Erik Parner
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Standard analysis 4-1

The purpose of this note is to present a standard analysis of comparing two independent groups with binary data using the binomial model. The data concerning treatment of tuberculosis with streptomycin were used in Exercise 4-2.

Statistical methods

The chance of survival after six months was compared by a risk difference with 95% confidence interval. The statistical significance was accessed using the chi2-test.

Results and conclusion

The six months survival in the streptomycin group was 93% (95% CI: 82-98%) as compared to the placebo group of 73% (95% CI: 59-84%). The difference in survival between the streptomycin and placebo group was 20% (95% CI: 6-34%), which is statistical significant (p=0.007).

Do file

```
*********************************************************************
* Standard4-1.do
* Task: A standard analysis of comparing two independent groups with
*       binary data using the binomial model. The data were used in
*       Exercise 4-2.
* Erik Parner: 10-2-2016.
*********************************************************************

graph drop _all

cd "D:\Teaching\BasicBiostat\Exercises"

capture log close
log using Standard4-1.log , text replace

use strepto.dta,clear
codebook

* Confidence intervals.
* In Stata 14 the syntax is:
* ci proportions survival if treatment==0
ci prop survival if treatment==0
ci prop survival if treatment==1

* Estimation of the risk difference.
cs survival treatment
```

```
log close
```