

Roles of Medical Providers in Addressing Barriers to HPV Vaccination Rates in Rural NE clinics: A Community Initiative



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Abstract

The advent of HPV vaccines has determined cervical cancer to be largely preventable, however nationwide vaccination rates are suboptimal. Purpose of study is to determine the impact of medical providers' approach on HPV vaccination for their early adolescent patients at privately insured clinics in rural Nebraska. In collaboration with CHI, 11 Phase III PCMH clinics were selected to complete a survey to collect demographics, interviewing techniques, challenges with vaccine and areas for improvement. Findings of survey identified 9 to 11-year olds as the most difficult group to discuss HPV vaccination.

Background

- CDC recommendations (2019) for children ages 11-14-years are able to receive two doses of the HPV vaccine at a 6-12-month interval. A three-shot series is required for individuals at an increased risk for acquiring HPV or who started the vaccine series at 15 y/o or older.
- Barriers to vaccine rates include physicians' missed opportunities in clinic. Vadaparampil et al. (2011) noted physicians report significantly lower recommendation rates for their early adolescent patients compared to late adolescent patients.
- Gilkey et al. (2018) identified the best approach for increasing HPV vaccinations were physicians prioritizing cancer prevention. Correcting vaccination myths of autism and vaccine side-effects does not increase rates among adolescents (Nyhan et al., 2014).
- Applying motivational interviewing techniques for the discussion of HPV vaccines has resulted in better outcomes for improving vaccine compliance for pediatric patients with vaccine-hesitant parents (McClure et. al, 2017).

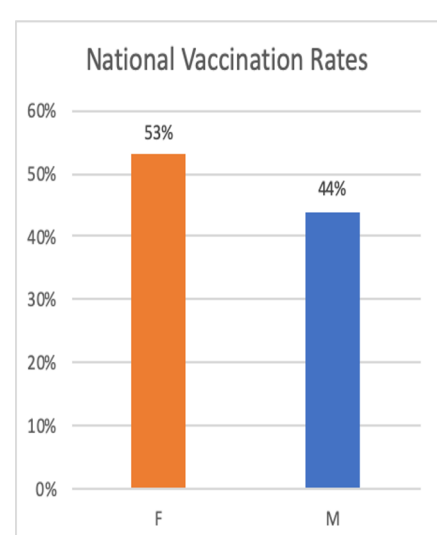


Figure 1: National HPV vaccination rates comparing genders.

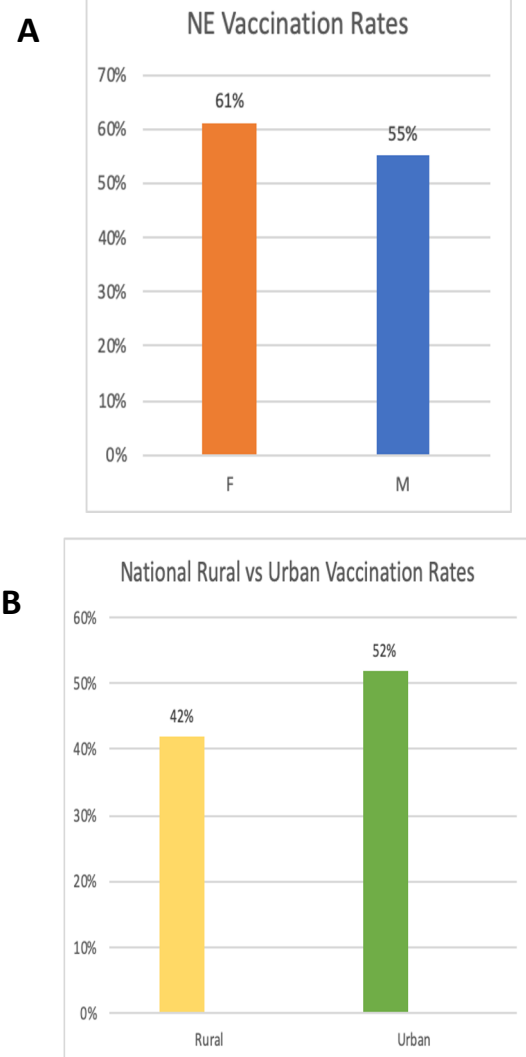


Figure 2: HPV vaccination (a) Vaccination rates for Nebraska. (b) Comparing rates for Rural versus Urban settings.

