



# From Head to Cervix: Comprehensive Analysis of HPV Representation on Instagram

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## INTRODUCTION

Adoption of HPV vaccination, which can prevent related cancers in the head, neck, cervix, and anogenital regions, is influenced by limited HPV and cancer awareness, plus vaccine hesitancy and misinformation.

**AIMS:** Investigate the content of HPV-related topics on Instagram to determine which populations of authors are engaging in HPV discourse, to explore the content of these posts, and to reveal factors that might help physicians better educate the public and patients about HPV.

## METHODS

Public social media posts on Instagram were searched in October of 2024

### Mixed Methods Analysis

Posts were excluded if unrelated to HPV vaccine or cancers or if written in a non-English language.

Posts were subclassified and analyzed for content including:

#### Objective measures

- Authorship (i.e. medical or non-medical)
- Media type (e.g. text or video)
- Engagement (e.g. likes and comments)

#### Subjective measures

- Content topic
- Depiction of HPV vaccination or cancer
- Content tone

### Authorship

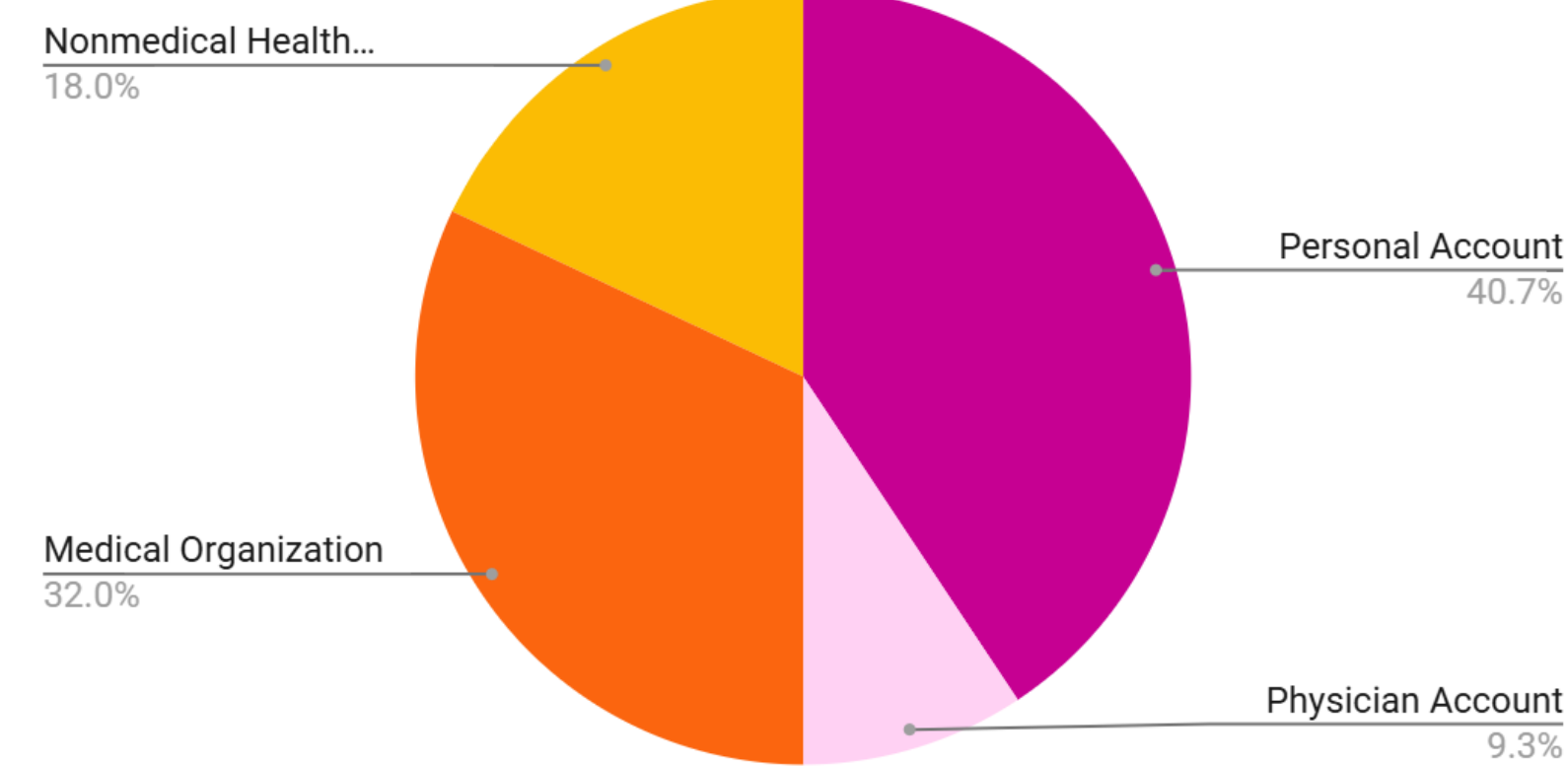


