

Writing the Meta-Analysis

Meta-analysis is a quantitative method of combining the results of previous separate but related studies to synthesize summaries and conclusions. It serves to introduce cross-study precision in many fields of research, and it is most useful when individual studies are too small to yield valid conclusions.

In its most general form, meta-analysis uses a set of quantitative techniques that permit synthesizing results of many types of research, including opinion surveys, correlation studies, experimental and quasi-experimental studies, and regression analyses probing causal models. The researcher gathers together all the studies relevant to a given issue and then constructs at least one indicator of the relationships under investigation from each study. Study-level data can thus be analyzed like any other data.

By combining as much of the existing evidence as possible on a specific topic into a common framework, meta-analysis is extremely useful in supporting and improving policy decision making, and it is widely used in several disciplines for just that purpose. For example, RTI economists are currently developing meta-analyses of studies of changes in environmental quality (such as surface water quality) and health status that have estimated monetary values for effects on individuals. The objective of the meta-analyses is ultimately to determine whether it is possible to develop functions to predict values for policy-related changes in health or environmental quality and to support cost-benefit analyses of public policies.

Source: Research Triangle Institute. (2004). *Meta-analysis*. Retrieved September 11, 2004, from <http://www.rti.org/page.cfm?nav=312>

The following links provide information about writing meta-analyses.

[The Meta Analysis of Research Studies](#)

Meta-Stat Web site, ERIC Clearinghouse on Assessment and Evaluation, Department of Measurement, Statistics and Evaluation, University of Maryland, College Park.

[Meta-Analysis](#)

Gerard E. Dallal, Ph.D., Tufts University

[Resources: What Is a Meta-Analysis?](#)

Wisconsin Center for Education Research, University of Wisconsin-Madison

[Systematic Reviews and Meta-Analyses](#)

State University of New York, Downstate Medical Center, Medical Research Library

[Meta-Analysis for Clinical Researchers](#)

Fredrik M. Wolfe, Ph.D.,
University of Washington Dept. Of Medical Education & Biomedical Informatics

[What is Meta-Analysis?](#)

Morten Hesse, Center for Rusmiddelforskning, Aarhus University, Copenhagen, Denmark