Responding to Measles Outbreaks in High Priority Populations

April 15, 2025



Housekeeping

- Use the Q&A box to submit questions or share resources.
- The recording and slides will soon be available on AIM's website.
- Please complete the brief survey in the pop-up browser after the webinar.

Agenda

Welcome and Measles Overview

• Emily Messerli, Chief Programmatic Officer

Outreach in the Plain Community

• Tom McCleaf (PA), Director of Bureau of Immunizations

Past Efforts and Current Initiatives in NYC's Haredi Population

• Dr. Jennifer Rosen (NYC), Director of Surveillance and Epidemiology

Using Data to Build Trust

• Andrea Romero (NM), Immunization Program Section Manager

Q&A

AIM Resources

Measles Overview

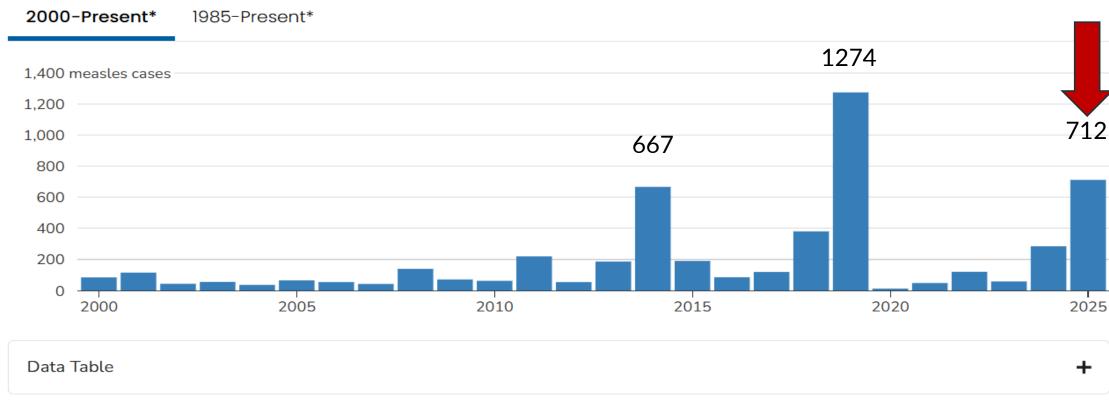


Dr. Emily Messerli, DNP, APRN, FNP-C Chief Programmatic Officer

Measles Cases and Outbreaks

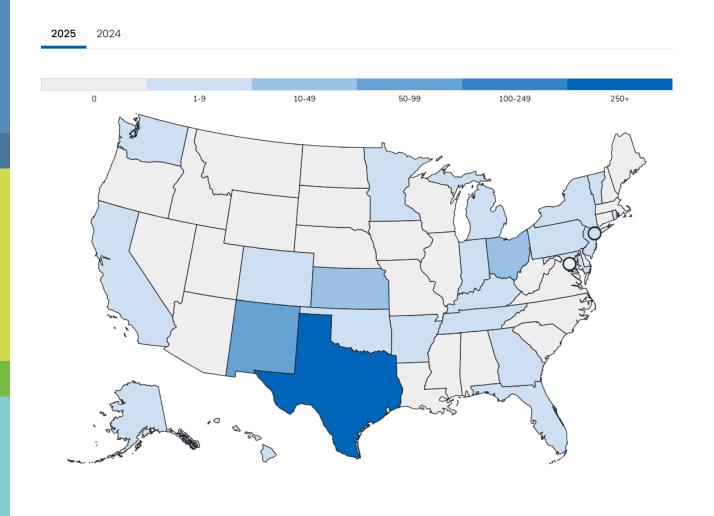
Yearly measles cases

as of April 10, 2025



Updated 4/14/2025: https://www.cdc.gov/measles/data-research/

Measles Cases and Outbreaks

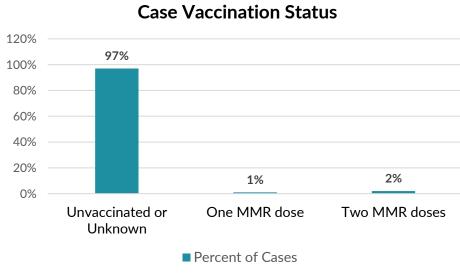


Cases identified in 25 jurisdictions

11% (79 of 712) hospitalized

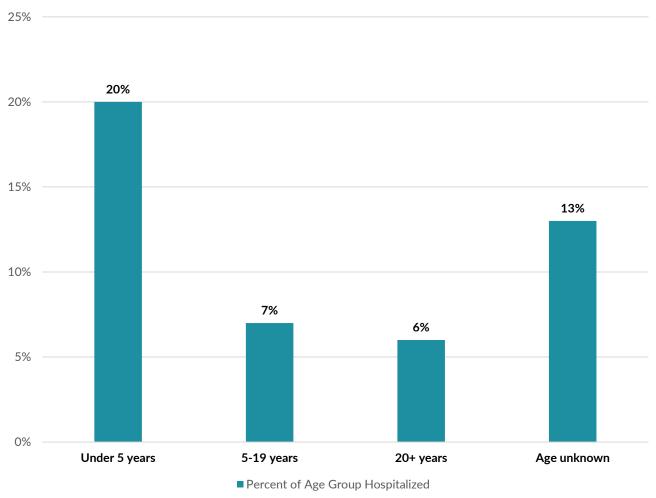
3 deaths (2 school-aged children (TX)- 1 adult (NM))

