

Second Edition

EMERGING THEORIES IN

HEALTH PROMOTION

PRACTICE AND RESEARCH

EDITORS

Ralph J. DiClemente

Richard A. Crosby • Michelle C. Kegler

EMERGING
THEORIES IN HEALTH
PROMOTION
PRACTICE AND
RESEARCH

In the world of theory there strode three giants:
Albert Bandura, Martin Fishbein,
Everett Rogers

Many have stood on their broad shoulders and
benefited from their seminal research. To them the
field owes a great debt of gratitude.

EMERGING THEORIES IN HEALTH PROMOTION PRACTICE AND RESEARCH

Second Edition

**RALPH J. DICLEMENTE
RICHARD A. CROSBY
MICHELLE C. KEGLER**

Editors

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For Sahara—you are my heart, my soul,
and my inspiration—all my love.
For Gina Maria—my wife, my colleague,
and my life partner—you are incredible.

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To my three children for their inspiration—their lives
are a constant reminder to me of an unending obligation to
improve the world we live in.

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To my husband, whose continued support allows me to take
advantage of new opportunities as they arise—for this
I'm grateful.

MCK

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FOREWORD

As illustrated in this volume, we are learning more about the important role of existing and new theories in promoting health. A theory is a set of interrelated concepts, definitions, and propositions that presents a systematic view of events by specifying relations among variables to explain and predict the events. Theories help to explain behavior and suggest ways to achieve behavior change, and are created after observation and testing. They are designed to rationally and clearly explain a phenomenon. As noted by Bandura,¹ in some scientific disciplines (for instance, mathematics), theories integrate laws, whereas in newer fields (for example, public health, behavioral science), theories describe or specify the determinants governing the phenomena of interest. Moreover, when planning programs, theory can point to important intervention and evaluation strategies. For example, if perceptions are considered important in maintaining behavior, then it will be crucial to include some strategies to alter perceptions, whereas if skills are considered important to change behavior, then some strategy to alter skills must be included in the intervention. Does theory matter when developing and implementing interventions to improve public health? The verdict is in on this question, and the answer is a resounding “Yes.” It is now established that the effectiveness of public health interventions can be enhanced by use of theory-based planning frameworks such as those described in the second edition of *Emerging Theories in Health Promotion Practice and Research*.

In theory there is no difference between theory and practice. In practice there is.

—Yogi Berra

Knowing the importance of theory, we are beginning to document the use of theory in behavior-change interventions, thus identifying gaps needing attention. Painter and colleagues recently reviewed articles in ten leading public health, medicine, and psychology journals.² They found that 36 percent of studies mentioned theory. The most commonly used theories were those focusing on either individual-level behavior change (for example, the health belief model) or at the interpersonal level (for example, the social cognitive theory). Articles using theory most often were informed by theory (68 percent), whereas a smaller proportion sought to build theory (9 percent) or tested theory (4 percent). This suggests a significant gap in the literature that is filled by this volume—that is, the development and testing of theories for specific populations, settings, and approaches to intervention. The chapters in *Emerging Theories in Health Promotion* lie at the nexus between what we have learned from past theory-driven research, the challenges that we face in continuing to build the evidence base, and the application of theory in “real-world” settings. As theories have evolved, it is likely that the earliest individually focused theories were developed in less complex systems compared to many of the theories described in this volume, which are applied in complex and multidisciplinary systems and often to underserved populations. Three particularly

important themes are woven through various chapters in the current volume: a priority on eliminating health disparities, the need for an “upstream” focus, and an improved understanding of how to apply theory in practice settings.

Theory can play a crucial role in addressing health disparities. The elimination of health disparities is one of the two overarching goals of the Healthy People 2010 national health agenda. Recent data show large and growing differences in disease burden and health outcomes between high- and low-income groups.³ The health disparities also persist in other population subgroups, such as African Americans, Hispanic/Mexican Americans, and American Indians/Alaskan Natives. As noted in several chapters in this book, health disparities are often associated with poverty and social fragmentation. Theory-based approaches show promise in addressing these health disparities. For example, diverse community coalitions with active participation can lead to more effective intermediate outcomes. Much of the evidence on the use and effectiveness of theory has developed in Western, European-American settings. This book makes an important contribution by exploring how theory can be applied in other cultures. Often these are populations with significant health disparities.

