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# Technical Books Section

**THE ITEM**

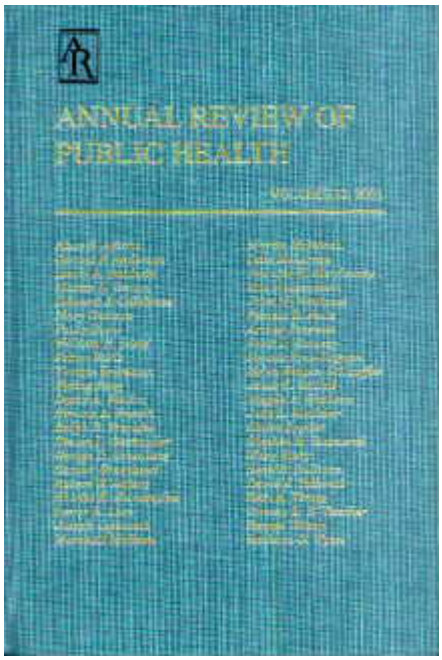
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## A VERY USEFUL REFERENCE BOOK

Annual Review Of Public Health, VOLUME 23, 2002 *by* Jonathan E. Fielding, University of California at Los Angeles (Editor), Ross C. Brownson, Saint Louis University (Associate Editor), Barbara Starfield, Johns Hopkins University (Associate Editor), hard cover, 6"x9"
Annual Reviews, 4139 El Camino Way, P.O. BOX 10139, Palo Alto, California, USA : xii+492 Pages: Publication Date: 2002: ISBN : Price $67.00 (individuals), $155.00 (Institutions)

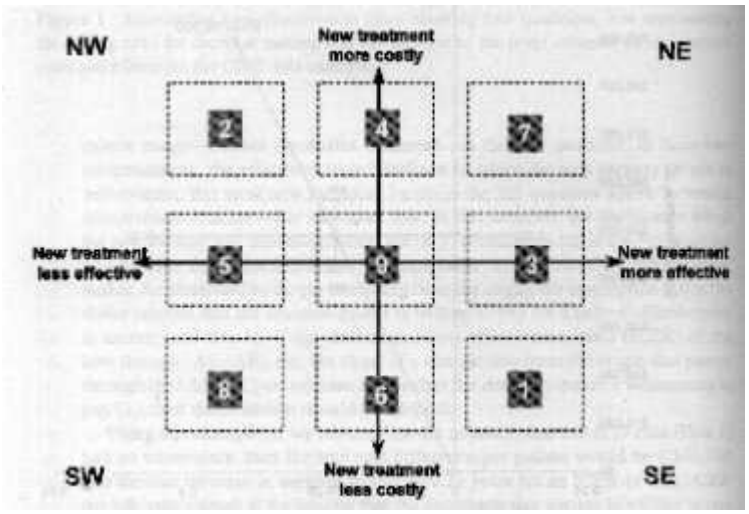



The year 2001 saw the important role of Public Health and emergency response planning for anthrax, World Trade Center tragedy, threat of biological, chemical, & radiological terrorism, and weapons of mass destruction. Public health capacity and programme effectiveness is being considered by policy makers as more important because of the need to better assess our collective preparedness along with cost-effectiveness. The role of poverty, socioeconomic status, and poverty elimination programs in health and disease is viewed as very important.

Annual Review in Public Health (ARPH) provides compilation of analytical reviews of recent advancements in public health by experts in their fields. The ARPH being published by Annual Reviews, a non-profit scientific publisher to promote advancements in sciences since 1932 when it first published Annual Review of Biochemistry. Other than ARPH there are Annual Reviews in many branches of science and medical science like Anthropology, Biochemistry, Biomedical Engineering, Cell & Developmental Biology, Entomology, Immunology, Medicine, Neuroscience, Nutrition, Political science, Psychology, and Sociology to name some.

The "Annual Review of Public Health 2002" Edited by Jonathan E. Fielding, Ross C. Brownson, and Barbara Starfield and contributed by 47 eminent authors is the 23$^{rd}$ volume in ARPH series. This hardbound reference book is printed on slightly off white pages for permanence of paper. There are 19 articles which have been divided in to five major headings: (1) Epidemiology and Biostatistics (2) Environmental and Occupational Health (3) Public Health Practice (4) Social Environment and Behavior (5) Health Services.

