Relative Risk (RR)

What is it?

It measures the ratio of risk of outcome in exposed group to the risk in the unexposed group.

Study type
Cohort or Observational studies

Formula
[A/(A+B)]/ [C/(C+D)]

Interpretation
The risk of the outcome is X times higher/lower in those exposed than the risk in those unexposed.

Example
RR= 1.5
Unvaccinated children were 1.5 times more likely to develop chickenpox than children who were vaccinated

Odds Ratio (OR)

Compares odds of an outcome in exposed vs unexposed group.

Study type
Case-Control

Formula
(A x D)/ (B x C)

Interpretation
The odds of the outcome in those exposed is X times the odds in those unexposed.

Example
OR =2.5
The odds of hypertension among adults who consume a lot of salt is 2.5 times the odds of hypertension among those who do not take in salt.

P-Value

It is the probability that the observed test statistic would have occurred due to chance if, truly, the null hypothesis were true.

Typically set to an alpha of 0.05.

p-value <0.05: statistically significant (the estimate was less likely obtained by chance alone). Reject the null hypothesis.

p-value >/= 0.05: statistically significant (high likelihood of obtaining that estimate by chance). Fail to reject the null hypothesis.

P-value