# HEALTH PROMOTION PLANNING

# An Educational and Environmental Approach

SECOND EDITION

Lawrence W. Green Marshall W. Kreuter

# HEALTH PROMOTION PLANNING

## An Educational and

# **Environmental Approach**

### SECOND EDITION

### Lawrence W. Green

Institute of Health Promotion Research University of British Columbia

### Marshall W. Kreuter

Health 2000

With the assistance of staff of

The Center for Health Promotion Research and Development University of Texas Health Science Center at Houston

Center for Chronic Disease Prevention and Health Promotion Centers for Disease Control, Public Health Service U.S. Department of Health and Human Services

and

The Henry J. Kaiser Family Foundation



### MAYFIELD PUBLISHING COMPANY

MOUNTAIN VIEW

TORONTO

LONDON

#### For Judith M. Ottoson and Martha F. Katz

Copyright © 1991 by Mayfield Publishing Company

All rights reserved. No portion of this book may be reproduced in any form or by any means without written permission of the publisher.

Library of Congress Cataloging-in-Publication Data

Green, Lawrence W.

Health promotion planning: an educational and environmental approach / Lawrence W. Green and Marshall W. Kreuter; with the assistance of staff of The Center for Health Promotion Research and Development, University of Texas Health Science Center at Houston, Center for Chronic Disease Control and Health Promotion, Centers for Disease Control, Public Health Service, U.S. Department of Health and Human Services, and The Henry J. Kaiser Family Foundation. — 2nd ed.

p. cm

Includes bibliographical references and index.

ISBN 0-87484-779-6

1. Health promotion—United States. 2. Health education—United States—Planning. I. Kreuter, Marshall W. II. Title.

RA427.8.G74 1991

613'.0973 - dc20

90-20500 CIP

Manufactured in the United States of America

Mayfield Publishing Company 1240 Villa Street Mountain View, CA 94041

Sponsoring Editor, James Bull; manuscript editor, Yvonne Howell; text designer, Diane Beasley. The text was set in 10/12 Times Roman by Harrison Typesetting, Inc., and printed on 50# Glatfelter Spring Forge by Thomson-Shore.

# **Preface**

This book and the previous edition, which was called *Health Education Planning: A Diagnostic Approach*, have been written to provide a conceptual synthesis of the roots and foundations of health education and, more recently, health promotion following a period of rapid growth and development. Before 1980, the field of action represented by health education and health promotion lacked a clear articulation of its boundaries, its methods and procedures, and the distinctions between health education and health promotion. The philosophy, intellectual roots, and systematic descriptions of health education subspecialities were well represented in textbooks, and the research foundation was growing in every direction. We proposed a single framework on which disparate new research findings could be hung, a heuristic for theorists and planners, and a practical teaching and learning tool for practitioners, professors, and students trying to make sense of the field.

For most of this century, health promotion has been relegated to the status of a philosophical ideal, subsumed under the World Health Organization's definition of health. It was seldom translated into policy – and then most often only within the confines of health education and fitness programs. In 1974, the LaLonde report, A New Perspective on the Health of Canadians, put the term "health promotion" on a new footing by using it with policy backing for the first time. In 1975, Public Law 94-317 gave policy support to health promotion in the United States with the Health Information and Health Promotion Act and the creation of the federal Office of Disease Prevention and Health Promotion. Since then, a wide range of government and private-sector initiatives to support a more healthful lifestyle for whole communities, and even societies, have been implemented. Major clean air initiatives and a host of local ordinances have been passed to control smoking in public places. Consumer organizations and self-help groups advocate healthful living conditions and resources to increase personal control over the factors influencing health. Increased cooperation between levels of government and between health agencies and other sectors has produced new health promotion opportunities and activities, notably in schools and worksites, but also in whole communities, states, and nations where coalitions have taken hold. Media have given increased attention to health issues, and initiatives to demand greater equity and social justice in access to health resources have been passed. However, some social equity has been lost, as well.