**Figure 1: Nine possible situations that can arise concerning the significance (or otherwise) of cost and effect differences illustrated on the cost-effectiveness plane (this figure appears on page 382 of this book)**




The cost-effectiveness is dealt with in the article *Thinking Outside the Box: Recent Advances in the Analysis and Presentation of Uncertainty in Cost-Effectiveness Studies* by Briggs et al. which reviews recent advances in the use of statistical methods for economic analysis of information collected along side clinical trials. It also describes the use of net-benefit statistics and the presentation of cost-effective acceptability curves (see Figure 1 on the right). Population health is measured by various parameters like Health-Adjusted Life Years HALYs, Quality-Adjusted Life Years QALYs , Disability-Adjusted Life Years DALYs. A brief history of QALYs and DALYs and method of calculating them are reviewed by Gold et al. in *HALYs and QALYs and DALYs, Oh My: Similarities and Differences in Summary Measures of Population Health*. Methodological and ethical issues for HALY are also presented. *The Importance of the Normality Assumption in Large Public Health Data Sets* highlights the validity of t-test and linear regression for comparing the mean of an outcome variable for different subjects as well as for normally distributed outcomes. It further suggests that in place of Wilcoxon rank sum test and ordinal logistic regression the t-test and linear regression may be conveniently used. A public health approach is applied to the understanding the epidemiology of gambling and recommendations for public health policy, practice, and research in *Gambling and Related Mental Disorders: A Public Health Analysis*.

Quality assessment is a complex task that involves precise determination and specification of useful measures. Public health agencies are recognizing the need to formally and quantitatively assess and improve the quality of their programs, information, and policies. The article *Public Health Quality Measurement: Concepts and Challenges* discusses the conceptual framework for organizing quality assessment in the context of planning and delivery of programs and services and considers strength and limitations of local health department. The article also reviews past and present quality assessment related initiatives designed for public health department use and discusses current and future challenges in this evolving area of public health practice. *The Effectiveness of State-Level Tobacco Control Interventions: A Review of Program Implementation and Behavioral Outcomes* focuses on process and outcome evaluation of the program. Suggestion are for improvement, development, and implementation or these and future programs. Health hazards at workplace by exposure to Environmental Tobacco Smoke (ETS) is strongly influenced by the type of workplace and smoking policy, *Effects of Smoking Restrictions in the Workplace* deals with effects and cost effectiveness of ban of smoking at workplace.

> *...Population health is measured by various parameters like Health-Adjusted Life Years HALYs, Quality-Adjusted Life Years QALYs , Disability-Adjusted Life Years DALYs. A brief history of QALYs and DALYs and method of calculating them are reviewed by Gold et al in this volume...*

Review of selected published data shows that income is associated with exposure to a wide variety of environmental quality indicators in ambient environment. The factors associated with considerable reduction in motor vehicle deaths and preventive measures undertaken are discussed in details in *Challenges in Motor Vehicle Safety*. In *The Future of Benefit-Cost Analysis of Clean Air Act* examines the two studies by US Environment Protection Agency (EPA) to analyze the effects of Clean Air Act on the public health, economy, and the environment of US and suggest the use of cost-effective rather than cost-benefit techniques.

There will be more than threefold rise in total number of persons with Alzheimer's disease between 2000-2050 and is likely to remain a major public health problem Sloane et al. predicts in their model in *Public Health Impact of Alzheimer's Disease, 2000-2050: Potential Implication of Treatment Advances*. They have used historical data keeping in consideration of development and research advances from congestive heart failure and Parkinson's disease for the potential magnitude and nature of effects, their projection indicates that therapies for delaying Alzheimer's will reduce prevalence and treating of the cases will have more proportion of mild cases than moderate/severe.

For tuberculosis status in USA, Parvathi Tiruviluamala and Lee B. Reichman in *tuberculosis* have discussed factors leading to increase in tuberculosis cases, their subsequent decline, and measures to eliminate it in future. The roles of nosocomial infection, TB-AIDS, & MDR-TB in increase and case management, multipronged approach & Directly Observed Therapy (DOT) in decline are also discussed.

