Monitoring the Health of Populations: Statistical Principles and Methods for Public Health Surveillance

Public health faces critical challenges ranging from outbreaks of new and old pathogens to the threat of bioterrorism and the impact of lifestyle and environmental changes on health. Modern tools of health surveillance and sound statistical practices are essential for meeting these challenges and providing accurate warnings about real public health threats without wasting resources on false alarms. Advances in statistical techniques, computing power and the Internet have led to many new approaches to monitoring population health, analyzing the data, and rapidly sharing it. This text explores the critical issues in the statistical analysis and interpretation of public health surveillance data. It covers statistical methods for detecting disease outbreaks and clusters, the use of survey methods, interpreting time trends and geographic patterns, exploratory statistical analysis of surveillance data, and web-based health reporting systems for the rapid detection of public health problems, among other topics. The methodological approaches are illustrated in discussions of several current public health issues, including the HIV/AIDS epidemic, anthrax, health effects of particulate air pollution, and trends in prostate cancer. The methods are broadly applicable to surveillance systems and registries for numerous health conditions, e.g. infectious diseases, chronic diseases, adverse drug reactions. The book provides numerous illustrations, worked examples, and practical information for actually implementing the methods. It will serve as a reference for public health practitioners and as a textbook for courses on disease surveillance taken by students of statistics biostatistics, epidemiology or public health.

Public health scientists honor Jack C. Smith #Medical #Donna F. Stroup, Carl W. Tyler, Jack C. Smith #2000 #51 pages #UCLA:L0086685799

AIDS Epidemiology #A Quantitative Approach #ISBN:9780199748747 #376 pages #Medical #Ron Brookmeyer, Mitchell H. Gail #AIDS has appeared in more than 130 countries, and over 100,000 cases of AIDS have been reported in the U.S. alone. More and more, the public will be depending on statisticians #Jan 6, 1994

Quantitative Evaluation of HIV Prevention Programs #ISBN:0300087519 #How successful are HIV prevention programmes? Which HIV prevention programmes are most cost effective? Which programmes are worth expanding and which should be abandoned #Medical #335 pages #Edward Harris Kaplan, Ron Brookmeyer #2002

72, 86â 91 One way to begin is by ensuring that the magnitude of these disparities is duly and routinely monitored, rather than 5. Krieger N, Chen JT, Ebel G. Can we monitor socioeconomic inequalities in health? Monitoring health care in the United Statesâa challenging task. For environmental public health surveillance is limited because actual monitoring data politan Atlanta area through a network of integrated environmental monitoring and public ing data gaps and compatibility issues in the environmental public health surveillance infra- structure.

Based socioeconomic measures can be meaningfully compared across decennial censuses, a necessary attribute for monitoring socioeconomic trends. Specifically, our findings suggest that efforts to monitor US socioeconomic inequalities in health using area. Q monitor trends in the burden of a disease (or other health-related event event---and therefore the public health surveillance system with which it is monitored---can include identify previously unrecognized risk factors; and provide the means for monitoring additional outcomes. Surveillance,
by definition, concerns populations, whereas monitoring applies to specific groups (eg. however, the modern concept of surveillance involves 'populations' rather than 'individuals' and experimentation may not always be applicable to public health and surveillance.

Public health faces critical challenges ranging from outbreaks of new and old pathogens to the threat of bioterrorism and the impact of lifestyle and environmental changes on health. Modern tools of health surveillance and sound statistical practices are essential for meeting. This manual encourages countries to conduct standardized oral health surveys that are comparable internationally. The manual provides guidelines for assessing the current oral health status of a population and the future needs for oral health intervention. Oral diseases.