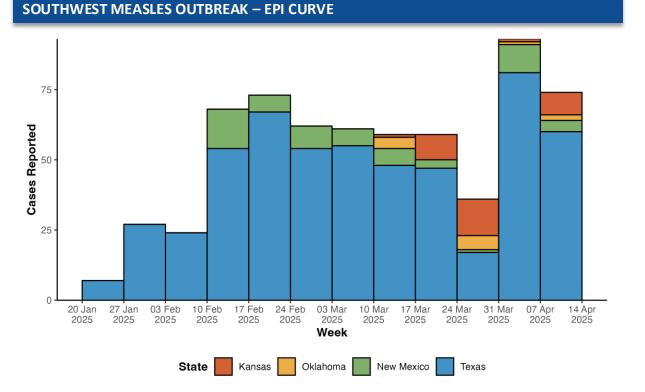


Among the affected counties in TX, 12 out of 22 are below a 95% vaccination rate, the recommended rate for herd immunity (SOURCE: <u>Annual Report on Immunization Status</u> and <u>CORI</u>).

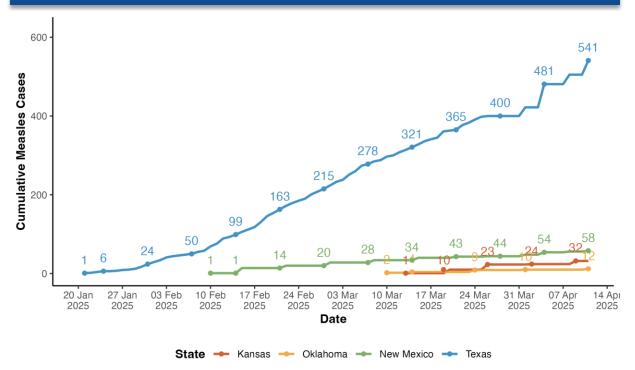
BECAUSE MEASLES IS HIGHLY CONTAGIOUS, 95% OF THE POPULATION MUST BE VACCINATED TO ACHIEVE HERD IMMUNITY AND PREVENT ONGOING TRANSMISSION OF THE VIRUS.

- **TX:** Vaccination rates are low in most affected areas. In Gaines County, TX, vaccination rates are significantly below the threshold required for herd immunity, contributing to the virus's rapid spread.
- NM: NM reports that <u>94%</u> of individuals aged 18 and under in Lea County have received at least one dose of the MMR vaccine. This is slightly below the state's overall rate of 95% for the same age group.
- **OK:** For the 2023–24 school year, CDC reported Oklahoma kindergartners' vaccine exemption rate rose to 5.7%. <u>88.3%</u> of kindergarteners received the MMR vaccine.
- **KS**: Vaccination rates are low in the most affected counties in KS. The statewide vaccination rate is <u>90%</u>. In the counties reporting cases, vaccination rates are far below herd immunity, except for Finney and Grant Counties (98% and 99%, respectively).

EPI CURVE AND CASES OVER TIME



SOUTHWEST MEASLES OUTBREAK - CUMULATIVE CASES OVER TIME



The number of new cases per week remains high.

- **TX:** Reported first case the week of 1/25/25. Most cases in the current outbreak are in Gaines County.
- **NM:** Reported first cases the week of 2/10/25. First cases in Chaves County reported 4/8/25.
- **OK:** Reported first cases the week of 3/10/25.
- **KS:** Reported first case on 3/13/25. First cases reported in Finney and Ford Counties on 4/9/25. First hospitalization reported.

Cases are rising, and the outbreak is not slowing down.

- **TX:** The number of cases has increased consistently over time, to a total of 541 cases across 22 counties.
- **NM:** A total of 58 cases have been reported in 3 counties (Lea, Eddy, and Chaves).
- **OK:** A total of 12 cases have been reported by the OSDH.
- **KS**: A total of 32 cases across 8 counties have been reported by the KDHE. Cases increased by 50% in the last week.

EPI SUMMARY (TX)

COUNTY	MEASLES CASES (Number of new cases)	% of TOTAL CASES	% KINDERGARTENERS VACCINATED (2023-2024)	NUMBER OF SCHOOL DISTRICTS IN EACH COUNTY WITH MMR VACCINATION RATES BELOW HERD IMMUNITY LEVELS (95%)
Andrews	1	0.2%	97.70%	1
Borden	1	0.2%	94.44%	-
Brown	1	0.2%	93.64%	6
Cochran	11 (+1)	2.0%	95.20%	1
Dallam	7	1.3%	95.30%	2
Dawson	21 (+1)	3.9%	88.10%	4
Ector	8	1.5%	91.30%	5
El Paso	3 (+3) NEW	0.6%	96.37%	8
Erath	1	0.2%	93.94%	5
Gaines	355 (+27)	65.6%	82.00%	3
Garza	2	0.4%	97.10%	0
Hale	5	0.9%	98.30%	0
Hockley	3	0.6%	94.40%	2
Lamar	11	2.0%	96.80%	5
Lamb	1	0.2%	97.40%	1
Lubbock	38 (+2)	7.0%	92.30%	5
Lynn	2	0.4%	92.20%	2
Martin	3	0.6%	96.60%	1
Midland	1	0.2%	94.80%	3
Randall	1	0.2%	93.95%	1
Terry	47 (+1)	8.7%	95.50%	2
Yoakum	18 (+1)	3.3%	92.50%	1

