Update on Multi-state Outbreak of Vaping-Associated Pulmonary Illnesses

The national outbreak of severe pulmonary illnesses associated with vaping continues to evolve, and the investigation is ongoing. In light of the growing number of cases and the ongoing investigation to determine the cause, the Oregon Health Authority is warning all Oregonians not to use vaping products or e-cigarettes.

On October 4, Governor Kate Brown has issued an executive order, directing state agencies to enact a temporary ban (180 days) on the sale of flavored vaping products, as well as other sources or additives as they are identified in cases of vaping-related injury or death. This order also directs the Oregon Health Authority and the Oregon Liquor Control Commission to develop legislative proposals for long-term solutions for consideration.

As of October 3, 2019, the Centers for Disease Control and Prevention (CDC) reported 1,080 cases from 48 states and 1 territory, and 18 deaths have been confirmed in 15 states. This includes the second death that occurred in Oregon.

No specific vaping product or ingredient has yet been definitively identified as a cause of the illnesses; The Food and Drug Administration’s (FDA) Forensic Chemistry Center is testing vaping products from cases around the U.S. to determine which specific products or ingredients may be the cause. All cases in Oregon reported vaping cannabis products.

Advise patients not to vape. If they smoke or vape, we urge them to quit now. Free help is available at 1- 888-QUIT-NOW or www.quitnow.net/oregon, including text-to-quit resources. Those who want to quit cannabis can call 1-800-662-HELP. Switching to combustible products is not safer.

Reporting Potential Cases to the Oregon Health Authority Public Health Division

OHA and Jackson County Public Health still need your help in identifying cases. If you see cases of severe pulmonary illness without an alternate explanation, please ask about vaping of any substance in the 90 days before illness onset. Please report to Oregon Health Authority Public Health Division immediately any case of illness meeting all of the following criteria: hospitalized patient; history of vaping of any substance in the preceding 90 days; and radiographic finding of pulmonary infiltrates (opacities on chest x-ray or ground-glass appearance on chest CT).

OHA is collecting leftover used vaping products and devices from patients who are willing to surrender them for FDA testing. Please encourage patients and their...
families to retain any vaping materials that were used preceding the patient’s symptom onset. OHA will coordinate pickup and transfer of vaping materials for testing by the FDA.

**Call 971-673-1111 (option 3) to report cases.** We will keep you apprised of developments in this evolving situation. Thank you for your assistance as we work to protect the health of Oregonians.

For more information about OHA’s investigation, visit [healthoregon.org/acd](http://healthoregon.org/acd)

Interim Guidance from CDC, visit [https://www.cdc.gov/mmwr/volumes/68/wr/mm6836e2.htm?s_cid=mm6836e2_w#suggestedcitation](https://www.cdc.gov/mmwr/volumes/68/wr/mm6836e2.htm?s_cid=mm6836e2_w#suggestedcitation)

**U.S. Measles Elimination Status**

The World Health Organization defines measles elimination as “the absence of endemic measles virus transmission in a defined geographical area (e.g. region or country) for at least 12 months in the presence of a surveillance system that has been verified to be performing well.” If a measles outbreak continues for a year or more, the region or country could lose its measles elimination status.

In 2000, measles was declared eliminated from the United States. However, travelers continue to bring measles into the United States, and it can sometimes spread and cause outbreaks among people who are not vaccinated. The U.S was at risk of losing its measles elimination status if the outbreak in New York state was not stopped by October 2, 2019. New York State Health Department was able to pass two incubation periods for measles with no additional reported cases associated with the outbreaks and declared the end of their outbreak on October 3, 2019.

Achieving measles elimination status and maintaining it for 19 years was a historic public health achievement that required a significant investment of people, time and resources. Reestablishing elimination in the United States would take time and resources.

**Measles Cases in 2019**

From January 1 to September 26, 2019, 1,243 individual cases of measles have been confirmed in 31 states. This is the greatest number of cases reported in the United States since 1992. The majority of the cases are among people who were not vaccinated against measles. There have been 131 hospitalizations from people who had measles and 65 people reported having complications, including pneumonia and encephalitis.

