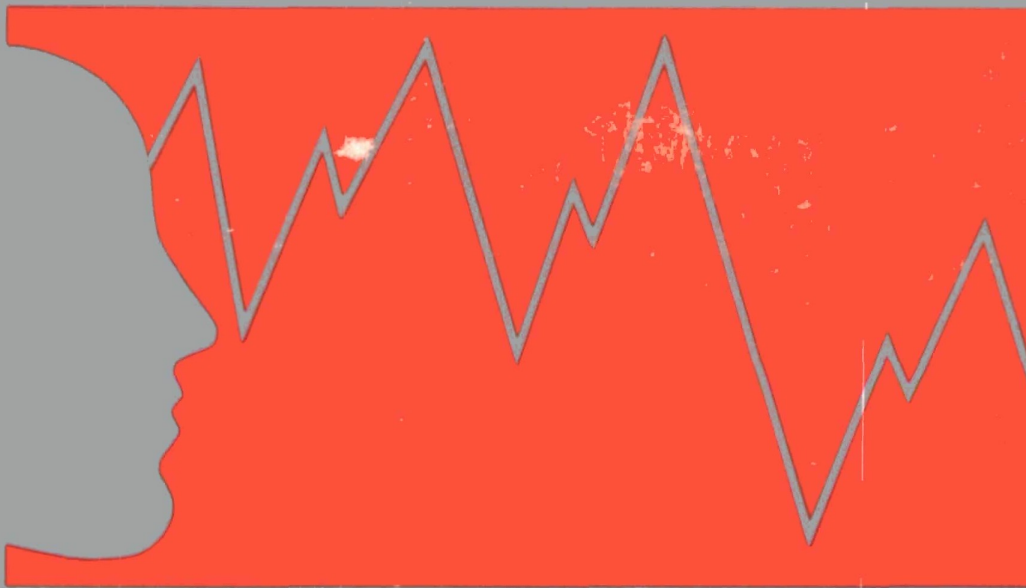


Vol. 2

1986

No. 1

International Journal of
**TECHNOLOGY
ASSESSMENT
IN HEALTH CARE**



Cambridge University Press

International Journal of Technology Assessment in Health Care

Editors

Egon Jonsson, Ph.D.
Professor
The Karolinska Institute
and Spri
Stockholm
Sweden

Stanley J. Reiser, M.D., Ph.D.
Professor, Program on Humanities
and Technology in Health Care
The University of Texas
Health Science Center at Houston
Houston, Texas
U.S.A.

Aims and Scope

The International Journal of Technology Assessment in Health Care has as its specific scope of interest the generation, evaluation, diffusion, and use of health care technology. It addresses the diverse audience of health care providers within medicine, nursing, and the allied health professions; decision makers in government, industry, and health care organizations; and the scholarly disciplines such as ethics, economics, law, history, sociology, psychology and engineering. The journal aims to fill the needs of those interested in the complexities of interaction between people and technology; technology as a force in social and organizational change; and technology as it is created, produced, applied and paid for. It examines descriptively and analytically the effects of technology as perceived from the vantage point of different academic disciplines and policy-making organizations and examines methods necessary to conduct studies and evaluations of technology.

The focus of the journal will be the international health care community. The experience of different countries in their encounter with health care technology, viewed comparatively, is invaluable to understanding its effects. Further, it is important to establish ties with the scholars, governments, and private institutions concerned with health care technology so that the experiences and learning of the international community in its parts can benefit the whole. The use of technology in health care has created some of the major dilemmas in society today. The journal will serve as a forum for the wide range of professionals interested in the assessment of medical technology, its consequences for patients, and its impact on society.

Each issue will contain a special section focussed on a particular topic, general articles, and regular feature sections.

