SEVERE PULMONARY DISEASE ASSOCIATED WITH E-CIGARETTE USE OUTBREAK

CASE INTERVIEW SHORT FORM (CDC)

August 27, 2019

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Interview Form

INTERVIEW DETAILS ***[TO BE COMPLETED BY PUBLIC HEALTH DEPARTMENT PERSONNEL PRIOR TO INTERVIEW]***	
Patient or proxy (parent/guardian) interview?	o Yes o No
TRACKING ***[TO BE COMPLETED BY PUBLIC HEALTH DEPARTMENT PERSONNEL PRIOR TO INTERVIEW]***	
CDC CASE ID (deidentified)	
INTERVIEW ATTEMPT INFORMATION ***[TO BE COMPLETED BY PUBLIC HEALTH DEPARTMENT PERSONNEL PRIOR TO INTERVIEW]***	
Patient refused interview or was lost to follow-up	o Yes o No
*****BEGIN INTERVIEW HERE*****	
Suggested script: Please read the following script if you are able to reach the patient or a proxy for an interview: *I'm calling from the [jurisdiction] Health Department. I'm calling because you might be part of a group of people who have gotten sick after vaping.* Vaping includes the use of electronic devices that can vaporize a combination of nicotine, flavors, and/or other substances (e.g. marijuana, THC, THC concentrates, CBD, synthetic cannabinoids) for inhalation. Examples of these devices include electronic cigarettes or e-cigarettes, such as JUUL, SMOK, Suorin, Vuse, or blu. You also may know them as vapes, mods, e-cigs, e-hookahs, vape-pens, or some other electronic vapor product. *Most people who have gotten sick have been hospitalized overnight with several ending up in the intensive care unit. We are working with hospitals, doctors and other health departments to try to understand what is causing this illness so that we can keep other people from getting sick. We heard about your illness from your health care provider. We would like to learn more about your symptoms and to understand if something you vaped might have made you sick. Do you have a few minutes to share your experience with this illness?* *Your responses will help us better understand what may be causing illness.*	
PATIENT DEMOGRAPHICS	
Sex	o Male o Female
How do you describe your ethnicity?	o Hispanic or Latino o Not Hispanic or Latino
How do you describe your race? (select all that apply)	o White o Black or African American o American Indian or Alaska Native

	o Asian o Native Hawaiian or Other Pacific Islander
Age (in years)	
ILLNESS HISTORY	
When did symptoms start (when did you first begin to feel ill)? Date: (DD/MM/YYYY) Time: (HH:MM AM/PM) if available	
What symptoms have you experienced since first becoming ill **(select all that apply)?**	
Shortness of breath	o Yes o No o Unknown
Chest pain	o Yes o No o Unknown
Pain on breathing in	o Yes o No o Unknown
Fever	o Yes o No o Unknown
Cough	o Yes o No o Unknown
Headache	o Yes o No o Unknown
Nausea	o Yes o No o Unknown
Vomiting	o Yes o No o Unknown
Diarrhea or loose stools	o Yes o No o Unknown
Abdominal pain	o Yes o No

	o Unknown
Other symptoms (open-ended)?	o Yes o No o Unknown
[IF YES] Please list other symptom(s)	
Which symptom began first?	
Do you have any thoughts about why you may have become ill?	
Do you have any underlying medical conditions [*prompt: asthma, COPD or other lung condition, heart disease*]?	o Yes o No
[IF YES] Please list	
JOB/SCHOOL	
Do you have a job?	o Yes o No
[IF YES] What is your occupation or job function?	_____
Have you ever worked in a job in which you were regularly exposed to any of the following: coal, beryllium, silica, asbestos, or pesticides?	o Yes o No o Unsure
[IF YES] Specify	_____

VAPING PRODUCTS

The next several questions are about vaping or e-cigarette use, such as JUUL, SMOK, Suorin, Vuse, or blu. You also may know them as vapes, vaporizers, mods, e-cigs, e-hookahs, dab pens, rigs, vape-pens, or electronic nicotine delivery systems (ENDS).

Please consider the vaping of any substance (e.g., nicotine, marijuana, CBD, synthetic cannabinoids, flavors or other substances).

