

3.2 The second study

The second study is entitled “Demographic Determinants for Cesarean Delivery in Pattani Hospital”. This article was published in the *Southeast Asian Journal of Tropical Medicine and Public Health*, 40: 602- 611(2009).

The subjects investigated in this study comprised 25,829 women who delivered in Pattani Hospital during the period from 1 October 1996 to 30 September 2005.

We considered six demographic determinants of Caesarean section birth, as listed in Table 3.3. We classified mother’s residence into 9 groups, namely, 1: Muang(City) comprising 12 sub-districts of Muang City in Pattani Province, 2: Nong Chik district, 3: Khokpho/Maelan district, 4: Pattani East comprising Panare, Saiburee and MaiKan districts, 5: Yarang district, 6: Pattani South comprising Mayo, Kapo and ThungYanDang districts, 7: Songkhla Province, 8:Yaring district, and 9: Narathiwat Province, Yala Province, and residence not stated.

The outcome was the binary variable caesarean delivery.

<i>Variable</i>	<i>Role</i>	<i>Type</i>
Religion	determinant	binary
Occupation	determinant	nominal (6)
Education	determinant	ordinal (5)
Age group	determinant	ordinal (5)
Residence	determinant	nominal (9)
Budget year	determinant	nominal (9)
Caesarean delivery	outcome	binary

Table 3.3: Roles and data types of variables in second study

Preliminary analysis

Figure 3.3 shows caesarean section rate in Pattani Hospital between 1997 and 2005.

The overall percentage was found to be 35%. The rate increased from 30.4% to 36.2% in 1997- 2000 with a slight decrease to 34.7% in 2001 and then a gradual increase to 38.8% in 2002 and a decline in final three years.

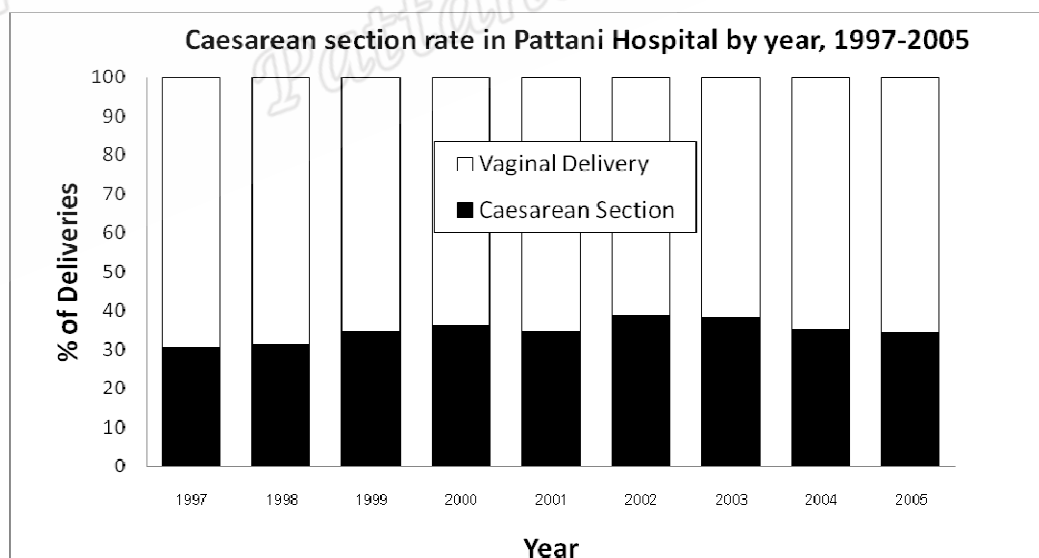


Figure 3.3: Caesarean section rate trend in Pattani Hospital

Figure 3.4 shows 95% confidence intervals of the percentages of caesarean section births for levels of the six demographic risk factors for women giving birth for the first time. The left panel shows the percentages for new cases (overall mean percentages 30.6%) and the right panel shows the corresponding percentages for referred or transferred cases (overall mean percentages 54.7%).