Copying

This journal is registered with the Copyright Clearance Center, 21 Congress St., Salem, Mass. 01970. Organizations in the U.S.A. who are also registered with CCC may therefore copy material (beyond the limits permitted by sections 107 and 108 of U.S. copyright law) subject to payment to CCC of the per-copy fee of \$5.00. This consent does not extend to multiple copying for promotional or commercial purposes. Code 0266-4623/85/0000-0001 \$05.00.

For all other use, permission should be sought from the Cambridge or New York office of the Cambridge University Press.

Subscriptions

International Journal of Technology Assessment in Health Care (ISSN 0266-4623) is published quarterly in January, April, July and October. Four parts form a volume. The subscription price, which includes postage, of Volume 2 (1986) is US \$75.00 in the U.S.A. and Canada (£35.00 in the U.K. and rest of the world) for institutions; US \$40.00 (£18.00) for individuals. Single parts cost US \$21.00 (£10.00) plus postage. Institutional orders may be sent to a bookseller, subscription agent or direct to Cambridge University Press, 32 East 57th Street, New York, NY 10022, or outside the U.S. and Canada to Cambridge University Press, The Edinburgh Building, Shaftesbury Road, Cambridge CB2 2RU England. Individuals must order direct from the Press. Application to mail at second class postage rates pending at New York, NY and at additional mailing offices. Postmaster: send address changes in the U.S.A. and Canada to *International Journal of Technology Assessment in Health Care*, Cambridge University Press, 32 East 57th Street, New York, NY 10022.

Advertising

Inquiries about advertising should be sent to the Journals Promotion Department of the Cambridge or New York office of Cambridge University Press.

International Journal of Technology Assessment in Health Care

Volume 2 Number 1

1986

CONTENTS

Editorial	1
<i>James B. Wyngaarden</i>	
TECHNOLOGY ASSESSMENT: POLICY, CLINICAL, AND METHODOLOGICAL ISSUES	
Introduction	5
<i>Henry Danielsson</i> <i>Itzhak Jacoby</i> <i>Johannes Vang</i>	
Assessment and the Technological Present	7
<i>Stanley Joel Reiser</i>	
Strategies in Technology Assessment and Implementation in the United States	13
<i>Donald A. Young</i>	
Strategies for Technology Assessment and Implementation in Some European Countries	19
<i>Barbara Stocking</i>	
Data Acquisition for Assessment of Medical Technology: Methods Other than Technical Trials	27
<i>Lincoln E. Moses</i>	
Some Reflections on Randomized Controlled Trials	39
<i>Tore Scherstén</i>	
Economic Evaluation of Medical Technologies	43
<i>John Hutton</i>	
A Method for the Detailed Assessment of the Appropriateness of Medical Technologies	53
<i>Robert H. Brook</i> <i>Mark R. Chassin</i> <i>Arlene Fink</i> <i>David H. Solomon</i> <i>Jacqueline Kosecoff</i> <i>R. E. Park</i>	
The Consensus Development Conference and the European Experience	65
<i>Johannes Vang</i>	

Synthesis: Experience with Diagnosis Related Groups <i>Donald A. Young</i>	77
Decision Analysis as a Synthetic Tool for Achieving Consensus in Technology Assessment <i>Stephen G. Pauker</i>	83
Technology Assessment—Impact on Medical Practice <i>Felix Gutzwiller</i> <i>Richard Chrzanowski</i>	99
Transfer of Information and Its Impact on Medical Practice: The U.S. Experience <i>Itzhak Jacoby</i> <i>Martin Rose</i>	107
Transfer of Technology Assessment to Health Policy Makers <i>Jan E. Blanpain</i>	117
Ethical Considerations in Data Acquisition <i>Povl Riis</i>	127
GENERAL ESSAYS	
Economic Costs of Screening, Investigation, and Surgery in Bronchial Carcinoma: A Prospective Epidemiological Study <i>Torkel Åberg</i> <i>Enn Nou</i>	135
TECHNOLOGY ASSESSMENT REPORTS	
Three Methods to Treat Kidney Stones <i>John R. Farrell</i>	146
EMERGING TECHNOLOGY	
Computer Assisted Clinical Decisions: Present Scope, Limitations, and Future <i>Michael Anbar</i>	168
REVIEWS	
Errata	183
Contributors	185

