Record Nr. UNINA9910144130203321 Autore Bruce Nigel <1956-> Titolo Quantitative methods for health research: a practical interactive guide to epidemiology and statistics / / Nigel Bruce, Daniel Pope and Debbi Stanistreet Chichester, West Sussex;; Hoboken, NJ,: J. Wiley, c2008 Pubbl/distr/stampa **ISBN** 1-118-69337-X 1-281-83141-7 9786611831417 0-470-72533-8 0-470-02276-0 Descrizione fisica 1 online resource (xiii, 538 pages): illustrations Altri autori (Persone) PopeDaniel <1969-> StanistreetDebbi <1963-> 362.1072/4 Disciplina 610.72 Soggetti Medicine - Research - Methodology Health - Research - Methodology Epidemiology - Research - Methodology **Epidemiology Epidemiologic Methods** Biomedical Research - methods Biometry - methods Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Note generali Description based upon print version of record. Nota di bibliografia Includes bibliographical references and index. Quantitative Methods for Health Research; Contents; Preface: 1 Nota di contenuto

Quantitative Methods for Health Research; Contents; Preface; 1 Philosophy of science and introduction to epidemiology; Introduction and learning objectives; 1.1 Approaches to scientific research; 1.2 Formulating a research question; 1.3 Rates: incidence and prevalence; 1.4 Concepts of prevention; 1.5 Answers to self-assessment exercises; 2 Routine data sources and descriptive epidemiology; Introduction and learning objectives; 2.1 Routine collection of health information; 2.2 Descriptive epidemiology; 2.3 Information on the environment; 2.4

Displaying, describing and presenting data

2.5 Summary of routinely available data2.6 Descriptive epidemiology in action; 2.7 Overview of epidemiological study designs; 2.8 Answers to self-assessment exercises; 3 Standardisation; Introduction and learning objectives; 3.1 Health inequalities in Merseyside; 3.2 Indirect standardisation: calculation of the standardised mortality ratio (SMR); 3.3 Direct standardisation; 3.4 Standardisation for factors other than age; 3.5 Answers to self-assessment exercises; 4 Surveys; Introduction and learning objectives; 4.1 Purpose and context; 4.2 Sampling methods; 4.3 The sampling frame

4.4 Sampling error, confidence intervals and sample size4.5 Response; 4.6 Measurement; 4.7 Data types and presentation; 4.8 Answers to self-assessment exercises; 5 Cohort studies; Introduction and learning objectives; 5.1 Why do a cohort study?; 5.2 Obtaining the sample; 5.3 Measurement; 5.4 Follow-up; 5.5 Basic presentation and analysis of results; 5.6 How large should a cohort study be?; 5.7 Confounding; 5.8 Simple linear regression; 5.9 Introduction to multiple linear regression; 5.10 Answers to self-assessment exercises; 6 Case-control studies; Introduction and learning objectives

6.1 Why do a case-control study?6.2 Key elements of study design; 6.3 Basic unmatched and matched analysis; 6.4 Sample size for a casecontrol study; 6.5 Confounding and logistic regression; 6.6 Answers to self-assessment exercises; 7 Intervention studies; Introduction and learning objectives; 7.1 Why do an intervention study?; 7.2 Key elements of intervention study design; 7.3 The analysis of intervention studies; 7.4 Testing more complex interventions; 7.5 How big should the trial be?; 7.6 Further aspects of intervention study design and analysis: 7.7 Answers to self-assessment exercises 8 Life tables, survival analysis and Cox regressionIntroduction and learning objectives; 8.1 Survival analysis; 8.2 Cox regression; 8.3 Current life tables: 8.4 Answers to self-assessment exercises: 9 Systematic reviews and meta-analysis; Introduction and learning objectives; 9.1 The why and how of systematic reviews; 9.2 The methodology of meta-analysis; 9.3 Systematic reviews and metaanalyses of observational studies; 9.4 The Cochrane Collaboration; 9.5 Answers to self-assessment exercises; 10 Prevention strategies and evaluation of screening; 10.1 Concepts of risk 10.2 Strategies of prevention

Sommario/riassunto

Quantitative Research Methods for Health Professionals: A Practical Interactive Course is a superb introduction to epidemiology, biostatistics, and research methodology for the whole health care community. Drawing examples from a wide range of health research, this practical handbook covers important contemporary health research methods such as survival analysis, Cox regression, and meta-analysis, the understanding of which go beyond introductory concepts. The book includes self-assessment exercises throughout to help students explore and reflect on their understanding and a