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| **Variable(s) of Interest** | **Parameter of Interest** | **Statistic of Interest** | **Descriptive Method(s)** | **Inferential Method(s)** | **Assumption(s) for Inferential Methods** |
| **Single Categorical Variable** *(e.g., seasons)*  **(More than two categories)** | True Population Proportion () | Sample proportions | * Report * Stacked/Filled bar chart | * Chi-square Goodness of Fit | * Observations are independent * EXPECTED counts should be greater than 5 |
| **Two Categorical Variables** *(e.g., yawn) (in general)* | True Conditional Population Proportions  () | Sample Proportions | * Report sample proportions * Contingency table * Stacked/Dodged/Filled Bar Plot | * Chi-square test of Independence | * Observations are independent * EXPECTED counts should be greater than 5 |
| **Single Numerical Variable** *(e.g., body temps)* | True Population Mean () | Sample Mean ( ) | * Report measures of center and variation * Dotplot, boxplot, histogram * Describe shape * Identify outliers | * One-sample t-test * Confidence interval for | * Either the sample size is fairly large OR the data reasonably follow a normal distribution |