



To Vaccinate? Or Not To Vaccinate?

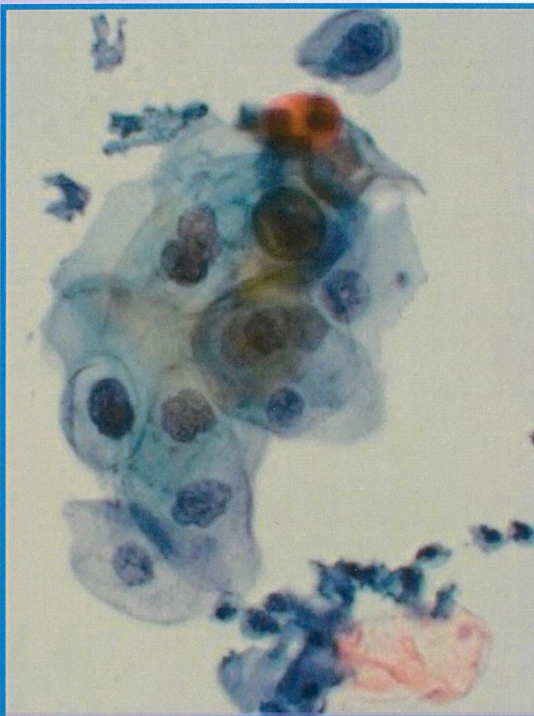
By Jessica Blackwell



What influences the decision to consent to the HPV vaccine in New Zealand, and how can nurses promote the vaccine to increase its uptake?

About HPV

- HPV (Human Papillomavirus) encompasses a group of over 100 related viruses (Ministry of Health, 2014b).
- The HPV virus is a sexually transmitted infection that spreads from intimate skin-to-skin contact, mostly during vaginal, anal, and oral sex (Ministry of Health, 2014b).
- Approximately 80% of people will catch HPV at some stage of their lives (Ministry of Health, 2014b).
- HPV can lead to genital warts and cancer (Ministry of Health, 2014b).
- In 2010, cervical cancer affected 180 New Zealanders, 52 of which died from this (Ministry of Health, 2014b).



Cells from the epithelium of the cervix showing hpv.
Retrieved from: <http://www.journals.elsevier.com/international-journal-of-gynecology-and-obstetrics>

Estimated percentage of select cancers attributable to Human Papillomavirus

Cancer Site	% Attributable to HPV	% HPV Positive Attributable to HPV-16 & HPV-18
Cervix	100	70
Vagina	40	80
Penis	40	63
Anus	90	92
Oral cavity	25	95
Oropharynx	35	89

An American Laboratories Statistics on HPV's links to cancers.
Retrieved from: <http://www.neogenomics.com/>
Virus Picture retrieved from: <http://www.bag.admin.ch/>

Implications for Practice

After implementation of the HPV vaccination programme, genital warts decreased in New Zealand females under 20 by 62.8% (Mariani, Vici, Suligo, Checcucci-Lisi, & Drury, 2015). This reduces the need for treatment and care of genital warts, and avoids potentially embarrassing conversations with a doctor or nurse.

By decreasing HPV prevalence in NZ, there is hope that cancer rates, especially cervical cancer, will decrease in the future. There is a long period between being infected with HPV and its development into cancer. This means that the vaccines effects on HPV-related cancers will not be seen immediately (Mariani et al., 2015). In the future research will investigate the impact of the HPV vaccine on HPV-related cancers, and nurses may be involved in this.

Literature Review

The vaccination is proven to be effective by the CDC (Centers for Disease Control and Prevention, 2013).

Research conducted on the reasons for consenting to the HPV vaccine, highlight knowledge, or lack thereof, and the quality of information as major contributing factors (Rose, Lawton, Lanumata, Hibma, & Baker, 2012). If someone is given inadequate or wrong information on a subject, it greatly impedes their ability to make an educated and informed decision and may impact the decision to consent to the vaccine (Rose et al., 2012). Inadequate knowledge, whether it is the parents or guardians, teachers, staff, or girls themselves needs to be addressed (Centers for Disease Control and Prevention, 2013).

Research conducted about NZ parents concludes that a parent's decision to get their daughter vaccinated was significantly associated with four main areas (Rose et al., 2012) . These were; negative views about the vaccine, receiving appropriate and accurate information, perceiving cervical cancer and HPV to be serious and have a high prevalence in youth, and vaccine efficacy and safety (Rose et al., 2012).

In NZ in 2014, the uptake of the HPV vaccine for the 2001 cohort was 57%, and in 2015 the uptake for the 2002 cohort was 62.1% (Ministry of Health, 2016). While the increase in uptake is a good sign, the coverage levels for HPV are still nowhere near the levels for childhood vaccinations, which range from 80%-90% (Ministry of Health, 2016).

Recommendations

- Review the way parents are informed about the vaccine, and alter existing information to ensure it focuses on the vaccines effectiveness and about how serious HPV can be.
- Nurses having accurate and current information to give to girls and their parents.
- Nurse led information sessions to increase awareness and knowledge, through the school itself (Rose et al., 2012).
- Dispelling myths about HPV leading to sexual risk-taking behaviour and the vaccine only being needed for girls who are sexually active.

