## Preview Post-class Quiz #1 - Study Designs

### Question 1

<table>
<thead>
<tr>
<th>Enstrom JE and Kabat GC: Environmental tobacco smoke and tobacco related mortality.</th>
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<tbody>
<tr>
<td><strong>OBJECTIVE:</strong> To measure the relation between environmental tobacco smoke, as estimated by smoking in spouses, and long term mortality from tobacco related disease.</td>
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<td>In the American Cancer Society cancer prevention study (CPS I) enrolled 118,094 adults in 1959 and followed until 1998. Two of the exposures assessed at baseline in 1959 were smoking in the subject and smoking status of the subject’s spouse. This report focused on the 35,561 “never smokers” who had a spouse in the study with known smoking habits. <strong>RESULTS:</strong> For participants followed from 1960 until 1998 the relative risk for never smokers married to ever smokers compared with never smokers married to never smokers was 0.94 for coronary heart disease, 0.75 for lung cancer, and 1.27 for chronic obstructive pulmonary disease. No significant associations were found for current or former exposure to environmental tobacco smoke before or after adjusting for seven confounders and before or after excluding participants with pre-existing disease. <strong>CONCLUSIONS:</strong> The results do not support a causal relation between environmental tobacco smoke and tobacco related mortality, although they do not rule out a small effect.</td>
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<td>What type of study is this?</td>
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<tr>
<td>- Clinical trial</td>
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<tr>
<td>- Prospective cohort study</td>
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<td>- Retrospective cohort study</td>
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<td>- Case-control study</td>
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### Question 2

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<td>“The aim of the study was to examine the additive effect of resistance training (RT) to a dietary education (DE) intervention on emerging coronary heart disease (CHD) risk factors, concentration of apolipoproteins B (apoB) and A-I (apoA-I), and Dietary Approaches to Stop Hypertension (DASH) Diet Index scores in overweight and obese older adults.” “Participants were overweight or obese subjects randomized into two groups, one participating in DE only (n = 12) and the other participating in DE plus RT (DERT) (n = 15). The intervention involved all subjects participating in 30 minutes of DE per week for 10 weeks. Subjects in the DERT group participated in an additional 40 minutes of RT three times per week for 10 weeks. <strong>RESULTS:</strong> The DERT subjects had significantly better triacylglycerol and apoB concentrations and DASH Diet Index scores than the DE subjects post-intervention. Improvements were seen within the DE group in energy intake, fat-free mass, and systolic blood pressure and within the DERT group in body weight, percentage of body fat, BMI, diastolic blood pressure, and oxidized low-density lipoprotein (all P &lt; 0.05).”</td>
</tr>
</tbody>
</table>
What type of study is this?

- Case series
- Clinical trial
- Prospective cohort study
- Retrospective cohort study

Question 3


These investigators designed a special surveillance system to identify newly diagnosed patients with lung in selected hospitals within large metropolitan areas in New York State. They then used medical records and interviews with the patients to identify patients with lung cancer who were non-smokers (defined as not having smoked more than 100 cigarettes within the last ten years.) The comparison group consisted of individuals without known lung cancer. The comparison group was obtained by selecting drivers randomly from the state database of licensed drivers; they were matched to the lung cancer patients by age, sex, and county town of residence. All subjects were then interviewed to ascertain their total lifetime exposure to household tobacco smoke from spouses and other family members. Both the frequency of exposure and duration in years were noted. Household exposure to tobacco smoke for 25 smoker-yrs or more during childhood or adolescence was found to be associated with a two-fold increase in risk of lung cancer.

What type of study is this?

- Clinical trial
- Prospective cohort study
- Retrospective cohort study
- Case-control study

Question 4


BACKGROUND: The one-year survival rate of adults and children with the acquired immunodeficiency syndrome (AIDS), without antiretroviral therapy, has been about 30% in Haiti. Antiretroviral therapy has recently become available in Haiti and other developing countries. Data on the efficacy of antiretroviral therapy in developing countries are limited. High rates of co-infection with tropical diseases and tuberculosis, along with malnutrition and limited laboratory monitoring of therapy, may decrease the efficacy of antiretroviral therapy in these countries. METHODS: During a 14-month period beginning in March 2003, antiretroviral therapy was initiated in 1004 patients in Port-au-Prince, Haiti, including 94 children under 13 years of age. RESULTS: 87 percent of adults and adolescents and 98 percent of children were alive one
year after beginning treatment."

