

Medical Technology, Health Care and the Consumer



**Allen D. Spiegel
Donald Rubin
Shelley Frost**

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Interrelationships between medical technology and its applications, the health care system and consumers are critically evaluated in this book for a variety of viewpoints. There is an analysis of the impact of technology on the health care system, with emphasis on the burgeoning role of consumers in technology decision making. The book begins with an extensive primer of the basic concepts and issues concerning medical technology, and details the mechanisms for technology's entrance into the health care system. The rest of the book presents a general orientation to medical technology, the impact of technology on sickness and death, the economic aspects of technology, and the future role of medical technology.

A detailed historical perspective of medical technology is given along with a critical discussion of the advantages of technology on health care. The impact of technology in the treatment of heart disease, cancer and stroke—the three major killers in America—is assessed. Several papers propose innovations in policy and decision making which would increase the role of the consumer in order to promote more responsive health care.

About the Authors:

Allen D. Spiegel, Ph.D., is an Associate Professor of Preventive Medicine and Community Health for the State University of New York, Downstate Medical Center, College of Medicine. In public health since 1951, Dr. Spiegel's experiences include a wide range of activities in medical and health care services, comprehensive health planning, public health education, and health and medical communications. Formerly, Dr. Spiegel was with the New York City Health Department, the Medical Foundation, Inc. of Boston, was a U.S. Public Health Service Special Research Fellow at Brandeis University, and a consultant on numerous health and welfare projects. He has authored and co-authored more than one hundred articles, reports and pamphlets on health care and edited and contributed to a number of books on community and mental health, including a leading reference work, *Perspectives in Community Mental Health*. He is also co-author of *Medicaid: Lessons for National Health Insurance*, *Basic Health Planning Methods and Curing and Caring*, and editor of *The Medicaid Experience*.

Donald Rubin is president and co-founder of the Consumer Commission on the Accreditation of Health Services. He has co-authored more than fifty Consumer Commission reports on issues of health policy and has written several articles on health, welfare insurance and automation for other journals. Mr. Rubin has administered and consulted to labor-management health and welfare funds and served as Administrative Director of the Medical Department for the Health Insurance Plan of Greater New York. He is also president of Donald Rubin, Inc., a firm providing consulting services. Mr. Rubin co-chaired the project advisory committee to the National Science Foundation grant which sponsored the conference series from which the papers in this volume are taken.

Shelley Frost, Project Director of the NSF funded conference series on the impact of science and technology on health and medical care out of which this volume grew, has served as Research Director and Associate Editor for the Consumer Commission on the Accreditation of Health Services for the past five years. She is senior author of the recently published manual, *A Consumer's Guide to Evaluating Medical Technology*. Ms. Frost earned her Master's degree from New York University in 1977 at which time she had more than ten years experience working in the health-related computer sciences.

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MEDICAL TECHNOLOGY, HEALTH CARE AND THE CONSUMER

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CONTENTS

<i>Preface</i>	17
<i>Project Advisory Committee Members</i>	23
<i>Conference Participants</i>	25
1. A Consumer's Primer on Medical Technology	31
Technology—A Household Occur- rence	31
Useful Technological Definitions and Concepts	33
Values and Attitudes of Providers of Medical Technology	36
Organizational Patterns, Medical Technology, and the Health Care Delivery System	42
Evolution of the Medical Care System	44
Organizational Steps in Medical Innovation	45
Health Status and Technological Accomplishments	48

Role of Executives	49
Decision-Making Techniques	49
Organizational Motivation—Public or Private?	50
A Futuristic Health Care Organization	51
Utilization of Medical Technology	52
Effect and Impact of Medical Technology	55
Impact on the System from Technology	57
Costs of Medical Technology	59
Roles for Consumers in the Technology Process	60
Consumer's Role Enlarged	60
Who Makes the Decisions?	61
Revitalize the Consumer's Role	62
Recommendations for Improving the Consumer's Role	62
Recommendations from Various Sources	63
Space Age Recommendations	68
Summary and Conclusion	69
A Historical Technological Parable?	71

Allen D. Spiegel

PART I. MEDICAL TECHNOLOGY AND THE HEALTH CARE CONSUMER	83
2. The Impact of Technology on Medical Care: An Overview	91
Introduction	91
Historical Background	92

Advantages Resulting from the Use of Technology	95
Disadvantages Resulting from the Use of Technology	99
The Technologic Imperative	99
Depersonalization of Medical Care	102
Diseases and Disorders Resulting from the Use of Technology	103
Some Special Dilemmas	105
Concluding Thoughts	107

Peter Rogatz

3. A Better Life Through Medical Technology	111
Con: Identifying the Issues for Debate	111
Conceptual Analysis	111
What Are the Basic Issues of the Debate?	113
What Are the Objectives of Health Care?	116
How Should Medical Technology Be Assessed?	117
Summary	118

Michael M. Stewart

Pro: The Argument for Medical Technology	120
Technology Is Not a Scapegoat	122
Medical Information Systems	123
Cost-Lowering Technology	124
Resuscitate Technical Innovation	125
Summary	126

Louis R. M. Del Guericco

4.	Decision Making: Who Is the Expert?	128
	New Mandates for Consumers	128
	Experts and Consumers	129
	Information Monopoly	130
	Understandable Language Needed	130
	Critical Attitude Needed	131
	Advisor Role for Professionals	131
	Government's Role	132
	Consumer's Role	132

Arthur Levin

	Physician Mystique Influences	
	Decisions	135
	Surgical Decisions	136
	Jehovah's Witnesses Decisions	137
	Heroic Measures Decisions	137
	Comatose Patients	138
	Physicians Unfairly Maligned	139

Harold L. Light

5.	Workshop Summaries	140
	Workshop 1: What Consumers	
	Should Know About	
	Evaluating Medical	
	Technology	140
	Workshop 2: Patients' Rights and	
	Informed Consent in a	
	Technologic Era	141
	Workshop 3: Medical Statistics and	
	the Health Care	
	Consumer or How	
	Not to be Snowed by	
	the Numbers	143

	Workshop 4: Untangling the Web of Decision Making— What Role Do (Should) Consumers Play?	144
PART II.	THE IMPACT OF MEDICAL TECHNOLOGY ON SICKNESS AND DEATH	147
6.	Major Diseases of Modern America: What Difference Has Modern Technology Really Made?	155
	Technology and Health Definitions	155
	Value of Health	158
	Efficacy of Health Care	158
	Changing Disease Patterns	160
	Technology and Major Illness	167
	Summary	170

David Banta

7.	Lead Poisoning: Technical Fix for a Human Problem	172
	Overview	172
	Alternative Actions	173
	Necessary Technologic Tools	174
	Additional Methods Needed	176
	Environmental Technology?	177
	Evaluation	178

Joel N. Buxbaum

8.	Health Planning: Can It Affect Sickness and Death?	181
	Planning Goals	181
	Where Are We?	182
	Construction	182
	Health Insurance	183

Complexity	183
Primary Care	184
Centers of Influence	185
Technical and Political	
Contributions	186
Community Life Problems	187
Community Based Planning	189
Planning Issues	190
Consumer Contribution to Planning	191

Florence B. Fiori

9. Workshop Summaries	193
Workshop 1: The Health Systems Agency of New York City Reviews a CAT Scanner Proposal: A Simulation	193
Workshop 2: Health Planning, Medicaid and Who's at Risk for What: The New York City Health Systems Agency Considers an Out-of-Hospital Childbearing Center	195
Workshop 3: Breast Cancer: Prevention, Detection, and Treatment	197
Workshop 4: How Much Technology Is Needed for an Effective Emergency Medical Services System—Is It Worth It?	199

