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| ISBN                    | 1-282-24992-4<br>9786613813862<br>1-118-03261-6<br>1-118-03086-9   |
| Descrizione fisica      | 1 online resource (408 p.)   |
| Collana                 | Wiley series in probability and statistics   |
| Altri autori (Persone)  | GraubardBarry I. <1950->   |
| Disciplina              | 613.0723<br>614.4/2  |
| Soggetti                | Sampling (Statistics)<br>Multivariate analysis<br>Health surveys - Statistical methods<br>Electronic books.  |
| Lingua di pubblicazione | Inglese  |
| Formato                 | Materiale a stampa   |
| Livello bibliografico   | Monografia   |
| Note generali           | "Published simultaneously in Canada"--T.p. verso.  |
| Nota di bibliografia    | Includes bibliographical references (p. 347-368) and indexes.  |
| Nota di contenuto       | Analysis of Health Surveys; Contents; Preface; 1. Introduction; 1.1 Why Analyze Health Surveys?; 1.2 Conducting a Large-scale Health Survey: The Third National Health and Nutrition Examination Survey; 1.3 Common Types of Health Surveys and Their Sample Designs; 1.4 Sampling Frames; 1.5 The Complexity of Analyzing Survey Data: A Preview; 2. Basic Survey Methodology; 2.1 Introduction; 2.2 Single-Stage Sampling Plans; 2.3 Multistage Sampling; 2.4 Variance Estimation of Functions of Estimators: Linearization<br>2.5 Replication Methods of Variance Estimation: The Jackknife, Balanced Half-Sample Replication, and the Bootstrap<br>2.6 Using Auxiliary Population Information to Analyze Survey Data: Poststratification, and Ratio and Regression Estimators; 2.7 Nonsampling Errors: Nonresponse, Sampling Frame Undercoverage, and Measurement Error; 2.8 Some Other Types of Surveys; 2.9 Notes; 2.10 Problems; 3. Statistical Analysis with Survey Data; 3.1 Introduction; 3.2 Inference for a Single Variable: Means, Measures of Dispersion, Proportions, Totals, |

## and Percentiles

3.3 Comparisons Between Two Means: T-Tests and Tests of Proportions3.4 Scatterplots; 3.5 Linear Regression and Analysis of Variance; 3.6 Logistic Regression: Analysis of Categorical Outcomes; 3.7 Survival Analysis: Analysis of Cohort Data; 3.8 Predictive Margins (Direct Standardization); 3.9 Analyses Restricted to Subpopulations; 3.10 Other Types of Analyses; 3.11 Notes; 3.12 Problems; 4. Sample Weights and Imputation; 4.1 Introduction; 4.2 Components of Sample Weights; 4.3 Weighted Versus Unweighted Estimates of Population Parameters; 4.4 The Inefficiency of Using Sample Weights 4.5 Modeling the Survey Design-An Alternative to Weighted Estimation4.6 Summary of Recommendations for Utilizing Sample Weights; 4.7 Imputation for Missing Data; 4.8 Notes; 4.9 Problems; 5. Additional Issues in Variance Estimation; 5.1 Introduction; 5.2 Limited Degrees of Freedom for Variance Estimation; 5.3 Strata with One Sampled Primary Sampling Unit; 5.4 Variance Estimation for Subpopulations; 5.5 Variance Estimation with Imputed Values; 5.6 Generalized Variance Functions; 5.7 Variance Estimation for Superpopulation Inference; 5.8 Notes; 5.9 Problems; 6. Cross-Sectional Analyses 6.1 Introduction6.2 Identifying Individuals at High Risk for Snuff Use; 6.3 Blood Lead Levels and Blood Pressure; 6.4 Poverty Index and Height in Children; 6.5 Notes; 6.6 Problems; 7. Analysis of Longitudinal Surveys; 7.1 Introduction; 7.2 Body Iron Stores and the Risk of Developing Cancer; 7.3 Estimating the Transition Probabilities of Becoming Disabled and Recovering from Disability in Old Age; 7.4 Notes; 7.5 Problems; 8. Analyses Using Multiple Surveys; 8.1 Introduction; 8.2 Revising Sample Weights from Multiple Surveys of a Population; 8.3 Growth Charts 8.4 Changing Rates of Mammography Screening

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### Sommario/riassunto

How to apply statistical methods to survey data--a guide to effective analysis of health surveys. With large health surveys becoming increasingly available for public use, researchers with little experience in survey methods are often faced with analyzing data from surveys to address scientific and programmatic questions. This practical book provides statistical techniques for use in survey analysis, making health surveys accessible to statisticians, biostatisticians, epidemiologists, and health researchers. The authors clearly explain the theory and methods of survey analysis along with

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