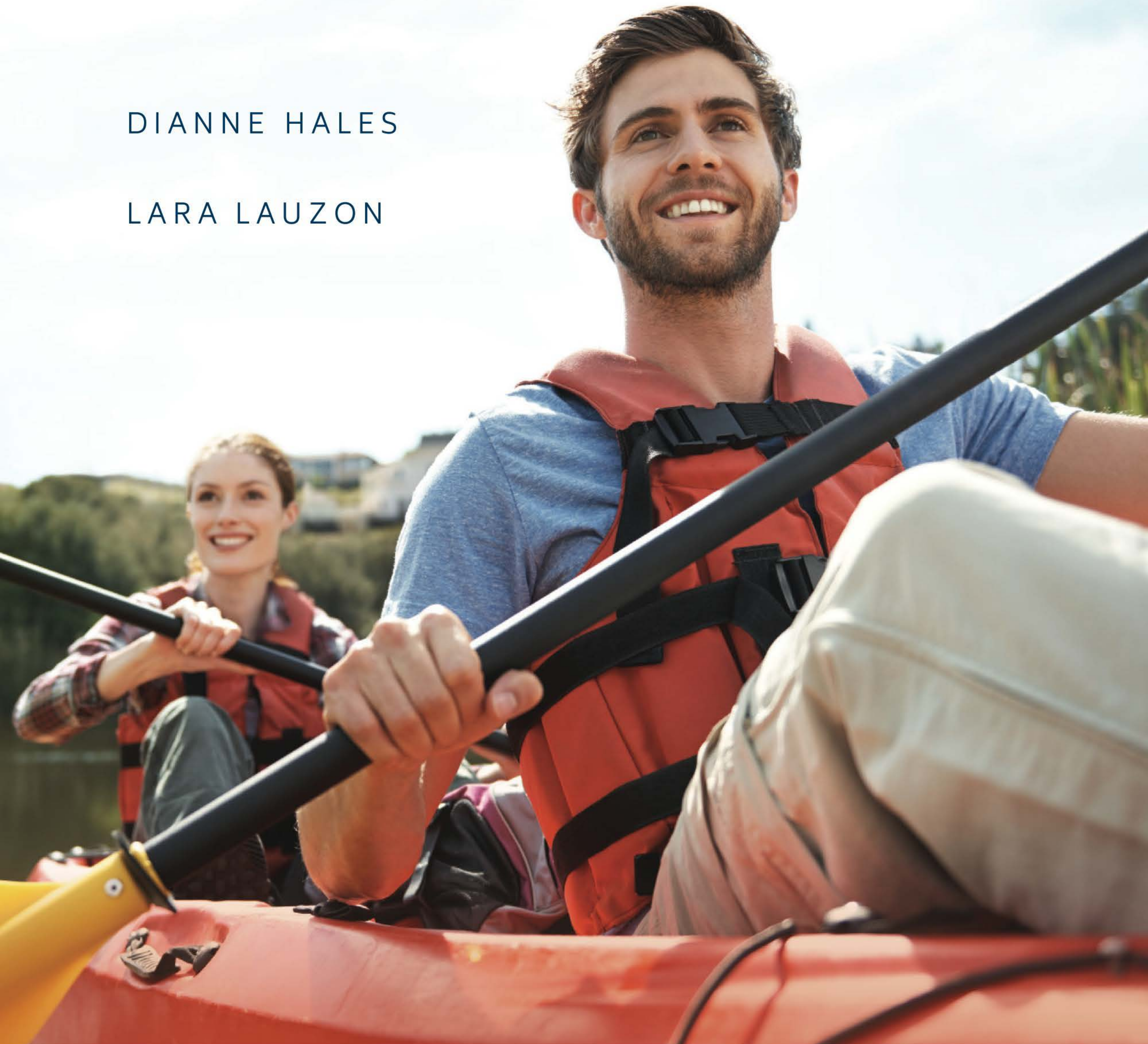


Fifth Canadian Edition

AN INVITATION TO
HEALTH

DIANNE HALES

LARA LAUZON



FIFTH CANADIAN EDITION

An Invitation to Health

DIANNE HALES
LARA LAUZON

University of Victoria

NELSON

NELSON

An Invitation to Health, Fifth Canadian Edition

by Dianne Hales and Lara Lauzon

VP, Product and Partnership Solutions:
Anne Williams

Publisher, Digital and Print Content:
Jackie Wood

Marketing Manager:
Terry Fedorkiw

Content Development Manager:
Jacquelyn Busby

Photo and Permissions Researcher:
Carrie MacGregor

Production Project Manager:
Jaime Smith

Production Service:
MPS Limited

Copy Editor:
Maria Jelinek

Proofreader:
MPS Limited

Indexer:
May Hasso

Design Director:
Ken Phipps

Higher Education Design PM:
Pamela Johnston

Interior Design:
Trinh Truong

Cover Design:
Trinh Truong

Cover Image:
shapecharge/Getty

Compositor:
MPS Limited

CoPyRiGht © 2017, 2015, 2013 by
Nelson Education Ltd.

Adapted from *An Invitation to Health, Live it Now!*, Ninth Edition, by Dianne Hales, published by Cengage Learning. Copyright ©2016, 2014 by Cengage Learning.

Printed and bound in Canada
1 2 3 4 19 18 17 16

For more information contact
Nelson Education Ltd.,
1120 Birchmount Road, Toronto,
Ontario, M1K 5G4. Or you can visit
our Internet site at
<http://www.nelson.com>

Cognero and Full-Circle Assessment
are registered trademarks of
Madeira Station LLC.

All RiGhtS RESERVED. No part of
this work covered by the copyright
herein may be reproduced,
transcribed, or used in any form
or by any means—graphic,
electronic, or mechanical, including
photocopying, recording, taping,
Web distribution, or information
storage and retrieval systems—
without the written permission of
the publisher.

For permission to use material
from this text or product,
submit all requests online at
cengage.com/permissions.
Further questions about
permissions can be emailed to
permissionrequest@cengage.com

Every effort has been made to
trace ownership of all copyrighted
material and to secure permission
from copyright holders. In the event
of any question arising as to the use
of any material, we will be pleased
to make the necessary corrections in
future printings.

**Library and Archives Canada
Cataloguing in Publication**

Hales, Dianne R., 1950-, author
An invitation to health / Dianne Hales,
Lara Lauzon, University of Victoria.—Fifth
Canadian edition.

Includes bibliographical references
and index.
ISBN 978-0-17-665719-2 (softcover)

1. Health—Textbooks. 2. Self-care,
Health—Textbooks. 3. Textbooks. I. Lauzon,
Lara, 1955-, author II. Title.

RA776.H216 2017 613
C2016-907616-4

ISBN-13: 978-0-17-665719-2
ISBN-10: 0-17-665719-3

To my husband, Bob, and my daughter, Julia, who make every day an invitation to joy, and in loving memory of my parents, Henry and Lucille Plucinnik.

Dianne Hales

To my students who inspire me every day and my son, Lindon, who inspires me to “live well.”

Lara Lauzon

Brief Contents

Preface xvi

Acknowledgments xxi

About the Authors xxii

CHAPTER 1 An Invitation to Health and Wellness 3

CHAPTER 2 Psychosocial Health 31

CHAPTER 3 Personal Stress Management 57

CHAPTER 4 Physical Activity for Fitness, Health, and Athletic Performance 77

CHAPTER 5 Personal Nutrition 105

CHAPTER 6 Managing Your Weight 135

CHAPTER 7 Personal Relationships and Sexuality 161

CHAPTER 8 Birth Control Choices and Pregnancy 191

CHAPTER 9 Protecting Yourself from Infectious Diseases 221

CHAPTER 10 Lowering Your Risk of Major Diseases 255

CHAPTER 11 Drug Use, Misuse, and Abuse 287

CHAPTER 12 Alcohol and Tobacco Use, Misuse, and Abuse 319

CHAPTER 13 Traditional and Complementary Healthcare Approaches 355

CHAPTER 14 Staying Safe: Preventing Injury, Violence, and Victimization 375

CHAPTER 15 Healthy Aging 401

CHAPTER 16 Working Toward a Healthy Environment 423

CHAPTER 17 The Spirit of Health and Wellness 449

Glossary G-1

References R-1

Index I-1

Contents

Preface xvi

Acknowledgments xxi

About the Authors xxii

CHAPTER 1 An Invitation to Health and Wellness 3



merzzie/Shutterstock

Health and Wellness 4

First Nations and Aboriginal Health and Wellness 4

Health and Health Promotion 5

What Is Health? 5

What Is Epidemiology? 7

Wellness and the Wellness Movement 8

What Is Wellness? 8

Social Dimension 9

Occupational Dimension 9

Spiritual Dimension 10

Physical Dimension 10

Intellectual Dimension 10

Emotional Dimension 10

Environmental Dimension—The Seventh Dimension of Wellness 10

Health Challenges 11

Demographic Growth 11

Social Determinants 12

X and Y Files: Do Sex and Gender Matter? 12

The Health of College and University Students 15

Making Healthy Changes 16

Understanding Health Behaviour 16

Decision Making 17

Strategies for Prevention: Setting Realistic Goals 18

Strategies for Change: More Options for Change 19

Human Potential: Trisha Kauk, Mary Anne Signer, Kaitlin Lewandoski, and Professor Colleen Plumton—Fit For Life and Learning (FFLL) 21

