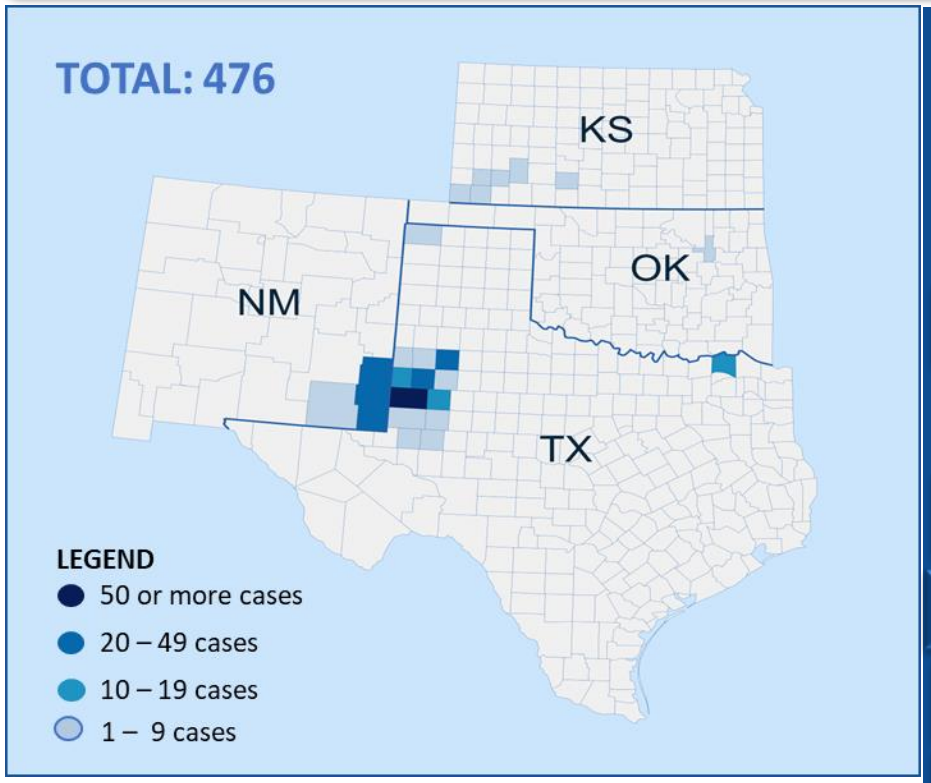
YALE SCHOOL OF PUBLIC HEALTH - ESF-8 VIRTUAL MEDICAL OPERATION CENTER SPECIAL REPORT

MEASLES OUTBREAK - SOUTHWEST U.S. - 2025



MORBIDITY AND MORTALITY

STATE	CASES	HOSPITALIZATIONS	DEATHS
TX	400	41	1
NM	44	2	1
OK	9	0	0
KS	23	0	0
TOTAL	476	43	2

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

AS OF: 2300 HRS EST 3/30/2025

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
- NMDOH NEWS RELEASE

OKLAHOMA LINKS

OKLAHOMA STATE DEPARTMENT OF HEALTH

KANSAS

KANSAS DEPARTMENT OF HEALTH AN 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 been linked to confirmed cases in New Mexico, with additional cases reported in Oklahoma and Kansas. 43 individuals have required hospitalization, and two people have died as a result of the illness. These fatalities mark the first measles-related deaths in the United States since 2015 and the first pediatric measles death since 2003.

THE VIRUS: Measles 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 MMR (measles, mumps, and rubella) vaccine, outbreaks persist in communities with low vaccination coverage, increasing the risk of severe complications.

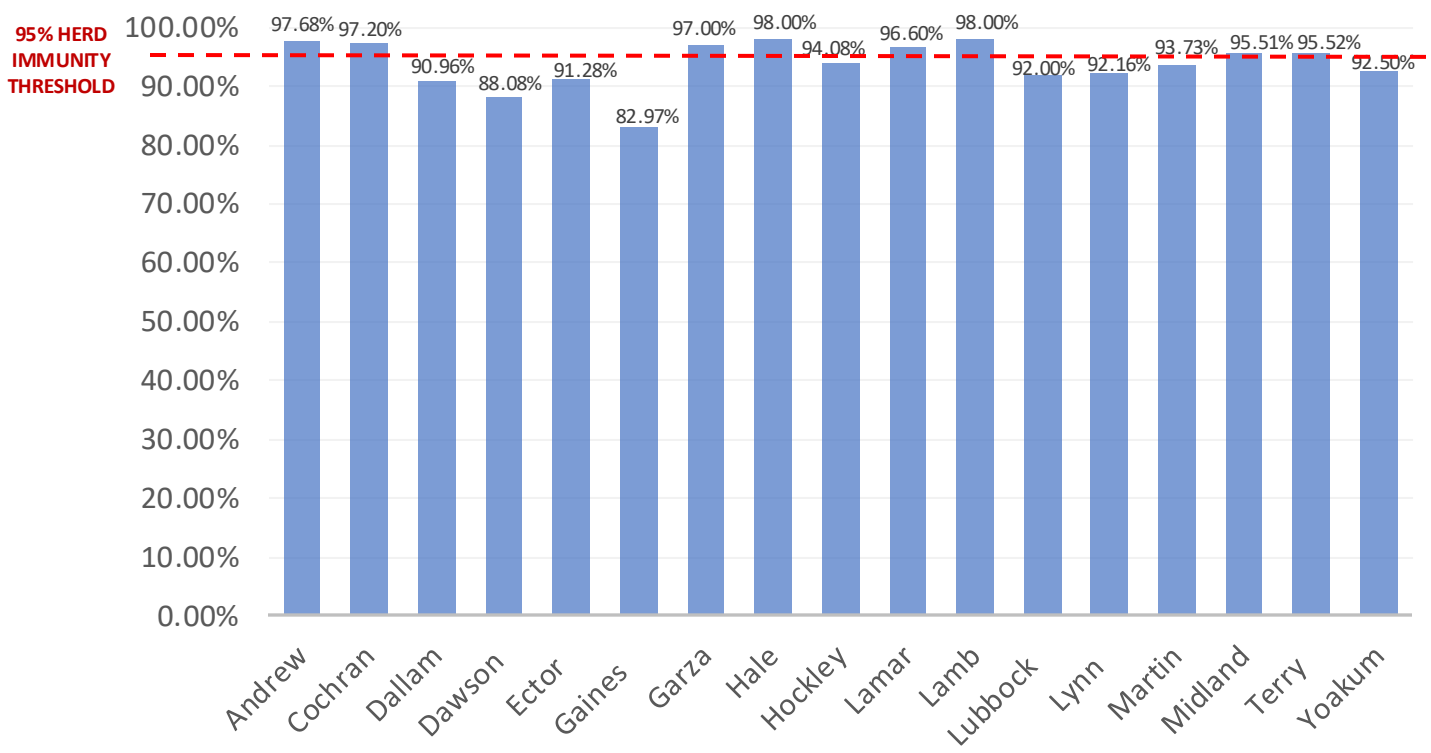
FACTORS DRIVING THIS OUTBREAK:

