

## CHAPTER 21: COMPARING TWO PROPORTIONS

Sampling distribution of the difference between two proportions:

Standard Deviation:

### Conditions & Assumptions

- Randomization –
- 10% -
- Independent Groups –
- Success/Failure –

Confidence Interval:

Pooling: \_\_\_\_\_ counts to get an \_\_\_\_\_ proportion

$$\hat{p}_{pooled} = \underline{\hspace{2cm}}$$

Two-proportion z-test:

1. A presidential candidate fears he has a problem with woman voters. His campaign staff plans to run a poll to assess the situation. They randomly sample 300 men and 300 women, asking if they have a favorable impression of the candidate. Suppose there is a positive image with 59% of men & 53% of women.
2. Researchers identified 450 people with cardiac disease, evaluated them for depression then followed the group for 4 years. Of the 361 patients with no depression, 67 of them died. Of the 89 patients with depression, 26 died. Among the people who suffer from cardiac disease, are depressed patients more likely to die?