**Table 1: Nonfatal injuries and socioeconomic status: Summary of methological features and results according to level of analysis (this table appears on page 358 of this book). Click to enlarge.**

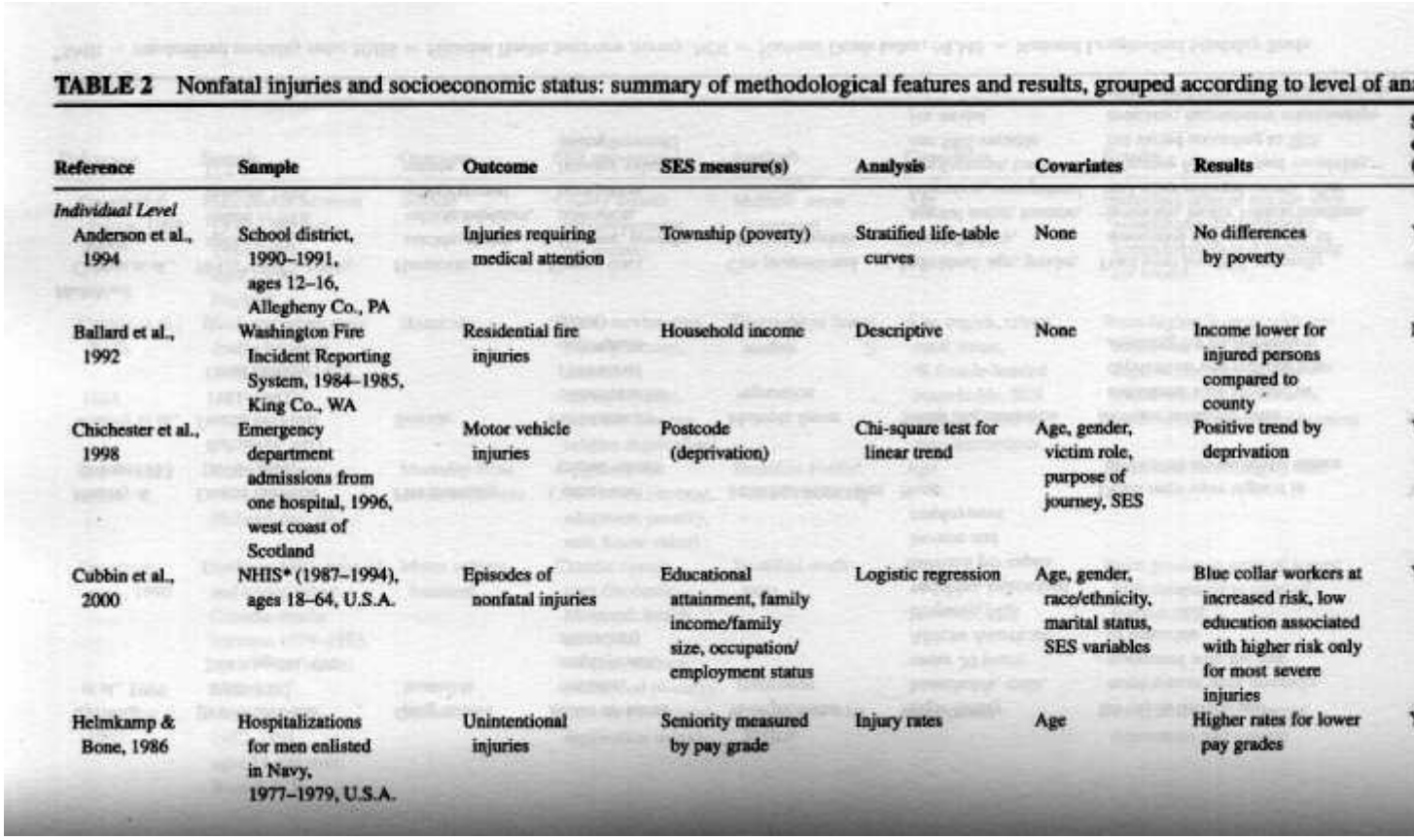


**TABLE 2** Nonfatal injuries and socioeconomic status: summary of methodological features and results, grouped according to level of an