- 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 schools, healthcare providers, and community organizations

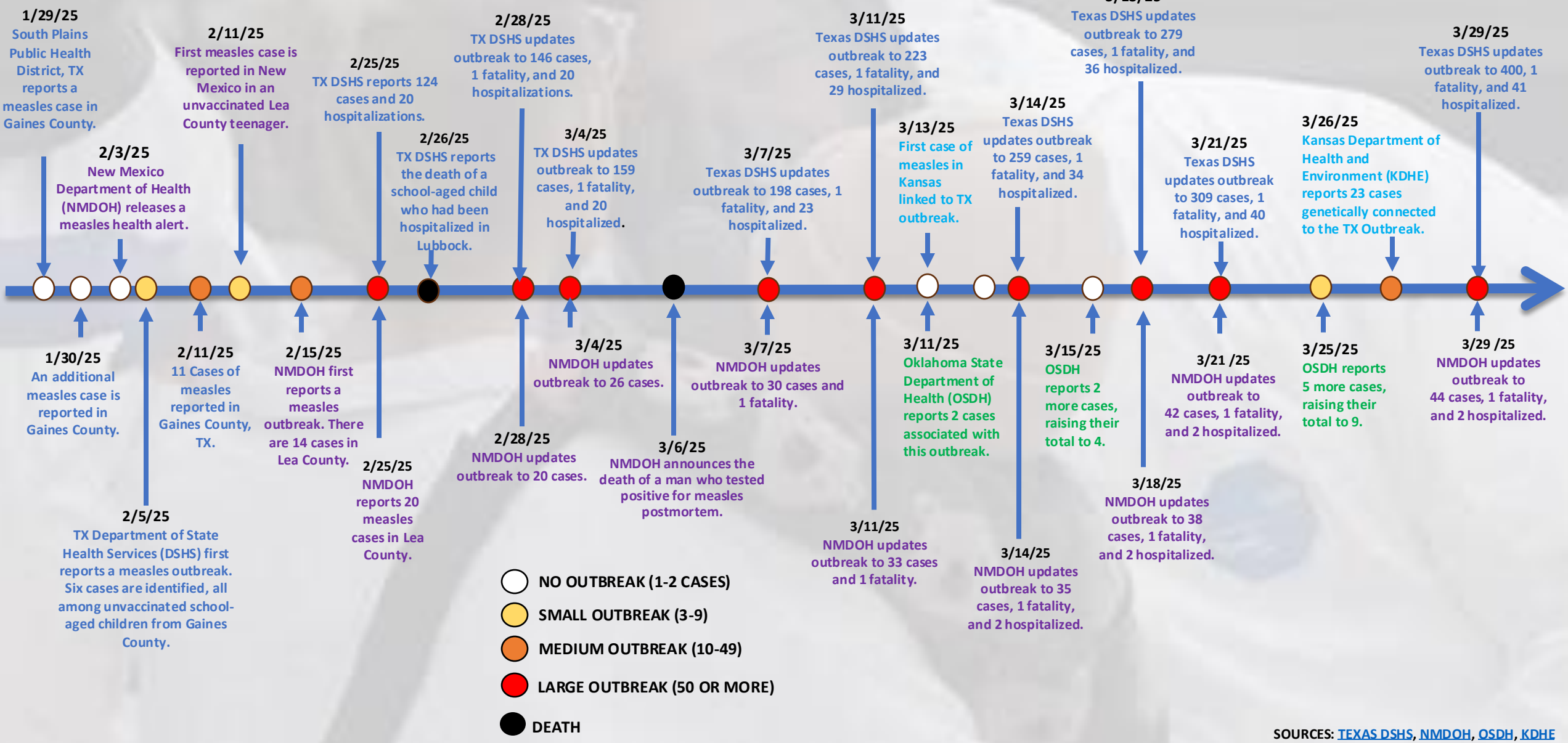
MMR VACCINE RATES AMONG KINDERGARTENERS IN TX, 2023-2024



Among the affected counties in TX, 10 out of 17 are below a 95% vaccination rate, the recommended rate for herd immunity (SOURCE: Annual Report on Immunization Status and CORI)

SOURCES: TX CONFIRMED CASE OF MEASLES - JANUARY 2025, MEASLES OUTBREAK IN GAINES COUNTY, TEXAS, MEASLES OUTBREAK DECLARED IN LEA COUNTY, NM 2005 MEASLES OUTBREAK GUIDANCE, TEXAS DEPARTMENT OF STATE HEALTH SERVICES REPORTED DEATH, NEW MEXICO DEPARTMENT OF HEALTH REPORTED DEATH , OKLAHOMA STATE DEPARTMENT OF HEALTH, CENTER FOR OUTBREAK RESPONSE (CORI), CDC

TIMELINE (TX – NM – OK – KS)



SOURCES: TEXAS DSHS, NMDOH, OSDH, KDHE

CURRENT SITUATION

The outbreak in the US now stands at **476 confirmed cases** across **Texas, New Mexico, Oklahoma**, and **Kansas**, though 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**.

Oklahoma: All cases are linked through exposure to household or extended family, according to the release. The four initial cases reported exposure to the measles outbreak in Texas and New Mexico.

Kansas: The confirmed cases in Kansas have a possible link to the outbreaks in Texas and New Mexico. While genetic sequencing of the first Kansas case reported is consistent with a link to the Texas and New Mexico outbreaks, the source of exposure is still unknown.

CURRENT CASE COUNT: 476 (As of 3/28/2025)

- **Texas:** 400 (+73 since the last report. Andrews and Midland are the latest counties to be added.)
- **New Mexico:** 44 (+1)
- **Oklahoma:** 9 (+0)
- **Kansas**: 23 (New)

HOSPITALIZATIONS: 43 (+1)

- **Texas:** 41 have been hospitalized. This is 10% of all confirmed cases in TX.
- **New Mexico:** 2 have been hospitalized. This is 4.5% of all confirmed cases in NM.

