

10-14. Answers vary. Minus points for historical inaccuracy or technicalities
19. Most biases can apply. Selection, Confounding, etc. Explanation matters

20. 7.857×10^{-5}

21. Breast, lung, bowel

22. Carcinogens, pregnancy hormone blocking, etc

23. Yes. 0.77

24. OR and RR with case/cohort respectively. Difference in ratios should be described and study types

25. No. Needs specific amt of those who use OC

26. Has a confounding variable. Confounding is misinterpretation of association between the exposure and the disease. Because of the correlation of the exposure, the disease, and some other factors (factor X), for investigators to determine that factor X is confounder it needs to be analyzed and derive a conclusion that factor X indeed a known risk factor of the disease that would associate factor A and factor B. Example, to convey that age is the confounder in this case, age must be associated to the exposure, and with the outcome which in this case the ovarian cancer.

In the analysis of use of oral contraceptives and ovarian cancer, age was related both to OC use and to case-control status. (OC users were younger than never-users; case-patients were younger than controls.) Therefore, the investigators decided to stratify the data by age and calculate stratum-specific and, if appropriate, summary statistics of the stratified data.

27. Stratification is when investigator bring all population under study and group them together according to the study design. Example, to stratify by age an investigator would group cases age 20-39, and all controls age 20-39, then calculate odds ratio (OR) for this group and so as the rest of the age groups.

If ever we determine that age will be a problem, we can stratify this by data. When we do stratification, it will provide us the comparison of association exposure and reviewing the results from different other groups.

28. Effect modification (EM) happens when the odds ratio result among different groups are unusually different.

Effect modification is a variable of different rate (positive and negative) that modifies the observed outcome of a risk factor on the disease condition. If it is positive, we can see different odds ratio on various age groups.

31. Age 20-39 group appears to have an outcome of odds ratio of (.16) and the other age groups that has (.65) for ages 40-49 and (.61) for ages 50-54 which is outside (0.77) range. Therefore, I conclude that age is not an effect modifier of OC and ovarian cancer.

32. Stratification, restriction, randomization, etc

33. I would say yes, because the odds ratio shows different results in each age group.

In their published report, the investigators wrote the following about the possible effect modification by parity: "Parity appeared to be an effect modifier of the association between oral contraceptive use and the risk of ovarian cancer...[Table 3]. Among nulliparous women, the age-standardized odds ratio was 0.3 (95% confidence interval: 0.1-0.8). Among parous women, however, the odds ratios were closer to, but still less than, 1.0....It is possible, therefore, that oral contraceptives are most protective for women not already protected by pregnancy." Although this case study deals with the data collected over the first 10 months (phase 1) of the study, an additional 19 months of data (phase 2) were collected and analyzed subsequently. The following table summarizes the apparent role of parity as an effect modifier in the two phases of the study.

34. Yes. It's a CC study

35. Negative. Odds ratio <1

36. Confounding variables + anything relating to types of bias

37. Public health surveillance is "the ongoing, systematic collection, analysis, and interpretation of health-related data essential to planning, implementation, and evaluation of public health practice." — *Field Epidemiology*. Syndromic, Passive, Active, Sentinel works

38. Yes. Passive would be best due to the large scale

39. Droplet is larger and close range. Vice versa

40. Epidemiological surveillance is the systematic collection, analysis, and dissemination of health data for the planning, implementation, and evaluation of public health programs. Established surveillance systems should be regularly reviewed on the basis of explicit criteria of usefulness, cost, and quality; systems should be modified as a result of such a review. Attributes of quality include: 1) sensitivity; 2) specificity; 3) representativeness; 4) timeliness; 5) simplicity; 6) flexibility; and 7) acceptability.

42. 10 or 13 steps is acceptable

43. Anything that describes the general increased accuracy, heightened scientific process, etc

44. Answers vary, but in general fomite is inanimate whereas vehicles can move. Must be nonliving for a fomite, etc

46. Answers vary

47. No (too many) is 5 pts Yes (useful info) is 3 pts

48. Yes. Isolated or transmitted

49. 2.5-3.5 hrs

50. 3-4 hours

51. No

52 64.2%

53. 54.17%

54. 66.67 %

55. 53.2%

56. Choc. Fruit salad is least