[Repeat questions as necessary for each product/device or substance used in the past 3 months before symptoms began.]

Did you vape or use e-cigarettes in the past 3 months before symptoms began [Y/N]?

IF YES:

What type of device(s) did you use within the past 3 months before symptoms started (select all that apply)?

- Disposable e-cigarette or vape [Y/N]
- E-cigarette or vape with pods or cartridges [Y/N]
- E-cigarette or vape with a tank that you refill with liquids (including mod or modifiable systems) [Y/N]
- Vaporizer [Y/N]
- Sub-ohm devices [Y/N]
- Other (specify): _____

- Don't know

What substances did you use within the past 3 months before symptoms started (select all that apply)?

- nicotine [Y/N]
  - [IF YES] Strength? _____
  - [IF YES] free-base nicotine? [Y/N]
  - [IF YES] nicotine salts? [Y/N]
- Marijuana, THC, THC concentrates, hash oil, wax [Y/N]
- Dank vapes [Y/N]
- Synthetic cannabinoids (e.g., K2 or Spice) [Y/N]
- CBD or CBD oil [Y/N]
- flavors [Y/N]
- something else (specify): _____]
- Don't know

For each substance that you used in the 3 months before symptoms started, when was the date of last use before symptoms started?

	Date of last use (MM/DD/YYYY)
Nicotine (free-base or nicotine salts) *Check if not used: [ ]*	
Marijuana, THC, THC concentrates (e.g., dabs, dab wax, dab cards), hash oil, wax *Check if not used: [ ]*	
Dank vapes *Check if not used: [ ]*	
Synthetic cannabinoids (e.g., K2 or Spice) *Check if not used: [ ]*	
CBD or CBD oil *Check if not used: [ ]*	
Flavors *Check if not used: [ ]*	
Something else *Check if not used: [ ]*	

What brand(s) did you use within the past 3 months before symptoms started? Be as specific as possible for each product currently used. _____
What flavor(s) did you use within the past 3 months before symptoms started? Be as specific as possible for each product currently used. _____

Have you dabbed within the past 3 months before symptom onset? [Y/N]

[IF YES for dabbing] What do you dab?: _____

[IF YES for dabbing] How do you dab?: _____

Did you use pre-filled cartridges or pods of vaping liquid within the past 3 months before symptoms started? [Y/N]

[IF YES]: Describe pre-filled cartridge (Brand, Type):_____

[IF YES]: What substance(s) are contained in these pre-filled cartridges or pods?

- nicotine [Y/N]
  - [IF YES] free-base nicotine? [Y/N]
  - [IF YES] nicotine salts? [Y/N]
- Marijuana, THC, THC concentrates, hash oil, wax [Y/N]
- Dank vapes [Y/N]
- Synthetic cannabinoids (e.g., K2 or Spice) [Y/N]
- CBD or CBD oil [Y/N]
- flavors [Y/N]
- something else (specify): _____

[IF YES]: Have you ever added any substance to a prefilled cartridge? [Y/N]

[IF YES]: What have you added to your cartridge?: _____

In the 3 months before symptoms started, did you ever hacked or modified your vaping device or liquid cartridge in any way [Y/N]?

[IF YES] Please describe: _____

In the 3 months before symptoms started did you buy e-juice, e-liquid or vaping liquid to put in your device [Y/N]?

[IF YES]: What e-liquid or liquid do you use (include brand, substance used):

_____

In the 3 months before symptoms started, did you make or mix your own e-liquid, e-juice, or vaping liquid [Y/N]?

[IF YES]: What ingredients did you use?: _____

For each substance that you vaped in the 3 months before symptoms started, how frequently did you use this substance?

