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29 March 2016

Standard analysis 7-1

The purpose of this note is to present a standard logistic regression analysis. The data concerning post term delivery, parity and age were used in Exercise 7-1.

Statistical methods

The odds ratio for post term delivery between higher parity and first parity were estimated with 95% confidence interval. The odds ratio adjusted for age of the mother as a continuous variable was obtained in a logistic regression model. The assumption of the no effect measure modification of parity by age was assessed by including an interaction between parity and age in the logistic regression model.

Results and conclusion

The odds ratio for post term delivery between higher parity and first parity was 0.87 (95% CI: 0.81-0.95), suggesting a reduced odds for post term delivery of 13% (95% CI: 5%-19%) when higher parity is compared to first parity. Adjusting for the age of mother the odds ratio was 0.82 (95% CI: 0.76-0.89).

Do file

```
*********************************************************************
* Standard7-1.do
* Task: A standard logistic (binary) regression analysis. The data
* concerning post term delivery, parity and age were used in
* Exercise 7-1.
* Erik Parner: 29-3-2016.
*********************************************************************

clear
cd "D:\Teaching\BasicBiostat\Exercises"

graph drop _all

capture log close
log using Standard7-1.log, replace

use postterm.dta,clear

* The crude odds ratio.
cs ptd parity , or woolf
logit ptd b0.parity, or

* Test for no effectmodification beweeen parity and age.
gen age30=age-30
logit ptd b0.parity##c.age30
```

```
* The adjusted odds ratio.
logit ptd b0.parity age30, or

log close
```