DEATHS: 2 (No change since last report)

AGES OF CASES:

WEST TEXAS OUTBREAK				
0-4 Years	**5-17 Years**	**18+ Years**	**Pending**	**Total**
131 (33%)	164 (41%)	80 (20%)	25 (6%)	400
NEW MEXICO OUTBREAK				
0-4 Years	**5-17 Years**	**18+ Years**	**Pending**	**Total**
8 (18%)	13 (30%)	23 (52%)	0	44
KANSAS OUTBREAK				
0-4 Years	**5-17 Years**	**18+ Years**	**Pending**	**Total**
6 (26%)	15 (65%)	2 (9%)	0	23
OKLAHOMA OUTBREAK				
0-4 Years	**5-17 Years**	**18+ Years**	**Pending**	**Total**
7 Cases Confirmed, 2 Probable – no ages provided			2	9

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 in genotype D8. Ten DNA sequences from New Mexico and one DNA sequence from Kansas were identical to those from Texas. Texas also reported three genotype D8 sequences (a total of 19 D8 sequences have been reported from the affected states) with single nucleotide. Texas also reported three genotype D8 sequences (a total of 19 D8 sequences have been reported from the affected states) with single nucleotide substitutions (WHO).

SOURCES: TX MEASLES OUTBREAK, NM MEASLES OUTBREAK, OSDH, WHO

CURRENT SITUATION

VACCINATION STATUS:

STATE	VACCINATED WITH 2 DOSES	UNVACCINATED/ UNKNOWN	TOTAL CASES
TX	2	398*	400

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	4	32	8	44

STATE	VACCINATED WITH AT LEAST ONE DOSE	UNVACCINATED / UNKNOWN	TOTAL CASES
OK	0	9	9

STATE	VACCINATED	NOT VACCINATED	UNKNOWN	TOTAL CASES
KS	1	21	1	23

VACCINATION RATES: 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 the 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. One in five students in the county is not vaccinated with the measles-mumps-rubella (MMR) vaccine.
- **NM:** Reports that 94% 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%. The vaccine rate for Oklahoma kindergarteners is 88.3%.
- **KS:** Vaccination rates are low in the most affected counties in KS. Overall, the state's vaccination rate is 90%. However, in the counties that have been impacted, with Grant County being the exception (99%), vaccination rates are far below herd immunity.

The only way to stop a measles outbreak of this magnitude is through vaccinations. The MMR vaccine is safe and effective.

LABORATORY TESTING: Detection of measles RNA in a clinical specimen can provide laboratory confirmation of infection. Real-time RT-PCR has the greatest diagnostic sensitivity when specimens are collected at first contact with a suspected case. Real-time RT-PCR uses nasopharyngeal, throat swabs, and urine specimens.

- **TX**: Texas Tech University Bioterrorism Response Laboratory, part of a national network of CDC-funded labs, began measles testing on 3/3/2025.
- **NM**: If measles is suspected, providers are to immediately notify. They are to obtain a throat swab or nasopharyngeal swab in viral transport medium for PCR testing at the State Public Health Laboratory.
- **OK**: Testing is coordinated through healthcare providers in collaboration with the Oklahoma State Department of Health (OSDH). Testing is facilitated by OSDH with the Vaccine-Preventable Disease Resource Center at the Minnesota Public Health Lab, and they request a throat swab for PCR testing as the primary specimen.
- **KS**: The Kansas Health and Environment Laboratories (KHEL) offers free RT-PCR testing for measles.

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

CURRENT SITUATION

HOSPITALS

- **INCREASED PATIENT LOAD:** The ongoing measles outbreak has resulted in a significant surge in hospitalizations, particularly among unvaccinated children suffering severe respiratory complications requiring intensive care. This rapid increase in patient volume is placing immense strain on hospital resources, capacity, and healthcare personnel.
- **ENHANCED INFECTION CONTROL:** Healthcare facilities have intensified infection control protocols, including rigorous patient isolation procedures and strict usage of personal protective equipment (PPE). At University Medical Center Children's Hospital in Lubbock, Texas, a temporary masking mandate was recently implemented following potential measles exposure from a mother who tested positive.
- **PUBLIC HEALTH COMMUNICATION**: Hospitals are partnering with local health authorities to share accurate information on measles prevention, treatment, and vaccination, aiming to combat misinformation and boost vaccination rates.
- **VACCINATION CAMPAIGNS:** Hospitals along with public health departments are promoting MMR vaccination to increase community immunity, focusing on areas with low coverage like Gaines County, Texas, to contain the outbreak.
- **RESOURCE ALLOCATION CONCERNS:** In a move that raises concerns about Texas' public health capabilities, $877 million in federal COVID-19 grants were abruptly canceled, leaving local health departments scrambling to assess the damage (KPRC 2). In Lubbock, public health officials have received directives to halt activities funded by these grants, which were crucial in addressing the expanding measles crisis. The suspension of this funding drastically limits local health departments' abilities to track disease spread, implement preventive measures, and effectively manage outbreak containment efforts, subsequently increasing the operational pressures faced by hospitals (Texas Tribune).

A NEW COMPLICATION – VITAMIN A TOXICITY:

- Doctors in West Texas are observing an increase in measles cases, worsened by the use of alternative therapies promoted by vaccine skeptics. Many parents, seeking to protect their unvaccinated children, are turning to unproven supplements and treatments that inadvertently cause harm. One such supplement, cod liver oil—rich in vitamin A—has been promoted as a measles treatment, despite a lack of scientific evidence supporting its effectiveness.

