

Statistical tests are mathematical tools for analyzing quantitative data in an evaluation or research study.

Common questions about choosing statistical tests

1. What information do I need to consider when choosing statistical tests?

An evaluation must consider several things when choosing a statistical test to analyze evaluation data, including the type of evaluation design, comparison group (if applicable) and type of measure (i.e. continuous, dichotomous or categorical).

2. What are some guidelines for choosing statistical tests?

In evaluation, we generally use t-tests and ANOVA tests for continuous variables and chi-square tests for dichotomous variables. Categorical variables are a little trickier. The best test for categorical variables should be decided on a case by case basis.

3. When is the best time to think about using statistical tests?

The best time to consider which statistical test to use is when you are developing your instruments! Consider which tests and categories work best together and try to avoid those trickier categorical variables when possible.

How to use this information in your organization

Step 1: Decide what statistical information will be needed for reporting as you develop your instruments.

Step 2: Examine the characteristics of your evaluation design, comparison group and outcome measures to determine which statistical tests to use.

Step 3: Apply the appropriate statistical tests to your data and review the results for themes and trends.

This white paper was developed through information gained in Program Evaluation in Public Health, instructed by Dr. Phyllis Pirie.