

Supplementary

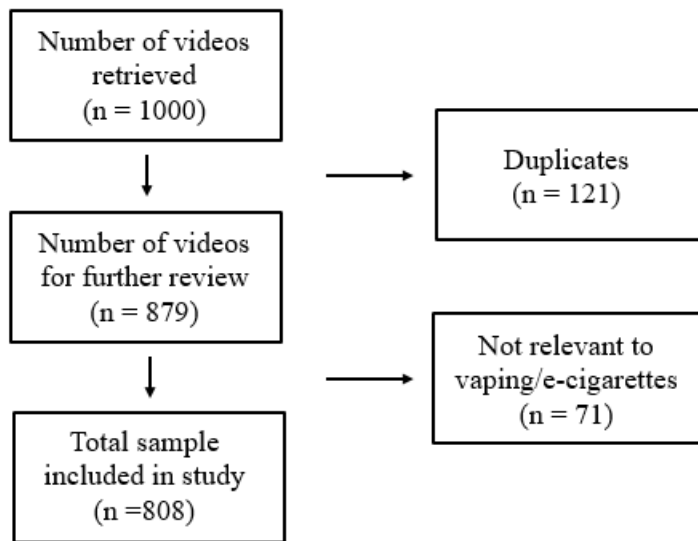


Figure 1. Flow diagram of the sampling strategy.

Method 1. Development of codebook.

Two researchers (TS and CL) independently watched and performed in vivo coding on 50 videos. This involves coding the caption, audio and visuals in the videos to develop descriptive codes and definitions for the video themes. Researchers met to discuss and compare the coding and reconciled by combining or deleting where necessary. An additional 50 videos were coded using the refined codes. After reviewing 100 videos, a final codebook was developed where the codes for each theme were deemed to be operational with a clear and concise definition.

Vape related hashtags	Total Views in millions, searched on 17.11 ¹	%	Required number of URLs to extract from hashtag	Actual number of videos included in study
#Immuneupvapedown ²	4400	-	-	-
#vape	2300	41.9	418	365
#vapetricks	880	16.2	162	120
#juulgang	588	9.9	99	54
#puffbar	350	6.2	62	62
#nicotine	331	5.8	58	58
#vapenation	330	5.7	57	42
#vaping	293	4.9	49	40
#vapeshop	317	5.3	53	44
#vapelife	243	4.2	42	23

Table 1. Top 9 vaping-related hashtags and their corresponding total views. A stratified random sampling method was used to select 1000 videos. Hashtags were ranked according to their number of views. Next, we calculated the proportion of viewed accounted for by each hashtag. The required number of URLs to extract was calculated by multiplying the proportion by 1000 (the predetermined sample size for this study).

¹Metrics are rounded by TikTok.

²This hashtag was removed from our list of top viewed hashtags because we believe the 4.4 billion views for ‘#ImmuneUpVapeDown’ do not reflect the true value of views since the same sponsored videos are continuously looped, rather than intentionally viewed.