PARENTAL AND PROVIDER ATTITUDES ON THE HPV VACCINE RECOMMENDATION IN NORTH DAKOTA

DANIELLE M. PINNICK

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OBJECTIVES

1. **Describe the attitudes of providers about HPV vaccine.**
2. **Describe the attitudes of parents about HPV vaccine.**
3. **Summarize the key findings of this assessment and some of the particular challenges of HPV acceptance in North Dakota.**

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PHASES OF PROJECT

Literature Review and IRB Approval

- May 20th – June 26th

Survey Building

- June 1st – June 27th

Participant Recruitment

- June 27th – July 30th

Data Analysis

- August 1st – August 20th

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LITERATURE REVIEW

N values

- Varied from 52 (in-person interview) to 1605 (phone survey)

Demographic correlations

Study Methods

- Phone Surveys
- Focus Groups
- Mailed Surveys

Study ranges months to years

Representative/randomized or not

Gave direction for style of survey and questions

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PROVIDER SURVEY

Demographic info

Practice Responsibilities

- Give vaccines at all
- Give HPV vaccine?

How HPV vaccine recommended*

Personal ratings of vaccine*

How parents react to recommendation

Rate tools for increasing education/acceptance

***These were compared to demographics**

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PARENT SURVEY

Demographic info

- *More extensive (i.e. ethnicity, income, religion, etc.)*

Number of children, ages

- Loop through each child, up to four

Questions about each child

- Access to care
- Relationship with HCP
- Vaccines rec'd

- HPV-specific
  - If yes, why*
  - If no, why not*
  - Do you plan to get this*
  - *These were compared to demographics

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PROMOTION

Provider survey

- Sent to list of prevention partnership
- Sent to ND Med Assoc. listserv

Parent survey

- Sent through several listservs
- Promoted at community events
- Posters sent to public health offices, libraries
- Promoted on social media and websites

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SURVEY COMPLETION STATS

	Provider	Parent
Number of respondents	135 (goal 400)	195 (goal 1000)
Average time	9 mins (goal 5)	9 mins (goal 10)
Attrition	16% (84% completed)	28% (72% completed)

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PROVIDER SURVEY

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WHAT IS YOUR OCCUPATION/ROLE IN HEALTHCARE?

#	Answer	Response	%
1	Medical Doctor	7	6%
2	Nurse Practitioner	4	3%
3	Doctor of Osteopathic Medicine	0	0%
4	Registered Nurse	80	67%[1,2]
5	Physician's Assistant	1	1%
6	Other (please specify)	28	23%
	Total	120	100%

1. Choice to necessity in recommendation: p=0.004
2. How necessary is vaccine: p=0.045

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WHAT IS YOUR AGE?

#	Answer	Response	%
1	18-24 years old	0	0%
2	25-34 years old	35	29%[2,3]
3	35-44 years old	29	24%[1]
4	45-54 years old	22	18%
5	55-64 years old	33	28%
6	65-74 years old	1	1%
7	75 and older	0	0%
8	Prefer not to respond	0	0%
	Total	120	100%

1. Choice to necessity recommendation p<0.001
2. Different to similar p=0.001
3. How necessary is vaccine

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WHAT IS YOUR GENDER?

#	Answer	Response	%
1	Male	2	2%
2	Female	118	98%
3	Prefer not to answer	0	0%
	Total	120	100%

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IN WHAT TYPE OF SETTING DO YOU PRACTICE?

#	Answer	Response	%
1	Clinic in or associated with hospital system	37	31%
2	Independent clinic/private practice	8	7%
3	Other	5	4%
4	Public health clinic	58	49%
5	Indian Health Services	4	3%
7	Federally-qualified Health Center	6	5%
8	School Clinic (K-12)	0	0%
9	University/higher education-associated health clinic	1	1%
	Total	119	100%

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WHAT IS YOUR HEALTHCARE SPECIALTY?

#	Answer	Response	%
1	Pediatrics	20	17%
2	Family Medicine	34	29%
3	OB/GYN, Women's health	5	4%
4	Urgent care/walk-in	4	3%
5	Public health	60	51%
6	Other (please specify)	4	3%
7	Sexual health/family planning	2	2%

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HOW LONG HAVE YOU BEEN IN THIS SPECIALTY PRACTICE?

#	Answer	Response	%
1	0-9 years	67	56%[1]
2	10-20 years	27	23%
3	More than 20 years	25	21%
	Total	119	100%

1. Choice to necessity p=0.003

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DO YOU HAVE CHILDREN?

#	Answer	Response	%
1	Yes	110	92%
2	No	8	7%
3	Prefer not to respond	1	1%
	Total	119	100%

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HAVE YOU ALREADY, OR DO YOU PLAN TO, VACCINATE YOUR CHILDREN AGAINST HPV?

#	Answer	Response	%
1	Yes	92	84%[1,2]
2	No	9	8%
3	Not sure, yet	7	6%
4	Prefer not to respond	1	1%
	Total	109	100%

1. How necessary is vaccine p=0.001
2. How effective is vaccine p<0.01

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AT WHAT AGE DO YOU RECOMMEND RECEIPT OF THE HPV VACCINE TO YOUR PATIENTS?

