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Journal of the American Heart Association

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Dear Drs. London, Eitzman, Weinberg and Harrington:

We write in reference to a recent article in the *Journal of the American Heart Association* entitled “Electronic cigarette use and myocardial infarction among adults in the US Population Assessment of Tobacco and Health” by Dharma N. Bhatta and Stanton A. Glantz (Reference 1).

Bhatta and Glantz reported that current e-cigarette users were twice as likely as never users to have had a heart attack, based on 38 cases. They reported odds ratios (ORs) of 2.25 (95% confidence interval, CI = 1.23 – 4.11) for 19 daily vapers, and 1.99 (CI = 1.11 – 3.58) for 19 some-day users (Abstract, Table 3 and Table S6).

The authors used the Population Assessment of Tobacco and Health Wave 1 survey restricted dataset. But they failed to account for detailed information in that survey on (a) when participants were first told that they had a heart attack and (b) when participants first started using e-cigarettes. **In fact, the majority (2) of the 38 current e-cigarette users were first told that they had a heart attack many years before they first started using e-cigarettes. In this group, the heart attacks preceded first e-cigarette use by almost a decade on average.**

We reproduced the entire Bhatta-Glantz analysis. When current vapers who had a heart attack before using e-cigarettes were correctly reclassified as non-exposed, the ORs for daily and some-day vapers were 0.69 (CI = 0.22 – 2.12) and 0.18 (CI = 0.05 – 0.66) respectively. In short, vapers were much less likely to have had a heart attack, not twice as likely.

Bhatta and Glantz inaccurately claimed that their study confirms that “e-cigarette use is an independent risk factor for having had a myocardial infarction...” In a blog post on the University of California San Francisco website, Dr. Glantz wrongly cited the study as “more evidence that e-cigs **cause** heart attacks” (3) (emphasis added).

The main findings from the Bhatta-Glantz study are false and invalid. Their analysis was an indefensible breach of any reasonable standard for research on association or causation. We urge you to take appropriate action on this article, including retraction.

Sincerely,

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References

1. Bhatta DN, Glantz SA. Electronic cigarette use and myocardial infarction among adults in the US Population Assessment of Tobacco and Health. *Journal of the American Heart Association* 2019;8:e012317. DOI: 10.1161/JAHA.119.012317. Published 18 Jun 2019, Available at: <https://www.ahajournals.org/doi/10.1161/JAHA.119.012317>
2. On June 25 we requested that PATH survey administrators provide an exemption from the policy on releasing raw numbers from restricted datasets, so that we could make public the exact number. We noted that Bhatta and Glantz released far smaller numbers of current vapers who had a heart attack (see Supplemental Table S6 of the published article). As of July 11, no decision has been made.
3. Glantz SA. More evidence that e-cigs cause heart attacks, this time from PATH. Center for Tobacco Control Research and Education, University of California San Francisco. Available at: <https://tobacco.ucsf.edu/more-evidence-e-cigs-cause-heart-attacks-time-path>