

Name:

Team#:

School:

Disease Detective Answer Sheet  
North Shore Country Day School  
Feb. 6, 2010

Part One:

1.   B  

2.   D  

3.   B  

4.   B  

5.   A  

6.   A  

7.   C  

8.   B  

9.   D  

10.  D  

11.   B  

12.   C  

13.   B  

14.   A  

15.   D  

16.   D  

17.   A  

18.   C  

19.   A  

20.   C

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Part Two:

21. One point for **Cohort**; **one point** for it is a group of people who share a common characteristic or experience within a defined period

22. advantages: cheap, ethical, easy, (accept other reasonable answers)

Disadvantages: long time to do, confounding variables, unreliable reports

23. No (1 point) , the risk for all groups is about the same...it is not statistically significant (1 point).

Only 1.02 for high group compared with no outside time

24. Outdoor time increases the incidence compared to no time. (1 point)

1.86 for 1-2 hours and 3.2 for 3 or more hours (one point each calc)

25. None, incidence is about equal for all levels (one point)

Calculation (1 point)  $1/149$

26. inhaling more pollution, playing more actively, more time outdoors in general, undiagnosed asthma, accept reasonable answers.

27. time of year, time of day outside, other illness that seemed asthma like—accept reasonable answers.

Tiebreaker #1: 1.86 for 1-2 hours      3.2 for 3 or more hours

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Part Three

28. case control (one point); involves a given time period, researcher chooses the variable, it examines a cause/effect relationship, other reasonable answers (1 pt)

29. advantages-fast, cheap, easy, retrospective, other reasonable answers

Disadvantages-retrospective, no absolute risk can really be calculated, to many uncontrolled variables, other reasonable answers

30. exposed to viruses and bacteria elsewhere, may have a pre existing condition, some students could have received vaccines, students did not always wear or not wear a coat, other reasonable answers

31. 1.23 (1 pt) show work (1 pt)  $(65/56) / (47/50)$

32. yes, (one point)  $47/97 = .48$  with coat  $(65/111) = .58$  without coat

Tiebreaker #2: prevalence is the number of existing cases

Incidence is number of new cases per year or given time period

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Part Four:

33. \_\_\_D\_\_\_

39. \_\_\_B\_\_\_

34. \_\_\_B\_\_\_

40. \_\_\_B\_\_\_

35. \_\_\_A\_\_\_

41. \_\_\_B\_\_\_

36. \_\_\_B\_\_\_

42. \_\_\_C\_\_\_

37. \_\_\_C\_\_\_

43. \_\_\_A\_\_\_

38. \_\_\_D\_\_\_

Part Five:

44. significant # of people, significant deaths, human to human transmission, transmission could be continuing, findings could prevent future outbreak, public desire to know the cause of multiple deaths, other reasonable answers

45. Yes, large # of cases, short time period, other reasonable answers

46. Title of chart 1pt, appropriate labels 2 pts, correct numbers 3 pts

47. the president's banquet (1 pt)—85% of the people in attendance became ill (1 pt)

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Part One: \_\_\_\_\_/20

Part Two: \_\_\_\_\_/20

Part Three: \_\_\_\_\_/15

Part Four: \_\_\_\_\_/11

Part Five: \_\_\_\_\_/14

**Total: \_\_\_\_\_/80**