“Flavors” of Meta-Analysis

There are different types of meta-analytic studies:

- **Conventional meta-analysis**: which involves the synthesis of summary statistics and effect sizes (means, SD, correlations, risk reductions, …) as they are reported in the published literature.
- **Individual Participants Data (IPD) meta-analysis**: original data of all studies is collected, combined into one big data set (“data harmonization”) and then pooled.

Advantages	Disadvantages
▪ Statistical methods can be applied **in the same way** across all studies. ▪ Can use **participant-level information** (e.g., an individual person’s age, gender, symptom severity) which may play a role as an important moderators of the results. This is not possible with conventional meta-analysis.	▪ Obtaining original data from all relevant studies is **much more challenging** than extracting the published results. ▪ In biomedical research, IPD can only be obtained from approx. 64% of the eligible studies (Riley, Simmonds, and Look 2007).

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- **Network meta-analysis**: a special type of meta-analytic model that allows to three or more studies by combining direct and indirect comparisons of different treatments within a single analysis.