

## Homework 2

Due next class

1. Choose all appropriate method or methods (i.e., questionnaire, diary, observation by investigator, records, physical or chemical measurement on environment, physical or chemical measurement on subject) for measuring each of the following variables for the prospective cohort study of physical activity and colon cancer: demographic factor, physical activities, family history of colon cancer, diet fiber, pre-existing medical condition (i.e. ulcerative colitis), and obesity (all at baseline).

**Table 1.** Measurement methods for different exposure variables in a prospective cohort study of physical activity and incidence of colon cancer (with a 10-year follow-up period).

Exposure variable	Examples of methods of measurement
demographic factor	
physical activities	
family history of colon cancer	
diet fiber	
pre-existing medical condition (i.e. ulcerative colitis)	
Obesity	

2. Choose a method to measure salting of food at the table for a cross-sectional study of added salt and hypertension. (Assume that those with a prior diagnosis of hypertension are omitted.) Please also explain the reasons for your selection.

3. What are the advantages and disadvantages of using a biochemical or physical method to measure the primary exposure in a case-control study vs. an interviewer administered questionnaire?
4. What are the disadvantages of using a self-administered questionnaire in a case-control study of estrogen replacement therapy and coronary artery disease vs. an interviewer administered questionnaire?