Treatment-limiting toxic effects occurred in 102 of the 910 adults and adolescents (11 percent) and 5 of the 94 children (5 percent). This study would best be described as which of the following?

- [ ] Case report
- [ ] Case series
- [ ] Case-control study
- [ ] Cross sectional study
- [ ] Correlational (ecologic) study

Question 5 4 points


The children’s Health Study enrolled schoolchildren residing in 12 communities within a 200-mile radius of Los Angeles, California. An initial questionnaire completed by the parents was used to assess the status of the children with regard to many exposures including environmental tobacco smoke in the home. The outcome of interest for this particular report was school absences among 2,081 fourth-grade children followed during the first 6 months of 1996. Tobacco smoke exposure information was collected by using questionnaire items about the current and past household smoking status of each participant’s mother, father, other adult household members, and regular household visitors. The current number of household smokers (1, 2, 3, 4, 5, 6 or more) was recorded. The children were followed for six months, and the investigators collected school absence reports and then used telephone interviews to collect information about the reasons for absences. They found that ETS exposure was associated with an overall increased risk of absence for respiratory illness which was statistically significant. With two or more smokers the risk went up to 1.75 and was significant. In children with asthma the increase was even higher (RR=2.35 with one person smoking and 3.71 if two or more smoked.

What type of study is this?

- [ ] Clinical trial
- [ ] Prospective cohort study
- [ ] Retrospective cohort study
- [ ] Case-control study

Question 6 4 points

A Study of Human Papillomavirus and Oropharyngeal Cancer Gypsyamber D’Souza et al., N Engl J Med 2007;356:1944-56. Infection with sexually transmitted human papillomavirus (HPV) is a cause of virtually all cervical cancers. DNA of oncogenic HPV is also detected in about 26% of all squamous-cell carcinomas of the head and neck worldwide. Evidence of an association is strongest for oropharyngeal squamous-cell carcinoma, in which
viral integration and the expression of viral oncogenes (E6 and E7) have been shown. These investigators identified 100 patients who had newly diagnosed squamous-cell carcinomas of the head and neck in the outpatient otolaryngology clinic of the Johns Hopkins Hospital in Baltimore from 2000 through 2005. The comparison group consisted of 200 patients without a history of cancer who were seen for benign conditions between 2000 and 2005 in the same clinic. Two non-cancer patients were matched to each cancer patient based on gender and age at 5 year intervals. All patients completed a computer-assisted self-administered interview that recorded information about demographic characteristics, past oral hygiene, past medical history, family history of cancer, their past sexual behaviors, and past history of marijuana, tobacco, and alcohol use.

This study would best be described as which of the following?

- Case series
- Case-control study
- Cross sectional study
- Correlational (ecologic) study
- Retrospective cohort study
- Prospective cohort study

**Question 7**


BACKGROUND: An estimated 1.4 million salmonella infections occur annually in the United States. The majority of these infections are foodborne, but many are acquired by contact with animals. In August 2004, isolates of Salmonella enterica serotype Typhimurium, which were indistinguishable from one another by pulsed-field gel electrophoresis (PFGE), were obtained from eight hamsters from a Minnesota pet distributor. We conducted an investigation to determine whether human cases of salmonella could be linked to this rodent-borne strain.

METHODS: To identify cases of human infection with S. enterica serotype Typhimurium potentially related to pet rodents, we reviewed salmonella PFGE patterns submitted to the National Molecular Subtyping Network for Foodborne Disease Surveillance. Patients with isolates matching the hamster strain were interviewed about exposure to pet rodents. Implicated rodents were traced to pet stores, distributors, and breeders. RESULTS: We identified matching S. enterica serotype Typhimurium isolates from 28 patients in whom the onset of illness occurred between December 2003 and September 2004. Of 22 patients (or in the case of children, their parents) interviewed, 13 patients (59%) in 10 states reported exposure to pet hamsters, mice, or rats, and 2 (9%) had secondary infections. The median age of the 15 patients with primary or secondary rodent exposure was 16 years, and 6 patients (40%) were hospitalized. Thirteen associated pet stores supplied by seven distributors were identified in 10 states. No single source of the rodents was identified. The outbreak strain of S. enterica serotype Typhimurium was cultured from a patient's pet mouse and from seven hamsters from pet stores. Closely related
S. enterica serotype Typhimurium isolates were cultured from rodent cages and reusable transport containers at a pet distributor. Human, rodent, and environmental isolates were resistant to ampicillin, chloramphenicol, streptomycin, sulfisoxazole, and tetracycline.

