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Nota di contenuto	Cover; Title; Copyright; Contents; Preface; Share Biostatistics for Epidemiology and Public Health Using R; Chapter 1: Introduction; 1.1 Medicine, Preventive Medicine, Public Health, and Epidemiology; Medicine; Preventive Medicine and Public Health; Public Health and Epidemiology; Review Questions for Section 1.1; 1.2 Personal Health and Public Health; Personal Health Versus Public Health; Review Questions for Section 1.2; 1.3 Research and Measurements in EPDM and PH; EPDM: The Basic Science of PH; Main Epidemiologic Functions; The Cause of Diseases; Exposure Measurement in Epidemiology Additional IssuesReview Questions for Section 1.3; 1.4 BIOS and EPDM; Review Questions for Section 1.4; References; Chapter 2: Research and Design in Epidemiology and Public Health; Introduction; 2.1 Causation and Association in Epidemiology and Public Health; The Bradford-Hill Criteria for Causation and Association in Epidemiology; Legal Interpretation Using Epidemiology; Disease Occurrence; Review Questions for Section 2.1; 2.2 Causation and Inference in Epidemiology and Public Health; Rothman's Diagrams for Sufficient Causation of

Diseases; Causal Inferences; Using the Causal Criteria
Judging Scientific Evidence
Review Questions for Section 2.2; 2.3
Biostatistical Basis of Inference; Modes of Inference; Levels of
Measurement; Frequentist BIOS in EPDM; Confidence Intervals in
Epidemiology and Public Health; Bayesian Credible Interval; Review
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BIOS; BIOS in EPDM and PH; Processing and Analyzing Basic
Epidemiologic Data; Analyzing Epidemiologic Data; Using R; Evaluating
a Single Measure of Occurrence; Poisson Count (Incidence) and Rate
Data; Binomial Risk and Prevalence Data
Evaluating Two Measures of Occurrence-Comparison of Risk: Risk Ratio
and Attributable Risk
Comparing Two Rate Estimates: Rate Ratio rr ;
Comparing Two Risk Estimates: Risk Ratio RR and Disease (Morbidity)
Odds Ratio DOR ; Comparing Two Odds Estimates From Case-Control:
The Salk Polio Vaccine Epidemiologic Study; Review Questions for
Section 2.4; Exercises for Chapter 2; Using Probability Theory; Disease
Symptoms in Clinical Drug Trials; Risks and Odds in Epidemiology;
Case-Control Epidemiologic Study; Mortality, Morbidity, and Fertility
Rates; Incidence Rates in Case-Cohort Survival Analysis
Prevalence
Mortality Rates; Estimating Sample Sizes; References;
Appendix; Chapter 3: Data Analysis Using R Programming;
Introduction; 3.1 Data and Data Processing; Data Coding; Data Capture;
Data Editing; Imputations; Data Quality; Producing Results; Review
Questions for Section 3.1; 3.2 Beginning R; R and Biostatistics; A First
Session Using R; The R Environment; Review Questions for Section 3.2;
3.3 R as a Calculator; Mathematical Operations Using R; Assignment of
Values in R and Computations Using Vectors and Matrices;
Computations in Vectors and Simple Graphics
Use of Factors in R Programming
