

## **Solution to exercise 4-7**

### **Statistical methods**

The chance of getting a boy the second time is analyzed using a binomial model and estimates with 95% confidence intervals (CI) are presented.

### **Results**

The risk of low birth weight is 3.6% (95% CI: 2.2% to 5.7%) if the child is a girl and 3.2% (1.8%-5.1%) if the child is a boy. Thus boys had a 0.4% point (-1.8% to 2.7%) lower (absolute) risk of low birth weight than girls, corresponding to a 12% lower risk (95% CI: 55% lower risk to 70% increased risk) as compared to girls. The risk of low birth weight is not statistically significant between the two genders ( $p=0.70$ ).

### **Do file**

```
cd "D:\Teaching\BasicBiostat\Exercises"  
  
capture log close  
log using "Solution4-7.log",text replace  
  
use siblings.dta, clear  
generate gender1=2-sex1 if sex1<.  
label define gender 0 "girl" 1 "boy"  
label val gender1 gender  
  
generate lbw1=weight1<2500 if weight1<.  
ci prop lbw1 if(gender1==0)  
ci prop lbw1 if(gender1==1)  
cs lbw1 gender1  
  
log close
```