7 different outbreaks - this is defined as 3 or more related cases



Measles Hospitalizations

Percent of Age Group Hospitalized





Case by Age:

Under 5 years: 225

5-19 years: 274

20+ years: 198

Age unknown: 15

Outbreak Response

Working with Plain Community Populations and Responding to VPDs and Outbreaks

Tom McCleaf Director, Bureau of Immunizations, PA DOH

Tuesday, April 15, 2025

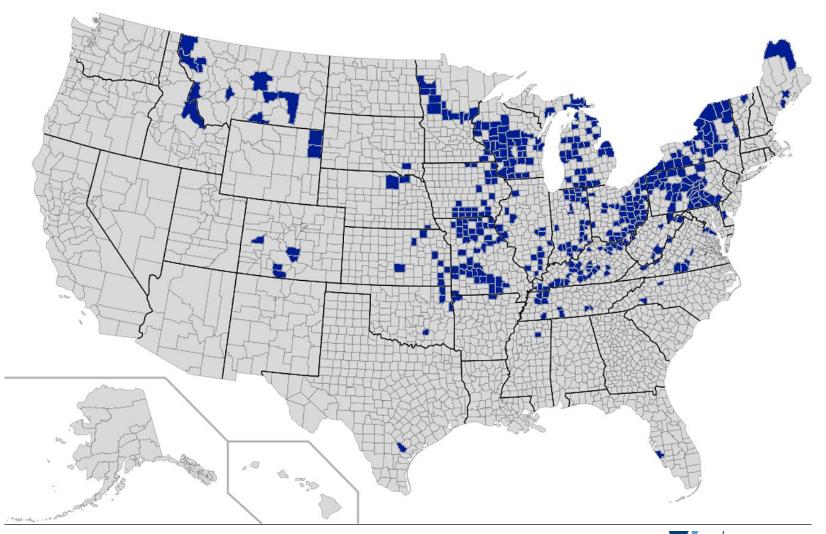


Plain Community Population

- The "Plain People" population is made up of Amish and Mennonite communities. They are known for simple living, plain dress, and Christian pacificism. They are traditionalist Anabaptists who maintain a degree of separation from surrounding populations.
- In 2024, there were around 401,000 Amish in the United States. Pennsylvania has the largest count at 92,660. Population estimates for Mennonites are about 500,000 in the United States.
- Other states with large Plain communities include Ohio, Indiana, Wisconsin, New York, Michigan, Missouri, Kentucky, and Iowa.
- In the last 25 years, the population of Amish in the U.S. has doubled.

partment of Health

Counties with Amish settlements in 2021



Source: Map courtesy of Dan Holsinger



Vaccination rates

- For the 2023-2024 school year, the Kindergarten MMR rate for the state of Pennsylvania was 94.0%. This is just below the threshold for what is considered herd immunity.
- In Lancaster County, home to the largest population of Amish in any county in the U.S., the overall MMR rate for Kindergarten was 90.5%.
- However, among the Amish population, the MMR vaccination rate in Lancaster County was estimated to be around just 25% overall.



Lessons learned and what not to do

- "Trust is the easiest thing lost, and the hardest thing gained."
- Anabaptists have a belief system that can be quite different from others. Furthermore, they are not all are alike. There are at least 8 major affiliations of Amish known to exist. And there are many different affiliations of Mennonite populations.
- https://www.mennoniteusa.org/who-are-mennonites/
- "God's Will"



Misconceptions and lessons in progress

- Communications; Phone policies
- The impact of the COVID pandemic is still being learned. We are building back to be allowed to do certain things with them, but impacts may be lasting.
- Amish lifestyle and priorities
- Not all Amish are the same. As an example,
 "Lancaster Amish" are now present in 8 states.
- Place free materials at stores that they frequent and in farmer's markets.



Relating to other populations

- Building connections with key stakeholders and trusted messengers is key. Be open to new opportunities and build relationships.
- Trust is established and earned over time. And sometimes, just being present is important.
- Don't be pushy and accept small wins.
- Focus on staying healthy and fit, preventing diseases, with vaccines as just an aspect of that.
- When possible, have discussions with their leadership, with major emphasis on listening.
- Making noteworthy impacts will take time, perhaps even over generations.