Health and Wellness Education 22

The Future of Health and Wellness 23

Self-Survey: Planning Your Journey to Wellness—A Road Map 23

Chapter Summary 27

Self-Responsibility—Social Responsibility 28

Critical Thinking 28

Web Links 28

Key Terms 29

CHAPTER 2 Psychosocial Health 31



istock/Thinkstock

What Is Psychosocial Health? 32

Mental Health 32

Emotional Health 32

Social Health 33

Spiritual Health 33

How Can I Lead a Fulfilling Life? 34

Identify Your Needs 34

Clarify Your Values 36

Strengthen Your Self-Esteem 36

Manage Your Moods 37

Feel in Control 39

Strategies for Change: Steps to Sleeping Better 39

Understanding Mental Health 41

What Is a Mental Illness? 41

Does Mental Health Affect Physical Health? 42

Diversity and Mental Health 42

Stigma 42

Anxiety Disorders 43

X and Y Files: Sex, Gender, and Mental Illness Issues 43

Attention Disorders 44

Human Potential: Christopher Bratseth—The Power of Kindness 45

Depressive Disorders 46

Schizophrenia 48

Suicide 49

Where Can I Turn for Help? 50

Strategies for Prevention: If You Start Thinking about Suicide 50

Self-Survey: Recognizing Depression 52

Chapter Summary 52

Self-Responsibility—Social Responsibility 53

Critical Thinking 54

Web Links 54

Key Terms 54

CHAPTER 3 Personal Stress Management 57



OtnaYdur/Shutterstock

What Is Stress? 58

What Causes Stress? 58

Is Stress Hazardous to Physical Health? 59

Stress and the Immune System 59

Stress and the Heart 61

Stress and the Digestive System 61

Is Stress Hazardous to Psychosocial Health? 61

Types of Stressors 62

Student Stress 62

X and Y Files: Men, Women, and Stress 63

Strategies for Prevention: Defusing Test Stress 65

Other Stressors 65

Stress Survival 68

How Can I Manage My Stress? 68

Strategies for Prevention: How to Avoid Stress Overload 69

Strategies for Change: Determining Stressors, Coping Mechanisms, and Activities for Relieving Stress 70

Human Potential: Rob Dyke—An Epic Journey: Just Say Yes 71

Self-Survey: Student Stress Scale 72

Chapter Summary 73

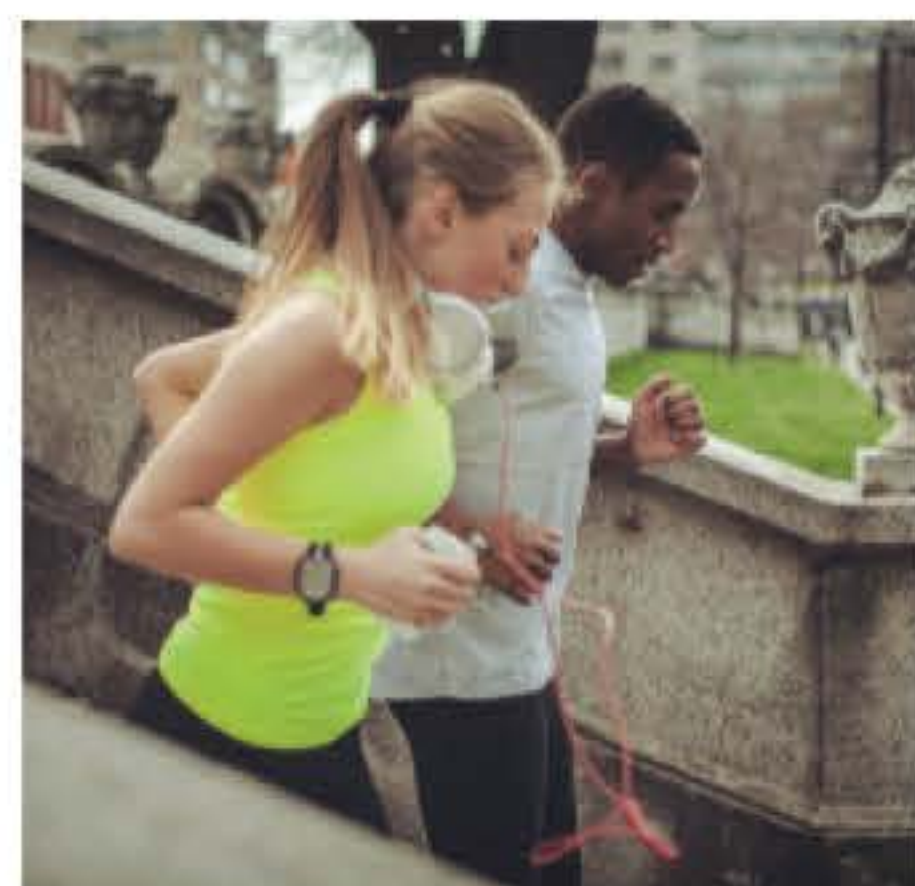
Self-Responsibility—Social Responsibility 74

Critical Thinking 74

Web Links 74

Key Terms 75

CHAPTER 4 Physical Activity for Fitness, Health, and Athletic Performance 77



gruizza/Getty

Physical Activity 78

Physical Activity and Health 78

Physical Activity and Fitness 80

Physical Activity and Athletic Performance 81

The Health Benefits of Physical Activity 81

X and Y Files: Men and Women: Physical Fitness and Physical Activity Levels 84

The Principles of Exercise 84

Overload Principle 84

Strategies for Change: Activating Your Lifestyle 84

Human Potential: Sam Wade—Pedalers for Prostate and Easter Seals on Wheels 85

Reversibility Principle 86

Recovery Principle 86

How Much Exercise Is Enough? 87

Should I Check with My Doctor Before I Get Started? 87

Improving Cardiorespiratory Fitness 87

Am I Working Hard Enough? 87

How Do I Design an Aerobic Workout? 90

Walking 90

Jogging and Running 91

Other Aerobic Activities 93

Muscular Strength and Endurance 94

Muscles at Work 94

How Do I Design a Muscle Workout? 94

Flexibility 96

How Do I Design a Flexibility Workout? 96

The Benefits of Flexibility 97

Stretching and Warming Up 97

Strategies for Prevention: How to Avoid Stretching Injuries 97

Mind–Body Approaches 98

Pilates 98

Tai Chi 98

Yoga 98

Body Composition 98

Safe and Healthy Workouts 98

How Can I Prevent Injuries? 99

Thinking of Temperature 100

Self-Survey: Are You Ready to Become More Active? 100

Chapter Summary 101

Self-Responsibility—Social Responsibility 102

Critical Thinking 102

Web Links 102

Key Terms 103

CHAPTER 5 Personal Nutrition 105



sarsmis/Shutterstock

What You Need to Know About Nutrients 106

- Water 106
- Calories 107
- Protein 107
- Carbohydrates 107
- Fats 109

Eating for Good Health 111

- What Is a Serving Size? 111

X and Y Files: Do Men and Women Have Different Nutritional Needs? 115

- Vegetables and Fruits 115
- Grain Products 115
- Milk and Alternatives 116
- Meat and Alternatives 116
- Oils and Fats 116
- Nutritional Supplements 116
- Vitamins and Minerals 116
- Other Substances in Food 121
- Dietary Reference Intakes 121

Knowing What You Eat 121

- What Should I Look for on Nutrition Labels? 121

Human Potential: Dr. Stanley Zlotkin—Sprinkles Global Health Initiative: Creative Thought, Creative Purpose 123**The Way We Eat 124**

- Dietary Diversity 124
- Fast Food: Nutrition on the Run 127
- Campus Cuisine 127

Food Safety 128

- Pesticides, Irradiation, and Genetic Engineering 128
- Additives: Risks versus Benefits 129
- What Causes Food Poisoning? 129
- Food Allergies 129

Strategies for Prevention: Protecting Yourself from Food Poisoning 129**Self-Survey: How Healthful Is Your Diet? 130****Chapter Summary 131****Self-Responsibility—Social Responsibility 132****Critical Thinking 132****Web Links 133****Key Terms 133**

CHAPTER 6 Managing Your Weight 135



istock/Thinkstock

The Global Obesity Epidemic 136

- What Causes Obesity? 137

What Should I Weigh? 138

- Body Mass Index 139
- Waist Circumference 140
- Waist-to-Hip Ratio 141
- Assessing Body Fat 141
- How Many Calories Do I Need? 142

Health Dangers of Excess Weight 143

- The Impact on the Body 143
- The Emotional Toll 144

Practical Guide to Weight Management 144

- Overcoming a Serious Weight Problem 144
- Physical Activity—A Helpful Approach 147

How to Gain Weight 147**Psychosocial Views on Weight Management 148**

- Weight Discrimination 148
- Economics and Obesity 148
- Provincial and National Initiatives 149

Campus Eating 150

- Nutrition Initiatives on College and University Campuses 150

Unhealthy Eating Behaviour 151

- Body Image 151

X and Y Files: Men, Women, and Weight 152**Human Potential: Théa Pheseay—A Message of Hope 154****Strategies for Prevention: Do You Have an Eating Disorder? 155****Strategies for Change: Working Off Weight 155****Self-Survey: Are You Ready to Lose Weight? 156****Chapter Summary 156****Self-Responsibility—Social Responsibility 157****Critical Thinking 158****Web Links 158****Key Terms 159**

CHAPTER 7 Personal Relationships and Sexuality 161



istock/Thinkstock

- Communicating with Others 162**
 - Talking and Listening 162
 - Nonverbal Communication 162

Strategies for Change: How to Enhance Communication 163

- Forming Relationships 163**
 - Understanding Ourselves 163
 - What Is Friendship? 163
 - Hooking Up 164
 - Dating 165
 - What Causes Romantic Attraction? 166

- Intimate Relationships 167**
 - Mature Love 167

- X and Y Files: Men, Women, and Online Dating 169**
 - Dysfunctional Relationships 169

- Committed Relationships 170**
 - Cohabitation 170
 - Marriage 171

Strategies for Prevention: Things to Consider: When to Think Twice about Cohabiting or Getting Married 172

- Pre-cohabitation and Marital Assessments 172

- Family Ties 172**
 - Diversity within Families 172

- What is Sexual and Gender Identity? 173**
 - Sexual Identity 173
 - Gender Identity and Gender Roles 173
 - Sexual Diversity 174

- Sexual Activity 175**
 - Sexual Intercourse 175
 - Anal Stimulation and Intercourse 175
 - Celibacy 175
 - Kissing and Touching 175
 - Masturbation 176

- Human Potential: Niki Hodgkinson—Redefining “Normal” 176**
 - Oral–Genital Sex 177
 - Sexual Fantasies 177
 - Variant Sexual Behaviour 177

- Sexual Behaviour 177**
 - How Sexually Active Are College and University Students? 177
 - Sex and the Internet 178
 - Safer Sex 179
 - Sexual Concerns 179

Strategies for Change: How to Be Clear about Sexual Initiation and Consent 179

- Sexual Anatomy and Physiology 180**
 - Female Sexual Anatomy and Physiology 180
 - Male Sexual Anatomy and Physiology 183