This study would best be described as which of the following?

- [ ] Case report
- [ ] Case series
- [ ] Case-control study
- [ ] Cross sectional survey
- [ ] Correlational (ecologic) study

**Question 8**  
4 points

Methods: During the 2003-2004 influenza season, we requested that state health departments report any death associated with laboratory-confirmed influenza in a U.S. resident younger than 18 years of age. Case reports, medical records, and autopsy reports were reviewed, and available influenza-virus isolates were analyzed at the Centers for Disease Control and Prevention. Results: One hundred fifty-three influenza-associated deaths among children were reported by 40 state health departments. The median age of the children was three years, and 96 of them (63 percent) were younger than five years old. Forty-seven of the children (31 percent) died outside a hospital setting, and 45 (29 percent) died within three days after the onset of illness. Bacterial co-infections were identified in 24 of the 102 children tested (24 percent). Thirty-three percent of the children had an underlying condition recognized to increase the risk of influenza-related complications, and 20 percent had other chronic conditions; 47 percent had previously been healthy. Chronic neurologic or neuromuscular conditions were present in one third. The mortality rate was highest among children younger than six months of age (0.88 per 100,000 children; 95 percent confidence interval, 0.52 to 1.39 per 100,000).

This study would best be described as which of the following?

- [ ] Case report
- [ ] Case series
- [ ] Case-control study
- [ ] Cross sectional study
- [ ] Correlational (ecologic) study

**Question 9**  
4 points

Investigators collected data on per capita (average per person) tobacco consumption in 8 states in the US and examined the relationship to the cumulative incidence of death from lung cancer in those 8 states. They calculated annual per capita tobacco sales from commerce and tax records that listed the total dollar amount of tobacco sales in each state, and then divided this by the state's population (from the most recent census).
Methicillin-Resistant Staphylococcus aureus Disease in Three Communities. Fridkin S. et al. N Engl J Med 2005;352:1436-44. Staphylococcus aureus is a common bacterium that is normally found on skin and in the nose and respiratory tract. They usually cause no problems, but they can cause abscesses, boils, and soft tissue infections. When penicillin was first introduced, Staph. aureus was extremely sensitive to it, but with widespread use of penicillin the bacterium developed resistance. Newer synthetic penicillins were developed (e.g. oxacillin) but resistance to these evolved as well. Methicillin was a subsequent generation of antibiotic that was effective, but a methicillin resistant Staph. aureus (MRSA) was identified in 1961 in a hospital in UK. Since then, cases of MRSA had largely been associated with hospitalization and were usually seen in patients with indwelling catheters (IVs, tracheostomies, hemodialysis, etc.) or in patients who had compromised immune function. A worrisome development has been the appearance of MRSA in so-called "community-acquired infections", i.e. in subjects who had not been hospitalized and had none of the usual risk factors. The following is an excerpt from the abstract: METHODS: We evaluated MRSA infections in patients identified from population-based surveillance in Baltimore and Atlanta and from hospital-laboratory-based sentinel surveillance of 12 hospitals in Minnesota. Information was obtained by interviewing patients and by reviewing their medical records. Infections were classified as community-acquired MRSA disease if no established risk factors were identified. RESULTS: From 2001 through 2002, 1647 cases of community-acquired MRSA infection were reported, representing between 8 and 20 percent of all MRSA isolates. The annual disease incidence varied according to site (25.7 cases per 100,000 population in Atlanta vs. 18.0 per 100,000 in Baltimore) and was significantly higher among persons less than two years old than among those who were two years of age or older (relative risk, 1.51; 95 percent confidence interval, 1.19 to 1.92) and among blacks than among whites in Atlanta (age-adjusted relative risk, 2.74; 95 percent confidence interval, 2.44 to 3.07). Six percent of cases were invasive, and 77 percent involved skin and soft tissue.

This study would best be described as which of the following?

- Case report
- Case series

Question 10 4 points
Question 11  4 points
Which of the following is the biggest limitation of correlational studies? (Choose the one best answer).

- There is no way to assess the degree of association between the exposure of interest and the outcome.
- There is no data on individuals, so one cannot link the exposure of interest to the occurrence of disease.
- The data is difficult to obtain.
- They are expensive and require long periods of follow up.