Past and planned events

- Horse and buggy clinics
- Mud sales
 - Have materials available; items they can take with them, such as coloring books and handouts
- School visits
 - It is important to have a human face to the state health department.
- Starting in 2025, PA DOH will be holding vaccine clinics in the Lancaster area. We will provide shots as well as have information and materials available.
- In response to measles concerns, we are seeing a large increase in interest in MMR vaccination among Amish and have begun clinics. We are working with community partners to make these successful.



Online resources

- Anabaptist Perspectives:
 - https://www.youtube.com/@AnabaptistPerspectives
 - Informational videos; some featuring Edsel Burdge
- Amish Studies, The Young Center:
 - https://groups_etown_edu/amishstudies/
 - Academic website developed by the Young Center for Anabaptist and Pietist Studies at Elizabethtown College (Lancaster County)
- Mennonites, Measles, and Vaccines:
 - https://www.mennoniteusa.org/who-are-mennonites/
 - https://www.mennoniteusa.org/menno-snapshots/measles/
 - God calls us to act in the best interests of our neighbor (Matthew 5-7 and 22:39 40; John 15:17; 1 Corinthians 10:24).
 - As a denomination, Mennonite Church USA does not request vaccine exemption for our members on behalf of our religious beliefs. Exercise careful decision-making and interest in the needs of others.



Online resources continued

- Vaccine Ingredients, What You Should Know:
 - https://www.chop.edu/sites/default/files/vaccine-education-center-vaccine-ingredients.pdf
 - Informational Q&A resrouce from the Children's Hospital of Philadelphia (CHOP) Vaccine Education Center
- DNA, Fetal Cells & Vaccines, What You Should Know:
 - https://www_chop_edu/sites/default/files/vaccine-education-center-dna-fetal-cells-vaccines_pdf
 - Informational Q&A resrouce from the Children's Hospital of Philadelphia (CHOP) Vaccine Education Center
- Christian Medical & Dental Associations (CMDA) Position:
 - https://cmda.org/policy-issues-home/position-statements/#
 - The CMDA provides resources, education, and a public voice for Christian healthcare professionals and students.
 - Their policy statement on Vaccines and Immunizations includes many valuable perspectives.



Thank you (Denki)



Denki; sei gut!

(thank you and be well, in Pennsylvania Dutch)



Efforts to Improve Vaccination Rates in New York City's Haredi Population

Challenges, Past Efforts, and Current Initiatives

Jennifer Rosen, MD

Director of Epidemiology & Surveillance, Bureau of Immunization New York City Department of Health and Mental Hygiene



Jewish Population in New York City

- 960,000 Jewish adults and children in NYC
 - > ~287,000 (30%) Orthodox Jewish
 - **≻**75% Haredi
 - ~93% reside in 3 Brooklyn neighborhoods (Williamsburg, Borough Park, Crown Heights)



Data source: https://communitystudy.ujafedny.org/explore-data



Understanding the Haredi Community

- Strict adherence to Jewish law
- Includes Hasidim, Litvish/Yeshivish groups
- Tend to be tight-knit and communityfocused
- Highly mobile within communities nationally and internationally





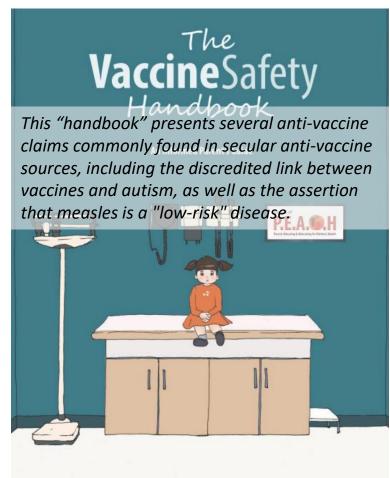
Perspectives on Vaccination

- Jewish Law supports the preservation of human life, including pediatric vaccination
- Decision not to vaccinate often made without consulting with Rabbinic authorities¹
- Barriers²
 - Logistical, convenience
 - Concerns about vaccine safety and multiple vaccines administered simultaneously
 - Limited information about diseases and vaccine benefits



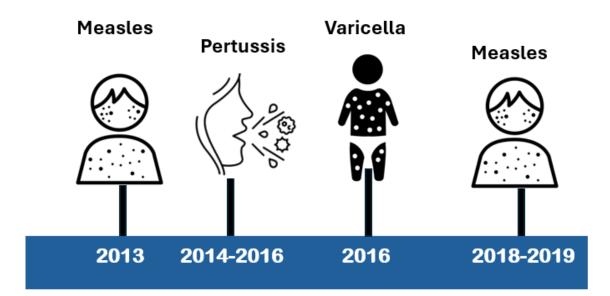
Vaccine Misinformation in the Haredi Community