Strategies for Prevention: Preventing Premenstrual Problems 184

- Self-Survey: Healthy Relationship Quiz 185**

Chapter Summary 186

Self-Responsibility—Social Responsibility 186

Critical Thinking 187

Web Links 187

Key Terms 187

CHAPTER 8 Birth Control Choices and Pregnancy 191



StockLife/Shutterstock

Conception 192

Birth Control Basics 193

- How Do I Choose a Birth Control Method? 193
- Abstinence and Outercourse 194

Strategies for Prevention: Choosing a Contraceptive 195

- Prescription Contraceptives 195
- Non-prescription Contraceptives 200

X and Y Files: Males, Females, and Condom Use 202

- Periodic Abstinence and Fertility Awareness Method 203
- What Is Emergency Contraception? 205
- Sterilization 205

Abortion 207

- Thinking through the Options 207
- What Is the Psychological Impact of Abortion? 208
- Politics of Abortion 209

Human Potential: Alison Chamberlain—Extraordinary Balance 210

Pregnancy 211

- Preconception Care: A Preventive Approach 212
- How a Woman’s Body Changes during Pregnancy 212
- How a Baby Grows 212
- Emotional Aspects of Pregnancy 212
- Complications of Pregnancy 212

Childbirth 214

- Preparing for Childbirth 214

Strategies for Prevention: Seven Warning Signs of Cancer 276

- Cancer—Risk Factors You Can Control 278
- Cancer—Risk Factors You Cannot Control 279

Diabetes Mellitus 279

- Who Is at Risk for Developing Diabetes? 280
- Dangers of Diabetes 281
- Diabetes and Ethnic Minorities 281
- Treatment 281

X and Y Files: Sex Differences in Disease 281**Self-Survey: Are You at Risk of Cancer? 282****Chapter Summary 282****Self-Responsibility—Social Responsibility 283****Critical Thinking 283****Web Links 284****Key Terms 284****CHAPTER 11 Drug Use, Misuse, and Abuse 287**

Mikhail Zahranichny/Shutterstock

Understanding Drugs and Their Effects 288

- Dosage and Toxicity 289
- Individual Differences in Response to Drugs 289
- Medications 289
- Caffeine Use and Misuse 292
- Substance Use and Disorders 293

X and Y Files: Men, Women, and Drugs 294**Strategies for Prevention: Saying No to Drugs 295**

- The Toll of Drugs 296

Common Drugs of Abuse 298

- Amphetamines 298
- Cannabis 302
- Cocaine 304
- Club Drugs 307
- Ecstasy 307
- Hallucinogens 308
- Inhalants 309
- Opioids 309
- Phencyclidine 311
- Sedative-Hypnotic Drugs 311
- Anabolic Steroids 311

Treating Drug Dependence and Abuse 312**Human Potential: Ashlie—The Other Side of Drug Addiction 313**

- 12-Step Programs 314
- Relapse Prevention 314
- Four Pillars Drug Strategy—City of Vancouver 314
- All Nations' Healing Hospital—Fort Qu'Appelle, Saskatchewan 314

Strategies for Prevention: Relapse-Prevention Planning 314

- Harm Reduction—Street Works, Edmonton, Alberta 315
- Health Canada 315

Self-Survey: Do You Have a Substance-Use Disorder? 315**Chapter Summary 315****Self-Responsibility—Social Responsibility 316****Critical Thinking 317****Web Links 317****Key Terms 317****CHAPTER 12 Alcohol and Tobacco Use, Misuse, and Abuse 319**

Bunyes/Thinkstock

Alcohol and Its Effects 320

- How Much Alcohol Can I Drink and Still Legally Drive? 320
- How Much Alcohol Is Too Much? 323

Drinking in Canada 329

- Why People Drink 329

Human Potential: Duncan Campbell—From Tragedy to Triumph 330

- How Common Is Drinking on College and University Campuses? 331

X and Y Files: Alcohol, Tobacco, Men, and Women 332

Aboriginal Communities—Reaching Out and Moving Forward 333
 Women and Alcohol—Special Considerations 333

Strategies for Prevention: How to Prevent Drunk Driving 334

Alcohol-Related Problems 334
 What Causes Alcohol Dependence and Abuse? 335
 Complications of Alcohol Dependence and Abuse 335
 Alcoholism Treatments 336

Tobacco and Its Effects 336
 How Nicotine Works 336
 Tar and Carbon Monoxide 336
 Health Effects of Cigarette Smoking 336
 Financial Cost of Smoking 338
 Why Do People Start Smoking? 339

Strategies for Prevention: Why Not to Light Up 339

Smoking in Canada 340
 Tobacco Use on Campus 341
 Smoking and Aboriginal Peoples 342
 Smoking and Women 342

Other Forms of Tobacco 343
 Cigars 343
 Pipes 343
 Waterpipes (Hookahs) 343
 Smokeless Tobacco 343
 E-cigarettes 344
 Second-Hand Tobacco Smoke 344

Politics of Tobacco 347

Quitting 347
 Quitting on Your Own 347
 Quitting with the Help of Others 348

Self-Survey: Do You Have a Drinking Problem? 350

Chapter Summary 351

Self-Responsibility—Social Responsibility 352

Critical Thinking 352

Web Links 352

Key Terms 353

CHAPTER 13 Traditional and Complementary Healthcare Approaches 355



Canada’s Healthcare System 356
 A Brief History of Our Healthcare System 356
 What Are Federal, Provincial, and Territorial Healthcare Responsibilities? 357

Canada’s Healthcare Providers 358
 Your Medical Rights 359

Becoming a Knowledgeable Healthcare Consumer 359
 Self-Care 360
 How Can I Evaluate Online Health Advice? 360
 Evaluating Health News 361
 Evaluating Health Claims 362

Strategies for Prevention: Protecting Yourself against False Health Claims 362

Complementary and Alternative Medicine 362
 Why People Use Complementary and Alternative Therapies 363
 Doctors and CAM 363

Human Potential: Julia Pritchard—A Young Woman’s Dream of Medical School 364

X and Y Files: Men and Women as Healthcare Consumers 365

Is Complementary and Alternative Medicine Safe and Effective? 365
 Natural Health Products 366
 Complementary and Alternative Medicine—Programs and Services 366

Self-Survey: Are You a Savvy Healthcare Consumer? 370

Chapter Summary 371

Self-Responsibility—Social Responsibility 372

Critical Thinking 372

Web Links 372

Key Terms 373

CHAPTER 14 Staying Safe: Preventing Injury, Violence, and Victimization 375



Zack Frank/Shutterstock

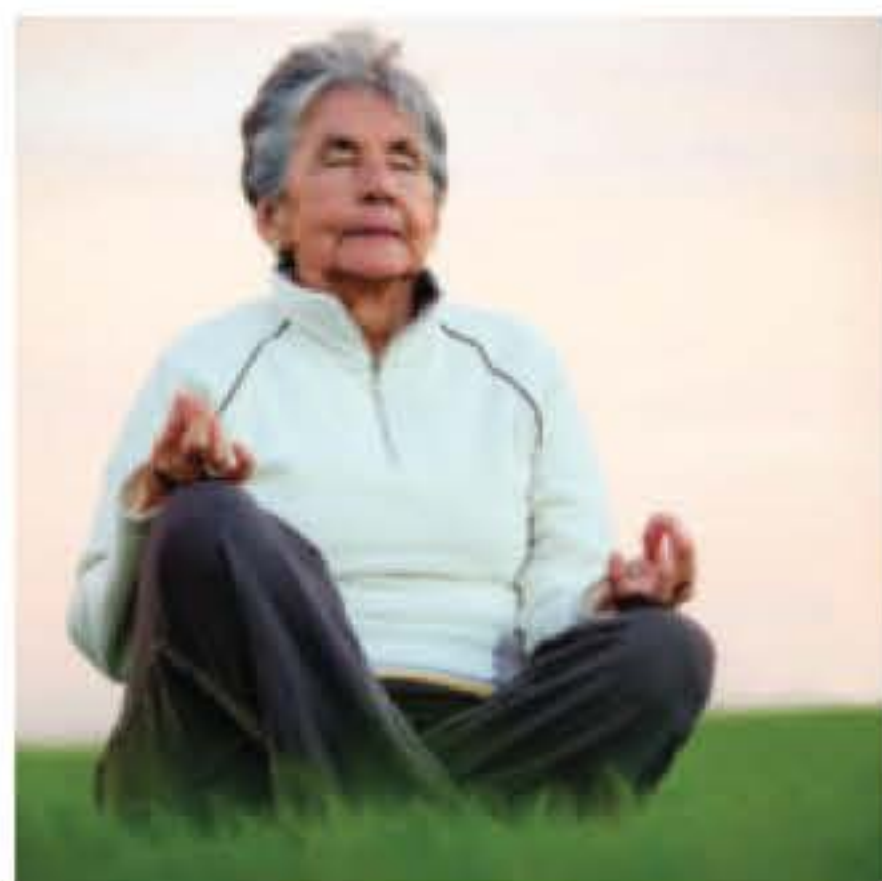
Personal Safety 376
Safety at Home 376
Safety on Campus 377
Safety at the Workplace 378
Safety on the Road 378

Strategies for Prevention: How to Drive Safely 378

Safe Driving 378
 Safe Cycling 384

Safety and Recreational Activities	385
Sport and Recreational Activities	385
Handling Heat	386
Coping with Cold	387
Human Potential: Ashleigh Hawes—Travel and Academics—Take a Risk	387
Unintentional Injury: Why Accidents Happen	388
Age	388
Stress	389
Thrill-Seeking	389
Intentional Injury: Living in a Dangerous World	389
Violence in Canada	389
Family Violence	389
Crime on Campus	390
X and Y Files: Which Gender Is at Greater Risk?	390
Hate Crimes	391
Sexual Victimization and Violence	392
Self-Survey: How Safe Is Your School?	396
Chapter Summary	397
Self-Responsibility—Social Responsibility	398
Critical Thinking	398
Web Links	398
Key Terms	399

CHAPTER 15 Healthy Aging 401



Andres/Shutterstock

Living in an Aging Society	402
Successful Aging	403
Fit for Life	403
Why is Physical Activity Important as We Age?	404
Nutrition Issues for Older Adults	406
Strategies for Prevention: Lowering Your Risk of Osteoporosis	407
Does Body Composition Change with Age?	407
The Aging Brain	407
Thinking Young	407
Memory	408
Dementia and Alzheimer's Disease	408
Moving through Mid-Life	408
Perimenopause	408

