

- $N=117$, Y = number of women/children
- $Y \sim \text{binom}(n,p) \approx N(np, npq)$

$$\hat{p} \sim N(p, pq / n) = 14 / 117 = .1196$$

$$p \in \hat{p} \pm z_{\frac{\alpha}{2}} \sqrt{\frac{\hat{p}\hat{q}}{n}} \leftarrow \begin{matrix} \text{SE} = .03 \\ \text{ME} = .06 \end{matrix}$$

$$\doteq .1196 \pm .06$$

$$p \in .1196 \pm (1.96) \sqrt{\frac{(.1196)(1 - .1196)}{117}}$$

$$= .1196 \pm .0588 = (.061, .178)$$



- 95% CI for p is (6.1%, 17.8%)