In the tumult of these times, when health promotion engages behavioral and social scientists, epidemiologists, physicians, nurses, political activists, physical educators, communications and marketing specialists, and others, the linchpin for health promotion is the status of health education in all its various dimensions. We place emphasis here on the single word "education," not "information," nor even "health education." Education for health empowers through the development of understanding, motivation, and skills. We emphasize not just the knowledge and skills to reduce behavioral risks, as important as they are, but also those elements that engage people more actively in their community's affairs, such as participating effectively in making health and social policy, demanding enforcement of regulations on environmental polluters, and organizing advocacy for new or revised laws and regulations. These public dimensions of health promotion require education of the electorate no less than the personal risk-reduction dimensions.

Health promotion now affords new opportunities and challenges for health practitioners as they seek to strengthen the organizational, economic, and environmental supports necessary for healthful living in modern society. We hope this book offers help to those who would accept these challenges.

Despite enormous expansion in the scope of health promotion policy and practice, responsibility for health promotion planning is still left largely to those identified as health educators. There has been no significant movement to create a new profession called health promotion, and we are not advocating such a movement with the retitling of this book. Professional training for health promotion is centered still in the departments of health education and community health of health professional schools. To varying degrees, training also occurs in the form of electives in schools of public health, medicine, nursing, dentistry, pharmacy, allied health, and physical education and recreation. Health promotion planning continues to depend on health education specialists not only because they hold many of the key positions from which to mount the expanded functions of health promotion, but also because they possess the essential combination of skills in program planning and behavioral diagnosis described in the first edition of this book. However, the field of health promotion does offer a more open invitation for people in other professions and for laypersons to take leadership roles not frequently offered by the increasingly professionalized field of health education.

Our task in this second edition has been to catch up with the rapid developments in policy, research, and practice. While maintaining the integrity of the PRECEDE planning framework that has been widely tested in various settings at the national, provincial or state, and community levels, we have expanded the model to accommodate the more comprehensive field of health promotion. Thus, the diagnostic approach now encompasses the social forces (including political, organizational, economic, and environmental) that influence lifestyle and health, as well as the more specific behavioral influences on health and the more immediate educational influences on behavior.

Within this expanded scope, we continue to emphasize an educational approach to health promotion as the essential starting point, even when the ultimate interventions must be more coercive, regulatory, or economic. Indeed, the public support and acceptance of new legislation and regulation depends on adequate preparation of the citizenry through an educational process. Many good legislative bills that would have improved the public's health have failed to pass or have been repealed because their sponsors failed to build an educated constituency for them. The continuing commitment to an educational approach to health, even within the political context of health promotion, is reflected in the new subtitle of this edition.

Our attempt here to address the essentially political dimension of health promotion is a departure from our more strictly scientific and technological approach to health education in the previous edition. We attempted then to avoid ideological traps by taking a value-free stance with respect to methods, except for one overriding principle or philosophy – that behavior change should be voluntary. We remain committed to that educational philosophy in this edition, and it remains the basis for the development of an educational diagnostic model. At the same time, we recognize that the social policy targets of health promotion sometimes call for aggressive and even coercive measures to regulate the behavior of those individuals, corporations, and government officials whose actions influence the health of others. The essential rule of thumb we suggest for justifying more coercive means of changing behavior or lifestyle is when the behavior in question is one that threatens the health or well-being of others, such as drunk driving or the promotion of unhealthful products to children. This rule runs into gray areas, of course, when the alleged threat to the well-being of others is something more remote, such as the long-term economic cost to society incurred by people who smoke or engage in other high-risk behavior today that might result in chronic illness or disability later. It also runs into value conflicts with constitutional protections such as the First Amendment right to free speech, which protects advertising as well as the press.

As we come to grips with more and more of these value-laden choices in health promotion, we must develop and sharpen the political understanding and skill of those who plan health promotion programs. We have put this burden particularly on Chapter 2, the quality-of-life assessment or "social diagnosis." The emphasis is on methods of assuring the active involvement of people in assessing their own needs and evaluating their own progress and programs. This is especially relevant at the local level, where values can be weighed within the context of the social culture and economy. Again, the educational perspective prevails, with the emphasis on participation and enabling people to take greater control of the decisions influencing their quality of life, but we have tried to reflect more on

the political realities in carrying out this frequently neglected phase of the diagnostic process.

