

# Measles

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Tuesday, April 2<sup>nd</sup> 2024  
Vaccines for Children  
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# Questions

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During today's webinar, please use the chat to ask your questions so the Hawaii VFC Program subject matter experts can respond directly.



We will be answering your questions at the end of the presentation.

# Housekeeping

- QA Team:
  - Please ensure you are muted throughout the presentation unless you are speaking.
  - Please monitor the chat for questions.
- Attendees:
  - Please enter all questions into the chat, as these will be answered at the end of the presentation.
  - Today's session is being recorded. Slides and webinar recordings will be uploaded to:  
<https://health.hawaii.gov/docd/for-healthcare-providers/vaccination-resources/vaccines-for-children-program-vfc/>
  - To be added to the Hawaii VFC Program email list, please email your request to [hawaiiivfc@doh.hawaii.gov](mailto:hawaiiivfc@doh.hawaii.gov). In the subject line of the email, please write EMAIL LIST.



# Objectives

- By the end of this presentation, attendees should:
  - Be familiar with the symptoms of Measles
  - Be familiar with how Measles is transmitted
  - Know when to get vaccinated for Measles (MMR, MMRV)

# Overview



Measles, also known as Rubeola, is a highly contagious airborne disease caused by a virus that primarily affects children.



According to the WHO, the estimated number of deaths caused by Measles was 136,000 globally – the majority being children. [World Health Organization-Measles](#)

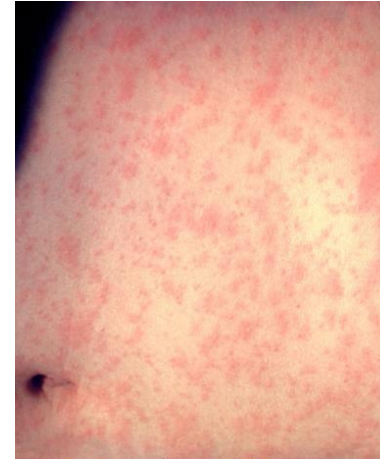
# Who does it affect?

- Measles can cause serious health complications, especially in the following:
  - Children less than a year old
  - Pregnant women
  - Those with weakened immune systems
- Measles complications:
  - Pneumonia (most common cause of death)
  - Encephalitis (swelling of the brain)
  - Respiratory and neurologic complications

# Signs and Symptoms

- Symptoms generally begin to appear 7-14 days after infection:
  - High fever (104°F)
  - Cough
  - Coryza (runny nose)
  - Conjunctivitis (red, watery eyes)
- 2-3 days after symptoms begin:
  - Koplik spots (tiny white spots)
- 3-5 days after symptoms begin:
  - Red rash appears as small raised bumps on top of flat red spots
  - Spots may join together and spread to the rest of the body
  - Fever may spike to 104°F +

\*If you are traveling internationally, it is recommended that you watch for any measles symptoms for 3 weeks following the date of your return



# Transmission

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Measles is highly infectious and is considered one of the most contagious diseases

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Can be spread just by breathing contaminated air, coughing, or sneezing

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Touching eyes, nose, or mouth after touching contaminated surfaces

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Transmission of the disease can occur from four days before to four days after the rash appears



# Vaccines

- MMR (Measles, Mumps, Rubella)

\*Vaccine schedule differs if traveling internationally

- MMRV (Measles, Mumps, Rubella, Varicella) Vaccine can also be used
- 97% effective in preventing Measles when 2 doses are received, 93% after one dose
- Adults who have no proof of immunity:
  - Increased risk of measles (i.e. attending college, traveling internationally, or working in a hospital)
  - Born in 1957 or later

<p>Infants under 12 months old who are traveling</p>	<p>Children over 12 months old</p>	<p>Teens and adults with no evidence of immunity*</p>
<ul style="list-style-type: none"> <li>• Get an early dose at 6 through 11 months</li> <li>• Follow the recommended schedule and get another dose at 12 through 15 months and a final dose at 4 through 6 years</li> </ul>	<ul style="list-style-type: none"> <li>• Get first dose immediately</li> <li>• Get second dose 28 days after first dose</li> </ul>	<ul style="list-style-type: none"> <li>• Get first dose immediately</li> <li>• Get second dose 28 days after first dose</li> </ul>

	First Dose	Second Dose
Children*	Age 12-15 months	Age 4-6 years
Teenagers and adults with no evidence of immunity**	As soon as possible	N/A

# Vaccination Schedule

## Routine schedule:

- Infants age 12-15 months- one dose of MMR
- Children ages 4-6 years- dose 2

## Special Situation:

- Infants age 6-11 months – one dose of MMR
- Children ages 12 months and older, adolescents, and adults with no prior record of immunity – 2 doses of MMR
- Traveling internationally or to an area experiencing a measles outbreak (if no prior record of immunization)

[Child Immunization Schedule Notes | CDC](#)

# Timing of Administration: Live Vaccines

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Two live vaccines (e.g., MMR and Varicella) must be administered either on the same day or separated by at least 4 weeks



If spacing is not correct, the vaccine dose can be deemed invalid and the dose may need to be repeated



For more information and specifics regarding scheduling vaccines, please visit the following link: [Scheduling Vaccines Archives | Immunize.org](#)

# Proof of Immunity



Proof of measles vaccinations



Lab tests showing evidence of immunity (positive titer)



Lab test showing you've had measles in the past

# Statistics

CDC has identified 97 measles cases since the beginning of this year (as of March 28<sup>th</sup>, 2024) and include the following states: AZ, CA, FL, GA, IL, IN, LA, MD, MI, MN, MO, NJ, NY, OH, PA, VA, WA.

