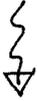


EXAMPLES

5/8/10 Comp Stats Review



1. **Cohort and case-control basics.** Some students are still confused about the difference between a cohort study and a case control study. I have a presentation I use in HS 161 (undergrad epi) to explain the difference, and will use this as a starting point. We can take it from there. In preparation, you should study-up on the material from 2/18/10 and 2/25/10.

HS161  
PRESENTATION  
COHORT: CMV/RESISTANCE  
CASE-CONTROL:  
RELI TAMPONS/TSS

2. **Confounding and interaction understood through ~~confounding~~ subgroup analysis.** The principles of confounding and interaction can best be understood from an empirical ("hands-on") perspective by studying results from stratified tables. These principals apply to both cohort and case-control studies. Therefore, during this review session, I will use the acronym *ME* to refer to "measure of effect," which can then stand for an *RR* (cohort study) or *OR* (case-control study), depending on context. *ME<sub>i</sub>*, with a subscript *i* will refer to a measure of effect with stratum *i*. *ME* with no subscript is the crude measure of effect. *ME<sub>MH</sub>* is a Mantel-Haenszel summary measure of effect. You must understand that:

EX 19.4  
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SMOKE/CEWCA/  
PARTNERS

EX. 19.7  
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/CLINIC

- a. When the strata-specific *ME<sub>i</sub>*s differ non-randomly from each other, interaction IS present (heterogeneous effects with subgroups).
- b. When the strata-specific *ME<sub>i</sub>*s are about the same as each other, interaction is NOT present (homogeneous effects with subgroups).
- c. When the strata-specific *ME<sub>i</sub>*s differ from the crude *ME*, we have evidence that the stratification factor confounded the crude *ME*

In preparation for this presentation you should be studied-up on the material from 3/18/10.

3. *Time permitting*, we will **review linear relationship**. Understanding relationships between quantitative variables entails (a) looking at scatter plots, (b) "straightening" non-straight relations, (c) judging correlational strength, and most importantly, (d) determining the effect of X on Y with a slope estimate. Don't be fooled by the word "strength." Correlational strength is not nearly as important as slope. In preparation, you should be studied-up on the material from 4/15 and 4/22.

EX. 14.13  
DISTANCE/ONSET