

HPV and Vaccination: An Analysis of YouTube Videos

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Purpose

- This study aimed to evaluate YouTube videos about Human papillomavirus (HPV) and vaccine information.

Background

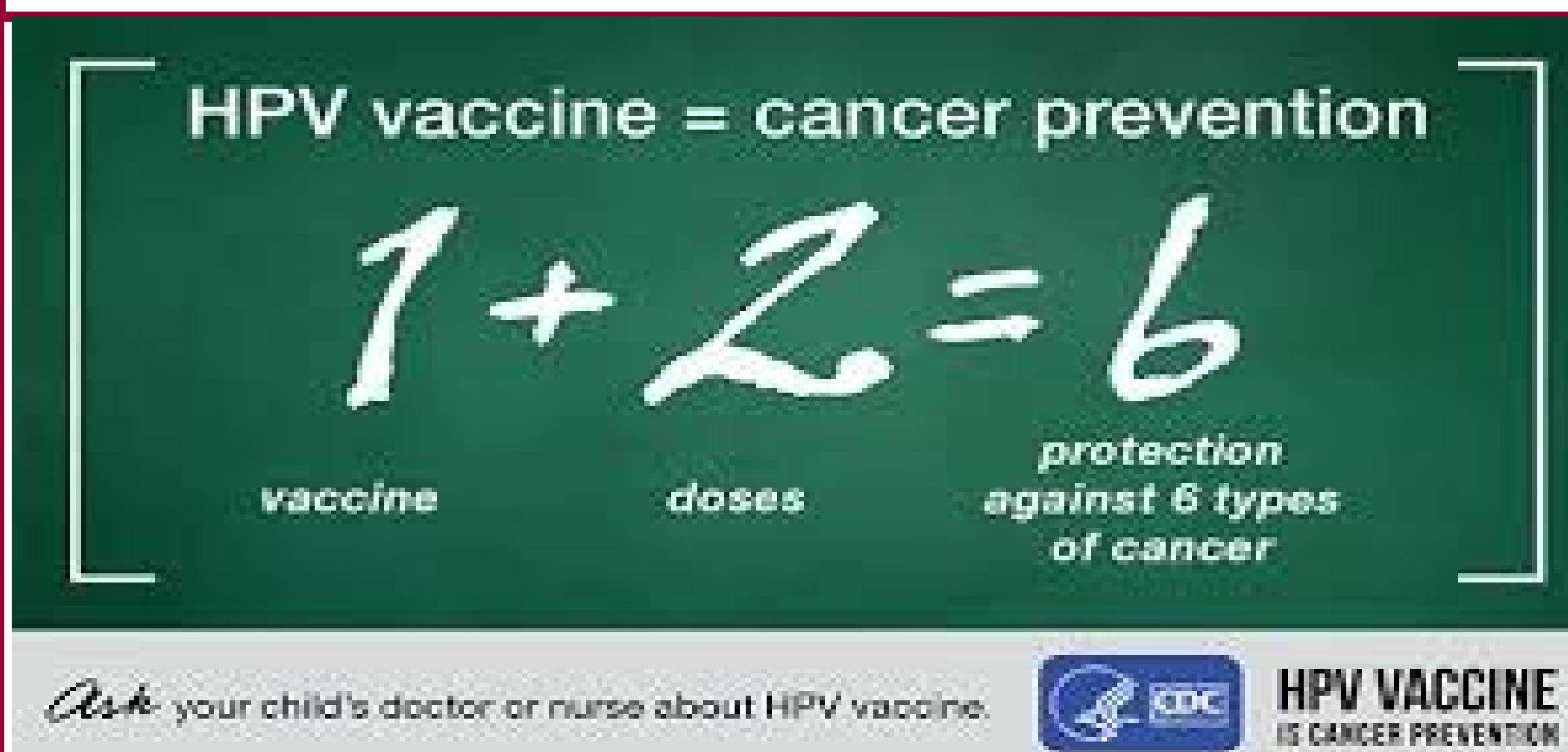
- HPV infection is the most common sexual transmitted infection in young adults in the U.S. and globally.
- HPV is highly associated with multiple cancers in both males and females.
- HPV vaccines reduce disparities in HPV-related disease. The national rate is still significantly below the 80% vaccination goal.
- Credible information about HPV and the vaccine in social media will help the public to make effective healthcare decisions.