EPI SUMMARY (KS, NM, OK)

COUNTY	MEASLES CASES (NUMBER OF NEW CASES)	% of TOTAL CASES	% KINDERGARTENERS VACCINATED (2023- 2024)	
KANSAS (n=32)				
Einney	Between 1-5		98%	
Ford	Between 1-5		87%	
Grant	Between 1-5		99%	
Gray	Between 1-5		66%	
Haskell	8	25%	58%	
<u>Kiowa</u>	6	18.8%	92%	
Morton	Between 1-5		82%	
<u>Stevens</u>	7	21.9%	83%	
NEW MEXICO (n=58)				
Chaves	1	1.7%		
Eddy	2	3.4%	93%	
Lea	55 (+2)	94.8%	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=12)						
Tulsa and Cherokee Nation	12	Insufficient Information	89.5%			

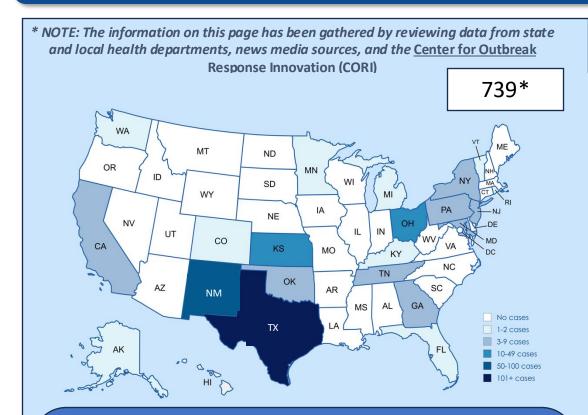
Measles is a highly contagious acute viral disease which affects individuals of all ages and remains one of the leading causes of death among young children globally. The mode of transmission is airborne or via droplets from the nose, mouth, or throat of infected persons.

Initial symptoms – which usually appear 10-14 days after infection – include high fever, runny nose, bloodshot eyes, cough, and tiny white spots inside the mouth. The characteristic measles rash usually appears 10-14 days after exposure and spreads from the head to the trunk to the lower extremities. A person is infectious from four days before up to four days after the appearance of the rash. There is no specific antiviral treatment for measles and most people recover within 2-3 weeks.

Measles is usually a mild or moderately severe disease. However, measles can lead to complications such as pneumonia, diarrhea, secondary ear infection, inflammation of the brain (encephalitis), blindness, immune amnesia, and death. Postinfectious encephalitis can occur in about one in every 1,000 reported cases. About 2-3 deaths may occur for every 1,000 reported cases. Measles infection can lead to serious complications years after infection, including subacute sclerosing panencephalitis (SSPE). Immunization against measles prevents infection and associated complications.

SOURCES: IM MEASLES OUTBREAK, OKLAHOMA HEALTH ALERT NETWORK (OK-HAN) NOTIFICATION, OSDH, WHO, NYT

US OUTLOOK



- The number of measles is now twice last year's total.
- The increase in measles cases can be attributed to falling vaccination rates and to increased importation of travel-related cases, which occur when unvaccinated people acquire measles abroad and bring it back to the U.S.
- There have been six confirmed measles outbreaks in the U.S. so far in 2025 (TX-NM-OK, KS, NJ, GA, OH, and IN, with 93% of cases linked to these domestic outbreaks.

STATE	CASES
TEXAS **	550
NEW MEXICO	58
<u>KANSAS</u>	32
<u>OHIO</u>	25
OKLAHOMA	12
<u>CALIFORNIA</u>	9
<u>PENNSYLVANIA</u>	9
<u>INDIANA</u>	6
<u>MICHIGAN</u>	5
NEW YORK	4
<u>TENNESSEE</u>	4
<u>COLORADO</u>	3
<u>GEORGIA</u>	3
MARYLAND	3
NEW JERSEY	3
WASHINGTON	3
<u>ALASKA</u>	2
<u>ARKANSAS</u>	2
<u>FLORIDA</u>	1
HAWAII	1
<u>KENTUCKY</u>	1
MINNESOTA	1
<u>RHODE ISLAND</u>	1
VERMONT	1
TOTAL	739

OUTBREAKS SMALL OUTBREAK (3-9) MEDIUM OUTBREAK (10 - 49) LARGE OUTBREAK (50 OR MORE) An outbreak is defined as 3 or 4 more cases.

