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Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	Health Care Delivery: Current Problems and Future Challenges -- Health Care Operations Management -- Capacity Planning and Management in Hospitals -- Location of Health Care Facilities -- Ambulance Service Planning: Simulation and Data Visualisation -- Supply Chain Management of Blood Banks -- Evaluating the Efficiency of Hospitals' Perioperative Services Using Dea -- Benchmarking Using DEA: The Case of Mental Health Organizations -- Using Simulation in an Acute-care Hospital: Easier Said Than Done -- Public Policy and Economic Analysis -- Estimating Risks to the Public Health -- Modeling Health Outcomes for Economic Analysis -- Duct Tape for Decision Makers: The Use of or Models in Pharmacoeconomics -- Drug Policy: Insights from Mathematical Analysis -- Modeling The Costs and Effects of Maintenance Treatment for Opiate Addiction -- Harm Reduction in

The Control of Infectious Diseases Among Injection Drug Users -- The Cost Effectiveness of Partially Effective HIV Vaccines -- Designing Pediatric Formularies for Childhood Immunization Using Integer Programming Models -- Allocating Resources to Control Infectious Diseases -- Microbial Risk Assessment for Drinking Water -- Screening for Diabetic Retinopathy -- Decision Making for Bioterror Preparedness: Examples from Smallpox Vaccination Policy -- Models for Kidney Allocation -- Planning in the Face of Politics: Reshaping Children's Health Services in Inner London -- Clinical Applications -- Modeling Medical Treatment Using Markov Decision Processes -- Dynamic Influence Diagrams: Applications to Medical Decision Modeling -- Assessment of the Benefits of Anesthesia Patient Risk Reduction Measures -- An Asthma Policy Model -- A Bayesian Network to Assist Mammography Interpretation -- Optimization and Decision Support in Brachytherapy Treatment Planning -- Radiotherapy Treatment Design and Linear Programming -- Optimization Tools for Radiation Treatment Planning in Matlab -- Transmission Model Analysis of Nontypeable *Haemophilus Influenzae* -- The Impact of Novel Treatments on A? Burden in Alzheimer's Disease: Insights from A Mathematical Model.

Sommario/riassunto

In both rich and poor nations, public resources for health care are inadequate to meet demand. Policy makers and health care providers must determine how to provide the most effective health care to citizens using the limited resources that are available. This chapter describes current and future challenges in the delivery of health care, and outlines the role that operations research (OR) models can play in helping to solve those problems. The chapter concludes with an overview of this book – its intended audience, the areas covered, and a description of the subsequent chapters. **KEY WORDS** Health care delivery, Health care planning **HEALTH CARE DELIVERY: PROBLEMS AND CHALLENGES** **3.1.1 WORLDWIDE HEALTH: THE PAST 50 YEARS** Human health has improved significantly in the last 50 years. In 1950, global life expectancy was 46 years [1]. That figure rose to 61 years by 1980 and to 67 years by 1998 [2]. Much of these gains occurred in low- and middle-income countries, and were due in large part to improved nutrition and sanitation, medical innovations, and improvements in public health infrastructure.
