

# PH241 HW8

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```
library(vcd)
```

```
## Loading required package: grid
```

```
pooledTable = array(  
  c(38+12, 102+136, 12+9, 141+383),  
  dim=c(2,2),  
  dimnames=list( c("BFE - Yes", "No"),  
                  c("TBCase", "TBControl")  
  )  
)  
pooledTable
```

```
##           TBCase TBControl  
## BFE - Yes      50         21  
## No            238        524
```

```
oddsratio(pooledTable, log = FALSE)
```

```
## odds ratios for and
```

```
##
```

```
## [1] 5.242097
```

```
stratifiedTable = array(  
  c(c(38, 102, 12, 141),  
    c(12, 136, 9, 383)),  
  dim=c(2,2,2),  
  dimnames=list( c("BFE - Yes", "No"),  
                  c("TBCase", "TBControl"),  
                  c("< 1000 Pesos", ">= 1000 Pesos")  
  )  
)  
stratifiedTable
```

```
## , , < 1000 Pesos
```

```
##
```

```
##           TBCase TBControl  
## BFE - Yes      38         12  
## No            102        141
```

```
##
```

```
## , , >= 1000 Pesos
```

```
##
```

```
##           TBCase TBControl  
## BFE - Yes      12          9  
## No            136        383
```

```
oddsratio(stratifiedTable, log = FALSE)
```

```
## odds ratios for and
```

```
##
```

```
## < 1000 Pesos >= 1000 Pesos
##      4.377451      3.754902
```

```
woolf_test(stratifiedTable)
```

```
##
## Woolf-test on Homogeneity of Odds Ratios (no 3-Way assoc.)
##
## data: stratifiedTable
## X-squared = 0.071106, df = 1, p-value = 0.7897
```

```
library(DescTools)
BreslowDayTest(stratifiedTable)
```

```
##
## Breslow-Day test on Homogeneity of Odds Ratios
##
## data: stratifiedTable
## X-squared = 0.071837, df = 1, p-value = 0.7887
```

```
mantelhaen.test(stratifiedTable)
```

```
##
## Mantel-Haenszel chi-squared test with continuity correction
##
## data: stratifiedTable
## Mantel-Haenszel X-squared = 27.363, df = 1, p-value = 1.686e-07
## alternative hypothesis: true common odds ratio is not equal to 1
## 95 percent confidence interval:
##  2.401977 7.199451
## sample estimates:
## common odds ratio
##      4.158475
```