

Handbook  
for the  
**Economic Analysis**  
of  
**Health Sector Projects**

Project Economic Evaluation Division  
Economics and Development Resource Center

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# Foreword

This *Handbook for the Economic Analysis of Health Sector Projects* is an output of a study undertaken by the Economics and Development Center (EDRC) of the Asian Development Bank (ADB) under the regional technical assistance *RETA 5761: Strengthening the Capacity for Economic Analysis of Health Sector Projects in Developing Member Countries*. The study was preceded by the preparation of an Issues Paper based on a review of methods and approaches in health sector project economic analysis. A summary version of the Issues Paper has also been published as an EDRC Economic Staff Paper entitled *Economic Analysis of Health Sector Projects—A Review of Methods and Approaches*.

This *Handbook* was prepared in a participatory way by interacting with ADB's economists and health sector specialists and in cognizance of ADB's Policy for the Health Sector. The various stages of preparation in the early draft of this *Handbook* went through interdepartmental reviews and discussions in several workshops, thus benefiting from the comments and suggestions received. In addition, a workshop for government officials of selected developing member countries involved in health sector project planning and evaluation was conducted on 9–13 August 1999 at the ADB headquarters in Manila. The workshop provided an opportunity for the government officials to familiarize themselves with the concepts and methods illustrated and recommended in this *Handbook*, as well as with ADB's policy and practice in the health sector. During the workshop, and also subsequent to it, the workshop participants provided feedback to the finalization process of this *Handbook*, further enhancing its quality and user-friendliness.

It is intended that this *Handbook* assist in enhancing the quality of health sector projects before their approval; and also in monitoring their implementation and post-evaluation. For this reason, concerned ADB staff, government officials and their consultants are encouraged to avail of its proper use in both the processes of planning and evaluation of health sector projects. This *Handbook* provides techniques as well as illustrations of their applications. Since time, resources, and data availability vary from country to country and from project to project, project economists will have to choose the most appropriate approach for project decision making, with due consideration to the trade-off between the resources required and the resulting improvement in the quality of the economic analysis and its implication. Furthermore, this *Handbook* should be used together with ADB's *Guidelines for the Economic Analysis of Projects, 1997* mainly for general aspects of project economic analysis which are referred to but not repeated in this *Handbook*.

Finally, on behalf of the EDRC, I would like to express sincere gratefulness as well as congratulations to all the ADB staff, consultants, and the workshop participants for their generous contribution to the preparation and finalization of this *Handbook*—and for a job well done.



**Yoshihiro Iwasaki**

*Officer-in-Charge*

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# Acknowledgement

This *Handbook* is a product of the work of Asian Development Bank staff and consultants under the overall supervision of Jungsoo Lee, Chief Economist and David Edwards, Assistant Chief Economist. ADB Senior Economist Ramesh Adhikari led the team while Anneli Lagman provided research assistance and Rina Sibal, administrative and word processing support.

Ramesh Adhikari developed the concept, designed the project, and worked with consultants and other ADB staff in the preparation of this *Handbook*. He also designed the consultative workshop held in Manila on 9–13 August 1999 with the health sector government officials of the developing member countries involved, providing a capacity building and training opportunity to them. Manabu Fujimura, Economist, Project Economic Evaluation Division (EDEV) took the responsibility of implementing the workshop and overseeing the publication of this *Handbook*, with assistance from Marcelia Garcia.

Gerard Russo, professor from the University of Hawaii, U.S.A., contributed to the early part of the work, particularly in the area of conceptual exposition of demand analysis for health sector projects. Paul Gertler, professor, HAAS, Berkeley, U.S.A., contributed the section on sector review and its scope in health sector project planning. John Weiss, professor, University of Bradford, United Kingdom contributed in the area of developing quantitative economic analysis techniques and their illustrations. He also consolidated the entire *Handbook* and assisted in the conduct of the workshop as the resource person. Masako Ii, associate professor, Yokohama National University, Japan and Yasushi Ohkusa, associate professor, Osaka University, Japan contributed the appendix on price elasticity of demand for health care services. Many ADB staff including Ben Loevinsohn, Indu Bhushan, Vincent de Wit, Patricia Moser, Isabel Ortiz, Jacques Jeugmans, Steve van der Tak, and Armin Bauer, also contributed to this *Handbook* by providing valuable feedback, comments, and suggestions.

Consuelo Macapagal, staff consultant, did the copy editing and overall design of the *Handbook*, while Ruby Razon of the Editing Unit, EDEV and Judy Yñiguez of the Printing Unit handled format editing and layouting of the final manuscript for publication.

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## Abbreviations

ADB	Asian Development Bank
AIDS	acquired immunodeficiency syndrome
ARI	acute respiratory infection
BCG	bacille calmette guerin
CEI	cost-effectiveness indicator
DALY	disability adjusted life years
DECS	Department of Education, Culture and Sports
DMC	developing member country
DOH	Department of Health
DPTT	Diphtheria-Pertussis-Tetanus
DSWD	Department of Social Welfare and Development
GNP	gross national product
HIE	Health Insurance Experiment
HIV	human immunodeficiency virus
HLD	healthy life days
HYLG	healthy years of life gained
IRR	internal rate of return
LSMS	Living Standards Measurements Study
NGO	nongovernment organization
NHA	National Health Account
NPV	net present value
ORS	oral rehydration solution
ORT	oral rehydration therapy
PHC	primary health care
RRP	report and recommendation of the President
SCF	standard conversion factor
SERF	shadow exchange rate factor
SI	sensitivity indicator
STD	sexually transmitted disease
SV	switching value
TB	tuberculosis
UNIDO	United Nations Industrial Development Organization
USAID	United States Agency for International Development
VHW	village health worker
WHO	World Health Organization
WTP	willingness to pay
YLG	years of life gained

*Note:* In this *Handbook*, "\$" refers to US dollars.