

Book: *Managerial Epidemiology for Health Care Organizations*

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This book is intended for use by both students and practitioners of health administration to understand the science and application of epidemiology in management and leadership decision making processes. Epidemiology deals with populations, medical conditions and risk factors just the very same issues healthcare managers deal with on a daily basis. Managerial epidemiology however makes management decision making more evidence based, scientific and credible.

The issues surrounding managerial epidemiology have major applications in healthcare administration. Traditional applications of epidemiology are found in the prevention and control of infection, in the measuring and monitoring of performance, in strategic planning and in marketing and managed care to name a few. Other applications include the identification of medical conditions and their determinants and identify methods towards their management; medically, financially, and administratively. Therefore managerial epidemiology is becoming more important in healthcare as regulators and insurers are putting more emphasis on measurements, performance, data and outcomes. This book shows you, the healthcare manager, how to apply all of these mechanisms and techniques in your everyday practice.

This book is written by two distinguished healthcare academicians and administrators for healthcare administrators. It is full of examples, tables and figures that introduce the subject of managerial epidemiology in an easy and straight forward way. There are several chapters including such topics as epidemiology, health and its measurement, populations' management, economics, marketing and planning as well as healthcare outcomes and quality of healthcare. It is also written for the students and academician where each chapter ends with a summary and a list of "study questions".

The book presents material that is both practical and applied in nature. It explains the relevance of epidemiology in healthcare management and shows the reader how to apply the methods and techniques specific to epidemiology in administration. It starts simply with "what is a hypothesis?" and "how to construct it?" and goes on to deeper subjects of epidemiology. The authors do a good job in introducing quantitative analysis of population data and demographics to the reader taking in consideration the novice level of the average intended reader in such topics as statistics or epidemiology. So, the book describes in simple terms the different rates and ratios applied to population management and planning. It also describes common indicators for performance and methods to measure quality of care.

There are several chapters in the book. Each chapter starts with a presentation of a number of epidemiological principles followed by examples and applications. Some chapters also discuss case studies, scenarios, and practical examples with real figures and tables. The book chapters are therefore divided into three main areas; five chapters of epidemiological principles and concepts, another five on clinical epidemiology, and the last four represent actual case studies. The chapters on concepts and principles include descriptions on rates and ratios (infant mortality, case fatality, incidence and prevalence, etc.) as well as definitions, determinates of health as well as confounds and contributors to health status at the individual and population levels. The clinical epidemiology part includes chapters on healthcare outcomes, how to measure quality and performance, benchmarking, validity, specificity and sensitivity of tests, with a few pages devoted to infectious disease surveillance and control practices and bioterrorism issues. The last four chapters are case studies. One focuses on emergency care, another on hospital care quality, a third on a pediatric inpatient service while the forth focuses on community relations in a hospital setting.

In summary, this reviewer has used this book in one of his courses and in the field by healthcare practitioners and all feedback has been very positive. Users have learned from it and thought of it as an applied book they can use beyond their graduate school years!

