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Theory and the Practice; 8.1. Introduction; 8.2. Surveillance of sexually transmitted infections in the third millennium; 8.3. Attributes of a STI surveillance system; 8.4. Universal versus sentinel surveillance systems; 8.5. How to perform STI surveillance; 8.6. Data management and analysis
8.7. Practical exercises for analysing a dataset of STIs References; 9. Systematic Reviews and Meta-Analysis of Clinical Trials; 9.1. What is a systematic review? What is a meta-analysis?; 9.2. Why do we need systematic reviews and meta-analyses?; 9.3. Practical steps of a meta-analysis; 9.4. A practical example of a meta-analysis of RCTs; References; 10. Meta-Analysis of Observational Studies; 10.1. Introduction; 10.2. Practical example; 10.3. Worked examples; References; 11. Genetic Epidemiology; 11.1. Key concepts of genetic epidemiology
11.2. A practical example: the "candidate gene approach" References; 12. Analysis of Cost Data Using Bootstrap Technique; 12.1. Introduction; 12.2. Basic principles of the bootstrap method; 12.3. Bootstrap standard normal confidence interval; 12.4. Percentile method confidence interval; 12.5. Bias corrected and accelerated (BCa) confidence interval; 12.6. Application to example; References; 13. Sensitivity, Specificity, and ROC Curves; 13.1. Study introduction; 13.2. Sensitivity, specificity, and predictive value; 13.3. Basic principles of ROC curves; 13.4. Use of ROC analysis for comparison
References

Sommario/riassunto

This book provides not only the theory of biostatistics, but also the opportunity of applying it in practice. In fact, each chapter presents one or more specific examples on how to perform an epidemiological or statistical data analysis and includes download access to the software and databases, giving the reader the possibility of replicating the analyses described.
