

HW#1, question #1

. csi 477 522 19457 19420, exact or

| | Exposed | Unexposed | Total | |
|-----------------------------------|----------------|-----------|----------------------|----------------------|
| Cases | 477 | 522 | 999 | |
| Noncases | 19457 | 19420 | 38877 | |
| Total | 19934 | 19942 | 39876 | |
| Risk | .023929 | .0261759 | .0250527 | |
| | Point estimate | | [95% Conf. Interval] | |
| Risk difference | -.0022469 | | -.0053147 | .0008208 |
| Risk ratio | .9141598 | | .8086936 | 1.03338 |
| Prev. frac. ex. | .0858402 | | -.0333805 | .1913064 |
| Prev. frac. pop | .0429115 | | | |
| Odds ratio | .9120554 | | .8043613 | 1.034168 (Cornfield) |
| 1-sided Fisher's exact P = 0.0802 | | | | |
| 2-sided Fisher's exact P = 0.1586 | | | | |

HW#1, question #2

. cci 688 21 650 59, exact

| | Exposed | Unexposed | Total | Proportion Exposed |
|-----------------------------------|----------------|-----------|----------------------|--------------------|
| Cases | 688 | 21 | 709 | 0.9704 |
| Controls | 650 | 59 | 709 | 0.9168 |
| Total | 1338 | 80 | 1418 | 0.9436 |
| | Point estimate | | [95% Conf. Interval] | |
| Odds ratio | 2.973773 | | 1.755669 | 5.209292 (exact) |
| Attr. frac. ex. | .6637268 | | .4304165 | .8080353 (exact) |
| Attr. frac. pop | .6440678 | | | |
| 1-sided Fisher's exact P = 0.0000 | | | | |
| 2-sided Fisher's exact P = 0.0000 | | | | |

. cci 647 2 622 27, exact

| | Exposed | Unexposed | Total | Proportion Exposed |
|-----------------|----------------|-----------|----------------------|--------------------|
| Cases | 647 | 2 | 649 | 0.9969 |
| Controls | 622 | 27 | 649 | 0.9584 |
| Total | 1269 | 29 | 1298 | 0.9777 |
| | Point estimate | | [95% Conf. Interval] | |
| Odds ratio | 14.0426 | | 3.499078 | 122.1709 (exact) |
| Attr. frac. ex. | .9287881 | | .7142104 | .9918147 (exact) |
| Attr. frac. pop | .9259259 | | | |

1-sided Fisher's exact P = 0.0000
2-sided Fisher's exact P = 0.0000

. cci 41 19 28 32, exact

| | Exposed | Unexposed | Total | Proportion Exposed |
|-----------------|----------------|-----------|----------------------|--------------------|
| Cases | 41 | 19 | 60 | 0.6833 |
| Controls | 28 | 32 | 60 | 0.4667 |
| Total | 69 | 51 | 120 | 0.5750 |
| | Point estimate | | [95% Conf. Interval] | |
| Odds ratio | 2.466165 | | 1.100926 | 5.562471 (exact) |
| Attr. frac. ex. | .5945122 | | .0916737 | .8202238 (exact) |
| Attr. frac. pop | .40625 | | | |

1-sided Fisher's exact P = 0.0131
2-sided Fisher's exact P = 0.0262

HW#1, question #3

(these separate `sampsi` command outputs are not necessarily in order of the questions asked in exercise #3 parts a and b: ie, don't just copy the results without paying attention to what output is appropriate for a given scenario)

```
. sampsi .31 .26 , power(.8)
```

Estimated sample size for two-sample comparison of proportions

Test Ho: $p_1 = p_2$, where p_1 is the proportion in population 1
and p_2 is the proportion in population 2

Assumptions:

```
alpha = 0.0500 (two-sided)
power = 0.8000
p1 = 0.3100
p2 = 0.2600
n2/n1 = 1.00
```

Estimated required sample sizes:

```
n1 = 1319
n2 = 1319
```

```
. sampsi .31 .21, power(.9)
```

Estimated sample size for two-sample comparison of proportions

Test Ho: $p_1 = p_2$, where p_1 is the proportion in population 1
and p_2 is the proportion in population 2

Assumptions:

```
alpha = 0.0500 (two-sided)
power = 0.9000
p1 = 0.3100
p2 = 0.2100
n2/n1 = 1.00
```

Estimated required sample sizes:

```
n1 = 423
n2 = 423
```

```
. sampsi .31 .21 , power(.8)
```

Estimated sample size for two-sample comparison of proportions

Test Ho: $p_1 = p_2$, where p_1 is the proportion in population 1
and p_2 is the proportion in population 2

Assumptions:

```
alpha = 0.0500 (two-sided)
power = 0.8000
p1 = 0.3100
p2 = 0.2100
n2/n1 = 1.00
```

Estimated required sample sizes:

```
n1 = 321
n2 = 321
```

```
. sampsi .31 .26 , power(.9)
```

Estimated sample size for two-sample comparison of proportions

Test Ho: $p_1 = p_2$, where p_1 is the proportion in population 1
and p_2 is the proportion in population 2

Assumptions:

```
alpha = 0.0500 (two-sided)
power = 0.9000
p1 = 0.3100
p2 = 0.2600
n2/n1 = 1.00
```

Estimated required sample sizes:

```
n1 = 1751
n2 = 1751
```