

Q1 c:  $\Pr(\text{have driver's lic} \mid \text{male}) = p_2$  }  
 $\Pr(\text{have driver's lic} \mid \text{female}) = p_1$  }

$$\left\{ \begin{array}{l} (1) p_1 - p_2 < \\ (2) p_1 / p_2 < \end{array} \right\}$$

→ (3) OR  $\Rightarrow 4.157 \rightarrow$  CI  $\Rightarrow$  covers value 1  $\Rightarrow$  the real OR could be 1  $\Rightarrow$  2 variables could be indep.

→ (4) Chi-square test.



$H_0$ : 2 variables are indep.  $\leftarrow$

$H_1$ : \_\_\_\_\_ associated

Test statistic:  $X^2 = 0.138 \sim \chi^2_1$  under  $H_0$ .  
 null distn of test statistic

$\Rightarrow$  p-value = 0.7  $\Rightarrow$  large p-value

$\Rightarrow$  not enough evidence against  $H_0$ .

		<u>CVD</u>	non CVD
Obese	22	1179	
Non-obese	22	1409	

Q2 . OR = 1.195  $\leftarrow$

OR =

$\rightarrow$  the odds of CVD among obese is 1.195 times the odds of CVD among non-obese.