

University of Montana

**ScholarWorks at University of Montana**

---

University Grant Program Reports

Office of Sponsored Programs

---

8-2020

## **Engaging adolescents and families in human papillomavirus vaccine education**

Sophia Newcomer

Follow this and additional works at: <https://scholarworks.umt.edu/ugp-reports>

**Let us know how access to this document benefits you.**

---

## University Small Grant Final Report

Project: Engaging adolescents and families in human papillomavirus vaccine education

Principal Investigator: Sophia Newcomer, PhD, MPH

Graduate Research Assistant: Gretchen Neal, MS

Report submitted August 24, 2020

### Background and Objective

Human papillomaviruses (HPVs) are the most common sexually-transmitted disease in the U.S., with over 14 million new infections occurring each year.<sup>2</sup> While most HPV infections resolve without causing disease, some infections remain dormant for years, and subsequently cause several cancer types, including cervical cancer in females, penile cancer in males, and oropharyngeal and anal cancers in both sexes. National efforts to promote vaccination to protect against HPV have been successful in some urban areas, but less effective in rural settings. In Montana, rates of HPV vaccination remain far below the national public health goal of 80% series completion by the year 2020 (Figure 1).

Patient- and parent-level interventions aimed at HPV vaccine education have shown promise in increasing vaccination rates in other areas of U.S.<sup>3-5</sup> However, prior to implementing patient- and parent-level interventions in Montana, we need to first establish partnerships for conducting such community-engaged research, including a having a method for engaging patients and families in this work. Our objective was to determine when, where, and how Montana adolescents and their families want to receive educational information about HPV vaccination. To achieve this objective, we partnered with Community Medical Center (CMC) in Missoula, MT to assemble an Adolescent Health Patient and Family Advisory Council.

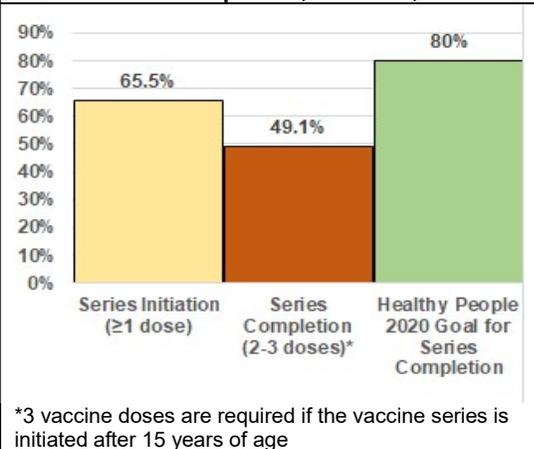
### Methods

The project team included representatives from CMC's Population Health Department, a CMC pediatric clinic that serves adolescent patients, and the UM researchers. The team met monthly to develop and implement a strategy for recruiting adolescent patients and families to the advisory council, and to plan the content of the first council meeting. Families were recruited through fliers placed in the clinic lobby. Physicians were also informed of the advisory council and recommended patients and families to the council. Interested adolescents or parents contacted the project's research assistant, who provided them with additional information and worked to schedule the initial council meeting.

The advisory council met in December 2019. The council consisted of four adolescents between the ages of 13 and 17 years, and three parents (two of the adolescents were siblings). Project team members led the meeting, which started with adolescents and parents meeting together, and then separated into two separate meetings that lasted 45-60 minutes. Prior to the meeting, semi-structured discussion tools were developed for both the parent and adolescent meetings. Parents were asked a number of questions about their experiences with adolescent vaccinations generally, about the HPV vaccine, and about how they would like to receive information about the HPV vaccine. Adolescents were asked about their knowledge of adolescent vaccines, HPV, and their experiences with communicating with their medical providers. Council members were informed that participation in the group discussion was optional and members were free to not answer questions or leave whenever they wanted. All members received \$25 for participation; a group dinner was also provided.