As of August 2019, Oregon has had 24 confirmed cases of measles. This is the greatest number of cases reported in Oregon since 1991.

**New York State**

On October 1, 2018, a U.S. resident who had recently traveled to Israel developed a measles rash after returning to New York. The disease then spread to other people
in their close-knit, under-vaccinated community. Over the course of a year, additional travelers brought measles back to the community and infected others.

More than 400 cases have occurred as part of this outbreak. The number of weekly cases peaked in November 2018 and again in March/April 2019, and has since decreased dramatically.

**Number of Measles Cases Reported by Year**

![Number of Measles Cases Reported by Year](image)

If you suspect measles, do the following immediately:

1. Promptly mask and isolate patients (in a negative-pressure room, if possible) to avoid disease transmission.
2. Immediately report the suspect measles case to Jackson County Public Health
   a. **Call Jackson County Public Health’s Communicable Disease Department immediately** by calling the 24-hour phone line at 541-618-4651.
   b. If possible, it is useful to obtain pictures of the rash, as they can be used when consulting with an Infectious Disease Doctor or Jackson County’s Health Officer.
3. Obtain specimens for testing from patients with suspected measles, including viral specimens. Persons suspected to have measles should have a serum drawn for serology and specimens collected for PCR at the time of the first health care provider visit. **All labs for measles must be coordinated through Jackson County Public Health.**

Measles is a preventable disease and the best protection against measles is the measles-mumps-rubella vaccine, known as the MMR. The measles vaccine is very effective. One dose of the measles vaccine is about 93 percent effective at preventing measles. Two doses are about 97 percent effective.

Jackson County Public Health is recommending that now is a great time for all families to take action by reviewing their vaccination records and be sure that everyone is up to date and has completed the vaccination series for measles.
Flu Season

Timing of Vaccination
Balancing considerations regarding the unpredictability of timing of onset of the influenza season and concerns that vaccine-induced immunity might wane over the course of a season, it is recommended that vaccination should be offered by the end of October. Children aged 6 months through 8 years who require 2 doses should receive their first dose as soon as possible after the vaccine becomes available to allow the second dose (which must be administered ≥4 weeks later) to be received by the end of October.

Vaccination efforts should continue throughout the season because the duration of the influenza season varies, and influenza activity might not occur in certain communities until February or March. Providers should offer influenza vaccine routinely, and organized vaccination campaigns should continue throughout the influenza season, including after influenza activity has begun in the community. Although vaccination by the end of October is recommended, vaccine administered in December or later, even if influenza activity has already begun, might be beneficial in the majority of influenza seasons.

Flu Vaccine Effectiveness
At least two factors play an important role in determining the likelihood that flu vaccines will protect a person from flu illness: 1) characteristics of the person being vaccinated (such as their age and health), and 2) the similarity or “match” between the flu viruses in the vaccine and those spreading in the community. Another factor that can impact vaccine effectiveness, especially against influenza A(H3N2) viruses, are changes that can occur in vaccine viruses as they are grown in eggs, which is the production method for most current flu vaccines. Because of these factors, there is always the possibility of a less than optimal match between circulating flu viruses and the viruses in a flu vaccine.

Recent studies by CDC researchers and other researchers suggest that flu vaccination usually reduces the risk of influenza illness by 40% to 60% among the overall population when the vaccine viruses are like the ones spreading in the community.

2017-2018 Flu Season Burden Estimates
CDC estimates that influenza was associated with more than 37.4–42.9 million illnesses, more than 17.3 – 20.1 million medical visits, 531,000 – 647,000 hospitalizations, and 36,400 – 61,000 deaths during the 2018–2019 influenza season.

“The mission of Jackson County Health and Human Services is to plan, coordinate and provide public services that protect and promote the health and well-being of county residents.
REFERENCES