	Never	Monthly or less	2-4 times per month	2-3 times per week	4-6 times per week	Daily
Nicotine (free-base or nicotine salts) *Check if not used: [ ]*						
Marijuana, THC, THC concentrates (e.g., dabs, dab wax, dab cards), hash oil, wax						

Check if not used: [ ]						
Dank vapes *Check if not used: [ ]*						
Synthetic cannabinoids (e.g., K2 or Spice) *Check if not used: [ ]*						
CBD or CBD oil *Check if not used: [ ]*						
Flavors *Check if not used: [ ]*						
Something else (if so, specify): _____ *Check if not used: [ ]*						

Please answer the following for each substance that you used in the 3 months before symptoms started.
How did you get or buy this product or substance? Please specify:

Substance	**Where purchased or obtained (please select all that apply)** **Specify details including: location, person, actual item purchased or obtained, etc.**	**Date of last purchase prior to symptom onset? (MM/DD/YYYY)**
Nicotine (free-base or nicotine salts) *Check if not used: [ ]*	• Bought it at a vape shop or dispensary [IF YES] specify details: _____ • Bought it at a different type of store (such as a convenience store, gas station, supermarket) [IF YES] specify details: _____ • Bought it at a pop-up shop [IF YES] specify details: _____ • Bought it from another person [IF YES] specify details: _____ • Bought it online [IF YES] specify details: _____ • It was given to me by another person [IF YES] specify details: _____ • Other (specify details): _____	
Marijuana, THC, THC concentrates (e.g., dabs, dab wax, dab cards), hash oil, wax *Check if not used: [ ]*	• Bought it at a vape shop or dispensary [IF YES] specify details: _____ • Bought it at a different type of store (such as a convenience store, gas station, supermarket) [IF YES] specify details: _____ • Bought it at a pop-up shop [IF YES] specify details: _____	

	• Bought it from another person [IF YES] specify details: _____ • Bought it online [IF YES] specify details: _____ • It was given to me by another person [IF YES] specify details: _____ • Other (specify details): _____	
Dank vapes *Check if not used: [ ]*	• Bought it at a vape shop or dispensary [IF YES] specify details: _____ • Bought it at a different type of store (such as a convenience store, gas station, supermarket) [IF YES] specify details: _____ • Bought it at a pop-up shop [IF YES] specify details: _____ • Bought it from another person [IF YES] specify details: _____ • Bought it online [IF YES] specify details: _____ • It was given to me by another person [IF YES] specify details: _____ • Other (specify details): _____	
Synthetic cannabinoids (e.g., K2 or Spice) *Check if not used: [ ]*	• Bought it at a vape shop or dispensary [IF YES] specify details: _____ • Bought it at a different type of store (such as a convenience store, gas station, supermarket) [IF YES] specify details: _____ • Bought it at a pop-up shop [IF YES] specify details: _____ • Bought it from another person [IF YES] specify details: _____ • Bought it online [IF YES] specify details: _____ • It was given to me by another person [IF YES] specify details: _____ • Other (specify details): _____	
CBD or CBD oil *Check if not used: [ ]*	• Bought it at a vape shop or dispensary [IF YES] specify details: _____	

	• Bought it at a different type of store (such as a convenience store, gas station, supermarket) [IF YES] specify details: _____ • Bought it at a pop-up shop [IF YES] specify details: _____ • Bought it from another person [IF YES] specify details: _____ • Bought it online [IF YES] specify details: _____ • It was given to me by another person [IF YES] specify details: _____ • Other (specify details): _____	
Flavors *Check if not used: [ ]*	• Bought it at a vape shop or dispensary [IF YES] specify details: _____ • Bought it at a different type of store (such as a convenience store, gas station, supermarket) [IF YES] specify details: _____ • Bought it at a pop-up shop [IF YES] specify details: _____ • Bought it from another person [IF YES] specify details: _____ • Bought it online [IF YES] specify details: _____ • It was given to me by another person [IF YES] specify details: _____ • Other (specify details): _____	
Something else (please specify if relevant): _____ *Check if not used: [ ]*	• Bought it at a vape shop or dispensary [IF YES] specify details: _____ • Bought it at a different type of store (such as a convenience store, gas station, supermarket) [IF YES] specify details: _____ • Bought it at a pop-up shop [IF YES] specify details: _____ • Bought it from another person [IF YES] specify details: _____ • Bought it online [IF YES] specify details: _____ • It was given to me by another person [IF YES] specify details: _____	

	• Other (specify details): _____	

Subsection: modifiable devices ("Mods"):
Now I am going to ask you about each of the vaping or e-cigarette devices you used and how you used them in the 3 months before symptoms started.
[Repeat as necessary for each mod device used in the past 3 months before symptoms began.]