PART III.	THE ECONOMICS OF MEDICAL TECHNOLOGY	203
10.	The Social Costs of Medical Technology: Do We Know the Price We Pay?	215
	Different Parties at Interest	215
	Cost and Benefits	217
	Physician Income and Technology	217
	Hospitals and Technology	219
	CT Scanners	220
	Underdiffusion and Overdiffusion	222
	Cost Accounting: Economic, Social, and Indirect	223
	High Technology Alternatives	225

Charlotte Muller

11.	Developing New Medical Technologies How and Why the Public Should Be Involved	227
	Symptoms	228
	Causes	229
	Resource Allocation	231
	Solutions	232
	Economic Market Approaches	232
	Public and Governmental Regulation	233

Ted Bogue

	Medical Technology and the Public Interest	235
	Lack of Accountability	236
	Lack of Planning and Coordination	236

	A Public Interest Approach to Medical Technology	241
	<i>Alan P. Brownstein</i>	
12.	The Spiraling Costs of Medical Care: Is Medical Technology the Villain?	247
	How It Happened	248
	American Public Demands the Best	250
	Physician Education	252
	Explosion in Number of Medical Technologists	254
	The Others: Hospital Trustees, Administrators, and Insurance Companies	256
	Who Pays for the New Technology?	257
	Economic Outcomes	258
	The Cycle	260
	The Reaction: Why It's Coming Now	261
	Health Planning and Regulation: P.L. 93-641	266
	Health Planning	267
	Rate Setting	269
	Access	269
	Initial Outcomes of Federal Response to Rising Costs	269
	What Can We Do?	272
	Medical Strategy	272
	Self-help Strategy	274
	Community Strategy	275
	<i>Herbert Harvey Hyman</i>	
13.	Workshop Summaries	280
	Workshop 1: The New York City Health Systems	

	Agency Considers A Burn Unit Proposal: A Simulation of an Actual Project Review	280
Workshop 2:	A Medical Center Governing Board Discusses a Family Practice Unit: What Are the Implications for Primary Care? A Simulation	282
Workshop 3:	The New York City Health Systems Agency Reviews a Proposal for a Cytogenetic Laboratory for the New York City/New York State Amniocentesis Project: A Simulation	285
Workshop 4:	Hospital Costs: A Definition of Terms and a Discussion of Issues	287
PART IV.	THE FUTURE OF MEDICAL TECHNOLOGY	289
14.	Health, Not Illness: Prevention in a Technologic Age	299
	Sanitation of the Environment	301
	Control of Community Diseases	303
	Education in Personal Hygiene	304
	Personal Health Services	306
	An Adequate Standard of Living	309

- | | | |
|-----|--|-----|
| 15. | Consumer Action for Health in the
Future: An Illinois Perspective | 312 |
| | Consumer Disappointments | 312 |
| | Standards for Planning | 313 |
| | Disagreement on Bed Needs | 315 |
| | Participation by Consumers and Poli-
tics | 315 |
| | Alternative Strategy—Insurance
Departments | 316 |
| | Legislation Alternative | 318 |
| | Improve P.L. 93-641 | 319 |
| | Strengthen Insurance and Finance
Laws | 319 |
| | Independent Consumer Network | 320 |

Frank C. Giarrizzo

- | | | |
|-----|---|-----|
| 16. | The Reality of Health Care Decision
Making | 321 |
| | Political Decisions | 321 |
| | Public Versus Private Health Perspec-
tive | 322 |
| | Regulation and Decisions | 323 |
| | Community Organization Needed | 324 |

Herbert Semmel

- | | | |
|-----|--|-----|
| 17. | The Case for Public Ownership of
Medical Technology | 326 |
| | Why Public Ownership? | 327 |
| | Moral Right to Health Care | 328 |
| | Economic Chaos | 329 |
| | Effect on Quality of Care | 330 |
| | A National Health Service | 331 |

John S. Holloman

18.	Workshop Summaries	334
	Workshop 1: Making the Workplace Safe for Workers and the Community	334
	Workshop 2: Our Aging Population: Does Medical Technology Hold Any Hope?	336
	Workshop 3: Third-Party Payers: How Do (Should) They Impact on the Future of Medical Technology?	338
	Workshop 4: Regionalization: Concepts, Myths, and Reality	340
	<i>Name Index</i>	343
	<i>Subject Index</i>	345

PREFACE

Health care consumers now serve on governing boards of local, state, and national health planning agencies as required by legislation. In this capacity, consumers are regularly making health policy decisions. Many of these decisions are related directly to the introduction of sophisticated medical technologies into the health care delivery system. Despite the fact that consumers may not be knowledgeable about health care issues and services, they are involved equally with the expert in decision making. In fact, federal health planning legislation calls specifically for consumers who are not involved with the health care industry to be in the majority on the governing boards of health planning agencies. This situation creates a problem in providing adequate, understandable information to those consumers thrust into unaccustomed policy-making roles.

This book is one outcome of a project which attempted to address the issue of medical technology and the consumer. The project was created and sponsored by the Consumer Commission on the Accreditation of Health Services, Inc. and supported primarily by the Science for Citizens program of the

National Science Foundation (Grant No. OSS-7720845). Project objectives included the following:

To provide accurate and reliable information about technological and scientific advances in health care to consumers involved in decisions about those advances and their relation to the health care delivery system.

To inform consumers about the issues related to quality care assessment and to cost/benefit evaluations regarding the increased use of medical technology and the impact of such use on medical and hospital delivery systems.

To stimulate the receptiveness of health care providers to consumer participation by increasing the substantive knowledge of consumers presently involved in the health care decision-making processes.

To develop a manual that could be used by consumer decision makers in evaluating medical technology.

To achieve these objectives, four all-day conferences were scheduled during the latter part of 1978. Each conference format called for a morning session in which speakers made presentations to the audience and responded to questions. Afternoon sessions included workshops at which participants and presenters were able to engage in an exchange of ideas and information. Each conference had a different theme as noted below:

June 17, 1978—Medical Technology and the Health Care Consumer

September 16, 1978—The Impact of Medical Technology on Sickness and Death

October 21, 1978—The Economics of Medical Technology

November 18, 1978—The Future of Medical Technology

Intensive effort was devoted to presenting a balanced point of view about the health care system and its problems relative to consumers. Staff members and the Project Advisory Committee (identified in the lists on pp. 23–29) sought to bring together health economists, public health specialists, private practice health care providers, health lawyers, medical scientists, and third-party payers with consumer advocates and community people involved in health policy-making activities. Information exchange and consciousness raising were important features of the conference series. Both consumers and providers were asked to consider the social, economic, and ethical issues bearing upon the use of medical technology in the health care system and the legislative health planning mandates to develop a rational comprehensive system.

Since the mid-1960s, there was a significant expansion in the concept of community participation in health care policy making. Experts no longer exclusively determine the allocation of health resources; consumers play a vital role in those determinations. However, issues relating to health care decisions have become more and more complex over the years creating difficulties for experts and consumers alike. Today, any scientist or consumer who wishes to make informed decisions faces an intellectual challenge in understanding the implications of adopting complex medical technologies.

Response to the conference series was enthusiastic, testifying to the need and desire to exchange views and to clarify the social and scientific problems raised by medical technology. Mailings and conference announcements drew hundreds of registrants from the ranks of consumers as well as providers. Consumers came from community health centers, voluntary health

organizations, trade unions, consumer health groups, hospital advisory boards, and from the local and state health planning agencies of New York and surrounding areas. Health care providers, including private physicians, scientists, health planners, hospital administrators, economists, and third-party insurance administrators also attended in large numbers. Speakers and panel members were nationally recognized in their fields and locally prominent. Many organizations were helpful in developing the program content and in making conference arrangements. Verbal and written evaluations overwhelmingly endorsed the series and expressed the hope that similar conferences would take place in the future.

