

Act. Epidemiología Avanzada

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1)	C ₂	C ₀		RR
E	80	920 = 500	80 / 500 = 0.16	3.2*
Ē	20	380 = 400	20 / 400 = 0.05	
	100	800 = 900		

$$X_{\text{min}} = \frac{ad-bc}{\sqrt{\frac{MN}{N-1}}} = \frac{(80)(380) - (920)(20)}{\sqrt{\frac{(100)(800)(500)(400)}{900-1}}} = \frac{30,400 - 18,400}{\sqrt{17,797,552.8364}} = \frac{12,000}{4218.714} = 2.84$$

$$IC_{95\%} = 3.2 \pm (1.96 \div 2.84) = 3.2 \pm 0.69$$

$$H_1 = 3.2 + 0.69 = 3.89$$

$$H_2 = 3.2 - 0.69 = 2.51$$

$$R_{\text{ap}} = \frac{80}{100} (3.2 - 1/3.2) = 0.8 (0.68) = 0.54 = 54\%$$

$$R_{\text{ex}} = 3.2 - 1/3.2 = 0.68 = 68\%$$

2)	C ₂	C ₀		RR
E*	199	191 = 390	199 / 390 = 0.51	1.4*
Ē	14	29 = 38	14 / 38 = 0.36	
	213	215 = 428		

$$X_{\text{min}} = \frac{ad-bc}{\sqrt{\frac{MN}{N-1}}} = \frac{(199)(29) - (191)(14)}{\sqrt{\frac{(213)(215)(390)(38)}}} = \frac{5776 - 2674}{1260.711} = 1.66$$

$$R_{\text{ap}} = \frac{199}{213} (1.4 - 1/1.4) = 0.93 (0.28) = 0.26 = 26\%$$

$$R_{\text{ex}} = 1.4 - 1/1.4 = 0.28 = 28\%$$

$$IC_{95\%} = 1.4 \pm (1.96 / 1.66) = 1.4 \pm 1.18$$

$$H_1 = 1.4 + 1.18 = 2.58$$

$$H_2 = 1.4 - 1.18 = 0.22$$

3) C_2 C_6 $R_M = \frac{A \times D}{B \times C} = \frac{36 \times 796}{886 \times 12} = \frac{26856}{10632} = 2.5 \times R_M$

\bar{E}	36	886
\bar{E}	12	796

$$IC_{95\%} = \ln R_M \pm 1.96 \sqrt{\frac{1}{36} + \frac{1}{886} + \frac{1}{12} + \frac{1}{796}}$$

$$\ln 2.5 = 1.96 = 0.02 + 0.001 + 0.08 + 0.001$$

$$= \sqrt{0.102} = 0.31$$

$$0.91 = 1.96(0.31)$$

$$0.91 = 0.60$$

$$x_1 = 0.91 + 0.60 = 1.51^*$$

$$x_2 = 0.91 - 0.60 = 0.31^*$$

4) C_2 C_6

\bar{E}	70	300
\bar{E}	30	70

$$R_M = \frac{A \times D}{B \times C} = \frac{70 \times 700}{300 \times 30} = \frac{49000}{9000} = 5.4 \times R_M$$

$$IC_{95\%} = \ln R_M \pm 1.96 \sqrt{\frac{1}{70} + \frac{1}{300} + \frac{1}{30} + \frac{1}{700}}$$

$$\ln 5.4 = 1.96 = 0.014 + 0.003 + 0.03 + 0.001$$

$$= \sqrt{0.048} = 0.21$$

$$1.68 = 1.96(0.21)$$

$$1.68 = 0.41$$

$$x_1 = 1.68 + 0.41 = 2.09^*$$

$$x_2 = 1.68 - 0.41 = 1.27^*$$

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