Human Potential: Dr. Martin Collis—A Lifelong Educator	409
Menopause	410
Challenges of Aging	411
Depression	411
Driving Risks	412
Is It Ever Too Late to Quit Smoking?	412
Substance Misuse and Abuse	412
Sexuality and Aging	413
Are Older Canadian Adults Using Digital Technology?	413
Death and Dying	414
Defining Death	414
Denying Death	414
Emotional Responses to Dying	415
X and Y Files: Why Do Women Live Longer Than Men?	415
Preparing for Death	416
Suicide	417
Grief	417
Self-Survey: What Is Your Aging IQ?	418
Chapter Summary	420
Self-Responsibility—Social Responsibility	420
Critical Thinking	421
Web Links	421
Key Terms	421

CHAPTER 16 Working Toward a Healthy Environment 423



Konstanttin/Shutterstock

Environmental Awareness	424
Climate Change	424
What Is Global Warming?	425
What Can We Do to Protect the Planet?	427
International Initiatives	427
A Call to Action—Environmental Advocacy	429
The Greening of College and University Campuses	431
The 4 Rs—Reduce, Reuse, Recycle, Recover	432
Four Laws of Ecology	433
The Environment and Our Health	433
The Ecological Determinants of Health	433
The Impact of Pollution	434

Clearing the Air 435

Smog 435

Strategies for Change: Doing Your Part for Cleaner Air 435

Indoor Pollutants 435

The Quality of Our Drinking Water 436

Fluoride 437

Chlorine 437

Chemical Risks 437

What Health Risks Are Caused by Pesticides? 438

Chemical Weapons 438

Cosmetic Chemicals 438

Human Potential: Naomi Devine—Working for Climate Change 439

Invisible Hazards 441

Electromagnetic Fields and Radiation 441

Other Environmental Issues 442

Irradiated Foods 442

Multiple Chemical Sensitivity 442

Noise Pollution 442

Self-Survey: Are You Doing Your Part for the Planet? 444

Chapter Summary 445

Self-Responsibility—Social Responsibility 446

Critical Thinking 446

Web Links 446

Key Terms 447

What Is Spirituality? 450

Integration of Body, Mind, and Spirit 450

Aboriginal Spirituality 451

Spiritual Dimensions 452

How Do I Begin Learning about My Spiritual Dimension? 452

Interconnectedness 453

Human Potential: Erin Pearce: See Them Run—A Story of Courage and Conviction 453

Strategies for Change: Your Spiritual Journey 454

Mindfulness 455

Meaning, Purpose, and Potential 455

Transcendence 455

Spirituality and Health 456

Spirituality and Nature 457

Spirituality on Campus 457

Religion 458

What Are the Major Classical World Religions? 458

Religion in Canada 458

An Invitation to Health and Wellness 463

Self-Survey: Spiritual Self-Assessment 463

Chapter Summary 464

Self-Responsibility—Social Responsibility 464

Critical Thinking 465

Web Links 465

Key Terms 465

Glossary G-1

References R-1

Index I-1

CHAPTER 17 The Spirit of Health and Wellness 449



Evgeny Atamanenko/Shutterstock

Key Features

Strategies for Change

- More Options for Change 19
- Steps to Sleeping Better 39
- Determining Stressors, Coping Mechanisms, and Activities for Relieving Stress 70
- Activating Your Lifestyle 84
- Working Off Weight 155
- How to Enhance Communication 163
- How to Be Clear about Sexual Initiation and Consent 179
- What to Do if You Have an STI 238
- Doing Your Part for Cleaner Air 435
- Your Spiritual Journey 454

Strategies for Prevention

- Setting Realistic Goals 18
- If You Start Thinking about Suicide 50
- Defusing Test Stress 65
- How to Avoid Stress Overload 69
- How to Avoid Stretching Injuries 97
- Protecting Yourself from Food Poisoning 129
- Do You Have an Eating Disorder? 155
- Things to Consider: When to Think Twice about Cohabiting or Getting Married 172
- Preventing Premenstrual Problems 184
- Choosing a Contraceptive 195
- Protecting Yourself from Insect-Borne Diseases 227
- Protecting Yourself from Colds and Flu 233
- How to Prevent a Stroke 263
- Seven Warning Signs of Cancer 276
- Saying No to Drugs 295
- Relapse-Prevention Planning 314
- How to Prevent Drunk Driving 334
- Why Not to Light Up 339
- Protecting Yourself against False Health Claims 362
- How to Drive Safely 378
- Lowering Your Risk of Osteoporosis 407

X and Y Files

- Do Sex and Gender Matter? 12
- Sex, Gender, and Mental Illness Issues 43
- Men, Women, and Stress 63
- Men and Women: Physical Fitness and Physical Activity Levels 84
- Do Men and Women Have Different Nutritional Needs? 115
- Men, Women, and Weight 152
- Men, Women, and Online Dating 169
- Males, Females, and Condom Use 202
- Male and Female Differences in Susceptibility 232
- Sex Differences in Disease 281
- Men, Women, and Drugs 294
- Alcohol, Tobacco, Men, and Women 332
- Men and Women as Healthcare Consumers 365
- Which Gender Is at Greater Risk? 390
- Why Do Women Live Longer Than Men? 415

Self-Surveys

- Planning Your Journey to Wellness—A Road Map 23
- Recognizing Depression 52

- Student Stress Scale 72
- Are You Ready to Become More Active? 100
- How Healthful Is Your Diet? 130
- Are You Ready to Lose Weight? 156
- Healthy Relationship Quiz 185
- Which Contraceptive Method Is Best for You? 217
- What's Your Infection IQ? 250
- Are You at Risk of Cancer? 282
- Do You Have a Substance-Use Disorder? 315
- Do You Have a Drinking Problem? 350
- Are You a Savvy Healthcare Consumer? 370
- How Safe Is Your School? 396
- What Is Your Aging IQ? 418
- Are You Doing Your Part for the Planet? 444
- Spiritual Self-Assessment 463

Self-Responsibility—Social Responsibility

- Chapter 1 28
- Chapter 2 53
- Chapter 3 74
- Chapter 4 102
- Chapter 5 132
- Chapter 6 157
- Chapter 7 186
- Chapter 8 218
- Chapter 9 251
- Chapter 10 283
- Chapter 11 316
- Chapter 12 352
- Chapter 13 372
- Chapter 14 398
- Chapter 15 420
- Chapter 16 446
- Chapter 17 464

Human Potential

- Trisha Kauk, Mary Anne Signer, Kaitlin Lewandoski, and Professor Colleen Plumton—Fit for Life and Learning (FFLL) 21
- Christopher Bratseth—The Power of Kindness 45
- Rob Dyke—An Epic Journey: Just Say Yes 71
- Sam Wade—Pedalers for Prostate and Easter Seals on Wheels 85
- Dr. Stanley Zlotkin—Sprinkles Global Health Initiative: Creative Thought, Creative Purpose 123
- Théa Pheasey—A Message of Hope 154
- Niki Hodgkinson—Redefining “Normal” 176
- Alison Chamberlain—Extraordinary Balance 210
- Saleema Noon—The Best Job in the World 249
- Darbi Aitchison—Life Relearnt 271
- Ashlie—The Other Side of Drug Addiction 313
- Duncan Campbell—From Tragedy to Triumph 330
- Julia Pritchard—A Young Woman's Dream of Medical School 364
- Ashleigh Hawes—Travel and Academics—Take a Risk 387
- Dr. Martin Collis—A Lifelong Educator 409
- Naomi Devine—Working for Climate Change 439
- Erin Pearce: See Them Run—A Story of Courage and Conviction 453

Preface

TO THE STUDENT

Health + Wellness = Potential. This textbook is an invitation to learn about health and wellness concepts that can enhance and help you reach your potential. It is an invitation to embrace a healthy and well way of living. The knowledge you acquire in this textbook will assist you in making better choices, or maintaining the healthy choices you already have adopted—ones that can have a direct impact on how you feel and function, now and for decades to come.

As you read through this textbook, ask yourself the following questions:

- How healthy or well are you?
- Are you emotionally intelligent? Are you able to cope with emotional upsets and crises?
- Do you participate in regular physical activity?
- Do you understand how nutrition plays a role in healthy living?
- Are your relationships with others solid and supportive? Are you conscientious about birth control and safe-sex practices?
- What do you know about your risk for infectious diseases, heart problems, cancer, or other serious illnesses?
- Do you use medications wisely and say no to illegal drugs? Do you use alcohol responsibly? Do you smoke?
- How much do you know about the Canadian healthcare system and complementary and alternative medicine?
- What steps have you taken to ensure your personal safety at home, on campus, and on the streets?
- What can you do to live a long and healthy life?
- What are you doing today to assist with global wellness?
- Are you spiritually connected? Are you living a meaningful and purposeful life?

Self-care, self-responsibility, and social responsibility are also important concepts when it comes to personal and professional health and wellness. Over time, your priorities and needs will inevitably change, but the important connections between your body, mind, and spirit will remain the same. The values that guide you through today can keep you mentally, emotionally, physically, and spiritually well throughout your lifetime.

An Invitation to Health, Fifth Canadian Edition, provides you with information, advice, recommendations, and research so that you can start or continue to take charge of your own health. However, knowledge alone can't assure you a lifetime of well-being. The skills you acquire, the habits you form, the choices you make, and the way you live day by day will all shape your future. We hope you will embrace health and wellness so that you have the opportunity to live a fulfilling life and realize your potential.

This is our invitation to you.

—Dianne Hales
—Lara Lauzon

TO THE INSTRUCTOR

As health and wellness educators, we have the opportunity to encourage our students to become aware of the importance of taking personal responsibility for their health and acquiring the knowledge and skills they need to support their well-being, prevent serious health problems, and reach their potential.

An Invitation to Health, Fifth Canadian Edition, offers many features and elements designed to inspire and involve students in making healthy lifestyle choices. Every chapter incorporates some research on Canadian college and university students. Numerous tables and graphs provide recent data on the health, habits, and concerns of Canadians. We have included the most recent health and wellness research available. We describe health and wellness as a process of discovering, using, and protecting all possible resources within the individual, family, community, and environment. We encourage students to use *An Invitation to Health*, Fifth Canadian Edition, as an owner's manual for their bodies, minds, and spirits. By using this book and taking your course, students can acquire the power to make good decisions, to assume responsibility, and to create and follow a healthy lifestyle. This textbook is our invitation to them to live what they learn and make the most of their health and their lives.

