

Health Promotion and Aging

David Haber, PhD, is the John and Janice Fisher Distinguished Professor of Wellness and Gerontology at Ball State University in Muncie, Indiana. Dr. Haber was a professor at the University of Texas Medical Branch in Galveston, Texas, and before that served as the director of Creighton University's shopping mall-based Center for Healthy Aging in Omaha, Nebraska. He is a fellow in the Gerontological Society of America and is recognized for two Best Practice Awards from the National Council on the Aging, the Distinguished Teacher Award from the Association for Gerontology in Higher Education, and the Molly Mettler Award for Leadership in Health Promotion from the National Council on Aging. The third edition of his book, *Health Promotion and Aging*, was selected for the 2004 Book of the Year Award by the *American Journal of Nursing* in two categories: gerontologic nursing and community and public health. Dr. Haber has also authored *Health Care for an Aging Society*. He has been project director or principal investigator of 20 research or demonstration projects related to health and aging. Typically, these projects involve health profession and gerontology students leading community health promotion projects with older adults and contributing to the evaluation of these programs. Dr. Haber received his PhD in sociology from the Andrus Gerontology Center at the University of Southern California, Los Angeles.

Health Promotion and Aging

*Practical Applications for Health
Professionals*

Fourth Edition

David Haber, PhD

 **SPRINGER PUBLISHING COMPANY**
New York

Copyright © 2007 Springer Publishing Company, LLC.

All rights reserved.

No part of this publication may be reproduced, stored in a retrieval system, or transmitted in any form or by any means, electronic, mechanical, photocopying, recording, or otherwise, without the prior permission of Springer Publishing Company, LLC.

Springer Publishing Company, LLC.

11 West 42nd Street
New York, NY 10036

Acquisitions Editor: Sheri W. Sussman

Production Editor: Carol Cain

Cover design by: Joanne E. Honigman

Typeset by Apex Publishing, LLC

07 08 09 10/ 5 4 3 2 1

Library of Congress Cataloging-in-Publication Data

Haber, David, 1944–

Health promotion and aging: practical applications for health professionals / David Haber. — 4th ed.

p. ; cm.

Includes bibliographical references and index.

ISBN-13: 978-0-8261-8463-4 (alk. paper)

ISBN-10: 0-8261-8463-4 (alk. paper)

1. Preventive health services for older people—United States. 2. Health promotion—United States. 3. Older people—Health and hygiene. I. Title.

[DNLN: 1. Primary Prevention—methods. 2. Aged. 3. Health Behavior. 4. Health Education—methods. 5. Health Promotion—methods. WA 108 H114hb 2006]

RA564.8.H33 2006
362.198'9700973—dc22

2006036136

Printed in the United States of America by Edwards Brothers

Contents

List of Figures	xix
List of Tables	xxi
Foreword	xxii
Preface	xxiv
Acknowledgments	xxviii
ONE	Introduction 1
	Healthy People Initiatives 1
	Sociodemographic Trends 4
	<i>Population Growth Over Age 65</i> 6
	<i>The Baby Boomers</i> 6
	<i>The Older Old</i> 8
	<i>Chronic Conditions and Disability</i> 9
	<i>Centenarians</i> 9
	<i>Life Expectancy</i> 10
	<i>Hospital Stays and Physician Visits</i> 11
	<i>Medications</i> 12
	<i>Health Habits</i> 12
	<i>Perceptions of Health</i> 13
	<i>Volunteering and Work</i> 13
	<i>Educational Status</i> 14
	<i>Political Power</i> 15
	<i>Internet Access</i> 15
	<i>Poverty</i> 15
	<i>Racial and Ethnic Composition</i> 16
	Definitions of Healthy Aging 16
	<i>The Federal Government</i> 17
	<i>Extraordinary Accomplishment</i> 17
	<i>Prevention</i> 18

	<i>Wellness</i>	20
	<i>Anti-old and Anti-aging</i>	20
	<i>Compression of Morbidity</i>	22
	Health Perspectives and Aging	24
	<i>Health Expectancy Versus Life Expectancy</i>	24
	<i>Physical Versus Emotional Aspects of Aging</i>	25
	Health Care	26
	<i>Medicare</i>	26
	<i>Medicaid</i>	27
	<i>Societal Health Care Costs</i>	28
	<i>Health Care Versus Medical Care</i>	29
	A Health Promotion and Aging Model	30
	<i>The Aging Component</i>	30
	<i>The Health Component:</i>	
	Communication and Collaboration	31
	Health Education	32
	Health Behavior Change	32
	Community Health	33
	Diversity	33
	Advocacy	34
	Questions for Discussion	34
TWO	Health Professionals and Older Clients	37
	Collaboration	37
	<i>Willingness to Collaborate</i>	38
	<i>Client Empowerment Versus the Passive Patient</i>	40
	<i>How to Collaborate</i>	41
	<i>Should Medical Encounters Include Health Promotion?</i>	41
	<i>Changing Medical Encounters Into Health Encounters</i>	42
	<i>An Office System for Implementing a Health Promotion Practice</i>	42
	<i>Health Education Materials</i>	43
	<i>Put Prevention Into Practice</i>	44
	<i>Referrals to Community Health Education Programs</i>	45
	<i>Personality Characteristics of a Health Professional “Collaborator”</i>	46
	Communication	46
	<i>Communication Skills</i>	48
	Interpersonal Effectiveness	48
	Informational Processing	49
	Social and Behavioral Support	49
	Cruising the Net	50

	<i>A Case Study in Web Deception: DrKoop.com</i>	51
	<i>Web Sites</i>	52
	Government	53
	Wellness	53
	Professional Organizations	54
	Specific Health Content Areas	55
	Older Consumers	55
	<i>Electronic Newsletters</i>	57
	Human Values in Aging	57
	Positive Aging	57
	Soul of Bioethics	57
	Aging Opportunities News	57
	News From the Geriatric Mental Health Foundation	57
	<i>Miscellaneous Communications</i>	57
	Agency for Healthcare Research and Quality	57
	Ageline Database	58
	Current Awareness in Aging Research	58
	Health and Aging	58
	Selected Communication Issues	58
	<i>Cross-Cultural Communication</i>	58
	<i>End-of-Life Communication</i>	59
	<i>Communicating to Client Companions</i>	60
	<i>Communication Barriers Between Health Professionals and Older Clients</i>	60
	<i>Jargon</i>	61
	<i>Four Common Reasons for Health Professionals Not Communicating About Health With Older Clients</i>	62
	Questions for Discussion	63
THREE	Clinical Preventive Services	65
	Medical Screenings and Prophylaxis: Considerable Controversy	65
	Guide to Clinical Preventive Services	66
	<i>Accuracy, Reliability, and Effectiveness of Screening Tests</i>	68
	Breast Cancer	68
	<i>The 2001–2002 Mammogram Controversy</i>	70
	Menopause	73
	<i>Women’s Health Initiative 2006 Update: Controversy Continues</i>	75
	Blood Pressure	77
	Osteoporosis	79

	Cholesterol	82
	<i>Statins</i>	85
	Cervical Cancer	86
	Colorectal Cancer	87
	Prostate Cancer	88
	Hearing and Vision	90
	Oral Health	92
	Diabetes	93
	Depression	94
	Other Medical (and Dog) Screenings	95
	Immunizations	96
	Aspirin Prophylaxis	98
	The Polypill	99
	Medicare Prevention	100
	<i>A Final Word</i>	103
	Questions for Discussion	104
FOUR	Health Behavior	107
	Health Behavior Assessments and Interventions	108
	<i>Health Risk Appraisals</i>	108
	<i>A Reflective Health Assessment</i>	110
	<i>Stages of Change</i>	111
	<i>Health Contracts</i>	113
	<i>PRECEDE</i>	118
	10 Tips for Changing Health Behaviors	119
	Health Behavior Theories	125
	<i>Behavioral and Cognitive Management</i>	126
	<i>Healthy Pleasures</i>	127
	<i>Social Cognitive Theory</i>	128
	<i>Self-Efficacy</i>	129
	<i>Health Locus of Control</i>	131
	<i>Health Belief Model</i>	134
	<i>Other Theories</i>	135
	<i>A Final Note</i>	135
	Questions for Discussion	136
FIVE	Exercise	139
	1996 Surgeon General's Report on Physical Activity and Health	139
	The Most Popular Activity of All: Walking	141

Exercise for Disease Prevention and Functional Improvement	144
<i>Cardiovascular Disease</i>	144
<i>Cancer</i>	145
<i>Diabetes</i>	146
<i>Depression</i>	147
<i>Cognition</i>	147
<i>Bone Density</i>	148
<i>Fall Prevention</i>	148
<i>Osteoarthritis</i>	149
<i>Sleep</i>	150
<i>Other Conditions</i>	150
<i>Caution</i>	150
The Four Components of My Exercise Class	151
<i>The Aerobics Component</i>	151
<i>The Muscular Strength or Endurance Component</i>	156
<i>The Flexibility and Balance Component</i>	162
<i>The Health Education Component</i>	165
Other Exercises	166
<i>Different Strokes for Different Folks</i>	168
The Activity Pyramid	169
Arthritis: A Barrier to Exercise and Activity	170
<i>Other Barriers and Cautions</i>	172
Selected Topics	174
<i>How to Respond to an Excuse</i>	174
<i>Benefits</i>	175
<i>Health Club, Home, or Religious Setting</i>	175
<i>Personal Trainer</i>	177
<i>The Role of the Health Professional</i>	178
Questions for Discussion	178
SIX	
Nutrition	181
The Food Guide Pyramid	182
<i>Modified Food Guide Pyramid for Adults Aged 70 and Over</i>	184
<i>MyPyramid</i>	185
The Personalized Nutrition Bull's-Eye	189
Good Nutritional Habits	190
<i>Basic Nutrients</i>	192
Fats	192
<i>Not All Fats Are Created Equal</i>	194
<i>Calculating Fat Content</i>	195

	Cholesterol	196
	<i>National Cholesterol Education Program Guidelines: 2004</i>	198
	Carbohydrates and Fiber	198
	Sugar	200
	Protein	201
	Water	202
	Vitamins and Minerals	202
	Sodium and High Blood Pressure	206
	Calcium and Osteoporosis	207
	Nutrition Labels	208
	Malnutrition	211
	Selected Topics	214
	<i>Organic Foods</i>	214
	<i>Enriched and Fortified Foods</i>	215
	<i>Chocolate</i>	215
	<i>Junk Food and Fast Food</i>	216
	<i>Contaminated Foods</i>	217
	<i>Sugary Liquids</i>	217
	<i>Coffee</i>	218
	<i>Sensory Decline</i>	219
	<i>Professional Involvement</i>	219
	<i>Quackery</i>	220
	<i>Socioeconomic and Cultural Sensitivity</i>	221
	<i>Food Films</i>	221
	<i>Advocacy</i>	222
	<i>Newsletters</i>	222
	<i>Web Sites</i>	223
	Questions for Discussion	223
SEVEN	Weight Management	225
	Trends in Weight Gain	225
	Obesity and Overweight	227
	<i>Morbidity and Mortality</i>	228
	Genetics, Lifestyle, and Environment	229
	<i>Genetics</i>	229
	<i>Lifestyle</i>	230
	<i>Environment</i>	231
	<i>Environmental Change for Obese Americans</i>	231
	Should We Gain Weight With Age?	232
	Body Composition	234
	Exercise	235

	Low-Carbohydrate and High-Protein Diets	237
	Other Weight Loss Programs	240
	Bariatric Surgery	244
	Caloric Input and Expenditure	245
	<i>Portion Control</i>	246
	<i>Meat and Milk</i>	248
	<i>Holiday Gain</i>	248
	10 Tips for Weight Loss or Maintenance	248
	Selected Weight Management Topics	250
	<i>Diet Drugs</i>	250
	<i>Emotional Distress</i>	252
	<i>Competitive Eating and Implications for Advocacy</i>	253
	<i>Surfing for Slimness</i>	254
	Questions for Discussion	255
EIGHT	Complementary and Alternative Medicine	257
	National Center for Complementary and Alternative Medicine	257
	Prevalence of Complementary and Alternative Medicine (CAM)	258
	Types of CAM	259
	<i>Popular CAM Techniques</i>	260
	Diaphragmatic Breathing	260
	Progressive Muscle Relaxation	261
	Visualization	262
	Relaxation Response and Meditation	263
	Acupuncture	264
	Therapeutic Massage	265
	Chiropractic	266
	Hypnosis	266
	Biofeedback	266
	Magnet Therapy	267
	Aroma Therapy	267
	Laughter	267
	CAM and Medical Education	268
	<i>Naturopathic Medical Colleges</i>	268
	Selected CAM Topics and Resources	269
	<i>CAM Insurance</i>	269
	<i>Weil and Chopra</i>	270
	<i>CAM Organizations</i>	271
	<i>CAM Journals</i>	272
	Dietary Supplements	272