Methods

- 13 Phase III PCMH clinics located in rural Nebraska were selected to partake in the survey. Two clinics were excluded due to lack of participation from personnel.
- Selected clinics had no prior history of interventions to improve HPV vaccination rates.
- Intentions of survey were to include and identify all staff involved in the vaccination process such as the receptionists, nurses and physicians. No incentives were provided for their participation.
- Baseline HPV vaccination rates were provided for each clinic by the CHI Practice Transformation Specialist.

Number of Patients (12-15 y/o) with 0 Vaccine Doses in Provider Panel	674	54.4%
Total Patients (Age 12-15 y/o) on Provider Panel	1,238	

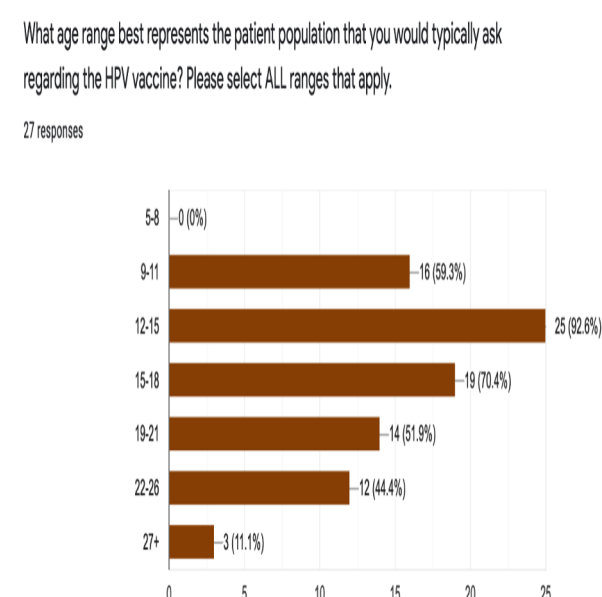
Number of Patients (12-15 y/o) with 1 Vaccine Doses in Provider Panel	254	20.5%
Total Patients (Age 12-15 y/o) on Provider Panel	1,238	

Number of Patients (12-15 y/o) with 2 Vaccine Doses in Provider Panel	310	25.0%
Total Patients (Age 12-15 y/o) on Provider Panel	1,238	

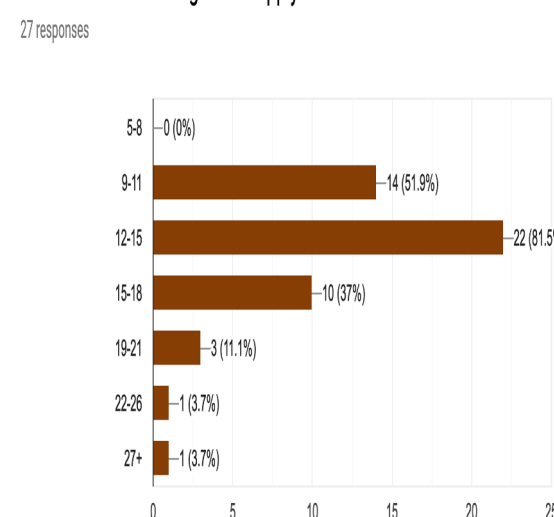
Table 1: HPV vaccination rates for ages 9 to 11 and 12 to 15-year-olds at CHI clinics in rural NE (26 June 2019).