Addresses presented at the morning sessions of the four conferences are reproduced in this book. In addition, brief summaries of the 16 afternoon workshops are included so that the reader may share the flavor of those participatory sessions as well. In the workshops, techniques such as role playing, simulation, panel minipresentations, and the hard-nosed question and answer method were used to stimulate participation and to motivate thinking.

As an additional outcome of this project, the Consumer Commission on the Accreditation of Health Services, Inc. has written a manual¹ for consumers serving on health care decision-making bodies. This manual will assist consumers who must systematically examine and gather information about medical technology so that they can make informed decisions.

Since 1972, the Consumer Commission on the Accreditation of Health Services, Inc. has been involved in research and information services for consumers in New York City and elsewhere. This conference series was a natural outgrowth of the Consumer Commission's activities in assisting consumers to better understand and assess health care issues.

It is hoped that through the publication of this book, people will begin to think about the issues raised by advances in medical technology. With this information, consumers will be

able to take an ever more responsible role in deciding how and for whom the health care system should be operated.

ADS

DR

SBF

June 1979

REFERENCE

1. Frost, S. B., Fearon, Z. & Hyman, H. H. *A consumer's guide to evaluating medical technology*. New York: Consumer Commission on the Accreditation of Health Services Inc., 1979.

WORKSHOP SUMMARIES

WORKSHOP 1: MAKING THE WORKPLACE SAFE FOR WORKERS AND THE COMMUNITY

- Panelists:* Michael McCann, Ph.D.
President, Center for Occupational
Hazards
New York, N.Y.
- Deborah Nagin, M.P.H.
Occupational Health Program Planner,
NYC Health Systems Agency
- William H. White
Assistant Director (Brooklyn), NYC
Health Systems Agency
- Henry Velez, M.D.
Environmental Sciences Laboratory
Mt. Sinai Hospital
New York, N.Y.

A discussion of occupational health as a major health and political issue for an industrial society opened this workshop. HEW's own regulatory and monitoring agencies report 20 percent of cancers linked to occupational hazards. Other reports suggest 390,000 new cases of occupational disease a year. There is little doubt that numerous workers are affected. Deleterious effects on individual health may not be apparent for some time, but the effect on the community as with PBB in Michigan can be immediate.

Occupational illness is growing. Several factors inhibit the control of its growth. The government's research and regulatory agencies—National Institute of Occupational Safety and Health (NIOSH) and Occupational Safety and Health Administration (OSHA)—are understaffed; the regulation process itself is slow to respond and rectify abuse. The inflationary impact of controls on industry means that the business community will not voluntarily respond to statutory requirements. A lack of trained monitoring personnel and small numbers of workers at individual workplaces lessen the chance for effective hazard detection by the workers themselves.

Next, the workshop was concerned with the relationship between the health care system and occupational illness. Although occupational illness is by no means a "new" issue, it remains outside the mainstream of health care concerns. Proper screening and surveillance require organized and standardized record keeping. Doctors have little training in recognizing occupational illness and rarely take an occupational history of patients. Detection and treatment for occupational illness can require expensive, special equipment. Finally, the injured worker may not have health coverage adequate to cover the expenses of intensive screening or treatment.

Another consideration for the worker is disclosure of a work-related illness to the company doctor. An injured worker could be transferred to a lower paying position, away from a hazard rather than the company eliminating that hazard.

Worker involvement in the monitoring and control of the workplace to assure that toxic substances are eliminated is one positive strategy. However, knowledge of hazards is limited; there is no right-to-know legislation for (chemical) labeling standards and other toxic hazards.

What is the role of the HSA in enforcing and monitoring environmental and occupational issues? A panelist suggested that HSAs could initiate health goals through the project review process by establishing occupational criteria for health care institutions. Presently, project review criteria do not include concerns of health care workers. Economic and political factors involved require labor-management participation which is often difficult to achieve.

HSA could include institutional compliance with environmental and occupational safety and health standards in the project review process.

WORKSHOP 2: OUR AGING POPULATION: DOES MEDICAL TECHNOLOGY HOLD ANY HOPE?

Moderator: Nelly Peissachowitz
National Citizens Committee on Nursing
Home Reform
New York, N.Y.

Panelists: Clyde Behney, M.B.A.
Senior Analyst, Health Programs
Office of Technology Assessment, U.S.
Congress
Washington, D.C.

Ron Brooke
Health Care Consultant
Brookdale Center on Aging, Hunter
College
New York, N.Y.

William Wolarsky, M.D.
Medical Director
Daughters of Jacob Geriatric Center
Bronx, N.Y.

Nelly Peissachowitz opened the workshop by describing the situation of the aged in the United States as indicated by national economic and social characteristics. Although the elderly represent only 10 percent of the total population, they are 25 percent of the impoverished. As people age, they *become* poor. The fragmentation of health services and the absence of preventive provisions within Medicare programs only heighten the sense of alienation and loss felt by the elderly person. Medicare and Medicaid have in some ways actually promoted the further deterioration of health services for the elderly: deductibles and "mills" contribute to the inaccessibility of decent services. Five percent of the aged in nursing homes have no opportunity to choose or affect the quality of the conditions where they are placed. Often, they are at the mercy of social service professionals who must find suitable bed space, at times far from the elderly person's community. One solution, said Ms. Peissachowitz, is to stress human concerns in medical and nursing education.

Dr. Wolarsky continued with the theme of medical education. There is no need to create yet another subspecialty of geriatrics. Internists, who usually treat the elderly, must begin the actual study of the aging process. Patient care, rather than medical care, is needed. Dr. Wolarsky outlined possible alternatives to institutionalization: the Lombardi bill in New York to provide "nursing care without walls" paid for by the state; home health care; meals on wheels; day hospitals for the rehabilitation of stroke and fracture victims; and clinics functioning within day-care centers, with the emphasis on preventive screening. The last option, he felt, is unlikely to come about.

Ron Brooke gave a brief history of medical specialization

and technology, suggesting that the "organ-oriented" pattern of medicine has not changed in 4,000 years. Medical care, he emphasized, has never been shown to affect life expectancy. However, public health measures have had a more profound affect. Our priorities are inappropriate. We spend more on medical care than we do on benefits that would improve living standards. Mr. Brooke mentioned two important ways to improve health services to the elderly: encourage the exercise of enabling legislation (Subchapter C of the State Hospital Code) for hospitals to provide day-care services for rehabilitation, socialization, and nutrition; and place nursing homes into service areas where HSAs and the community will become a "community of interest" to monitor care and advocate for patients.

Focusing on federal activities on behalf of the elderly, Mr. Behney remarked that most research funds are channeled into traditional areas such as medicine rather than human services. For instance, the National Institute of Mental Health admits that disorders associated with the aging process are ignored. A plethora of federal agencies contributes to the fragmentation of both services and benefits available to the elderly. Because the elderly are not a political force, their demands are not heard. Also, the Congressional Committee on Aging has no legislative power.

WORKSHOP 3: THIRD-PARTY PAYERS: HOW DO (SHOULD) THEY IMPACT ON THE FUTURE OF MEDICAL TECHNOLOGY?

Moderator: Ben Riskin
 Administrator (retired); ERM Health
 Center
 New York, N.Y.

Panelists: Eugene Sibery,
 Vice President

Blue Cross/Blue Shield of Greater New
York;

New York, N.Y.

Bruce Mansdorf, M.P.A.

Deputy Director

New York State Health Planning and
Development Agency

Albany, N.Y.