- The community has been targeted by the anti-vax movement
- Social and print media, phone hotlines
- Concerns about MMR, HPV, neonatal, and pregnancy vaccines
- Distrust of government increased post COVID-19



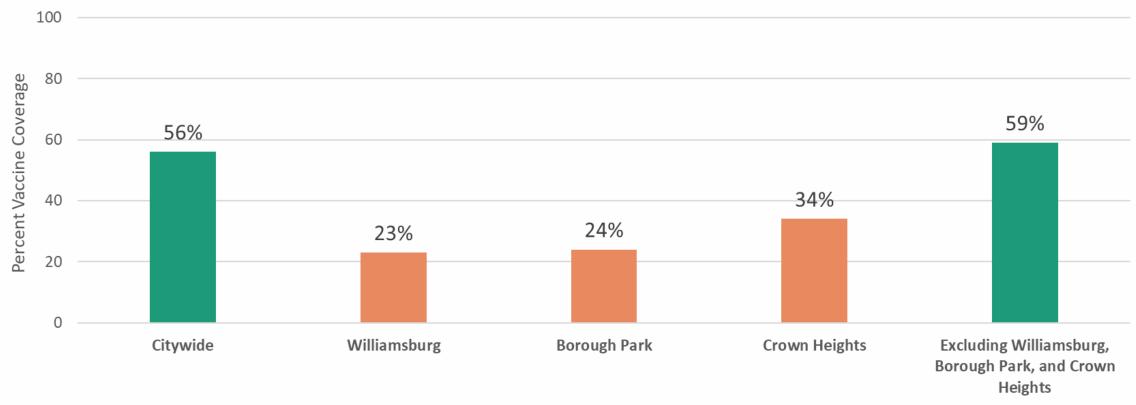


VPD Outbreaks in Haredi Community





Vaccination Coverage* Among Children by Age 24 Months in Three Neighborhoods with Largest Haredi Populations



^{*}Combined seven-vaccine series includes \geq 4 DTaP doses, \geq 3 polio vaccine doses, \geq 1 measles-containing vaccine dose, full Hib series (\geq 3 or \geq 4 doses, depending on type), \geq 3 HepB doses, \geq 1 varicella dose, \geq 4 PCV doses



NYC Initiatives to Improve Vaccine Uptake

Engaging Haredi Community



Outbreak Response Efforts

Communication

- Targeted ads, robocalls, school letters
- Set-up hotline for parents
- Letters to families
- Letters to providers

Partnerships

- Collaborate with Rabbinical leaders, Jewish medical associations, schools, elected officials
- Participate in community health fairs

Legal measures

 Enforce legal immunization requirements

Immunization response

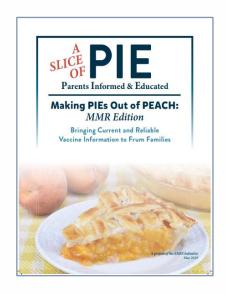
 Identification of unvaccinated children for vaccine appointments



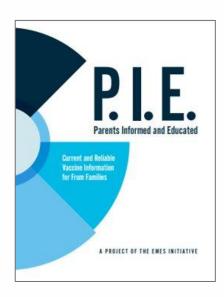
Tailored Educational Materials



https://www.nyc.gov/assets/do h/downloads/pdf/imm/tzimgezint-measles.pdf



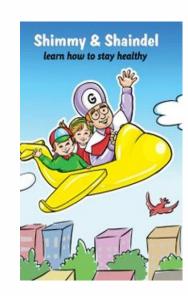
https://www.nyc.gov/assets/do h/downloads/pdf/imm/a-sliceof-pie.pdf



https://www.nyc.gov/assets/do h/downloads/pdf/imm/parents -informed-and-educatedbooklet.pdf



Translation: Together we can stop measles. One person with measles can infect 12-18 people with immunity



Coming soon!



Current Efforts in NYC

- 1. Employed staff who are members of the community
 - Build trust and understand the community
- 2. Collaborations:
 - Medical providers
 - Jewish Orthodox Medical Women's Association
 - Community organizations
 - Other Health Departments
- 3. Health Department leadership buy-in



Photo source: https://www.jowma.org/



Haredi Health Coalition

- Established in 2018
- Purpose:
 - Improve trust
 - Bidirectional communication
 - Information sharing
- Consult and advise
- Activities:
 - Develop resource guide
 - Created a WhatsApp for real-time communication
 - Engage providers to integrate vaccine messaging





Integrate Community Health Workers (CHW) in Medical Practices

- New York University peer-led vaccine education in community medical practice
 - Assessed peer education to improve vaccine acceptance in NYC community healthcare practices
 - Trained peer educators delivered vaccine information to patients to address hesitancy
 - Results showed a significant increase in vaccine acceptance, supporting peer-led interventions
- Exploring the possibility of adopting a peer-education model



