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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 Adolescents who Reported Vaping

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During July 2019, 8 cases of severe pulmonary disease among adolescents were reported to the Wisconsin Department of Health Services (DHS). Patients resided in the counties of Milwaukee, Waukesha, and Winnebago and presented with respiratory symptoms including cough, shortness of breath, and fatigue. Symptoms worsened over a period of days or weeks before admission to the hospital. Other symptoms reported by some patients included fever, anorexia, pleuritic chest pain, nausea, and diarrhea. Chest radiographs showed bilateral opacities, typically in the lower lobes, and CT imaging of the chest showed diffuse ground-glass opacities, often with subpleural sparing. Evaluation for infectious etiologies was negative in all patients. Some patients had progressive respiratory compromise requiring endotracheal intubation but subsequently improved with systemic steroids.

DHS is currently investigating the possible cause of these illnesses. All patients reported vaping in the weeks and months prior to hospital admission. The names and types of products used remain unknown, and patient interviews are ongoing. Clinicians are encouraged to remain alert for potential cases among persons presenting with progressive respiratory symptoms who report a history of inhalation drug use, particularly vaping.

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 Megan Elderbrook in the Bureau of Environmental and Occupational Health at 608-266-1120 during business hours.