The original framework, which we called PRECEDE in the previous edition, remains largely intact in this edition. PRECEDE stands for "predisposing, reinforcing, and enabling constructs in educational diagnosis and evaluation." To accommodate the broader mandate of health promotion, we have superimposed an additional set of procedures which we call PROCEED for "policy, regulatory, and organizational constructs in educational and environmental development." The burden of this component of the combined model falls on what we called the administrative diagnosis in the previous edition. The administrative diagnosis is the final planning step to "precede" implementation. From there we "proceed" to promote the plan or policy, regulate the environment, and organize the resources and services, as required by the plan or policy. The promotional, regulatory, and organizational components of PROCEED take the student or practitioner beyond educational interventions to the political, managerial, and economic actions necessary to make social systems and environments more conducive to healthful lifestyles and a more complete state of physical, mental, and social well-being for all.

#### ACKNOWLEDGMENTS

The frameworks for planning presented in this text grew out of our combined experience in practice, research, teaching, consultation, and government service—all guided and enriched by significant teachers, colleagues, and students. PRECEDE included an amalgamation of Ronald Andersen's *Behavioral Model of Families' Use of Health Services*, Albert Bandura's Social Learning Theory, Hochbaum, Rosenstock, and Becker's Health Belief Model, Fishbein's behavioral intention mode, J. Mayone Stycos' decision model on couples' adoption of family planning methods, Kurt Lewin's force-field analysis, and Edward E. Bartlett's methods and strategies in health education. These models and our collaboration with Sigrid Deeds, David Levine, Kay Partridge, Virginia Li, and others at Johns Hopkins University in the 1970s influenced our way of thinking about health education planning, needs assessment, and evaulation.

Similarly, PROCEED was a product of the Health Field Concept of Laframboise and the LaLonde report; of our experience with Joseph Califano, Julius Richmond, James O. Mason, Michael McGinnis, Martha Katz, Donald Iverson, Lloyd Kolbe, Henry Montes, Patricia Mullen, Dennis Tolsma, and others in the U.S. federal initiative in disease prevention and health promotion, including participation in the development of the national objectives for 1990, the Model Standards for Community Preventive Health Services, and in similar processes with several state and local health agencies; of the work of Judith Ottoson, Guy

Parcel, Nell Gottlieb, Bruce and Denise Simons-Morton, and Susan Brink on implementation; of the World Health Organization's Declaration of Alma Alta and Technical Discussions of the 1983 World Health Assembly on New Policies in Health Education for Primary Health Care; of the U.S. Preventive Services Task Force; and of the Ottawa Charter for Health Promotion, which brought together the views of thirty-eight European, North American, and Western Pacific countries. We are especially grateful to Denise Simons-Morton, Susan Brink, Nell Gottlieb, Chris Lovato, Pat Mullen, Guy Parcel, and Lloyd Kolbe for help on specific chapters as noted in the footnotes.

