

Statewide Pediatric Quality Improvement Collaborative for HPV Vaccine Initiation

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ABSTRACT

Background: Human papillomavirus (HPV) is the most commonly sexually transmitted pathogen and has been implicated in several types of cancers, yet immunization rates have remained low.

Methods: Wisconsin pediatricians participated in a 3-month health care collaborative from April through June 2016.

Results: HPV vaccination initiation increased overall among all participating practices from 56.4% at baseline to 71.2% after the 3-month time period. In addition, Tdap and meningococcal vaccine rates increased in these practices as well.

Discussion/Conclusions: A statewide pediatric health care collaborative can make significant improvements in HPV vaccination rates in a relatively short period of time and also can directly improve rates of other adolescent vaccines.

vaginal, vulvar, and head and neck cancers.² HPV vaccines have been shown to be safe and effective through extensive safety testing done in clinical trials prior to their approval by the Food and Drug Administration. The 3-part vaccine series has been recommended for over 10 years in the United States, yet rates of vaccination continue to be low nationally and in Wisconsin. The 2015 Wisconsin vaccination rate for all adolescents (ages 13-18) was 44% for initiation of the HPV vaccine and 26% for completion of the HPV vaccine.³ The purpose of the Wisconsin Chapter of the American Academy of Pediatrics (WIAAP) HPV project was to address ways to increase HPV vaccination initiation in

adolescents ages 11 and 12 over a 3-month intervention period, utilizing quality improvement methodology with an emphasis on strong provider recommendation.

BACKGROUND

Human papillomavirus (HPV) is the most common sexually transmitted pathogen, and it is estimated that 79 million Americans are infected with HPV at any one time.¹ Although the HPV infection may resolve on its own, some HPV infections can persist and lead to the development of cancer later in life, including cervical, anal, penile,

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METHODS

The WIAAP recruited pediatric practices to participate in this statewide initiative. Twenty-five pediatricians, most within 5 major clinic sites, participated in this quality improvement Maintenance of Certification (MOC) project supported by a grant from the Centers for Disease Control and Prevention through the American Academy of Pediatrics (AAP). During the four 1-hour webinars conducted during this project, US and Wisconsin HPV vaccination rates were reviewed and quality improvement methodology was presented. The webinars also highlighted evidence-based practice change ideas including information on how to communicate with parents regarding the HPV vaccine. The project lasted 3 months and

involved 1 month of baseline data collection and 2 months of data collection after quality improvement interventions. For all 11- and 12-year-old patients who had an office visit during the data collection cycle, data was recorded on whether they received dose 1 of the HPV vaccination, the Tdap vaccine, and the meningococcal vaccine. We used chi-square analysis to determine whether the findings of our results were significant.

RESULTS

During our 2-month intervention, the HPV vaccination initiation rates rose in participating practices from 56.4% to 71.2% ($P < 0.0001$) (see Figure), which exceeds state and national averages for initiation of HPV vaccination rates. In addition, the Tdap initiation rates increased from 92.9% to 97.2%, and meningococcal vaccine rates increased from 89.7% to 92.8%. Although the primary focus of this project was on HPV initiation, we also tracked Tdap and meningococcal vaccines as these 3 vaccines form the platform of adolescent vaccinations.

DISCUSSION

This project represents WIAAP's first statewide quality improvement project focusing on pediatric HPV immunization rates in Wisconsin. Several pediatricians working together within a practice may have contributed to the success of this project as it may have allowed for more robust practice changes. The increase in vaccination rates may have been due to the technical support in implementing evidence-based practices, such as making a strong provider recommendation, including the entire care team (nursing and rooming staff) in promoting the HPV vaccine, and vaccinating at all office visits, not just during the well-child check. In addition to increasing HPV vaccination rates, the rates of Meningococcal vaccine and Tdap also rose, possibly due to the increased provider emphasis on the adolescent vaccination platform.

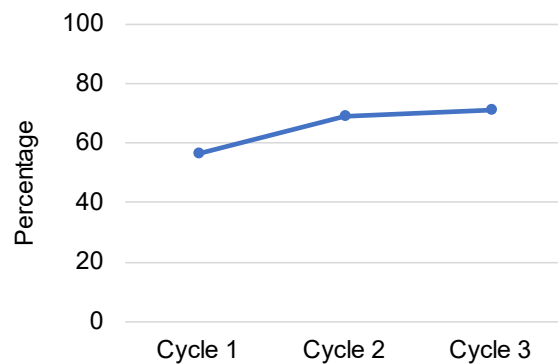
CONCLUSION

A statewide learning collaborative can be a useful and productive way to improve the quality of care, and it is valued by the participants, particularly when maintenance of certification credit is awarded. It is a valuable opportunity to improve statewide vaccination rates and, in the future, could be expanded to include additional pediatric as well as family medicine practices throughout the state.

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Figure. Human Papillomavirus Vaccine Initiation Rates



Percent initiation for the 3 cycles of data collection. Cycle 1 is baseline data (April 2016) and Cycles 2 and 3 reflect rates after quality improvement cycles (May and June 2016, respectively).

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