We audio-recorded and transcribed the advisory council meetings. To analyze the data, we used a directed content analysis approach, whereby we documented anticipated themes before analysis. The project research assistant independently conducted line-by-line open coding of the transcribed meetings and assigned data to codes. The research assistant and principal investigator met regularly to review coding progress and to identify emerging themes. Analyses were conducted with NVivo software. UM's Institutional Review Board was

**Figure 1: Adolescent HPV Vaccine Series Initiation and Completion, Montana, 2017<sup>1</sup>**



consulted prior to starting this project, and it was determined that IRB review was not necessary since this project focused on quality improvement for adolescent health services.

## Results

Three main themes emerged from the parent meeting. The first was that these parents were very open to their children's schools providing education and information about the HPV vaccine. They noted that schools already provide some information about other adolescent vaccines, so offering information about the HPV vaccine would be welcome. One parent said that she would be open to receiving information from the schools because "it's not like it's separation of medicine and state." Another parent observed that she trusted the schools to teach her kids, and so she was willing to trust them to teach her as well. A second theme was that these parents recognized the importance of provider communication as a facilitator for receipt of the HPV vaccine. They wanted medical providers to communicate information and not just tell parents what to do, they thought the conversation around HPV should start early and continue frequently, and they emphasized that the provider should be prepared and knowledgeable. Another main theme that emerged was the importance of reminders to come back to complete the HPV vaccine. These parents were very clear about their need for help in this area, and they noted that remembering to come back for the second or third dose can be a challenge.

Several themes emerged from the adolescent meeting. In general, these teens communicated their support of vaccines and the importance of being vaccinated. They knew multiple doses are needed to complete the HPV vaccine series. In terms of provider communication style, most adolescents on the council wanted their provider to present them with relevant information, and to include them in discussions about vaccines and other health issues. They wanted to know which vaccines they were receiving, and they also felt that in general, it was important to them to be involved in conversations about their health. Several adolescents emphasized that they valued being listened to by their medical providers and being allowed to express their opinions to their medical provider. The last major theme that emerged was side effects of the HPV vaccine. None of the adolescents had concerns about the safety of the HPV vaccine, but some of them did have concerns about the pain of the injections.

## Discussion and Next Steps

Thanks to support from the University of Montana's University Small Grant program, we were able to successfully implement an Adolescent Health Patient and Family Advisory Council with Community Medical Center. This work will help support future extramural applications related to increasing HPV vaccination rates in Montana, in two ways. First, the information collected from the council will serve as preliminary data to inform approaches for educating parents and adolescents about the HPV vaccine. Second, we will be able to demonstrate that we have established community partnerships that can facilitate patient engagement in future immunization services research and programs.

## References

1. Centers for Disease Control and Prevention. TeenVaxView, HPV Vaccination Coverage. <https://www.cdc.gov/vaccines/imz-managers/coverage/teenvaxview/data-reports/hpv/index.html>. Accessed on February 14, 2019.
2. Centers for Disease Control and Prevention. CDC Fact Sheet: Incidence, Prevalence, and Cost of Sexually Transmitted Infections in the United States. Atlanta, GA: US Department of Health and Human Services, Centers for Disease Control and Prevention; 2013. <https://www.cdc.gov/std/stats/sti-estimates-fact-sheet-feb-2013.pdf>. Accessed on February 14, 2019.
3. Dempsey AF, Pyrznowski J, Lockhart S, et al. Effect of a Health Care Professional Communication Training Intervention on Adolescent Human Papillomavirus Vaccination: A Cluster Randomized Clinical Trial. *JAMA Pediatrics*. 2018;172(5):e180016-e180016.
4. Maertens JA, Jimenez-Zambrano AM, Albright K, Dempsey AF. Using community engagement to develop a web-based intervention for Latinos about the HPV vaccine. *Journal of Health Communication*. 2017;22(4):285-293.
5. Smulian EA, Mitchell KR, Stokley S. Interventions to increase HPV vaccination coverage: a systematic review. *Human vaccines & Immunotherapeutics*. 2016;12(6):1566-1588.