In addition to the students, fellows, and colleagues we acknowledged in the first edition, we are indebted to the following for additional insights, helpful suggestions, and feedback from their experiences with the models: David Altman, Hans Andrianse, Jim Belloni, Robert Bertera, Bob Bolan, Arthur Brownlea, Pat Bush, Nelly Candeais, Ray Carlaw, Judy Chwalow, Helen Cleary, Bryan Cooke, Cheryl Cortines, William Cresswell, Wendy Cuneo, Lawren Daltroy, Nicole Dedobbeleer, Evelyne deLeeuw, Hein DeVries, Mark Dignan, Carole Donovan, Sharon Dorfman, Stuart Dunn, Rosemarie Erban, Michael Ericksen, Stephanie Evans, Jack Farquhar, Michael Felix, Mary Ann Fenley, Jonathan Fielding, John Fisher, Bryan Flynn, Stuart Fors, Janet Fuchs, Nell Gottlieb, Syed Jahangir Haider, Joel A. Harrison, Michele Hindi-Alexander, Peter Howatt, Ruby Isom, Jack Jones, Howard Kalmer, Laura Kann, Gerjo Kok, Lloyd Kolbe, Fred Kroger, Robert Lawrence, Dick Levinson, Fran Lewis, Kate Lorig, Chris Lovato, Alfred McAlister, Ken McLeroy, Donald Morisky, Charles Nelson, Gary Nelson, Ian Newman, Horace Ogden, Richard Papenfuss, Guy Parcel, David Poehler, John Raeburn, Amelie Ramirez, Marilyn Rice, Barbara Rimer, Todd Rogers, Allen Rubin, Zora Salisbury, Randy Schwartz, Bruce and Denise Simons-Morton, David Sleet, Shelagh Smith, Gene Stainbrook, Ron Stoddard, Ellen Tabak, Kathy Tiernan, Nancy Watkins, Alisa Wilson, Bente Wold, Colin Yarham, and Jane Zapka.

We are grateful also for the administrative support of the University of Texas Health Science Center, particularly Marty Lazzari, and of the Kaiser Family Foundation, particularly Beverly Wright and Carol Holt.

The final compilation of revisions produced from our collaborations in Texas, Georgia, and California was assisted by Jackie Clare Wood, Sc.D. She helped fill some last gaps. Jim Bull took over from Lansing Hays as our editor at Mayfield, providing patient encouragement and support throughout the revision process.

Lawrence W. Green, Vancouver Marshall W. Kreuter, Atlanta

# Brief Contents

1	Health Promotion Today and a Framework for Planning 1	
2	Social Diagnosis: Assessing Quality-of-Life Concerns 44	
3	Epidemiological Assessment 89	
4	Behavioral and Environmental Diagnosis 125	
5	Educational and Organizational Diagnosis: Factors Affecting Health-Related Behavior and Environments 150	
6	Administrative and Policy Diagnosis: From PRECEDE to PROCEED 188	
7	Evaluation and the Accountable Practitioner 215	
8	Applications of PRECEDE-PROCEED in Community Settings	261
9	Applications in Occupational Settings 308	
10	Applications in School Settings 349	
11	Applications in Health-Care Settings 390	

# **Contents**

Preface xvii

1 Health Promotion Today and a Framework for Planning 1				
Relation of Health Promotion to Health Education and Public Health  Controversy Concerning the Scope of Health Promotion 2  Community as the Center of Gravity for Health Promotion 4				
The Renaissance of Health Promotion 5  Three Eras that Led to Health Promotion Policy 6  From Cost-Containment to Health Promotion 7				
Other Issues in the Development of Health Promotion 10 The Division of Responsibility 11				
The Lifestyle Construct 12  The Place of Health Education in Health Promotion 14  The Notion of Positive Health 15				
Scope of Health Education and Health Promotion 17 Of Means and Ends 20				
The PRECEDE-PROCEED Model 22  Beginning at the End 25  The Eight Phases of PRECEDE and PROCEED 26				
Foundations: Staying on Solid Ground 31				
Exercises 31				
References and Notes 32				

2 Social Diagnosis: Assessing Quality-of-Life Concerns 44					
2 Social Diagnosis: Assessing Quality-of-Life Concerns 44					
The Purpose and Importance of Social Diagnosis 45  Health and Social Problems: A Reciprocal Relationship 46  Can Quality of Life Be Measured? 48  Health as an Instrumental Value 49  Setting Priorities 50  The Principle and Process of Participation 53  Social Diagnosis as an Educational Process 57  The Partnership Approach to Social Diagnosis 59					
Methods and Strategies for Social Diagnosis 63  Methods to Assure Citizen Participation 63  The Reconnaissance Method for Community Social Diagnosis 64  Specific Quantitative Techniques 67  Uses of Focus Groups 74  Advantages of Focus Groups 75  Limitations of Focus Groups 75  Arranging Focus Groups 76  Leading a Focus Group 76  A Moderator Should Be 77  Analyzing the Data 78  Preparing the Report 78					
Interpreting the Gathered Information 80					
Summary 81					
Exercises 82					
References and Notes 82					
3 Epidemiological Assessment 89					
Relationship Between Health and Social Problems 90 The Reductionist Approach 91 The Expansionist Approach 93					
Assessing the Importance of Health Problems Indicators of Health Status in Populations 97 Making Comparisons 97 Rates 97 Setting Priorities for Health Programs 109					

