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Book Reviews: Technical Books Section

(Page 4 a - Review by Rahul Malhotra and Chetna Malhotra, US)



FEATURED BOOK: MAIN PAGE

A COMPLETE PACKAGE

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Rating : 9.0

★★★★★★★★★ (9/5)

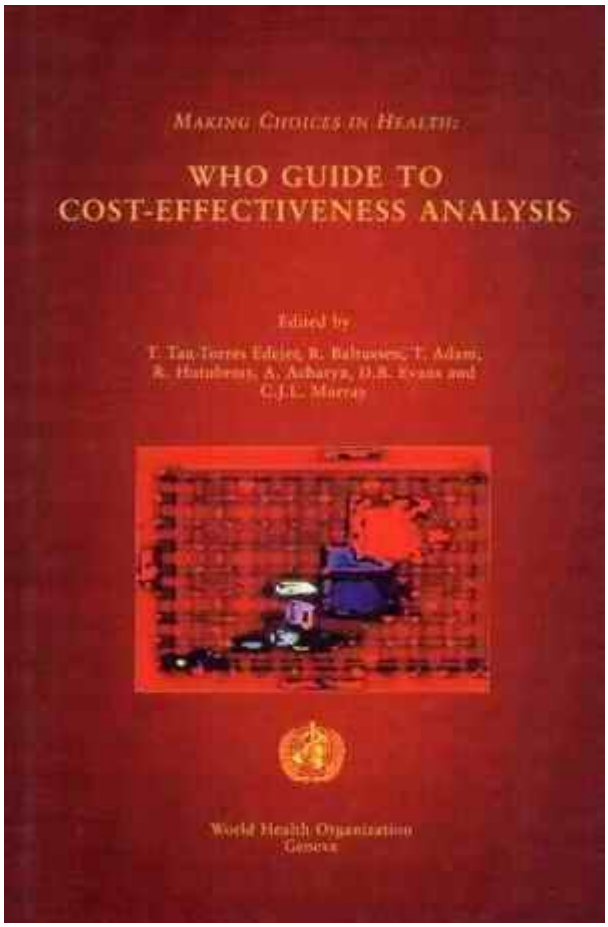
Making Choices in Health: WHO Guide to Cost-Effectiveness Analysis, 1st Edition *Edited by* T. Tan-Torres Edejer, R. Baltussen, T. Adam, R. Hutubessy, A. Acharya, D.B. Evans and C.J.L. Murray. Soft cover, 6" x 9" (a rectangular CD enclosed).
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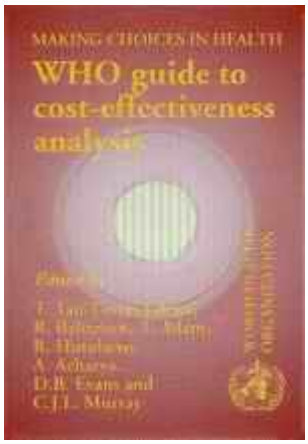
Cost effective analysis has been used by planners and policy makers worldwide as a decision making tool for allocating scarce and valuable resources among various types of interventions for obtaining the maximum output. Considering that the health sector too has limited resources and is facing an ever increasing burden of existing and emerging diseases as well choosing between existing and newer approaches to counter them, cost effective analysis has proved to be a useful tool for the policy makers in the health sector as well. Many guidelines and approaches for applying cost effective analysis already exist. Against this background, World Health Organization (WHO) has developed WHO-CHOICE collaboration i.e. WHO- Choosing interventions that are cost effective. Under this collaboration, a new approach for cost effective analysis has been developed called as the Generalized Cost Effective Analysis (GCEA). The current publication is written in the context of WHO-CHOICE and describes the GCEA technique.

This hardbound book comprising 318 pages is divided into two parts. The font of the book and the size of the alphabets/numbers is reader friendly. The first part describes the concept of GCEA and its methodology. The second part contains papers that have published in journals and elaborate on the background and applications of GCEA. The book comes with a handy compact disc, given the shape of a visiting card, containing the entire book and three programmes that are useful in applying GCEA and are being used in the WHO-CHOICE collaboration. The editors and contributors of the book include renowned and experienced health economists, public health professionals and statisticians.

