Factors Influencing Parental Decisions About HPV Immunization for Their Grade 8 Daughters in the Kingston, Frontenac and Lennox & Addington Area

Dear Editor:

In the Kingston, Frontenac and Lennox & Addington (KFL&A) area, only half of the eligible girls in grade 8 accepted HPV vaccine in the first year of the publicly funded program. We are writing to report the factors that influenced parents' decisions to allow or not to allow their daughters to receive this vaccine.

A random sample (N=572) of all eligible households with Grade 8 females in the catchment area of KFL&A Public Health was generated from Ontario's Immunization Records Information System. A tested questionnaire, based on issues raised on HPV immunization in the medical literature and the popular media, was posted to the sample and a reminder letter was posted 14 days later. A cut-off date of 28 days following the second mailing was chosen, after which returned surveys were not included in the results. Ethics approval was obtained by the Research Ethics Board at Queen's University.

The response rate was 36% (N=208), the lowness of which is a limitation of this study. Most of the respondents (84.6%) were mothers of daughters in Grade 8, and 65% of parents had their daughters immunized while 35% did not.

Parents were asked which factors were most important in their decision-making process (Table 1). Safety was the only statistically significant factor. Parents who chose not to have their daughters immunized responded that they were concerned about the short- and long-term side effects of the vaccine, and felt that the vaccine was not tested enough to ensure safety. Negative articles about HPV vaccine in scientific journals and the popular press may have contributed to parental concerns about this vaccine. The findings from this study are consistent with similar studies on other vaccines.¹⁻³

Religious leaders' thoughts or opinions and religious beliefs did not pose a significant barrier to immunization. When students in

the Catholic school board were compared to those in the public school board, there was no difference in the percentage of vaccine uptake (p=0.616).

Previous immunization against MMR (p=0.697) or hepatitis B (p=0.066) also was not different between the two groups. This study also found that parental decision-making was not influenced by the sexual nature of HPV. An equal number of parents in both groups indicated that their daughters had received vaccine against hepatitis B, another sexually transmitted infection.

In summary, concern about safety was the most influential factor for deciding to immunize or not. The program could be improved by giving parents more time and better information to make an informed decision. Parents need to know about vaccine development and the rigorous safety standards applied to vaccine licensure, which may confer increased confidence in safety. Education could be achieved in several ways, including an extensive public health education campaign and encouraging family physicians to discuss the vaccine more thoroughly with their patients.

Arianne Buchan, MD

Melissa Sergi, MD

Ian Gemmill, MD, CCFP, FCFP, FRCPC, Medical Officer of Health, KFL&A Public Health

Susan Stewart, MA, Manager, Family Health, KFL&A Public Health

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Table 1. Factors Influencing Parental Decision-making on the HPV Vaccine

	Vaccine Status	A Lot	Quite a Bit	Somewhat	A Little Bit	Not at All	N/A	P-values
My thoughts about the safety of the HPV vaccine influenced my decision.	Y N	24.4 60.3	35.4 20.6	25.2 8.8	10.2 8.8	4.7 1.5		0.0000
My thoughts about the effectiveness of the HPV vaccine influenced my decision.	Y N	22 23.5	49.6 32.4	19.7 22.1	4.7 11.8	3.9 10.3		0.097
My thoughts about the need for the vaccine influenced my decision.	Y N	28.3 37.3	52 26.9	16.5 25.4	2.4 4.5	0.8 6		0.511
My thoughts about the HPV vaccine and sexual activity influenced my decision.	Y N	6.3 14.7	9.4 8.8	26 20.6	12.6 16.2	45.7 39.7		0.304
My religious leaders' thoughts about the vaccine influenced my decision.	Y N	0 0	0 1.5	0.8 1.5	1.6 4.4	60.2 60.3	37.5 32.4	0.272
How much I knew about the human papillomavirus and the vaccine influenced my decision.	Y N	25.8 29.9	31.3 25.4	25 29.9	14.1 7.5	3.9 7.5		0.826
The number of immunizations my daughter received in Grade 7 influenced my decision.	Y N	3.9 4.5	4.7 1.5	8.6 19.4	8.6 6	74.2 68.7		0.406