Donald Rubin,

President

Consumer Commission on the

Accreditation of Health Services, Inc.

New York, N.Y.

Moderator Riskin questioned the need for third-party payers. He was of the opinion that the geographic redistribution of medical personnel and guaranteed health services for every citizen are the more critical issues.

Mr. Sibery traced the technologic revolution of the last 78 years, concluding that federal, corporate, and private funds continue to finance research that will bring additional wonders. Health care goals and needs cannot keep up with advances in diagnosis and treatment. New procedures, sometimes expensive and needlessly applied, combined with the proliferation of specialized manpower have contributed to uncontrollable costs. The "Blues" of Greater New York believe that availability and allocation of resources are controlling factors governing the use and total cost of health services. In 1970, they adopted a planning and reimbursement policy to eliminate surplus beds, the duplication of services, and to strengthen ambulatory care services. At the same time, they applied prospective reimbursement methods in concert with the hospital cost control law. Consumers must play their part, too. Improved health education could also help to curtail unnecessary utilization.

Mr. Mansdorf addressed the role of government in efficacy testing, the Certificate-of-Need (CON) process, the appropriate

use and affordability of equipment. The CON program should be controlling the acquisition of new technologies but "loop-holes," such as private acquisition by physicians, make regional assessment difficult. Third-party reimbursement mechanisms actually stimulated the expansion of services and technology without regard to cost effectiveness. An alternative to cost control through reimbursement would be to establish an annual statewide capital expenditure limit; a finite limit on available funds would balance the acquisition of new technology with other demands on health resources. Such a proposal is before New York State lawmakers this year.

Third-party payments operate on the blank check theory according to Don Rubin. Insured consumers are unaware of service charges. Hospitals take the insurers blank check and add up the units of service. A fee-for-service system mitigates against cost containments; unwarranted and useless services are subsidized. In short, third-party payers contribute directly to inefficiency and waste. A total utilization review program by the third-party payer is in order. This program should include adequate record keeping, a profile of tissue committee results and mortality figures related to specific treatments, mandatory second opinions, a refusal to pay providers for unnecessary work, and a "hold harmless" clause so that families of patients are not sued if the provider delivers treatment that is rejected by the carrier. Third-party payers should be "watchdogs" over the quality of services as well as the use of them.

Panel-audience discussion following the presentations touched on whether or not hospitals served community needs and the extent of the impact of third-party payers on standards of service.

WORKSHOP 4: REGIONALIZATION: CONCEPTS, MYTHS, AND REALITY

Moderator: Gail Gordon, M.P.H.
Committee for a National Health Service
New York, N.Y.

- Panelists:* Allan Goldstein, M.D.
 New York City Health Systems Agency
 New York, N.Y.
- Frank Grad, LL.B.
 Professor of Law
 Columbia University Law School
 New York, N.Y.
- Marvin Lieberman, Ph.D.
 Executive Secretary, Committee on
 Medicine and Society
 New York Academy of Medicine
 New York, N.Y.

Moderator Gail Gordon defined regionalization as shared services or group purchasing. Her challenge to the panel: Can regionalization be implemented in our present system or is total reform necessary?

Professor Grad addressed the relationship between the CON process, as the key to planning strategy, and regionalization. The reactive nature of the CON process and the unclear definition of "need" make the goal of redistribution of services problematic. Professor Grad emphasized that the planning law encompasses areawide planning but neglects local, autonomous control. CON, as the "cutting edge" of planning, is blunted by the mix of local, regional, and federal definitions of regionalization.

Dr. Goldstein basically concurred with the view that the lack of standard designations, such as definitions of primary, secondary, and tertiary levels of care, demands that planners work from hard data to confront each issue on its own merits. He presented three possible planning strategies for regionalization: the geographic division of services, a division of service categories, or the designation of the three levels of care. While the standardization of regional terms, for example, may help planners decide "what" to do, it will not necessarily tell them "how" to do it.

"Is regionalization possible under our system?" asked Dr. Lieberman. He cited the British approach to regionalization and concluded that it could not be applied within our present economic structure. He cautioned against tripping over definitions of regionalization. The ultimate goal of improved access may not be reached through regionalization. He noted that the price of regionalization to the British was domination by a medical elite. Our approach to health planning, he said, both reflects and promotes the pluralism of our society. He balanced the British regionalized system with its elite domination against a less than ideal regionalization responsive to consumers.

Several provocative questions came for the audience following the panel presentations. In answer to a query about consumer power within an HSA and regionalization, Dr. Grad responded that at the local level consumers may confront provider interests, at the national level consumers must face each other. Again, a question surfaced about regionalization and a national health service. Dr. Goldstein replied that HSA was committed to the idea of regionalization without a national health service. Professor Grad agreed that regionalization must proceed although a national health insurance will appear eventually.

A question about the dominance of the HSA staff and providers in decision making brought two responses. Dr. Goldstein said he was weary of complaints about staff-provider dominance. HSA records show geographic solidarity rather than consumer-provider splits. Dr. Lieberman thought a weakness was inadequate consumer leadership; perhaps paid consumer advocates would be one solution.

NAME INDEX

- Abernathy, W. J., 79
 Abramowitz, K., 73
 Alfdi, R. J., 78
 Alpert, G., 143
 Altman, L. K., 109
 Ambrose, J. E. A., 72, 78
 Anderson, O. W., 82
 Avicenna, 93

 Bacon, R., 93
 Baker, H. L., 78
 Baker, J., 326, 333
 Banta, D., 95, 109, 155, 278
 Barach, A. L., 81
 Barnard, C., 80
 Baroon, S., 81
 Barrett, J. P., 127
 Battgn, M., 285
 Beall, A. C., 79
 Behney, C., 336
 Belloc, N. D., 279
 Bennett, I. L., 245
 Bogue, T. D., 227, 234
 Boland, J., 197
 Breslow, L., 82
 Brooke, R., 336
 Brown, J. H. V., 80
 Brownstein, A. P., 235
 Bunker, J. P., 115, 119
 Burry, J. A., 78
 Buxbaum, J. N., 172

 Caceres, C., 82
 Carlson, R. J., 79
 Cathcart, R., 80
 Chalmers, T., 81
 Chisolm, J., 177, 180
 Ciocco, A., 310
 Cochran, A., 37
 Colman, D., 252

 Davidow, B., 175
 Davis, K., 100-101
 Del Guercio, L. R. M., 86-87, 120, 216
 Denison, E., 80
 Diderot, D., 215
 Doong, J., 82
 Dubos, R., 81, 172, 180
 Dudrick, S., 121, 126

 Eagan, A., 197
 Egdhal, R. H., 119
 Eisenberg, B. S., 278
 England, M., 144

 Faxon, N. W., 109
 Fearon, Z., 21, 140
 Feiner, L., 287

 Feldstein, M. S., 122, 126, 277
 Fineberg, H. V., 234
 Fiori, F. B., 181
 Freed, K., 226
 Freedman, G. S., 78
 Frierson, S., 195
 Frost, S. B., 21
 Fuchs, V. R., 101, 109, 166, 119, 252

 Galblum, T., 279
 Galen, 93
 Gansl, M., 282
 Gary, L. R., 143
 Gaus, C., 81, 226, 234
 Geiger, H. J., 239, 245
 Gershon-Cohen, J., 226
 Giarrizzo, F. C., 312
 Gluckmann, E., 287
 Goldstein, A., 341
 Goodwin, N. J., 199
 Gordis, E., 80, 142
 Gordon, G., 340
 Grad, F., 341
 Green, H., 79
 Griffith, H. R., 234
 Griner, P. F., 81

