

Evaluation Brief:

Improving adolescent HPV immunization coverage through school-based health centers

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Executive summary

Public Health—Seattle & King County (PHSKC) partnered with school-based health centers (SBHCs) and students at public middle and high schools in Seattle to pilot a human papillomavirus (HPV) vaccine promotion program. This evaluation brief summarizes lessons learned about the program's evaluation questions.

- SBHCs implemented an online vaccine consent process (DocuSign®) that is a simple, convenient option for parents/guardians. Uptake of DocuSign® varied across SBHCs and gathering parent/guardian emails was a challenge. However, DocuSign® was a useful tool for SBHCs and a viable alternative to paper forms.
- Student champions organized a range of HPV vaccine promotion activities to teach classmates about HPV infection, the vaccine, and SBHCs. Students were able to deliver peer education with a relatively low time commitment, and support and advice from PHSKC staff was an important success factor.
- SBHCs that participated in this program for a two-year period showed a two-fold increase in HPV vaccine uptake.
- Lessons learned suggest opportunities to continue to support youth engagement, strengthen existing relationships with SBHCs, and expand the use of DocuSign®.

Background on promoting immunization & HPV awareness

Of the three vaccines recommended for adolescents—meningococcal (MCV), pertussis (Tdap), and human papillomavirus (HPV)—immunization rates for HPV are much lower than the other two. A key strategy for improving adolescent immunization rates is enhancing access to vaccination services. The ability of SBHCs to increase immunization coverage is well documented. A 2015 analysis conducted by PHSKC found that teens who used SBHCs for immunization services were 50% more likely to complete the HPV vaccine series than teens who received immunizations at traditional healthcare settings.

For nearly two decades, the Community and School-Based Partnerships and Immunization Programs at PHSKC have collaborated with SBHCs in the Seattle area to promote student health. Recognizing that novel strategies to promote immunization and improve the delivery of vaccination services to 11 to 18 year olds are needed to increase vaccination coverage among adolescents in our region, PHSKC engaged students, staff, and SBHCs at 13 middle and high schools in Seattle Public Schools in a pilot program (2015-17) to raise HPV vaccine awareness and increase immunization through expanded use of SBHCs.

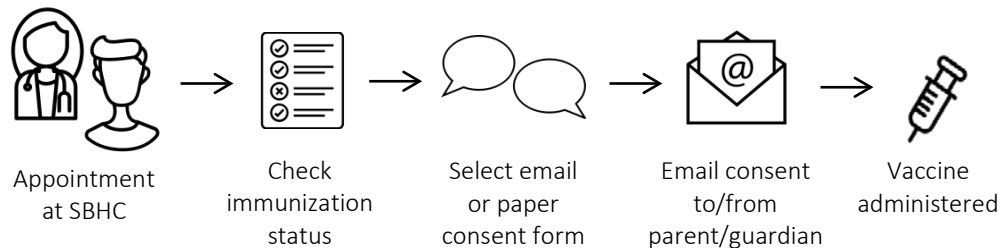
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Partnering with schools to pilot a new approach

PHSKC tested two key strategies during the pilot:

- SBHCs implemented an electronic consent process, using the online platform DocuSign®, to provide an easy and convenient option for parents to consent to vaccinations for their child.
- Student champions spearheaded HPV education and awareness campaigns in their schools.



To assess the pilot program’s outcomes and identify opportunities for program learning, improvement, and expansion, PHSKC partnered with the Center for Community Health and Evaluation (CCHE). Key questions for the program evaluation included:

- What have been the benefits and challenges of using DocuSign®, and how can the challenges be overcome?
- What lessons can be learned about implementation of DocuSign® and student champion work at SBHCs and in schools, including success factors, barriers, and opportunities for improvement?

The evaluation team examined HPV immunization data from the Washington State Immunization Information System (WA-IIS), interviews with SBHC staff and student champions, and a survey of parents who used the online vaccine consent process to answer the evaluation questions.

DocuSign is a helpful tool for SBHC staff to complete vaccinations

SBHC staff interviews and the parent survey highlight benefits of DocuSign® and opportunities for ongoing use as the program matures.

SBHC coordinators and providers reported high satisfaction with DocuSign® training and support from PHSKC. DocuSign® uptake varied across sites. One SBHC preferred their paper consent process, while another SBHC tried to offer DocuSign® as an option for every vaccine consent; other SBHCs lay somewhere in the middle.

Reported benefits of DocuSign® from SBHC staff and parents/guardians:

- Faster vaccination process
- Easier consent process for vaccine series with multiple doses
- Simple, convenient option for parents
- Prevents losing/forgetting paper consent forms

“I definitely hear back from parents sooner when I send a DocuSign. It’s more convenient for them; it’s paperless. They can look through it on their phone.”