OVERVIEW OF THE FIFTH CANADIAN EDITION

The fifth Canadian edition of *An Invitation to Health* presents a wealth of new research, references, and features. The basic themes are health and wellness education, personal responsibility, commitment

to prevention, practical applications of knowledge, and a focus on behavioural change and social responsibility. All chapters have been updated to keep the textbook as current as possible and to honour requests by students and reviewers.

WHAT'S INSIDE

An Invitation to Health, Fifth Canadian Edition, includes everything your students need in a streamlined text. Dianne Hales and Lara Lauzon are known for the way they speak *with* students—not at them. Students' comments about this textbook are very positive.

The many new figures throughout the textbook provide current Canadian-focused information and data on physical activity behaviour, nutrition, and statistics on overweight Canadians; cancer rates and diabetes; drug and alcohol use; health expenditure and serious injury rates; greenhouse gas emissions and global temperature statistics; and attendance at religious or spiritual services.

Tables have been updated or replaced in many chapters. For example, students can access information about national, provincial, and territorial health and wellness initiatives; national and provincial nutrition initiatives; current legislation for driver distraction and distracted driving laws in Canada; and environmental initiatives on Canadian campuses.

One of the things we are most proud of is the use of current research to support the information we present. Over 780 references were either updated or are brand new. The majority come from primary sources, including professional books; medical, health, physical activity, and mental health journals; health educational periodicals; scientific meetings; federal and provincial agencies and consensus panels; publications from research laboratories and universities; and personal interviews with specialists in a number of fields. Whenever possible, Canadian references are used. We think it is important to share with our students information that is grounded in leading-edge research.

We continue our commitment to include First Nations and Aboriginal health and wellness information in the textbook. In Chapter 1, we present a new First Nations Perspective on Health and Wellness model developed by the First Nations Health Authority. We think it is a wonderful way to celebrate indigenous knowledge. We have also added an environmental dimension of wellness in Chapter 1 to bring attention to the importance of global wellness. In Chapter 2, there is new information from the American Psychiatric Association and the *Diagnostic and Statistical Manual of Mental Disorders* (DSM-5). We have added the new Brazilian Food Guidelines and

an updated section on genetically modified organisms (GMOs) to Chapter 5. In Chapter 6, there is an updated section on global obesity, a revised skinfold measurement section, and an updated fad diet section. Chapter 7 includes a new section on muscle dysmorphia, and in Chapter 8, we have added information on the male birth control pill. In Chapter 9, there is a new section on the Zika virus. It was also important to include a new section on physician-assisted dying in Chapter 15. Chapter 16 has updates about the Paris agreement, as well as new sections on the ecological determinants of health and on microplastics and microbeads.

Human potential stories are such an important part of our textbook. These moving stories are about individuals who have faced great challenges or who have made a difference to the lives of others. They show the connection between healthy lifestyle choices, the ability to leave legacies, and social responsibility. These stories inspire students and faculty members to ponder about their own potential while celebrating the potential of others. In the fifth Canadian edition of *An Invitation to Health*, you will meet a group of amazing students from the University of Manitoba who designed a campus health and wellness course with assistance from one of their professors; their story is in Chapter 1. Two new stories are also presented in Chapters 7 and 10. An update to the human potential story in Chapter 8 is poignant and meaningful.

Some new self-surveys are included in this edition; the one in Chapter 1 is titled *Planning Your Journey to Wellness: A Road Map*, which was developed by the First Nations Health Authority. We are excited to share this survey with students and believe it can be a catalyst for goal setting and planning for personal well-being. A new, thought-provoking spirituality self-survey is in Chapter 17.

New key terms were added to many chapters and include **exergaming**, **HITT**, **genetically engineered organisms (GE)**, **muscle dysmorphia**, **drunkorexia**, and **microplastics**.

We have included a new Check-in feature in each chapter to encourage students to incorporate what they have learnt into their lives. We have continued to include a special Self-Responsibility/Social Responsibility text box and a Chapter Summary at the end of each chapter. These elements give students the opportunity to reflect on how they might embrace lifestyle changes and test their understanding of the key concepts in the chapter. Other features include the chapter FAQs, Strategies for Change, Strategies for Prevention, and the X and Y Files. In addition, the Web Links sections present reliable Internet addresses where students can turn for additional information.

A TEXT FOR THE CANADIAN STUDENT!

SELF-RESPONSIBILITY—SOCIAL RESPONSIBILITY

SELF-RESPONSIBILITY

It seems ludicrous to prepare a student for a lifetime career in their area of interest and not prepare them for the responsibilities of maintaining their life.¹⁶

Dr. Bill Hettler

Education can be an important step toward making healthy lifestyle changes. As you read through this textbook and debate health and wellness concepts with your classmates, friends, families, and professors, think about how you might take responsibility for lifestyle

changes that will enhance your health, well-being, and personal potential. Begin by asking yourself what Stage of Change you are in.

SOCIAL RESPONSIBILITY

It's our responsibility to pass on what we inherited, not to squander it, but to build on it.

Christine Gregoire

Taking care of ourselves allows us to be better able to take care of others. What can you do to make your campus healthy and well?

Self-Responsibility/Social Responsibility Boxes. To enhance behaviour change, this element has been designed to help Canadian students reflect on the Stages of Change model throughout every chapter.

HUMAN POTENTIAL

Trish Kauk, Mary Anne Signer, Kaitlin Lewandoski, and Professor Colleen Plumton—Fit For Life and Learning (FLL)

Our first Human Potential story begins in the fall of 2012 when three students—Trisha Kauk, Mary Anne Signer, and Kaitlin Lewandoski—registered in a course titled PERS 2100: Introduction to Professional Practice, taught by Professor Colleen Plumton, and offered in the Faculty of Kinesiology and Recreation Management (KRM) at the University of Manitoba. Course completion included a group project where students were asked to develop an advocacy campaign to promote physical activity and healthy living in schools or community organizations. As the students brainstormed ideas for their project, they found themselves asking, “If we can’t even be healthy, as physical education students, how can we advocate for others to find health and wellness, in this crazy season of life, also known as university?” They decided they wanted to “find a way that they could maintain their own health and help others to do the same.”

After identifying factors that led to imbalance in their own lives, they set out to create a mock-course that would empower first-year university students to take ownership of their health and wellness in all dimensions—mind, body, heart, and spirit—when making their transition to university. They presented their



Human Potential Stories. These special box features, found in every chapter, relate stories about Canadians who have faced challenges and made a difference in the lives of others. These stories help to illustrate the link between health and wellness and human potential.

Canadian-Related Research. The most up-to-date health research and research on Canadian students and students from other countries appears in every chapter.

Other Outstanding Features and In-Text Tools! With outstanding, interesting features and in-text tools designed to help students take charge of their own well-being, *An Invitation to Health*, Fifth Canadian Edition, truly stands above the rest! The authors are unmatched in their ability to inspire and convey how attainable learning and living a healthy lifestyle can be.

✓ CHECK-IN

Do you want to change a health behaviour? If so, what stage of change are you in?

The Check-In Feature: We have added a new Check-in feature for our fifth Canadian edition. Throughout every chapter the students will find questions to consider. This feature will encourage critical thinking about chapter information.

X AND Y FILES

Men, Women, and Stress

Women, who make up over half of today’s college and university students in Canada, experience greater psychological distress than men. Authors of a study of college students on stress, sex differences, and coping strategies found that female students reported higher levels of overall stress, family responsibilities, social relationships, and daily troubles. They also reported a greater level of stress with regard to finances. In comparison to male students, female students showed a higher use of self-help to cope with their stress levels.²⁵ Results from another study found that female college students experience greater stress than male college students with regard to the quality of their

The X and Y Files. Topics related to sex and gender differences in health are highlighted in this special feature, including “Men, Women, and Stress” and “Men and Women as Healthcare Consumers.”

FREQUENTLY ASKED QUESTIONS

- FAQ: What is health? p. 5
- FAQ: What is epidemiology? p. 7
- FAQ: What is wellness? p. 8
- FAQ: How can I begin to make lifestyle changes? p. 18

FAQs. Frequently Asked Questions appear at the beginning of each chapter and engage students with answers to the most commonly asked questions. Page references are included after each question signalling where the answer can be found.

STRATEGIES FOR CHANGE

More Options for Change

- **Modelling**—Observing other people and emulating their behaviours, successes, or positive lifestyle choices. Look around your community and find people you admire, and who represent your beliefs and values. Watch them carefully. Try to model their behaviour and success. Ask them if they would be willing to mentor you.
- **Positive visualization**—Creating a mental picture of a goal or a behaviour change and visualizing yourself making that change. Watch yourself achieve that goal through your own eyes. Make the image a full-length movie and replay it over and over. Research has shown that positive visualization can help you manifest your goal.

Strategies for Change and Prevention. Appearing throughout the book, the Strategies for Change boxes provide practical checklist-style behavioural change strategies for achieving better health. The Strategies for

Prevention boxes provide effective, practical checklists for preventing health problems and reducing health risks.

SELF-SURVEY

Ultimately you have more control over your health than anyone else. Use this course as an opportunity to commit to at least one healthful behaviour and improve on it. Earlier in this chapter, you explored a First Nations Perspective on Health and Wellness (see Figure 1-1.) The First Nations Health Authority has also created the self-assessment below, which is an excellent resource for everyone. Answer the questions to gain insight that will help you navigate your personal journey to wellness.

Planning Your Journey to Wellness—A Road Map Commitment

What is your present level of commitment to addressing any changes needed that relate to your lifestyle? Rate from 0 to 10, 10 being fully committed:

0 1 2 3 4 5 6 7 8 9 10

Strength

What behaviours or lifestyle habits do you currently engage in regularly that you believe support your health?

What behaviours or lifestyle habits do you currently engage in regularly that you believe are self-destructive?

Support

Who do you know that will sincerely and consistently support you with the beneficial lifestyle changes that you will be making?

Manage

What is your present level of stress (psychological, physical, workplace)?

Rate from 0 to 10, 10 being totally stressed out.

0 1 2 3 4 5 6 7 8 9 10

What do you love to do?

Wellness Self-Assessment

How often have you been physically active this week (30-minute intervals of moderate [walking] to intense activity)?

