

Trabajo
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Investigación Epidemiológica Avanzada

28 May 22

Ejercicios

①	ca	co	T
E	80 ^a	420 ^a	500 ^a
E	20 ^a	380 ^a	400 ^a
T	100	800	900

$$\Rightarrow RR = A/LI = \frac{80/500}{20/400} = \frac{0.16}{0.05} = \underline{\underline{3.2}}$$

$$\Rightarrow X_{MH} = \frac{a_1d_1 - b_0}{\sqrt{\frac{M_1M_0N_1N_0}{N-1}}} = \frac{(80 \times 380) - (420 \times 20)}{\sqrt{\frac{(100)(880)(500)(400)}{900-1}}} = \frac{22,000}{4218.214} = \underline{\underline{5.21}}$$

$$\Rightarrow 1095\% \cdot RR \pm 2 \cdot X_{MH}$$

$$1.96 = 3.2 \pm 1.96/5.21 = 5.2$$

$$= 3.2 \pm 0.37$$

$$H_1 = 3.2^{+0.37} = 3.2^{+0.37} = \underline{\underline{4.92}}$$

$$H_2 = 3.2^{-0.37} = 3.2^{-0.37} = \underline{\underline{2.08}}$$

$$RR_1 = 2.08$$

$$RR_2 = 4.92$$

$$\Rightarrow Ra_g = \frac{A/LI}{RR} (RR-1) \Rightarrow Ra_{ex} = \frac{(RR-1)}{RR}$$

$$= 80/100 (3.2 - 1/3.2)$$

$$= 0.8 (0.68)$$

$$= 0.54 = \underline{\underline{54\%}}$$

$$= 3.2 - 1 / 3.2$$

$$= 0.68$$

$$= \underline{\underline{68\%}}$$

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⊖	ca	co	T
E	199	191	390
E	14	24	38
T	213	215	428

$$\Rightarrow RR = \frac{A/L1}{C/L0} = \frac{199/390}{14/38} = \frac{0,51}{0,36} = 1,41$$

$$\Rightarrow \frac{ad-bc}{\sqrt{\frac{MN-1}{(a+b)(c+d)(n-1)}}} = \frac{(199 \times 24) - (191 \times 14)}{\sqrt{\frac{(213)(215)(390)(38)}{428-1}}} = \frac{2,102}{1259,24} = 1,66$$

$$\Rightarrow 100\% = RR \pm 2/X_{2nH}$$

$$1,96 = 1,41 \pm 1,96/1,66$$

$$= 1,41 \pm 1,18$$

$$100\%$$

$$BM = 0,94$$

$$RR_2 = 2,01$$

$$H_1 = 1,41 + 1,18 = 2,59$$

$$H_2 = 1,41 - 1,18 = 0,23$$

$$Rap = A/M1 (RR-1/RR)$$

$$= 199/213 (1,41-1/1,41)$$

$$= 0,93 (0,29)$$

$$= 0,26 = 26\%$$

$$Racx = (RR-1/RR)$$

$$= 1,41-1/1,41$$

$$= 0,29 = 29\%$$

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③	ca	co
E	36	886
ē	12	746

$$\Rightarrow RM = \frac{A \times D}{B \times C} = \frac{36 \times 746}{886 \times 12} = \frac{26856}{10632} = \underline{2.5}$$

$$\begin{aligned} \Rightarrow 1095 &= \ln RM \pm 1.96 \sqrt{\frac{1}{a} + \frac{1}{b} + \frac{1}{c} + \frac{1}{d}} \\ &= \ln 2.5 \pm 1.96 \sqrt{\frac{1}{36} + \frac{1}{886} + \frac{1}{12} + \frac{1}{746}} \\ &= 0.91 \pm 1.96 \sqrt{0.0277 + 0.0011 + 0.0833 + 0.0013} \\ &= 0.91 \pm 1.96 (0.31) \\ &= 0.91 \pm 0.60 \\ X_1 &= 0.91 + 0.60 = \underline{1.51} \\ X_2 &= 0.91 - 0.60 = \underline{0.31} \end{aligned}$$

- A) Calcular Rm
- B) calcular Chi²

④	ca	ce
e	70	300
ē	30	700

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

$$\begin{aligned} \Rightarrow 1095 &= \ln RM \pm 1.96 \sqrt{\frac{1}{a} + \frac{1}{b} + \frac{1}{c} + \frac{1}{d}} \\ &= \ln 5.4 \pm 1.96 \sqrt{\frac{1}{70} + \frac{1}{300} + \frac{1}{30} + \frac{1}{700}} \\ &= 1.68 \pm 1.96 \sqrt{0.0143 + 0.0033 + 0.0333 + 0.0014} \\ &= 1.68 \pm 1.96 (0.20) \\ &= 1.68 \pm 0.39 \\ X_1 &= 1.68 + 0.39 = \underline{2.07} \\ X_2 &= 1.68 - 0.39 = \underline{1.29} \end{aligned}$$

- A) calcular Rm
- B) calcular Chi²