#	Answer	Response	%
1	10 years or under	1	1%
2	11 years ✔	84	77%
3	12 years	22	20%
4	13 years	2	2%
5	14 years	0	0%
6	15 years	0	0%
7	16 years	0	0%
8	17 years	0	0%
9	18+ years	0	0%
	Total	109	100%

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WHICH GENDER DO YOU RECOMMEND THE HPV VACCINE TO?

#	Answer	Response	%
1	Only females	0	0%
3	Both females and males	109	100%
	Total	109	100%

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DOES ACCEPTANCE OF THE HPV VACCINE VARY GREATLY BETWEEN MALE AND FEMALE PATIENTS?

#	Answer	Response	%
1	Yes - female patients are more likely to accept	48	44%
2	Yes - male patients are more likely to accept	2	2%
3	No	59	54%
	Total	109	100%

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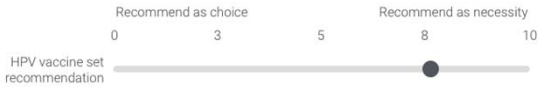
RECOMMENDATION STRENGTH

- Mean Score 8.04, Std Dev 2.02, Range 2-10



Sexual health>OB>Urgent Care>Public Health>Ped>Family Medicine

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RECOMMENDATION STRENGTH

- Mean Score 8.14, Std Dev 2.21, Range 2-10

Sexual health>Public Health>Urgent Care>Ped>Family Practice>OB

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WHY IS RECOMMENDATION DIFFERENT?

Question	Not at all Important	Very Unimportant	Very Important	Extremely Important	Total Responses	Rank
Patients can reduce HPV risk in other ways (safe sex, abstinence, etc.)	17	15	16	8	56	3
In general, parent attitudes toward HPV vaccine are negative	**10**	**18**	**22**	**5**	**55**	**1**
HPV vaccine is not required for school admission	12	18	20	5	55	2

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WHEN YOU RECOMMEND THIS VACCINE, WHAT IS THE MOST COMMON RESPONSE FROM PARENTS?

Question	Never	Rarely	Sometimes	Most of the time	Total Responses	Rank
Accept advice, begin vaccine set	**0**	**2**	**46**	**58**	**106**	**1**
Consider advice, defer vaccine set to older age	2	10	79	12	103	2
Refuse vaccine set	0	39	61	1	101	3

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DEFERRAL AGE PREFERENCE

#	Answer	Response	%
1	12	6	6%
2	13	5	5%
3	14	11	11%
4	15	15	15%
5	16	42	42%
6	17	3	3%
7	18+	17	17%
	Total	99	100%

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REASONS FOR REFUSAL (PROVIDERS)

Question	Never	Rarely	Sometimes	Most of the time	Total Responses	Rank
Concerns about HPV vaccine safety	3	18	53	28	102	2
Feel that it is unnecessary	**0**	**10**	**57**	**37**	**104**	**1**
Worry about cost	50	39	12	1	102	6
Concern that it will alter child's sexual practices	20	30	34	18	102	5
General concerns about vaccines	5	46	44	8	103	4
Don't cite a reason	8	33	51	10	102	3

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USEFULNESS OF POTENTIAL TOOLS

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Question	Not at all beneficial	A little beneficial	Moderately beneficial	Very beneficial	Total Responses	Rank
Interactive, computer-assisted decision aid for parents	11	46	40	14	111	5
Informational sheets or brochures tailored to specific parental concerns	**1**	**17**	**62**	**32**	**112**	**1**
Information for parents provided before clinic visit	2	22	55	32	111	2
A discussion guide or script for health care professionals	5	32	48	25	110	3
Information catered to specific cultural or ethical preferences	7	49	36	19	111	4

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BENEFICIAL TO INCREASE HPV VACCINATION RATES

Question	Not at all beneficial	A little beneficial	Moderately beneficial	Very beneficial	Total Responses	Mean
Statewide mandate/school requirement	12	11	30	57	110	2
Provider incentives for higher vaccine uptake in patients	32	40	27	11	110	4
Parental education	**0**	**5**	**40**	**67**	**112**	**1**
Provider education	4	13	58	34	109	3

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HOW NECESSARY DO YOU FEEL HPV VACCINE IS?

Mean Score 9.09, Std Dev 1.63, Range 2-10

On a scale of 0 to 10, how necessary do you feel the HPV vaccine is?

Not necessary — Very necessary

0 1 2 3 4 5 6 7 8 9 10

HPV vaccine 9

Sexual Health>Urgent Care>Public Health>Pediatrics>OB/GYN>Family Medicine

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HOW EFFECTIVE DO YOU FEEL HPV VACCINE IS?

Mean Score 9, Std Dev 1.58, Range 3-10

On a scale of 0 to 10, how effective do you feel the HPV vaccine is?

