

Health Care Provider Attitudes and Barriers Regarding HPV Vaccination: Factors Associated with Increasing HPV Vaccine Coverage Before and After an Intervention Program

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Background

- Marshfield Clinic Health System implemented a provider focused intervention to increase human papillomavirus (HPV) vaccine coverage in select departments
 - Intervention activities: grand rounds, department visits, emailed quarterly feedback, patient reminder and recall
- Few studies have examined how clinicians' attitudes impact HPV vaccination rates

Objectives

- Describe barriers, attitudes, and program participation
- Identify factors associated with increase in HPV vaccination coverage following the intervention among adolescent primary care providers

Methods

Study Population

- Adolescent primary care providers (Physicians, Nurse Practitioners, Physician Assistants) at Marshfield Clinic

Survey

- Link sent via email with 3 email reminders following intervention period; nonresponders were sent survey via interoffice mail
- Assessed knowledge (true/false statements), attitudes and perceived barriers (4 point Likert scale), program participation, self-efficacy and outcome expectations regarding HPV and HPV vaccine (4 point Likert scale), provider gender and length of time in practice

Outcome

- Provider-specific coverage data on first dose of HPV vaccine
 - Vaccination data obtained from electronic medical record/vaccine registry
 - Providers with <30 adolescent patients and no HPV vaccine coverage data in the previous year were excluded

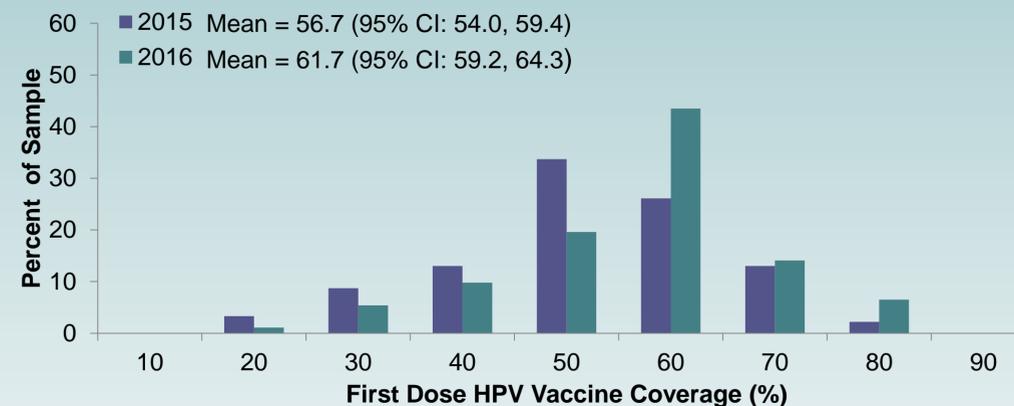
Analysis

- Linear regression, adjusted for first dose of HPV vaccine coverage in previous year
- Composite HPV knowledge score was determined by summing correct responses for HPV disease and vaccine knowledge statements (range: 0-7), mean barrier score and self-efficacy scores were obtained by summing and average items

Results

- 92 (77%) of 119 eligible providers completed the survey
- Responders and nonresponders were similar with regard to provider specialty, adolescent vaccine coverage, and size of adolescent patient population

Figure 1. Provider first dose HPV vaccine coverage before and after the intervention



- Factors associated with higher first dose HPV vaccine coverage:
 - Confidence in ability to persuade hesitant parents to accept HPV vaccination (estimate=0.52, p=0.02)
 - Perception of few parental concerns about HPV vaccine efficacy (estimate=-0.39, p=0.03)
- Provider specialty, gender, length of time in practice, adolescent patient population size, receipt of intervention quarterly feedback reports, attendance at other intervention activities, knowledge score, and barrier scores were not associated with HPV vaccine coverage

Strengths and Limitations

Strengths

- Survey data linked to provider level HPV vaccine coverage, response rate

Limitations

- Cross-sectional study, small sample size, and single, largely rural healthcare system in WI

Figure 2. Providers' reported barriers to giving HPV vaccine to patients

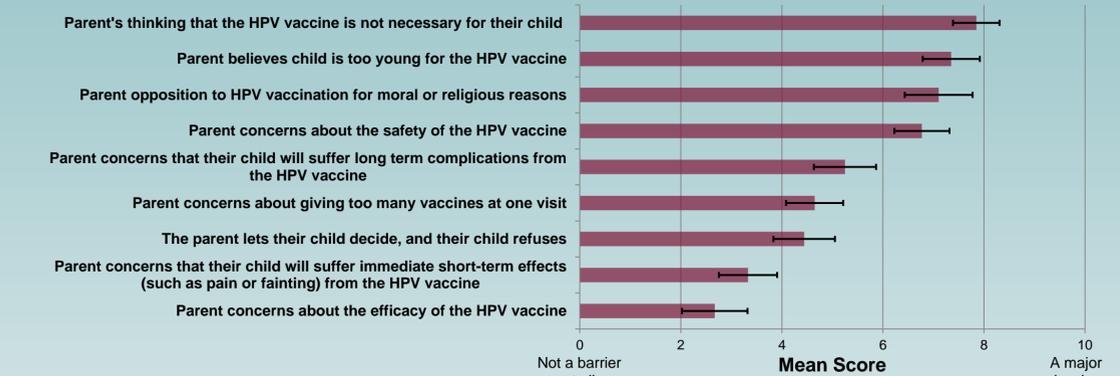
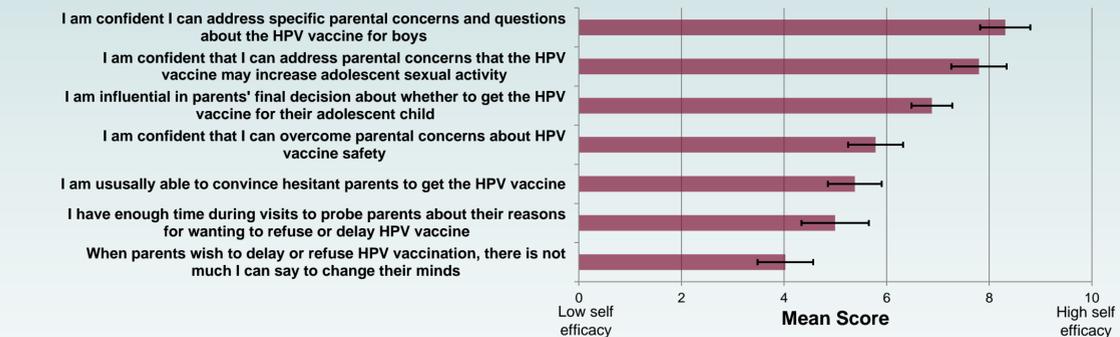


Figure 3. Providers' reported self-efficacy to address HPV vaccine hesitancy and outcome expectations



Conclusions

- Parental concerns regarding HPV vaccination are common perceived barriers for providers
- Efforts to increase HPV vaccine uptake should help providers improve their confidence in addressing parental concerns

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