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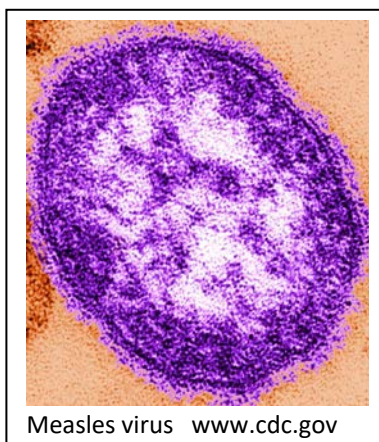
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Measles in Washington, 2019

Once a near-universal childhood infection, measles rapidly declined in incidence after the introduction of routine measles/mumps/rubella (MMR) vaccination in 1971 and the recommendation for a second routine dose in 1989. A record low annual total of 37 cases nationwide was reported in 2004. Occasional outbreaks occurred from 2005 - 2014 but were typically small. In 2014 - 2015 Washington had four outbreaks of measles for a total of 43 cases. In 2019, both Washington and the United States are experiencing a resurgence in measles.

Background

Measles is one of the most highly contagious human infections. An infected person becomes contagious when only early symptoms of cough, red eyes, and runny nose are present. The measles virus is shed through coughing and the aerosols can travel over six feet. The virus remains infectious in suspended airborne particles for up to two hours after a patient leaves an air space, which is why examination rooms are closed for two hours after being used to examine a case of suspected measles.



While most infections with measles resolve without complications, about a quarter of cases will be hospitalized. Complications include pneumonia and seizures. About one in a thousand cases results in an acute encephalitis which can be fatal. In addition a rare delayed complication, subacute sclerosing panencephalitis or SSPE, can occur years after the initial infection and has a fatal outcome.



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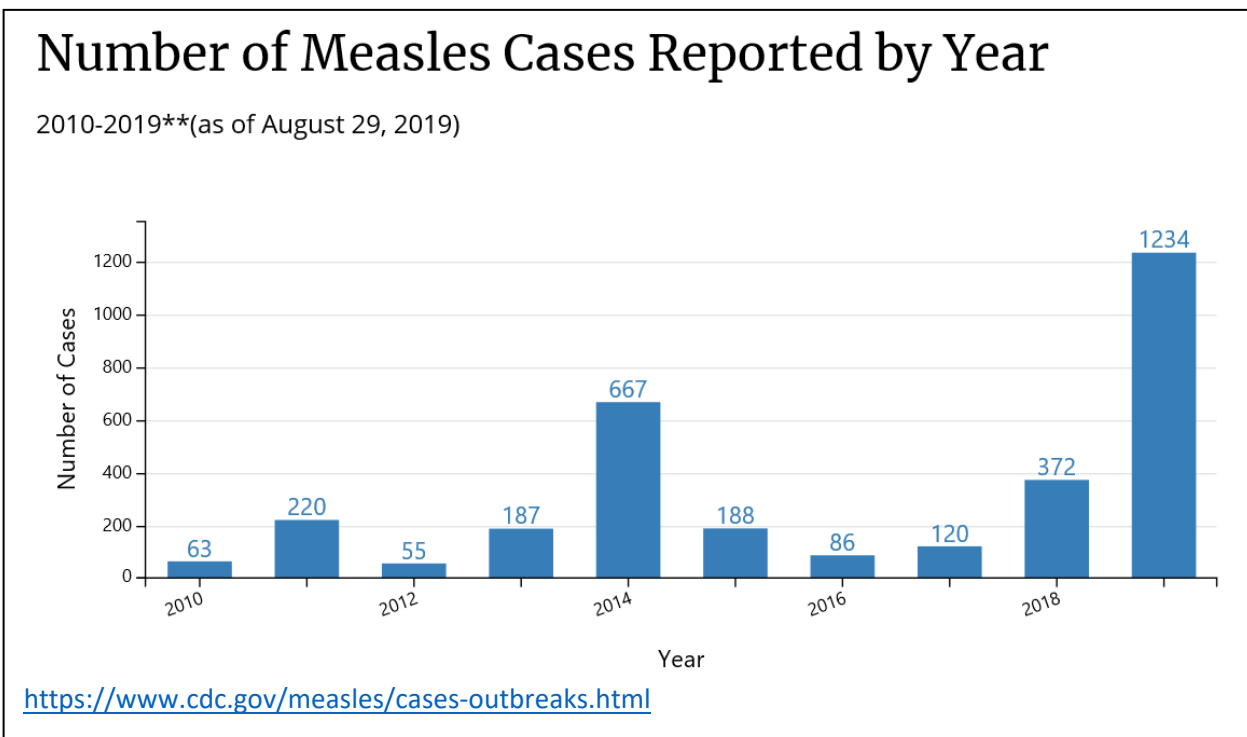
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Measles remains common in many parts of the world, but routine childhood vaccination so greatly reduced the incidence of the disease in the United States that endemic transmission of the disease was declared eliminated in 2000. Periodic cases continued to occur due to reintroductions of the virus by visitors or returning travelers exposed in other countries where measles continued to occur at high levels. Case counts in our state and the rest of the country remained low through the early years of this century until 2018, including several years where Washington had no reported measles cases. However, in the past year there have been both national and local measles outbreaks.