0 1 2 3 4 5 6 7

How many 8 oz (1 cup) glasses of water did you drink yesterday?

0 1-3 4-7 8-10

How many servings of fruits/vegetables did you have yesterday (1 serving = 1 half cup)?

Web Links Updated interactive websites include Canadian sources and encourage students to use these resources for additional information and learning.

CRITICAL THINKING

1. What is the definition of health according to the text? Does your personal definition differ from this? Does it differ from your definition of wellness? If so, in what ways? How would you have defined the terms "health" and "wellness" before reading this chapter?
2. Talk to classmates from different racial or ethnic backgrounds than yours about their culture's health attitudes. Ask them what is considered healthy behaviour in their culture. For example, is having a good appetite a sign of health?
3. Where are you on the wellness-illness continuum? What variables might affect your place on the scale? What do you consider your optimum state of health to be?
4. Think about a behavioural change you have made in your life in the past two years. How did your "change process" link to the six stages of the trans-theoretical model of change? In what ways would you like to change your present lifestyle? Where are you now on the Stages of Change continuum?

Critical Thinking Questions. At the end of each chapter, students are asked to consider some applications of the chapter's coverage or weigh in on a health-related controversy.

INSTRUCTOR RESOURCES

The Nelson Education Teaching Advantage (NETA) program delivers research-based instructor resources that promote student engagement and higher-order thinking to enable the success of Canadian students and educators. Visit Nelson Education's **Inspired Instruction** website at nelson.com/inspired/ to find out more about NETA.

The following instructor resources have been created for *An Invitation to Health*, Fifth Canadian Edition. Access these ultimate tools for customizing lectures and presentations at nelson.com/instructor.

NETA Test Bank This resource was written by Brenda Bruner, Nipissing University. It includes over 550 multiple-choice questions written according to NETA guidelines for effective construction and development of higher-order questions. Also included are 280 completion questions, 170 matching questions, and 138 essay questions.

The NETA Test Bank is available in a new, cloud-based platform. **Nelson Testing Powered by Cognero®** is a secure online testing system that allows instructors to author, edit, and manage test bank content from anywhere Internet access is available. No special installations or downloads are needed, and the desktop-inspired interface, with its drop-down menus and familiar, intuitive tools, allows instructors to create and manage tests with ease. Multiple test versions can be created in an instant, and content can be imported or exported into other systems. Tests can be delivered from a learning management system, the classroom, or wherever an instructor chooses. Nelson

Self-Surveys. Self-Surveys at the end of each chapter link directly to chapter content. They provide an opportunity for students to assess their knowledge and understanding of course concepts, thereby encouraging personal reflection and increasing student engagement in course material.

Chapter Summary

1. How can health promotion be defined?
 - a. mutual aid, self-care, and healthy environments
 - b. a way of thinking about the social and economic forces that shape health
 - c. the process of enabling people to increase control over and to improve their health
 - d. the absence of disease and infirmity
2. What is the definition of wellness?
 - a. purposeful, enjoyable living, characterized by personal responsibility and enhancement of physical, mental, and spiritual health
 - b. a state of complete physical, mental, and social well-being
3. Which of the following factors do NOT shape positive behaviours?
 - a. reinforcing factors, which involve external recognition for achieving a goal
 - b. lifestyle choices that include misuse and abuse of substances
 - c. predisposing factors, which include knowledge, provincial government commitment for healthy policies and programs
 - d. federal government commitment for national health programs and services
7. Which of the following factors do NOT shape positive behaviours?
 - a. reinforcing factors, which involve external recognition for achieving a goal
 - b. lifestyle choices that include misuse and abuse of substances
 - c. predisposing factors, which include knowledge,

Chapter Summary To test their knowledge, students are invited to review important chapter material through a format of multiple-choice questions.

WEB LINKS

- Canadian Institute for Health Information**
www.cihi.ca
Access information about national health indicators and standards, health spending, current health research, and the Canadian Population Health Initiative (CPHI).
- Canadian Institutes for Health Research**
www.cihr-irsc.gc.ca/
Learn about Canada's lead federal funding agency and funding opportunities for health research in four areas: biomedical, clinical, health systems and services, and population and public health.
- Health Canada**
www.hc-sc.gc.ca
A federal government website where health information can be found. Check out *The Daily*, a special page that keeps Canadians on top of current health issues.

- First Nations and Inuit Health, Health Canada**
www.hc-sc.gc.ca/fnih-spni/index-eng.php
Discover public health and health-promotion services for First Nations and Inuit people in Canada.
- First Nations Health Authority**
www.fnha.ca/what-we-do/health-and-wellness-planning
The first and only provincial First Nations Healthy Authority in Canada. Check these Web pages for tips, guides, and resources for health and wellness planning.
- University of Toronto-Scarborough, Health and Wellness Centre**
www.uts.utoronto.ca/hwc/wellness-campus
This website provides an example of health and wellness programs and initiatives being offered at the University of Toronto-Scarborough. Support for students includes a Wellness Peer Program and a Mental Health Network.

Testing Powered by Cognero for *An Invitation to Health* can be accessed through nelson.com/instructor.

NETA PowerPoint Microsoft® PowerPoint® lecture slides for every chapter have been created by Brenda Bruner, Nipissing University. There is an average of 40 slides per chapter, many featuring key figures, tables, and photographs from *An Invitation to Health*. NETA principles of clear design and engaging content have been incorporated throughout, making it simple for instructors to customize the deck for their courses.

Image Library This resource consists of digital copies of figures, short tables, and photographs used in the book. Instructors may use these jpegs to customize the NETA PowerPoint or create their own PowerPoint presentations. An Image Library Key describes the images and lists the codes under which the jpegs are saved. Codes normally reflect the chapter number (e.g., C01 for Chapter 1), the figure or photo number (e.g., F15 for Figure 15), and the page in the textbook; C01-F15-pg26 corresponds to Figure 1-15 on page 26.

NETA Instructor Guide This resource was written by Karen McLaren. It is organized according to the textbook chapters and addresses key educational concerns, such as typical stumbling blocks student face and how to address them. Other features include discussion questions, suggestions for guest speakers and panel presentations, in-class activities, and other resources for further study.

MindTap Offering personalized paths of dynamic assignments and applications, **MindTap** is a digital learning solution that turns cookie-cutter into cutting-edge, apathy into engagement, and memorizers into higher-level thinkers. MindTap (adapted by Roberta Panchuk of the University of Saskatchewan) enables

students to analyze and apply chapter concepts within relevant assignments, and allows instructors to measure skills and promote better outcomes with ease. A fully online learning solution, MindTap combines all student learning tools—readings, multimedia, activities, and assessments—into a single Learning Path that guides the student through the curriculum. Instructors personalize the experience by customizing the presentation of these learning tools to their students, even seamlessly introducing their own content into the Learning Path.

STUDENT RESOURCES



Stay organized and efficient with **MindTap**—a single destination with all the course material and study aids you need to succeed. Built-in apps leverage social media and the latest learning technology. For example:

- ReadSpeaker will read the text to you.
- Flashcards are pre-populated to provide you with a jump-start for review—or you can create your own.
- You can highlight text and make notes in your MindTap Reader. Your notes will flow into Evernote, the electronic notebook app that you can access anywhere when it's time to study for the exam.
- Self-quizzing allows you to assess your understanding.

Visit nelson.com/student to start using MindTap. Enter the Online Access Code from the card included with your text. If a code card is *not* provided, you can purchase instant access at NELSONbrain.com.

Acknowledgments

It is exciting, as the Canadian author, to be celebrating our fifth Canadian edition of *An Invitation to Health*. It hardly seems possible that my work on the first Canadian edition of the textbook began in 2004. It has been quite a journey and I am so proud of all the advances and improvements in every edition. Thanks must first go to Dianne Hales, the author of *An Invitation to Health*, Brief Third Edition, which was published in the United States in 2004 and used as a template for our first Canadian edition of the textbook. Thanks must also go to Jackie Wood, Publisher, Higher Education, who continues to champion this textbook. I value her wise counsel and trust in my abilities. Thank you also to Lenore Taylor-Atkins, Publisher, Higher Education, who facilitated the review process for the fifth Canadian edition. Her connection with the reviewers resulted in many thoughtful suggestions, which I was able to integrate into this edition. I also want to acknowledge Jacquelyn Busby, our content development manager. She provided encouragement and support throughout the writing and revision process. Her enthusiasm and assistance allowed for the inclusion of new material that we hope students will enjoy and learn from.

I worked very closely with Christina Maria Jelinek, who was our copy editor for the third, fourth, and now fifth Canadian editions. I knew I would enjoy working with her when I received a note letting me know she was passionate about her work. She was and it made all the difference. We work so well together. Her attention to detail has made every manuscript so much better.

Thanks must also go to Trinh Truong for the cover design; Christine Gilbert and Jaime Smith, our production project managers; Carrie McGregor, our

freelance permissions coordinator and photo researcher; and Daniela Glass, our project manager, rights acquisition and policy. Our senior project manager for this edition was Naman Mahisauria from MPS Ltd. and we were fortunate to have him on board for the final production process. I work with an amazing group of dedicated people who understand the concepts of health, wellness, and potential. I know that a textbook cannot be produced and published without committed team members who help an author through the key phases of production.

Finally, I would like to thank the reviewers for this edition as well as the previous Canadian edition. Their comments were honest, valuable, thorough, and helpful. They challenged me to do my very best work. Their willingness to share their ideas and resources has made *An Invitation to Health* a first-class textbook. They are

Andrea Bedard, University of Winnipeg

Diana Bedoya, Simon Fraser University

Katrina Blacklock, Norquest College

Brenda Bruner, Nipissing University

Sylvia Emmorey, Durham College

Garreth Jones, University of British Columbia–
Okanagan

Meredith Lowe, Georgian College

Linda McDevitt, Algonquin College

Robin Milhausen, University of Guelph

Jeremy Noble, University of New Brunswick

Linda Nykolyn, Norquest College

Roberta Panchuk, University of Saskatchewan

James Wendland, Capilano University

Tammy Whitaker-Campbell, Brock University

Lara Lauzon

About the Authors

LARA LAUZON

Lara Lauzon is an Associate Professor at the University of Victoria in British Columbia. Her teaching focus in the School of Exercise Science, Physical and Health Education is student health, wellness, and personal potential. Her research specialty is in teacher wellness. She is also a consultant specializing in workplace wellness and leadership. She has worked for not-for-profit, municipal, provincial, and private health and fitness agencies. She co-produced and hosted an internationally syndicated health and fitness show called *Body Moves* for seven years. She has won many awards, including a Faculty of Education Teaching Excellence Award (University of Victoria), a Graduate Student Award for Teaching Excellence, the Victoria “Y” Women of Distinction Award for the fitness and health category, the B.C. Promotion Plus Leadership Award for promotion of girls and women in fitness and sport, a B.C. Paraplegic Association Award for the production of two fitness videos for persons with disabilities, and a Community Wellness Award for outstanding contribution to the field of community wellness. She accepted an honorary membership to the Golden Key International Honour Society at the University of Victoria. She has written hundreds of fitness and health columns for newspapers and health magazines and has published a number of fitness and health journal articles. She is a co-author of *Leadership for Recreation, Leisure and Parks Services*, Fourth Edition, and also has a chapter titled “A Work In Progress” included in a collaborative work called *Wise Women Speak: Changes Along the Path*. She is a popular keynote speaker and continues to present health and wellness workshops in Canada and the United States.



