Measles in the U.S. in 2019

NCIRD Childhood Immunization Communication Partner Call
March 28, 2019

Sarah Poser
Health Communication Specialist
Division of Viral Diseases, CDC
Overview

- Measles clinical picture
- Measles in the U.S.
- Measles worldwide
- Cases and outbreaks in the U.S. this year compared to past years
- How CDC assists with responding to measles cases and outbreaks
- CDC key messages about measles
- CDC resources/materials to share
About Measles

- Acute viral illness with prodrome of fever, malaise, cough, coryza (runny nose), and conjunctivitis, followed by maculopapular rash
- Potential complications: pneumonia, encephalitis, and death
- Measles is highly infectious
- Average incubation period (between exposure and rash onset): 14 days (range, 7-21 days)
- Before the U.S. measles vaccination program started in 1963, each year in the U.S.
  - 3–4 million people got measles
  - 400–500 of them died
  - 48,000 were hospitalized
  - 4,000 developed encephalitis because of measles
In 2000, endemic measles was declared “eliminated” from the U.S. (absence of continuous disease transmission for greater than 12 months)

Importation of measles will continue to occur as measles is endemic in many other parts of the world.

Measles cases are still reported in the U.S., including among adults
- Most cases related to travelers who bring measles back from overseas (2/3 from unvaccinated U.S. residents, 1/3 from unvaccinated foreign visitors)

2 doses of MMR (measles-mumps-rubella) vaccine are 97% effective at preventing measles; 1 dose is 93% effective. Protection lasts for life.

The majority of people who get measles are unvaccinated.
Number of Reported Measles Cases Globally (6-month period)

<table>
<thead>
<tr>
<th>Country</th>
<th>Cases</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ukraine</td>
<td>30148</td>
</tr>
<tr>
<td>India</td>
<td>12520</td>
</tr>
<tr>
<td>Madagascar</td>
<td>12038</td>
</tr>
<tr>
<td>Philippines</td>
<td>9585</td>
</tr>
<tr>
<td>Brazil</td>
<td>9581</td>
</tr>
<tr>
<td>Pakistan</td>
<td>6796</td>
</tr>
<tr>
<td>Venezuela (Bolivarian Republic)</td>
<td>5643</td>
</tr>
<tr>
<td>Yemen</td>
<td>5158</td>
</tr>
<tr>
<td>Thailand</td>
<td>4242</td>
</tr>
<tr>
<td>Israel</td>
<td>2764</td>
</tr>
</tbody>
</table>

Notes: Based on data received 2019-02 - Surveillance data from 2018-07 to 2018-12 - * Countries with highest number of cases for the period
As of March 21, 2019, 314 cases have been reported in 15 states.
Six outbreaks (defined as 3 or more cases) currently occurring in the following jurisdictions:
- New York State, Rockland County
- New York City
- Washington
- Illinois
- California
- Texas

These outbreaks are linked to travelers who brought measles back from other countries such as Israel, Ukraine, and the Philippines, where large measles outbreaks are occurring.

Make sure you are vaccinated against measles before traveling internationally.
In a given year, more measles cases can occur for any of the following reasons:

- an increase in the number of travelers who get measles abroad and bring it into the U.S., and/or
- further spread of measles in U.S. communities with pockets of unvaccinated people.

Measles Cases and Outbreaks. [https://www.cdc.gov/measles/cases-outbreaks.html](https://www.cdc.gov/measles/cases-outbreaks.html)

Two 2019 Outbreaks Ongoing from 2018

Rockland County, NY:
- From October 1, 2018 to present, 166 cases of measles
- Connected to travelers from Israel, where a large measles outbreak is occurring
  - Have been about 7 separate importations to fuel this outbreak
- Rockland County declared a state of emergency on Tuesday

New York City:
- From September 30, 2018 to present, 192 cases of measles
- Also connected to travelers from Israel

- Longest ongoing outbreaks since measles was eliminated in 2000
Another large outbreak in 2019

Clark County, WA:

- From January 1 to present, 79 cases of measles
- Occurring in a group known to refuse vaccines
- Connected to travelers from Ukraine, where a large outbreak is occurring
- Washington declared a state of emergency on January 25 to aid Clark County
- State legislature passed a bill that banned personal and philosophical exemptions for the measles vaccine.
CDC’s Role in Measles Cases and Outbreaks

- State and local health departments have the lead in investigating measles cases and outbreaks when they occur.
- CDC helps and supports health departments in these investigations by—
  - communicating with public health officials from states with reported measles cases and providing technical assistance.
  - gathering data reported by states on confirmed measles cases and evaluating and monitoring these data from a national perspective.
  - testing specimens for difficult diagnostic cases of suspected measles infection when requested by states.
  - using Advanced Molecular Detection (AMD) methods to determine measles virus genotypes and strains.
  - providing rapid assistance on the ground during outbreak investigations, often through a formal request by the state health department.
  - investing in state and local health departments for public health infrastructure and laboratory capacity to support front-line response to suspected and confirmed measles cases.
  - alerting clinicians, healthcare facilities, and public health officials around the country about current outbreaks and providing vaccine policy and clinical guidance for healthcare providers.
  - providing information to public and healthcare providers through a variety of media including the CDC website.
Two doses of MMR (measles-mumps-rubella) vaccine are 97% effective at protecting against measles.

MMR vaccine protects you and people who are unable to be vaccinated because they are too young or have weakened immune systems.

Make sure you and your family are up to date on measles vaccination at least 4 weeks before you travel internationally.

- Measles remains a common disease in many parts of the world.
- Anyone who is not protected against measles is at risk of getting infected when they travel internationally.

Vaccination is the Best Protection Against Measles
Who Should Get Vaccinated

- **Children**
  - First dose at 12 through 15 months of age
  - Second dose at 4 through 6 years of age

- **Students at post-high school educational institutions with no evidence of immunity**
  - Two doses separated by at least 28 days

- **Adults born after 1957 with no evidence of immunity**
  - At least one dose

- **International travelers with no evidence of immunity**
  - Infants 6 through 11 months of age: one dose
  - Children 12 months of age and older (including teenagers and adults): two doses separated by at least 28 days

- **Healthcare workers with no evidence of immunity**
  - Two doses separated by at least 28 days

* Acceptable presumptive evidence of immunity against measles includes at least one of the following: written documentation of adequate vaccination, laboratory evidence of immunity, laboratory confirmation of measles, or birth in the United States before 1957.
CDC Measles Resources

- **FAQ about measles in the U.S.**
  - Web page with answers to common questions

- **Measles: It Isn’t Just a Little Rash**
  - Infographic for parents

- **Protect Your Child from Measles**
  - Infographic about travel vaccine recommendations

- **Measles travel webpage**
  - Lists travel notices and travel vaccine recommendations

- **Measles cases and outbreaks webpage**
  - Updated weekly on Mondays with data on cases and outbreaks

**For Healthcare Professionals**

- **Vaccine Surveillance Manual: Ch 7, Measles**
  - Provides current guidelines for those directly involved in surveillance of vaccine-preventable diseases, especially personnel at the local health departments

www.cdc.gov/measles/resources
Thank you! Questions?

CDC DVD Communications: DVDCommunications@cdc.gov

For more information, contact CDC
1-800-CDC-INFO (232-4636)

The findings and conclusions in this report are those of the authors and do not necessarily represent the official position of the Centers for Disease Control and Prevention.

Photographs and images included in this presentation are licensed solely for CDC/NCIRD online and presentation use. No rights are implied or extended for use in printing or any use by other CDC CIOs or any external audiences.