#### Etiology: Assessing the Determinants of Health 110

Weighing the Risk Factors for Disease 112

Measure of Disease Association 113

An Example: Coal Miners in Appalachia 115 Protective Factors for Positive Health 116

#### **Developing Health Objectives** 117

Program Goal 119 Health Objectives 119 Behavioral Objectives 119

#### **Ensuring Knowledgeable Cooperation 120**

Summary 120

Exercises 121

References and Notes 121

## 4 Behavioral and Environmental Diagnosis 125

#### Why an Emphasis on Behavior? 126

Measurement of Behaviors in Populations 127

#### The Five Steps in Behavioral Assessment 132

- Step 1 Separating Behavioral and Non-behavioral Causes of the Health Problem 132
- Step 2 Developing an Inventory of Behaviors 132
- Step 3 Rating Behaviors in Terms of Importance 136
- Step 4 Rating Behaviors in Terms of Changeability 137
- Step 5 Choosing Behavioral Targets 138

#### Stating Behavioral Objectives 142

#### Why an Emphasis on Environment? 142

#### The Five Steps in the Environmental Diagnosis 144

Step 1 Separating Behavioral and Nonbehavioral Causes of the Health Problem 144

Step 2 Eliminating Nonbehavioral Causes that Cannot Be Changed 144

Step 3 Rating Environmental Factors in Terms of Importance 144

Step 4 Rating Environmental Factors in Terms of Changeability 145

Step 5 Choosing Environmental Targets 145

#### Stating Environmental Objectives 146

#### Summary 146

Exercises 147

References and Notes 147

### 5 Educational and Organizational Diagnosis: Factors Affecting Health-Related Behavior and Environments 150

#### **Factors That Influence Behavior 151**

#### **Application of the Model 152**

#### **Predisposing Factors 154**

Knowledge or Awareness 155
Beliefs, Values, and Attitudes 156
Self-Efficacy and Social Learning Theory 159
Behavioral Intention 160
Existing Skills 161

#### **Enabling Factors 161**

The Health-Care Environment 162 Other Environmental Influences 162 New Skills 164

#### **Reinforcing Factors 165**

#### **Selecting Factors and Setting Priorities 167**

- Step 1 Identifying and Sorting 167
- Step 2 Setting Priorities Among Categories 169
- Step 3 Establishing Priorities Within Categories 171

#### Writing Learning and Resource Objectives 173

Summary 176

**Exercises 177** 

References and Notes 177

6	Administrative and Policy Diagnosis: From	PRECEDE
	to PROCEED 188	

#### **Administrative Diagnosis 190**

- Step 1 Assessment of Resources Needed 190
- Step 2 Assessment of Available Resources 193
- Step 3 Assessment of Barriers to Implementation 197

#### Policy Diagnosis 199

Step 1 Assessment of the Policies, Regulations, and Organization 199

Step 2 Assessment of Political Forces 201

#### **Implementation 204**

Sustainability and Institutionalization 207

Summary 209

References and Notes 209

# 7 Evaluation and the Accountable Practitioner 215

- 1 Why Evaluate? The Views of Different Stakeholders 215
- 2 Is Evaluation Really Necessary? 216
- 3 What Is Evaluation, Really? 217
- 4 What Are Your Standards of Acceptability? 218

Arbitrary Standards 218

Scientific Standards 218

Historical Standards 219

Normative Standards 219

Compromise Standards 219

Case Example: Objectives for the Nation 219

Case Example: Model Standards 223

- 5 Why Is Evaluation So Threatening? Or Why Me? 224
- 6 What Level of Outcome Is Appropriate and Sufficient to Indicate Success? 228