Vaccine

Volume 42, Supplement 5, 14 November 2024, 126028



Peer education as a strategy to promote vaccine acceptance: A randomized controlled trial within New York community healthcare practices \$\pm\$

Emily Hoffman ^a A M, Tamara Kahan ^{b f}, Esther Auerbach ^c, Heidi Brody ^c,

Natalie Nesha Abramson ^c, Sarah Haiken ^{d g}, Danielle Shields ^b, Ailin Elyasi ^e,

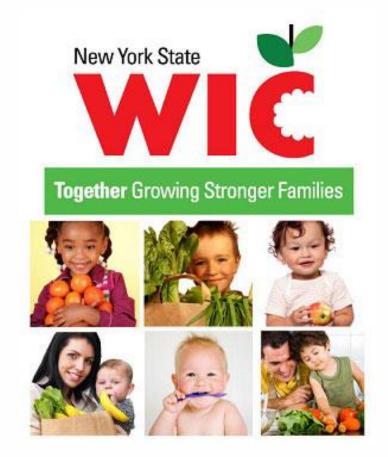
Sheindel Ifrah ^{c h}, Alysa Frenkel-Schick ⁱ, Israel Zyskind ^j, Miriam Knoll ^c, Ellie Carmody ^a

Show more 🗸



Women, Infants, Children (WIC) center Engagement

- Educating nutritionists on pediatric vaccines
- Distributing educational materials
- Present Health Department updates at Health Advisory Committee meetings





Lessons learned

- Community liaison is essential for guiding our efforts
- Partnership is crucial for messaging to the community
- Utilize logos of trusted community partner for credibility
- Integrate vaccine messaging with broader health demands and initiatives
- Leverage non-traditional pathways to reach the community



Conclusion

- On-time vaccination rates are low among very young children
- Challenges in vaccination confidence; though, logistical barriers exists
- Investing in culturally informed programs is critical for sustained efforts
- Focus on sustainable community engagement



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- Kristin Oliver, MD
- Shoshana B. Merzel, MPH
- Shaila Rao, EdD, MPH



Citations

- 1. Popper-Giveon A, Keshet Y. Non-Vaccination Stage Model (NVST): The decision-making process among Israeli ultra-orthodox Jewish parents. Health (London). 2022 Nov;26(6):777-792. doi: 10.1177/1363459320988884. Epub 2021 May 18. PMID: 34002627.
- 2. Hoffman E, Kahan T, Auerbach E, et al. Peer education as a strategy to promote vaccine acceptance: A randomized controlled trial within New York community healthcare practices. Vaccine. 2024 Nov 14;42 Suppl 5:126028.
- 3. Jacobson A, Spitzer S, Gorelik Y, Edelstein M. Barriers and enablers to vaccination in the ultra-orthodox Jewish population: a systematic review. Front Public Health. 2023 Oct 12;11:1244368.
- 4. Rosen JB, Arciuolo RJ, Khawja AM, Fu J, Giancotti FR, Zucker JR. Public Health Consequences of a 2013 Measles Outbreak in New York City. JAMA Pediatr. 2018 Sep 1;172(9):811-817. doi: 10.1001/jamapediatrics.2018.1024. PMID: 30073293; PMCID: PMC6143061.

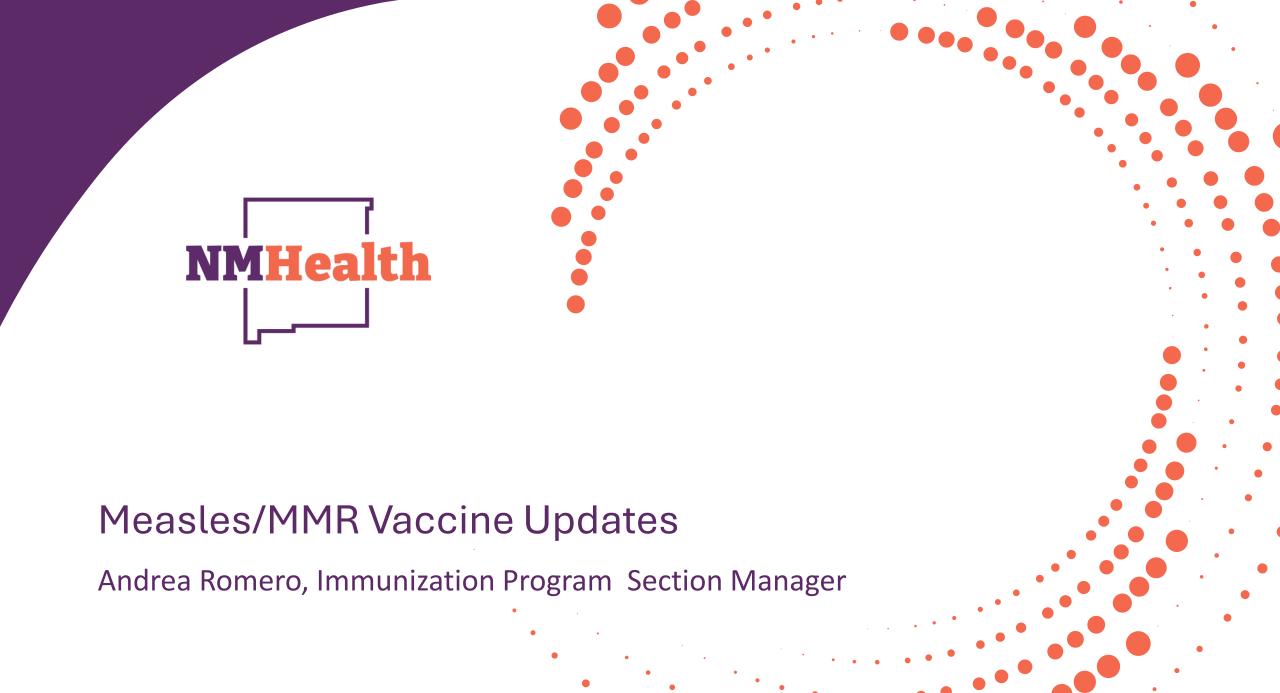
• Images:

