



香港社會醫學學院
HONG KONG COLLEGE OF COMMUNITY MEDICINE
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ADMINISTRATIVE MEDICINE

Part I Examination

Wednesday 11 June 2008
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**

Caesarean section rates were documented to have risen substantially in the previous decade in Hong Kong. One such assessment is shown in Figure 1.

1. Describe the secular patterns of mode of delivery in Hong Kong. (5%)
2. Discuss the interpretation and explanation of possible drivers of such trends. (15%)

The potential health impact of a surgical birth beyond the immediate peripartum period has been unclear. A recent study, involving 88% of all births in April and May 1997 in Hong Kong, examined whether infants born by Caesarean section used more health services in the first 18 months of life.

3. Describe and interpret the main findings shown in Table 1. (20%)

For the mother, post-Caesarean complications (amongst other reasons) may also increase health care use. A record linkage study, based on the National Health Insurance database from Taiwan, generated the results shown in Table 2.

4. Describe and interpret whether an elective surgical delivery in this sample was associated with greater use of postpartum care. (10%)

QUESTION CONTINUES

Variable	No. Postpartum Outpatient Visits		Postpartum Maternal Expenditures	
	Coefficient	Std. Error	Coefficient	Std. Error
Delivery mode				
Elective CS vs. vaginal	0.10*	0.02	0.08*	0.02
Fetal characteristics				
Boy	0.01	0.01	0.02	0.01
Parity				
Second order	-0.03*	0.01	-0.03*	0.01
Third order (reference groups: first order)	-0.01*	0.01	-0.05*	0.02
Multiple birth (reference groups: single birth)	-0.09	0.06	-0.08	0.08
Maternal characteristics				
Maternal age (yr)				
25-34	-0.12*	0.01	-0.14*	0.01
35 and above (reference groups: under 25)	-0.14*	0.01	-0.14*	0.02
Marital status				
Married	0.05	0.03	0.04	0.05
Constant	1.11*	0.04	6.97*	0.05

All variables are categorical.

* $P < 0.001$.

† $P < 0.01$.

‡ $P < 0.05$.

Table 2. Adjusted estimates of postpartum maternal medical care utilisation by mode of delivery.

Note: "coefficient" refers to the beta coefficient estimate from the regression model; "std. error"=standard error; CS=Caesarean section; yr=year

END OF PAPER

5. Write a policy brief to the Secretary for Food and Health to indicate what definite or possible actions should be considered, in relation to possible regulatory oversight of surgical deliveries, on the basis of these findings. (50%)

Sources:

Leung et al. BMJ. 2002;324:486.

Leung et al. Epidemiol. 2007;18:479-84.

Liu et al. Med Care. 2008;46:440-3.

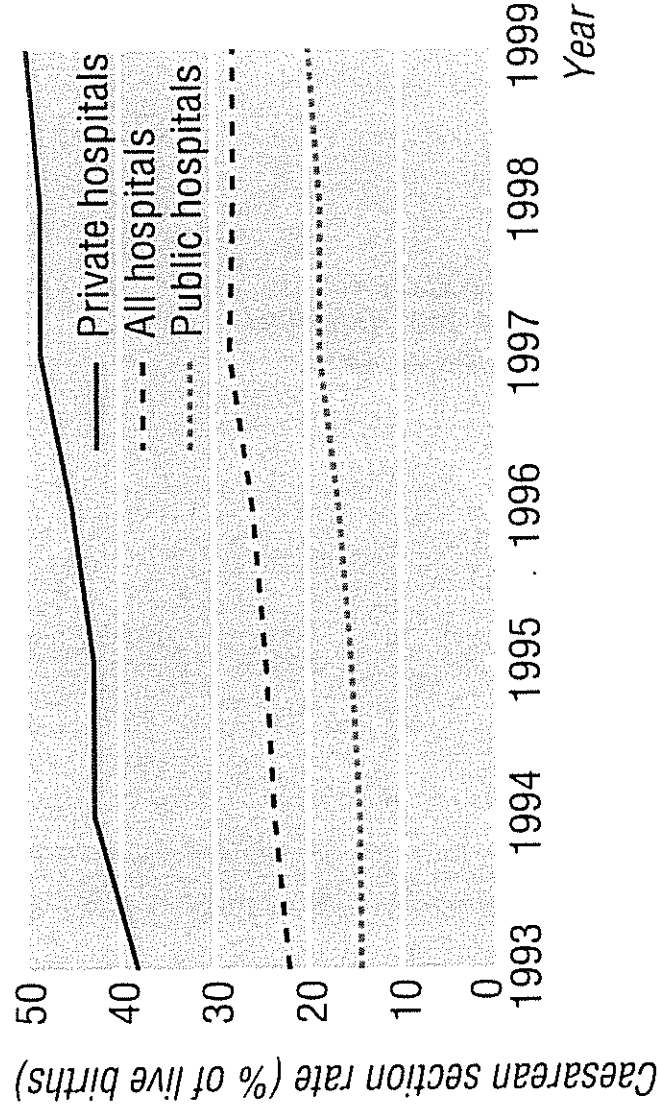


Figure 1. Caesarean section rates in public and private hospitals in Hong Kong, 1993-9

Time Period (Mos)	Outpatient Visits			Hospital Admissions		
	Vaginal % [†]	Cesarean % [‡]	OR (95% CI)	Vaginal % [†]	Cesarean % [‡]	OR (95% CI)
0-18	46.4	49.7	1.10 (0.96-1.26)	28.0	23.4	0.92 (0.79-1.08)
0-3	35.1	35.9	1.01 (0.87-1.18)	12.2	9.3	0.90 (0.71-1.14)
3-9	36.9	38.9	1.07 (0.92-1.25)	14.9	13.1	1.12 (0.91-1.39)
9-18	38.4	42.2	1.08 (0.92-1.26)	13.8	10.9	0.85 (0.67-1.08)

Table 1. Association* of Caesarean section for highest[†] utilisation of outpatient visits and hospital admissions

Note: "time period" refers to months since birth; Mos=months; OR=odds ratio; CI=confidence interval; %=percentage

*Fully adjusted for maternal age, gestational age, birth order, gender of infant, birth weight, breast-feeding history, exposure to environmental tobacco smoke after pregnancy, environmental tobacco smoke during pregnancy, type (private vs public) of hospital during delivery, highest parental education, and utilization of outpatient visits or hospital admissions where appropriate. The reference group was vaginal delivery.

[†] Higher utilisers were those whose number of outpatient visits or hospital admissions was more than the median (ie, median number of outpatient visits were 1, 3, 3, 7 and median number of inpatient episodes was 0 for all time periods).

[‡] The proportion of infants with higher utilisation of outpatient visits or hospital admissions in this category