While interventions are often organized around ecological frameworks, the existing health behavior change literature has lacked sufficient focus on “upstream” intervention levels of such frameworks. The upstream, sociopolitical public health actions (for example, raising the price of tobacco) are likely to be more cost-effective and save more lives than downstream interventions (for example, conducting smoking cessation classes).⁴ Thus, we know that public health policy, in the form of laws, guidelines, and regulations, can have a profound effect on health status. In a review of behavioral research articles,² only 2 percent of studies were policy-focused. Policy, in the form of laws, regulations, and organizational guidelines, has a profound effect on our daily lives and health status. Policy interventions have the potential to equalize the environment in a way that may significantly reduce the growing disparities. However, upstream approaches can be subject to the “inverse evidence” law, in which there is less evidence on social and policy determinants of health than on individual-level interventions, due in part to the difficulty in studying these issues with “gold standard” research designs (for example, randomized trials).⁵ Therefore, we often have the right answers to the wrong questions.

As noted in this volume, the challenges in putting theory to work in public health practice are not trivial. It is very likely that the capacity of an organization has a direct bearing on its ability to implement theory-driven interventions. The lack of trained staff, facilities, and external funding, along with a lack of appropriate infrastructure for adoption, can often inhibit implementation and maintenance of even the most effective interventions. Implementation research seeks to understand the processes and factors that are associated with successful integration of evidence-based interventions within a particular setting (for example, a worksite or school).⁶ Implementation of theory-based programs often results in a tension between fidelity (maintaining the original program design) and reinvention (changes needed for replication in a new setting). As noted in this text, participatory processes are increasingly being used with evidence-based

efforts to understand local context while maintaining some degree of fidelity. In addition, when practice settings seek out appropriate and adequate resources (for example, training, technical assistance), the likelihood of success in adopting and maintaining theory-driven interventions is increased.

This timely and well-conceived second edition of *Emerging Theories in Health Promotion* covers these issues and a wide range of others, forging new ground on numerous topics. This text will become treasured reading for researchers or practitioners interested in having the most up-to-date set of tools in their health promotion toolbox.

Ross C. Brownson, PhD

REFERENCES

1. Bandura A. *Social foundations of thought and action: A social cognitive theory*. Englewood Cliffs, NJ: Prentice Hall, 1986.
2. Painter, J. E., Borba, C. P., Hynes, M., Mays, D., and Glanz, K. (2008). The use of theory in health behavior research from 2000 to 2005: A systematic review. *Annals of Behavioral Medicine*.
3. Ezzati, M., Friedman, A. B., Kulkarni, S. C., and Murray, C. J. (2008). The reversal of fortunes: Trends in county mortality and cross-county mortality disparities in the United States. *PLoS Medicine*, 5(4), e66.
4. McKinlay, J. B., and Marceau, L. D. (2000). Upstream healthy public policy: Lessons from the battle of tobacco. *International Journal of Health Services*, 30(1), 49–69.
5. Nutbeam, D. (2003). How does evidence influence public health policy? Tackling health inequalities in England. *Health Promotion Journal of Australia*, 14, 154–158.
6. Rabin, B. A., Brownson, R. C., Haire-Joshu, D., Kreuter, M. W., and Weaver, N. L. (2008). A glossary for dissemination and implementation research in health. *Journal of Public Health Management Practice*, 14(2), 117–123.

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THE EDITORS

Ralph J. DiClemente, PhD, is Charles Howard Candler Professor at the Rollins School of Public Health, Emory University. He holds concurrent appointments in the School of Medicine, Department of Medicine, Division of Infectious Diseases, and the Department of Pediatrics, Division of Infectious Diseases, Epidemiology, and Immunology. He is also associate director, Center for AIDS Research. His research focuses on identifying the determinants of adolescent/young adults' HIV/STD-associated sexual behavior and designing interventions to reduce sexual risk behaviors and their adverse health consequences. He has authored or edited fourteen books and written over three hundred scientific articles.

Richard A. Crosby, PhD, is an endowed professor and chair of the Department of Health Behavior in the College of Public Health at the University of Kentucky. He was previously an assistant professor at the Rollins School of Public Health and served as a Fellow of the Association of Teachers for Preventive Medicine at CDC. He has published numerous journal articles addressing empirical questions related to safer sex practices among persons at high risk of acquiring sexually transmitted infections. Dr. Crosby is also an author of a textbook devoted to research methods (*Research Methods for Health Promotion*) and coeditor of a textbook devoted to the promotion of adolescent health (*Adolescent Health: Understanding and Preventing Risk*). As a dedicated teacher, Dr. Crosby has shared in the training of countless numbers of students earning their Masters in Public Health degree.