\*Please refer to the following link for the most up-to-date data, as the CDC updates this page weekly: [CDC Measles Cases and Outbreaks](#)

Affects 9 out of 10 unvaccinated individuals who come in contact with the disease

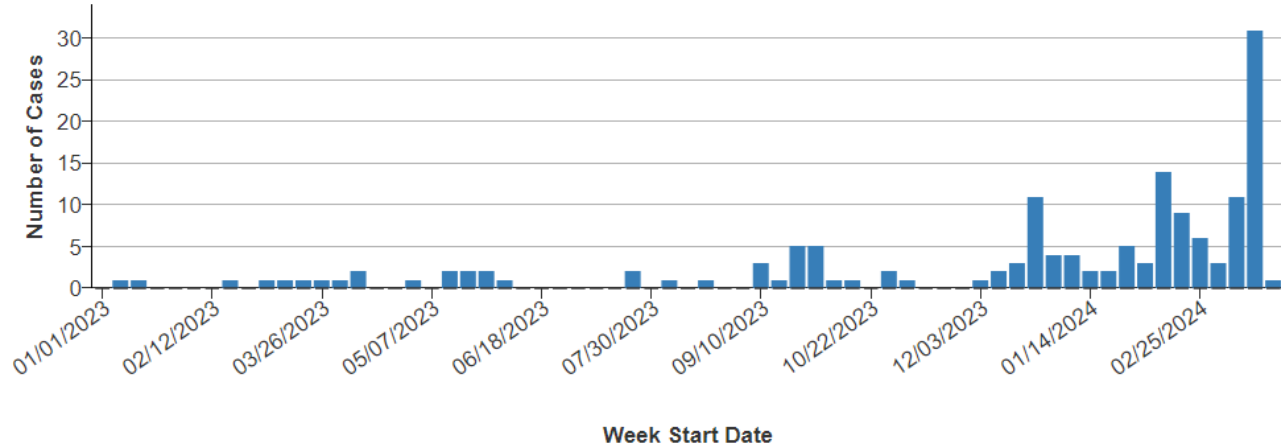
In the state of Hawaii, routine childhood vaccination rates have decreased by almost 10% based on data from 2021-2022 (95%) and 2022-2023 (86.4%), which is lower than the national average of 93.1%

Most cases were among children and adolescents who have not received either the MMR or MMRV vaccine.

94% were linked to international travel

### Number of measles cases reported by week

2023-2024\* (as of March 28, 2024)



# If a Patient is Suspected of Measles:

Isolate	Notify	Test	Manage	Vaccinate
<p>Isolate patients with suspected measles and keep away from other individuals in the healthcare facility.</p>	<p>Immediately notify the HDOH about any suspected cases of measles. HDOH will then report any cases to the CDC or report directly by emailing the CDC at <a href="mailto:measlesreport@cdc.gov">measlesreport@cdc.gov</a></p>	<p>Test via nasal or throat swab for a PCR test, in addition to a blood specimen.</p>	<p>Manage by providing a measles post-exposure prophylaxis (PEP) to close contacts with no evidence of immunity.</p>	<p>Ensure all patients are up-to-date on measles vaccines, especially prior to international travel.</p>

# Reporting in Hawaii

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1. **Be alert for cases of measles.** Consider measles in any patient with fever and morbilliform rash, especially in people with known exposure to a case of measles, with recent international travel or with exposure to a visitor from abroad or a US resident who has recently returned from international travel.
2. **Implement airborne precautions immediately** for all patients with fever and morbilliform and/or vesicular rash: identify, isolate, and provide a face mask for the patient to wear.
3. **Immediately report suspect cases** to the Hawaii Department of Health (HDOH)
4. **Coordinate diagnostic testing** of suspected cases with HDOH. Serologic testing for measles IgM is commercially available. Nasopharyngeal or throat swabs and urine specimens can be tested by PCR at the State Laboratories Division (SLD). Disease Outbreak Control Division (DOCD) approval is required before submission of specimens to SLD.
5. **Assess MMR status of your patients** and recall susceptible children to receive MMR vaccination according to routine MMR recommendations.

## Disease Reporting Contact List

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Measles is an URGENT CATEGORY NOTIFIABLE CONDITION. Please report any suspected cases of measles. Do NOT wait for laboratory confirmation:

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Oahu (Disease Reporting Line) .....(808) 586-4586

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Maui District Health Office .....(808) 984-8213

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Kauai District Health Office .....(808) 241-3563

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Big Island District Health Office (Hilo) .....(808) 933-0912

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Big Island District Health Office (Kona) .....(808) 322-4877

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After hours on Oahu .....(808) 600-3625

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After hours on neighbor islands .....(800) 360-2575 (toll free)

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# Resources

- [Global Measles Outbreaks \(cdc.gov\)](#)
- [Global Travel Notices](#)
- [Vaccine Schedule: Vaccination Guidelines | Disease Outbreak Control Division \(hawaii.gov\)](#)
- [Notify CDC: National Notifiable Diseases Surveillance System \(NNDSS\)](#)
- [Measles Mumps Rubella \(MMR\) \(cdc.gov\)](#)
- [Measles Cases and Outbreaks | CDC](#)
- [Measles | Red Book: 2021–2024 Report of the Committee on Infectious Diseases | Red Book Online | American Academy of Pediatrics \(aap.org\)](#)
- [You searched for measles | Immunize.org](#)

# Questions?

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For HIR technical/login issues please contact Registry Help Desk at (808) 586-4665, 1-888-447-1023 (toll-free), or [registryhelp@doh.hawaii.gov](mailto:registryhelp@doh.hawaii.gov)

For Immunization Clinical Consultation, please call the Hawai'i Immunization Branch at (808)286-8349

For any VFC-related questions/concerns, feel free to contact any member of our VFC QA Team

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