Results

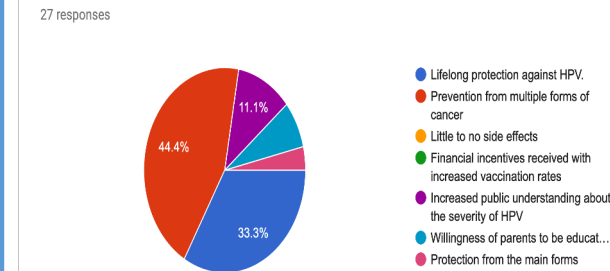
- As of 2019, the selected 11 rural NE clinics had a 0.9% completion of the vaccine series for 9 to 11-year-old patients (n=855), and 25.0% completion of the series for 12 to 15-year-old patients (n=1268).
- 92.6% of all respondents chose the 12-15 age range as the patient population the clinics would typically ask about the vaccine.
- 12-15 age range was selected as more ideal than the 9-11 age range when recommending the vaccine.
- Age group of 9-11 year olds was identified as most difficult to vaccinate against HPV.
- History of vaccine hesitancy as main reason to not mention HPV vaccination during clinic visit to any age group.
- Parent hesitancy for vaccine use was most often associated with safety concerns.
- HPV vaccines greatest benefit: (1) Cancer prevention (2) Lifelong protection against HPV.
- Primary limitations for HPV vaccination: (1) Parent hesitancy (2) Completion of the multiple-dose series.



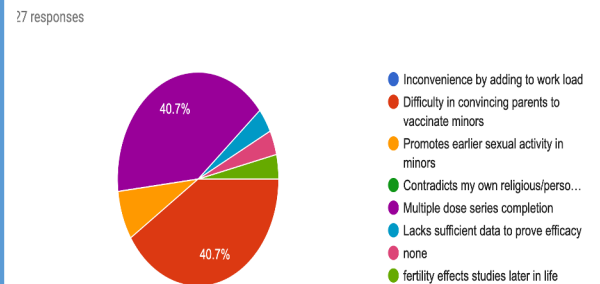
In your opinion, what age group is ideal to begin series for HPV vaccines? Please select ALL ranges that apply.



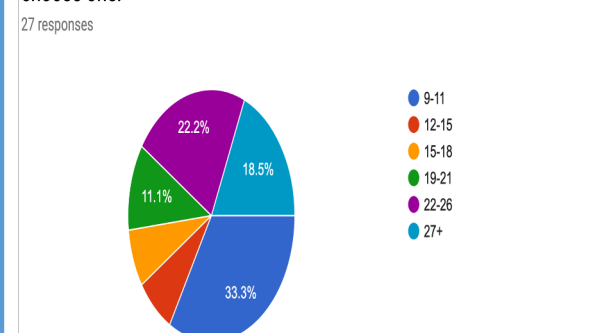
In your opinion, what is the greatest benefit of the HPV vaccine? Please choose one.



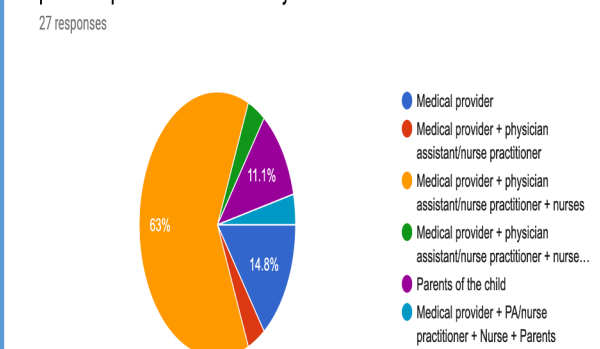
In your opinion, what is the greatest drawback of the HPV vaccine? Please choose one.



What is the most difficult age group to vaccinate against HPV? Please choose one.



In your opinion, who is primarily responsible for ensuring vaccination of the pediatric patients who come to your clinic? Please choose one.



Discussion

- Baseline vaccination rates supported literature, which verified a discrepancy in HPV vaccination rates within rural NE clinics.
- Findings demonstrated a vaccination gap between 9-11 year-olds vs. 12-15 year-olds; both age groups are within CDC guidelines for HPV vaccine.
- Health professionals expressed hesitation to vaccinate younger patients, although the "ideal" age to vaccinate was earlier in adolescence according to the respondents.
- Survey responses depict clinical observations of parents' misunderstandings of the HPV vaccine and a lack of provider comfort while engaging in open-dialogue with their patients.

Conclusion

Efforts to sustainably improve HPV vaccination rates in rural NE clinics require enhancing the communication between clinic personnel, patients and their families. Incorporating empirically-supported educational resources addresses barriers identified in the survey, including misconceptions of HPV vaccine and provider discomfort. Future directions of project will seek to minimize missed opportunities within clinic by applying quality improvement interventions.

Future Directions



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