	<i>Cautions</i>	272
	<i>Dietary Supplement Health and Education Act</i>	273
	Vitamin and Mineral Supplements	275
	<i>Multivitamin</i>	275
	<i>Calcium and Vitamin D</i>	277
	<i>Vitamin B₁₂</i>	278
	<i>Vitamin E</i>	279
	<i>Vitamin C</i>	281
	<i>Antioxidant Cocktail</i>	282
	Herbs	283
	<i>Ginkgo Biloba</i>	283
	<i>The Other Gs</i>	284
	<i>St. John's Wort</i>	285
	<i>Saw Palmetto</i>	285
	<i>Echinacea</i>	286
	<i>Black Cohosh and Other Herbs for Menopausal Symptoms</i>	286
	Hormone Supplements	287
	<i>Growth Hormone</i>	287
	<i>Melatonin</i>	288
	Other Dietary Supplements	289
	<i>Glucosamine and Chondroitin</i>	289
	<i>Nutritional Drinks</i>	290
	ConsumerLab.com and Dietary Supplement Verification Program	290
	Nutraceuticals or Functional Foods and Drinks	291
	Questions for Discussion	293
NINE	Selected Health Education Topics	295
	Smoking	295
	<i>Prevalence</i>	295
	<i>Associated Diseases</i>	296
	<i>Quit Ratio</i>	297
	<i>Age</i>	297
	<i>Gender</i>	298
	<i>Physician, Nurse, and Telephone Interventions</i>	299
	<i>The Patch</i>	301
	<i>Combining Interventions</i>	302
	<i>Taxes</i>	303
	<i>Secondhand Smoke and Attacking the Tobacco Industry</i>	304
	<i>Smoking Bans</i>	306
	<i>Bloody Mouths</i>	307
	<i>Medicare Smoking Cessation Coverage</i>	307

	<i>Additional Programs and Materials</i>	308
	Alcohol	309
	<i>Definition</i>	309
	<i>Types</i>	310
	<i>Assessment</i>	310
	<i>Prevalence</i>	311
	<i>Associated Diseases and Problems</i>	312
	<i>Intervention and Referral</i>	313
	<i>Treatment Alternatives</i>	314
	<i>Positive Effects</i>	314
	<i>Resources</i>	315
	Medication Usage	316
	<i>Misuse</i>	316
	<i>Prevention</i>	319
	<i>Advice From Pharmacists</i>	319
	<i>A Physician's Experience</i>	320
	<i>Advertising</i>	320
	<i>Resources</i>	321
	Injury Prevention	322
	<i>Fall Prevention</i>	323
	<i>Motor Vehicle Safety</i>	325
	<i>Pedestrian Safety</i>	328
	<i>Resources</i>	329
	Sleep	329
	<i>Interventions</i>	330
	<i>Resources</i>	332
	Questions for Discussion	332
TEN	Social Support	335
	Definition of Social Support	335
	Family, Friends, Church, and Others	336
	Lay Support	338
	Online Support	339
	Pet Support	340
	<i>The Eden Alternative and Green House</i>	341
	<i>Other Pet Support Options</i>	343
	Religious or Spiritual Support	345
	<i>And Now for the Rest of the Story</i>	346
	<i>Aging and Spirituality Resources</i>	348
	Caregiving, Sexuality, and Other Types of Intimate Support	349
	Terminally Ill	350

	<i>Hospice Support</i>	352
	Peer Support	354
	<i>Empowerment Theories</i>	355
	<i>Age-Related Peer Support Groups</i>	356
	<i>Health Professionals and Peer Support</i>	357
	<i>Peer Support Organizations</i>	358
	Intergenerational Support	359
	Physician Support	361
	Questions for Discussion	362
ELEVEN	Mental Health	365
	Mental Health and Mental Illness	365
	Depression	366
	<i>Treatments for Depression</i>	368
	<i>The Life Review Process</i>	369
	Alzheimer's Disease	371
	<i>Cognitive Fitness</i>	372
	<i>Caregiving for Dementia</i>	373
	Other Mental Disorders	374
	Insurance Coverage	375
	Chronic Stress	376
	<i>Measurement</i>	377
	<i>Perspectives</i>	378
	<i>Psychoneuroimmunology</i>	378
	Stress Management	380
	<i>A Positive Attitude</i>	381
	<i>The Placebo Effect</i>	382
	<i>The Botox Alternative</i>	383
	Mental Health and Aging Resources	384
	Questions for Discussion	387
TWELVE	Community Health	389
	Community Organizations	389
	<i>Senior Centers</i>	389
	<i>Religious Institutions</i>	391
	<i>The Shepherd's Centers of America</i>	392
	<i>Other National Resources With a Focus on</i>	
	<i>Religion and Aging</i>	392
	<i>Worksite Wellness</i>	393
	<i>Hospitals</i>	395
	<i>Educational Programs</i>	396
	<i>Shopping Mall-Based Programs</i>	397

	<i>Computer Education</i>	398
	Model Health Promotion Programs	399
	<i>The National Council on the Aging's Center for Healthy Aging</i>	400
	<i>Healthwise</i>	400
	<i>Chronic Disease Self-Management Program</i>	401
	<i>Project Enhance (Formerly Senior Wellness Project)</i>	402
	<i>Ornish Program for Reversing Heart Disease</i>	403
	<i>Benson's Mind/Body Medicine</i>	403
	<i>Strong for Life</i>	404
	<i>The American Geriatrics Society/Foundation for Health in Aging</i>	404
	<i>Community-Oriented Primary Care</i>	405
	<i>A Model Health Program in a Chinese Community</i>	406
	Professional Associations	407
	Community Volunteering	409
	<i>Federal Volunteerism</i>	411
	AARP	412
	<i>Cyber Volunteering</i>	413
	Community Health Advocacy	413
	<i>Gray Panthers</i>	413
	<i>Environmental Advocacy</i>	413
	<i>Red Hat Society</i>	415
	<i>Granny Peace Brigade</i>	415
	<i>The Long-Term Care Ombudsman Program</i>	416
	<i>BenefitsCheckUp</i>	416
	Questions for Discussion	417
THIRTEEN	Diversity	419
	Age	419
	Gender	421
	Race and Ethnicity	423
	<i>Definition</i>	423
	<i>Racial Disparities in Health Care</i>	424
	<i>Racial and Ethnic Distribution</i>	425
	<i>African American Elders</i>	425
	<i>Hispanic American Elders</i>	427
	<i>Asian and Pacific Islander Elders</i>	428
	<i>Native American Elders</i>	430
	<i>National Organizations With an Emphasis on Minority Aging</i>	431
	Culture	431

	Socioeconomic Status	434
	Rural Aging	436
	<i>Rural Resources</i>	437
	Global	437
	<i>Aging and the International Cinema</i>	439
	Questions for Discussion	440
FOURTEEN	Public Health	443
	Wellness General of the United States	444
	<i>Wellness</i>	445
	<i>Junk Food Tax</i>	446
	<i>Strengthen Wellness Research</i>	448
	<i>The National Center on Wellness</i>	448
	<i>U.S. Preventive Services Task Force</i>	448
	<i>Increase Wellness Utilization</i>	450
	<i>Healthy People 2010</i>	450
	<i>Health Plan Employer Data and Information Set</i>	450
	<i>Wellness Coverage Advisory Committee</i>	450
	<i>Wellness General Reports</i>	451
	<i>Wellness in Managed Care</i>	452
	<i>State Mandates</i>	453
	<i>Linking Medical Clinics and Community Health</i>	454
	An Opposing Point of View (Sort of)	456
	And Now for the Rest of the Wellness General's Platform	457
	<i>Universal Health Care Coverage</i>	457
	<i>Managed Care Is Not the Problem or the Answer</i>	459
	<i>Medicare Part D: A Critical Analysis</i>	463
	<i>Patented Versus Generic Drugs</i>	465
	<i>Long-Term Care</i>	466
	<i>Other Public Health Policy Issues</i>	469
	Questions for Discussion	472
FIFTEEN	Glimpse Into the Future	475
	Reengagement	476
	<i>Institutional Change</i>	477
	Business	477
	Government and Foundations	478
	Education	479
	<i>Conclusion</i>	480
	<i>Creative Career Opportunity: Reengagement Counselor</i>	481

Physical Health	481
<i>Creative Career Opportunity: Chronic Disease Management Coordinator</i>	484
Mental Health	484
<i>Creative Career Opportunity: Life Review Specialist</i>	487
Supportive Housing	488
<i>Elder Cohousing</i>	489
<i>Green House</i>	490
<i>Miscellaneous</i>	492
<i>Creative Career Opportunity: Supportive Housing Specialist</i>	493
Conclusion	493
References	495
Index	553

Figures

1.1 Number of persons aged 65+, 1980–2030 (in millions).	7
1.2 Labor force participation rates of persons aged 65–69 and 65+, 1985–2004.	14
1.3 Three levels of prevention.	19
1.4 Compression of morbidity.	23
3.1 Nursing student teaching older adult to take a blood pressure reading in one of the author’s health education classes.	78
3.2 The late Elizabeth “Grandma” Layton took her first art class at age 68 and drew a picture of her husband Glenn on a bathroom scale when he was concerned about weight loss and malnutrition.	83
4.1 Health contract.	114
4.2 Health calendar.	115
5.1 The end-of-the-semester photograph of one of the author’s exercise classes, taught by occupational therapy students.	152
5.2 Horizontal triceps press performed in one of the author’s exercise classes.	159
5.3 Isometric exercise for quadriceps that avoids knee pain.	161
5.4 Shoulder roll from the <i>Easy Does It Yoga for Older People</i> program.	164
5.5 A photograph of two fellows with pretty good balance that the author took in China.	166
5.6 Activity pyramid.	169
6.1 Food guide pyramid.	183
6.2 MyPyramid.	186
6.3 Personalized nutrition bull’s-eye.	191
6.4 Determine your nutritional health.	212

7.1 Ten-calorie diet.	244
8.1 Belly breath.	261
10.1 The author's son visiting a resident in a nursing home (1984).	342
10.2 Dog from a pet companion program visiting an older adult in the author's community health education class.	344
10.3 Massage (<i>Easy Does It Yoga for Older People</i>).	351
10.4 Dear Dr. Haber letter.	357
10.5 Off Our Rockers program.	360
11.1 What do you see?	379
12.1 Chinese Tai Chi.	407
12.2 Maggie Kuhn, founder of the Gray Panthers advocacy group.	414
14.1 Wellness General of the United States.	449

Tables

1.1 Healthy People 2010: Leading Health Indicators	2
1.2 Becoming an Age Rectangle	7
1.3 Ten Leading Causes of Death in 2004	11
1.4 Seven Dimensions of Wellness	21
1.5 Healthy People 2000: Goal to Increase Years of Healthy Life Remaining at Age 65 to 14 Was Not Met	24
3.1 Medicare Prevention	100
4.1 Health Contract Directions for Exercise	116
4.2 Food Behavior Diary	128
5.1 Target Heart Rate by Decades	153
5.2 Modified Borg Scale of Perceived Exertion	154
5.3 Different Exercises and Benefits	168
6.1 Recommended Dietary Allowances (RDA) for Selected Vitamins and Minerals by the National Academy of Sciences	204
6.2 Nutrients and Clinical Manifestation of Deficiency in Older Adults	205
6.3 Good Sources of Nutrition for Older Adults	206
6.4 Risk Factors for Malnourishment in Older Adults	211
7.1 Age and Recommended Body Fat Ranges	234
7.2 Low-Carbohydrate and High-Protein Diets	238
8.1 Characteristics of Complementary and Alternative Medicine and the Biomedical Model	258
13.1 Percentage of Persons Aged 65+ in the United States by Race and Hispanic Origin	425
13.2 Percentage of Persons Aged 45–55 Caring for Parents by Ethnicity	430

Foreword

The fourth edition of *Health Promotion and Aging: Practical Applications for Health Professionals* by David Haber should be on the bookshelf of every student and every professor in any of the health disciplines. Although we live in the days of the internet, and everything is easily available on the Web, this book is a reminder as to why the book on the shelf is still needed. This new book is a resource that pulls together everything that a health care provider would need to know about promoting health and quality of life for older adults.

Although Dr. Haber does not articulate this in his book, *Health Promotion and Aging: Practical Applications for Health Professionals* is written within the backdrop of a social-ecological model that incorporates intrapersonal, interpersonal, organizational, and environment factors into health promotion. This model provides a comprehensive way to consider health promotion and consequently addresses all aspects of this broad concept in an organized fashion. Intrapersonal aspects of aging and normal versus abnormal age changes are addressed. Interpersonal issues are considered in great detail and include interactions between patients and providers, with suggestions for both patients and providers on how to optimize those interactions. The book also provides a multitude of ways an older adult can be encouraged to expand his or her social network.

The current health care system and the environment are addressed within the context of health promotion, and Dr. Haber also anticipates our future health care systems and environment. Dr. Haber reminds us throughout the book of the coming-of-age of the baby boomers and the impact this will have on health care. When he becomes president (as he facetiously predicts), Dr. Haber will redesign aspects of the health care system and change the surgeon general to the wellness general. While his message is easy to read and fun, he makes important points related to health and health behaviors within our communities.

