

# 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 community clinics in rural Nebraska. In collaboration with Catholic Health Initiative (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. Physicians report significantly lower recommendation rates for their early adolescents compared to late adolescent patients.
- The best approach for increasing HPV vaccinations were physicians prioritizing cancer prevention.
- Motivational interviewing techniques has improved HPV vaccine compliance among vaccine-hesitant parents (McClure et. al, 2017).

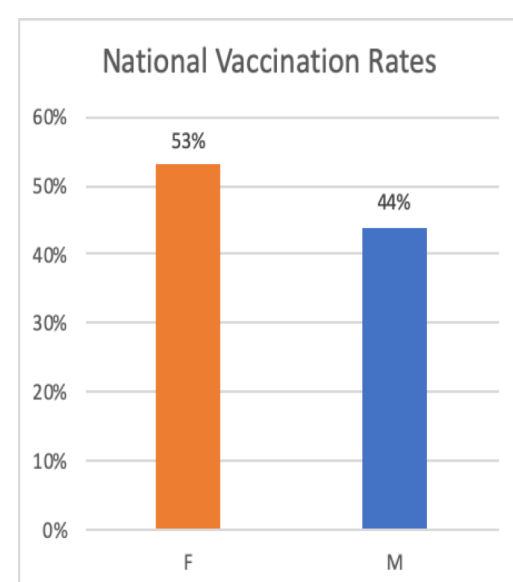


Figure 1: National HPV vaccination rates comparing genders.

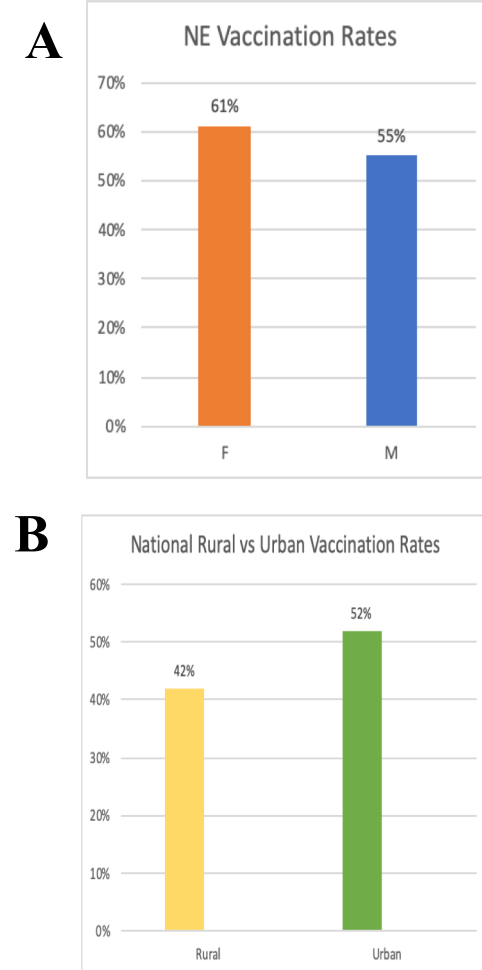


Figure 2: HPV vaccination (a) Vaccination rates for Nebraska. (b) Comparing rates for rural versus urban settings.

## Methods

- 13 Phase III PCMH clinics located in rural Nebraska were selected for the survey. Two clinics were excluded due to lack of participation.
- The clinics had no prior interventions to improve HPV vaccination rates.
- Survey included all staff involved in the vaccination -receptionists, nurses and physicians.
- No incentives were provided.
- 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	

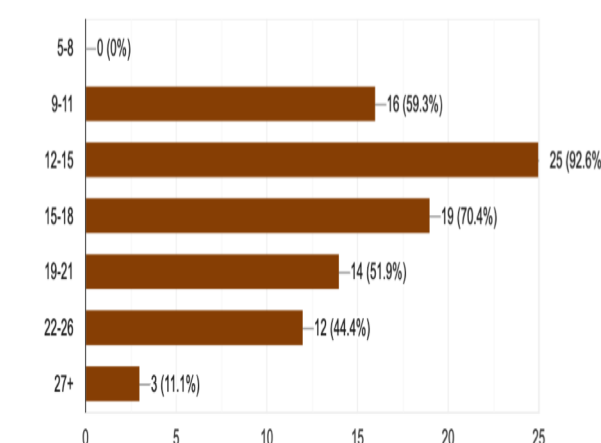
Table 1: HPV vaccination rates for ages 9 to 11 and 12 to 15-year-olds at CHI clinics in rural NE (26 June 2019).

## 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 was main reason to not mention HPV vaccination during clinic visit to any age group.
- Hesitant parents had safety concerns.
- HPV vaccines greatest benefit: (1) Cancer prevention (2) Lifelong protection.
- Primary limitations (1) Parent hesitancy (2) Completion of the multiple-dose series.