Tosha Lobsinger Photography

DIANNE HALES

Dianne Hales, a contributing editor for *Parade*, has written more than 2000 articles for national publications. Her trade books include *Just Like a Woman: How Gender Science Is Redefining What Makes Us Female* and the award-winning compendium of mental health information, *Caring for the Mind: The Comprehensive Guide to Mental Health*. Dianne Hales is one of the few journalists to be honoured with national awards for excellence in magazine writing by both the American Psychiatric Association and the American Psychological Association. She also has won the EMMA (Exceptional Media Merit Award) for health reporting from the National Women’s Political Caucus and Radcliffe College, and numerous writing awards from various organizations, including the Arthritis Foundation, California Psychiatric Society, CHAAD (Children and Adults with Attention-Deficit Disorders), Council for the Advancement of Scientific Education, National Easter Seal Society, and the New York City Public Library.



Julia Hales



merzzie/Shutterstock

AFTER READING THIS CHAPTER, YOU WILL BE ABLE TO:

- ▶ **define** health and wellness
- ▶ **describe** and **discuss** health-promotion and wellness models
- ▶ **identify** the seven dimensions of wellness and **describe** how they relate to total wellness
- ▶ **list** and **describe** the social determinants of health
- ▶ **recognize** the factors that shape the development of positive health behaviours
- ▶ **describe** how beliefs and attitudes influence behaviour
- ▶ **apply** a behaviour-change theory to a personal health and wellness action plan

An Invitation to Health and Wellness

“How are you?” You may hear that question many times each day. “Fine,” you answer, without thinking. But how often do you ask yourself how you really are? How do you feel about yourself and your life? Are the lifestyle choices you are making supporting your personal well-being and career goals?

Being healthy and well includes a connection between body, mind, and spirit. Health and wellness are also dependent on the community, society, and environment in which you live. This edition of *An Invitation to Health* is an invitation to embrace a “well” way of living and an opportunity to reflect upon the link between healthy lifestyle choices and your own personal potential.

As you read through this book, you will discover the importance of emotional and physical well-being. You will be encouraged to think about the benefits of physical activity and healthy food choices. Drug, alcohol, and tobacco use is discussed as well as such topics as sexuality, reproductive choices, and lowering your risk of major diseases. You will also find out about environmental issues that affect global wellness and the spiritual dimension of holistic living.

Establishing the basis for good health now can support a healthy way of living in your future. We begin with an introduction to health and wellness.

FREQUENTLY ASKED QUESTIONS

FAQ: What is health? p. 5

FAQ: What is epidemiology? p. 7

FAQ: What is wellness? p. 8

FAQ: How can I begin to make lifestyle changes? p. 18

HEALTH AND WELLNESS

There has been much discussion among health and wellness advocates as to whether health equals wellness or wellness equals health. For many, being well is essentially the same as being healthy. For others, there is a distinction between the two terms. Many health and wellness programs are based on similar health risk–reduction strategies. In this section, you will be introduced to definitions of *health* and *wellness*. You will also discover some health promotion and wellness models. You are encouraged to adopt or adapt whatever terms and models you find meaningful.

Travelling back to ancient Greece, we meet our earliest and most enduring icon of medicine and health and wellness—that of the Greek god of health and father of medicine, Asklepios, also known by his Roman name, Aesculapius. Two of Asklepios’s children also became celebrated healers. His daughter Panacea believed that the best way to help people was to treat illness. Her sister Hygeia believed that it was important to teach people how to live so that they did not become ill.¹ Their legacy is our understanding of the words **panacea**, which means “a remedy for all ills or difficulties,”² and **hygiene**, meaning healthy: “a science of the establishment and maintenance of health; conditions or practices conducive to health.”³

First Nations and Aboriginal Health and Wellness

In Canada, we do not have to return to ancient Greek mythology to be educated or inspired about health and wellness. Instead, we can look to the worldview of First Nations and Aboriginal Peoples to gain an understanding of health and well-being, in which the emphasis on the interconnectedness between the physical and spiritual world, between individuals and their environment, and between the mind, body, and spirit guides the concept of **holism**.⁴

Kulchyski, McCaskill, and Newhouse say that “at the heart of most elders’ stories and teachings is the idea that it is important for an individual to attempt to live Bimaadiziwin, ‘the way of good life’ or ‘everyday good living’ in accordance with the teachings of the Creator.”⁵ They suggest that “it is through an understanding of the reciprocal relationship between ourselves and Mother Earth and living in a balanced way that we are provided with the sustenance, both physical and spiritual, necessary for life.”⁶

First Nations Medicine Wheels assist in the teaching of Bimaadiziwin. Although there are many different but related versions, they share traditional theology, philosophy, psychology, and the teachings of the

Creator. The First Nations Health Authority (FNHA)—guided by First Nations in BC, traditional teachings, and approaches from healers and Elders and other health partners—has created a visual image of a First Nations Perspective on Health and Wellness (see Figure 1-1). A description of the visual depiction helps us to understand the meaning and vision of wellness.⁷

There are five inner circles:*

- The Centre Circle—reminds us wellness begins with taking responsibility for our own health and wellness.
- The Second Circle—encourages us to balance mental, emotional, spiritual, and physical aspects of wellness.
- The Third Circle—links the values of respect, wisdom, responsibility, and relationships.
- The Fourth Circle—portrays where we come from and who we are surrounded by—land, community, family, and nations.

*Source: First Nations Health Authority, “Traditional Healing,” <http://www.fnha.ca/what-we-do/traditional-healing>.

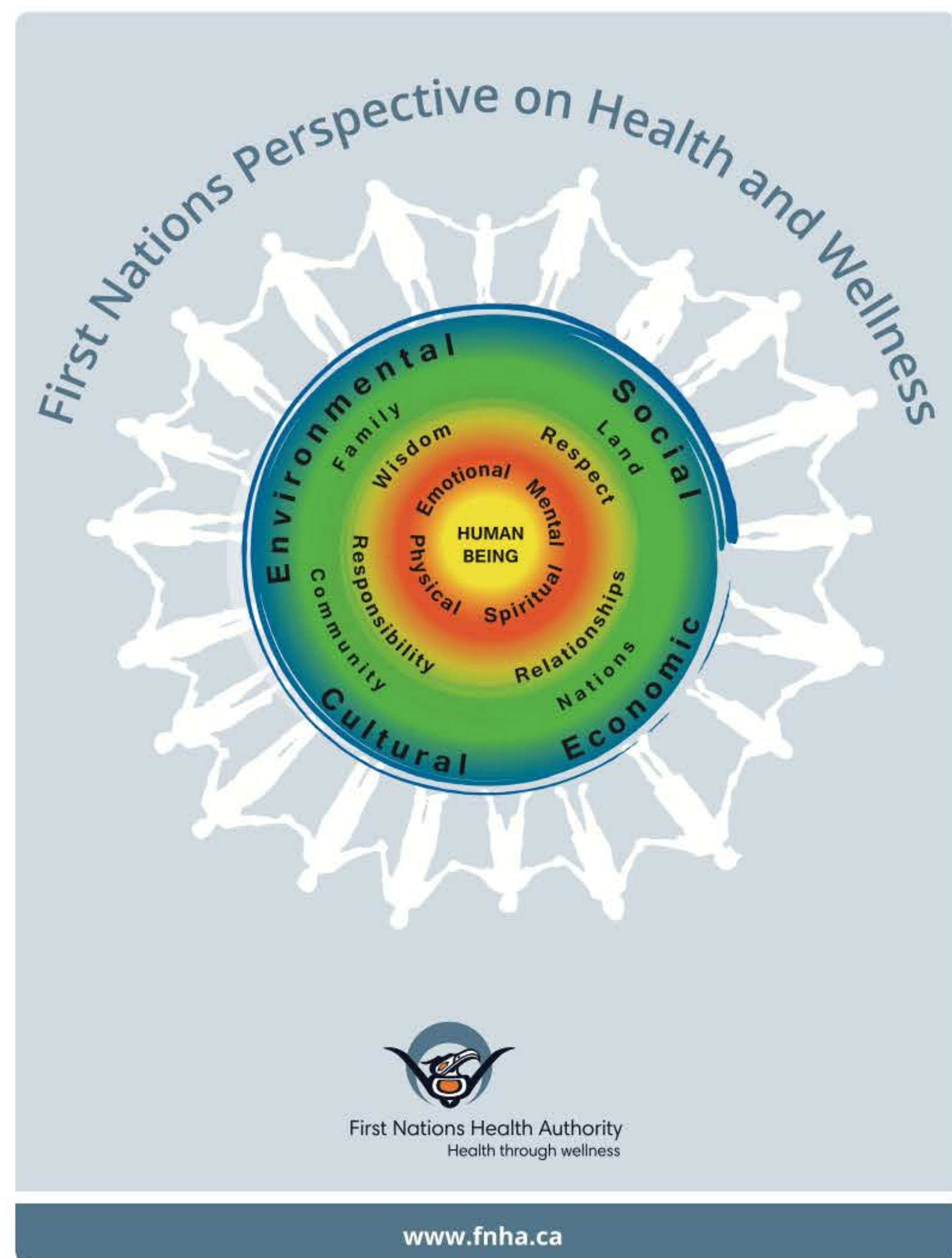


Figure 1-1 First Nations Perspective on Health and Wellness

Source: First Nations Health Authority. (2016). A First Nations Perspective on Health and Wellness. Wellness and the First Nations Health Authority. www.fnha.ca/wellness/wellness-and-the-firs-nations-health-authority/firs-nations-perspective-on-wellness.