Dr. Haber has a unique way of interspersing the book with personal experiences with regard to practice as well as personal experiences that make reading the text cover to cover so easy and enjoyable. His approach also serves as an effective way to learn and to remember the important tidbits of care related to health promotion.

So what is in between the covers of this book that makes it such a precious and useful resource? It starts with an overview of health promotion and provides an easy-to-read review of critical health promotion guidelines and the interface of the health care system with regard to those guidelines. Medicare coverage, including Medicare Part D and its impact on society, is specifically reviewed. The second chapter is a critical asset for those engaged in any type of health promotion encounters with older individuals. Chapter three provides a wonderful and comprehensive synthesis of current guidelines and research supporting or refuting specific health-promotion and disease-prevention activities. Activities such as immunizations, cancer screenings, and medication prophylaxis (e.g., aspirin use) are considered. Chapter four moves into the area of behavior change, and tricks of the trade for changing behavior are reviewed. Further coverage includes specific behaviors such as exercise, nutrition, weight management, smoking, alcohol use, driving, and injury prevention. Practical information about what activities to do and how to do them is provided. Chapter eight addresses the good (and the not-so-good) aspects of complementary and alternative medicine. The book has a very strong emphasis on the importance of social support and interaction, whether this support comes through Web-based interactions or group programs. Chapter ten is dedicated to where older adults could and should receive sufficient support across all stages of the long-term care continuum (from prevention to hospice services). The book ends with a glimpse into the future and on an optimistic note about the wonderful opportunities for students in the areas of geriatrics and gerontology and for what is yet to come as the baby boomers age. For those of us who are quickly approaching the wonderful world of aging, thanks to Dr. Haber for providing a resource that we can use as individuals and providers to assure optimal health as we age.

Barbara Resnick, PhD, FAAN
Professor of Nursing
University of Maryland School of Nursing
Adjunct Professor
Department of Epidemiology and Preventive Medicine
University of Maryland School of Medicine

Preface

I was trained at the University of Southern California as a sociologist specializing in gerontology but spent my career implementing and evaluating health promotion projects in the local community. This contradiction between training and practice has informed me on why promoting health is possible, but difficult.

From a sociological perspective it is clear to me that American society is not particularly health promoting. For example, computers are increasingly promoting sedentary behavior, both at work and at play. A fast-paced society encourages us to seek convenient food and drink, and ubiquitous advertising—to the tune of tens of billions of dollars per year—promotes questionable foods and drink over good nutrition. And the considerable stress engendered by a dynamic society leads to smoking, excess alcohol consumption, and engagement in other risky behaviors.

At the same time, however, we are becoming increasingly well educated on health matters and eager to learn more from research findings that quickly reach Web sites, books, magazines, newspapers, and television programs. Primarily through public education, we were able to reduce smoking rates in half between 1965 and 1990, and perhaps we can do the same with obesity and inactivity if we direct similar attention to these problems.

So while sociological truths are not to be denied, there is still considerable potential to empower individuals to live a healthy lifestyle. And while there is a vacuum of leadership created by a mostly hands-off federal government, there are an increasing number of local organizations taking the initiative in health promotion: religious institutions, businesses, community centers, hospitals, medical clinics, educational institutions, shopping malls, and city governments.

As we begin our journey in the new millennium, research is providing convincing evidence that health promotion works—no matter what our age, and even after decades of practicing unhealthy habits. The findings are also providing specific ideas on what we need to do and how we ought to go about doing it. In some areas the strategies for improving health are a lot less onerous than we thought they had to be. For

example, progressing from a sedentary lifestyle to brisk walking for up to a half hour most days of the week can do our health a world of good.

Even the dreadful piece of legislation enacted in 1994, the Dietary Supplement Health and Education Act, may have some value, in spite of the plethora of worthless and sometimes harmful products that it now allows to be promoted over the counter with ridiculous claims, such as “reverses aging.” Perhaps it is helping an American public become a bit more judicious in the evaluation of claims about what swallowing a pill can accomplish.

I would also like to note that the terms in the title of this book, *Health Promotion and Aging*, are not as straightforward as they might seem. Matters relating to health, for instance, are often dominated by medical issues. And it is not clear which terms are most salient to aging people: *health promotion*, *disease prevention*, *management of chronic disease*, *health education*, or other expressions.

And when does aging start: at the government-protected age of 40 at work, at the AARP eligible age of 50, at the traditional retirement age of 65, at the eligibility age of 75 at some geriatric clinics, or at the demographically interesting ages of 80 or 85? And how should we feel about the anti-aging movement that urges us to defy the aging process? This anti-aging perspective has an appeal to many who have a vision of living vigorously and looking youthful for as long as possible. But what about us pro-agers who embrace the aging process, accept its deficits, and creatively uncover its strengths?

The fourth edition of *Health Promotion and Aging* has one new chapter (15), and the other 14 have been substantially revised and updated. The book is focused on current research findings and practical applications. This edition includes detailed descriptions of two of my programs that have been recognized by the National Council on the Aging’s Best Practices in Health Promotion and Aging: an exercise program in the community that includes aerobics, strength building, flexibility and balance, and health education; and a health contract/calendar to help older adults change health behaviors. I have also begun work on life reviews in community settings, and some of that work informs this edition.

Much has happened since the third edition, many questions have been raised, and a good many questions have been answered, temporary though that may be. Perhaps the best way to preface this book is to select just a few of the questions that are addressed:

- How do you define healthy aging?
- Which communication skills prevent lawsuits?
- How do you convert passive patients into empowered clients?
- What are the best Web sites for health promotion and aging?
- Why are medical screenings so controversial?

- Should all older adults be on a statin?
Who does not do immunizations, and why not?
Medicare prevention: What is it, what should it be?
Are you aware of the recent changes in Medicare prevention?
What is the latest research on how exercise prevents disease and improves function?
What takes place in the author's exercise class?
What nutritional tools are good with older adults?
Is the 2005 Food Guide Pyramid—MyPyramid—an improvement over the previous version?
What should we know about the different kinds of fats?
What are the latest cholesterol guidelines?
What do we need to know about sugar and salt?
How can nutrition labeling be improved?
What is the major contributor to excess weight: genetics, lifestyle, or environment?
Should we gain weight with age?
Should churches promote weight loss?
Is CAM a crock?
Which dietary supplements should older adults take?
What is the story with vitamin E?
Who quits smoking?
How well do we assess alcohol problems with older adults?
What can health professionals and older adults do to reduce medication misuse?
What can older adults do to prevent falls?
When should older adults stop driving?
Can pedestrian safety be improved?
What can be done to improve sleep?
How effective is pet support on mental health?
What are the two sides to whether religion promotes health or extends longevity?
How important is peer support?
What are the problems with identifying and treating depression?
Can we improve cognitive fitness and stave off Alzheimer's?
What are the insurance inequities with mental disorders?
How do older adults deal with stress?
Can we manipulate a positive attitude to extend longevity?
Do placebos work?
Have you conducted a life review?
What is going on in churches, hospitals, educational institutions, and shopping malls?

Do you know about Healthwise, the Chronic Disease Self-Management Program, Project Enhance, the Ornish Program for Reversing Heart Disease, Community-Oriented Primary Care, and other model health promotion programs?

What do you need to know about health professional associations, community volunteering, and health advocacy opportunities for older adults?

What do you need to know about diversity and aging?

How does the aging of women differ from men?

Is socioeconomic status more important than race in gerontological health?

What are the problems associated with rural aging?

What can developed and developing countries learn from each other?

How should we remake American society to promote healthy aging?

Are you ready to take a glimpse into the future?

I have attempted to make the book practical by including health-promoting tools, resource lists, assessment tools, illustrations, checklists, and tables; thoughtful by raising issues in each chapter and posing additional questions at the end; and humorous because humor is essential to health promotion.

For faculty, there are 185 questions for challenging your students at the end of the chapters. There is also an Instructor's Guide with test questions that can be obtained from Springer Publishing Company, LLC.

Acknowledgments

I would like to thank a few people who I do not know personally but whose written works have been informative and inspirational: James Birren, Jane Brody, Robert Butler, Laura Carstensen, Ram Dass, Marc Freedman, Erving Goffman, Michael Jacobson, Kate Lorig, and William Thomas, to name a few.

I would also like to thank a few people I do know personally: my wife, Jeanne St. Pierre, my children, Benjamin and Audrey, my 92-year-old mother-in-law, Beatrice, who is still running a small business, my department chair, David Gobble, and the good folks at Springer, who continue to encourage new editions.

CHAPTER ONE

Introduction

Did you know that the federal government establishes goals for healthy aging? In 1990, for instance, the U.S. Public Health Service established the goal of increasing years of healthy life remaining at age 65 from the 11.8 years that it was in 1990 to 14 years by 2000. It turned out, however, that this goal for the decade was not met, though minority elders made substantially more progress than nonminority elders. Although healthy life remaining at age 65 had increased only 0.4 years, to 12.2 years, the data indicated an additional 1.3 years for African Americans and 1.8 years for Hispanics during this decade (U.S. Public Health Service, 2000).

This, of course, raises some questions: How long has the federal government been doing this? Are they still doing it? Is it helping to promote healthy aging? For those readers who are impatient, the three answers are more than 25 years; yes; and sorry, you will have to read on to find out about the third answer.

HEALTHY PEOPLE INITIATIVES

In 1979, an influential document, *Healthy People: The Surgeon General's Report on Health Promotion and Disease Prevention*, was published (U.S. Department of Health and Human Services [USDHHS], 1979). Over the years, this report was widely cited by the popular media as well as in professional journals and at health conferences. Many attribute to it a seminal role in fostering health-promoting initiatives throughout the nation. It was followed by another report by the U.S. Public Health Service in 1980, *Promoting Health/Preventing Disease: Objectives for the Nation*, which outlined 226 objectives for the nation to achieve over the following 10 years.

TABLE 1.1 Healthy People 2010: Leading Health Indicators

Rank	Indicator
1.	Physical activity
2.	Overweight and obesity
3.	Tobacco use
4.	Substance abuse
5.	Responsible sexual behavior
6.	Mental health
7.	Injury and violence
8.	Environmental quality
9.	Immunization
10.	Access to health care

A decade later, in 1990, another national effort, Healthy People 2000, was initiated by the U.S. Public Health Service in an effort to reduce preventable death and disability for Americans by the year 2000. The Healthy People 2000 initiative focused on three broad public health goals for Americans: (a) to increase the span of healthy life; (b) to reduce health disparities; and (c) to achieve access to preventive services.

In 2000, the Healthy People 2010 initiative was launched, with the number of objectives increased to 467, distributed over 28 priority areas. An interagency work group with the U.S. Department of Health and Human Services, however, pared this list to 10 leading health indicators (Table 1.1).

As you can observe, the table does not refer to an age-specific list of health indicators. Sexual irresponsibility and smoking, for instance, are much more prevalent problems among younger adults than among older adults. And access to health care is primarily an issue for younger persons without health insurance. Another limitation, unrelated to age, is that there are few federal funds earmarked specifically to accomplish improvement among these 10 health indicators.

On the positive side, setting health care priorities is no longer a simple matter of tabulating the number of deaths from a few diseases and then organizing a campaign against the most prevalent ones, like heart disease and cancer. The Healthy People initiatives are health oriented, not disease oriented, and as such they recognize the complexity of the socioeconomic, lifestyle, and other nonmedical influences that impact our ability to attain and maintain health.

A second major benefit of the initiative is that they are focused on documenting baselines, setting objectives, and monitoring progress. According to the 1998–1999 Healthy People 2000 Progress Report (National Center for Health Statistics [NCHS], 1999), 15% of the objectives for the year 2000 were met, and 44% demonstrated movement toward the target.

However, since the initiative relied mostly on data monitoring and a small amount of publicity—and very little financial support—it is unclear whether Healthy People 2000 contributed directly to this progress.

For example, in an area where there was no financial support for encouraging change—being overweight or obese—the trend in America for adults between the ages of 20 and 74 has been in the opposite direction. There has been a steady increase in weight gain for Americans over the decade (NCHS, 1999). There has been a similar result with sedentary behavior among Americans. In the absence of financial support for encouraging change in this area, light to moderate physical activity on a near-daily basis between the ages of 18 and 74 has not improved over the decade (NCHS, 1999).

Focusing on those aged 65 and over, the Merck Institute of Aging and Health (<http://www.gericareonline.net>) came out with a report card on the Healthy People 2000 initiative, and it revealed many failing grades. Older Americans did not reach the 2000 target goals; in fact, they fell far short of them for physical activity, overweight, and eating fruits and vegetables. Additional failing grades were assigned to the target goals of reducing hip fractures for persons aged 65 and over and fall-related deaths for persons aged 85 and over.

