

# Parent and Childhood Cancer Survivor Experiences with and Barriers to HPV Vaccination

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## BACKGROUND

- Childhood cancer survivors have even lower rates of HPV vaccination than the general population (23.8% vs. 40.5%).
- Survivors are at a higher risk of developing HPV-related cancers than the general population.
  - 40% higher among female survivors
  - 150% higher among male survivors
- American Cancer Society (ACS) HPV Vaccination Roundtable best practices are primary care guidelines that have shown to be effective in increasing HPV vaccination rates of the general population.
- The Health Belief Model (HBM) is a common behavioral change theory that is often applied to HPV vaccination behavior change.

### Health Belief Model

- Perceived susceptibility
- Perceived severity
- Perceived benefits
- Perceived Barriers
- Cues to Action

### ACS HPV Vaccine Best Practices

- Provider recommendations
- Provider prompts
- HPV vaccine standing orders
- Patient reminder systems

- However, the ACS best practices have not been tested in an oncology setting and may not fit the specific needs of young cancer survivors

## AIMS

Informed by the Health Belief Model (HBM) and the ACS HPV Vaccination Roundtable best practices we aim to:

- Evaluate childhood cancer survivors and parents of younger survivors **experiences with the HPV vaccine post cancer therapy.**
- Gain information to create specific **communication strategies to increase vaccination rates** in survivors.

## METHOD

A Convergent Mixed-Methods Design was used including an HPV and demographic survey and semi-structured interview

- Eligible Survivors were:
  - Between 18-26 years old
  - Completed cancer treatment between 2013-2018
- Eligible Parents were:
  - 18 years or older
  - Parent of a childhood cancer survivor between the age of 9-18 years old
  - Survivor completed cancer treatment between 2013-2018
- Survey data results were compared between vaccinated and unvaccinated participants.
- Interviews were recorded, transcribed, coded and qualitatively analyzed using interpretive description.

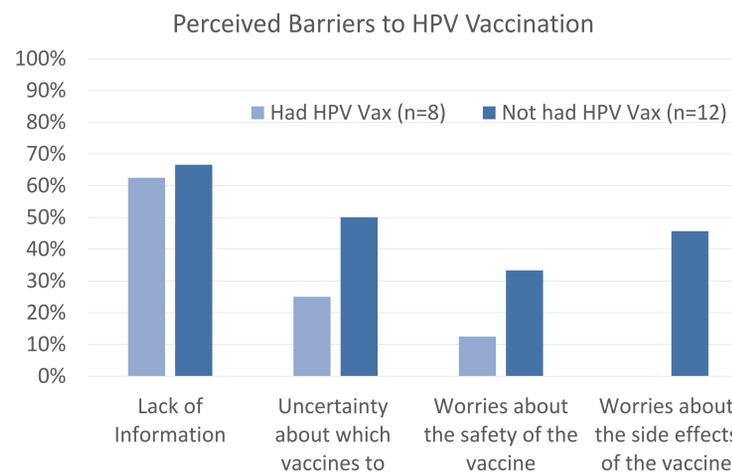
## RESULTS

### SURVIVOR AND PARENT DEMOGRAPHICS

Adult Survivors (N=10)	Mean	SD	Parents (N=10)	N	%
Age at interview	21.1	1.4	Age 40-49 at interview	6	60
Age at diagnosis	17.7	3	Female	9	90
	<b>N</b>	<b>%</b>	Non-Hispanic White	8	80
Female	6	60	<b>Child Demographics</b>		
Non-Hispanic White	9	90	Female	5	50
Insured	10	100	Non-Hispanic White	6	60

### PERCEIVED BARRIERS: LACK OF INFORMATION

*"Probably just we haven't known about it or known enough about it to make an informed decision on whether, you know, it would be something that we would pursue or not."*

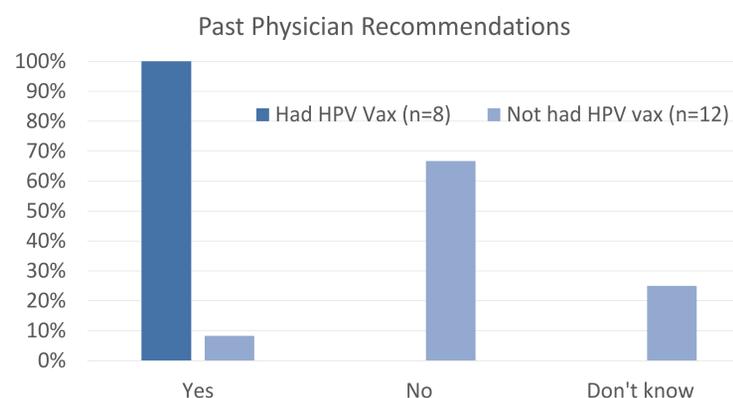


*"Any vaccine we get, we always want to look at side effects, and potential side effects, and interactions with his current health state post-chemo."*

*"Well, I actually probably need more education about the vaccine"*

### CUES TO ACTION: ONCOLOGIST RECOMMENDATION

*"But where she has a history of cancer, I would want, for sure, my oncologist to say to me, 'With her specific history this is something that we recommend, we're gonna' recommend, because of where she's been, because she's not like every kid out there.'"*



## RESULTS

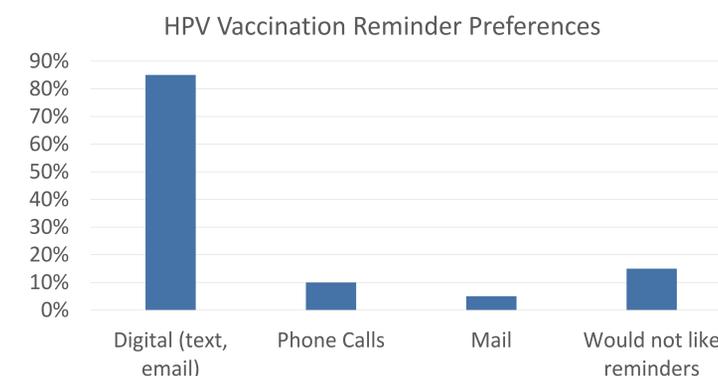
### CUES TO ACTION: ONCOLOGIST RECOMMENDATION

*"For [Child who had cancer], it would be his oncologist, because they've got the most in-depth knowledge of his health and how things could affect him having had cancer and chemo and those things."*

*"If [child's oncologist] said, 'Do it' even though she's been healthy for four years, we do it."*

### CUES TO ACTION: PATIENT REMINDERS

*"Life is busy and sometimes you just totally forget."*



## CONCLUSIONS

- ACS HPV Vaccination Round Table Best Practices were developed for the primary care setting. The unique needs of young cancer survivors may not be encompassed by these best practices.
  - Specifically, provider recommendations and provider prompts only implemented in a primary care setting may miss young cancer survivors resulting in consistently low HPV vaccination rates.
- Oncologists may play an essential role in educating young cancer survivors about HPV-related cancer and the HPV vaccine as most survivors and parents lack of information was cancer specific.
- HPV vaccine receipt and patient reminder systems were not as oncology focused as knowledge barriers and physician recommendations were. Suggesting administration of the HPV vaccine could still take place in the primary care setting.
- ACS HPV Vaccination Roundtable best practices may need adaptation to a different clinical setting to fully reach young cancer survivors.

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