Figure 1. Author Credentials

### Content Tone

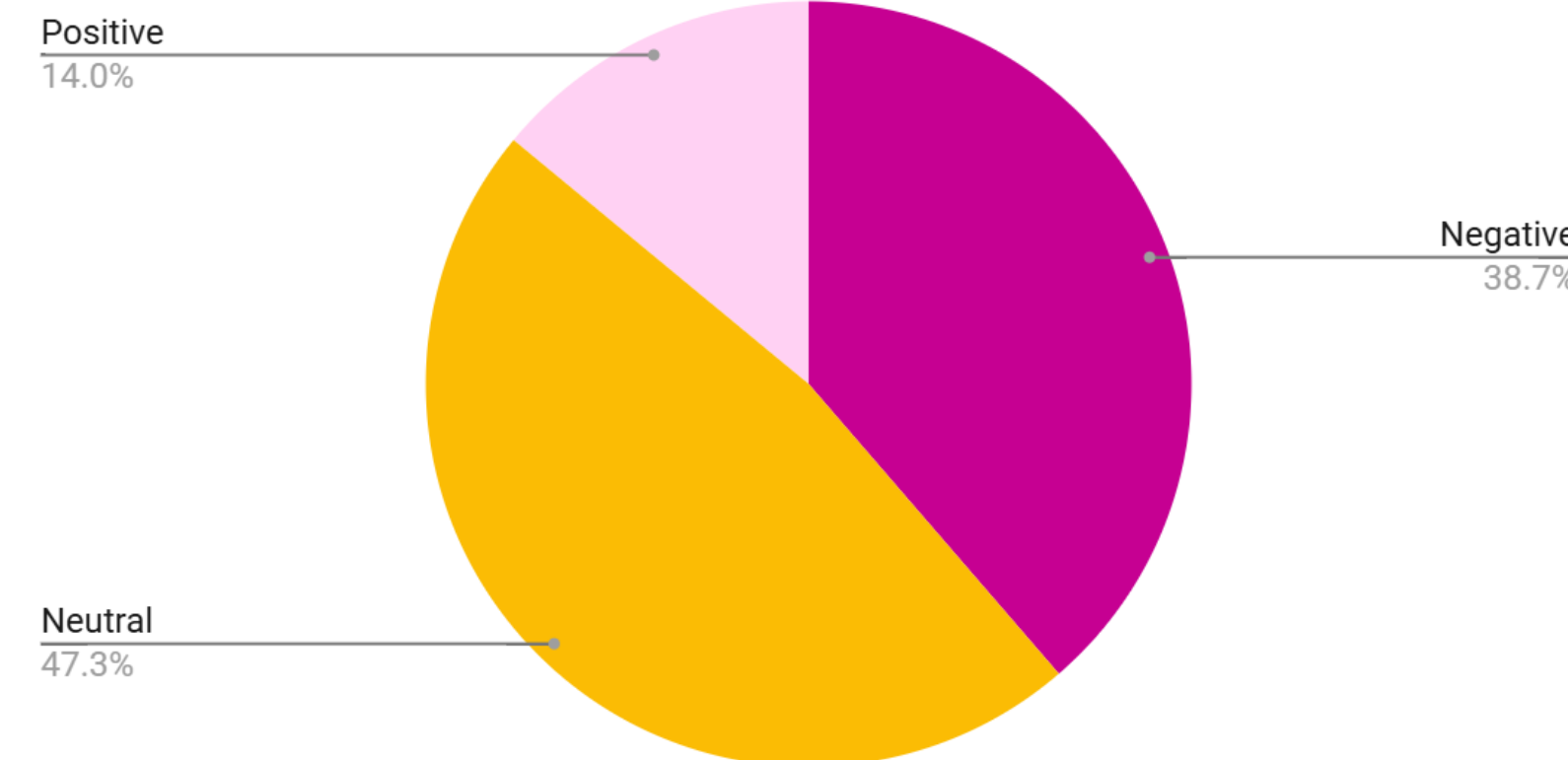


Figure 3. Tone of Content

### Tone by Category

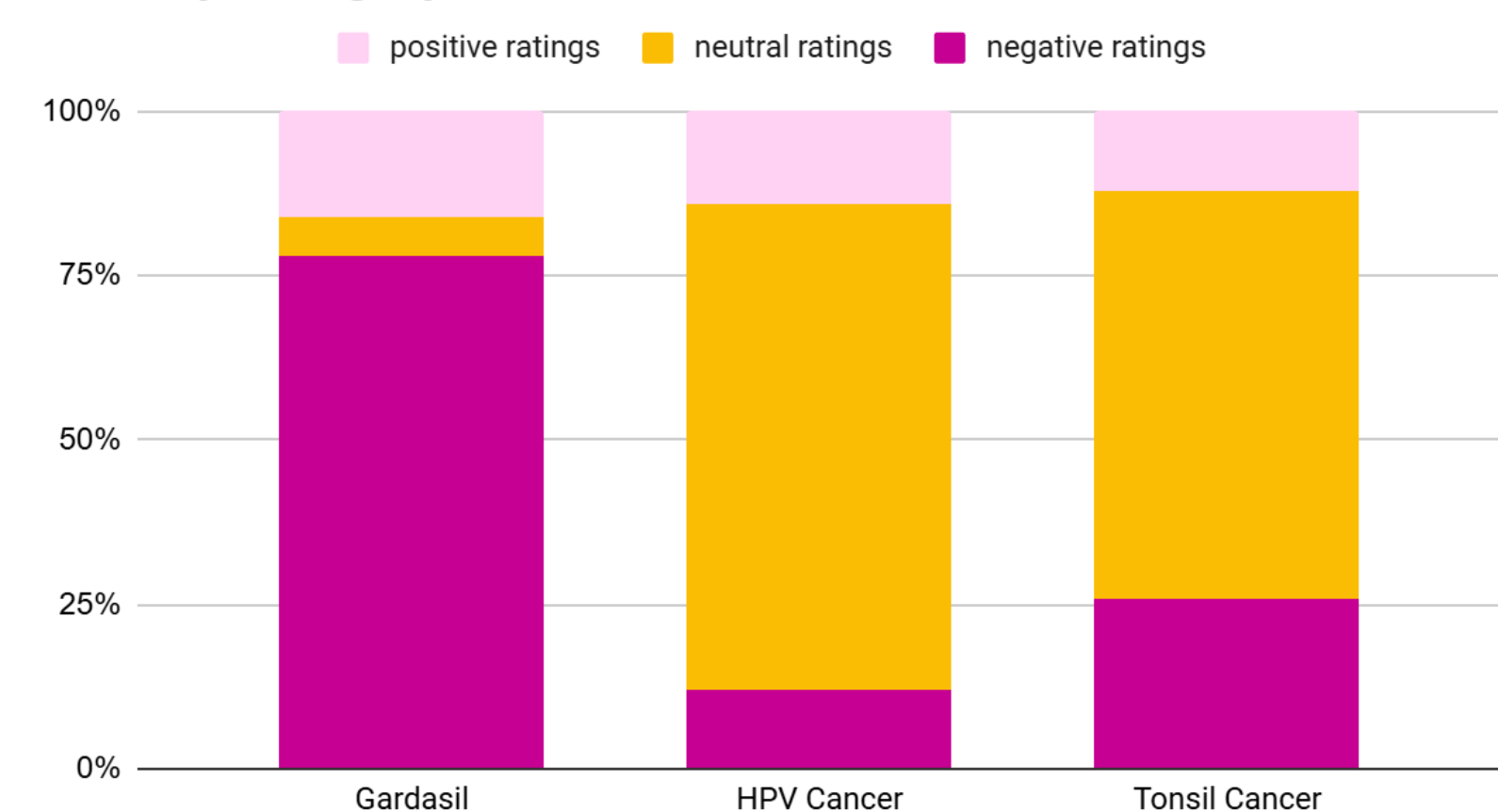


Figure 4. Tone of Content by Search Term

## RESULTS

### Engagement Per Post

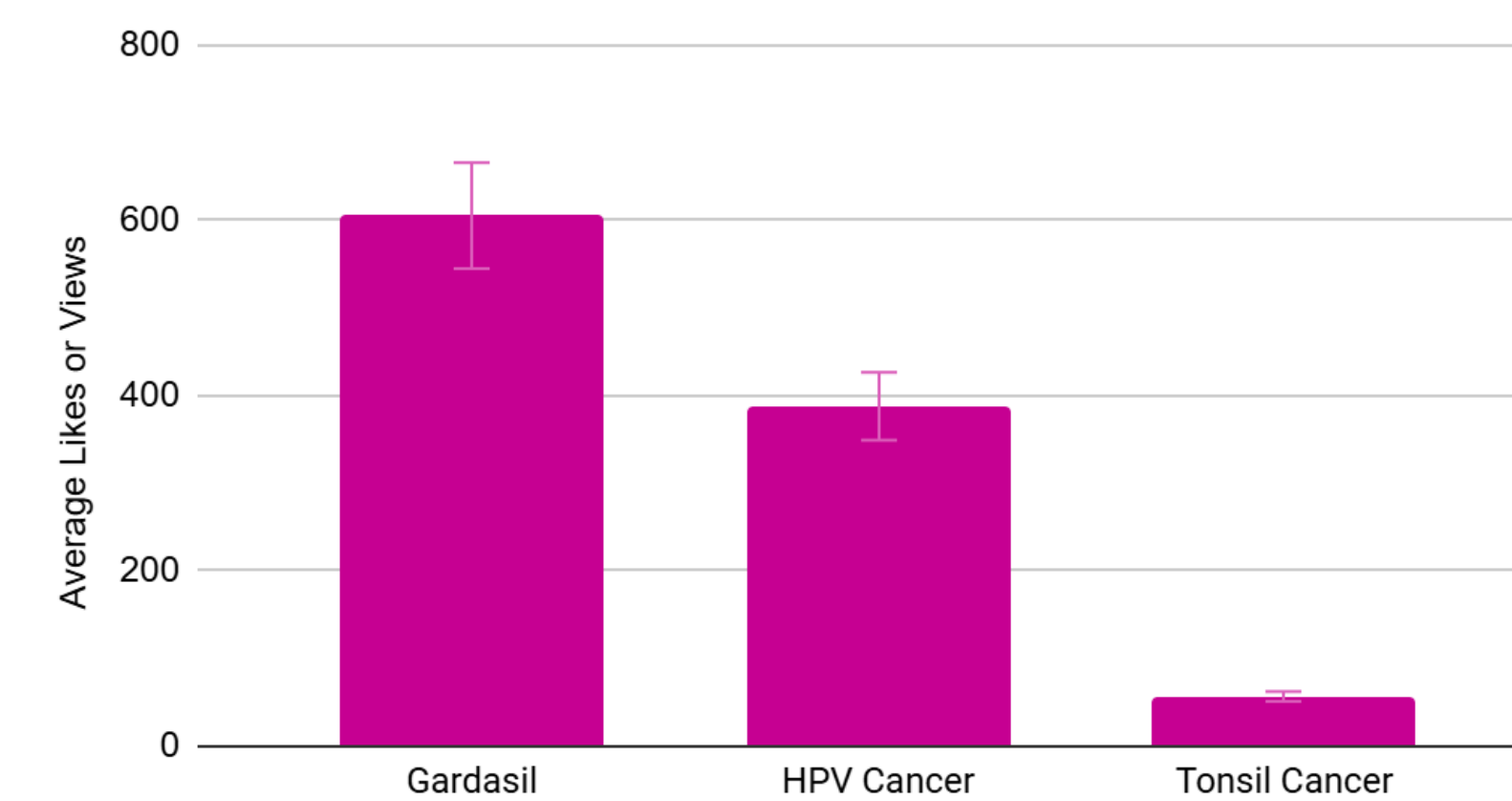


Figure 2. Engagement by Search Term

### Content Topic

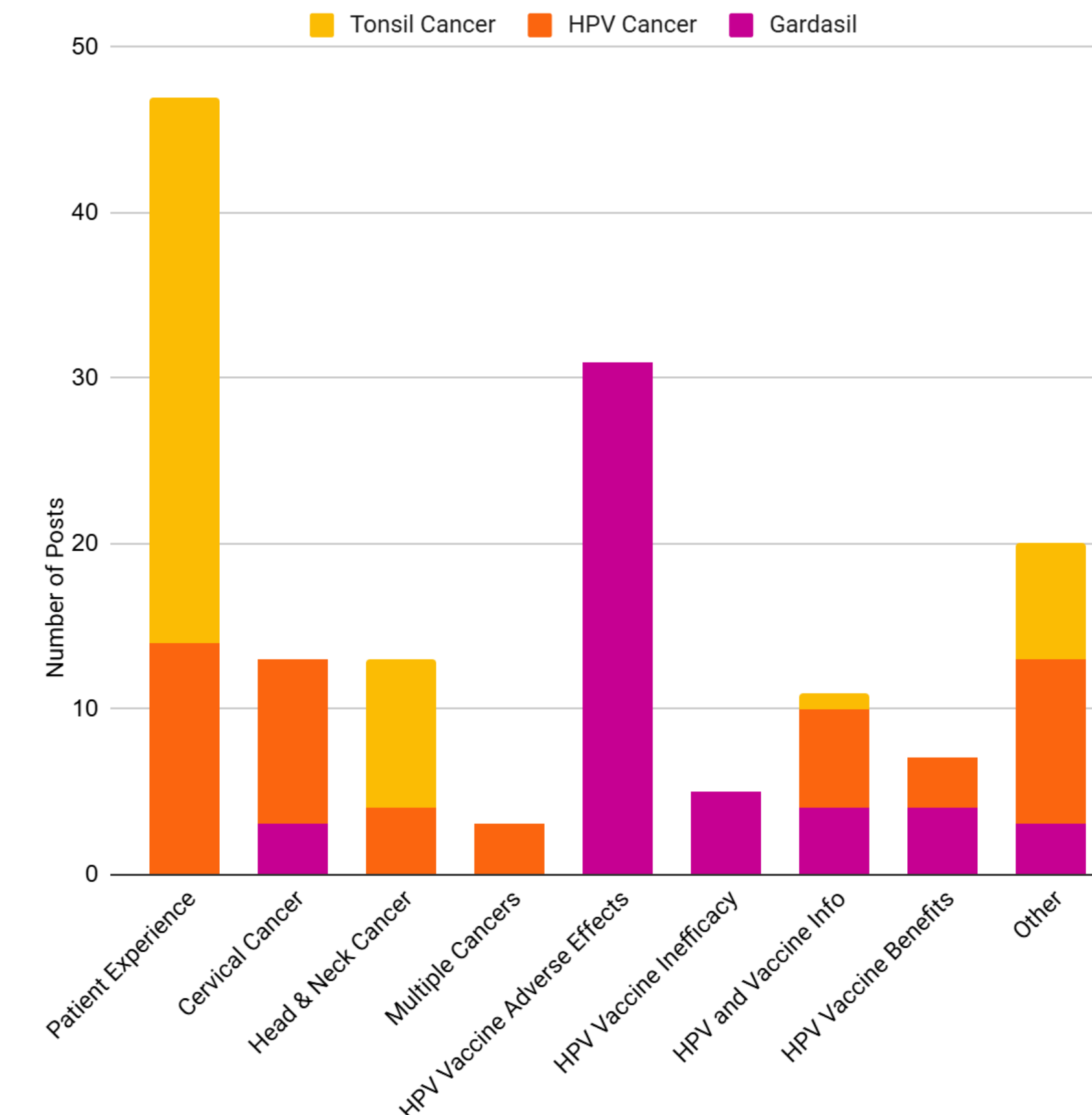


Figure 5. Content of Posts

150 posts analyzed using first 50 results from each search.

- At time of search, there were no results for #HPVvaccine; users were directed to a Centers for Disease Control and Prevention website.
- Most authorship came from personal accounts (n=61, 40.7%), followed by medical organizations (n=48, 32.0%), and nonmedical health accounts (n=27, 18.0%).
- Only 14 (9.3%) of posts were authored by physicians.
- #Gardasil posts received significantly more engagement than those under other HPV-related search terms.
- 39 (78.0%) of posts on #Gardasil were discussed in a negative tone, many relaying purported adverse effects of vaccination (n=31, 62.0%).
- The majority of posts under #HPVcancer and #Tonsilcancer were regarding the patient experience (n=14, 28.0% and n=33, 66.0%).

## CONCLUSION

Online physician contribution to the HPV vaccination and associated cancer discourse is scarce compared to patient and nonmedical account interaction.

In lieu of an existing #HPVvaccine results page, many anti-vaccination posts are found on #Gardasil.

Patients use cancer-related tags to discuss their experiences with diagnosis, treatment, and remission with fewer posts regarding vaccination.

Online outreach and HPV education by physicians may dispel misinformation shared by non-physician authors and encourage HPV vaccination, reducing future HPV-related cancers.