International Journal of Technology Assessment in Health Care

Editors

Egon Jonsson, Ph.D.
Professor
The Karolinska Institute
and Sprin
Stockholm
Sweden

Stanley J. Reiser, M.D., Ph.D.
Professor. Program on Humanities
and Technology in Health Care
The University of Texas
Health Science Center at Houston
Houston, Texas
U.S.A.

Associate Editors

Dr. Géza Adám
Ministry of Health of the Hungarian
People's Republic
Budapest
Hungary

Samuel Korper, Ph.D.
Associate Director for Legislation
N.I.H.
Bethesda, Maryland
U.S.A.

Clyde Behney
Health Program Manager
Office of Technology Assessment
Congress of the United States
Washington, D.C.
U.S.A.

Seymour Perry, M.D.
Deputy Director
Institute for Health Policy Analysis
Georgetown University Medical Center
Washington, D.C.
U.S.A.

Jan E. Blanpain, M.D.
Professor
Department of Hospital Administration
and Medical Care Organization
Leuven
Belgium

Professor Tore Scherstén, M.D.
Dean, Faculty of Medicine
University of Göteborg
Department of Surgery
Göteborg
Sweden

Paul F. Gross
Director
Institute of Health Economics
and Technology Assessment
North Sydney
Australia

Barbara Stocking
Fellow
King's Fund College
London
England

Ruth S. Hanft
Health Policy Consultant
Washington, D.C.
U.S.A.

Dr. med. Stephan Tanneberger
Professor, Director
des Zentralinstituts für Krebsforschung
der Akademie der Wissenschaftern
der DDR
Berlin-Buch
DDR

John Hutton
Senior Research Fellow
University of York
York
England

Norman Weissman, Ph.D.
Director
Division of Extramural Research
National Center for Health Services
Research and Health Care Technology
Assessment
Rockville, Maryland
U.S.A.

Pia M. Jonsson, M.D.
The Karolinska Institute
The Karolinska Hospital
Stockholm
Sweden

Editorial Board

Faye G. Abdellah, R.N., Ed.D., Sc.D.

Deputy Surgeon General
Chief Nurse Officer
U.S. Public Health Service
Rockville, Maryland
U.S.A.

Michael Anbar, Ph.D.

Professor
Department of Biophysical Sciences
State University of New York at Buffalo
Buffalo, New York
U.S.A.

Dr. Tetsuzo Akutsu

Deputy President
National Cardiovascular Center
Osaka
Japan

Dr. Per Buch Andreasen, M.D., Ph.D.

Department of Gastroenterology and
Clinical Pharmacology
Gentofte University Hospital
Hellerup
Denmark

John R. Ball, M.D., J.D.

Associate Vice President
American College of Physicians
Washington, D.C.
U.S.A.

H. David Banta, M.D., M.P.H.

Consultant
World Health Organization
The Hague
Netherlands

Jeremiah A. Barondess, M.D.

Professor
Cornell University Medical College
New York, New York
U.S.A.

Aldo Bujevic

Professor
Zagreb Institute of Public Health
Zagreb
Yugoslavia

John P. Bunker, M.D.

Professor
School of Medicine
Stanford University
Stanford, California
U.S.A.

Dr. Carlos Canitrot

Sub-Secretario de Regulacion y Control
Ministerio de Salud Publica
y Medio Ambiente de Argentina
Buenos Aires
Argentina

Dr. Hesio Cordeira

Professor
Universidade Federal de Rio de Janeiro
Rio de Janeiro
Brazil

Henry Danielsson, M.D.

Professor, Secretary General
The Swedish Medical Research Council
Stockholm
Sweden

Luigi Donato, M.D.