 Haagensen, C. D., 109
 Haber, A., 285
 Haire, D., 195
 Harvey, W., 94
 Haverkamp, A. D., 110
 Heller-Pinkett, M., 140
 Herodotus, 93
 Heymen, N., 193
 Hiatt, H. H., 125, 127
 Holloman, J. L. S., 326
 Holmes, O. W., 149
 Hunt, K., 199
 Hurst, M., 195
 Hyman, H. H., 21, 247
 Hippocrates, 93

 Illich, I., 148, 154
 Imbus, S. H., 126

 Jacobziner, H., 173, 180
 Jahiel, R., 285
 Jenner, E., 94

 Kahmi, M., 195
 Kissick, W. I., 277
 Klass, P., 285
 Kosowsky, D., 80
 Kramer, M. J., 101, 109
 Kummell, H., 76, 78

- Lampert, R. P., 81
 Law, S., 142
 Leis, H. P., 197
 Levenson, I., 278
 Levi, J., 287
 Levin, A., 87, 128
 Lieberman, M., 341
 Light, H., 87-88, 134
 Lister, J., 94
 Lomax, J., 282
 Long, C. W., 94
 Lubic, R. W., 195
- McCann, M., 334
 McKeown, T., 109, 158, 171
 McNerney, W., 99, 109
 McPherson, K., 80
 Maimonides, 93
 Mangiaracina, A., 144
 Mansdorf, B., 144, 338
 Marmor, T. R., 191
 Mather, H. G., 81
 Maugh, T. H., 81
 Maxmen, J. S., 80
 Mayer, S., 196
 Medawar, P. B., 125, 127
 Miller, C. A., 110
 Miller, T., 280
 Morton, W. S., 78
 Morton, W. T. G., 94
 Moskowitz, M., 81
 Mountin, J. W., 307, 311
 Muller, C., 215
 Muller, E., 280
- Nadler, L., 193
 Nagin, D., 334
 Nelson, K., 193
 Nelson, R., 80
 Nightingale, F., 94
 Novick, L., 140
- Orloff, M. J., 278
- Paracelsus, 93
 Parker, B. R., 80
 Pascarelli, E., 199
 Pasteur, L., 94
 Peissachowitz, N., 336
 Pellegrino, E. D., 108-109, 110
 Piomelli, S., 175, 180
 Pupin, M., 78
- Rettig, R. A., 78
 Riskin, B., 338
 Robbins, G., 197
 Robinson, M., 141
- Roemer, M. I., 228, 230, 262, 278
 Roentgen, W., 71, 74, 96
 Rogatz, P., 84-85, 91
 Roosevelt, F. D., 188
 Rosen, G., 187, 191
 Rosenfeld, O., 193
 Ross, R. S., 234
 Rubin, D., 282, 338
- Salkever, D., 279
 Sanes, J., 95
 Sayegh, P., 282
 Schapiro, S. H., 78
 Schoolman, H. M., 80
 Schroeder, S. A., 217, 226, 234
 Schwartz, H., 148, 154
 Seeff, L. B., 81
 Semmel, H., 321
 Shabecoff, P., 109
 Shaw, G. B., 130, 133
 Shenker, L., 110
 Showstack, J. G., 217, 226, 234
 Sibery, E., 338
 Smith, D. W., 144, 280
 Smith, S., 299, 310
 Somers, A. R., 81
 Spencer, W. A., 82
 Spiegel, A. D., 81, 282
 Steen, J., 196, 285
 Steiger, W., 39, 79
 Stewart, M. M., 86, 111
 Strax, P., 197
- Tancredi, L. R., 79
 Terris, M., 299, 310
 Thomas, L., 97, 109, 120-121, 126, 239, 245
- Velez, H., 334
 Vesalius, 93
- Wagner, J., 278
 Warner, K. E., 240, 245
 Washkansky, L., 51
 Waters, W. E., 81
 Welby, M., 51
 Wennberg, J., 234
 Wessler, J. B., 145, 199
 White, K. L., 109
 White, W. H., 334
 Wilson, A. M., 226
 Winslow, C. E. A., 300, 308-311
 Wolarsky, W., 337
 Wynkoop, C., 194
- Yalow, R. S., 125, 127
 Yedvab, D. G., 143

SUBJECT INDEX

- Abortion, 54, 106
- Access
to information, 130
to services, 269
- Administration
and decision making, 50
executive's role in, 49
hospital, 256-257
motivation in, 50-51
and technology, 34, 42-50, 70
- Advisory Committee on Industrial
Innovation, 42
- Aged
cost of care for, 124
housing for, 58, 240
pneumonia in, 57
senility, 55
as surgical risks, 124
technology and, 336-338
- Alcoholism, 269, 304
- Alternatives
and allocation, 113
to high technology, 225-226
and lead poisoning, 174
in legislation, 318-320
policy, 65-68
- Ambulance services, emergency medical
service, 199-201
- American Hospital Association, 122
- American Medical Association, 71-74, 319
- American Public Health Association, 82, 299
Citizens Board of Inquiry, 63-65
recommendations, 63-65
- Amniocentesis, 54
- Anesthesia, 94
- Antibiotics
assessment, 54, 56-57
cost, 328
and death rates, 159, 237
and strep throats, 118
for syphilis, 97
- Antitechnology
medical Luddism, 125
trend in, 39, 62, 112, 114, 120-122, 125,
264
- Appendectomy, assessment of, 53-54
- Appropriateness review, 244
- Assessment
by agencies, 66-67
of procedures, 54-55
shortcomings, 242
of technology, 35, 117-118, 241-245
- Attitudes
antitechnology, 40, 125
consumer, 36, 41, 69, 247, 250-252, 325
protechnology, 40, 62, 112, 114, 120-122,
264
values and, 36-42, 239, 325
vested interests, 41, 50-51, 65, 129,
235-246, 322-323
- Battalle Memorial Institute, 123
- Bed needs
disagreements about, 315
Hill-Burton Act and, 183, 185, 189, 249
by regulation, 273
and technology, 228, 262, 273
- Blood transfusions
and Jehovah's Witnesses, 137
in reactions, 104
- Blue Cross/Blue Shield
rate setting by, 231, 234, 257, 288
See also Third-party payers
- Brain death, in Quinlan case, 138
- Breast cancer
mammography, 104
mortality, 168-169
screening for, 129, 197-199
surgery, 56, 169
thermography, 225-226
- British medical journals, 71-72
- Burn units, 121, 267, 280-282
- Caesarian section, and fetal monitoring,
104-105, 238
- Cancer
bladder, 31
breast, 54, 56, 104, 168-170, 197-198,
225-226
death trends, 160, 166
Hodgkin's disease, 55, 136
lung, 55, 161
National Cancer Institute, 249
occupational, 96, 275-276, 335
pap smear, 53-54, 97
therapies, 98
See also Mammography
- CAT (*See* Computed axial tomography)
- Certificate of Need
and amniocentesis, 285-286
bed needs, 273, 315
and burn unit, 280-282
and CAT scanner, 193-195, 239
containment by, 270, 272-277, 340
and costs, 49, 218, 245, 265
and regionalization, 341
- Child health
abortion, 54, 106
childbearing centers, 196-197
DES, 129, 217
guides, 273
handicapped, 58
lead poisoning, 172-180
Maternity Center Association, 196-197
neonatal care, 57

