

Enhancing Pediatric Cancer Prevention through Targeted Community Outreach and Education in Diverse Catchment Areas

Amanda Ibrahim, MPH, Pragma Gautam Poudel, DrPH, Julia Brown, MPH, Portia Knowlton, MHA, Karlisa Cryer, MHA, Olivia Haymore, MHA, and Heather M. Brandt, PhD
 St. Jude Children's Research Hospital • St. Jude Comprehensive Cancer Center



Comprehensive Cancer Center

BACKGROUND

HPV-related cancers are largely preventable through on-time HPV vaccination, yet vaccination rates remain below the U.S. Healthy People 2030 goal of 80%, with significant disparities among specific populations, such as childhood cancer survivors (CCS). CCS are at an increased risk of developing subsequent malignant neoplasms caused by HPV but are less likely to be vaccinated against HPV compared to the general population in the St. Jude Comprehensive Cancer Center (SJCCC) catchment area.

This lower vaccination rate (see Figure 1), coupled with their heightened vulnerability to HPV-related secondary cancers in adulthood, underscores the critical importance of adherence to the recommended three-dose vaccine series. Community assessments have highlighted high-risk behaviors and disparities in cancer prevention knowledge, particularly among underserved populations, emphasizing the need for targeted education and communication strategies.

By addressing these challenges, SJCCC aims to reduce health disparities, improve HPV vaccine uptake, and advance cancer prevention efforts in its catchment area, with a particular focus on protecting CCS.

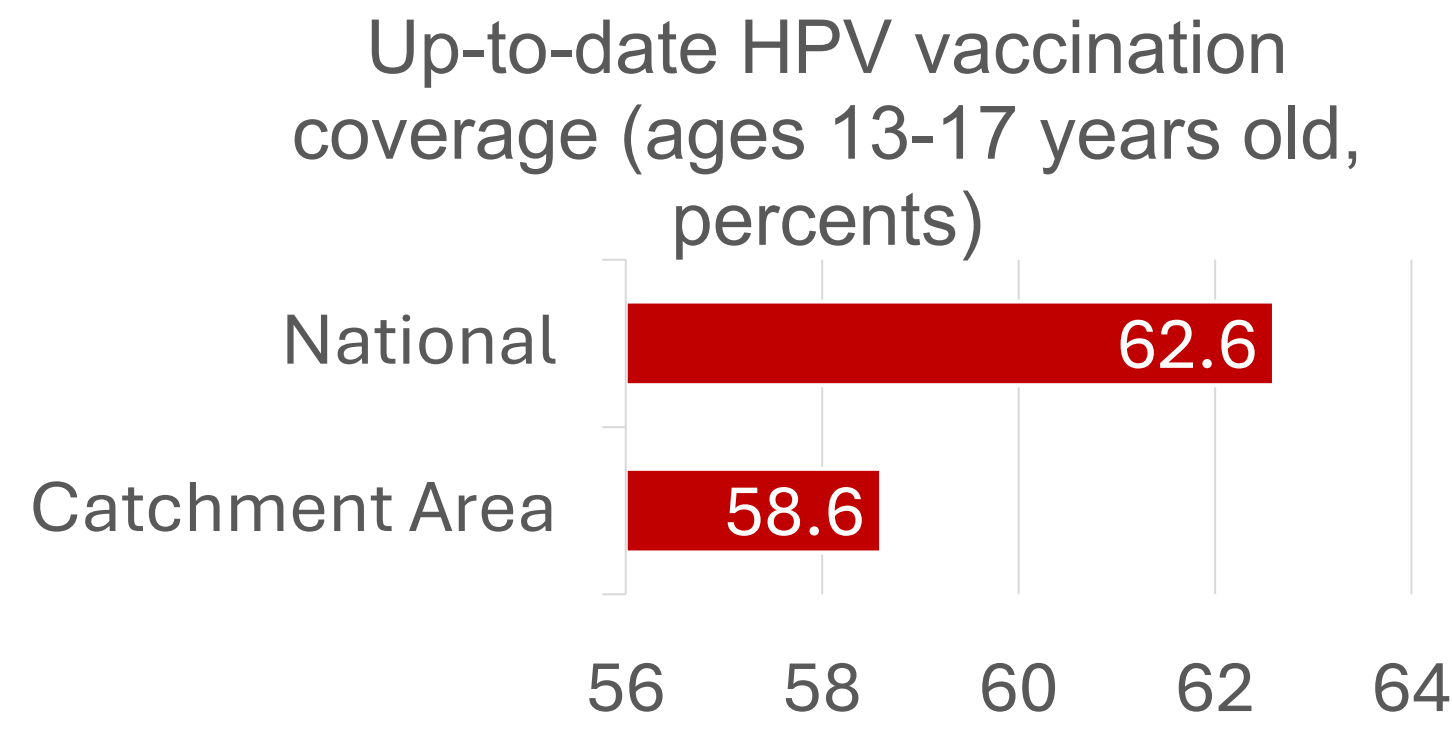


Figure 1. HPV vaccination coverage within SJCCC catchment area and national rates