Question 12  4 points
Adiposity as Compared with Physical Activity in Predicting Mortality among Women Frank B. Hu, Walter C. Willett, et al.: N Engl J Med 2004;351:2694-703. In 1976 the Nurse's Health Study enrolled 121,700 female registered nurses who were 30 to 55 years old. Subjects completed a mailed questionnaire regarding their medical history and lifestyle. The women have returned follow up information every two years. For the current study women who reported cardiovascular disease and cancer in the baseline questionnaire were excluded, leaving 116,564 women in the analysis of obesity and mortality. Many studies indicate that obesity and lack of exercise are significant risk factors for cardiovascular disease and death, but obesity and exercise are strongly related to one another. The goal of this study was to determine the extent to which obesity and lack of activity were independent risk factors.

This study would best be described as which of the following?

- Case series
- Case-control study
- Cross sectional study
- Correlational (ecologic)
- Retrospective cohort study
- Prospective cohort study
- Randomized clinical trial

Question 13  4 points
In 2001 the town of Weymouth, MA sent questionnaires to a large number of residents in order to better understand the health needs of the community. The questionnaire included 150 questions about health problems, educational level, current smoking, drinking and drug use, exercise levels, use of
automobile seat belts, and a variety of other factors.

- Case series
- Correlational
- Cross-sectional survey
- Case-control
- Retrospective cohort
- Prospective cohort
- Clinical trial

Question 14  4 points

Statins and the Risk of Colorectal Cancer Jenny N. Poynter, et al. N Engl J Med 2005;352:2184-92. Since colorectal cancer is the third most common cancer in the US, a chemopreventive agent would be highly desirable. Aspirin and other non-steroidal anti-inflammatory drugs (NSAIDS) have been shown to be associated with a decreased risk of colorectal cancer, but their chronic use is associated with complications and side effects that are of concern. The statins are a class of drugs that inhibit 3-hydroxy-3-methylglutaryl coenzyme A (HMG-CoA) reductase, which is the rate-limiting enzyme in cholesterol synthesis. They are effective in reducing serum cholesterol levels and have been shown to reduce the risk of cardiovascular disease, and they are now widely used. Several pieces of evidence suggested that statins might also be effective in reducing the risk of colorectal cancer. Some of the randomized clinical trials that were conducted to test their safety and effectiveness for cardiovascular disease also assessed cancer occurrence. However, it was difficult to assess the associations between statins and cancer risk in these studies because of the small number of cancer outcomes and the limited statistical power with respect to cancers. Health care coverage in Israel is mandated and is provided by four groups similar to health maintenance organizations. Their computerized records were used to identify all cases of colorectal cancer within a well defined geographic area in northern Israel for a six-year period from 1998 to 2004. Subjects without colorectal cancer were identified by the same mechanism, and they were matched to the colorectal cancer patients year of birth, gender, primary clinic location, and ethnic group (Jewish vs. non-Jewish). Potential subjects in the comparison group were excluded if they had a history of colorectal cancer. Participants were interviewed to obtain demographic information and information about their personal and family history of cancer, reproductive history, medical history, medication use, and health habits; they also completed a dietary questionnaire. Diagnoses of colorectal cancer were confirmed by means of a standardized pathological review by one pathologist. Participants were asked to recall each medication they had used for at least five years, and statin use was determined on the basis of this list. The use of aspirin and other NSAIDs was also assessed; information gathered included dose, duration of use, and indication for use. For analyses of aspirin or other NSAIDs, exposure was defined as five or more years of total use, and no exposure was defined as less than five years of use or no use. A complete, three-generation pedigree and information on the family history of cancer were also recorded for each
participant. The report of colon or rectal cancer in at least one first-degree relative was considered to represent a family history of colorectal cancer. Assessment of physical activity was based on a validated instrument used to evaluate three dimensions of physical activity: sports, leisure, and occupational activities. Sports activity was the dimension considered in these analyses since it is the dimension most strongly associated with colorectal cancer in this analysis.

This study would best be described as which of the following?

