



香港社會醫學學院
HONG KONG COLLEGE OF COMMUNITY MEDICINE
founder College of the Hong Kong Academy of Medicine
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ADMINISTRATIVE MEDICINE

Part I Examination

Tuesday 9 June 2015

17:30 – 19:00 (1½ hours)

Paper IIB

Candidates must answer all parts of this questions

Style, clear grammatical English and legibility will be taken into consideration by the Examiners. Answers should be written in a form appropriate to the audience specified in the question.

Weighting of marks for each part of the question is shown in parenthesis.

**DO NOT OPEN PAPER UNTIL THE INVIGILATOR
INSTRUCTS YOU TO BEGIN**

Data for this paper has been extracted from Li et al. “HPV vaccination in Hong Kong: Uptake and reasons for non-vaccination amongst Chinese adolescent girls.” *Vaccine* 31 (2013) 5785–5788.

Summary

Objectives: *The study aims to determine HPV vaccine uptake (≥ 1 dose) amongst adolescent girls in Hong Kong and to explore the reasons for non-acceptance of the vaccine.*

Study design: *A total of 1832 secondary school girls (15.5 ± 2.0 years) were randomly surveyed. Their HPV vaccine uptake was estimated, and their reasons for non-vaccination summarised.*

Results: *A total of 131 (7.2%, 95% CI: 6.0–8.4%) adolescent girls had received the HPV vaccine (≥ 1 dose). Vaccine uptake was positively associated with a higher maternal education level and locally born status. Amongst the non-vaccinated girls, 20.6% had never heard of or knew little about the vaccine, 20.2% ‘did not know where to receive’, and 17.8% were concerned about the cost.*

Conclusions: *The HPV vaccine uptake amongst adolescent girls in Hong Kong is very low. A school-based education and service programme is needed to improve uptake and prevent disparities in the Chinese population.*

Table 1

HPV vaccine uptake by demographic characteristics of adolescent girls.

Demographic factors	n	Received ≥ 1 dose		Received ≥ 1 dose	
		n (%)	p	AOR (95% CI) ^a	p
Grade			0.041		
Junior (F1–F3)	665	37 (5.6)		1	
Senior (F4–F7)	1155	94 (8.1)		1.53 (1.03, 2.29)	0.037
Birth place			0.001		
Hong Kong	1360	113 (8.3)		1	
Other places	459	17 (3.7)		0.41 (0.24, 0.70)	0.001
Mother's education			0.045		0.093
Primary and below	388	21 (5.4)		1	
Secondary	1079	78 (7.3)		1.38 (0.83, 2.29)	0.220
Tertiary and above	145	17 (11.8)		2.40 (1.21, 4.75)	0.012
Do not know	215	15 (7.0)		1.31 (0.64, 2.69)	0.458
Parent marital status			0.434		
Married	1486	103 (6.9)		1	
Non-married	331	27 (8.2)		1.26 (0.80, 1.98)	0.325

Note: (a) The number does not add up to 1820 due to missing values.

^a AOR (adjusted odds ratio) was estimated in the multivariate logistic regressions containing variables: grade level, birth place, mother's education, parental marital status; due to missing values, a total of 1816 cases were analysed.

Figure 1



Fig. 1. Reasons for not receiving HPV vaccine among Chinese adolescent girls. Note: participants were allowed to choose more than one reasons.

QUESTION CONTINUES

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1. a. Please refer to Table 1 provided from the paper. What demographic factors are found to be significantly associated with HPV vaccination?

(6 marks; 2 marks each)

b. What are odds ratios? (4 marks)

c. Using odds ratios, please interpret the findings above in Question 1a).

(6 marks; 2 marks each)

2. a. Can you conclude that a causative relationship exists between trends observed in Table 1? (2 marks)

b. Why or why not? (2 marks)

c. List 5 criteria from Hill's criteria for causation, which is used to determine causality in epidemiological studies.

(10 marks; 2 marks each)

3. Please prepare a policy brief to the Secretary for Food and Health regarding what could be done by the Government to encourage HPV vaccination in HK with reference to the research paper referred to in Questions 1 and 2. (70 marks)

END OF PAPER