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Specifying a Mathematical Model,; 5.5 Sampling Error, 5.6 Separation of Groups on a Confounding Factor, 5.7 Summary,; References,; 6. MATCHING; 6.1 Effect of Noncomparability,; 6.2 Factors Influencing Bias Reduction,; 6.3 Assumptions,; 6.4 Caliper Matching,; 6.5 Nearest Available Matching,; 6.6 Stratified Matching,; 6.7 Frequency Matching,; 6.8 Mean Matching,; 6.9 Estimation and Tests of Significance,; 6.10 Multivariate Matching,; 6.11 Multiple Comparison Subjects,; 6.12 Other Considerations,; 6.13 Conclusions,; Appendix 6A Some Mathematical Details,; References,; 7. STANDARDIZATION AND STRATIFICATION

7.1 Standardization-Example and Basic Information, 7.2 Choice of Standard Population,; 7.3 Choice of Standardization Procedure,; 7.4 Statistical Considerations for Standardization,; 7.5 Extension of Standardization to Case-Control Studies,; 7.6 Stratification,; 7.7 Standardization and Stratification for Numerical Outcome Variables,; 7.8 Extension to More Than One Confounding Factor,; 7.9 Hypothesis Testing,; Appendix 7A Mathematical Details of Standardization,; Appendix 7B Stratified Estimators of the Odds Ratio,; References,; 8. ANALYSIS OF COVARIANCE; 8.1 Background, 8.2 Example: Nutrition Study Comparing Urban and Rural Children, 8.3 The General ANCOVA Model and Method,; 8.4 Assumptions Underlying the Use of ANCOVA,; 8.5 Dealing with Departures from the Assumptions,; Appendix 8A Formulas for Analysis of Covariance Calculations,; References,; 9. LOGIT ANALYSIS; 9.1 Developing the Logit Analysis Model,; 9.2 Use of Logit Analysis to Control for a Confounding Variable,; 9.3 Parameter Estimation by Maximum Likelihood,; 9.4 Other Parameter Estimation Procedures,; 9.5 Hypothesis Testing,; 9.6 Case-Control Studies,; 9.7 Checking the Model, 9.8 Multiple Confounding Factors,

Sommario/riassunto

Brings together techniques for the design and analysis of comparative studies. Methods include multivariate matching, standardization and stratification, analysis of covariance, logit analysis, and log linear analysis. Quantitatively assesses techniques' effectiveness in reducing bias. Discusses hypothesis testing, survival analysis, repeated measure design, and causal inference from comparative studies.