—SBHC Coordinator

All parents who answered the survey also agreed it was easy to understand the email sent from DocuSign®, to review instructions for vaccine consent documents, and to complete the consent process online.

DocuSign® simplifies the process for tracking vaccine consent for SBHC staff because it sends weekly reminders to parents/guardians and emails the SBHC about which consents are completed. Many SBHCs were unaware of this feature of DocuSign®, suggesting there is an opportunity for SBHCs to maximize the utility of DocuSign® in the future.

Some challenges to using DocuSign® included getting an accurate email address for parents/guardians and adapting to different screening and consent processes at each SBHC. There is also a range of opinions among SBHC staff about how involved students should be in the immunization consent process.

Although DocuSign® did not fully replace paper forms, it is another tool that SBHCs can use for all vaccinations, including HPV, to try and provide parents/guardians with a convenient consent process.

Student champions delivered meaningful peer education on HPV

With support from PHSKC and school staff, student champions were able to organize a range of HPV awareness activities at their schools.

The student champion groups at the five schools where CCHE conducted group interviews ranged in size from three students to ten, with a mix of students from 9th to 12th grade.

Students were recruited by PHSKC liaisons, as well as word-of-mouth between students. Students participated for a variety of reasons, ranging from wanting to be a leader to having fun working with friends to teaching youth about inclusivity in sex education.

HPV campaign activities led by the student champions included raffles, trivia, movie nights, presentations, and posters.

Reported benefits from the HPV awareness campaign:

- Educated student champions themselves about HPV
- Raised awareness about HPV and the vaccine among students
- Raised awareness about SBHCs among students
- Some SBHCs noted an uptick in students seeking the HPV vaccine after student champion campaign activities

Time is at a premium for all students, and all of the student champions commented that they could not have committed any more time to the HPV campaign than they already did. Most student groups worked during brief 30-40 minute meetings during the school day with their PHSKC liaisons. Some champion groups met weekly while others met every four to six weeks.

Student champions overwhelmingly reported that the PHSKC liaison was pivotal for their engagement and success. At some schools, SBHC staff or schools nurses were also involved in the student champions' work. Students appreciated support and guidance on their activities.

Providing students with support from an adult, through a PHSKC liaison or partnerships with school nurses or SBHC staff, should be a key consideration for success as the program continues.



Student recruitment with HPV trivia wheel

“[A lot of] people got vaccinated. People who didn’t know they needed it. We got people to be comfortable talking to us and the teen health center people...My senior humanities teacher told me what a difference the inclusivity piece made.”

—Student champion

A two-fold increase in HPV vaccine uptake was observed post-intervention

The Washington Immunization Information System (WA-IIS) was used to track HPV vaccine doses administered in participating SBHCs from school years 2011-12 to 2016-17. HPV vaccine uptake was defined as the proportion of SBHC users who had not completed the three-dose HPV vaccine series before the intervention period who received at least one dose of HPV vaccine at a participating SBHC. PHSKC compared HPV vaccine uptake during the periods before and after the pilot program was implemented at participating SBHCs at the beginning of the 2015-16 school year.

There was a steady increase in HPV vaccine uptake in most participating SBHCs since the 2011-12 school year. SBHCs participating in the pilot program also had a consistently higher HPV vaccine uptake rate compared to non-participating SBHCs. For schools who participated in the pilot for two school years, a statistically significant two-fold increase in HPV vaccine uptake was observed. For schools that participated in the pilot for only one year, HPV vaccine uptake increased by 31% in the period after the pilot program ended, but this difference was not statistically significant.

These results suggest that the SBHC HPV pilot program was successful in improving HPV vaccine uptake in schools that engaged in promotion activities and used DocuSign® consistently for two years. Even though results were inconclusive for schools that participated in the pilot for just one year, findings support the continuation and expansion of program activities to additional schools with SBHCs.

Implications for ongoing partnership with SBHCs

This project demonstrates that leveraging the knowledge, creativity, and community leadership of adolescents in schools with SBHCs is an effective strategy to increase awareness of the benefits of HPV vaccination and the availability of free, accessible vaccination services at SBHCs. Moreover, the utility of an electronic immunization consent process was validated by both SBHC staff and parents/guardians, suggesting opportunities to expand the use of DocuSign® in the SBHC setting. Lastly, the evaluation findings underscore the need to 1) expand existing partnerships with SBHCs to launch student-led campaigns at all high schools with SBHCs, 2) strengthen immunization outreach to parents and guardians at middle schools with SBHCs, and 3) explore collaborative models to support youth voice in health care.

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