METHODS

To address the identified community needs, SJCCC developed a multi-faceted approach combining education, community engagement, and data-driven communication strategies. See Figure 2 and 3. First, SJCCC conducted a comprehensive analysis of health behaviors and cancer risk factors within the catchment area, utilizing survey and discussion group information. Based on these findings, the team created targeted educational materials addressing specific health behaviors identified. In addition, a culturally tailored communication campaign was launched across digital and social media platforms, incorporating feedback from patient family advisers to ensure relevance and impact.

A cross-sectional survey was administered online to an established group of patient family advisers comprised of parents/caregivers of CCS and adult CCS. Survey items assessed healthy literacy level (single-item literacy screener), HPV and HPV vaccination awareness, knowledge, attitudes, beliefs, behaviors, and preferences for receiving health information for CCS. The survey was fielded from February 20-March 12, 2024. Quantitative data were analyzed using SAS version 9.4.

Five discussion groups were held in March and April 2024. Questions asked were aimed to gather insights on the connection to childhood cancer survivorship, trusted sources of health information, perceptions and experiences with HPV vaccination, concerns and information needs, reasons for lower vaccination rates among childhood cancer survivors, and strategies for sharing information and education effectively.

RESULTS

- A survey invitation was sent to 592 advisors with 406 opening invitations, 167 started the survey, and 117 completed the survey (20% response rate). HPV awareness and knowledge levels were low among respondents – especially specific items about CCS and increased risk of HPV cancers in adulthood. See Table 1.
- Healthcare providers were the preferred source of vaccine information (86%), with in-person education from healthcare teams being the top choice for health information (80%), followed by the St. Jude MyChart patient portal (68%) and handouts from healthcare teams (64%).
- An email invitation was sent to patient family advisers through support from the Patient Family Centered Care office. 27 patient family advisers participated in discussions (37 advisors signed up). Participants included parents of childhood cancer survivors, adult childhood cancer survivors, bereaved parents, and parents of children with other catastrophic diseases.

Table 1. HPV and HPV vaccination knowledge

Statement (Correct Response)	% Correct
A person could have HPV for many years without knowing (True)	88
HPV is transmitted through sex (True)	76
A person's chances of getting HPV increase with the number of sexual partners they have (True)	74
The HPV vaccine is more effective if a person is vaccinated before they start having sex (True)	72
To be fully protected against HPV, a person needs more than 1 dose of the vaccine in the United States (True)	70
HPV can cause genital warts (True)	61
Childhood cancer survivors are at increased risk of cancer caused by HPV as adults (True)	47
HPV can cause cancer in the head and neck (True)	32
Nearly all sexually active people will be infected with HPV at some point (True)	29
Childhood cancer survivors, regardless of age, should receive 3 doses of the HPV vaccine (True)	26
Childhood cancer survivors, regardless of age, should receive 3 doses of the HPV vaccine (True)	26
Childhood cancer survivors are less likely to be vaccinated against HPV compared to the general population (True)	15
The HPV vaccine is only recommended for girls (False)	6
HPV can cause cancer in women only (False)	5
Most people infected with HPV have visible signs or symptoms of the infection (False)	4
Only women can get infected with HPV (False)	3

CONCLUSION

This initiative emphasized tailoring education and outreach to diverse populations, with community feedback shaping messaging and delivery. It highlighted the need for targeted education and stronger healthcare provider engagement to address HPV vaccination barriers, particularly for childhood cancer survivors (CCS). To address these challenges, SJCCC launched the Survivor Proud campaign, co-created with patient family advisers to resonate with the target audience. Future plans include expanding collaboration with affiliate sites and collecting longitudinal data to evaluate impact and refine strategies. These efforts aim to reduce disparities, increase HPV vaccine uptake, and lower long-term cancer risk in high-risk populations.



Figure 2. Survivor Proud Tabling and Campaign Images

Figure 3. Updated Flyer for Childhood Cancer Survivors

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