Parental and Provider Attitudes on the HPV Vaccine Recommendation in North Dakota

Danielle Pinnick,[a,b] Molly Howell, MPH,[a] Tracy Miller, MPH, PhD[a]

BACKGROUND

Human Papillomavirus is the most common sexually transmitted disease in the United States, highest in both prevalence and incidence.[1] While some strains cause genital warts, certain strains of the virus may lead to abnormal cell development and cancer. HPV infection is a causative agent for a number of cancers, including cervical, vaginal, anal, and oropharyngeal.[2] Three vaccines introduced in the past decade provide immunity to the "high-risk" strains of HPV that lead to cancer, but uptake on these vaccines nationwide and in the state of North Dakota remains low, despite vast evidence showing safety and efficacy.[3-4]

OBJECTIVE

To assess parental and provider opinions on the HPV vaccine and determine target areas for improvement in its recommendation.

METHODS

Two anonymous, logic-coded online surveys, one directed at parents of adolescents and one directed at health care providers of adolescents, were designed in Qualtrics® and distributed through a variety of means. Questions were based upon a literature review of similar research performed on attitudes toward the vaccine.[5-12] The surveys were launched in June 2015 and participation recruitment was ongoing for the month of July and early August. Data was downloaded August 10th 2015 and a report was generated using SPSS® and the built-in Qualtrics® analysis tools.[12,13] Basic statistics as well as chi-squared test of analysis were performed.

RESULTS: PROVIDER SURVEY *(n=135)*

Recommendation Strength

Choice or Necessity

Sexual Health>OB>Urgent Care>Public Health>Ped>Fam Med
Mean Score 8.04, Std Dev 2.02, Range 2-10
Registered Nurse p=0.004
35-44 year-old cohort p<0.001
0-9 years in practice p=0.003

Similarity to Other Adolescent Vaccines

Sexual Health>Public Health>Urgent Care>Ped>Fam Med>OB
Mean Score 8.14, Std Dev 2.21, Range 2-10
25-34 year-old cohort p=0.001

Personal Opinion on Vaccine Necessity and Effectiveness

Sexual Health>Urgent Care>Public Health>Ped>OB>Fam Med
Mean Score 9.09, Std Dev 1.63, Range 2-10
Registered Nurse p=0.045
25-34 year-old cohort p=0.007
Own children have gotten/will get vaccine p=0.001

Sexual Health>Public Health>Urgent Care>Ped>Fam Med>OB
Mean Score 9, Std Dev 1.58, Range 3-10
Own children have gotten/will get vaccine p<0.01

RESULTS: PARENT SURVEY *(n=195)*

Parental Demographic	Correlation to vaccine acceptance
Unaffiliated religious beliefs	p=0.046
45 to 54 year-old cohort	p=0.006

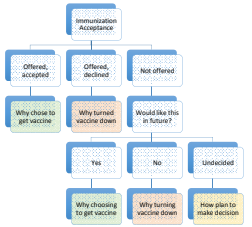
Accepted/Plan to Vaccinate

Question	Not at all important	Somewhat important	Very important	Total Responses	Rank
I trust my doctor's recommendations	3	33	100	136	1
I have done independent research on this vaccine	11	45	79	135	2
This vaccine is recommended by governing agencies	19	49	70	138	3
I know someone who was affected by an HPV related disease or cancer	60	24	42	126	4
Other (please specify)	3	2	5	10	5

Declined/Do Not Plan to Vaccinate

Question	Not at all important	Somewhat important	Very important	Total Responses	Rank
Concerns about safety	8	11	27	46	1 (significant)
Not required for school	30	10	5	45	3
Child is too young to receive this vaccine	26	9	8	43	2
Worried this would change child's attitudes about sexual behavior	37	3	4	44	6
Not needed for boys	15	5	2	22	8
Other (please specify)	4	2	2	8	4
Conflicts with religious beliefs	36	6	2	44	5
Concerns about cost	38	3	2	43	7

Branch Points in Parent Survey



Not Offered, Undecided

Question	I do not plan to do this	This will impact my decision somewhat	This will strongly impact my decision	Total Responses	Rank
Discuss HPV vaccine with health care provider	3	11	40	54	1
Research HPV vaccine on internet	8	20	26	54	2
Discuss HPV vaccine with friends/family	16	22	16	54	3
Discuss HPV vaccine with spiritual advisor	49	4	1	54	5
Other (please specify)	4	0	1	5	4

CONCLUSION

Parents who had vaccinated or intended to vaccinate their children against HPV selected trust in a health care provider recommendation as the main reason, while those refusing the vaccination most commonly indicated safety concerns. Conversely, when asked to speculate on why they thought parents refused this vaccine, providers most commonly selected that parents felt the vaccine was unnecessary – highlighting a possible disconnect between the two groups during the medical encounter. Educating North Dakota's healthcare providers on how to address safety concerns with parents may have a positive impact on vaccine uptake. For providers, demographics such as occupation, years in specialty, age, and acceptance of vaccine for their own children correlated with stronger vaccine recommendations and confidence. For parents, demographics correlations with acceptance of the HPV vaccine set included those reporting as unaffiliated with organized religions and those in the 45 to 54-year-old age range.

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a.) North Dakota Department of Health Division of Disease Control b.) North Dakota State University Department of Public Health