This graph on the left panel shows all the other factors, mothers coming from Anuru, KhokPho and PattaniEast residence, those with mother older than 25 year, education “Diploma/bachelor” and government officers were more likely to give birth by caesarean section. The budget year was not a significant factor for this group and Islamic mother were less likely to deliver by caesarean section.

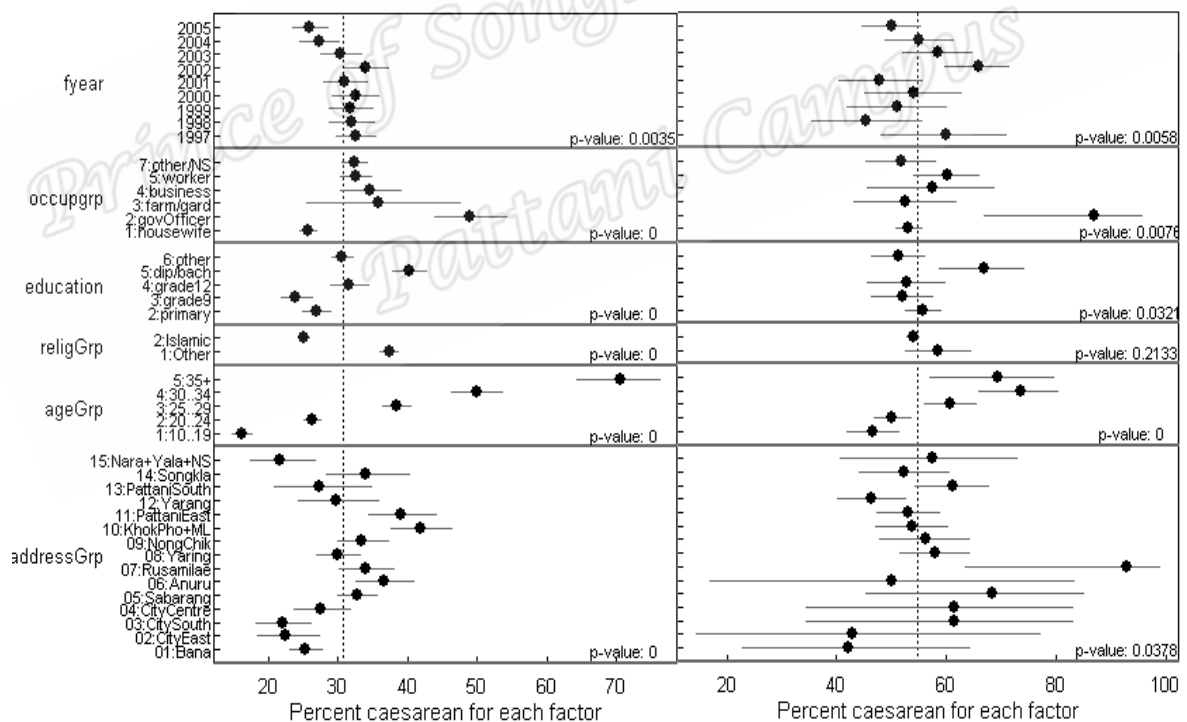


Figure 3.4: 95% confidence intervals for caesarean birth overall mean percentages for mothers with first pregnancies; new cases (left panel); referred/transferred cases (right panel)

This graph on the right panel shows 95% confidence intervals of the percentages of caesarean section births for women first pregnancy mothers refer or transferred all the other factors, mothers older than 25 year, education “Diploma/bachelor” and government officers were more likely to give birth by caesarean section. The budget year in 2002 was significant and Islamic mother were less likely to deliver by caesarean section (see in Figure 3.4 and Table 4 in the second article).

The second article explain the association between proportion of caesarean section and various risk factors fitting logistic regression using Pearson test for independence and odd ratio plot.

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