In contrast to the mere monitoring of most Healthy People 2000 target goals, financial assistance was provided to older adults through Medicare during the decade for mammogram coverage, pneumococcal vaccination, and influenza vaccination. With this financial support the percentage of compliance in these three areas doubled among older adults during the decade (Haber, 2002a). Consequently, the Healthy People 2000 target goals were met for mammogram screening and influenza vaccination and fell just short of being met for pneumococcal vaccination.

This raises the question of whether the federal government should be doing more than monitoring data changes when it comes to promoting healthy aging. A comparable question can be asked of state governments. The Healthy People initiatives are supposed to have a counterpart initiative at each of the state health departments. In my experience with several states, however, this initiative has been ignored, or the state health department conducted a modest project that was accomplished several years ago but did not follow up with additional activity.

I will come back to this issue of whether the federal government should be doing more than monitoring data changes in the last chapter of this book. In the meantime, to find out more about the Healthy People 2010 initiative, go to <http://www.health.gov/healthypeople/state/toolkit>. And, finally, back to the question, Does establishing goals help to promote healthy aging? The answer is what you might expect: not if you are merely monitoring.

SOCIODEMOGRAPHIC TRENDS

It has seemed almost obligatory over the past quarter century to begin a gerontological article or book with comments about the rapid aging of society. About 15–20 years ago, we began to see two slight variations of the ritual: Many writings began with comments about the aging of the aged, and an additional spate of writings appeared on the coming onslaught of aging baby boomers, born between 1946 and 1964.

In 2006, when the vanguard of baby boomers became sexagenarians, both ends of the older age spectrum commanded our attention. The robust baby boomers–cum–gerontology boomers made it obvious to all but the most ageist of younger persons that the vitality of aging persons remained strong. The stereotype of aging as a process synonymous with physical and mental deterioration was tarnished. And at the other end of the age spectrum, among persons aged 85 and older, the growth in the percentage of the very old began to startle—about a 40% growth per decade. In 1980, there were 2.2 million Americans aged 85 and over; in 1990, 3 million; in 2000, 4.3 million; and in 2010, there will be 6 million.

Along with the increasing breadth of aging Americans comes increasing complexity. Fifty-year-olds are eligible for membership in AARP (formerly the American Association of Retired Persons), but they are quite different from 70-year-olds, who in turn are significantly different than 90-year-olds. Moreover, 90-year-olds are different from one another. A few of them are pumping iron and throwing away their canes (Fiatrone et al., 1990), while others are waiting to die.

What aging Americans have in common, be they 50 or 90, robust or frail, is a future with an intensified demand for *medical* care (euphemistically referred to in America as *health* care) and the ongoing escalation of medical care costs. Driving these demands and costs are the increasing numbers of aging persons with both chronic and acute medical conditions and an expensive, high-tech, acute care–oriented medical system.

As we entered the third millennium, this demand for costly and sophisticated medical care collided with an unpredictable federal budget. In less than 6 months' time during the year 2001, we went from a record-breaking and astoundingly huge budget surplus to budget deficits of uncertain duration—thanks to the one-two punch of federal legislation to launch a 10-year tax cut and the surging costs of both a war on terrorism and domestic programs.

Matching the uncertainty of our economic future is our uncertainty over whether the American public's voracious appetite for medical care can be reduced by disease prevention and health promotion. On an optimistic note the media has allocated considerable time and space to the merits of promoting good health practices, including its potential for cost savings.

Joining the media are the federal and state governments, which have strongly endorsed *disease prevention/health promotion*; the health professions, which have proclaimed its importance in education and training; the business community, which has firmly supported it for employees; and individuals who often discuss their attempts at it, both successful and otherwise.

If disease prevention/health promotion strategies as a way of controlling medical costs have been vying for center stage in society, it has been the stage of a not very prosperous community theater. The federal government plays a limited role in disease prevention and will not subsidize health promotion. State governments have been more concerned about the expenditures that the federal government continues to pass along to them (welfare reform and antiterrorist measures among the more costly), rather than on new disease prevention/health promotion initiatives that need funding.

Health professionals, too, have provided mostly lip service to health promotion because they have not been reimbursed for it. Health science students have received only a modicum of health promotion knowledge and skills and infrequent experience in applying it (Haber & Looney, 2000; Haber et al., 1997, 2000). The business community has devoted resources to health promotion (often calling it worksite wellness) but has stopped short of focusing on the employees who need it most—older and more sedentary employees.

And last but not least, individuals have spent more time and money on health promotion. But they also have spent more time and money at restaurants; on eating larger portions of food with higher fat content; and on computers, in front of which they have sat for an increasing number of hours.

Perhaps the disparity between the promise of health promotion and the attention shown it, and the allocation of inadequate resources toward supporting it, originates in the American value of individual responsibility. Unlike medicine, where we know we are not responsible for prescribing drugs or conducting surgery on ourselves and family members, we feel capable of walking briskly and eating healthfully—if we choose—without the necessity of experts, health programs, and taxpayer financial support. Thus, though most people are not doing as good a job as they would like at promoting their health, many believe it is up to the individual to take responsibility for it.

Individual responsibility is an important American value, but individuals are imperfect and need help. If support can be provided by government, business, the media, the community, health professionals, religious institutions, family, and friends, we are going to do much better at promoting our own health and those of the people we love.

I hope the subsequent chapters of this book provide the reader with ample ideas and data on health promotion and aging to justify some degree of optimism and to inspire additional initiatives—from the individual level to all the major institutions of society, including family, work, government, religion, health care, and education.

What follows are cautionary as well as hopeful sociodemographical data to suggest that aging adults may not only lead the way in escalating medical costs, but also have the potential to lead the way in the implementation of creative and cost-effective health-promoting strategies. In this latter regard the data reveal that the educational level of aging Americans has risen, that they are increasingly health conscious, and that they are active in community health-promoting endeavors.

Much of the information in the next section is taken from summaries of data provided by a variety of sources, including the U.S. Bureau of the Census's *65+ in the United States: 2005* (<http://www.census.gov>); the Administration on Aging's *A Profile of Older Americans: 2000* (file can no longer be accessed); The National Center for Health Statistics's *Health, United States, 2005* (<http://www.cdc.gov/nchs/hus.htm>); *American Perceptions of Aging in the 21st Century* (National Council on the Aging, 2002); *Older Americans 2004: Key Indicators of Well-Being*, a report of the Federal Interagency Forum on Aging-Related Statistics; and *The State of Aging and Health in America*, Merck Institute of Aging and Health (<http://www.miaonline.org>).

Population Growth Over Age 65

By now, all but the most uninformed know that the American population has been aging dramatically. Since 1900, the percentage of Americans aged 65 and over has more than tripled, from 4% in 1900 to almost 13% in 2004, and the number has increased 12-fold, from 3 million to 36 million. This trend will continue for several decades. Between 2000 and 2030, the number of people who are 65 and older is expected to more than double, from 35 million to 71.5 million (Figure 1.1), and the percentage who are aged 65 and over is expected to reach 20%.

The percentages in Table 1.2 show why the population age pyramid—a few older adults at the top and many children at the bottom—is rapidly becoming a population age rectangle.

The Baby Boomers

The baby boomers are the 76 million persons born between 1946 and 1964. Most were conceived when the millions of soldiers, sailors, and marines returned home from World War II and created a baby boom that

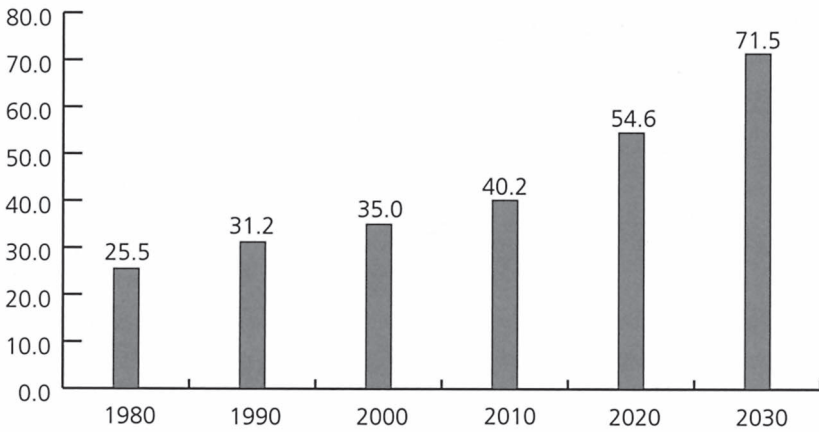


FIGURE 1.1 Number of persons aged 65+, 1980–2030 (in millions).

Note. From *Older Americans 2004: Key Indicators of Well-Being* (p. 2), by the Federal Interagency on Aging Related Statistics, November 2004, Washington, DC: U.S. Government Printing Office.

started quickly—there were fewer than 2.8 million births in 1945 but more than 3.4 million in 1946—and lasted 18 years. The boomers challenged our hospital capacity when they were born, the school system a few years later, and society in general when they reached draft age, and many did not agree with the politicians who wanted to expand the Vietnam War.

The baby boomers' impact on society as middle-aged persons has been unclear—spoiled descendents of the Greatest Generation or pioneers in social reform and civil rights? Starting in the year 2010, however, when the boomers turn age 64, their impact will be clear and dramatic. And they will expect answers to the Beatles' question: "Will you still need me, will you still feed me, when I'm 64?" (The question will be even more relevant in 2030, when they will be 84.)

In 2010, the number of persons between the ages of 45 and 64 is projected to be twice that of those aged 65 and over: 79 million versus 39 million. And boomers will be bringing with them into retirement not only their large numbers and a history of advocacy, but a powerful interest in the

TABLE 1.2 Becoming an Age Rectangle

Year	Under Age 18 (%)	Over Age 65 (%)
1900	40	4
1980	28	11
2030	21	22

solvency of the present and future Social Security and Medicare programs. Their influence on society is likely to be dramatic as they become retirees.

As eloquently stated by Frank Whittington, director of Georgia State's Gerontology Center (and I paraphrase), on January 2, 2008, shortly after 9:00 a.m., a simple bureaucratic event was the harbinger of a fundamental change in American society. Someone, probably a woman, walked into the local office of the Social Security Administration and applied for retirement benefits. She celebrated her 62nd birthday on that day and became the first baby boomer to apply for early Social Security benefits. Over the next couple of decades, over 70 million of her peers will follow suit. We must not doubt that when that woman strode up to the counter to ask for her benefits, all of our lives had begun to change.

When boomers retire, they will make enormous demands on both the Social Security and Medicare programs, which, at the same time, will be supported by a shrinking taxpaying workforce. By the time the last boomer turns 65 in the year 2029, the retirees drawing Social Security and Medicare benefits will include one in five Americans.

The Older Old

The older population itself is getting older. The percentage of persons aged 85 and over is growing faster than any other age group. There was a 36% increase among Americans aged 85 and over from 1980 to 1990 (from 2.2 million to 3 million); a 43% increase from 1990 to 2000 (from 3 million to 4.3 million); and a 40% increase is projected from 2000 to 2010 (from 4.3 million to 6 million). Every decade, there is another 40% increase in the number of persons aged 85 and over.

This demographic trend is significant for two reasons. On the positive side the rapid growth of this segment of the population converts this previously uncommon event into an increasingly likely stage of the life cycle. Moreover, the percentage of older adults aged 75 and over who report good health or better is 66%.

Experts believe that today's 70-year-old is more like the 60-year-old in previous generations (Trafford, 2000). Older adults have the same perception about themselves. The National Council on the Aging (2002) together with the Harris National Survey reported that 51% of persons between the ages of 65 and 74 and 33% of persons aged 75 and over perceive themselves as middle aged or younger! This certainly is evidence that many older adults are redefining old age as beginning later in the life cycle.

On the challenging side, for both individuals and society, is that the ability of this age group to function fully is significantly less than the younger old. Whereas only 6% of persons aged 65–69 reported difficulties with at least one activity of daily living task, 35% of persons aged

85 plus had such difficulties. Similarly, only 1% of persons aged 65 were residents of nursing homes, but 22% of persons aged 85 plus were residents. The older old person places more demands on family caregivers and societal resources.

Chronic Conditions and Disability

The leading chronic conditions among those aged 70 plus in 1996 were arthritis (58%), hypertension (45%), hearing impairments (30%), heart disease (21%), cataracts (17%), orthopedic impairments (16%), and diabetes (12%). The prevalence of each condition increases in old age, and many persons over age 80 have multiple chronic conditions and multiple physical impairments.

By age 65, approximately 14% have difficulty performing an activity of daily living (ADL)—like bathing, transferring, dressing, toileting, or eating—or difficulty with walking. And about 21% have difficulty with an instrumental activity of daily living (IADL), like shopping, preparing meals, managing money, light housework, and getting around the community. By age 80 plus, however, the percentage having difficulty with ADLs (28%) and IADLs (40%) is double that of the younger old.