- Chronic disease, patients involved, 157, 263
- Clinical cognition, 53
- Clinical impact, 159
- Communications
and consumers, 47, 320
information systems, 98, 123-124, 216
informed consent, 139, 141-142
in lead poisoning, 176
language in, 130
monopoly, 130
networks, 47, 320
patients' rights, 141-142
physician/patient, 102
- Community diseases, 303-304
- Complex technology, definition, 34, 97
- Computed axial tomography (CAT or CT)
and CON, 193-195
cost, 73-74, 247, 263-264, 321
decisions, 321-325
distribution, 239
guidelines, 72, 273-274
history, 71-78
impact, 96, 101, 220-222
and X-ray, 71-78
- Computers
and health care, 51-52, 68
information systems, 98, 123-124, 216
INTERNIST, 53
and lab tests, 43
PROMIS, 53
- Consumer Commission on the Accreditation
of Health Services, 17, 20
- Consumers
actions, 312-320
attitudes, 36, 41, 69, 131
and community life, 187-189
and decision making, 17, 19, 32, 47, 51, 128-133, 144-145
disappointments, 312-313
dominance, 64
evaluation, 140-141
and experts, 129
and futuristic care, 51-52
health planning, 63, 191
HSAs, 191, 312-320
and information, 47
manual for, 20-21
and medical statistics, 143-144
networks, 47, 145
organization, 324-325
protection, 39, 229
recommendations for, 62-68
roles for, 60-62, 132, 316
and technologic developments, 227-234
and technologic imperative, 35
utilization by, 52-55
- Coordination
lack of, 236-241
with PSROs, 244-245
regionalization, 266, 270-271, 307, 331, 340-342
utilization, 52-55, 72-73, 231, 272
- Coronary bypass operation, 32, 238
- Coronary care units (CCUs), 56, 98
- Costs
accounting, 223-225
and aged, 124
analysis, 50, 113, 121
and benefits, 35, 217, 232, 260
and CON, 49
containment, 59, 63, 69, 122-125, 265
and decisions, 70
of dialysis, 123-125
economic growth, 56, 232, 239, 329
funding sources, 257-258
inflation, 49, 247-249, 251
and kidney dialysis, 106-107, 121
of medical technology, 59, 106-107
and oil, 261
overregulation, 122
per diem, 228, 287-288
rate setting, 269
social costs, 215-226
and technology assessment, 35, 73-74
and unions, 122, 248, 261-262
- CT (see Computed axial tomography)
- Cybernated health care system, 51-52, 68
- Cytogenetic lab, 285-286
- Decision making
by consumers, 60-61, 128, 134, 144-145
experts, 129
and heart transplant, 51
medical mystique and, 170-171
processes of, 43, 53
by providers, 131
reality in, 321-325
space age, 51-52, 68
and statistics, 143-144
techniques, 49-50, 113
- Defensive medicine, 230
- Depersonalization
and patients, 38-39, 58
quality of care, 102-103
- Devices, 34, 56
- Diabetes, 57, 121, 304
- Diagnosis
and costs, 223-225
errors in, 105
and evaluation, 56
lab tests, 33, 217-219
for maternity care, 196-197
and physician income, 217-219
and physicians, 103

[Diagnosis]

- by radioimmunoassay, 125
 - screening, 33, 96-97, 173, 309
 - by telephone, 98, 102
- Diseases/conditions
- abortion, 54, 106
 - aging, 55, 57-58, 124, 240, 336-338
 - alcoholism, 69, 304
 - appendectomy, 54
 - blood transfusions, 104, 137
 - breast cancer, 54, 56, 104, 168-170, 197-198, 225-226
 - burn units, 121, 267, 280-282
 - childbirth, 54, 106, 196-197
 - diabetes, 57, 121, 304
 - ear problems, 54, 264
 - fractures, 55
 - general, 56-57, 155-171
 - genetics, 107, 285-286
 - heart disease, 32, 39, 51, 54, 56, 98, 161, 303
 - hypertension, 54, 97, 167, 304
 - hysterectomy, 54
 - iatrogenesis, 36, 103-105, 115
 - kidney disease, 35, 97, 106-107, 121, 126, 172, 267, 273
 - lead poisoning, 172-180
 - polio, 34, 95, 98
 - radiation, 32, 62, 96, 220
 - retardation, 286
 - stroke, 121, 155, 160, 304
 - surgery, 54, 56, 100, 115, 122, 124, 136, 142, 199, 229, 273, 281-282
 - swine flu, 32, 53
 - tonsillectomy, 54, 229
 - tuberculosis, 95, 97, 158, 237
- Down's syndrome, 286
- Drugs, 34, 43, 54-55, 56, 205
- Ear problems, 54, 264
- Economics
- aspects of, 204, 239, 258, 329-330
 - hospital "cap," 247, 330
 - inflation, 40, 59, 122, 240, 247-279, 258, 272-277, 329
 - market approaches, 232-233
- Effectiveness, and efficacy, 37, 125
- Efficacy
- of common procedures, 54-55
 - definitions, 36-37
 - of health care, 158-159, 228
 - rankings, 46
- Emergency medical service, 199-201, 283
- Environment
- factors, 41
 - housing, 177-178, 303
 - and sanitation, 95, 301-303
 - toxic wastes, 62
 - workplace, 172, 275-276, 301-302, 334-336
- Epidemiology, 168, 303
- Evaluation
- consumer, 141
 - of effect, 56, 140-141, 237
 - of lead poisoning program, 178-180
 - National Council, 243
 - of proposals, 51
 - of screening techniques, 96-97
 - and technologic imperative, 99
- Experts
- and consumers, 129
 - decisions, 133, 135
 - generalists, 132-133
 - and specialists, 131
- Family practice, 184-185, 254, 282-284
- Fetal monitoring
- assessment, 54, 104, 238
 - Caesarian sections, 104-105, 238
 - equipment, 238
- Fluoridation, 118, 276
- Food and Drug Administration
- and efficacy, 37, 242, 328
 - and food additives, 41
 - recommendations, 66
 - regulations, 46, 125
- Fractures, 55
- Futuristic health care, 51-52, 68
- Gastric freezing machine, 229, 264
- Genetics
- cytogenetic lab, 285-286
 - DNA, 107
- Ghost surgery, 142
- Governmental role
- as health service, 187-189, 306-309, 331-332
 - in planning, 132
 - in providing information, 132
 - in regulation, 233-234, 273-274
 - (See also Legislation; Regulation)
- Halfway technology
- definition, 34, 97, 237
 - denigrated, 120
 - emphasis on, 63
- Health, definition, 156
- Health care delivery system
- access to, 130, 269
 - evolution, 44-45
 - futuristic, 51-52, 68
 - impact on, 57-58
 - moral right to, 328-329
 - objectives, 116-117, 254