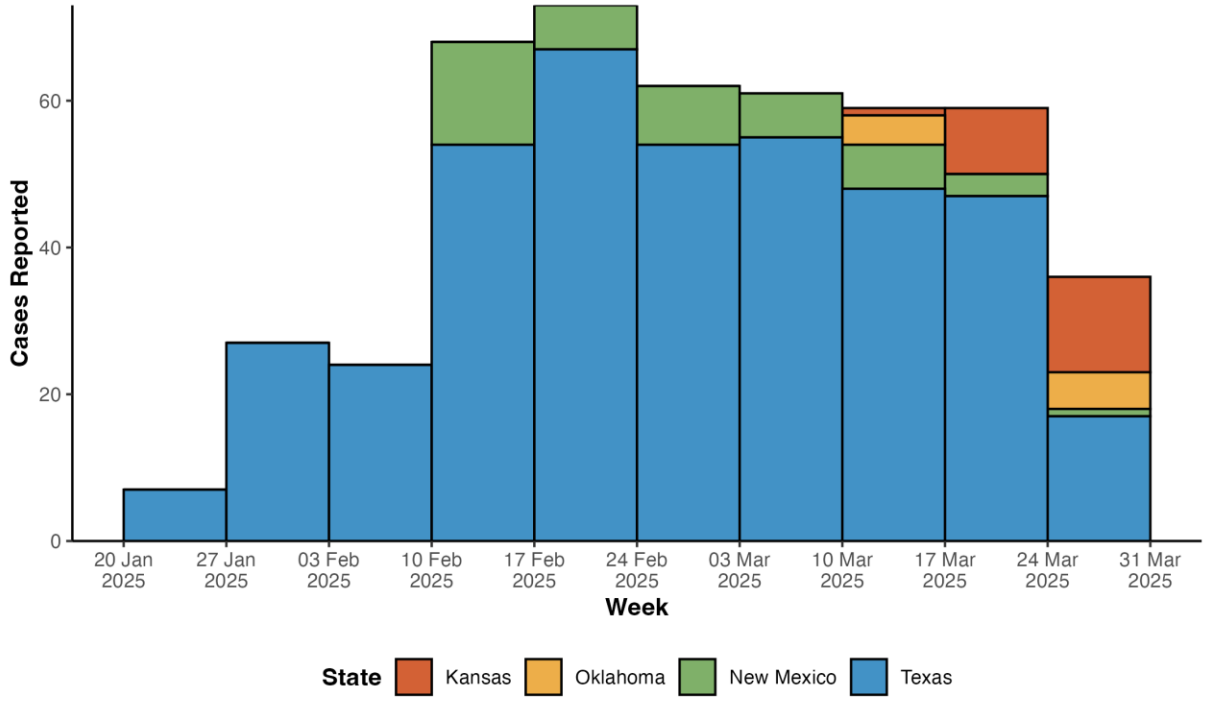
- **Physicians at Covenant Children's Hospital in Lubbock, Texas, have reported treating several unvaccinated children who exhibited symptoms of liver damage due to excessive vitamin A intake.** These children had been given unsafe doses of cod liver oil and other vitamin A supplements for several weeks in a misguided effort to prevent measles infection. Covenant Children's Hospital issued a statement on 3/27/2025:

  "We are deeply concerned about the growing number of children suffering preventable harm due to misinformation surrounding measles prevention. Excessive vitamin A intake can lead to serious liver damage and other health complications. We strongly encourage parents to rely on evidence-based medical guidance and ensure their children receive recommended immunizations to protect against measles and other preventable diseases."

SOURCES: TX MEASLES OUTBREAK, NM MEASLES OUTBREAK, OSDH, KLBK- LUBBOCK, TX PUBLIC RADIO, NYT

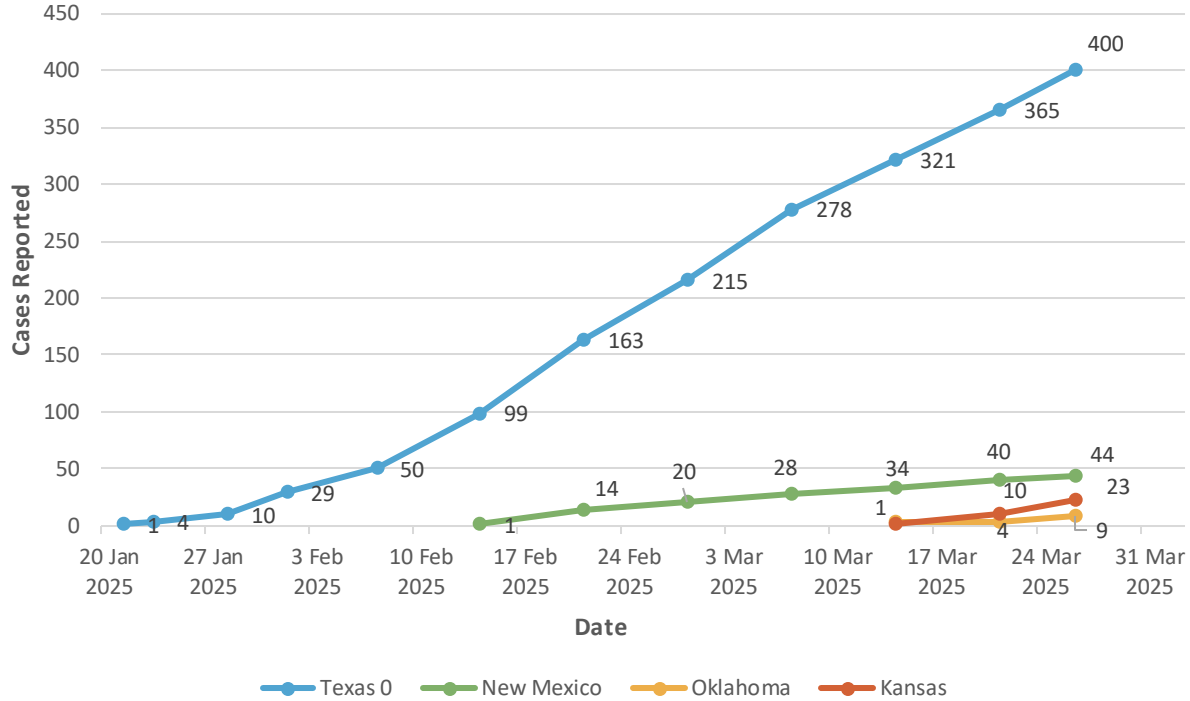
EPI CURVE AND CASES OVER TIME

SOUTHWEST MEASLES OUTBREAK – EPI CURVE



- **TX:** Reported first case the week of 1/25/25. Most cases in the current outbreak are in Gaines County, TX.
- **NM:** Reported first case the week of 2/10/25. The greatest increase in new cases was during the week of 2/10/25.
- **OK:** Reported 2 cases the week of 3/10/25. 5 new cases identified week of 3/25/2025.
- **KS:** Reported first cases on 3/13/25. A total of 23 cases as of 3/28/25.

SOUTHWEST MEASLES OUTBREAK – CUMULATIVE CASES OVER TIME



- **TX:** The number of cases has increased consistently over time, to a total of 400 cases across 17 counties. During the week of 3/28/25, three counties reported a case for the first time during the current outbreak (Lamb, Andrews and Midland).
- **NM:** A total of 44 cases have been reported in 2 counties (Lea and Eddy).
- **OK:** A total of 9 cases have been reported by the OSDH.
- **KS**: A total of 24 cases across 6 counties have been reported by the KDHE.

