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Nota di contenuto	1. Harmonization of Longitudinal Population Data: evidence from three rural health and demographic surveillance system nodes in South Africa -- 2. Adjusting for Selection Bias in Assessing the Efficacy of Health Inputs on Birth Outcome: Evidence from South-Saharan Africa -- 3. An Indirect Assessment of the Effect of Anthropogenic Activities on the Ecology of the Intermediate Snail Host for Schistosoma Haematobium -- 4. Diagonal Reference Modeling of Effects of Couples' Educational Differences on Women's Health Care Utilization in Sub-Saharan Africa - Gebrenegus Ghilagaber, Michael Carlson -- 5. Sequential Modeling of Parity Progression Ratios in Sub-Saharan Africa -- 6. Evidence-informed Public Health, Systematic Reviews, and Meta-analysis -- 7. Meta-analysis Methods and Empirical Comparison of Aggregate Data and Individual Participant Data Results from Sample Survey Data -- 8. Statistical Meta-analysis and its Efficiency Between Summary Statistics and Individual Participant-level Data: A Monte-Carlo simulation study

-- 9. Multivariate Disease Mapping for Multiple Health Outcomes -- 10. Measuring Spatial Dependence of Non-communicable Diseases in South Africa -- 11. Mapping Health Outcomes in Sub-Saharan African Region Using Survey Data, Adjusting for Survey Data - Sheyla Rodrigues Cassy -- 12. Spatial Multi-criteria Decision Analysis in Health Sciences: Fifteen years of applications and trends -- 13. Estimating Determinants of Stage at Diagnosis of Breast Cancer Prevalence in Western Nigeria Using Bayesian Logistic Regression -- 14. Dynamic Bayesian Adjustment of Educational Gradients in Divorce Risks: Disentangling causation and misclassification -- 15. Bayesian Dynamic Models for Time-Varying Outcomes: Applications to a patient cohort on ART -- 16. Suicide Ideation and Associated Factors Among School-going Adolescents in Namibia: A Multilevel logistic regression -- 17. Bayesian Inference in the Extended Generalized Gamma Model and its Special Cases: With applications on demographic and health survey data from Sub-Saharan Africa -- 18. Changing Effects of Covariates on Childhood Mortality in Sub-Saharan Africa: A dynamic Bayesian survival modeling approach -- 19. Group Outliers and Influence Assessments in Clustered Survival Data Modeling -- 20. Joint Modeling of Competing Risks Survival and Longitudinal Data.

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Sommario/riassunto

This book provides an overview of the emerging topics in biostatistical theories and methods through their applications to evidence-based global health research and decision-making. It brings together some of the top scholars engaged in biostatistical method development on global health to highlight and describe recent advances in evidence-based global health applications. The volume is composed of five main parts: data harmonization and analysis; systematic review and statistical meta-analysis; spatial-temporal modeling and disease mapping; Bayesian statistical modeling; and statistical methods for longitudinal data or survival data. It is designed to be illuminating and valuable to both expert biostatisticians and to health researchers engaged in methodological applications in evidence-based global health research. It is particularly relevant to countries where global health research is being rigorously conducted.

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