Although chronic conditions increase with age, disability rates for older Americans have been declining. In 1982, the disabled older population in the United States totaled 6.4 million. If the 1982 rate had continued, the number of disabled would have climbed to about 9.3 million in 1999. Instead, it rose to only 7 million—less than one-fourth of the increase that might have been expected. Another way to view this change is that in 1982, 26.2% of those aged 65 and over had a disability that was a substantial limitation in a major life activity; by 1999, this percentage fell to 19.7%.

Centenarians

According to the Guinness World Records (<http://www.guinnessworldrecords.com>), a French woman, Jeanne-Louise Calment, has lived the longest, reaching 122 years before she died in 1997. In 2005, the longest lived person was the Dutch woman Hendrikje van Andel-Schipper, who reached 115 years and attributed her longevity to eating a piece of herring every day.

On June 9, 2005, the world's oldest living married couple had an aggregate age of 205 years. Magda Brown, age 100, attributed her 74-year union to Herbert Brown, age 105, to her taking the lead ("I am the strong one") and his following ("He is the easygoing one"). Apparently, Herbert is more than just easygoing. As a Jewish person, he had to survive the Nazi concentration camp at Dachau.

On December 5, 2004, Johannes Heesters celebrated his 101st birthday. He announced at that time that he had no plans to take what he called "early retirement." This Dutch-born German singer-dancer-actor was still appearing on stage. As he noted: "The stage is my life and I'd have been dead and gone long, long ago if it hadn't been for the audience's applause." Mr. Heesters, however, was not the oldest worker in 2004. Ray Crist, age 104, still worked as a research scientist at Messiah College in Pennsylvania. He had earned his doctorate in chemistry from Columbia University in 1926 and was still putting it to good use.

As centenarians, Anandel-Schipper, the Browns, Heesters, and Crist have a lot of company. There were 71,000 people aged 100 or older in 2005, with the U.S. Census Bureau projecting that figure to be 114,000 in 2010 and 241,000 in 2020. Some census projections forecast as many as 1 million centenarians by the year 2050, when the baby boomers begin reaching age 100.

A *USA Today/ABC News* poll in 2005 reported that only 25% of Americans want to live to be 100 or older. The majority of Americans are concerned that they will become disabled and a burden to their families. And yet many Americans are fascinated by the idea of an increasing number of people becoming centenarians.

The same holds true for scientists as well. One scientist, though, is not content with merely becoming a centenarian. Aubrey de Grey, a controversial practitioner of biogerontology at the University of Cambridge, believes that the first person who will live to be 1,000 might be age 60 already. While this Englishman's ideas are far from the scientific mainstream, he has inspired considerable interest in his theories, having been invited to deliver 33 presentations in the United States in 2005. This interest may have been stimulated in part by his \$20,000 cash prize for anyone who can disprove the scientific basis of his theories, as determined by a review panel of independent molecular biologists. His provocative ideas on increased longevity range from stem cells that can regrow diseased tissue to implanting bacteria to clean up waste that builds up inside cells.

Life Expectancy

The life expectancy of Americans in 2004 was the highest it has ever been, 77.9 years, according to the National Center for Health Statistics. Before breaking out the champagne bottle, though, it should be noted that the United States was still behind 24 countries.

Americans' life expectancy has been rising almost without interruption since 1900, thanks to advances in sanitation, medicine, and health behavior (particularly smoking cessation). It is by no means certain whether these increases in life expectancy will continue unabated. Increases in

TABLE 1.3 Ten Leading Causes of Death in 2004

	No. of deaths
1. Heart disease	654,000
2. Cancer	550,000
3. Stroke	150,000
4. Chronic lower respiratory diseases	123,000
5. Accidents	108,000
6. Diabetes	72,800
7. Alzheimer's disease	65,800
8. Influenza and pneumonia	61,500
9. Kidney disease	42,800
10. Sepsicemia (blood infection)	33,500

obesity, and the related conditions of hypertension and diabetes, may reverse this trend, while the advent of cholesterol-lowering drugs and other advances in medicine may foster it. The future may also be determined by changes in the health behavior patterns of eating, exercising, and abstinence from smoking.

For women, life expectancy in 2004 reached 80.4 years; for men, it reached 75.2 years. The gender differential has been narrowing, with the 5.2-year differential the smallest difference since 1946. Medical experts speculate that women are working harder, smoking more, and undergoing more stress.

Table 1.3 lists the leading causes of death in 2004, with Alzheimer's forging ahead of influenza and pneumonia due to a 1.4% increase in the former and a 7.3% decline in the latter. Deaths from heart disease, cancer, and stroke all declined.

Hospital Stays and Physician Visits

In 1964, the average length of a hospital stay for an older patient was more than 12 days. By 1986, it was reduced to 8.5 days, by 1996 to 6.5 days, and by 1999 to 5 days. Hospital expenses no longer accounted for the largest percentage of health expenditures for older persons, falling slightly behind medical/outpatient costs. Quickening the hospital discharge over the past few decades, however, has led to older adults comprising a higher percentage of hospital stays. Older adults accounted for 20% of hospital stays and used one-third of the days of hospital care in 1970; by 2000 they

accounted for 40% of hospital stays and used almost one-half of the days of hospital care (Hall & Owings, 2002).

In 1998, the average Medicare beneficiary visited or consulted with a physician 13 times during the year (Federal Interagency Forum on Aging-Related Statistics, 2000). It is estimated that older patients occupy almost 50% of the time of health care practitioners, and it is predicted with near certainty that the percentage of time that health care practitioners will spend with older patients will continue to increase.

Medications

In 1995, older adults constituted 12% of the population but consumed 32% of all prescription drugs and 40% of over-the-counter drugs. Adding to the frequency of drug consumption among older adults has been the burden of rising prescription drug expenditures over the past several years. The growth in prescription drug expenditures was double-digit every year from 1994 to 2001. The annual growth expenditure reached an astonishing 19.7% in 1999, though it declined some in 2000 (16.4%) and 2001 (15.7%) as employers raised copayments.

Among persons aged 65 and over, 85% used a prescription drug in 2002, up 11% from 1994. There was an even greater increase of 17% among older adults using three or more prescription drugs during this time period, from 35% to 52%.

By 2001, prescription drugs accounted for 9.9% of all health expenditures due to higher priced new drugs, advertising of prescription drugs on television, and an increase in the number of prescriptions written by physicians. In 2005, prices for brand-name prescription medications rose 6%, while inflation overall was 3.4%. That was the sixth year in a row that medication increases had outpaced inflation.

Health Habits

On the brighter side the health habits of older adults may, on balance, be slightly superior to those of younger adults. People aged 65 and over, for instance, are less likely to smoke, drink alcohol, be obese, or report high stress. They eat more sensibly than do younger adults, are as likely to walk for exercise, and are more likely to check their blood pressure regularly. Older adults over the past decade improved their participation in medical screenings and immunizations, and adults in general increased their seat belt use (D. Nelson et al., 2002).

On the darker side, older adults are more likely to be sedentary and malnourished. Their advantage in being less stressed may be due merely to less awareness of, or willingness to report, stress. They may be smoking less owing to the fact that smokers are more likely to die before age

65. Also, when older adults engage in risk behaviors such as excess alcohol consumption, sedentary behavior, poor nutrition, and lack of seat belt use, their vulnerability to morbidity and mortality is greater.

To put things in perspective, though, few adults in the United States, young or old, live a comprehensive healthy lifestyle. National data reveal that only 3% of the population engages in all four of the following lifestyle choices: nonsmoking, healthy weight, five fruits and vegetables per day, and regular physical activity (Reeves & Rafferty, 2005). Among older adults, one-third do not get any leisure-time physical activity, two-thirds do not eat five servings of fruit and vegetables a day, and one-fifth are 30 pounds or more overweight.

Perceptions of Health

Most people who are elderly tend to view their health positively. Seventy-six percent of the younger old, aged 65–74, rate their health as being good, very good, or excellent. Among those aged 75 and over, 66% report good, very good, or excellent health. This percentage declines to 56% among older adults 65 and over without a high school diploma and to 52% among minorities who are aged 75 and older.

Volunteering and Work

Many older adults are active and productive, choosing to engage in volunteer opportunities and work. In any given year, almost one out of every five older Americans engages in unpaid volunteer work for organizations like churches, schools, or civic organizations. In addition, an unknown additional percentage of older adults do other types of volunteer work, like helping the sick or disabled or helping out with grandchildren.

Surprisingly, those who continue to work after age 65 are *not* less likely to volunteer than those older adults who retire (Caro & Morris, 2001). Researchers believe that the potential for increasing volunteerism among retired older adults is significant and that “in the period immediately after retirement there is a heightened receptivity to volunteerism” (Caro & Morris, 2001, p. 349).

According to the Bureau of Labor Statistics, a growing percentage of older workers are remaining in the workforce (Figure 1.2). After decades of decline, the labor force participation rate for those aged 65 and over leveled off in the mid-1980s and has since been increasing. Those just over the conventional retirement age of 65 have increased even more. A 2002 study by AARP reported that 69% of individuals between the ages of 45 and 74 plan to work in some capacity in their retirement years, primarily due to economic reasons.

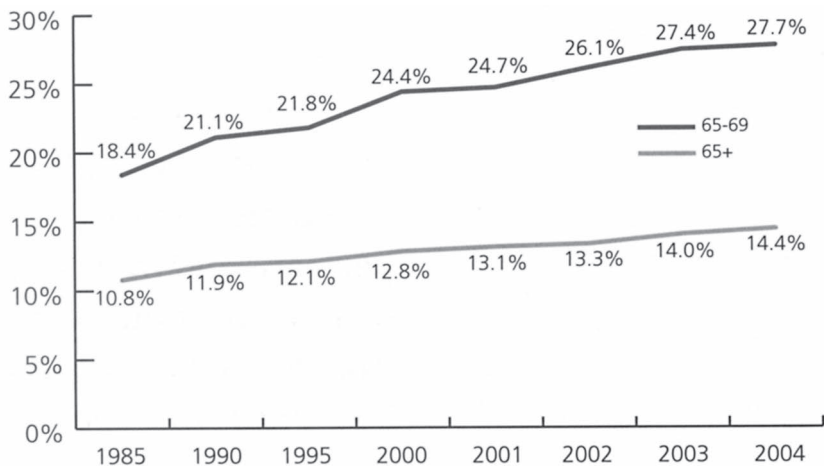


FIGURE 1.2 Labor force participation rates of persons aged 65–69 and 65+, 1985–2004.

Note. From “Employment and Earnings,” U.S. Bureau of Labor Statistics, January 1986, 1991, 1996, 2001–2005.

In addition to having a longer retirement phase to save for, employees are increasingly less likely to enjoy the security of defined benefit programs (i.e., traditional pensions) and instead must rely on defined contribution programs (i.e., do-it-yourself retirement savings plans).

Labor force participation is higher in the United States than in most other countries, such as France, Germany, Italy, Sweden, the United Kingdom, and Canada, although it is considerably lower than the rate in Japan: 36% for men and 16% for women.

Educational Status

Between 1960 and 1989, the median level of education among older adults increased from 8.3 to 12.1 years. The percentage of older adults who completed high school rose from 18% in 1950, to 28% in 1970, to 70% in 2000.

By 2000, the median number of years of education of people who had reached age 65 was equivalent to that of all adults aged 25 and over (almost 13 years). However, the percentage who had completed high school varied considerably by race and ethnic origin among older persons in 2000: 74% of Whites, 63% of Asians and Pacific Islanders, 46% of African Americans, and 37% of Hispanics.

About 16% of older adults in 2000 had a bachelor’s degree or more, up from 4% in 1950. As the formal educational level of older adults

continues to rise, this may well correlate with an increase in their interest in seeking out health information and engaging in health-promoting activities in their communities.

Political Power

The Federal Election Commission reports that older adults are disproportionately likely to vote. Moreover, the percentage of voting elders has increased over the past 20 years. In 1978, older adults generated 19% of all votes cast; in 1986, 21%; and in 1998, 23%. Yet older adults in 1998 constituted only 13% of the population.

Older adults are more likely to demonstrate higher levels of civic engagement, paying more attention to politics and public affairs than younger adults (Binstock & Quadagno, 2001). Voting differences, however, are greater among older adults than between younger and older adults as socioeconomic class, ethnicity, gender, and religion are more important influences on voting patterns.

Internet Access

A national 2004 survey from the Pew Internet and American Life Project reported that the percentage of older adults who accessed the Internet had increased 47% between 2000 and 2004. This increase comes primarily from persons who are in their 60s (54% online) versus those aged 70 and older (28% online). While the online usage of older adults continues to lag behind younger adults, the difference between older boomers and younger adults is not statistically significant. Thus Internet access between younger and older adults will close rapidly in the near future.

Gender differences have disappeared during this time period, with older women as likely to use a computer as older men. Income and education levels, however, still predict differences in computer usage.