SOURCES: TEXAS DEPARTMENT OF STATE HEALTH SERVICES, NEW MEXICO DEPARTMENT OF HEALTH, OKLAHOMA STATE DEPARTMENT OF HEALTH, KDHE, CENTER FOR OUTBREAK RESPONSE (CORI), OSDH

EPI SUMMARY

COUNTY	MEASLES CASES (Number of new cases)	% KINDERGARTENERS VACCINATED (2023-2024)	NUMBER OF SCHOOL DISTRICTS IN EACH COUNTY WITH MMR VACCINATION RATES BELOW HERD IMMUNITY LEVELS (95%)
TEXAS			
Andrew	1 (NEW)	97.68%	1
Cochran	8 (+1)	97.2%	1
Dallam	7 (+1)	90.96%	2
Dawson	14 (+1)	88.08%	4
Ector	4 (+2)	91.28%	5
Gaines	270 (+44)	82.97%	3
Garza	1	97%	0
Hale	1	98%	0
Hockley	2 (+1)	94.08%	2
Lamar	10 (+5)	96.6%	5
Lamb	1	98.06	1
Lubbock	23 (+13)	92.25%	5
Lynn	1	92.16%	2
Martin	3	93.73%	1
Midland	1 (NEW)	95.51%	3
Terry	38 (+1)	95.52%	2
Yoakum	15 (+2)	92.50%	1

EPI SUMMARY (CONTINUED)

COUNTY	MEASLES CASES (Number of new cases)	% KINDERGARTENERS VACCINATED (2023-2024)
KANSAS		
Grant	3 (NEW)	99%
Gray	1 (NEW)	66%
Haskel	4 (NEW)	58%
Kiowa	6 (NEW)	92%
Morton	3 (NEW)	82%
Stevens	6 (NEW)	83%
NEW MEXICO		
Eddy	42 (+1)	93%
Lea	2	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		
Tulsa and Cherokee Nation	9	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.

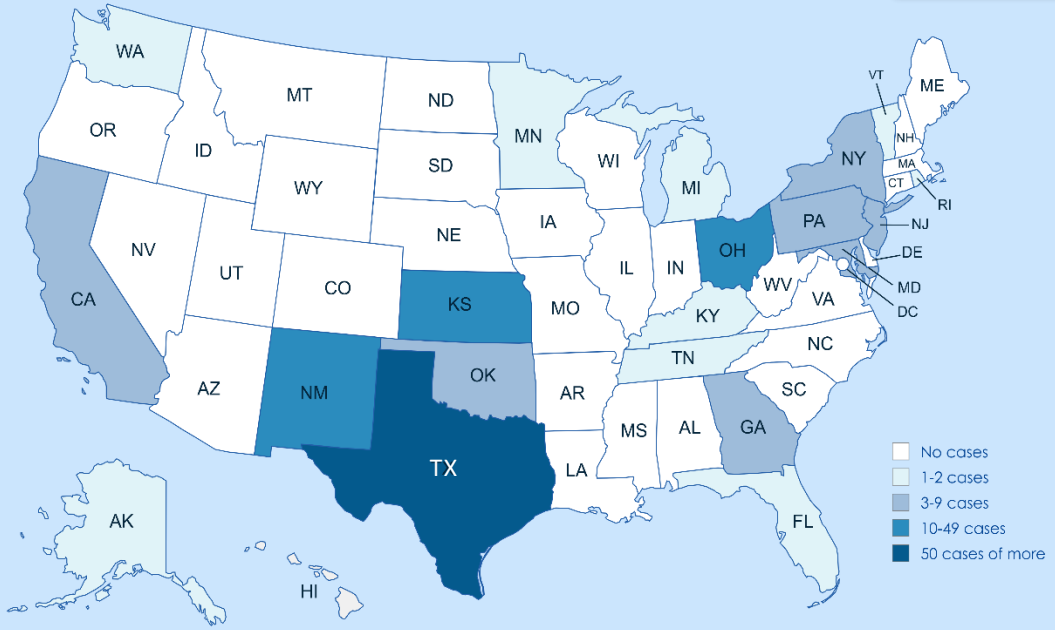
Measles is usually a mild or moderately severe disease. However, measles can lead to complications such as pneumonia, diarrhea, secondary ear infection, inflammation of the brain (encephalitis), blindness, immune amnesia, and death. Postinfectious encephalitis can occur in about one in every 1,000 reported 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: NM MEASLES OUTBREAK, OKLAHOMA HEALTH ALERT NETWORK (OK-HAN) NOTIFICATION, OSDH, WHO, NYT

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)*

529*



- 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 five confirmed outbreaks of measles in the U.S. so far in 2025 (TX-NM-OK, KS, NJ, GA, OH, with 93% of cases linked to these domestic outbreaks.

STATE	CASES
TEXAS	406**
NEW MEXICO	44
KANSAS	24
OHIO	10
OKLAHOMA	9
CALIFORNIA	8
PENNSYLVANIA	5
NEW YORK	4
NEW JERSEY	3
MARYLAND	3
GEORGIA	3
WASHINGTON	2
ALASKA	2
VERMONT	1
TENNESSEE	1
RHODE ISLAND	1
MINNESOTA	1
MICHIGAN	1
KENTUCKY	1
FLORIDA	1
TOTAL	**529 *** **

*** Includes confirmed and probable cases.

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 3/30/2025, 1700 hrs. EDT, there are approximately **529** measles cases across **20 states** (including confirmed and suspected cases).*

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

1. *West Texas, involving 15 counties in Texas, 2 counties in New Mexico, 1 county and Cherokee Nation in Oklahoma*
2. *6 counties in Kansas connected West TX*
3. *Bergen County, New Jersey*
4. *metro Atlanta, Georgia*
5. *Ashtabula County, Ohio*

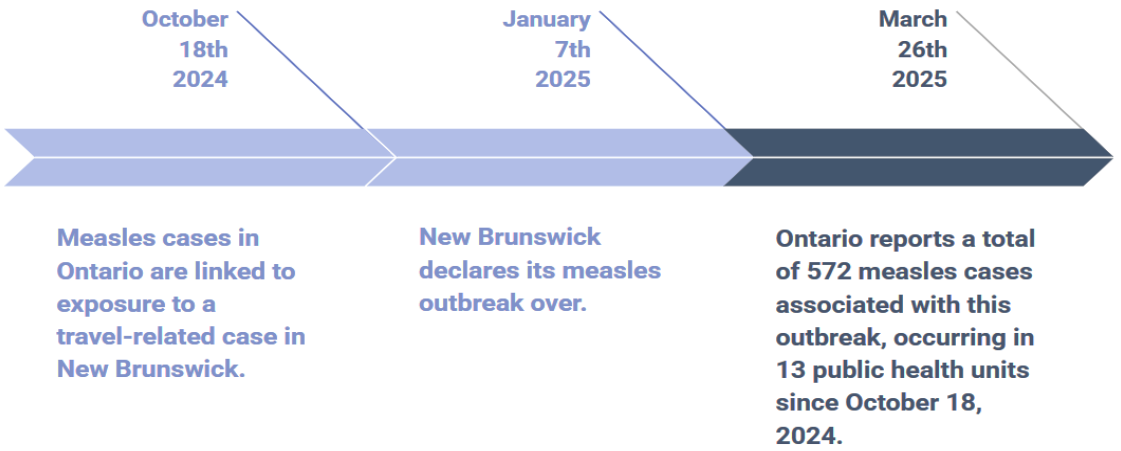
**** TEXAS CASES NOT ASSOCIATED WITH OUTBREAK: 6**

- 2 cases – Adults, Harris County (travel-related)
- 1 case – Infant, Harris County – required hospitalization (travel-related)
- 1 case – Infant, Travis County (travel-related)
- 1 case – Adult, Rockwell County (travel-related)
- 1 case – Erath County

