FACTORS ASSOCIATED WITH HPV VACCINATION COVERAGE AT SCHOOL LEVEL DURING HPV VACCINE INTRODUCTION IN THAILAND

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Background and objective

Cervical cancer is one of the major public health concerns which kills 5,200 Thai women each year. Pap smear has been integrated in Thai basic maternal and child service for over forty years but only one third of the new cervical cases come to the hospital at early stages when the malignancies remain localized. Most of cases appear at later stages, when the cancer has extended beyond its origin, therefore, management of these cases is complicated and costly, and the outcome is not very favorable.

In 2014, as a compliment to the existing cervical screening, Department of Disease Control, Ministry of Public Health Thailand launched HPV vaccination program to 5th grade female students in Ayuthaya province to assess the feasibility of HPV vaccination as a part of national immunization program. More than 4,300 children were immunized and the overall HPV vaccination coverage was 91%. However, sub-provincial HPV vaccination coverage varied due to multiple factors. This study aimed to explore factors associated with HPV vaccination coverage at school level during the introduction of HPV vaccine in Thailand.

Method

A retrospective cohort study was conducted in Ayuthaya province. 613 fifth grade female students from 47 schools were surveyed to determine HPV vaccination coverage at school level. Teachers, healthcare workers (HCWs) and female students were interviewed using standardized questionnaire to assess their knowledge and attitude towards cervical cancer, HPV vaccine and HPV vaccination program. Furthermore, we explored some programmatic activities that might affect HPV vaccination performance and conducted univariate and multivariate analysis to determine the relationship between each factor and HPV vaccination coverage at school level.

Result (cont.)

Most of schools in this study reached 90% of HPV vaccination coverage, but the coverage was varied from 61.5% to 100%. Since parent’s consent was compulsory during the first year of introduction, standard HPV-VIS and parent consent form were distributed to parents prior to vaccination, however, only 40.4% of schools in this study reported that VIS and parent consent form are uncommon practice for other school vaccination programs.

The multivariate analysis revealed that “HCW understand that HPV vaccine safety and efficacy was carefully reviewed prior to registration” (B= 42.2, p-value < 0.01) and “HCWs supported HPV vaccine introduction in the national immunization program” (B= 8.9, p-value = 0.01) related to increased HPV vaccination coverage at school level, these indicated that HCW’s confidence in HPV vaccine efficacy/safety and their positive attitude towards the program had a positive impact on immunization program performance during vaccine introduction.

In contrast, “providing vaccine information statement (VIS) to parents in school where parent’s consent for vaccination is uncommon” shown a negative relationship to HPV vaccination coverage at school level.

Table 1. Univariate and multivariate analysis of factors related to HPV vaccination coverage at school level

Conclusion

HCW’s confidence in HPV vaccine efficacy and safety and their support to HPV vaccine as a part of national immunization program related to better HPV vaccine coverage. In contrast, providing VIS to parents who were unfamiliar to informed consent process prior to HPV vaccination shown negative impact on HPV vaccination coverage at school level during HPV vaccine introduction in Thailand.

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