Michelle C. Kegler, DrPH, MPH, is an associate professor and director of Graduate Studies in the Department of Behavioral Sciences and Health Education in the Rollins School of Public Health at Emory University. She is also deputy director of the Emory Prevention Research Center. Dr. Kegler received her BA degree (1983) in psychology from the University of Minnesota, her MPH (1985) in health behavior and health education from the University of Michigan, and her DrPH (1995) in the same field from University of North Carolina at Chapel Hill. Her research interests include community-based approaches to chronic disease prevention, with an emphasis on community coalitions and program evaluation. She has published numerous articles on community coalitions, community capacity, and evaluation results from community-based programs. She is also interested in environmental approaches to health promotion, with recent work focusing on the home environment as a setting for obesity prevention and reduction of exposure to secondhand smoke. Dr. Kegler teaches program evaluation and health promotion interventions.

THE CONTRIBUTORS

Marc A. Adams, MPH, is a doctoral candidate in the Joint Doctoral Program in Public Health (Health Behavior) between San Diego State University and the University of California, San Diego. He is also a research associate at the Center for Behavioral Epidemiology and Community Health (CBEACH) and at the Center for Wireless and Population Health Systems. His research interests include theory development and promotion of physical activity and healthy diets; tobacco control, and sun protection behavior.

Angie Alaniz is the Brazos Valley Regional Director for the Center for Community Health Development at the Texas A&M Health Science Center, School of Rural Public Health, one of CDC's thirty-three designated Prevention Research Centers. Her work focuses on building capacity of rural communities through leadership development, training, and technical assistance. She has extensive expertise in community health development and partnership facilitation.

Moya L. Alfonso, PhD, MSPH, is a research assistant professor with the Florida Prevention Research Center at the University of South Florida. She is also senior research coordinator for the Center for Social Marketing at the University of South Florida. She has a decade of experience in community-based participatory research and evaluation. Her research interests include community youth development and adolescent health, with an emphasis on the prevention of alcohol use.

Julie A. Baldwin, PhD, is professor and chair of the Department of Community and Family Health, College of Public Health, University of South Florida, Tampa. She has collaborated with the Florida Prevention Research Center for four years and has an extensive publication record and a history of federally funded, community-based projects. Dr. Baldwin has also served on several NIH review panels, including two standing committees: the Behavioral and Social Consequences of HIV/AIDS, and the Community Influences on Health Behavior.

Jamie Barden has been an assistant professor in the Department of Psychology at Howard University since receiving his doctorate from Ohio State University in 2005. Much of his research is focused on the processes that produce evaluative judgments, from less thoughtful automatic processes to more thoughtful meta-cognitive processes. A second line of inquiry explores the processes and biases that result from placing the self and others into social categories including race, gender, and political party.

Carol Bryant, PhD, is a Distinguished USF Health Professor and codirector of the Florida Prevention Research in the College of Public Health at the University of South Florida. For the past twenty years, she has directed marketing research to design public health interventions on a wide variety of topics. With her colleagues at USF, she is developing and evaluating the community-based prevention marketing framework described in Chapter Twelve.

James N. Burdine, DrPH, serves as director and co-principal investigator of the Center for Community Health Development, a CDC-designated Prevention Research Center, and as a professor in the Department of Social and Behavioral Health at the School of Rural Public Health, Texas A&M Health Science Center in College Station. Dr. Burdine is an internationally recognized expert in population health status assessment and community health development. Over the course of his career, Dr. Burdine has coauthored more than two hundred papers presented at national professional meetings, and has been awarded more than \$15 million in grants and contracts for community health improvement related research, demonstration, and evaluation projects.

Frances Dunn Butterfoss, PhD, MEd, is president of *Coalitions Work*, a consulting group that trains coalitions to build, sustain, and evaluate themselves. Dr. Butterfoss is a professor at Eastern Virginia Medical School and Old Dominion University. She has provided technical assistance on improving coalition effectiveness to federal agencies, foundations, health departments, and community-based organizations. Her research and practice focus on promoting access to insurance, health care and immunizations, managing asthma, and preventing obesity and injury.

Christina M. Camp, PhD, is currently a director of research in Emory University's Rollins School of Public Health, Department of Behavioral Science and Health Education. Her research interests lie in the areas of bio-behavioral processes, ethno-cultural issues in mental health, and the development of culturally appropriate interventions to reduce sexual risk behaviors and the spread of HIV/AIDS.

Hannah Cooper, ScD, MPH, is an assistant professor in the Department of Behavioral Sciences and Health Education at the Emory University Rollins School of Public Health. Her research focuses on the social determinants of health, including the social determinants of substance use and related harms.