- [Health care delivery system]
 and occupational health, 335
 personal services of, 306-309
 rate setting in, 269
 recommendations, 63-65
 system, 330
 and technology, 42-50
- Health education, 276, 305
- Health habits, 274-275
- Health Insurance Plan of Greater N.Y.
 (HIP), and breast cancer, 168, 198-199
- Health Maintenance Organizations (HMOs),
 184, 229, 232-233, 265-266
- Health planning, 181-192, 267-269
- Health status, effects on, 41-42, 48, 95, 118,
 181, 252, 271, 290
- Health Systems Agencies (HSAs)
 and amniocentesis, 285-286
 and burn unit, 280-282
 and CAT scanner, 193-195
 and childbearing center, 195-197
 and consumers, 191, 312-320
 cost containment by, 248
 and occupational health, 336
 planning by, 145, 267-268
 regulation by, 185-186, 233, 237, 273, 324
 and SHCC, 145
- Health Systems Plan (HSPs), 245, 267, 314,
 324
- Heart disease
 bypass operation, 32, 238
 care, 98, 103-104, 121, 125
 CCUs, 56, 98
 and diet, 303
 pacemakers, 43, 57, 121, 126, 216
 surgery, 54, 100
 transplant, 51
 trend in, 160-161
 valve prostheses in, 39
- Hepatitis, 57
- Heroic lifesaving measures
 decisions about, 137-138
 dilemma of, 40, 91, 105-107
 life support, 58
 "pulling the plug," 106, 121
- High technology
 alternatives to, 225-226
 definition, 52, 232
- Hill-Burton Act, 183, 185, 189, 249, 327
- Hodgkin's disease, 55
- Hospital
 administration, 256-257
 beds, 228, 262, 273
 "cap," 247, 330
 construction, 182-183, 189, 249
 costs, 219-223, 228, 235, 240, 247-250,
 258, 287-288
 dominance by, 103, 185-186
 guidelines, 273-274
 history, 92, 94
 information system, 98
 and malpractice, 57, 122
 nosocomial disease, 105
 occupancy rates, 273
 stay by disease, 157
 and technologic imperative, 35, 99-100,
 219-223, 230
 and trustees, 64-65, 230, 256, 261,
 282-284
- Housing, and lead, 172-180
- Hypertension
 assessment, 54, 121
 screening, 97, 304
 trend in, 155, 160, 167
- Hysterectomy, 54
- Iatrogenesis
 definition, 36, 103-105
 risks, 115
- Impact of technology
 characteristics, 43
 on diseases, 148, 155-171, 259, 271
 types, 55-58
- Inflation, 40, 59, 122, 240, 247-279, 258,
 272-277, 329
- Information systems
 computers, 51-52, 53, 68
 in medicine, 98, 123-124
- Informed consent, 139, 141-142
- Innovation
 steps in, 45-47
 technological, 33
- Institute of Medicine, 66, 119, 220, 226
- Insurance
 alternatives, 316-318
 and costs, 256
 laws, 319-320
 (*See also* Costs; Third-party payers)
- INTERNIST program, 53
- Jargon, understanding, 130-131
- Jehovah's Witnesses, 137
- Kidney disease, 34, 97, 106-107, 121, 126,
 172, 267, 273
- Laboratories
 cytogenetic, 285-286
 errors, 105
 and physician income, 217-219
 screening, 33, 96-97, 173, 309
 tests, 33, 217-219
- Lead poisoning
 free erythrocyte photoporphyrin (FEP)
 test, 174

- [Lead poisoning]
 - and gasoline, 178
 - programs, 172-180
- Legislation
 - Clean Air Act, 178
 - CHP, 189-190
 - EMS Act, 200
 - Hill-Burton Act, 183, 185, 189, 249, 327
 - medical devices, 39, 125
 - National Health Planning Act, 60, 100, 145, 186, 190, 237, 244, 266-269, 319
 - National Technical Center Act, 243, 244
 - RMP, 189
 - Social Security Act, 188
- Life-style
 - and decision making, 61
 - habits, 274-275
 - impact on, 224
 - personal hygiene, 304-306
 - standard of living, 120, 309-310
- Malpractice
 - and computers, 53
 - defensive medicine, 230
 - hospital, 57, 122
 - and television, 57
- Mammography
 - assessment, 54
 - safety, 104, 224, 238
 - as screening, 129, 168, 198-199
- Maternity Center Association, 196-197
- Mechanical medical technology, types, 33
- Medicaid, 189, 195, 205, 229, 231, 243, 257, 327, 337
- Medical care system, 44-45
- Medical Device Amendments Act, 39, 125
- Medical information systems, 98, 123-124
- Medical mystique
 - decisions, 135-136
 - defined, 84, 128, 130
 - medical statistics, 143-144
- Medical technology
 - classifications, 33
 - definition, 33, 95
- Medicare, 55, 183, 189, 205, 219, 221, 231, 240, 243, 257, 318, 327, 337
- Medicine
 - as an art, 38, 58
 - caring process, 59
 - as a science, 38-39
- Microscope, invention, 56
- Micro-screening, in lead poisoning, 175-176
- Migraine headache, 57
- Miracles, 57, 252
- Morbidity, and technology, 45, 95, 118, 161, 263
- Mortality
 - and aged, 124
- by cause, 156, 290
 - from lead, 179
 - prevention, 274-275
 - and technology, 45, 95, 118, 121, 254, 263
 - trends in, 158-159, 160, 167, 200
- National Academy of Sciences, 41, 79
- National Center for Health Care Technology, 243-244
- National Center for Health Statistics, 121, 156, 225
- National Council on Health Planning and Development, 60
- National health service
 - advantages, 332
 - and community life problems, 187-189
 - plans for, 306-309, 331-332
- National Institutes of Health, 45, 66, 236, 242, 249, 253, 259
- National Institute of Occupational Safety and Health, 335
- National Science Foundation, 18, 23-24
- New England Journal of Medicine*, 73-75, 121, 225
- Networks
 - consumer, 320, 324-325
 - information, 47, 130
- Nosocomial diseases, 105
- Nutrition, 41, 121, 159, 255, 303
- Occupational health, 334-336
 - bladder cancer, 31
 - dangers, 275-276
 - lead, 172
 - radiation, 32, 96
 - services, 301, 302
- Occupational Safety and Health Administration, 335
- Office of Technology Assessment, 79, 241, 245
 - and efficacy, 37
 - recommendations, 65-67
- Operations research, 50
- Organ transplants, 43, 51, 58, 97
- Organizational patterns
 - impact, 57-58
 - and technology, 42-50
- Overdiffusion, 46-47, 63, 222-223, 229, 239
- Overdoctoring, 35, 108
- Overmedicating, 35, 108
- Ownership of technology by public, 326-333
- Pap smear
 - assessment, 53-54
 - screening, 97
- Patients
 - and decisions, 43

- [Patients]
 encounters, 130, 216
 faith in cure, 252
 information system, 123-124
 outcomes, 56, 59, 115, 129
 rights, 141-142, 328-329
 values, 38
- Personal hygiene
 education, 304-306
 habits, 274-275
- Physicians
 continuing education, 58, 61
 decisions, 215, 228, 230
 education, 44, 252-254, 272, 284, 306, 337
 encounters, 130
 iatrogenic disease, 36, 103-105, 115
 income, 217-219, 239
 malignant, 139
 patient communication, 102
 specialization, 93, 102, 183-184, 230, 252-253, 337-338
 supply, 101, 185
- Physical medical technology, types, 34
- Pica, in lead poisoning, 172-180
- Planning
 community-based, 189-190
 coordination, 52-55, 72-73, 231, 236-241, 266, 270-272, 302, 307, 331, 340-342
 goals, 181-182, 267-269
 guidelines, 128, 145, 273-274, 313-314
 health, 145, 181-192, 267-268
 issues, 190-191
 and politics, 40, 186-187, 235-246, 315-316, 321-325
 Public Law 93-641, 60, 100, 145, 186, 190, 237, 244, 266-269, 319
- Pneumonia, 57, 237
- Policy analysis
 alternatives, 65-68
 definition, 50
- Polio
 iron lung, 98
 vaccine, 34, 95
- Political factors
 and accountability, 236
 in Chicago, 315-316
 in decision making, 40, 321-325
 in health planning, 186-187, 196
 and public interest, 235-246
- Prevention, 34, 41, 197-198, 264, 274-275, 290, 299-311
- Primary care
 basic, 184-185
 family practice, 282-284
 priority of, 58, 240
- Priorities
 among diseases, 263-264
 and ethics, 58
 and private interests, 41
- [Priorities]
 and public interests, 241-245, 266
- Problem Oriented Medical Information System (PROMIS), 53
- Professional Standards Review Organizations (PSROs)
 and coordination, 244-245
 and cost, 218
 length of stay (LOS), 59
 quality of care, 59, 184
- Prospective reimbursement, definition, 270
- Public health
 advancements, 118, 159
 definition, 300
 emphasis, 264
 measures, 95
 overview, 299-311
- "Pulling the plug", 106, 137-138
- Quality of care
 assessment, 54-55, 66-67, 117-118, 241-243, 330-331
 and costs, 184, 215-226
 PSRO, 59, 184, 218, 244-245
 standards, 53, 128, 145, 273-274, 313-314
 and technologic imperative, 35, 49, 92, 99-102, 254
- Quinlan case, and brain death, 138
- Radiation hazard, 32-33, 62, 96, 198-199, 220
- Radioimmunoassay, 125
- Radiology
 and CAT scan history, 71-78
 impact of, 96, 101, 220-222
 risk, 72, 198-199, 220
 staff, 224-254
 therapy guides, 273-274
 X-ray, 71-78, 95-96
- Rate setting
 by Blues, 231, 234, 257, 288
 experiments, 269
 insurance, 257, 316-318
- Recommendations
 by APHA, 63-65
 for consumers, 62-68
 by OTA, 65-67
 space age, 68
- Regionalization
 concepts, 266, 270-271, 307, 331, 340-342
 guidelines, 273-274
 lack of, 236-241
- Regulation
 CON, 265, 270, 272-277, 340
 and costs, 122, 184
 and decisions, 323-324
 FDA, 37, 46, 66, 125
 government, 233-234, 273-274
 HSA, 145, 185-186, 233, 237, 245, 273-274, 324