Not effective — Very effective

0 1 2 3 4 5 6 7 8 9 10

HPV vaccine 9

Sexual Health>Public Health>Urgent Care>Pediatrics>Family Medicine>OB/GYN

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PARENT SURVEY

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CATEGORIES OF HPV ACCEPTANCE

Yes to all	82	52.56%
Yes→No	13	8.33%
Yes→Unsure	9	5.77%
No to all	25	16.03%
No→Yes	2	1.28%
No→Unsure	7	4.49%
Unsure	18	11.54%

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WHAT IS YOUR GENDER?

#	Answer	Response	%
1	Male	28	15%
2	Female	153	83%
3	Prefer not to respond	3	2%
	Total	184	100%

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WHAT IS YOUR AGE?

#	Answer	Response	%
1	Under 25 years old	1	1%
2	25-34 years old	31	17%
3	35-44 years old	78	42%
4	45-54 years old	57	31%[1]
5	55-64 years old	14	8%
6	65-74 years old	2	1%
7	75 and older	0	0%
8	Prefer not to respond	1	1%
	Total	184	100%

1. HPV decision p=0.006

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WHAT IS YOUR MARTIAL/RELATIONSHIP STATUS?

#	Answer	Response	%
1	Married	156	85%
2	Unmarried domestic partnership	1	1%
3	Divorced/separated	17	9%
4	Single, never married	10	5%
5	Widowed	0	0%
6	Prefer not to answer	0	0%
	Total	184	100%

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WHAT IS YOUR RACE/ETHNICITY? (CHECK ALL THAT APPLY)

#	Answer	Response	%
1	White/Caucasian	168	91%
2	Black/African American	2	1%
3	Hispanic/Latino	1	1%
4	Asian	3	2%
5	American Indian/Alaska Native	6	3%
6	Native Hawaiian/Pacific Islander	1	1%
7	Other	2	1%
8	Prefer not to respond	3	2%

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WHAT ARE YOUR RELIGIOUS BELIEFS?

#	Answer	Response	%
1	Christian	147	80%
2	Jewish	1	1%
3	Muslim	1	1%
4	Hindu	4	2%
5	Unaffiliated	14	8%[1]
7	Prefer not to respond	7	4%
8	Other	10	5%
10	Buddhist	0	0%
	Total	184	100%

1. HPV decision p=0.046

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IF CHRISTIANITY, WHAT DENOMINATION?

#	Answer	Response	%
1	Catholic	46	32%
2	Protestant (i.e. Lutheran, Presbyterian, Methodist, etc.)	83	57%
3	Other	12	8%
4	Prefer not to respond	3	2%
5	Mormon	2	1%
	Total	146	100%

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WHAT IS YOUR HOUSEHOLD INCOME?

#	Answer	Response	%
1	Less than $20,000	2	1%
2	$20,000-$39,999	12	7%
3	$40,000-$59,999	17	9%
4	$60,000-$99,999	63	34%
5	$100,000 or more	79	43%
6	Prefer not to respond	11	6%
	Total	184	100%

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WHAT IS THE HIGHEST LEVEL OF EDUCATION YOU HAVE COMPLETED?

#	Answer	Response	%
1	Less than High School	0	0%
2	High School / GED	5	3%
3	Some College	9	5%
4	2-year College Degree	20	11%
5	4-year College Degree	72	39%
6	Post-graduate Degree	78	42%
7	Prefer not to respond	0	0%
	Total	184	100%

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CURRENT OCCUPATION

Answer	Response	%
Office and Administrative Support	24	13%
Healthcare Practitioners and Technical	41	22%
Life, Physical, and Social Science	11	6%
Business and Financial Operations	6	3%
Management	8	4%
Community and Social Service	11	6%
Construction and Extraction	0	0%
Architecture and Engineering	0	0%
Healthcare Support	10	5%
Education, Training, and Library	38	21%
Other (please specify)	16	9%

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WHAT IS YOUR HEALTH INSURANCE STATUS? (SELECT ALL THAT APPLY)

#	Answer	Response	%
1	Not insured	3	2%
2	Insured through employer (group plan)	171	93%
3	Medicaid	1	1%
4	Medicare	0	0%
5	Insured through health care marketplace (healthcare.gov)	1	1%
6	Other	3	2%
7	Prefer not to respond	1	1%
8	Private insurance (purchased through insurer directly)	5	3%

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OFFERED, ACCEPTED

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

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OFFERED, REFUSED

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

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NOT OFFERED, UNSURE

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

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DEFERRAL AGE

12	5	31.25%
13	0	0.00%
14	2	12.50%
15	1	6.25%
16	2	12.50%
17	0	0.00%
18+	6	37.50%

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CONCLUSIONS

Provider opinions correlate with

- Occupation (RN stronger confidence)
- Age (younger cohort more confidence)
- Length in specialty (fewer years more confidence)

Parent choices correlate with

- Age (older cohort more accepting)
- Religion (unaffiliated more accepting)

Trust in doctor recommendation #1 decision in parents who accept vaccine

Concerns about safety #1 decision in parents who reject vaccine (providers think they feel it's unnecessary)

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