TEXAS CASES ASSOCIATED WITH THE OUTBREAK: 400

THE AMERICAS OUTLOOK: CANADA

Timeline of Outbreak



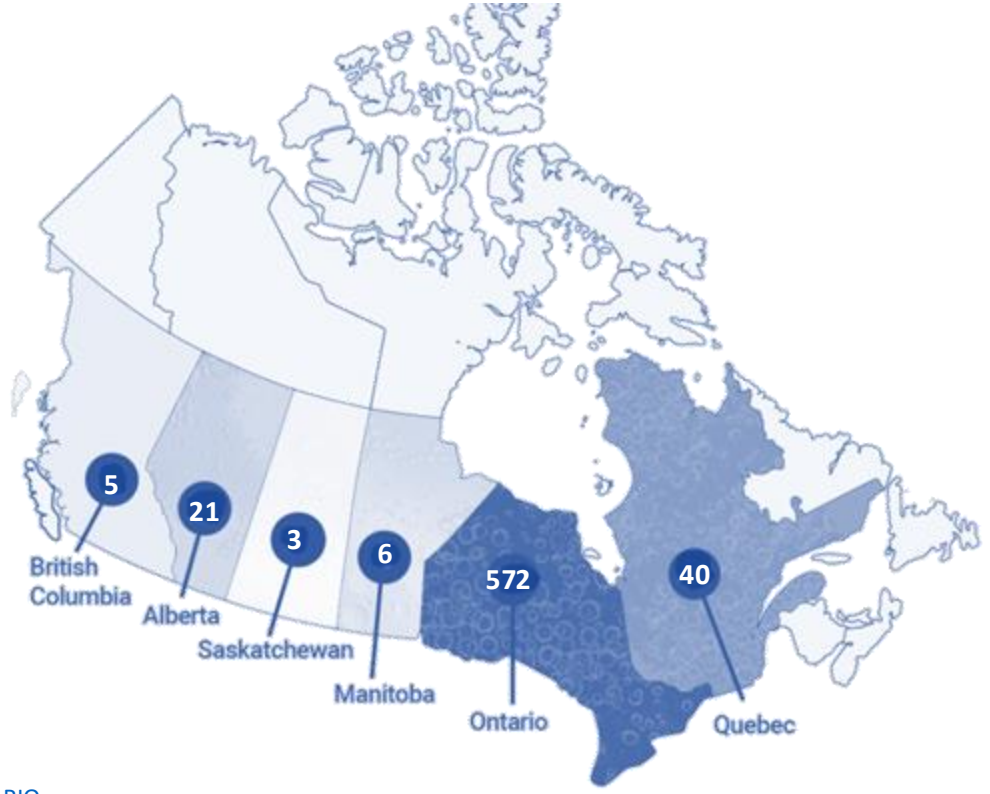
CANADA OUTBREAK:

- 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.
- While New Brunswick declared their outbreak over on January 7, 2025, Ontario and Manitoba have continued to report measles cases related to this outbreak.
- From October 18, 2024, to March 26, 2025, Ontario reported a total of 572 measles cases (453 confirmed, 119 probable) across 13 public health units that are associated with this outbreak.