Poverty

The poverty rate among older persons has fallen from 35% of those aged 65 and over in 1969 to 10.4% in 2002. Without Social Security and cost-of-living increases, that percentage would have risen to 50% over that time. Thanks to a variety of sources of income, including Social Security (42%), public and private pensions (19%), earnings (18%), asset income (18%), and other sources (3%), poverty for older adults has fallen below the poverty rate for persons aged 18–64.

The declining poverty rate for older adults may be overstated. The U.S. Bureau of the Census assumes that the costs of food and other

necessities are lower for older adults and does not adequately take into account that older adults spend proportionately more on health care than do younger adults. Moreover, there are hidden poor among the older population who reside in nursing homes or who live with relatives and are not counted in the official census statistics (Hooyman & Kiyak, 2005).

The poverty rate was 2–3 times higher for older African Americans and Hispanics than for older Whites and more than twice as high for older women than older men. Combining gender and ethnicity, poverty in 2003 was 10% for older White women but 27.4% for older African American women and 21.4% for older Hispanic women.

Racial and Ethnic Composition

The diversity of the older adult population in America is increasing. Between 1990 and 2030 the increase in population age 65 plus will be 131% among African Americans, 147% among Native Americans, 285% among Asians and Pacific Islanders, and 328% among Hispanic Americans. Non-Hispanic White older Americans, who are now in the majority, will only increase 81%.

Although health professionals will need to become more knowledgeable about the ethnic backgrounds of their older clients, there is great diversity within ethnic groups as well. Age, gender, region, religion, English-speaking skills, income, education, lifestyle, physical disability, marital status, place of birth, and length of residence in the United States are examples of important variables to consider within each ethnic group.

There is also a continuum of acculturation that occurs among elders within each ethnic group. Acculturation is the degree to which individuals incorporate the cultural values, beliefs, language, and skills of the mainstream culture. To avoid stereotyping ethnic groups, there needs to be recognition of the many distinctive ethnic subgroups (Haber, 2005a).

DEFINITIONS OF HEALTHY AGING

Health professionals need to be cautious about defining good health for older adults. This is the message delivered by Faith Fitzgerald, MD, in an editorial in the *New England Journal of Medicine*:

We must beware of developing a zealotry about health, in which we take ourselves too seriously and believe that we know enough to dictate human behavior, penalize people for disagreeing with us, and even deny people charity, empathy, and understanding because they act in a

way of which we disapprove. Perhaps [we need to] debate more openly the definition of health. (Fitzgerald, 1994, pp. 197–198)

The Federal Government

A broad definition of health is provided by the federal government's Public Health Service through its 1990 Health Objectives for the Nation. This definition of health includes the following three components:

1. Disease prevention, which comprises strategies to maintain and to improve health through medical care, such as high blood pressure control and immunization.
2. Health protection, which includes strategies for modifying environmental and social structural health risks, such as toxic agent and radiation control, and accident prevention and injury control.
3. Health promotion, which includes strategies for reducing lifestyle risk factors, such as avoiding smoking and the misuse of alcohol and drugs, and adopting good nutritional habits and a proper and adequate exercise regimen.

Extraordinary Accomplishment

The definition of good health in late life can be reframed substantially by viewing it from the unique perspective of extraordinary accomplishment. At age 99, Mieczyslaw Horszowski, a classical pianist, recorded a new album, and twin sisters Kin Narita and Gin Kanie recorded a hit single in Japan. At age 91, Hulda Crooks climbed Mount Whitney, the highest mountain in the continental United States (Wallechinsky & Wallace, 1993). A 63-year-old climbed one of the Himalayan peaks in 1998, a peak that only the most elite alpinists can ascend (Kinoshita et al., 2000).

At age 61, a California woman named Arceli Keh lied about her age (she said she was 51) in order to become eligible for a fertility program where she was implanted with an embryo from an anonymous donor. In 1996, at age 63, she became the oldest woman on record to have a baby. Her record was surpassed in 2006 when an unnamed 67-year-old Spanish woman, who had become pregnant after she received in-vitro fertilization treatment, gave birth to twins by Cesarean section in a hospital in Barcelona, Spain. Perhaps an even more extraordinary accomplishment in late life will occur when this woman raises her twin teenagers as an 85-year-old mother.

In 2005, in the United States Senate, the average age was over 60 years, the oldest it has ever been. Not surprisingly, the term *senate* derives

from the Latin word for “old.” Golda Meir became prime minister of Israel at age 71.

Kozo Haraguchi ran the 100 m in 22.04 s, setting a record for his 95–99 age group. This 95-year-old Japanese man said he had to run cautiously because the outdoor track was slick with rain. Another runner, Johnny Kelley, won the Boston Marathon twice. Even more remarkable was that he started this annual race 61 times during his lifetime, finishing the 26.2 miles 58 times. Mr. Kelley died in 2004, at the age of 97. Another nonagenarian, though, continued to race in 2004. Fauga Singh moved from India to England and decided to take up running at the age of 82. At the age of 92 he set a world record for his age group by running the Toronto Marathon in 5 hr and 40 min.

At 77, John Glenn completed rigorous physical preparation to become the oldest space traveler in history. At 80, George Burns won his first Oscar. And to end on an ironic note, in 2004, at the age of 91, Red Rountree became the oldest known bank robber in United States history. Currently serving a 12-year term—which is likely a life sentence—in Texas, Red said he robbed banks for fun: “I feel good, awfully good for days after robbing a bank.” After two successful bank robberies, the third time apparently was not the charm. The teller at the third bank, responding to the demand for money, asked the question, “Are you kidding?”

While I marvel at these examples of unusual achievement by aging adults, I do not use them as inspiration for older, or even younger, persons. These models are astonishing, but they do little to enhance the confidence of aging adults who do not believe they can—and oftentimes do not want to—come close to similar achievement.

As Betty Friedan (1993) noted in her book *The Fountain of Age*, older adults “attempt to hold on to, or judge oneself by, youthful parameters of love, work and power. For this is what blinds us to the new strengths and possibilities emerging in ourselves.”

Prevention

Prevention is often categorized as primary, secondary, or tertiary (Figure 1.3). Primary prevention focuses on an asymptomatic individual in whom potential risk factors have been identified and targeted. Primary preventive measures, such as regular exercise, good nutrition, smoking cessation, or immunizations, are recommended to decrease the probability of the onset of specific diseases or dysfunction. Primary prevention is different than the term *health promotion* in that it is less widely ranging in scope and tends to be used by clinicians in a medical setting.

Secondary prevention is practiced when an individual is asymptomatic but actual (rather than potential) risk factors have been identified at

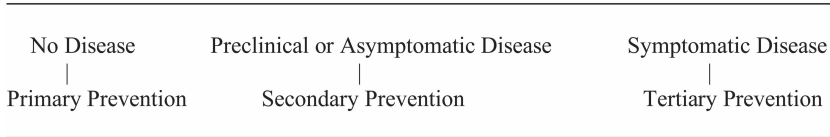


FIGURE 1.3 Three levels of prevention.

a time when the underlying disease is not clinically apparent. A medical screening as an example of secondary prevention is only cost-effective when there is hope of lessening the severity or shortening the duration of a pathological process. Blood pressure screenings, cholesterol screenings, and bone densitometry are the most widely implemented forms of secondary prevention.

Tertiary prevention, which takes place after a disease or disability becomes symptomatic, focuses on the rehabilitation or maintenance of function. Health professionals attempt to restore or maintain the maximum level of functioning possible, within the constraints of a medical problem, to prevent further disability and dependency on others.

Tertiary prevention corresponds to phase 2 (rehabilitation of outpatients) and phase 3 (long-term maintenance) of the cardiac rehabilitation of a cardiac patient (phase 1 is the care of a hospitalized cardiac patient). A study of 10 randomized clinical trials involving more than 4,000 patients who had myocardial infarctions revealed that patients who completed a program of tertiary prevention reduced their likelihood of cardiovascular mortality by 25% (Oldridge et al., 1988).

A focus on prevention may be more appealing to some older adults than an emphasis on health promotion. Older adults are likely to be coping with chronic conditions, and the prevention, delay, or reduction of disability and dependency is a much more salient issue for them than it is for most younger adults.

Moreover, among medical professionals, the relevancy of the term *prevention* is enhanced because several prevention activities, like mammograms, are reimbursable through Medicare. Prevention has gotten its foot in the door, so to speak, in the system of health care reimbursement, whereas the activities of health promotion have not.

One advantage of the use of the term *health promotion*, however, is that it encompasses mental and spiritual health concerns. Instead of clients and health professionals becoming fixated on risk factors and the prevention of disease or disability, health promotion or wellness can be viewed as an affirming, even joyful, process. As health professionals who promote health, for instance, we can encourage playing with grandchildren or the joy of bird watching to an older client and not concern ourselves with its ability to prevent disease or illness.

Health promotion is also a more proactive term than *primary prevention*, which tends to imply a reaction to the prospect of disease. Directing a client's anger or frustration into political advocacy work, for example, is a proactive, health-promoting enterprise that benefits both the individual and society.

In one (admittedly dated) health study, however, in-depth interviews with older adults who declined to participate in a health promotion study reported that they were less familiar and comfortable with the term *health promotion* than were those who eventually participated (Wagner et al., 1991). The research topic of assessing older adults' attitudes toward different health terms remains largely unexamined, and this ignorance can reduce our effectiveness as health educators.

Wellness

Although the term *wellness* has had many supporters in the health professions over the past 25 years (Jonas, 2000), particularly among persons who conduct health programs at large U.S. corporations (Jacob, 2002), it tends to be embraced less than the terms *health promotion* and *disease prevention*. Nonetheless, wellness conveys an important message—that good health is more than physical well-being. In fact, seven dimensions are usually touted among wellness advocates, as shown in Table 1.4.

Wellness is a welcome and important reminder about the breadth of health promotion that is missing from most other terms. The only limitation to the term *wellness* is that it tends to be identified with the more alternative activities—acupuncture, homeopathy, spiritual healing, aroma therapy—to the exclusion of more mainstream activities, like exercise and nutrition. Thus it conveys flakiness to some.

Anti-old and Anti-aging

Who is healthier: an old person or an older person? Is this a preposterous question? Maybe not. Do the terms *old* and *older* reflect our prejudices? One of the leaders in the field of gerontological language, Erdman Palmore, thinks so. Palmore suggests that most of the synonyms for old are unhealthy in some way, words like *debilitated*, *infirm*, and *frail*. An older person, on the other hand, is a more neutral term; and perhaps the term *elder* connotes an even healthier role for older persons in society (Palmore, 2000).

And yet I am reminded of a conversation I once had with Maggie Kuhn, the founder of the advocacy organization the Gray Panthers. She reported on an exchange that she had with President Ford at a hearing

TABLE 1.4 Seven Dimensions of Wellness

Dimension	Attainment
Physical	Exercise, eat a well-balanced diet, get enough sleep, protect yourself.
Emotional	Express a wide range of feelings, acknowledge stress, channel positive energy.
Intellectual	Embrace lifelong learning, discover new skills and interests.
Vocational	Do something you love, balance work with leisure time.
Social	Laugh often, spend time with friends and family, join a club, respect cultural differences.
Environmental	Recycle daily, use energy-efficient products, walk or bike, grow a garden.
Spiritual	Seek meaning and purpose, take time to reflect, connect with the universe.

she attended on a pension bill in Washington, DC. After gaining President Ford's attention, he asked her, "And what do you have to say *young lady*?" Maggie replied, "First of all, I'm not a young lady. I'm an *old woman*." She was making the statement that she was proud of being old and had earned that label.

A related concern is the anti-aging movement and its chief proponent, the American Academy of Anti-Aging Medicine. This professional society is "pursuing the fountain of youth with their lucrative nostrums and illusory interventions, (while) we geriatricians remain solidly in the trenches caring for our patients, the most aged, complex, frail, and vulnerable—far removed from the fantasies of eternal life, much less the fountain of youth" (Hazzard, 2005, p. 1435).

Most proponents of the anti-aging movement are focused not on the most aged, but on the middle-aged and the young-old, those most concerned about combating the signs of aging. One key weapon in their arsenal is the *cosmeceutical*, which combines the terms *cosmetic* and *pharmaceutical* and refers to a topical skin treatment formulated to eliminate the wrinkles and signs of aging (Bayer, 2005). If the cosmeceutical intervention proves insufficient, there are Botox injections, microderm-abrasions, chemical peels, collagen injections, and plastic surgeries. Anti-agers deliver a strong message that aging is a disease that needs to be cured—at least cosmetically and temporarily.

I think, however, that we need a pro-aging movement, one that emphasizes the healthy aspects of aging. No longer needing to impress employers, in-laws, or peers, older adults are free to be themselves. The old not only have an opportunity to be freer, but wiser, more conscious of the present, and more willing to be an advocate for a healthy future. Maggie Kuhn certainly lived a pro-aging lifestyle.