- Pertussis created by bsd studio from Noun Project
- Boys with measles by Gamma Designs from Noun Project
- Pain by popcomarts from Noun Project
- Travel by Art.Design from Noun Project



Thank You







Preparedness during an outbreak

Prevent

Prevent disease with vaccine

Detect

Where are there cases?

Respond

Respond with immediate action to control and prevent disease spread.



Utilize IIS Data

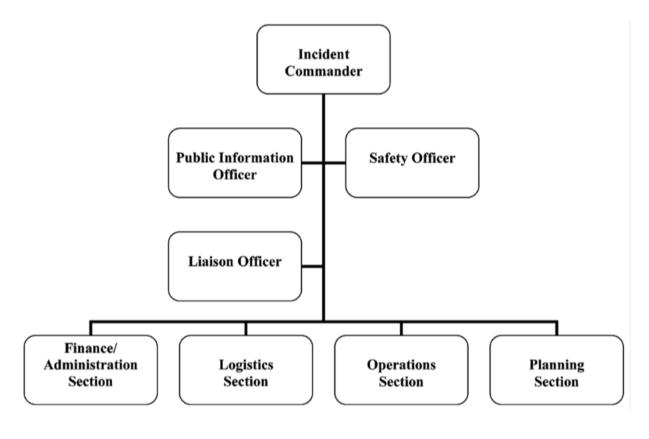
- -Review MMR vaccine coverage in the state by County
 - -1 Dose
 - -2 Dose
- -Review vaccine exemption rates by county
 - -Past school year
 - -Current school year

Focus on outbreak area and surrounding counties for immediate response efforts

NMDOH has set up a small scaled Incident Command Structure (ICS)



- Utilize your subject matter experts (SMEs) for planning.
- Being an SME doesn't mean you're already in a leadership role.
- There is a lead for each section, and all work together.
- Smaller scale ICS comes into place for an outbreak.
- Utilize lessons learned from COVID-19 Pandemic



Planning



- Projecting timeline of events needed
 - Distribution of supply and services
 - Staffing
 - Inventory management
 - Mobile vaccine clinics
 - Enrollment of partners/providers to help
 - Facilitating partnership meetings



Messaging directly to community

- PSA from Chief Medical Officer, she is known from presentations to local community-based organizations.
- Maintaining partnerships has been important since the pandemic.
- Updating the public on the most recent and accurate information.
- Reaching out by all platforms needed.
- Television
- Webpage
- Radio
- Nurse Call Center
- Social Media
- Community Health Workers
- Virtual meetings with partners
- Translating for all populations



2025 Measles Outbreak Guidance



Key points

- Measles is very contagious and can be serious.
- Two doses of MMR vaccine provide the best protection against measles.
- Call the Department of Health Helpline at 1-833-796-8773:
 - · Ask questions about measles, vaccines or other medical questions.
 - Guidance on measles exposures.
 - Vaccination records.
 - Reporting cases.







- •Having a direct clinical contact is very important for community response.
- •Folks are worried and want to get the facts they need to protect themselves, family, friends, and the community.
- •The nurse call center has been a trusted resource in the community for years and has bilingual staff to reach all populations seeking guidance.
- •Call the Department of Health Helpline at 1-833-796-8773 (1-833-SWNURSE):
 - Ask questions about measles, vaccines or other medical questions.
 - Guidance on measles exposures.
 - Vaccination records.
 - Reporting cases

Cases-Southeast New Mexico



We post updates on Tuesdays and Fridays by noon Mountain Standard Time.