Process Evaluation 228

Impact Evaluation 231

#### 7 How Much Precision and Control Do You Need? 231

When Outcome Is the Focus 233 When Process Is the Focus 235

#### 8 What Do Evaluation Designs Enable Us to Do? 236

Design A: The Historical Record-Keeping Approach 239

Design B: The Periodic Inventory Approach 240

Design C: The Comparative How-We-Stack-Up-Against-Others Approach 241

Design D: The Controlled-Comparison, Quasi-Experimental Approach 242

Design E: The Controlled-Experimental Approach 243

Design F: The Evaluative Research Project 244

#### 9 How Much Is Enough? 245

Summary 248

Exercises 249

References and Notes 253

# 8 Applications of PRECEDE-PROCEED in Community Settings 261

#### The Community as a Medium for Change 262

Defining Community 262

Community Interventions and Interventions in Communities 263

Size, Scope, and Complexity 266

Demonstration and Diffusion Value of Smaller Programs 268

Community Participation 269

Coalitions: Groups to Be Reckoned With 271

The Politics of Coalitions and Community Power 271

Combining and Sequencing Community Elements 275

Territories: Yours, Mine, and Ours 277

#### Multiple Strategies: The Hallmark of Community Intervention 277

Applying Multiple Strategies: A Kentucky Case Study 278 Cross-Cultural Validation of Community Intervention 281 Techniques for Selecting Multiple Strategies in the Field 284 Reaching the Masses 291

Social Marketing: A Credible Part of the Whole 294						
Summary 298						
Exercises 298						
References and Notes 299						
9 Applications in Occupational Settings 308						
Worksite Health Promotion: Its Recent History 308 Evidence that Health Promotion Can Work in the Worksite 313						
Two Caveats for Health Professionals in the Worksite 314						
Phase 1: Social Diagnosis 317  From the Perspective of Employers 317  From the Perspective of Employees 319						
Phase 2: Epidemiological Diagnosis 320						
Phase 3: Behavioral and Environmental Diagnosis 322						
Phase 4: Educational and Organizational Diagnosis 324 Predisposing Factors 325 Reinforcing Factors 326 Enabling Factors 327						
Phase 5: Administrative and Policy Analyses 327						
Phases 6-9: Implementation and Evaluation 329 Screening and Wait-Listing 330 Self-Care and Community Referrals 331 Triage and Stepped Programs of Interventions 331						
A Case Study: Smoking Cessation and Control in a State Agency 332 Social and Epidemiological Diagnoses 332 Behavioral and Environmental Diagnoses 332 Educational and Organizational Diagnoses 332 From Administrative and Policy Diagnoses to Implementation 336 Implementation and Structural Evaluation 338						
Summary 342						
Exercises 342						
References and Notes 342						

## 10 Applications in School Settings 349

#### School Health Promotions 349

Purpose and Functions 350 Components 351 Toward Comprehensiveness 355

#### Progress in School Health Research and Policy 355

The School Health Education Evaluation 355
The National Institutes of Health 356
Collaboration and Diffusion Beyond the School 357
Policy Analyses and Advances 361
The AIDS Epidemic as a Stimulus to Comprehensive School Health 363

#### **Using PRECEDE and PROCEED for Planning in Schools** 364

Social Diagnosis 364
Epidemiological Diagnosis 365
Behavioral, Environmental, and Educational Diagnoses 368
A Case Example 372
Moving from PRECEDE to PROCEED 376
Evaluation 379

Summary 382

Exercises 382

References and Notes 383

## 11 Applications in Health-Care Settings 390

# An Epidemiological and Community Approach to Health Care 391

Epidemiology of Health-Care Errors 392 Errors of Omission 392 Errors of Commission 395

### Patient Considerations in Targeting Interventions 396

The Undiagnosed 397
Diagnosed Nonusers Who Received Inappropriate Medical Recommendations 398
Nonusers Who Did Not Obtain Drug or Device Recommended 398