Compression of Morbidity

According to Fries and Crapo (1986),

although there is little hope for cure of chronic diseases through the traditional medical model, the onset of these diseases may be postponed through modification of risk factors, many of which are possible to control, either personally or socially. As the onset is delayed to older ages and approaches the limit of the human life span, we can envision a society where everyone can expect to live in vigorous health to close to the average life span and then die after a brief period of illness. (p. 37)

In other words, we have the potential for spending a longer time living and a shorter time dying.

For most people, though, the prospect of living a long time past one's 65th birthday is bittersweet. As Americans live longer today than ever before, we have a greater fear of a prolonged period of disability and dependency in late life.

One definition of healthy aging, then, is to be able to live life fully until death. According to one national study, though, only 14% of those who have died after age 64 were fully functional in the last year of their lives (Lentzner et al., 1992). Unfortunately, the study did not identify the number of older adults who, despite the fact that they were not fully functional in the last year of life, lived vital and fulfilling lives during that year.

Most of us are greatly concerned with the probability of being severely restricted for a long period in late life. The evidence is not encouraging in this regard in that the longer we live, the more likely we are to endure a prolonged period of disability prior to our deaths. Death after age 85 is almost 4 times more likely to follow a period of profound physical impairment than is death between the ages of 65 and 74 (Lentzner et al., 1992).

Examining the length of the dependency period prior to death, at age 65 we have about 17 years left to live, with 6.5 of those years in a dependent state (38% of our remaining years). Also, less than 6% are receiving help in the basic activities of daily living between the ages of 65 and 74. In contrast, at age 85 we have an average of 7 years left to live, with 4.4 years in a dependent state (63% of our remaining years). At age 85, more than one in four are receiving help in the basic activities of daily living (Guralnik, 1991).

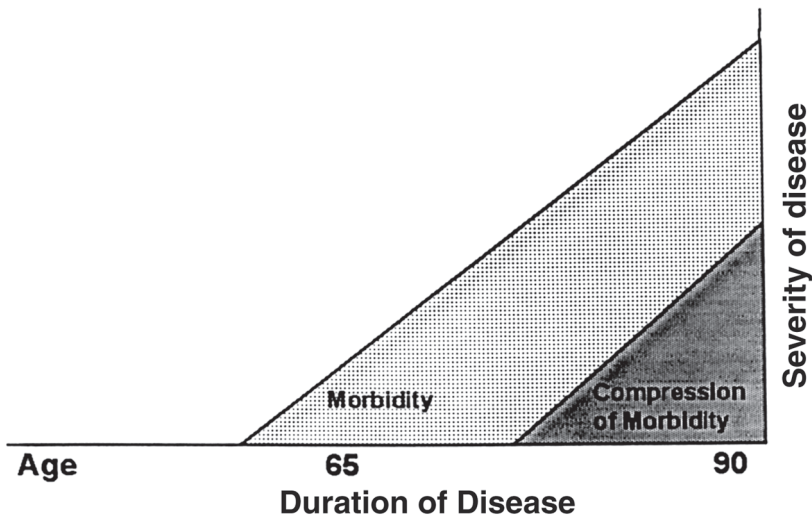


FIGURE 1.4 Compression of morbidity.

Pessimists argue that the period of morbidity preceding death will increase in the future due to (a) limited biomedical research funds available to improve the physical and mental capacity of the very old; (b) the fact that some major diseases, such as Alzheimer's, do not have recognized lifestyle risk factors that we can modify; and (c) medical advances, such as dialysis and bypass surgery, that will increase the life expectancy of individuals with disease rather than prevent the occurrence of disease.

Optimists, on the other hand, argue that there will be a *compression of morbidity* (see Figure 1.4) in the future due to (a) probable advances in biomedical research that will prevent or delay the occurrence of disease and (b) the continued potential for reducing risk factors such as smoking, blood pressure level, poor nutritional habits, and sedentary lifestyles that will result in better health.

At the same time that the general population will be able to delay the onset of chronic disease due to these factors, the life *span* (the maximum number of years of the species) is fixed. Thus, argue the compressionists, we will not only delay morbidity, but we will also shorten it.

Studies by Manton and colleagues (Connolly, 2001; Kolata, 1996; [Manton et al., 1998; Manton et al., 1993] analyzed data from the 1982–1999 National Long Term Care Surveys, a federal study that regularly surveys almost 20,000 people aged 65 and older. The researchers arrived at the unexpected conclusion that the percentage

of chronically disabled older persons—impairments for 3 months or longer that impede daily activities—has been slowly falling. Whereas 25% of people over age 65 reported chronic disability in 1982, only 21% reported this to be the case in 1994 (Manton et al., 1997). Also surprising was the increasing percentage during this time period of those over age 65 reporting no disabilities.

These unexpected findings still need further examination, especially as to whether they are linked more to initiatives in health promotion and disease prevention, such as improvements in diet, exercise, nonsmoking, and other lifestyle factors; or to medical access and advances, such as treatment for arthritis and cataracts; or to increased use of devices, such as canes, walkers, walk-in showers, support rails, and handicapped accessible facilities; or to societal improvements, such as an increase in educational and income levels.

HEALTH PERSPECTIVES AND AGING

Health Expectancy Versus Life Expectancy

Those who live to the age of 65 are likely to live into their 80s. Of the remaining average of 17 years to live after age 65, 12 are likely to be healthy and 5 will be years in which there is some functional impairment (NCHS, 1990b).

Place yourself in the shoes of the person who has just reached age 65. Are you primarily interested in extending your life for more than the 17 years you are likely to live, or are you most interested in how many of your remaining years will be healthy and independent ones?

Your health expectancy, or the number of healthy years you can expect to have left, depends to a great extent on your physical activity, nutritional intake, social support network, access to good medical care, health education, and health services. Health expectancy is more important to older adults than life expectancy (see Table 1.5).

TABLE 1.5 Healthy People 2000: Goal to Increase Years of Healthy Life Remaining at Age 65 to 14 Was Not Met

Year	Healthy life remaining
1990	11.8 years of healthy life remaining at age 65
2000	12.2 years of healthy life remaining at age 65

Physical Versus Emotional Aspects of Aging

There is a strong reciprocal relationship between the physical and emotional aspects of health. When our physical health is threatened, so typically is our emotional health. The converse is equally true.

As we age, however, it may be the case that good health is less dependent on physical status than on emotional status. One study reported on shifting perspectives of health over time, with older participants expecting physical health problems because of their age and discounting them somewhat because of this expectation (Keller et al., 1989). A study of 85-year-olds living in the Netherlands reported that physical function was not the most important component of successful aging. These older adults were able to adapt successfully to physical limitations. The researchers reported social contacts as the most important factor in well-being, and the quality of the contacts was more important than the number (Von Faber et al., 2001).

Another study of 32 elderly Catholic nuns generated, through open-ended interviews, more than 100 characteristics of health that were important to older adults besides physical health, including the ability to enjoy life and good personal relationships (Huck & Armer, 1995). An examination of multiple studies on declining physical health with age reported that many older adults who are frail and sometimes disabled did *not* evaluate their health or lives negatively (Pinquart, 2001).

Most health professionals subscribe to the notion that health is more than the absence of illness. Were this not the case, they would have to label the vast majority of older adults, 90% of whom are coping with a chronic condition, unhealthy. The chronic diseases that older persons contend with do not necessarily relate to their ability to perform daily activities. Disease, in fact, may not be evident even to the person who has it.

The presence or absence of disease may therefore not be a source of great concern to older adults. The ability to perform activities of daily living, however, *is* of great concern to older adults, who desire as much independence as possible (Duffy & MacDonald, 1990). The definition of health, especially among older adults, should not be linked with disease or its absence, as the medical model suggests, but with independence, the ability to accomplish one's goals, and the existence of satisfying relationships.

A health perspective that emphasizes the psychological status of older adults does not view health as a continuum ranging from physical disability and illness at one end, with a neutral point in the middle, where there is no discernible illness or wellness, to a high level of wellness at the other (Kemper et al., 1987; Sarafino, 1990). Critics of this type of health continuum argue that even a person who is functionally impaired or disabled and residing at one end of the alleged continuum can focus

considerable attention on a high level of wellness, devoting energy to health awareness, health education, and psychological growth.

Finally, health professionals need to walk a fine line with older clients. On the one hand they have been accused of ignoring the medical needs of older adults by discounting the viability of certain medical interventions due to age (Ebrahim, 2002). In fact, older patients can benefit as much from surgical interventions in their 80s as do younger patients (Varghese & Norman, 2004). On the other hand, health professionals can unduly focus on the reimbursable medical needs of older clients and neglect the alleviation of the emotional deterioration that often accompanies chronic illness.

HEALTH CARE

Medicare

Medicare was enacted in 1965 to help persons aged 65 or older pay for medical care. In 2003, Medicare covered 41 million older adults and more than 5 million younger persons who were disabled. Medicare is a major payer in the U.S. health care system, spending \$309 billion in 2004, with projections to \$670 billion in 2015. Ironically, despite the substantial reimbursements that older adults receive through the Medicare program, older Americans spend more money out of pocket now, controlled for inflation, than they did prior to the inauguration of Medicare.

Medicare Part A is referred to as hospital insurance, and most people do not have to pay a monthly premium because they are eligible through the Medicare taxes they paid while they were working. Part A includes hospital care (\$952 deductible in 2006), inpatient psychiatric care (190-day lifetime maximum), skilled nursing facility care (100 days), rehabilitation or home care following a hospitalization, and hospice care for the terminally ill. There are restrictions on what kind of conditions are covered and the length of coverage, and copayments apply as well.

Part B is referred to as medical insurance and covers physician services, outpatient hospital care, and other medical services, such as physical and occupational therapy and some home health care. Part B requires an \$88.50 per month premium (in 2006) and generally pays 80% of physician and outpatient services after an annual \$124 deductible. Part B includes some medical screenings and clinical laboratory tests but does not cover dental services, hearing aids, eyeglasses, and most long-term care services. Chronic conditions are, for the most part, not covered by Medicare, and prevention coverage is limited primarily to medical screenings and immunizations.

In 2007 Medicare shifted, for the first time, to means-based testing for Part B premiums. Individuals earning less than \$80,000 saw their premiums increased to \$93.50 a month. Individuals earning over \$80,000 (\$160,000 for married couples) paid a surcharge ranging from \$12.50 to \$68.80 a month, depending on income level. This type of income indexing is expected to increase in subsequent years, and beneficiaries with high incomes may pay at least 3 times the amount of the basic premium.

Part C refers to private health insurance plans that provide Medicare benefits. Part D refers to the Medicare prescription drug plan which went into effect on January 1, 2006. This part is also administered by private health insurance companies. The privatization of Medicare and Social Security will be examined in chapter 14 on public health.

A little over one-fourth of the federal outlay for older adults is for Medicare, and these expenditures have been rising (and continue to rise) rapidly. Between 1960 (5 years before the onset of Medicare) and 1990, the proportion of the federal budget spent on programs serving older adults had doubled, from 15% to 30% of the federal budget. Much of this increase occurred between 1975 and 1988, when personal health care expenditures under Medicare increased an average 14.4% per year, more than twice the rate of inflation. Stated in absolute dollars, Medicare spending increased from \$7.5 billion in 1970 to \$114 billion in 1991.

Although the growth in Medicare spending has slowed since then, it is still dramatic. Medicare spending more than doubled between 1991 and 2001 (from \$114 billion to \$238 billion) and is expected by the non-partisan Congressional Budget Office to more than double over the next decade under existing laws.

It is not surprising therefore that even though the single largest component of out-of-pocket costs for older adults is nursing home care, the federal government has resisted overtures to include substantial long-term care coverage under Medicare. Even without the additional expense of long-term care, Medicare is projected to become insolvent by 2019. This insolvency date may be reached sooner, after the costs of the Medicare prescription drug program and additional payments to private health plans become clearer.

The Centers for Medicare and Medicaid Services (formerly the Health Care Financing Administration) oversees all financial and regulatory aspects of the Medicare and Medicaid systems. For additional information, call 800-MEDICARE (800-633-4227) or go to the Medicare Web site (<http://www.medicare.gov>).

Medicaid

Medicaid is different than Medicare in that it is not focused primarily on older adults; it is state, not federally, managed; and it is funded jointly by

the states and the federal government, not just by the federal government. The most significant difference is that Medicaid is the largest source of funding for medical and health-related services for people with limited income, that is, what used to be referred to as a welfare program, in comparison to Medicare, which is partially financed by users through payroll taxes.

Because it is state run, Medicaid policies for eligibility, services, and payment vary considerably. One aspect of Medicaid that has not varied much, regardless of state, is that its costs have increased steadily throughout the country so that in 2004, it constituted, on average, one-quarter of each state's budget. Medicaid spending totaled \$293 billion in 2004 and was projected to grow to \$670 billion in 2015.

Moreover, Medicaid pays for nearly 60% of the costs of nursing home residents, most of whom are older adults, and it is for all practical purposes (6% of Americans have long-term care insurance) the only insurance plan for institutional long-term care. Medicaid is based on the premise that individuals pay out of pocket until they impoverish themselves to the point where they become eligible for coverage. Also, it is not legal for an older person to give away money from a bank account to relatives in order to qualify for assistance with long-term care expenses.