Same cadence as Texas.

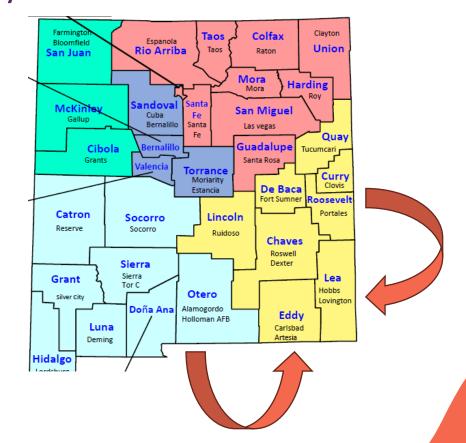
Total Cases	Vaccinated with at least one dose	Not Vaccinated	Unknown
58*	6	41	11

New Mexico Case Count by County (as of 04/11/2025):

County	Cases	Hospitalizations	Deaths
Lea County	55	4	1
Eddy	2	0	0
Chaves	1	0	0

Age Ranges of Measles Cases:

0-4 Years	5-17 Years	18+ Years	Pending	Total
15	16	27	0	58







Age Group	Standard Recommendation	During a Measles Outbreak*
Infants 6-11 months	Not routinely recommended	1 dose if measles is circulating in children (discuss with your child's pediatrician; not currently recommended by NMDOH, even in Lea County)
Children 12-15 months	First dose of MMR vaccine	First dose of MMR vaccine as soon as possible.
Children 4-6 years	Second dose of MMR vaccine	**Second dose can be given early, at least 28 days after the first dose.
Adults born in 1957 or later (if you haven't had measles)	1 dose of MMR vaccine	Two doses of MMR vaccine, at least 28 days apart.
Adults born before 1957 (68 years old or older)	No MMR needed – most people had measles and have immunity from the disease	Consider one dose of MMR vaccine if you don't have a positive measles titer
Healthcare personnel	2 doses of MMR vaccine or a positive measles titer	Ensure 2 doses of MMR vaccine or a positive measles titer
International travelers	2 doses of MMR vaccine	2 doses of MMR vaccine
College students	2 doses of MMR vaccine	Ensure 2 doses of MMR vaccine
Pregnant persons	Should not receive MMR vaccine	Should not receive MMR vaccine

*Currently the only measles outbreak in New Mexico is in Lea County.

**There should always be at least 28 days between doses of MMR vaccine



Measles NMDOH Page-Centralized Location for all updates to avoid misinformation



- Vaccination locations and clinics listed
- Frequently asked questions
- Guidance for professionals, educators, and childcare
- Health Alert Network (HAN)-Travel guidance Spring break
- News and publications
- Check frequently for updates
- Resources

For vaccine access efforts-Public Health Offices are referenced under Response on page for MMR access by walk in or clinics being held.



Response

The following public health offices will offer daily walk-in MMR vaccinations with no appointments needed until further notice:

- Artesia (Eddy County) Public Health Office, 1001 Memorial Dr. (575) 746-9819
- Carlsbad (Eddy County) Public Health Office, 1306 W. Stevens St. (575) 885-4191
- Clovis (Curry County) Public Health Office, 1216 Cameo St. (575) 763-5583
- Ft. Sumner (De Baca County) Public Health Office, 643 A North 5th St. (575) 355-2362
- Hobbs (Lea County) Public Health Office, 1923 N. Dal Paso St. (575) 397-2463
- Lovington (Lea County) Public Health Office, 302 N. 5th St. (575) 396-2853
- Portales (Roosevelt County) Public Health Office, 1513 W. Fir St. (575) 356-4453
- Roswell (Chaves County) Public Health Office, 200 East Chisum Street. (575)-624-6050
- Ruidoso (Lincoln County) Public Health Office, 117 Kansas City Rd. (575) 258-3252
- Tucumcari (Quay County) Public Health Office, 310 S. 2nd St. (575) 461-2610

In addition: the following vaccination clinics are scheduled statewide:

- Wednesdays, April 2, 15, and 30 the Santa Fe Public Office, 605 Letrado Street will be accepting walk-in MMR vaccinations with no appointment necessary.
 (505) 476-2600.
- Wednesdays in April, the Las Vegas Public Health Office, 18 Gallegos Road will be accepting walk-in MMR vaccinations with no appointment necessary. (505) 425-9368.
- Friday, April 4, from 11 a.m. 6 p.m. Drive-thru MMR vaccinations will be available at 700 Park Drive. For more information, call the Carlsbad (Eddy County) Public Health Office, 1306 West Stevens. (575) 885-4191
- Saturday, April 5, from 9 a.m. 3 p.m. at the Gallup (McKinley County) Public Health Office, 1919 College Dr. (575) 722-4391
- Every Monday, 1-3 p.m. and every Friday 9-11 a.m. at the Las Cruces Public Health Office, 1170 N. Solano Dr., In addition to MMR vaccines, COVID-19 and flu vaccines are also available. 575-528-5001
- Every Wednesday, 10 a.m. to noon and 1-3 p.m. at the Las Cruces East Mesa Public Health Office, 5220 Holman Road. In addition to MMR vaccines, COVID-19 and flu vaccines are also available. 575-382-0540

Mobile Vaccine Unit





 The mobile vaccine unit travels to rural areas of the state needing vaccine access and to community events. This unit has become a trusted voice the past couple of years and are invited into communities year-round.

