

# How do I interpret these values?

**MD:** The mean difference, or weighted mean difference (WMD), is a statistic that measures the absolute difference between the mean values in two groups in a clinical trial. It estimates the amount by which the experimental intervention changes the outcome on average compared with the control. It can be used as a summary statistic in meta-analysis when outcome measurements in all studies are made on the same scale.

**MD** = Mean value in treatment group — Mean value in control group

**Percentage MD:** Percentage mean difference - the ratio of the difference between the mean values in the treatment group and control group to the mean value in the control group, multiplied by 100%.

$$\frac{\text{Mean value in treatment group} - \text{Mean value in control group}}{\text{Mean value in control group}} \times 100\%$$

**RD:** Risk difference - the absolute difference between the observed probabilities (proportions of individuals with the outcome of interest) in two groups. For an individual it describes the estimated difference in the probability of experiencing the event

**RD** = Probability of event in treatment group — Probability of event in control group

**RR:** Relative risk – the ratio of the probability of an event in the treatment group to the probability of an event in the control group.

$$\text{RR} = \frac{\text{Probability of an event in treatment group}}{\text{Probability of an event in control group}}$$

**SMD:** The standardized mean difference is used as a summary statistic in meta-analysis when the studies all assess the same outcome but measure it in a variety of ways. In this circumstance it is necessary to standardize the results of the studies to a uniform scale before they can be combined. The standardized mean difference expresses the size of the intervention effect in each study relative to the variability observed in that study.

$$\text{SMD} = \frac{\text{Difference in mean outcome between groups}}{\text{Standard deviation of outcome among participants}}$$

**SMD values are classified as:**

Large  $\geq 0.8$  | Moderate  $\geq 0.5$  to  $< 0.8$  | Small  $< 0.5$

## References:

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