[Regulation]

- influence of, 185-186, 216-217, 231
- and insurance departments, 316-318
- political, 233-234, 235-246
- red tape, 122, 307
- and side effects, 46, 63

Rehabilitation, 34

- Research, and technology, 36-38, 46, 48, 50, 63, 121, 236

Resources

- allocation of, 112, 231-232, 240, 263, 322
- rationing of, 114, 272
- and transplants, 58

Retardation, and Down's syndrome, 286

Risks

- to aged, 124
- containment, 229
- of DES, 129, 217
- and iatrogenesis, 36, 103-105, 115
- of nonhospital birthing, 196-197
- and patient outcome, 56-57, 59, 115, 129
- of radiation, 31, 62, 96, 198-199, 220
- of surgery, 115, 124
- and swine flu, 32, 53

Safety

- of CAT scan, 72, 273-274
- and consumer responsibility, 63
- definition, 36
- of food additives, 41
- legislation, 39, 46, 125
- of mammography, 104, 224, 238
- of X-ray, 72, 198-199, 220

Sanitation

- of environment, 95, 301-303
- toxic wastes, 62

Science for Citizens, 17, 18

Screening

- automatic multiphasic, 33, 309
- and breast cancer, 129, 198-199, 225-226
- evaluation of, 56, 96-97
- and hypertension, 97, 304
- for lead, 172-180
- and pap smear, 53-54, 97
- techniques, 33, 96-97, 173, 309

Sierra Club, slogan of, 36

Simulation

- of hospital board, 281-284
- and mannequins, 53

Sophisticated technology

- definition, 34
- and health care, 63, 240-241

Space race, and technology, 250

Specialization

- by ancillary staff, 58, 254-256
- by hospitals, 184
- by physicians, 58, 93, 102, 183-184, 230, 252-253, 337-338

Spectroscopy, and lead, 175

Standards

- of living, 309-310
- for planning, 313-314
- quality of care, 53-55, 128, 145, 273-274, 313-314

State Health Coordinating Council (SHCCs), 145

State Health Planning and Development Council (SHPDA or SA), 244, 270, 324

Statistics

- medical, 143-144
- use of, 143

Stroke, 54, 97, 121, 155, 160, 167, 304

Surgery

- ambulatory centers, 122
- colon, 54
- costs, 229
- decisions, 136
- ghost, 142
- heart, 32, 51, 100, 238, 273
- mastectomies, 56, 199
- plastic, 281-282
- risks of, 115, 124

Swine flu vaccine, 32, 53

Systems analysis, definition, 50

Technogenic disease, definition, 104

Technologic imperative

- and care, 42-50, 57-58, 238
- and consumers, 35
- definition, 35, 92, 254
- disadvantages, 99-102
- and hospitals, 35, 99-100, 219, 230
- and physician income, 217-219, 239

Technology

- accomplishments, 48
- advantages, 95-98, 114
- assessment, 35, 117-118, 241-245, 330-331
- complex, 34
- concepts, 33-36, 111-113
- decisions for use, 170-171
- definition, 95, 155-156
- development, 227-234
- diagnostic, 33
- disadvantages, 99-105, 114
- effects, 35, 43, 55-57, 74-75, 96
- and EMS, 199-201
- futuristic, 51-52, 68
- and health status, 48, 95, 118, 167-170, 181, 252, 264, 271, 290
- history, 92-94
- and hospitals, 35, 99-100, 219-223, 230
- impact, 43, 55-58, 148, 155-171, 259, 271
- imperative, 35, 92, 254
- and inflation, 40, 59, 122, 247-279, 272-277
- organizational, 34
- ownership, 326-333
- and physician income, 217-219

- [Technology]
 preventive, 34
 as scapegoat, 122
 side effects, 31, 103-105
 sophisticated, 34
 supportive, 34
 therapeutic, 34
 transfer of, 46-47, 63, 125-126
 as villain, 51, 122, 247-279
- Technology assessment
 definition, 35
 of procedures, 54-55
- Technologists
 futuristic, 51-52, 68
 specialization, 58, 254-256
 types, 254-256
- Telephone
 diagnosis by, 102
 ECGs by, 98
- Television
 and lead program, 176
 and miracles, 57
 treatment by, 99
- Thalidomide, and safety, 46
- Thermography, 57, 225-226
- Third-party payers
 Blues, 231, 234, 257, 316-318
 insurance, 59, 69, 100, 183, 230, 239, 251, 256-257
 Medicaid, 189, 195, 205, 229
 Medicare, 55, 183, 189, 205, 219, 221
 and technology, 257-258, 338-340
- Tonsillectomy, 53-54, 229
- Tools
 decision making, 49-50, 113
 for lead poisoning, 174
- Transfer of technology, 46-47, 63
- Transfer of time factor, 125-126
- Trustees, hospital, 64-65, 230, 256, 261, 282-284
- Tuberculosis
 drugs, 95, 97
 trend, 158, 237
- Underdiffusion of technology, 46-47, 63, 222-223
- Unions, 122, 248, 261-262
- USDHEW *Forward Plan for Health*, 41-42
- Utilization
 and access, 130, 269
 of CAT scanner, 72-73, 273-274
 and controls, 231, 272-274
 decisions, 52-54, 239-240
 by patients, 141-142, 229, 328-329
 and personal services, 306-309
 by physicians, 103, 217-219
 and rates, 229, 269
 of X-ray, 72-73
- Vaccines
 chicken pox, 54
 childhood, 276
 polio, 34, 237
 and public health, 56, 95
 smallpox, 94
- Values
 and attitudes, 36-42, 69, 239, 325
 and facts, 112
 of health, 158, 224, 274-275, 304-306, 309-310
 and policy analysis, 50, 65-68
 positive and negative, 40, 62, 112, 114, 120-122, 125, 264
 and priorities, 41, 239, 247, 250-252
- Vested interests
 and burn unit, 281-282
 conflicts of, 65, 215-216
 and infant care, 326-327
 politics, 186-187, 196, 290-291, 315
 public/private, 41, 50-51, 65, 129, 235-246, 322-323
- Victim blaming, 63
- World Health Organization (WHO), and efficacy, 37
- X-ray
 costs, 72-73
 history, 71-78, 95-96
 skull, 54
- Zero-base budget, 50