Is the device modifiable ("mods")? [Y/N] E.G.: A device where you can modify voltage; whether the user is adding additional equipment such as an atomizer for "dripping;" and/or if the user is tampering with the device to change settings (e.g. exposing heating coils to "drip" liquids directly on the heating device and get a bigger cloud of aerosol, etc.)	
IF YES: What brand/type of coils did you use? _____ What brand/type of atomizer did you use? _____ Did you notice a build-up on the coil when using it? _____ What brand/type of wicks did you use? _____ In the past 3 months before symptoms started, have you cleaned your mod device? [Y/N] [IF YES] what do you use to clean your mod device? ____ Do you use for device for dripping? [Y/N]	
CHANGES IN VAPING BEHAVIORS	

In the last 3 months before symptoms started, did you change where you purchased or got your product(s)? Please answer for each product used.

	Changes in purchase? [Y/N]	**If yes, what were the changes? (specify)**
Device Used (overall)		
e-liquid, e-juice, or liquid product used (overall) *Check if not used: [ ]*		
Nicotine (free-base or nicotine salts) *Check if not used: [ ]*		
Marijuana, THC, THC concentrates (e.g., dabs, dab wax, dab cards), hash oil, wax *Check if not used: [ ]*		
Dank vapes *Check if not used: [ ]*		
Synthetic cannabinoids (e.g., K2 or Spice) *Check if not used: [ ]*		
CBD or CBD oil *Check if not used: [ ]*		

Flavors (list and complete for all): _____ _____ *Check if not used: [ ]*		
Something else (specify if relevant): _____ *Check if not used: [ ]*		

In the last 3 months before symptoms started, did you change the e-liquid, e-juice, liquid product, or device that you used? Please answer for each device or substance used.

Device/Substance	**Changes in type used? [Y/N]**	**If yes, what were the changes? (specify)**
Device Used (overall)		
e-liquid, e-juice, or liquid product used (overall) *Check if not used: [ ]*		
Nicotine (free-base or nicotine salts) *Check if not used: [ ]*		
Marijuana, THC, THC concentrates (e.g., dabs, dab wax, dab cards), hash oil, wax *Check if not used: [ ]*		
Dank vapes *Check if not used: [ ]*		
Synthetic cannabinoids (e.g., K2 or Spice) *Check if not used: [ ]*		
CBD or CBD oil *Check if not used: [ ]*		
Flavors (list and complete for all): _____ _____ *Check if not used: [ ]*		
Something else (specify if relevant): ____ *Check if not used: [ ]*		

In the last 3 months before symptoms started, did you notice any changes in taste, texture, smell, clarity, or quality of the product(s)? Please answer for each substance used.

Substance	**Notice changes in taste, texture, smell, clarity, or quality of the product [Y/N]?**	**If Yes: describe the change(s)?**
Nicotine (free-base or nicotine salts) *Check if not used: [ ]*		
Marijuana, THC, THC concentrates (e.g., dabs, dab wax, dab cards), hash oil, wax *Check if not used: [ ]*		
Dank vapes *Check if not used: [ ]*		

Synthetic cannabinoids (e.g., K2 or Spice) *Check if not used: [ ]*		
CBD or CBD oil *Check if not used: [ ]*		
Flavors (list and complete for all): _____ _____ *Check if not used: [ ]*		
Something else (specify if relevant): _____ *Check if not used: [ ]*		

In the last 3 months before symptoms started, did you notice any changes in how you feel after using the product e.g., cough, trouble breathing, dizziness, confusion, the buzz or high from use, or any other physical changes in symptoms or experiences)? Please answer for each product used.