Methods

- A comprehensive search of YouTube videos
- Inclusion criteria**
 - Includes one of the 7 key search terms (e.g., HPV, HPV vaccine, HPV immunization)
 - English speaking
 - Posted during 2006-2020
- Exclusion criteria**
 - Does not mention vaccine/vaccination.
 - Government meetings (e.g., ACIP) aimed to determine vaccine recommendation

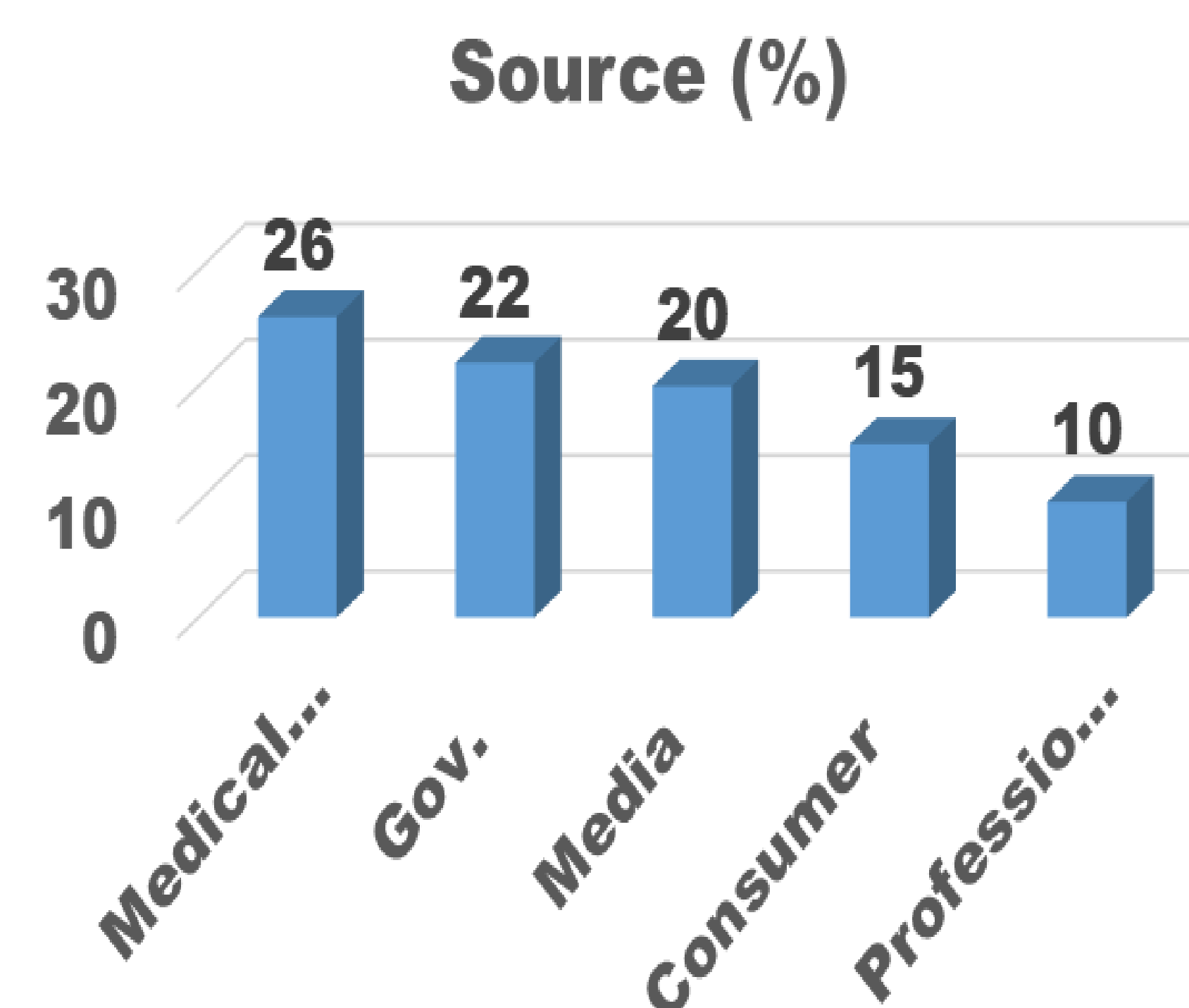
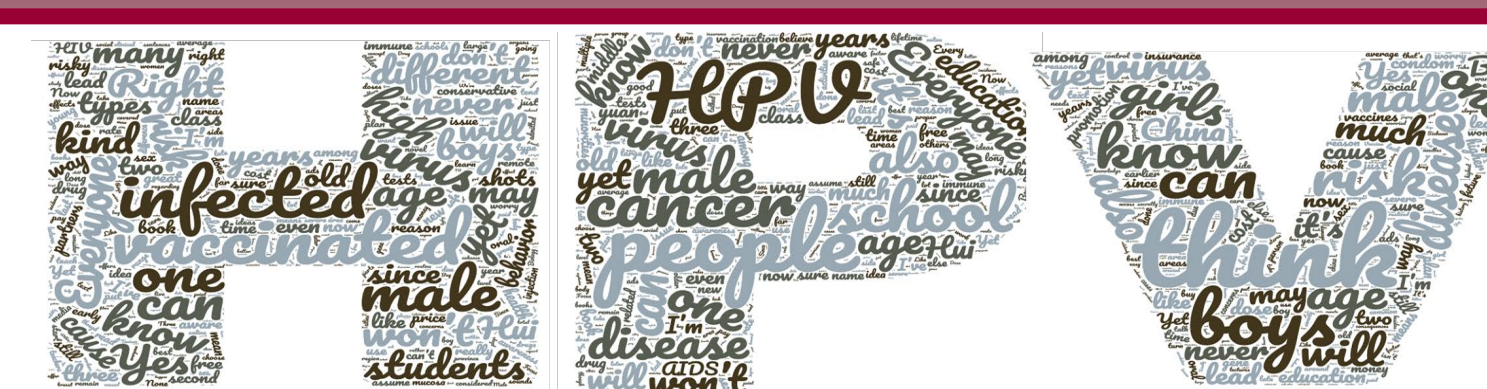
Procedure