References: Centers for Disease Control and Prevention. (2013). *Human papillomavirus vaccination coverage among adolescent girls, 2007-2012, and post license vaccine safety monitoring, 2006-2013*. United States. Atlanta, GA: Author.

Mariani, L., Vici, P., Suligo, B., Checcucci-Lisi, G., & Drury, R. (2015). Early direct and indirect impact of quadrivalent HPV (4HPV) vaccine on genital warts: A systematic review. *Advances in Therapy*, 32, 10-30.

Ministry of Health. (2014b). *Immunisation Handbook*. Wellington, New Zealand: Author.

Ministry of Health. (2016). National and DHB immunisation data. Retrieved from the Ministry of Health website: <http://www.health.govt.nz>

Rose, S. B., Lawton, B. A., Lanumata, T. S., Hibma, M., & Baker, M. G. (2012). Predictors of intent to vaccinate against HPV/ cervical cancer: A multi-ethnic survey of 769 parents in New Zealand. *The New Zealand Medical Journal*, 125, 51-62.

Rationale

Approximately 50 New Zealand women die of cervical cancer each year, with a majority of these cervical cancers being linked to types of HPV (Ministry of Health, 2014b). I chose to do a literature review on the topic of HPV vaccinations because of the seriousness of HPV and the lower levels of vaccination coverage in New Zealand girls.

Posters can be used to share information, research or studies in a clear, concise and interactive way (Perrin, 2015). I chose to use a poster to distribute the findings of my literature review because of the ability to display the main points in a succinct way that is visually attractive to people. I also chose this method because the research is about HPV, and the HPV vaccine which young girls can receive, so a poster would potentially attract the attention of these girls and their parents compared to a longer written submission.

Search Question and PECOT Model

To start the search, I explored the parameters for people eligible for the HPV vaccine in NZ, and looked at the evidence of the vaccines efficacy. In the preliminary research there were many articles that were similar in topic about what influences the decision to vaccinate. So, I used the PECOT model to explore the question of: What is the HPV vaccines use like in NZ, and the reasons people have for and against the vaccine.

	Information relating to the question	Explanation
Population	NZ girls aged 11 to 20.	The HPV vaccine is on the National Immunisation Schedule for girls in NZ aged 12 years, or the age they are in year 8, which could be from 11-13 years (Ministry of Health, 2014b). The HPV vaccine was introduced in 2008, so there has been a catch-up cohort of girls who were over 11 but under 20 when the vaccine was introduced (Ministry of Health, 2014b).
Exposure	NZ girls who were eligible for the HPV vaccine, and received all three doses.	I will be looking for research and statistics around how many eligible girls received all three doses. I found research showing the HPV vaccines high effectiveness against HPV (Markowitz et al., 2013). There are statistics from multiple countries to compare and contrast levels between countries, to see where NZ fits in. The uptake for NZ girls in 2015, for the 2002 cohort, was 62.1% (Ministry of Health, 2015).
Comparison	NZ girls eligible for the HPV vaccine but did not get it.	It will be interesting to see reasons why some people choose not to get the vaccine, and reasons why parents did not consent for their girls to get it.
Outcome	The percentage of eligible NZ girls who did get the vaccine, versus those that did not.	We want to know the barriers that may have stopped people getting vaccinated, and reasons why people are for and against them.
Time	From 2008 to present.	The vaccine was introduced in NZ in 2008 (Rose, Lanumata, & Lawton, 2011).
		PECOT model from Whitehead, 2013.

To narrow down the literature available on HPV vaccines, exclusion and inclusion criteria were created. Inclusion criteria: 1) Girls over 11 and under 20 years, as of this year. 2) Girls who were between 11 and 20 years in 2008 when the vaccine was introduced. 3) Girls eligible for the NZ Immunisation Schedule. Exclusion criteria: 1) Males. 2) Girls under 11 years, as of this year. 3) Girls who were over 20 years old in 2008.

After using the PECOT model with the extra criteria, I found that while there were articles and statistics from NZ, I would need to widen the parameters to other countries to be able to get a larger variety and amount of research on the topic. I could get information specific to NZ and then also have information from other countries that could be applied to NZ. I was able to re-form the question from: What is the HPV vaccines use like in NZ? To a refined research question of: What influences the decision to consent to the HPV vaccine in New Zealand, and how can nurses promote the vaccine to increase its uptake?

References

- Markowitz, L. E., Hariri, S., Lin, C., Dunne, E. F., Steinau, M., McQuillan, G., & Unger, E. R. (2013). Reduction in human papillomavirus (HPV) prevalence among young women following HPV vaccine introduction in the United States, national health and nutrition examination surveys, 22003-2010. *Journal of Infectious Diseases*, 92, 1-9.
- Ministry of Health. (2014b). *Immunisation Handbook*. Wellington, New Zealand: Author.
- Ministry of Health. (2015). *Comparison of dose 3 HPV coverage between 2014 and 2015*. Wellington, New Zealand: Author.
- Perrin, R. (2015). *Pocket guide to APA style* (5th ed.). Stamford, CT: Cengage Learning.
- Whitehead, S. B., Lanumata, T., & Lawton, B. A. (2011). Promoting uptake of the HPV vaccine: The knowledge and views of school staff. *Journal of School Health*, 81, 680-687.