

Supplementary File: Study Questionnaire

Variables	Number of items	Sample items	Response choices	Instructions
Eligibility	5	Do you personally have a child between 9-16 years of age living in your household? ^a	Yes; No	
Socio-Demographics	18	In which province do you currently live? Which of the following ethnicities best describes you?	Categories derived from those commonly used by Statistics Canada. Prefer not to answer was an option for some items.	Select only one.
Precaution Adoption Process Model	1	Which of the following best described your thoughts about the human papillomavirus (HPV) vaccine for [CHILD]? ^c	Stage 1: I am <i>unaware</i> that the HPV vaccine could be given to [CHILD name]; Stage 2: I am aware that the HPV vaccine could be given to [CHILD name], but I have <i>never thought about</i> vaccinating [CHILD name] against HPV; Stage 3: I am <i>undecided</i> about vaccinating [CHILD name] against HPV; Stage 4: I have decided I <i>DO NOT</i> want to vaccinate [CHILD name] against HPV; Stage 5: I have decided I <i>DO</i> want to vaccinate [CHILD name] against HPV; Stage 6: [CHILD name] has <i>already received</i> the HPV vaccine. ^c	Select only one.
HPV & HPV Vaccine Perceived Knowledge	2	Before today, how much would you say you knew about the human papillomavirus (HPV)?	Nothing – A lot (5-point Likert scale)	Please answer the following questions to the best of your ability.
HPV Knowledge ^{1,2}	23 ^b	HPV always has visible signs or symptoms (F) HPV can be passed on during sexual intercourse (T)	True; False; Don't know	Please answer the following questions about human papillomavirus (HPV) to the best of your ability.
HPV Vaccine Knowledge ^{1,2}	13 ^b	The HPV vaccine offers protection against most cervical cancers (T) Girls who have had the HPV vaccine do not need a Pap test when they are older (F)	True; False; Don't know	Please answer the following questions about the human papillomavirus (HPV) vaccine to the best of your ability.

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Information Sources	2	Where have you heard about the HPV vaccine? From which source <i>would you most prefer</i> to receive information about the HPV vaccine?	Categories include: Not applicable, I have never heard about the HPV vaccine before today; ^d Public health brochures, pamphlets, flyers, or posters; Commercials or advertisements from pharmaceutical companies; Doctor, nurse, or other health care provider; Family member(s); Friend, peer, or co-worker; Information from my child or children's school; Newspapers or magazines; TV or the radio; The internet (e.g., health related websites, news); Social media (Facebook/Twitter).	Check all answers that apply to you.
HPV Vaccine Coverage	6	Did [CHILD] receive the HPV vaccine? ^c	Yes; No; I don't know	Please answer the following questions to the best of your ability
Health Care Provider Recommendation	4	Has [CHILD] seen a health care provider (e.g. a family doctor, paediatrician, or nurse) within the last 12 months? ^c Have you discussed [CHILD] receiving the HPV vaccine with a health care provider (e.g. a doctor, paediatrician, or nurse) within the last 12 months? ^c	Yes; No	
HPV Attitudes and Beliefs³	71 ^b	Benefits (10): I feel that the HPV vaccine is effective in preventing HPV-related cancers. Accessibility (4): I feel that the process of actually getting the HPV vaccine for [CHILD] would be easy. ^c Affordability (3): I feel that the HPV vaccine cost more than I can afford. Harms (8): I feel that the HPV vaccine is unsafe. Barriers Additional Items (4): I feel that I am concerned that the HPV vaccine might cause short term problems like pain or discomfort. Severity/Perceived Threat (3): I feel that it would be serious if [CHILD] contracted genital warts later	Strongly Disagree – Strongly Agree (7-point Likert scale)	Please select the answer that best reflects your attitude/belief.

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		<p>in life.^c</p> <p>Susceptibility/Risk (3): I feel that without the HPV vaccine, [CHILD] would be at risk of getting genital warts later in life.^c</p> <p>Social Norms/Influence (8): I feel that my friends are getting their children vaccinated with the HPV vaccine.</p> <p>Self-Efficacy (4): I feel that I am competent to make decisions about the vaccines [CHILD] receives.^c</p> <p>Gender (3): I feel that HPV vaccine is important for girls.</p> <p>Trust (4): I feel that I trust the information I receive about vaccines.</p> <p>Communication (5): I feel that I am uncomfortable talking to [CHILD] about the HPV vaccine.^c</p> <p>Risk Denial (1): HPV vaccination is not really necessary because Pap smears can be done to make sure cervical cancer doesn't develop.</p> <p>Additional Vaccine Items (7): I feel that child vaccinations should be mandatory.</p>		
Motivation	8	Please rate the following reasons for why you would AGREE with your child receiving the HPV vaccine. Because I want [CHILD] to receive the HPV vaccine. ^c	Strongly Disagree – Strongly Agree (7-point Likert scale)	Please select the answer that best reflects your attitude/ belief. Please respond to the following statements to the best of your ability.
Vaccine Hesitancy⁴	10 ^b	Childhood vaccines are important for my child's health.	Strongly Disagree – Strongly Agree (5-point Likert scale)	How much do you agree with the each of the following statement on vaccinations?
Vaccine Refusal	3	<p>Have you ever refused vaccinating [CHILD] with the human papillomavirus (HPV) vaccine?^c</p> <p>Have you ever refused vaccinating [CHILD] with any childhood vaccine other than the human papillomavirus (HPV) vaccine?^c</p>	Yes; No	

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Vaccine Conspiracy Beliefs Scale⁵	11 ^b	Vaccine safety data is often fabricated	Strongly Disagree – Strongly Agree (7-point Likert scale)	Please respond to the following statements to the best of your ability.
Open Ended Qualitative Items	5	What immediately comes to mind when thinking of childhood immunization? ⁶ What would influence your decision to have [CHILD] vaccinated or not against HPV? ^c	Free-text responses	

Note. ^a Survey is terminated if participant selects option “No”; ^b Items were administered in a random order; ^c Participants were asked at the beginning of the questionnaire to provide a name, nickname, initials or abbreviations for their child who is between the ages of 9 and 16 and who has had the *most recent birthday*. Using intelligence programming, parents’ child initials, name, nickname (e.g., Alex, PT, Jess) was then replaced for “[CHILD]” in all items, making the questionnaire individualized for each participant; ^d If the respondent selected the option of ‘Not applicable I have never heard about the HPV vaccine before today’ then all other options will disappear.

References

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4. Larson HJ, Jarrett C, Schulz WS, et al. Measuring vaccine hesitancy: The development of a survey tool. *Vaccine* 2015;33(34):4165-75. doi: 10.1016/j.vaccine.2015.04.037
5. Shapiro GK, Holding A, Perez S, et al. Validation of the vaccine conspiracy beliefs scale. *Papillomavirus Research* 2016;2:167-72. doi: 10.1016/j.pvr.2016.09.001
6. LaClair BJ, Smith S, Woodward J. Attitudes and concerns of Kansas parents related to childhood immunization. *Immunize Kansas Kids* 2014