Course VI-2, 2015

OpenEpi

http://www.openepi.com

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Department of Public Health
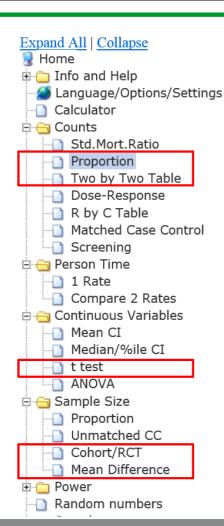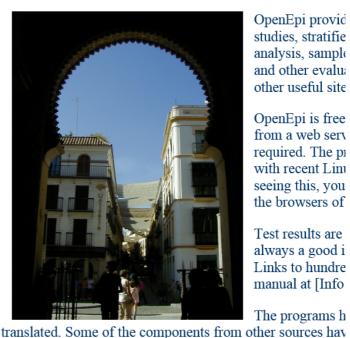Fukushima Medical University

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Useful when…

1. You want to calculate 95%CI of a proportion.

2. You have a filled contingency table and want to perform a statistical test.

3. You know mean (SD) of your data and want to perform a statistical test.

4. You want to calculate a sample size.

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Proportion

SLIDE 4

Slide 5

95% Confidence Limits for Proportion 10/100
Multiplier=100
Large population size or sample with replacement.

	Lower CL	Per 100	Upper CL
Proportion as Percent		10	
Mid-P Exact	5.193		17.1
Fisher Exact(Clopper-Pearson)	4.9		17.62
Wald (Normal Approx.)	4.12		15.88
Modified Wald(Agresti-Coull)	5.349		17.61
Score(Wilson)*	5.523		17.44
Score with Continuity Correction (Fleiss Quadratic)	5.163		18.04

*LookFirst items: Editor's choice of items to examine first.

One-Sample Test for Binomial Proportion, Normal-Theory Method
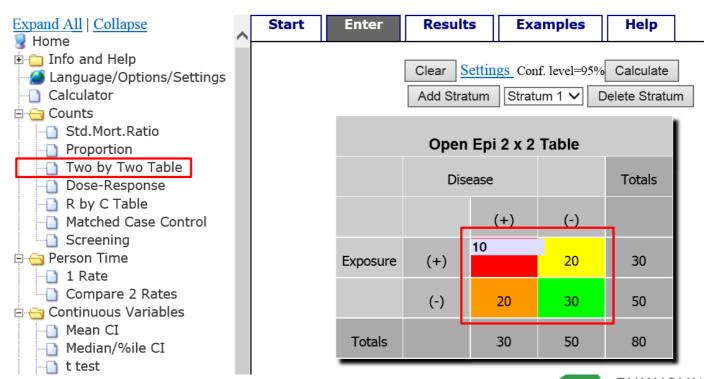Does proportion 0.1 differ from 0.5?
z-value = -8
Two-sided p-value=<0.0000001

Results from OpenEpi, Version 3, open source calculator--Proportion
Print from the browser with ctrl-P
or select text to copy and paste to other programs.

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SLIDE 5

Slide 6

Two by Two

Expand All | Collapse
- Home
  - Info and Help
  - Language/Options/Settings
  - Calculator
  - Counts
    - Std.Mort.Ratio
    - Proportion
    - Two by Two Table
    - Dose-Response
    - R by C Table
    - Matched Case Control
    - Screening
  - Person Time
    - 1 Rate
    - Compare 2 Rates
  - Continuous Variables
    - Mean CI
    - Median/%ile CI
    - t test

Clear | Settings | Conf. level=95% | Calculate
Add Stratum | Stratum 1 ▾ | Delete Stratum

Open Epi 2 x 2 Table

		Disease		Totals
		(+)	(-)	
Exposure	(+)	10	20	30
	(-)	20	30	50
Totals		30	50	80

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SLIDE 7

SLIDE 8

SLIDE 9

Sample size: Cohort/RCT
SLIDE 10

SLIDE 11

SLIDE 12

Sample Size For Comparing Two Means

Input Data

Confidence Interval (2-sided)	95%
Power	80%
Ratio of sample size (Group 2/Group 1)	1

	Group 1	Group 2	Difference*
Mean	10	12	-2
Standard deviation	3	4	
Variance	9	16	

Sample size of Group 1	50
Sample size of Group 2	50
Total sample size	100

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Sample data

	Mean (SD) or N(%)		
	City A N=200	City B N=200	p-value*
Systolic blood pressure	123 (20)	120 (25)	
Hypertension			
Yes	20 (10%)	12 (6%)	
No	180 (90%)	188 (94%)	

* T-test or Chi-square test was used.

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Assignments

1. Calculate 95% confidence interval of a prevalence of hypertension in each city. "**Proportion**"

2. Select and perform an appropriate statistical test for each item (BP and HT). "**Two by Two**" or "**t test**"

3. The sample data is from a pilot test. Calculate a sample size for the main survey. "**Cohort/RCT**" or "**Mean Difference**"

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