*By permission. From Merriam-Webster’s Collegiate © Dictionary, 11th Edition © 2016 by Merriam-Webster, Inc. (www.Merriam-Webster.com).

- The Fifth Circle—represents the important influences of the social, cultural, economic, and environmental determinants of health and well-being.
- The Outer Circle—illustrates children, families, elders, and people in all communities standing together, with respect for one another, building relationships.

A more in-depth description of the First Nations Perspective of Wellness can be found on the First Nations Health Authority website at www.fnha.ca.

HEALTH AND HEALTH PROMOTION

What Is Health? Another view of health has its beginnings in the World Health Organization (WHO), an agency that has shaped our understanding of health as many Canadians know it today. The World Health Organization emphasized the importance of the preventive side of health, and a declaration was adopted that stated that “the enjoyment of the highest attainable standard of health is one of the fundamental rights of every human being.”⁸ The WHO’s definition of **health** as “a state of complete physical, mental, and social well-being and not merely the absence of disease or infirmity” was adopted on April 7, 1948.⁹ This was the beginning of a new era in health care.

In 1974, an important document titled *A New Perspective on the Health of Canadians* presented epidemiological evidence for the focus of lifestyle and environmental factors on health. Often referred to as the Lalonde Report,¹⁰ this breakthrough work presented a conceptual framework called the Health Field Concept, which included four main elements: human biology, environment, lifestyle, and health-care organizations. The report was influential in persuading medical leaders to rethink current medical practices based on treatment-focused medicine and acknowledge that vast sums of money were also being used to treat diseases that could have been prevented.

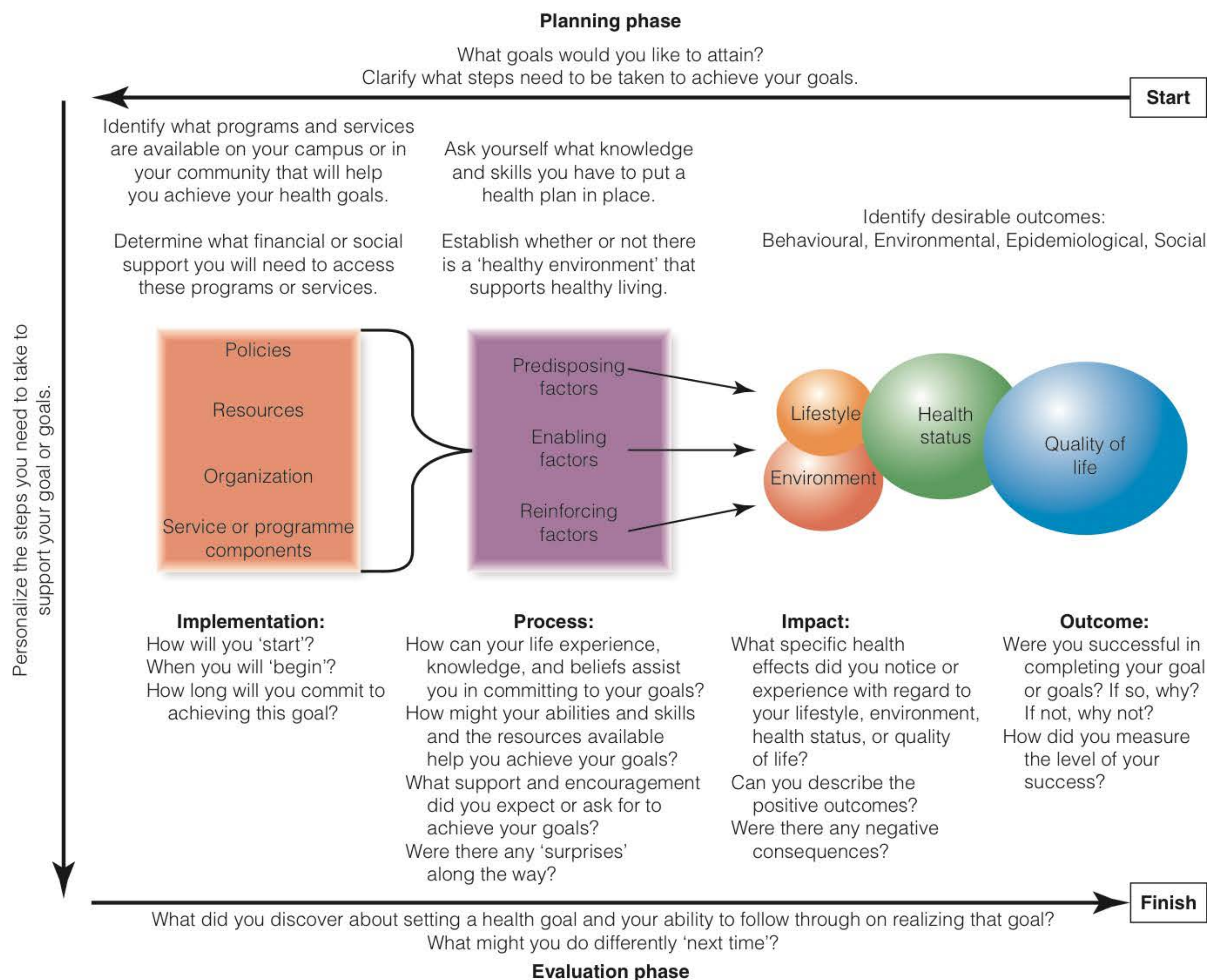
The definition of health continued to broaden as we moved from measuring our nation’s health status only by **morbidity** (disease) and **mortality** (death) rates to viewing health as a part of everyday living. In 1986, the first International Conference on Health Promotion, organized by the WHO and hosted in Ottawa, Ontario, by The Hon. Jacob (Jake) Epp, the federal minister of health and welfare at that time, was held as a response to growing expectations for a new public health movement around the world. An international agreement known as the *Ottawa Charter for Health Promotion*¹¹ was signed at this conference. The agreement helped build healthy public policy through health promotion:

*Health promotion is the process of enabling people to increase control over and to improve their health. To reach a state of complete physical, mental, and social well-being, an individual or group must be able to identify and realize aspirations, to satisfy needs, and to change or cope with the environment. Health is, therefore, seen as a resource for everyday life, not the objective of living. Health is a positive concept emphasizing social and personal resources, as well as physical capacities. Therefore, health promotion is not just the responsibility of the health sector, but goes beyond healthy lifestyles to well-being.**

A follow-up report titled *Achieving Health for All: A Framework for Health Promotion*¹² identified three national health challenges: reducing inequities, increasing the prevention effort, and enhancing people’s capacity to cope. The three mechanisms to health promotion were identified as **self-care**, the decisions and actions individuals take in the interest of their own health; **mutual aid**, the actions people take to help each other cope; and **healthy environments**, the creation of conditions and surroundings conducive to health. Implementation strategies included fostering public participation, strengthening community health services, and coordinating healthy public policy. This health promotion framework is still used today as a foundation for planning, implementing, and evaluating health promotion programs and education.

Many more health models have been developed over the past few decades. The Health Belief Model, originated by Hochbaum, Kegels, and Rosenstock in the 1950s, was developed to help explain and predict health behaviour. This model considers social, ecological, and environmental factors that can influence our behaviour.¹³ A more detailed description of this model is found on page 17 of this chapter. The Precede-Proceed model for health program planning and evaluation was developed and adapted by Green and Kreuter over a 40 year period of work and education in community health promotion.¹⁴ The purpose of the model is to provide a guide to improving our health through a socio-ecological approach. The authors of this model encourage us to think about our own individual health behaviours and choices within the environment we live in. They also encourage health experts and planners to support a population health approach and improve conditions at a community level that will support individual behaviour change. (See Figure 1-2 for a Canadian English adaptation of the model).

*Source: World Health Organization, “The Ottawa Charter for Health Promotion,” found at <http://www.who.int/healthpromotion/conferences/previous/ottawa/en/>.



Adapted from: Green L. <http://www.lgreen.net/precede.htm> (Accessed July, 2016)

Figure 1-2 Precede-Proceed Model for Health-Promotion Planning and Evaluation

Source: Adapted from L.W. Green. (2009, May). A Resource for instructors, students, health practitioners, and researchers using: The Precede-Proceed model of health program planning & evaluation. A Canadian Adaptation of the Model. Available at <http://lgreen.net/precede.htm>; and Lawrence W. Green and Marshall Kreuter, *Health Program Planning: An Educational and Ecological Approach*, 4th edition. (New York: McGraw-Hill, 2005).

The Quality of Life Model, developed in Canada at the Quality of Life Research Unit at the University of Toronto, is another helpful tool for individuals or communities wanting to enhance their health and well-being. This model has three life domains—Being, Belonging, and Becoming—with each domain having three subdomains (see Table 1-1). Quality of life is measured as the degree to which a person enjoys the important possibilities of his or her life.¹⁵ The model emphasizes an individual's physical, psychological, and spiritual functioning; the connections with his or her environment; and the opportunities for maintaining and enhancing skills.

Health professionals, researchers, and recreation and school educators working in numerous national, federal, and provincial agencies support the health and well-being of Canadians, too. A short description of some of these agencies and the programs and services they provide are shared here.

The Canadian Institute for Health Information (CIHI) is an independent, not-for-profit organization that provides information about national health

indicators and standards, health spending, and current health research. One example of a special project of CIHI is the Canadian Population Health Initiative (CPHI).¹⁶ **Population health** is a way of thinking about the social and economic forces that shape the health of Canadians. It builds upon public health and health promotion but goes beyond our more traditional understanding of the causes of health and illness.

The Public Health Agency of Canada works closely with provinces and territories to keep Canadians healthy and reduce healthcare costs. Headed by the chief public health officer, who reports to the minister of health, this national agency focuses on efforts to prevent chronic diseases and responds to health emergencies and infectious disease outbreaks. Its mission is to renew the public health system in Canada and support a sustainable healthcare system.¹⁷

The Canadian Institutes of Health Research (CIHR)¹⁸ is a federal agency that funds health research in Canada. New health knowledge gained from the research is then made available to health, recreation, and school professionals and practitioners so that