- We retained the first 50 videos for each search term and removed duplications across search terms.
- Four trained RAs conducted the content analysis using a pre-determined coding schema.
- Three investigators randomly reviewed the coding sheets and discuss discrepancies in coding until we reached consensus.

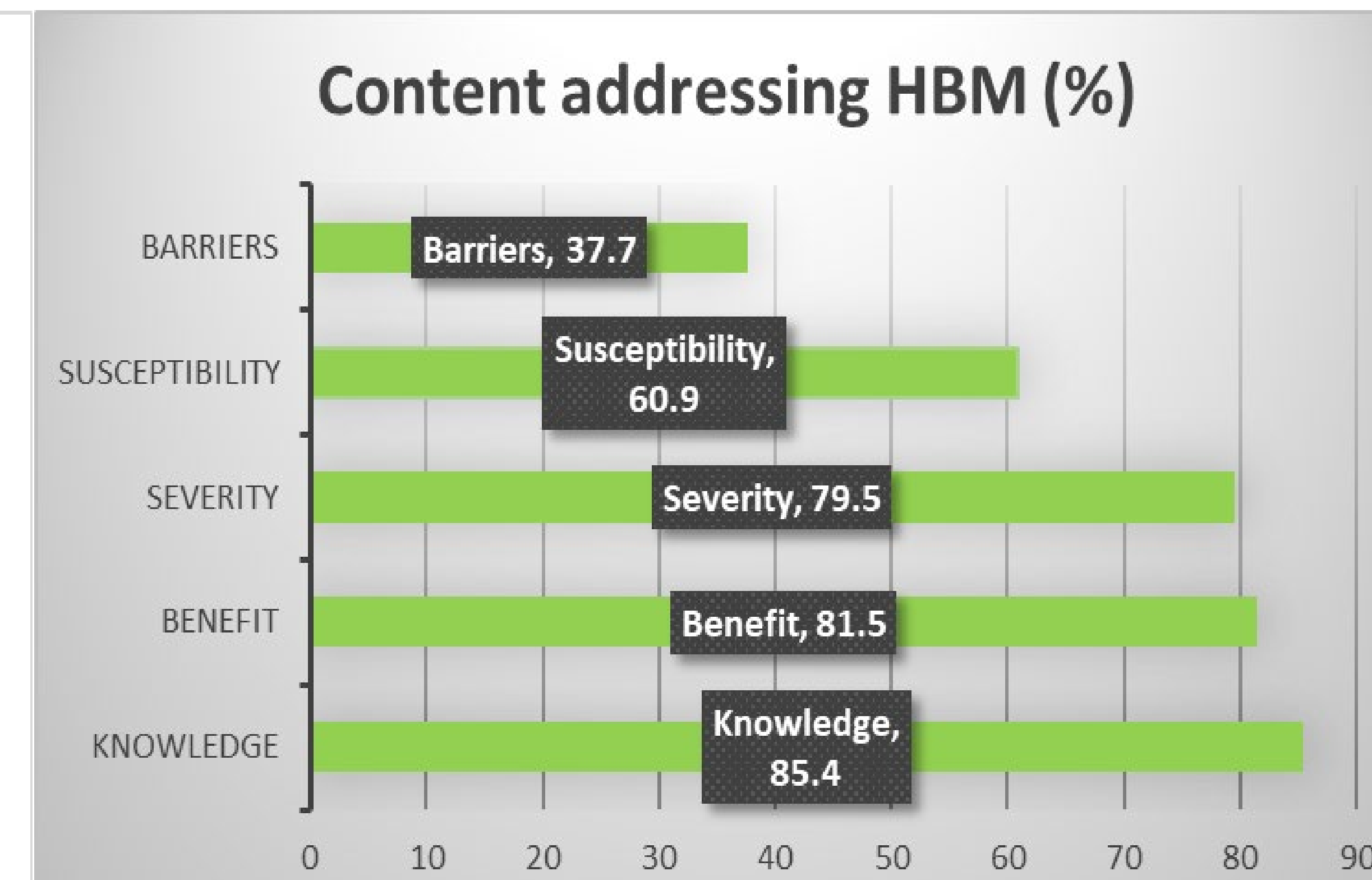


Analysis

- Guided by the Health Beliefs Model (HBM), we created a coding schema including characteristics of the videos (e.g., source, tone, # of likes/dislikes) and theoretical constructs of HBM (e.g., perceived benefits, barriers, susceptibility).
- Descriptive statistics (% , frequency) was used to describe distributions of key variables.
- Chi-square & ANOVA tests were conducted to examine relationships between key variables (e.g., tone & source, source & number of views, likes, and dislikes; tone of video and number of views, likes, and dislikes).



Results (N = 151)



- ✓ **Videos in neutral tone** (neither approve nor disapprove vaccination) had the highest number of views, likes and dislikes.
- ✓ **Top three barriers:** lack of knowledge of HPV and the vaccine (12.6%), worries about adverse events/safety of vaccine (14.6%) and its side effects (9.3%).
- ✓ **Other barriers:**
 - concerns of individuals (perceived no/low risks for infection, fear of shots)
 - parents (vaccination might encourage early sexual activity of children)
 - providers and authorities (lack of recommendation and communication, inconsistent recommendation)
 - vaccines (not effective or affordable).
- ✓ **Conspiracy theories** and **argument for civil liberties** were also presented in some videos.

Conclusion

- ✓ information about HPV and its vaccine shared on the platform is mixed.
- ✓ Anecdotal health information without scientific support can mislead individuals' decision to be vaccinated against HPV.
- ✓ Educational videos with comprehensive and accurate HPV information addressing barriers are imperative to promote vaccination and prevent HPV-related cancers.

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