As of 4/11/2025, 1700 hrs. EDT, there are approximately **665** measles cases (including confirmed and suspected cases) across 21 states.

Currently, there are five or six measles outbreaks:

- 1. West Texas, involving <u>22 counties</u> in Texas, <u>3</u> <u>counties</u> in New Mexico, <u>2</u> counties and <u>Cherokee</u> <u>Nation</u> in Oklahoma
- 2. <u>8 counties</u> in Kansas connected West TX
- 3. Four counties in **Ohio**
- 4. Allen County, Indiana
- 5. Bergen County, New Jersey
- 6. metro Atlanta, Georgia

** TEXAS CASES NOT ASSOCIATED WITH OUTBREAK: 9

- 2 cases Adults, Harris County (travel-related)
- 1 case Infant, Harris County required hospitalization (travel-related)
- 1 case Harris County
- 1 case Infant, Travis County (travel-related)
- 1 case Adult, Rockwall County (travel-related)
- 1 case Adult, Fort Bend (travel-related)
- 2 additional cases Adult and a child

TEXAS CASES ASSOCIATED WITH THE OUTBREAK: 541

US OUTLOOK - OHIO



SITUATION: As of 4/11/2025, Ohio is experiencing a measles outbreak that began in Ashtabula County, with 10 confirmed cases. The initial case involved an unvaccinated adult male with a history of international travel, and subsequent cases were connected to this individual. Additionally, a visitor in Knox County was confirmed to have measles, leading to exposures in Knox and nearby counties.

The majority of cases are children under the age of 12, with four hospitalizations and no fatalities.

COUNTY	CASES	% VACCINATED	NOTES
Ashtabula	10	93.5	Index case linked to travel
Knox	14	84.1	Includes 7 non-resident exposures
Allen	1	85.7	Linked to Knox transmission
Holmes	1	59.3	Under investigation

- WARNING ISSUED: Public health alerts were issued to residents in Ashtabula and Knox counties, urging unvaccinated individuals to receive the MMR vaccine and to monitor for symptoms of measles. School systems have also begun verifying immunization records and issuing exposure notices.
- **CONTACT TRACING:** ODH and local health departments have deployed contact tracing teams to identify exposures and reduce community spread. Exposed individuals are advised to quarantine and monitor symptoms.

- **VACCINATION RATES:** Vaccination coverage in affected rural districts is below 85%, well under the threshold required for herd immunity.
 - In some areas, over 1 in 7 students is not fully vaccinated against measles.
 - High exemption rates are reported among families who homeschool or attend private schools.
 - 90% of confirmed cases involve individuals who were unvaccinated at the time of exposure.
- **RESPONSE:** County health departments in **Ashtabula and Knox** are holding emergency vaccination clinics and offering guidance through public health hotlines. Mobile vaccination units have also been deployed to improve access in underserved areas. CDC is monitoring the outbreak and has provided updated clinician guidance.
- HOSPITALIZATION:
 - Pediatric units at Knox Community Hospital and Ashtabula County Medical Center are managing mild and moderate cases.
 - Hospital operations remain stable, though staff are on alert for potential surges.
- VACCINATION CLINICS:
 - MMR vaccine clinics are active at county health departments, public schools, and select retail pharmacies (CVS, Walgreens).
 - ODH is coordinating with local partners to increase outreach in under-vaccinated communities.

SOURCES: OHIO DEPARTMENT OF HEALTH, WJW-TV, ASHTABULA COUNTY HEALTH DEPARTMENT. KNOX COUNTY PUBLIC HEALTH, 2024-2025 OHIO KINDERGARTEN MEASLES, MMR UP-TO-DATE COVERAGE, BY COUNTY, LIMA COMMS

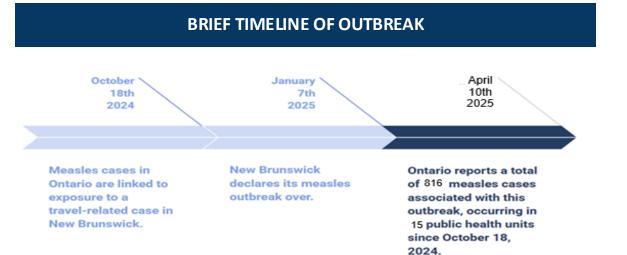
THE AMERICAS OUTLOOK: CHIHUAHUA, MEXICO OUTBREAK

CHIHUAHUA MEASLES CASE				
MUNICIPALITIES	CONFIRMED CASES			
CUAUHTÉMOC	141			
CHIHUAHUA CITY	36			
AHUMADA	20			
NAMIQUIPA	17			
RIVA PALACIO	15			
JUÁREZ	7			
BACHÍNIVA	4			
OJINAGA	4			
CUSIHUIRIACHI	3			
ASCENSION	2			
ΟCAMPO	2			
PARRAL	2			
BUENAVENTURA	1			
GUERRERO	1			
DELICIAS	1			
GALEANA	1			
CASAS GRANDES	1			
JANOS	1			
STA, ISABEL	1			
TOTAL	261			

SITUATION: On Thursday, April 10, 2025, the Chihuahua State Health Department issued its latest public update on the measles outbreak, affecting 19 municipalities.

