

# Assessing ENDS Device Type Accurately in Surveys

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## Background

The electronic nicotine delivery systems (ENDS) market is highly heterogeneous and changing rapidly in the US, making classification of devices complicated, especially for surveys. We assessed the percentage agreement between self-reported device type and device type reported by manufacturer sites for three ENDS brands.

## Methods

- Population Assessment of Tobacco and Health (PATH) Study Wave five (2018-2019) asked adult ENDS users about their ENDS device type with the following multiple-choice question: “What kind of electronic nicotine product [is/was] it?” with response options: 1) A disposable device; 2) A device that uses replaceable prefilled cartridges; 3) A device with a tank that you refill with liquids; 4) A mod system; and 5) Something else.
- Participants using only one ENDS device and reporting brands of JUUL (n=579), MarkTen (n=30), or Vuse (n=47) were included.
- Responses were dichotomized as “agreed=1” (response option 2 for these three brands) and “not agreed=0” (other responses).

**82.7%** of Vuse users, **82.6%** of JUUL users, and **69.1%** of MarkTen users indicate that their device uses replaceable prefilled cartridges.



<https://vusevapor.com/>



<https://www.crescentcityvape.com/store/juul-pod-system/>



<https://www.electrictobacconist.com/blog/2018/01/mark-10-xl-a-complete-guide-to-their-e-cigarette-flavors/>



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## Results

- 81.8% (n=537) respondents who used JUUL, Vuse or MarkTen reported they used a device that uses replaceable prefilled cartridges.
- This percentage was 82.7% (n=37) among Vuse users, 82.6% (n=479) among JUUL users, and 69.1% (n=21) among MarkTen users.
- Almost 1 in 3 people who use MarkTen did not indicate that their device uses replaceable prefilled cartridges; this was 1 in 4 among the 36.6% of JUUL users with lower educational attainment.

## Conclusion

- While at least 70% accurately reporting their device type could be acceptable, collecting more information about device type (e.g., liquid container (pod/cartridge/tank), refillability; and submitting pictures) may improve the accuracy of the information
- Adjusting survey questions about ENDS device type (e.g., more descriptive response options, inclusion of separate questions asking about tank/pod/cartridge) and potentially including photos of participants' devices may help to classify ENDS device types more accurately in population surveys

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