

KEY – HS161 Exam 3/24/04 (C:\DATA\HS161\ex1-s04-key.wpd) — 100 points

PART A

Ch 1	Ch 2	Ch 3	Ch 5
1. c	17. c	37. b	62. d
2. b	18. b	38. d	63. d
3. d	19. d	39. a	64. e
4. a	20. a	40. c	65. c
5. b	21. d	41. a	66. d
6. a	22. d	42. d	67. b
7. c	23. a	43. a	68. a
8. d	24. a	44. a	69. a
9. a	25. c	45. d	70. c
10. c	26. a	46. c	71. a
11. a	27. d	47. b	72. b
12. d	28. b	48. c	73. b
13. b	29. b	49. a	74. d
14. a	30. b	50. d	75. c
15. d	31. c	51. c	76. e
16. d	32. a	52. b	77. a
	33. c	53. d	
	34. b	54. d	
	35. a	55. b	
	36. b	56. a	
		57. d	
		58. c	
		59. b	
		60. d	
		61. a	

Part B

- [4 pt scale] A sensitive case definition is broad, while a specific case definition is narrow. A sensitive case definition is likely to uncover false positives, while a specific case definition is likely to result in false negatives.
- [6 pts indicated in bold]

Vaccine status	Age group (yrs)	Cases	Population	Rate (per 1000)
Unvacci.	1–9	42	2552	<u>16.5</u>
	10–19	173	3342	<u>51.8</u>
	1–19	_____	_____	<u>36.5</u>
Vaccinated	1–9	3	3671	<u>0.8</u>
	10–19	14	4345	<u>3.2</u>
	1–19	_____	_____	<u>2.1</u>

- [4 pt scale] Rates in 10-19 year-olds about 3-4× that of 1-9 year-olds.
- [4 pt scale] Rates in unvaccinated 17× that of vaccinated.
- [2 pt scale] $VE = (36.5 - 2.1) / 36.5 = .94 = 94\%$
- [3 pt scale] The vaccine is 94% effective. This means that 94 of 100 (about 19 of 20) people vaccinated would be fully immune. One cannot expect a vaccine to be 100%, and a judgment about effectiveness is difficult to give without context and comparison. One might say that 94% effectiveness is “good” but of course 99% would be better and 90% would be worse.