The publication is targeted at policy makers and researchers who have a basic understanding about the concept, methods and techniques of cost effective analysis. It does not target individuals who are novices in this field, who would first need to read more basic and simpler to build concepts

regarding cost effective analysis before attempting to read this book. A list of such books for a novice could have been given in the current publication.

Visiting card shaped CD which accompanies this book



The first part of the book is divided into 9 chapters followed by references, 7 annexures and end notes, covering a total of 122 pages. Each chapter is further divided into sub-parts and ends with a list of summary of recommendations that give the essence of the chapter in a nutshell. Within each chapter certain important concepts or issues have been dealt in more detail in separate box enclosures. Further readings and website links have also been given wherever the editors have felt that the material in the current publication may not suffice or needs more understanding.

The first chapter introduces the concept and uses of cost effective analysis in the health sector. It highlights the advantages and disadvantages of traditional cost effective analysis (referred to in the publication as intervention mix constrained i.e. IMC-CEA) which compares the existing intervention/s with newer ones and makes appropriate recommendations for continuation of the existing strategy or introduction of the new one based on the results obtained and need for GCEA as a modification of the standard IMC-CEA, using examples supported by graphical representations. It puts forward GCEA as a technique wherein the evaluation of new interventions would not be done against the existing interventions but against the counterfactual of "doing nothing".

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The next chapter, "Undertaking a study using GCEA", first reviews the theoretical foundations of cost effective analysis. It continues, elaborating on the importance of defining interventions appropriately as they form the basis of any cost effective analysis, accompanied by examples and references in published literature. Next, it describes how to define the counterfactual or null i.e. the state where no interventions are in place. It also debates the feasibility of defining a null state and proposes alternative situations, if null state cannot be defined. It ends with the views of the authors in relation to defining the implementation period of any intervention and the time horizon for analysis.

The third chapter, "Estimating costs" is divided into three subparts. The first one deals with the identification of various types of costs that are involved in health care provision and which should be considered in conduction of the GCEA. It defines the different types of costs, give the advantages, disadvantages and methodological problems of including them in analysis. The second one deals with cost valuation, covering its main concepts and provides references for further reading. Use of economic and not accounting costs for valuation has been explained using the concept of opportunity cost. Further, concepts of transfer payments and need & development of a uniform unit of account that can be used to express all the resource inputs has been explained. Indices that are used to measure change in the inflation and the index of choice for use in cost effective analysis are also dealt in this part. The third part deals with cost analysis and briefly introduces the concept of discounting, which is dealt in greater detail in the fifth chapter. A costing template (CostIt) is present in the accompanying CD which, according to the authors, helps to record cost data in a way that is of most use to analysts and policy makers.

The next chapter deals with the denominator of the cost effective ratio i.e. the net health effect. It suggests the use of Disability Adjusted Life Years (DALYs), a standardized and popular index, as the index of choice for measuring health effects for use in GCEA. The concept and background of DALYs and benefits of using them in GCEA have been described using examples. It further elaborates in a step wise manner on how to estimate the population effectiveness in terms of difference of health of the population between the intervention and the null state in terms of Healthy Years Lived (HYL) i.e. the difference between the DALYs accounted for by the intervention and the null state. A population model (Popmed), which is used by WHO-CHOICE is available on the CD accompanying the book which, as per the authors, automatically calculates the effectiveness of interventions for a standardized population, in terms of outcome indicators such as DALYs averted.

...The sixth chapter, titled "Uncertainty in cost effectiveness analysis" categorizes types of uncertainty and describes methods i.e. sensitivity analysis and probabilistic uncertainty analysis for addressing this issue. The second technique has been explained in greater detail along with examples. Software for the same i.e. Monte Carlo League (MCLeague) has also been included in the accompanying CD...

The fifth chapter is on the relevant issue of discounting, explaining the logic behind use of discounting in cost effective analysis and the formula used for the same. It suggests rates that could be used for discounting while using GCEA and also touches upon the debate concerning what rate to follow while applying discounting.