- Case series
- Case-control study
- Cross sectional study
- Correlational (ecologic) study
- Retrospective cohort study
- Prospective cohort study

**Question 15**


"Background: Although moderate drinking confers a decreased risk of myocardial infarction, the roles of the drinking pattern and type of beverage remain unclear. Methods: We studied the association of alcohol consumption with the risk of myocardial infarction among 38,077 male health professionals who were free of cardiovascular disease and cancer at base line. We assessed the consumption of beer, red wine, white wine, and liquor individually every four years using validated food-frequency questionnaires. We documented cases of nonfatal myocardial infarction and fatal coronary heart disease from 1986 to 1998. Results During 12 years of follow-up, there were 1418 cases of myocardial infarction. As compared with men who consumed alcohol less than once per week, men who consumed alcohol three to four or five to seven days per week had decreased risks of myocardial infarction .... The risk was similar among men who consumed less than 10 g of alcohol per drinking day and those who consumed 30 g or more. No single type of beverage conferred additional benefit, nor did consumption with meals. A 12.5-g increase in daily alcohol consumption over a four-year follow-up period was associated with a relative risk of myocardial infarction of 0.78...."

This study would best be described as which of the following?

- Case series
- Case-control
- Cross sectional study
- Correlational (ecologic) study

Background: Prematurity and low birth weight are associated with high perinatal and infant mortality, especially in developing countries. Maternal micronutrient deficiencies may contribute to these adverse outcomes.

Methods In a double-blind trial in Dar es Salaam, Tanzania, we randomly assigned 8468 pregnant women (gestational age of fetus, 12 to 27 weeks) who were negative for human immunodeficiency virus infection to receive daily multivitamins (including multiples of the recommended dietary allowance) or placebo. All the women received prenatal supplemental iron and folic acid. The primary outcomes were low birth weight (<2500 g), prematurity, and fetal death. At randomization and at monthly visits thereafter, questionnaires were administered to evaluate interim medical problems. Laboratory investigations at baseline included tests for syphilis, gonorrhea, and trichomoniasis; routine urine and stool tests; and evaluation of blood films for malaria. The primary outcomes were low birth weight (<2500 g), prematurity, and fetal death.

This study would best be described as which of the following?

- Case series
- Case-control study
- Cross sectional study
- Correlational (ecologic) study
- Retrospective cohort study
- Prospective cohort study
- Randomized clinical trial

An important limitation of case series reports is the lack of a comparison group.

- True
- False

Investigators in Bergen, Norway sent questionnaires about respiratory health, allergies, smoking habits, and occupational respiratory exposures to a random sample of residents between the ages of 15-70. After two reminders, 2,819 responses were obtained. Of these, 1,646 reported exposure to tobacco smoke from other members of their immediate family. What kind of
Several pieces of evidence led investigators to suspect that occupational exposures to disulfide chemicals might increase the risk of heart disease. In 2009 a team of investigators tested this hypothesis by obtaining all of the employee health records from a rayon manufacturing company in Newark, NJ (Disulfides are commonly used in the manufacture of rayon.) They obtained all records from 1975 to the present time. These records were used to identify employees who had contact with disulfides during the manufacturing process. Subjects who had known heart disease at the beginning of their employment were excluded. For disulfide-exposed subjects who were initially free of heart disease, the investigators then determined the subsequent occurrence of heart disease (also determined from the employee health records). The comparison group consisted of workers at a paper mill in Maine, who did not have occupational exposure to disulfides. Employee health records for paper workers also were obtained from 1975 to present, and subjects with known heart disease at the time they began working there were again excluded. As with the rayon workers, the investigators then determined subsequent development of heart disease from the employee health records. They then compared the frequency of heart disease in these two groups. What kind of study is this?

- Case series
- Correlational
- Cross-sectional survey
- Case-control
- Retrospective cohort study
- Prospective cohort study
- Clinical trial

**Question 20**  
4 points

Investigators used Vital Statistics obtained from the Massachusetts Department of Public Health to determine the rate of premature death in a series of 15 communities across the state. They also determined the median household income for these communities from US Census data. They found that there was a striking linear relationship, i.e. as median household income
declined, the rate of premature death increased. What kind of study is this?

- Case series
- Correlational (ecological)
- Cross-sectional survey
- Case-control study
- Retrospective cohort study
- Prospective cohort study
- Clinical trial

**Question 21**


BDNF is an endogenous substance that promotes growth of neurons and development of healthy connections to neighboring neurons in the central nervous system. Low levels of BDNF are associated with clinical depression. The aim of this study was to assess the role of a nutritional intervention based on a Mediterranean diet (MeDiet) on plasma BDNF levels. For this analysis, 243 participants were assigned to one of three dietary interventions: control (low-fat) diet, MeDiet supplemented with virgin olive oil (MeDiet+VOO), or MeDiet supplemented with nuts (MeDiet+Nuts). Plasma BDNF levels were measured after 3 years of intervention.