| Reference | Sample | Outcome | SES measure(s) | Analysis | Covariates | Results |
|---|---|---|---|---|---|---|
| *Individual Level* | | | | | | |
| Anderson et al., 1994 | School district, 1990–1991, ages 12–16, Allegheny Co., PA | Injuries requiring medical attention | Township (poverty) | Stratified life-table curves | None | No differences by poverty |
| Ballard et al., 1992 | Washington Fire Incident Reporting System, 1984–1985, King Co., WA | Residential fire injuries | Household income | Descriptive | None | Income lower for injured persons compared to county |
| Chichester et al., 1998 | Emergency department admissions from one hospital, 1996, west coast of Scotland | Motor vehicle injuries | Postcode (deprivation) | Chi-square test for linear trend | Age, gender, victim role, purpose of journey, SES | Positive trend by deprivation |
| Cubbin et al., 2000 | NHIS* (1987–1994), ages 18–64, U.S.A. | Episodes of nonfatal injuries | Educational attainment, family income/family size, occupation/ employment status | Logistic regression | Age, gender, race/ethnicity, marital status, SES variables | Blue collar workers at increased risk, low education associated with higher risk only for most severe injuries |
| Helmkamp & Bone, 1986 | Hospitalizations for men enlisted in Navy, 1977–1979, U.S.A. | Unintentional injuries | Seniority measured by pay grade | Injury rates | Age | Higher rates for lower pay grades |

There are three articles on the role of poverty and socioeconomic status on health and disease. *The Macroeconomic Determinants of Health* reviews the conceptual and empirical linkages between poverty and poor health in developing and developed countries and within country. The poverty at society or individual level is causally related to the poor health of the society and individual, where as economic prosperity and improved health is neither automatic nor universal (more is not always better). They conclude that investing in public health should be an intrinsic component of any poverty elimination programme in particular and macroeconomic policy in general. *Socioeconomic Status and Health: The Potential Role of Environmental Risk Exposure* shows the relation of SES indices with environmental risk factors. *Socioeconomic Inequalities in Injury: A Critical Issues in Design and Analysis* summarizes the relevant literature published since 1960 on Socioeconomic Status (SES) and injuries (see Table 1 on the left) with emphasis on study design, measurements and interpretation of SES. Potential explanatory mechanisms for relationship between SES and injuries have also been given. Dietary Interventions to Prevent Disease gives a beautiful review of 80 studies selected out of 5399 published articles (1966 to April 2001) on changing key dietary habits and heir outcome. A comparative summary table of these studies is also given in twelve pages.

> *...The book is lucid, informative, interesting, and easy to read as it is written in simple format. It has many tables and diagrams. ARPH is a very useful reference book for public health professionals, policy/decision makers for evidence-based decision making, as well as for those pursuing higher studies in Community Medicine and Public Health...*

The *Cascade Effects of Medical Technology* deals with avoidable adverse effect and/or morbidity with examples, triggering factors, and measures to avoid. *Morbidity and Mortality from Medical Errors: An Increasingly Serious Public Health Problem* looks in to fatal prescription errors, which are on an increase and suggests measures to reduce the Acknowledged Prescription Errors (APE). The

pro and cons of direct to consumers are discussed under *Direct Marketing of Pharmaceuticals to Consumers*. Effective utilization of health care services reduces health care resources. Wickizer and Lessler looks in details on *Utilization Management: Issues, Effects, and Future Prospects* and suggests some principals for guiding the development of utilization management strategies in future aiming at promoting quality of life of health care, not just constraining costs.

A handy cross references have been very thoughtfully provided to past Annual Reviews from volume 14 to 22 is given in the form of two indexes at the end of the book and one can search by cumulative index of contributing authors or by cumulative index of chapter titles is a great help to the readers. Inclusion of minisymposium on bioterrorism would have been much appreciated.

The book is lucid, informative, interesting, and easy to read as it is written in simple format. It has many tables and diagrams. ARPH is a very useful reference book for public health professionals, policy/decision makers for evidence-based decision making, as well as for those pursuing higher studies in Community Medicine and Public Health.



*-G.S.Meena*

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*Presently he is working as Professor in the Department of Community Medicine at Maulana Azad Medical College, New Delhi, India. He has published ten papers, attended a dozen conferences, and presented papers there. His fields of research interests are prevention and control of communicable diseases and Epidemiology of non-communicable diseases.*

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*-Editor-in-Chief*