MEASLES CASES IN CANADA

PROVINCE	CASES
ONTARIO	572
ALBERTA	21
MANITOBA	6
BRITISH COLUMBIA	5
SASKATCHEWAN	3
QUEBEC	40
TOTAL	647

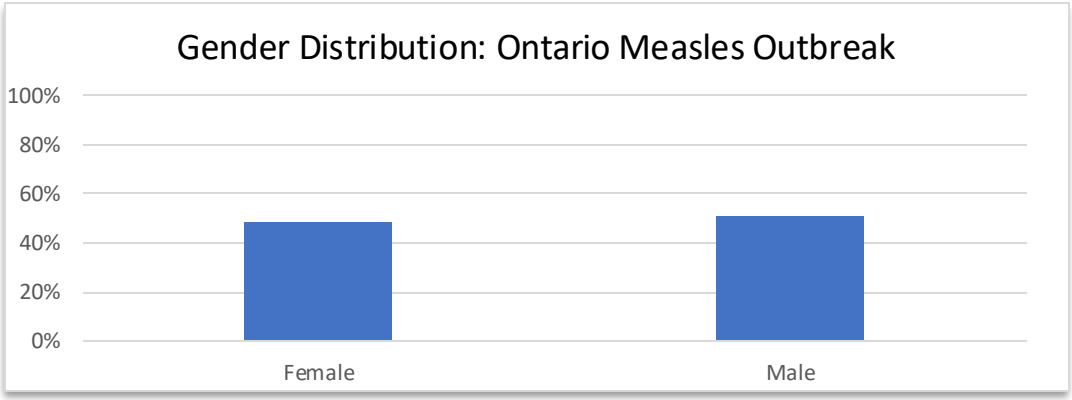
*Data as of Friday, March 28, 2025

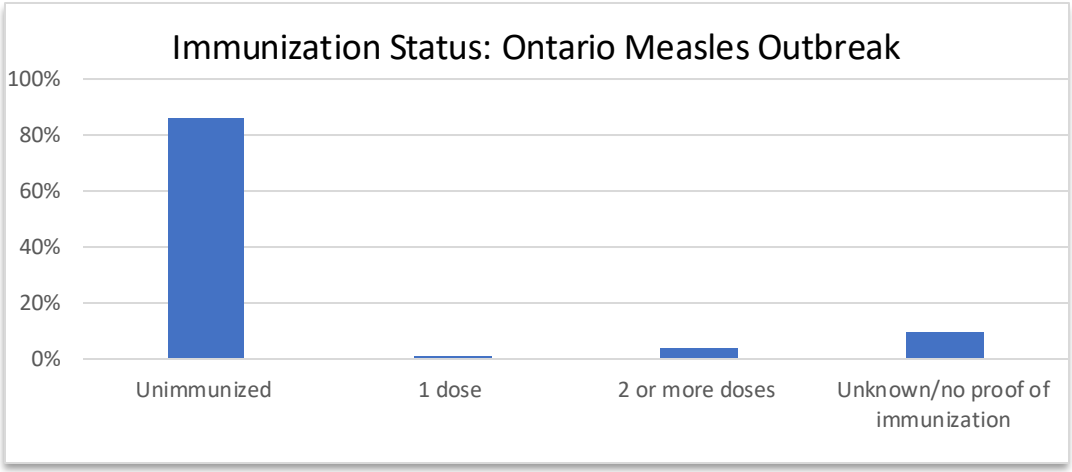


SOURCES: MANITOBA HEALTH, ALBERTA DASHBOARD, BC GOV NEWS, MANITOBA, CTV NEWS, QUEBEC, PUBLIC HEALTH ONTARIO

ONTARIO OUTBREAK

MORBIDITY AND MORTALITY			
PROVINCE	CASES	HOSPITALIZATIONS	DEATHS
ONTARIO	572	42	0



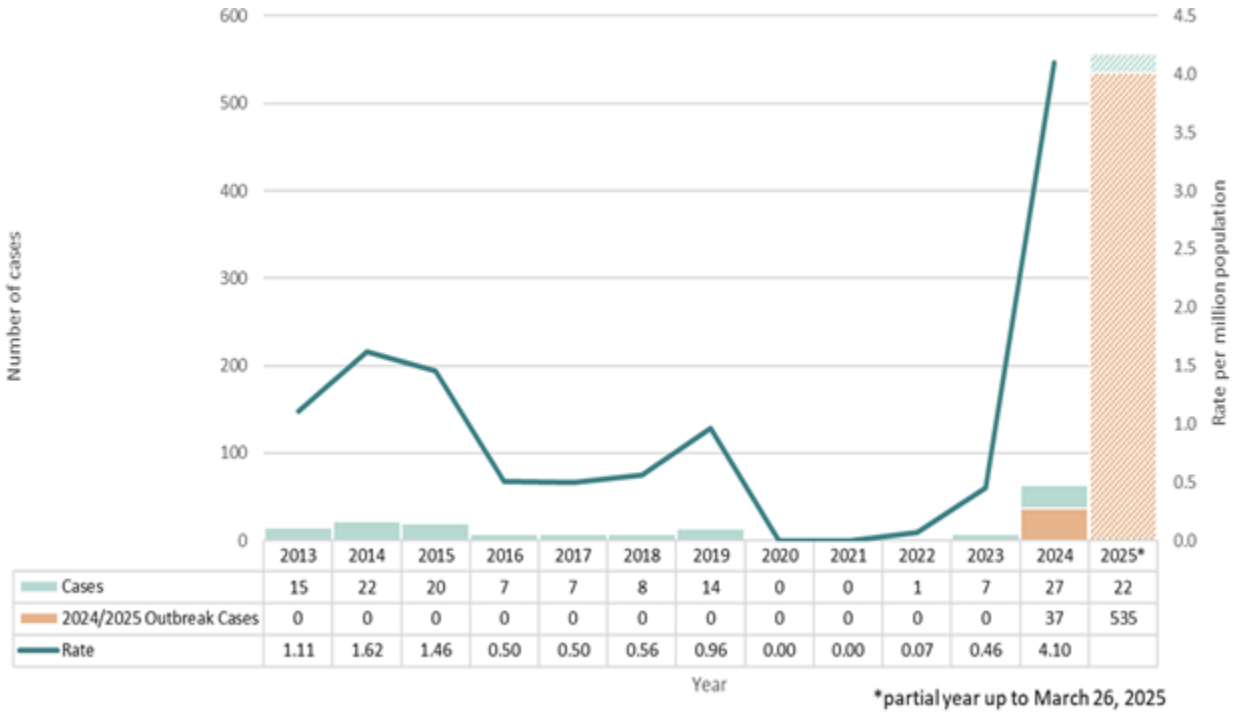


SOURCE: PUBLIC HEALTH ONTARIO

ONTARIO:

- Among all outbreak cases, 436 (76.2%) were in infants, children and adolescents; 132 (23.1%) were in adults; and 4 (0.7%) of the cases' ages were unknown.
- Nine cases were in pregnant women.
- Among infants, children and adolescents, 409 (93.8%) were unimmunized, while among adults, 83 (62.9%) were unimmunized.
- 42 cases have required hospitalization. Among all hospitalizations, 41 were unimmunized, including 36 children.

MEASLES CASES AND INCIDENT RATE PER MILLION POPULATION IN ONTARIO, 1/1/2013 – 3/26/2025



	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025*
Cases	15	22	20	7	7	8	14	0	0	1	7	27	22
2024/2025 Outbreak Cases	0	0	0	0	0	0	0	0	0	0	0	37	535
Rate	1.11	1.62	1.46	0.50	0.50	0.56	0.96	0.00	0.00	0.07	0.46	4.10	

WHEN DOES AN ADULT NEED AN ADDITIONAL MMR VACCINE?

MOST ADULTS WHO HAVE RECEIVED TWO DOSES OF THE MMR VACCINE ARE FULLY VACCINATED

- **Because two doses generally provide lifelong protection against measles**, a third dose (booster) is not typically necessary.

  NOTE: *Older adults who were born before 1957 are presumed to have naturally induced immunity because they were likely exposed to measles before vaccines became available.*

ADULTS WHO SHOULD BE REVACCINATED WITH A MEASLES VACCINE

- **Adults previously vaccinated with only one dose of the MMR vaccine**.
- **Adults vaccinated before their first birthday**, as a dose given before 12 months of age (e.g., for international travel) does not count toward the recommended two-dose series.
- **Adults vaccinated for measles between 1963 and 1968 should check their vaccination history.** During that period, an inactivated (killed) measles vaccine was used, but it was later found to be less effective and was withdrawn. Only about 600,000–900,000 people in the U.S. received this vaccine. The ACIP recommends re-vaccination with 1 or 2 doses for those who received an unknown type of measles vaccine, the inactivated vaccine, or a further attenuated measles vaccine with IG or high-titer measles immunoglobulin (no longer available in the U.S.) during those years.
- **Persons with perinatal human immunodeficiency virus** (HIV) infection who were vaccinated before establishment of effective antiretroviral therapy (ART) and who do not have evidence of current severe immunosuppression.
- **People who are uncertain of their vaccination status** OR their **presumptive evidence of immunity.**

CONTRAINDICATIONS AND PRECAUTIONS FOR MMR VACCINATION (DO NOT GET THE VACCINE)

CONTRAINDICATIONS: A contraindication is a condition in a recipient that **greatly increases the chance of a serious adverse reaction** (or due to the theoretical risk in the case of pregnant women). **People with a contraindication for MMR or MMRV vaccine should not receive the vaccine,** including anyone who:

- Had a **severe allergic reaction** (e.g., anaphylaxis) after a previous dose or has an allergy to a vaccine component.
- Has a known **severe immunodeficiency** (e.g., from hematologic and solid tumors, receipt of chemotherapy, congenital immunodeficiency, or long-term immunosuppressive therapy or patients with human immunodeficiency virus [HIV] infection who are severely immunocompromised).
- **Is pregnant.**

PRECAUTIONS: A precaution is a condition in a recipient that **might increase** the **chance or severity of a serious adverse reaction, or that might compromise the ability of the vaccine to produce immunity** (such as administering MMR or MMRV vaccine to a person with passive immunity to measles from a blood transfusion). Precautions for MMR or MMRV vaccine include:

- Moderate or severe acute illness with or without fever.
- Recent (within 11 months) receipt of antibody-containing blood product (specific interval depends on product).
- History of thrombocytopenia or thrombocytopenic purpura.
- Need for tuberculin skin testing or interferon gamma release assay (IGRA) testing.
- Personal or family history of seizures.

SOURCES: CDC –MMR VACCINATION, ACIP RECOMMENDATIONS DURING AN OUTBREAK CHAPTER 13- THE "PINK BOOK, YALE MEDICINE, MSN, JOHNS HOPKINS

COMPLICATIONS DURING PREGNANCY

COMPLICATIONS FOR THE MOTHER: Pregnant mothers who become infected with measles are at a higher risk of severe health complications, including:

- Hospitalization from measles symptoms
- High fever
- Pneumonia
- Encephalitis (inflammation of the brain)
- Death

FETAL/ BIRTH COMPLICATIONS: Adverse pregnancy outcomes are commonly reported among pregnant women with measles. Common pregnancy complications include:

- Miscarriage
- Stillbirth
- Low birth weight
- Increased risk of preterm birth

MOTHER-TO-BABY TRANSMISSION: Infants born to mothers with measles immunity (i.e., vaccination) have some antibodies for the first 6 months after birth, and infection is less likely to occur. If a mother is unvaccinated or doesn't have immunity, the baby is susceptible. A measles infection that is transmitted from mother to the fetus, known as congenital measles, and airborne mother-to-baby transmission after birth can both cause severe respiratory complications for a newborn within 10 days of delivery.

MEASLES VACCINATION AND PREGNANCY: Live vaccines, such as the MMR vaccine, are generally not recommended for pregnant women since they contain a weakened version of the virus. Therefore, it is important to be vaccinated for MMR before becoming pregnant. After receiving the MMR vaccine, one should wait at least 4 weeks before becoming pregnant.

MINIMIZING RISKS: Unvaccinated pregnant mothers should consider wearing an N95 mask when in public to reduce the likelihood of infection. Common public health practices including regular handwashing and avoiding hand-to-face contact can also reduce the chances of infection.

TREATMENT: There are no antiviral medications available to treat the measles infection. Pregnant individuals with measles require close monitoring and treatment of symptoms and should isolate from others in an infection isolation room.

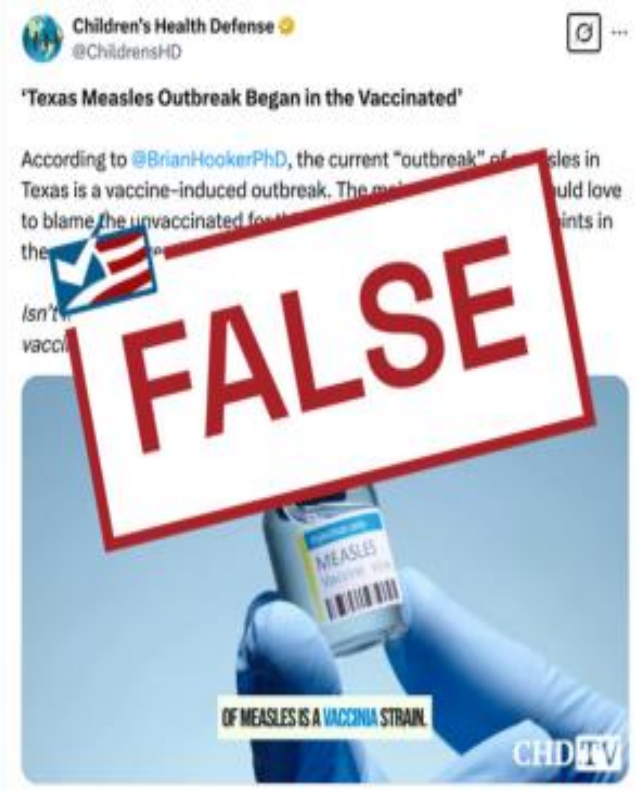
THE BOTTOM LINE:

Unvaccinated pregnant women are at a greater risk of severe illness and death from measles compared to non-pregnant women and are also more likely to experience miscarriage and preterm birth if infected.

MYTHS VERSUS FACTS

MYTH: Vaccinated individuals and vaccine clinics are spreading measles.

- ☑ **FACT:** The measles vaccine contains a live, weakened form of the virus, but this weakened form has **never been shown to spread to others.** The current measles outbreak is caused by a wild-type strain of the virus, not the vaccine strain.
- ☑ **FACT:** Although the measles vaccine uses a weakened live virus, it is highly unlikely to cause illness. Only individuals with severely compromised immune systems might become ill from this weakened form, so the **vaccine is not recommended for immunocompromised individuals.**
- ☑ **FACT:** There is **no documented instance of a measles outbreak caused by the vaccine virus, nor any evidence of transmission of the vaccine virus from one person to another.**
- ☑ **FACT:** Vaccine clinics commonly appear in areas experiencing measles outbreaks because continued **vaccination is essential for controlling** and eventually stopping the spread. People are typically fully protected against measles starting from 2-3 weeks after they are vaccinated.
- ☑ **FACT:** An immune response or reaction following measles vaccination differs from contracting measles. **Vaccine reactions do not involve an infectious process and cannot spread the virus.**



Social media posts have **incorrectly claimed** or suggested that the ongoing measles outbreak in Texas is due to a vaccine strain and that vaccine clinics are the reason why the outbreak has grown.

MYTH BUSTER

Stay informed. Stay protected.

SOURCE: Posts Make Unsupported Claims About Origin of Texas Measles Outbreak

CONTRIBUTORS

The Virtual Medical Operations Center Briefs (VMOC) were created as a service-learning project by faculty and graduate students at the Yale School of Public Health in response to the 2010 Haiti Earthquake. Each year, the VMOC Briefs are produced by students enrolled in Environmental Health Science Course 581 - Public Health Emergencies: Disaster Planning and Response. These briefs compile diverse information sources – including status reports, maps, 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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