RESULTS: Higher but non-significant plasma BDNF levels were observed for participants assigned to both MeDiets. Participants assigned to MeDiet+Nuts showed a significant lower risk (odds ratios (OR)=0.22; 95% confidence intervals (CI)=0.05-0.90) of low plasma BDNF values (<13 µg/ml) as compared to the control group. Among participants with prevalent depression at baseline, significantly higher BDNF levels were found for those assigned to the MeDiet+Nuts. CONCLUSION: Adherence to a MeDiet was associated to an improvement in plasma BDNF concentrations in individuals with depression.

What type of study is this?

- Clinical trial
- Prospective cohort study
- Retrospective cohort study
- Case-control study

**Question 22**


From January 2000 to August 2001, of the 956 individuals who had just entered into the selected hospitals with their first symptoms of coronary heart disease 848 (89%) agreed to be enrolled into the study. These subjects had either (1) diagnosis of first acute myocardial infarction (MI) or (2) diagnosis of unstable angina. The comparison group consisted of 1,078 randomly selected cardiovascular disease-free
subjects. For each group exposure to ETS was measured through a confidential questionnaire administered during a specific interview by the investigators. The questionnaire asked: "Are you currently exposed to tobacco smoke from other people for more than 30 minutes per day?" RESULTS: 731 (86%) of the patients and 605 (56%) of the controls reported current exposure of 30 minutes per day or more to ETS. Among current non-smokers, subjects with heart disease were 47% more likely to report regular exposure to ETS. CONCLUSIONS: This study supports the hypothesis that exposure to ETS increases the risk of developing acute coronary syndromes.

What type of study is this?

- Clinical trial
- Prospective cohort study
- Retrospective cohort study
- Case-control study

Question 23


These investigators obtained death records for Alberta residents aged 25 to 64 with suicide coded as the underlying cause of death from April 1, 2003 to March 31, 2006. Records were also obtained for members of the Alberta population aged 25 to 64 who did not die by suicide. The death records were linked to administrative records pertaining to physician visits, emergency department visits, inpatient hospital admissions, and community mental health visits. RESULTS: Almost 90% of suicides had a health service in the year before their death. Suicides averaged 16.6 visits per person, compared with 7.7 visits for non-suicides. Much of the health service use among people who died by suicide appears to have been driven by mental disorders. CONCLUSION: Information about health service delivery to those who die by suicide can guide prevention and intervention efforts.

What type of study is this?

- Clinical trial
- Prospective cohort study
- Retrospective cohort study
- Case-control study

Question 24


OBJECTIVE:

What type of study is this?

To determine the effect of environmental tobacco smoke exposure on the health of
children in the United States. METHODS: These authors searched the 1991 National Health Interview Survey for records of children aged 10 or younger and obtained 17,448 records. NHIS questionnaires for children less than 14 years of age are completed by an adult, usually a parent. The questionnaire asked about whether there were members of the household who currently smoked in the home and also asked about the frequency of smoking. Respondents were also asked about whether the child had had an acute illness or an exacerbation of a chronic illness during the past two weeks. For most of the analyses children who were exposed to environmental tobacco smoke (ETS) on a daily basis at home were compared to children not exposed to tobacco smoke at home. RESULTS: Children who were exposed to environmental tobacco smoke had a higher incidence of acute respiratory illnesses (relative risk (RR) = 1.10, and all chronic respiratory diseases (RR = 1.28) than children who were not exposed.... Children who were exposed to environmental tobacco smoke had, on average, 1.87 more days of restricted activity, 1.06 more days of bed confinement, and 1.45 more days of school absence per year than children who were not exposed. CONCLUSIONS: Environmental tobacco smoke exposure in the home, which is completely preventable, is an important predictor of increased morbidity in children.

- Retrospective cohort study
- Case-control study
- Case series
- Cross-sectional survey

**Question 25**

Is the following statement true or false?

Cross-sectional studies tend to identify prevalent cases of long duration, since people who die quickly or recover quickly or who are no longer employed in a particular occupation are less likely to be identified.

- True
- False