National Outbreaks in 2019

The Centers for Disease Control and Prevention report a record number of measles cases in 2019 compared to the prior decades. Through August 29th, over 1,200 cases have been reported nationally. A majority of states have reported at least one case, and outbreaks have occurred in four states: New York (several counties), Washington (Clark, King, Pierce and Snohomish counties), California (Los Angeles County) and Texas (El Paso). The outbreaks all originated from travelers who returned infected from countries where ongoing large measles outbreaks are occurring, including Israel, Ukraine, and the Philippines, with subsequent local transmission.



In all the recent outbreaks in this country, the majority of measles cases have been among persons who had not been vaccinated. If ongoing outbreaks continue for at least a year, the United States could lose the measles elimination status which it gained in 2000.

Washington Outbreaks in 2019

Washington has had two large measles outbreaks during 2019. There have been a total of 86 cases in 2019, compared with 0 to 33 cases annually during the previous two decades. The first outbreak occurred January through April with 72 confirmed cases. The second outbreak started

May 9th and was declared over August 28th. These outbreaks have differed in initial source of the virus, pattern of transmission, and public health responses.

An outbreak of measles in Clark County was recognized in early 2019. Cases were mostly in unvaccinated children (72% of cases were aged 10 years and under) and exposures occurred within a defined community. Genotyping identified the virus as D8, matching a strain currently circulating in a large measles outbreak underway in the Ukraine. The Clark County outbreak was declared over in April after intensive public health interventions, including telephone interviews for over 4000 close contacts which resulted in many school exclusions, quarantine of exposed susceptible individuals, and active monitoring for dozens of people.

At the end of April, Puget Sound counties identified an outbreak of measles due to a different strain than the one which caused the Clark County outbreak. Exposures for the first seven Washington cases occurred on a single day at SeaTac International Airport; additional out-of-state cases who reported air travel on that date were later identified, and the links were confirmed via genetic testing. The outbreak associated with SeaTac extended through August. Unlike the Clark County outbreak, where cases were mostly children, measles in this outbreak occurred mostly in adults who were exposed in public settings. However, quick and thorough investigation efforts by several local health jurisdictions and community partners likely prevented further public exposures which could have resulted in additional cases.

Among all 2019 confirmed measles cases with known vaccination status, 66 (88%) had no vaccine doses and only four (5%) were fully vaccinated. Maintaining a high vaccination level is essential for preventing future outbreaks of measles in our state. CDC has issued a global travel watch reminding travelers to be fully protected against measles. Prompt public health response, through rapid case investigations, as well as school exclusion, quarantine and monitoring of exposed persons, are essential for preventing measles cases from occurring following international introduction and for controlling measles when outbreaks develop.

Vaccination status (confirmed cases) *	Total
0 doses	66
1 dose	5
2 or more doses	4
Unknown	11
Other documented evidence of immunity	0

** Doses refers to doses of measles-containing vaccine received*

Resources

Measles Guideline, Washington

<https://www.doh.wa.gov/Portals/1/Documents/5100/420-063-Guideline-Measles.pdf>

Measles in Washington, 2019

<https://www.doh.wa.gov/YouandYourFamily/IllnessandDisease/Measles/Measles2019>

Measles in the United States, 2019

<https://www.cdc.gov/measles/cases-outbreaks.html>

Global travel watch

<https://wwwnc.cdc.gov/travel/notices/watch/measles-global>