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# HPV Vaccine Discussions Between Medical Students and Standardized Patients

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## Introduction

- Human Papillomavirus (HPV) is the leading cause of cervical, penile, anal, and vaginal cancer. [1]
- The HPV vaccine was recently developed and is a major preventative care for cervical cancer, which affects patients assigned female at birth. [1]
- The HPV vaccine was initially marketed toward those patients assigned female more than those assigned male because of this association.
- However, the lifetime risk for acquiring HPV is higher in men (91%) than women (85%). [2]
- The CDC recommends the HPV vaccine for all people to reduce transmission and infection that could lead to cancer, but physicians may not recommend the vaccine to all patients equally.

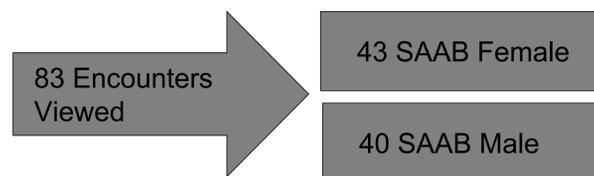
## Hypothesis

Our hypothesis is:

- Medical students will be more likely to recommend the HPV vaccine to patients who were assigned female at birth than to patients who were assigned male at birth.

## Methods

- Recorded interactions between standardized patients and medical students were viewed.
- We recorded whether the patient in the standardized patient encounter was sex assigned at birth (SAAB) female or male



- Counts of what vaccinations were discussed were recorded as were qualitative data of how the students suggested different vaccines.
- This study was approved by the University of Louisville Institutional Review Board.

## Results

### Vaccine Discussions and Recommendations by Sex Assigned at Birth

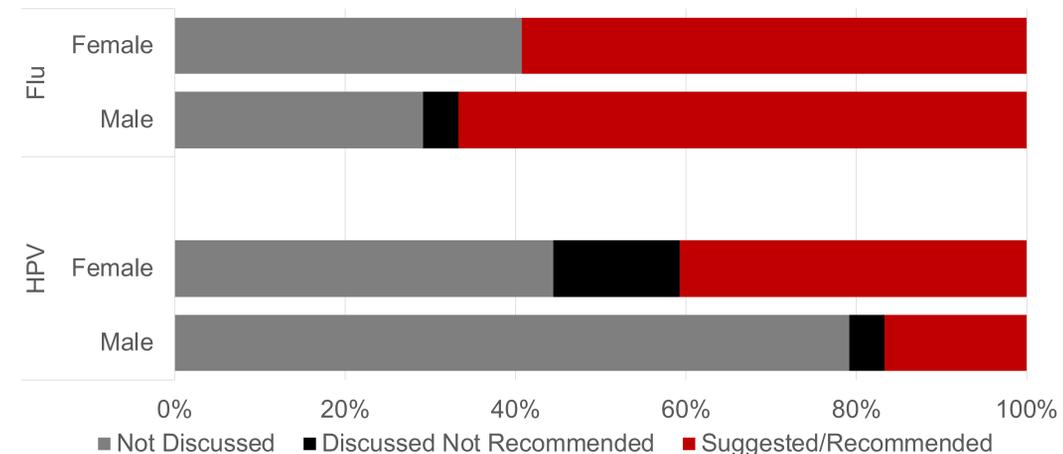
Patient SAAB	Total # Patients	Discussed Vaccines	Flu Vaccine		HPV Vaccine	
			% of Vaccine Discussions	Suggested/Recommended	% of Vaccine Discussions	Suggested/Recommended
Male	40 (48%)	24 (60%)	17 (71%)	16 (94%)	5 (21%)	4 (80%)
Female	43 (52%)	27 (63%)	16 (59%)	16 (100%)	15 (56%)	11 (73%)

- Vaccines were discussed with 61% of patients.
- Of the 51 patients with whom vaccines were discussed, the influenza vaccine was discussed with 33 patients (65%) and the HPV vaccine was discussed with 20 patients (39%).
- The influenza vaccine was recommended or suggested to 97% of patients with whom it was discussed, with the HPV vaccine being recommended or suggested 75% of the time it was discussed.
- The chart below shows the percentage of patients who had the vaccines recommended or suggested out of those patients with whom vaccines were discussed.

### Examples of Language Used by Students in Vaccine Discussions

No Discussion	No Recommendation	Suggestion	Recommendation
“We’ll check your records”	“Usually we don’t recommend the flu shot until 50.”	“It’s your choice if you get a shot or not.”	“We always say to get the flu vaccine.”

### Vaccine Discussions by Sex Assigned at Birth



## Conclusions

- Students discussed vaccines with those assigned female and male at birth at nearly the same rate.
- Among students who discussed vaccines, students also discussed the flu vaccine with both male- and female- assigned patients at similar rates.
- Students were more likely to discuss the HPV vaccine with patients who were assigned female than assigned male.
- When students discussed the HPV vaccine with male-assigned patients, however, they did recommend it.
- These results suggest that students may be less likely to think about HPV vaccination when meeting with a patient who was assigned male at birth, but if they do know to discuss this vaccine, they know it is important to recommend it.
- Language used to discuss vaccines also varied, with the most effective language explaining the benefits of vaccination and making a clear recommendation.

## Future Study

Topics for future study may include:

- Analysis regarding HPV vaccine recommendations and student gender
- Strategies to increase recommendation of the HPV vaccine to those assigned male at birth.

## Acknowledgements

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## Bibliography

1. Division of Cancer Prevention and Control, Centers for Disease Control and Prevention [Internet]. Cancers Associated with Human Papillomavirus (HPV). CDC, November 19, 2019. Available from: [https://www.cdc.gov/cancer/hpv/basic\\_info/cancers.htm#:~:text=In%20general%2C%20HPV%20is%20thought, and%2060%25%20of%20penile%20cancers.](https://www.cdc.gov/cancer/hpv/basic_info/cancers.htm#:~:text=In%20general%2C%20HPV%20is%20thought, and%2060%25%20of%20penile%20cancers.)
2. Chesson H.W., Dunne E.F., Harii S., and Markowitz L.E.: The estimated lifetime probability of acquiring human papillomavirus in the United States. Sex Transm Dis 2014; 41: pp. 660-664