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To: Wisconsin Healthcare Providers, Infection Preventionists, Local Health Departments, and Tribal Health Agencies

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Severe Pulmonary Disease Among Persons who Reported Vaping

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During July 2019, the Wisconsin Department of Health Services (DHS) received reports of severe pulmonary disease among adolescents. We later confirmed cases in older age groups. As of September 4, 2019, there are 18 confirmed cases and 16 other patients with probable disease including both teenagers and adults. We have confirmed cases in 15 counties throughout Wisconsin. For the most up-to-date case information, visit dhs.wisconsin.gov/outbreaks.

Patients in this cluster presented with respiratory symptoms including cough, shortness of breath, and chest tightness. Symptoms worsened over a period of days to several weeks before admission to the hospital. Patients also described gastrointestinal symptoms, such as abdominal pain and diarrhea, and general symptoms such as subjective fever, chills, and weight loss. Most chest radiographs showed bilateral opacities and CT imaging of the chest characteristically showed diffuse ground-glass opacities. Evaluation for infectious etiologies was negative in almost all patients. Some patients had progressive respiratory compromise requiring mechanical ventilation but subsequently improved with systemic steroids. Further information for clinicians can be found in the recent [CDC Health Advisory](#).

DHS is still investigating the possible cause of these illnesses. All patients reported e-cigarette use or "vaping" in the days to weeks prior to hospital admission. Although a wide range of products have been described, most patients reported vaping THC-containing products. Clinicians are encouraged to remain alert for potential cases among persons presenting with progressive respiratory symptoms who report a history of e-cigarette use, particularly with THC-containing products.

Clinicians who become aware of cases similar to those described above are encouraged to report them to their local public health officer. DHS is actively tracking cases, and clinician assistance is appreciated to determine the scope and cause of this disease cluster. For questions, please contact the Bureau of Environmental and Occupational Health at 608-266-1120.