## Which Statistical Test? Discrete, **Parametric Assumptions Continuous Data Categorical Data** Independent samples Type of Question? Chi-Square tests 1 & 2 sample Data normally distributed Homogenity of Variances Relationships Differences True independent Between what? variable? **Equal Variances** YES NO Means Means F<sub>max</sub> test, Brown & Regression Analyses **Correlation Analysis** Two groups More than 2 groups Smyth test, Bartlett test **Parametric or Parametric or Non-Parametric Non-Parametric** Non-Parametric **Data Transform Parametric Data Transform** Mann Whitney U, Kruskal-Wallis Test ANOVA Spearman's Rank Pearson's r Student's unpaired t-If significant: Dunn's Wilcoxon Rank sums Correlation If significant: post hoc Test, Paired t-Test Test test test