	Changes in how you feel after using? [Y/N]	**If yes, what were the changes? (specify)**
Device Used (overall)		
e-liquid, e-juice, or liquid product used (overall) *Check if not used: [ ]*		
Nicotine (free-base or nicotine salts) *Check if not used: [ ]*		
Marijuana, THC, THC concentrates (e.g., dabs, dab wax, dab cards), hash oil, wax *Check if not used: [ ]*		
Dank vapes *Check if not used: [ ]*		
Synthetic cannabinoids (e.g., K2 or Spice) *Check if not used: [ ]*		
CBD or CBD oil *Check if not used: [ ]*		
Flavors *Check if not used: [ ]*		
Something else (if so, specify): _____ *Check if not used: [ ]*		

PRODUCT TESTING SECTION (ELECTRONIC PRODUCTS ONLY):

Do you have any device(s), substance(s), product(s), or product packaging left for any of the substances or products you used in the last 90 days (3 months)?	o Yes o No o Unknown
[IF YES] Can public health get it for testing?	o Yes o No
Did you share your product(s) with anyone (e.g., friends, family) in the 3 months before symptoms started?	o Yes o No

	o Unknown
[IF YES] Did that person(s) develop similar illness?	o Yes o No o Unknown
GENERAL SUBSTANCE USE	
Have you **inhaled** any of the following substances in the past 3 months (90 days) before symptoms started?	o Cigarettes o Cigars (regular cigars, little cigars, cigarillos) o Hookah/Waterpipe o Pipe tobacco o Roll-your-own o Bidis o Heated tobacco products o Non-vaped Cannabinoids (e.g., marijuana, hash, synthetic cannabinoids (K2 or Spice)) o Heroin o Cocaine o Methamphetamine o Huffing (e.g., paint, glue, bath salts) o Something else _____

Non-vaped Cannabinoids (e.g., marijuana, hash, synthetic cannabinoids (K2 or Spice) Details:

IF YES TO USE IN PAST 3 MONTHS BEFORE SYMPTOMS STARTED:
Approx. date last used (MM/DD/YYYY)
What type of cannabinoids did you use (select all that apply)?

- Marijuana, hash [Y/N]
- Synthetic cannabinoids (e.g., K2 or Spice) [Y/N]
- Dabbed marijuana (e.g., oils or waxes) [Y/N]
- Dabbed CBD concentrate [Y/N]

What brand(s) did you use (within the past 3 months before symptoms started)?: _____

For each substance that you smoked or dabbed, how frequently did you use this substance in the 3 months before symptoms started?

	Non-daily	Daily
Marijuana, hash *Check if not used: [ ]*		
Synthetic cannabinoids (e.g., K2 or Spice) *Check if not used: [ ]*		
Dabbed marijuana (e.g., oils or waxes) *Check if not used: [ ]*		

Dabbed CBD concentrate *Check if not used: [ ]*		

OTHER EXPOSURES	
For the last 6 months before symptoms started, have you been exposed to **any** of the following?	
Moldy hay, grain, cheese, or wood bark?	o Yes o No o Unknown
Animal droppings or urine?	o Yes o No o Unknown
Birds in your home, as part of a hobby, or at work?	o Yes o No o Unknown
Humidifiers, hot tubs, or saunas?	o Yes o No o Unknown
Soil or compost (e.g., frequent handling of soil)?	o Yes o No o Unknown
Spray paints or polyurethane foam?	o Yes o No o Unknown
Did you spend time in an infrequently used space or structure (e.g., attic, cabin)?	o Yes o No o Unknown
Did you inhale chemicals or toxins (e.g., cleaning products, occupational exposures)?	o Yes o No o Unknown
OTHER MEDICATIONS/SUPPLEMENTS (ask about frequency of being taken in the last three months)	
Over the counter medications [list all]	
Prescription medications [list all] *(clarify if they took any prescription medications that were not prescribed to them)*. Include route of administration (oral, inhaled, topical, etc.)	
Did you take any prescription medications that were not prescribed to you?	o Yes o No
[IF YES] Which?	
Vitamins and supplements, including things that you've purchased online [list all]	
OTHER NOTES (include details of any conversation with parent or guardian)	-

*****END INTERVIEW HERE*****

SEVERE PULMONARY DISEASE ASSOCIATED WITH E-CIGARETTE USE OUTBREAK

SPECIMEN MANIFEST FORM (CDC)

August 27, 2019

Specimen Manifest Form

CDC Case ID	State Case ID	Sample ID	Matrix (specimen type)	Shipping Box # or ID	Position in Shipping Box	Volume (mL) of Specimen	Collection Date of Specimen	Comments about Specimen