Populations served

- Tribal
- Migrants
- Homeless
- Uninsured/Underinsured
- Homebound
- Seniors
- Underserved populations with limited access to healthcare that would need to travel a long distance.
- Collaborate with Community Based Organizations

Additional Resources









El sarampión puede ser peligroso, sobre todo en los bebés y niños pequeños.









- Fiebre alta (puede subir hasta más de 104 °F)
- Tos
- Mogueo
- Ojos enrojecidos y llorosos
- Sarpullido que aparece 3 a 5 días después de que empiezan los síntomas



EI sarampión puede ser grave



Cerca de 1 de cada 5 personas que contraen el sarampión será hospitalizada.



1 de cada 1000 personas con sarampión presentará inflamación del cerebro por la infección (encefalitis), lo cual puede causar daño cerebral.



1 o 3 de cada 1000 personas con sarampión morirán, aun cuando reciban la mejor atención.



Usted tiene el poder de proteger a su hijo.

Dele a su hijo una protección segura y duradera contra el sarampión al asegurarse de que reciba la vacuna contra el sarampión, las paperas y la rubéola (MMR), según el calendario de vacunación recomendado por los CDC.









Measles can be dangerous, especially for babies and young children.













- Runny nose
- Red, watery eyes

• High fever (may spike

to more than 104° F)

Rash breaks out 3-5 days after symptoms begin



Measles Can Be **Serious**



About 1 out of 4 people who get measles will be hospitalized.



MEASLES SYMPTOMS TYPICALLY INCLUDE

1 out of every 1,000 people with measles will develop brain swelling due to infection (encephalitis), which may lead to brain damage.



1 or 2 out of 1.000 people with measles will die, even with the best care.



You have the power to protect your child.

Provide your children with safe and long-lasting protection against measles by making sure they get the measles-mumps-rubella (MMR) vaccine according to CDC's recommended immunization schedule.



Vaccine Access Assistance

Getting vaccinated:

- Check vaccine records on the state <u>Vax View website</u> or call 1-833-882-6454 Mon.— Fri. 8 a.m. to 5 p.m.
- Adults can get the MMR vaccine from their provider, pharmacy or local <u>public health</u> <u>office</u>.
- · Vaccines are free for New Mexico children under the Vaccines for Children program.
- Find providers at <u>nmhealth.org</u> or call the NMHealth Helpline at 1-833-SWNURSE (1-833-796-8773).
- Suspected cases must be reported by medical providers immediately to the NMDOH Center for Health Protection by also calling 1-833-SWNURSE (1-833-796-8773)

What is the goal?



Protect children and adults against vaccine preventable diseases.





The need for Trusted Voices to convey experiences from the past to protect community.











measles - Google Search

An outbreak is always possible



- Utilize lessons learned from the COVID-19 Pandemic when planning.
- Review after action reports to assist with future planning
 - Did all populations get reached and how could we do better?
 - Where are vaccine coverage rates low?
 - What are the barriers?
 - What resources are needed?
 - Engage with the community partners!
 - Provide constant accurate messaging to the public.

Thank you

Don't Wait Vaccinate!

Vaccine catch up is important now.

Contact Reminders

NMSIIS call center-Phone 833-882-6454

Andrea Romero andrea.romero@doh.nm.gov 505-827-2465

Call the Department of Health Helpline at 1-833-796-8773:

- o To seek a medical provider.
- Ask questions about measles, vaccines or other medical questions.
- Vaccination records.
- For medical providers legally required to report suspected cases.



Q&A



AIM Resources

AIM Resources

Title:	What's In It?
Program Practice Database	Innovative and successful promising practices sourced from immunization programs.
Immunization Coalition Toolkit	Tools to build, improve, or support immunization coalitions. Includes reports, tip sheets, operational examples, and more.
Vaccine Confidence Toolkit	Information to support and improve vaccine confidence. Includes a webinar archive, resource guide, and a one-page overview of partner resources updated quarterly.
Immunization Program Directory	List of state, local, and territorial immunization program websites.

Thank you!

Please take a moment to complete the brief survey at the end.



immunizationmanagers.org



@AlMimmunization



Association of Immunization Managers

