

Question 1:

What could epidemiologic research contribute to basic knowledge about disease?

Notice: First discuss what aspects of basic knowledge should be included about a disease.

Second, for each aspect, what clinical measures can be used (only discuss what we learned in second section) ?

Question 2:

- 1) Which is the best measure to estimate the rapidity with which new cases of asthma develop among school-aged children?
- 2) Which is the best measure to estimate the proportion of nursing home residents that is clinically depressed?
- 3) Which is the best measure to estimate the typical longevity after diagnosis of patients who have experienced a stroke?
- 4) Which is the best measure to estimate the likelihood that women who start postmenopausal hormone replacement therapy will develop breast cancer within 10 years?

Question 3

A study about risk of myocardial infarction among cigarette smokers was conducted between 1994 and 1999. The results of observations on six patients are depicted schematically in Figure 2-8.

- 1) The prevalence of myocardial infarction in 1995 was
- 2) . Among these patients, the risk of developing a myocardial infarction by the end of the second year of follow-up is

Question 4:

a workforce of 10,000 employees among whom 1000 workers are detected with diabetes mellitus during the initial screening and 45 new diagnoses are detected at a subsequent annual screen 1 year later.

- 1) Estimate the prevalence of diabetes mellitus in the population of this workshop.

- 2) Estimate the incidence rate (per person-year) of new case development in the population, assuming no entries from or losses of patients and no deaths from other causes.