Professor
Istituto di Fisiologia Clinica CNR
Pisa
Italy

Robert Evans, Ph.D.

Professor
Department of Economics
University of British Columbia
Vancouver, British Columbia
Canada

Uwe Faust

Professor
University of Stuttgart
Institute for Biomedical Technology
Federal Republic of Germany

Dr. José Laguna Garcia

Secretaria de Salubridad y
Asistencia de Mexico
Mexico City
Mexico

L.M.J. Groot

Professor
Faculty of Medicine
Riksuniversiteit Limburg
Maastricht
Netherlands

David Gunnarsson

Managing Director
Ríkisspítalar
Reykjavik
Iceland

Peter F. Hjort, M.D.

Professor
National Institute of Public Health
Oslo
Norway

Dr. med. Bruno Horisberger

Director
Center for Public Health
St. Gallen
Switzerland

Bryan Jennett, M.D.

Dean, Faculty of Medicine
University of Glasgow
Glasgow
Scotland

Kirsten Staehr Johansen, M.D., D.D.S.
Regional Officer for Appropriate
Technology for Health
World Health Organization
Copenhagen
Denmark

Jean Francoise la Cronique, M.D.
Professor
Rue de Leningrad 17
Paris
France

Professor Lechaim Naggan, M.D., Dr.P.H.
Dr. Herman Kessel Professor of Epidemiology
BGU Center for Health Services
Beer Sheva
Israel

Duncan Neuhauser, Ph.D.
Professor
Department of Community Health
School of Medicine
Case Western Reserve University
Cleveland, Ohio
U.S.A

Miriam Orleans, Ph.D.
Professor
Department of Preventive Medicine
and Biometrics
University of Colorado
Health Sciences Center
Denver, Colorado
U.S.A.

Dr. Masamitsu Osima
President
The Medical Information System
Development Center
Tokyo
Japan

Frederick C. Robbins, M.D.
University Professor
Case Western Reserve University
Cleveland, Ohio
U.S.A.

Steven Schroeder, M.D.
Professor
Division of General Internal Medicine
University of California
School of Medicine
San Francisco, California
U.S.A.

Professor Henry Troupp, M.D.
Department of Neurosurgery
Topeliusgatan 5
Helsinki
Finland

Professor Johannes Vang M.D., Ph.D.
Regional Officer of Health Technology
Assessment
World Health Organization
Copenhagen
Denmark

A.H. Wilfried Wahba, Ph.D.
World Health Organization
Copenhagen
Denmark

Dr. Francisco J. Yepes, M.D., Ph.D.
Secretario General
Ministerio de Salud
Bogota
Columbia

SECOND ANNUAL MEETING
**International Society for Technology Assessment
in Health Care**

May 30 - 31, 1986
National Academy of Sciences
Washington, D.C.

SPECIAL SESSIONS - INVITED PAPERS:

- o Forecasting Medical Technology
- o Presentation on the Council on Health Care Technology

CONTRIBUTED PAPER SESSION:

Abstracts have been solicited to cover topics such as results of specific technology assessments, analyses of interactions between people and technology, technology as a force in social and organizational change, and technology as it is created, produced, applied, and paid for.

KEYNOTE SPEAKER

SOCIETY BUSINESS MEETING

POST-MEETING SITE VISITS FOR NON-U.S. ATTENDEES:

Sessions are being arranged at agencies and institutions involved in technology assessment in Washington, Baltimore, Philadelphia, and Boston during the week of June 2-5.

A summary of the scientific program will appear in the *International Journal of Technology Assessment in Health Care* following the meeting.

The meeting is being held in cooperation with the World Health Organization.

For meeting information, contact:

Seymour Perry, M.D.
Institute for Health Policy Analysis
2121 Wisconsin Avenue, NW, Suite 220
Washington, D.C. 20007
U.S.A.
(202) 625-2115