

Let $C = \text{Diabetes}$
 $Y = \text{Hyperlipidemia}$
 $A = \text{Gender}$

$$P(C = \text{Yes} | Y = \text{Yes}, A = \text{Male}) = 0.5$$

$$P(C = \text{Yes} | Y = \text{Yes}, A = \text{Female}) = 0.5$$

$$P(C = \text{Yes} | Y = \text{No}, A = \text{Male}) = 0.5$$

$$P(C = \text{Yes} | Y = \text{No}, A = \text{Female}) = 0.5$$

$$P(C = \text{No} | Y = \text{Yes}, A = \text{Male}) = 0.5$$

$$P(C = \text{No} | Y = \text{Yes}, A = \text{Female}) = 0.5$$

$$P(C = \text{No} | Y = \text{No}, A = \text{Male}) = 0.5$$

$$P(C = \text{No} | Y = \text{No}, A = \text{Female}) = 0.5$$

Separated $\wedge \neg$ Sufficient

$$P(Y = \text{Yes} | C = \text{Yes}, A = \text{Male}) = 0.44$$

$$P(Y = \text{Yes} | C = \text{Yes}, A = \text{Female}) = 0.366$$

$$P(Y = \text{Yes} | C = \text{No}, A = \text{Male}) = 0.56$$

$$P(Y = \text{Yes} | C = \text{No}, A = \text{Female}) = 0.634$$

$$P(Y = \text{No} | C = \text{Yes}, A = \text{Male}) = 0.44$$

$$P(Y = \text{No} | C = \text{Yes}, A = \text{Female}) = 0.366$$

$$P(Y = \text{No} | C = \text{No}, A = \text{Male}) = 0.56$$

$$P(Y = \text{No} | C = \text{No}, A = \text{Female}) = 0.634$$

Let $C = \text{Hypertension}$
 $Y = \text{Diabetes}$
 $A = \text{Gender}$

\neg Separated \wedge Sufficient

$$P(C = \text{Yes} | Y = \text{Yes}, A = \text{Male}) = 0.49$$

$$P(C = \text{Yes} | Y = \text{Yes}, A = \text{Female}) = 0.48$$

$$P(C = \text{Yes} | Y = \text{No}, A = \text{Male}) = 0.49$$

$$P(C = \text{Yes} | Y = \text{No}, A = \text{Female}) = 0.48$$

$$P(C = \text{No} | Y = \text{Yes}, A = \text{Male}) = 0.51$$

$$P(C = \text{No} | Y = \text{Yes}, A = \text{Female}) = 0.52$$

$$P(C = \text{No} | Y = \text{No}, A = \text{Male}) = 0.51$$

$$P(C = \text{No} | Y = \text{No}, A = \text{Female}) = 0.52$$

$$P(Y = \text{Yes} | C = \text{Yes}, A = \text{Male}) = 0.5$$

$$P(Y = \text{Yes} | C = \text{Yes}, A = \text{Female}) = 0.5$$

$$P(Y = \text{Yes} | C = \text{No}, A = \text{Male}) = 0.5$$

$$P(Y = \text{Yes} | C = \text{No}, A = \text{Female}) = 0.5$$

$$P(Y = \text{No} | C = \text{Yes}, A = \text{Male}) = 0.5$$

$$P(Y = \text{No} | C = \text{Yes}, A = \text{Female}) = 0.5$$

$$P(Y = \text{No} | C = \text{No}, A = \text{Male}) = 0.5$$

$$P(Y = \text{No} | C = \text{No}, A = \text{Female}) = 0.5$$