Sample Size & Power
for Comparing Proportions

Three approaches:

1. *n* needed to estimate given effect with margin of error *m* (not covered in Ch 17)
2. *n* needed to test H_0 at given α and power
3. Power of test of H_0 under given conditions

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Sample Size Requirements for Comparing Proportions

Depends on:

r ≡ sample size ratio = n_1 / n_2

1−β ≡ power (acceptable type II error rate)

α ≡ significance level (type I error rate)

p_1 ≡ expected proportion, group 1

p_2 ≡ expected proportion in group 2, or expected effect size (e.g., *RR)*

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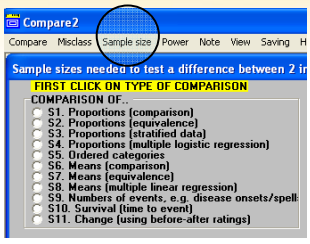
Calculation

- Formulas on pp. 396 – 402 (quite complex)
- In practice ⇒ use tables or (better yet) computer programs
- WinPEPI > Compare2.exe > Sample size



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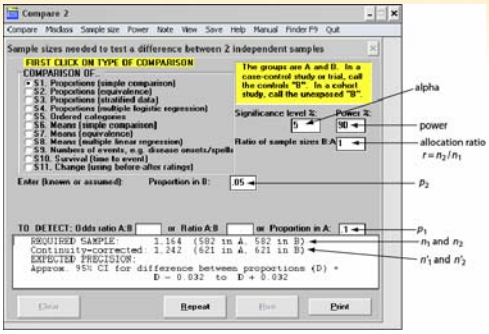
WinPepi > Compare2 > S1



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