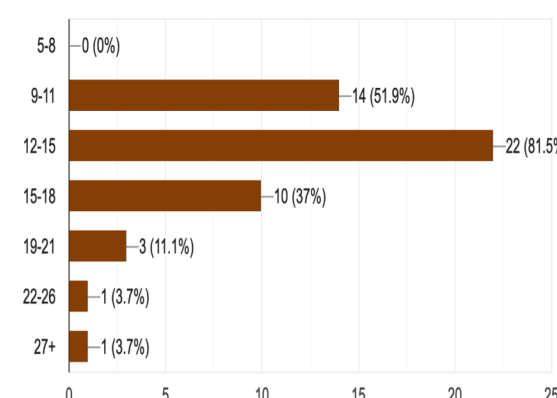
What age range best represents the patient population that you would typically ask regarding the HPV vaccine? Please select ALL ranges that apply.

27 responses



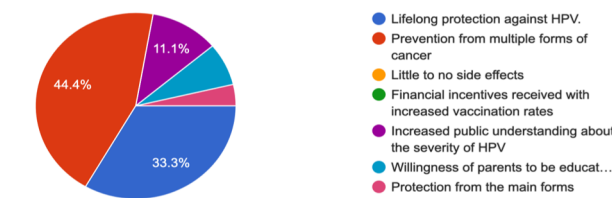
In your opinion, what age group is ideal to begin series for HPV vaccines? Please select ALL ranges that apply.

27 responses



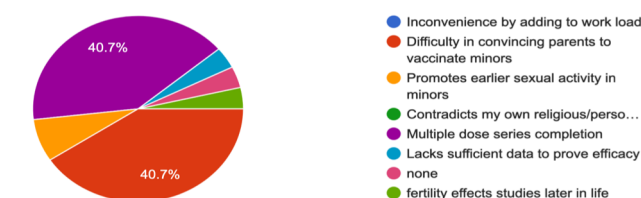
In your opinion, what is the greatest benefit of the HPV vaccine? Please choose one.

27 responses



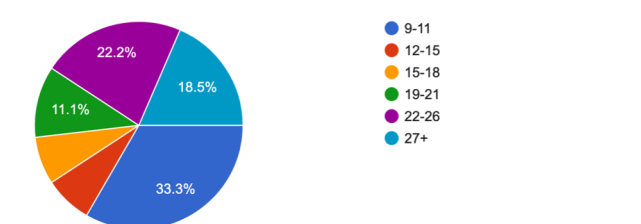
In your opinion, what is the greatest drawback of the HPV vaccine? Please choose one.

27 responses



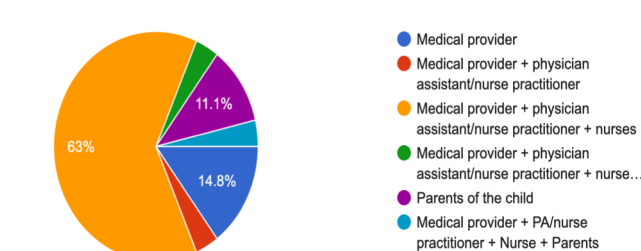
What is the most difficult age group to vaccinate against HPV? Please choose one.

27 responses



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

27 responses



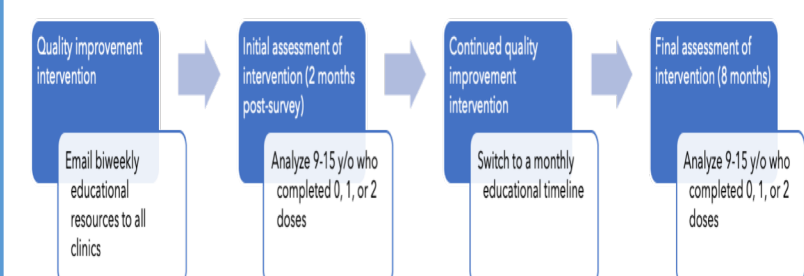
## Discussion

- Baseline vaccination rates showed a discrepancy in HPV vaccination rates within rural NE clinics.
- Vaccination gap noted 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 parents' misunderstandings of the HPV vaccine and a lack of provider comfort while engaging in open-dialogue with their patients.

## Conclusion

1. Communication between clinic personnel, patients and their families must be enhanced.
2. Provider education with resources to addresses barriers and misconceptions of HPV vaccine is needed.
3. To minimize missed opportunities within clinics by quality improvement interventions.

## Future Directions



## Acknowledgements

- Christie Abdul-Greene, CHI Practice Transformation Specialist, provided HPV vaccination rates for each clinic and distributed online surveys. A valuable resource for offering feedback on project.
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## References

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