The sixth chapter, titled "Uncertainty in cost effectiveness analysis" categorizes types of uncertainty and describes methods i.e. sensitivity analysis and probabilistic uncertainty analysis for addressing this issue. The second technique has been explained in greater detail along with examples. Software for the same i.e. Monte Carlo League (MCLeague) has also been included in the accompanying CD.

The next chapter elaborates on the policy uses of GCEA and touches upon ethical issues involved. The penultimate chapter of this part gives guidelines on the aspects that should be covered while reporting the findings of any research that is done using cost effective analysis.

The last chapter gives the summary of recommendations of the previous chapters. Much of the content of this chapter is a repetition of the summary given at the end of each chapter and could have been omitted without affecting the overall content of the book.

The 9 chapters are followed by a list of references that find a mention in the preceding chapters. This list is followed by 7 annexures and end notes. The annexures elaborate on WHO-CHOICE activities on Generalized CEA (Annexure A), Draft list of intervention clusters for evaluation by WHO-CHOICE (Annexure B), an illustration of types of costs included in a selection of intervention activities at central levels (Annexure C), Interpreting international dollars (Annexure D), DALYs to measure burden of disease (Annexure E), Measuring intervention benefit at the population level (Annexure F) and Epidemiological sub regions as applied in WHO Generalized CEA (Annexure G).

…The CD accompanying the book contains the entire book in pdf format which requires Acrobat Reader for opening and reading it. In addition, it contains the programmes, as described above, which are relevant for the application of GCEA. Also, the end user license agreements for the programmes are present on the CD. The programmes themselves are present as Zip files which would require Winzip to open…

The second part of this publication gives a total of 9 full length papers that describe the background, concept and applications of GCEA. The papers have been published previously in leading journals and serve both as reading source for interested readers and as credible source a in support of the new technique of GCEA. This relatively uncommon concept of including full length papers in a book is useful as it saves time of the reader by providing useful and relevant reading material related to the topic without having to run around for it, though at a cost. Maybe the cost effectiveness of such a practice should be ascertained!!! Nevertheless, we think such a practice would be welcome by the reader. Also, a similar strategy of giving full papers in support of a new technique or technology while presenting it in the form of a book, could also be used by others for giving more credibility to their technique or technology.

The CD accompanying the book contains the entire book in pdf format which requires Acrobat Reader for opening and reading it. In addition, it contains the programmes, as described above, which are relevant for the application of GCEA. Also, the end user license agreements for the programmes are present on the CD. The programmes themselves are present as Zip files which would require Winzip to open. We opened the CD on a computer having Pentium IV as the processor and Windows XP as the operating system, on which all the programmes ran easily without any difficulty. The programmes can be run directly from the CD or can be copied to the hard disk of the computer. The versions of these programmes can also be regularly updated from the WHO website using the link- www.who.int/evidence/cea.

The book along with the accompanying CD serves as a complete package providing the researchers and policy makers, at which it is targeted, an appropriate mix of theoretical and practical knowledge for understanding and applying the new technique of generalized cost effective analysis.

-Rahul Malhotra and Chetna Malhotra
Senior Residents,
Department of Community Medicine,
Maulana Azad Medical College,
New Delhi, India



Dr. Rahul Malhotra is currently working as a Senior Resident in the Department of Community Medicine, Maulana Azad Medical College, New Delhi. He did his graduation and post graduation in Community Medicine from the same institute. He has written a very exhaustive thesis on food hygiene, titled "Study of food handlers working in food service establishments within the premises of Maulana Azad Medical College, and associated hospitals". This thesis won him the prestigious gold medal for the best thesis. He can be contacted at drrahulmalhotra@yahoo.com



Dr Chetna Malhotra is a medical graduate from the Rabindra Nath Tagore Medical College, Udaipur, India. She is currently pursuing her post graduation in Community Medicine at the Department of Community Medicine, Maulana Azad Medical College, New Delhi. Her dissertation for post graduation is on the epidemiological profile of road traffic accident cases admitted in a tertiary care hospital of Delhi. In addition, her other interests in the field of public health include nutrition, reproductive and child health and communicable diseases. She can be contacted at drchetnamalhotra@yahoo.com

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