Societal Health Care Costs

In a democratic society, there is stiff competition for societal resources that are taxpayer subsidized. Health care (typically referring to medical care only), however, has consistently maintained its status in this country as a very high priority for these limited resources. Spending for national health care grew from 5% of the gross national product in 1960 to 16% in 2004. This represents an increase from \$27 billion in 1960 to \$1.9 trillion in 2004. (As an aside, I would like to note that on more than one occasion I have seen *trillion* mistakenly replaced by *billion* in the health care expenditure literature. I think this occurs because it is difficult to comprehend the definition of *trillion*. Even *Merriam-Webster's Collegiate Dictionary*, 10th edition has trouble with it, referring to *trillion* as "a very large number.")

The United States spends a higher percentage of its gross domestic product (GDP), 16%, on health care than does any other country. In 2004, health accounted for 10.9% of the GDP in Switzerland, 10.7% in Germany, 9.7% in Canada, and 9.5% in France. The disparity with U.S. expenditures would be even greater were we to find a way to include the 45 million younger Americans who lack access to the health care system through insurance coverage and were we able to increase the coverage of an additional 50 plus million persons who have inadequate insurance.

By all accounts we spend the most on health care compared to any other country, yet it does not necessarily mean we have the best health care. *Best* can be defined in any number of ways, including access to medical care by all citizens and a priority on disease prevention and health promotion over costly specialized medical procedures.

The World Health Organization made its first attempt to measure quality health care in its World Health Report, published in June 2000. The rankings were controversial, and clearly the reader needs to take the U.S. ranking (37th) with the proverbial grain of salt. Nonetheless, it is sobering to note that U.S. health care expenditures were more than double per capita those of Japan in 1999, yet Japanese citizens were expected to live 74.5 years of *healthy* life and U.S. citizens only 70 (Crossette, 2000).

Another international study of health care quality was conducted in 2006, and the United States ranked last when compared to Australia, Canada, Germany, New Zealand, and the United Kingdom. The per capita health expenditures of these five countries ranged from 33% to 53% of the United States, yet on 51 indicators—including such health promotion measures as use of mammograms, flu shots, medication reviews, and diet and exercise advice—the United States ranked last or tied for last in 27 (Monaghan, 2006).

Health Care Versus Medical Care

It is estimated that 60% of early deaths in the United States are due to behavioral, social, and environmental circumstances, versus 10% due to shortfalls in medical care (with genetic predisposition constituting the remainder; McGinnis et al., 2002). Paradoxically, however, the behavioral, social, and environmental components of health care have not constituted a high priority for the health care dollar. In fact, only about 3% of the nation's health care costs were spent on health-promoting and disease-preventing activities.

Most of that 3% goes either to the physician's office or other clinical settings for preventive measures, such as medical screenings and vaccinations (about 35%), or to health protection in the physical environment, such as toxic agent and radiation control (about 30%; *American Medical News*, 1992a). And only a portion of the remainder is spent on changing unhealthy behaviors.

Although there has been undeniable financial neglect at the federal level for decreasing unhealthy lifestyles among the American people, increasing public attention has been focused on this problem area ever since the publication of the landmark document *Healthy People: The Surgeon General's Report on Health Promotion and Disease Prevention*

(USDHHS, 1979). This report provided considerable credence for the idea that major gains in health and independence in the future are likely to come from personal lifestyle changes.

Dr. John Rowe, director of the MacArthur Foundation's Consortium on Successful Aging, also concluded that our vigor and health in old age is mostly a matter of managing how we live (Brody, 1996). Supporting this contention is a widely cited article in the *Journal of the American Medical Association* (McGinnis & Foege, 1993) which suggested that we should no longer view death as being due to heart disease, cancer, stroke, and chronic obstructive pulmonary disease, but rather to tobacco, inactivity, diet, alcohol, microbial and toxic agents, sexual behavior, motor vehicles, and illicit or inappropriate use of drugs.

A HEALTH PROMOTION AND AGING MODEL

Practitioners in the community or clinic who want to promote the health of older clients are limited by time, resources, reimbursement, and training. Although these issues are addressed elsewhere in this book, a succinct conceptual framework for promoting the health of older adults is not. The main components of a model of health promotion and aging might be useful for the training of health professionals (Haber, 1992a, 1993b, 1996, 2001b; Haber & Lacy, 1993; Haber et al., 1997, 2000) and are presented next.

The Aging Component

I criticized the Healthy People 2010 leading health indicators because they were not age-specific. And yet I must confess that the content of this book, *Health Promotion and Aging*, frequently lacks specificity when it comes to aging. Younger and older age segments of the second half of life have little in common. Yet each end of this age continuum is becoming increasingly important to practitioners, educators, and policy makers in the coming years.

The young-old are in their 50s and 60s, people who in all likelihood are not enthusiastic about an oxymoronic label that includes the dreaded term *old*. As the young-old become synonymous with the baby boomers, though, they may have a new name to adjust to: the gerontology boomers. The cutting edge of the baby boomers turned 62 years of age on January 1, 2008, with another boomer being added to the ranks every 8 s. And just as the baby boomers were hard to ignore as they disrupted health care and educational institutions, and later as Vietnam War protesters, they will be hard to ignore as gerontology boomers, adults who are eligible for AARP.

Boomers are not old in the sense of physical vitality, mental acuity, or occupational productivity. But none have escaped diminished hearing and vision; few have overlooked the fact that more of their life is behind them than ahead; and many have given considerable thought to their retirement years.

It is during these years that the incidence of major chronic conditions such as arthritis, hypertension, and obesity rises significantly. At the same time, more than 4 million Americans between the ages of 50 and 64 are without health insurance. These persons are too young for Medicare, not poor enough for Medicaid, and not very well protected by the Age Discrimination in Employment Act.

Given the substantial number of years remaining to persons in this age group, and the potential to defer or prevent chronic impairments, it is imperative that a health promotion and aging model follow the lead of AARP and begin to target the gerontology boomers.

The *old-old* are persons age 85 and above (for an interesting essay on the “dwindling years,” see Sandock, 2000). Probably half of them are physically frail, mentally diminished, or societally disengaged. These older adults have a challenging and diverse set of problems to solve in order to remain independent. At the same time, their problems are likely to be costly to resolve and bedeviling to solve for future cohorts of politicians.

In this era of needing to reduce the federal debt, how do you provide government subsidy for costly interventions such as home care support that is preferred by most old-old, programs to strengthen muscles that are in danger of becoming too weak to maintain independence, or prescription medications that are costly but vital for maximizing functional ability? When the prescription medication reimbursement program was added to Medicare in 2006, it was accomplished only by adding to the federal debt. While intergenerational rivalry is currently more of a theory than a reality, our children and grandchildren may some day come to resent this type of financial profligacy.

On the bright side, some of the nonagenarians have taken up pumping iron for the first time. And the potential to strengthen the old-old, to keep them independent in a home setting, to engage them in society, has never been more promising. This potential for improvement continues through the dying process, when the ability to die in comfort with family and friends visiting in a home environment is also, thanks to the hospice movement, more probable as well.

The Health Component

Communication and Collaboration

Two fundamental assertions within this health promotion and aging model are that it is better for older adults to collaborate with health

professionals than to take a passive, compliant, or—equally likely—non-compliant role, and it is also better to collaborate than to engage in health-promoting activities on one's own.

These assertions are based on two facts: (a) that most older adults have medical conditions that require professional supervision, and health-promoting activities can affect these medical conditions; and (b) that health professionals who keep up with the health promotion field can make vital contributions to the health-promoting efforts of older adults.

Effective communication between clients and health professionals is an essential component of collaboration and can lead to better results and more satisfied clients and health professionals.

Health Education

Health education has advanced considerably beyond the idea that mere knowledge inspires change. First, given the plethora of information that pours out of the media, bookstores, libraries, and mouths of experts, it is difficult for individuals to sort out accurate, up-to-date information that is pertinent to their particular health needs.

Second, older adults learn best in andragogical (adult-oriented learning) situations, in which new ideas are presented through collaborative relationships, and in small participative groups, where they have control over the learning and maintenance processes.

Third, education by itself is typically insufficient to inspire behavior change. It is far more effective to add behavior and psychological management techniques to the transmission of knowledge as well as to infuse the educational process with social support.

Health Behavior Change

Assessments help determine where best to focus one's limited time, energy, and resources for health behavior change. Crucial to this process is selecting the area that the individual (or the focus can be on the collective—ranging from group, to state, to nation) is most ready to change. It is the rare or mythical person who is attentive to every periodic medical screening and who strives constantly to improve every aspect of a healthy lifestyle. It is more realistic to set a priority or a set of priorities and devote energy and time to it or them.

Assessments lead to interventions, and interventions should focus on goals that are modest and measurable in order to increase the likelihood of success. Attention must also be paid to the important components of the intervention, such as building and maintaining motivation; establishing the new behavior as a habit; garnering social support; setting the

health goal for a short period of time on the way to more ambitious, longer term goals; and problem solving around the barriers that have prevented success in the past and might be anticipated to arise in the future.

Social cognitive theory underlies health behavior assessments and interventions and suggests social, behavioral, and psychological management techniques for health behavior change. Regarding social support, the most likely sources come from family members, friends, neighbors, and peers. Peer support can be found in community health education programs, intervention programs, and mutual help groups. The medical profession is also a potential source of social support, but because it tends to slight behavioral, psychological, and social interventions, it is underutilized.

Regarding behavioral techniques, common strategies include health contracting, self-monitoring, stimulus control, and response substitution. Widespread psychological techniques include stress management and cognitive restructuring.

It is important for health professionals to learn multiple social, behavioral, and psychological techniques in order to address the unique and multifaceted needs of older adults.

Community Health

Health professionals have limited time, knowledge, and skills with which to help their older clients change health behaviors. It is therefore vital that older adults be as informed as possible about the community health options that are available to them. These options are proliferating at a variety of community sites, such as religious institutions, community centers, shopping malls, government agencies, professional associations, and nonprofit agencies.

Health professionals need to visit these sites as well as get feedback from clients who visit them in order to make more effective referrals.

Diversity

Unique problems emerge from diversity: (a) Asian American elders who become the first generation of their ethnicity to be placed in American nursing homes by their baby boomer children; (b) older women who have inadequate retirement incomes because they spent many years in unpaid caregiving roles; (c) rural elders who do not have access to nearby hospitals or health professionals. What do we gain by focusing on the diversity of aging within America as well as from the study of global aging? At minimum, we gain more sensitivity to the disparate ways we

age. At best, we discover innovative strategies for improving the quality of life as we age.

Advocacy

Until utopia comes to America, the health care system will never meet all the health needs of all the people all the time. In recent years, in fact, health care inflation has started to soar again, forcing policy makers and medical administrators to make tough decisions about further limiting the availability of health professionals and other health care resources.

The health care system can be continually improved, however, and oftentimes through advocacy. By dramatizing their particular plight to community leaders, media representatives, and state and federal legislators, older adults can be effective change agents in ways that health professionals cannot. When health professionals mobilize their clients to political or community action, they may not only help to bring about a more responsive health care system for their clients, but also for themselves. Health professionals can also advocate for change by joining professional organizations and advocacy groups, reaching out to Congress, writing articles, and appearing in the media.

QUESTIONS FOR DISCUSSION

1. Must health promotion and disease prevention *save medical dollars* in order to inspire financial support for such activities from our federal and state governments and through private insurance reimbursement? Present a brief argument supporting a positive response, and then a negative response.
2. Are you in favor of the federal government monitoring goals for healthy aging? If so, how would you improve federal intervention? If not, why?
3. Will age 65 remain the de facto definition of old age? If yes, why? If not, what will replace it, and will there be multiple chronological markers for old age?
4. Americans value individual responsibility. Should we as individuals bear full responsibility for our health-promoting activities? Why?
5. Many people aged 75 and over perceive themselves as middle-aged. What do you think about this phenomenon? Explain.
6. Does an increase in chronic conditions mean a comparable increase in disability? Why?
7. What is *your* definition of healthy aging?

8. Are you optimistic or pessimistic about the occurrence of a compression of morbidity? Explain your reasoning.
9. Do you think we should replace the academic focus on life expectancy with a focus on health expectancy? Why?
10. Why do we call medical care *health care*?
11. What are two or three of the most important changes that are needed to convert our medical care system into a health care system? How do we make these changes?
12. What do you think is the most important health objective that should be set for older adults for the Healthy People 2020 initiative, and what should federal and state governments do to help?
13. What can both health professionals and laypersons in your community do to help achieve the objective you set in the previous question?
14. If you were writing a book on aging and health promotion, which age range would you cover: 50 plus, 65 plus, 80 plus, all ages, or something else? Justify your answer.
15. Describe one way that you could improve on the health promotion and aging model.
16. Examine one other topic in this chapter that you found interesting and has not been explored when answering the previous questions. Why did you find this interesting?