- CASES: 261 (This is a 26% increase in cases since April 7, 2025.)
- **HOSPITALIZATIONS:** No specific data on the number of measles-related hospitalizations in Chihuahua, Mexico, has been reported.
- **DEATHS: 1**. The first fatality was a 31-year-old man from Ascensión with chronic health issues, who was unvaccinated and delayed seeking medical care (<u>UNOTV</u>, <u>EL DIARIO</u>).
- VACCINATION RATE: 75% (CBS)
- **RESPONSE:** Health authorities are reinforcing vaccination efforts, isolating suspected cases, conducting contact tracing, and urging the public to check their vaccination status.
- CONTACT TRACING: Chihuahua, Mexico medical officials have confirmed that all recent measles cases in the state are linked to the same strain: genotype D8, specifically the lineage MVs/Ontario.CAN/47.24. This identification was made by Mexico's Institute of Epidemiological Diagnosis and Reference (InDRE). According to the Pan American Health Organization (PAHO), the initial case in Chihuahua involved a 9-year-old unvaccinated male who had traveled to Texas and returned to the Mennonite Fields in Cuauhtémoc, with rash onset on February 11, 2025. Subsequent contact tracing and active case finding led to the identification of 17 additional cases, all associated with the same viral lineage (EL DIARIO, PAHO, PAHO, RISK ASSESSMENT).

THE AMERICAS OUTLOOK: CANADA



MORBIDITY 2025				
PROVINCE	CASES			
ONTARIO	816			
ALBERTA	50			
MANITOBA	10			
BRITISH COLUMBIA	5			
SASKATCHEWAN	6			
QUEBEC	40			
PRINCE EDWARD ISLAND	2			
TOTAL	929			

*Data as of Friday, April 11th, 2025

CANADA OUTBREAK:

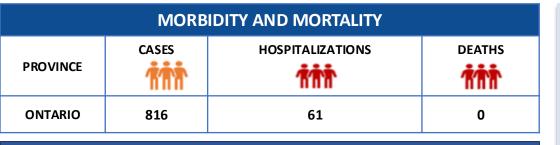
- An ongoing outbreak of measles in Ontario has been traced back to a large gathering in New Brunswick last fall that was attended by guests from Mennonite communities. On October 18, 2024, exposure to a travel-related case in New Brunswick led to measles cases in Ontario.
- While New Brunswick declared their outbreak over on January 7, 2025, Ontario and Manitoba have continued to report measles cases related to this outbreak.

Ontario schools are starting to issue suspensions to some of the thousands of students who aren't fully vaccinated (<u>CBC NEWS</u>).

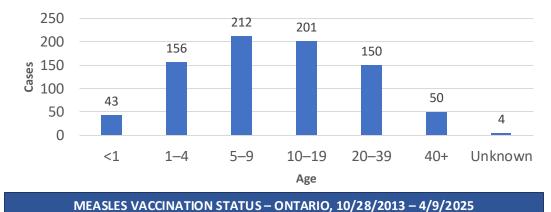


SOURCES: MANITOBA HEALTH, ALBERTA DASHBOARD, CBC BRITISH COLUMBIA NEWS, CBC NEWS, QUEBEC, PUBLIC HEALTH ONTARIO, MANITOBA, CBC NEWS

THE AMERICAS OUTLOOK: ONTARIO, CANADA OUTBREAK



MEASLES AGE DISTRIBUTION – ONTARIO, 10/28/2013 – 4/9/2025



800 691 600 400 200 0 Unvaccinated 1 dose 2 or more doses Unknown

Vaccination Status

ONTARIO: MULTI-JURISDICTIONAL MEASLES OUTBREAK (10/18/2024 TO 4/9/2025)

- Among all outbreak cases, 75.0% (n=612) were in infants, children and adolescents, while 24.5% (n=200) were in adults, and 0.5% (n=4) had unknown age.
- Eighteen outbreak cases were pregnant.
- Among infected infants, children, and adolescents, 92.5% (n=566) were unimmunized. Among infected adults, 62.0% (n=124) were unimmunized.
- 61 outbreak cases have required hospitalization (Table 2). Among all hospitalizations, 57 were unimmunized, including 47 children.





SOURCES: <u>PUBLIC HEALTH ONTARIO</u>, <u>CBC</u>

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.

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