Background

- In January 2018, Carolina Poison Center (CPC) notified North Carolina Division of Public Health (NCDPH) about an increase in calls regarding adverse effects after Cannabidiol (CBD) oil use.
- Reported symptoms have not typically associated with CBD oil use, but are consistent with other substances, including synthetic cannabinoids.
- Cannabidiol is one of two main cannabinoids derived from the cannabis or hemp plant.
- CBD oil use can be via inhalation (using a vape device), ingestion, or sublingually.
- Federally, it is a Schedule 1 controlled substance; in North Carolina it is legal for treatment of seizure conditions and for research.
- The U.S Food and Drug Administration has not found any product containing CBD to be safe or effective and has not approved it for the treatment or prevention of any disease or condition.
- NC DPH investigated to determine if recent emergency department (ED) visits were associated with CBD oil use.

Methods

- searched for keywords in Emergency Department visit chief complaint and triage notes in the North Carolina Disease Event Tracking and Epidemiologic Collection Tool (NC DETECT).
- Case definitions:
  - Probable: report of CBD oil use and 21 of the following symptoms: nausea and vomiting, altered mental status, anxiety, seizures, tachycardia/palpitations, loss of consciousness, and hallucinations.
  - Suspect: report of vape oil use and ≥1 of the above symptoms.
- Described demographic characteristics, symptoms, and geographic distribution.

Results

- Total of 66 cases identified from January 1, 2015–April 20, 2018; Majority of cases began in August 2017 (83%) (Figure 1).
- Mainly male (71%), white (60%), young adults (average age = 27 years) (Table 1).
- Serious symptoms reported since August 2017 (n=55) include: loss of consciousness, and hallucinations.
- Widespread availability of CBD oil and a lack of regulation poses an emerging public health concern.

Limitations

- Only used data from NC DETECT to identify cases.
- NC DETECT triage notes were not available for all ED visits.
- Product was not collected for testing.
- No brand name identified.

Control Measures & Conclusions

- Indication of potential product contamination or adulteration.
- In March, NCDPH and CPC issued a press release warning that products labeled as CBD oil might contain other substances.
- NCDPH and CPC are continuing to monitor ED visits and CPC calls.
- Widespread availability of CBD oil and a lack of regulation poses an emerging public health concern.

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