Rita DiGiacchino DeBate, PhD, MPH, CHES, is an associate professor in the Department of Community and Family Health, College of Public Health at the University of South Florida. She has a background in health behavior/health education and public health. Her research interests include obesity and eating disorders. She has authored numerous articles on body image, physical activity, and secondary prevention of eating

disorders. She has also developed a training program for oral health professionals on secondary prevention of eating disorders.

David L. DuBois, PhD, is a professor in the Division of Community Health Sciences within the School of Public Health at the University of Illinois at Chicago. He has authored numerous peer-reviewed studies addressing factors that may contribute to youth resilience, particularly self-esteem and mentoring relationships. He is the lead editor of the award-winning *Handbook of Youth Mentoring* and of special issues of the *Journal of Early Adolescence* and the *Journal of Community Psychology*.

Kristin Dunkle is an assistant professor of Behavioral Sciences and Health Education at Emory Rollins School of Public Health. She works both domestically and internationally on gender, power, poverty, violence and HIV, and has an emerging interest in men as both survivors and perpetrators of violence. She has worked with inner-city sex workers in Johannesburg, pregnant women in South African townships, rural South African youth, heterosexual couples in Zambia and Rwanda, and women and men in the United States; her research and publications focus on understanding HIV risk and developing evidence-based interventions.

Eugenia Eng, DrPH, MPH, is a professor of Health Behavior and Health Education and director of the Kellogg Health Scholars Postdoctoral Program at the University of North Carolina at Chapel Hill, Gillings School of Global Public Health. Dr. Eng's body of work examines the lay health advisor intervention model, the concepts of community competence and natural helping, and the community assessment procedure, Action-Oriented Community Diagnosis. She has more than twenty-five years of community-based participatory research experience, including field studies conducted with rural communities of the southern United States, West Africa, and Southeast Asia to address socially stigmatizing health problems such as pesticide poisoning, breast and prostate cancer, and STDs.

Craig Ewart, PhD, is professor of psychology and senior scientist in the Center for Health and Behavior at Syracuse University, and senior associate in the Department of Environmental Health Sciences, Bloomberg School of Public Health, at Johns Hopkins University. He developed Social Action Theory as a foundation for his Project Heart studies of emotional stress and resilience in urban youth, which he has conducted in Baltimore and Syracuse for the past twenty-five years. This community- and laboratory-based research program investigates how personal goal strivings, emotion regulation skills, and neighborhood environments combine to raise or lower cardiovascular disease risk in adolescents and young adults.

Michael C. Fagen, PhD, MPH, is a clinical assistant professor of community health sciences at the University of Illinois-Chicago School of Public Health. His research focuses on systemic approaches to school-based health promotion. He was recently appointed as an associate editor of *Health Promotion Practice*.

Michael R. J. Felix, of Community Health Development Specialists in Allentown, Pennsylvania, works with states and local communities across the United States applying the Partnership Approach to health networks for population health improvement. His recent work is focused on the strategic integration of mental health, substance abuse, oral health, and wrap-around services in primary care settings as Patient-Centered Health Homes.

Jeffrey D. Fisher is a professor of Psychology at the University of Connecticut. He is the founder and director of its Center for Health, Intervention, and Prevention (CHIP). He received his Master's degree and PhD from Purdue University. Professor Fisher has been awarded seven major NIMH grants since 1989 on HIV risk reduction and medical adherence, totaling over \$28 million as PI. Most of his work has involved theory and empirical work on the dynamics of unhealthy behavior and on social psychological factors that can affect the success of interventions to change such behavior. He has lectured internationally and published extensively on factors associated with HIV risk behavior, and has done a great deal of conceptual and empirical work in the area of interventions to increase HIV preventive behavior. His work also focuses on designing theoretically based interventions to increase adherence to anti-retroviral therapy, and on health behavior change in general. New work focuses on dissemination of effective health behavior change interventions.

William Fisher is Distinguished University Professor in the Department of Psychology and the Department of Obstetrics and Gynaecology at the University of Western Ontario and Research Affiliate at the Center for Health, Intervention, and Prevention at the University of Connecticut. Dr. William Fisher is codeveloper with Dr. Jeffrey Fisher of the Information-Motivation-Behavioral Skills model of health behavior, he has held a National Health Scientist award from Health Canada, and his research has been supported by the U.S. National Institute of Mental Health for the past two decades.

Martin Fishbein, PhD, is the Harry C. Coles Jr. Distinguished Professor of Communication at the Annenberg School for Communication, and director of the Health Communications Area in the Annenberg Public Policy Center. Developer of the Theory of Reasoned Action and the Integrative Model of Behavioral Prediction, his current research interests are focused on understanding the role of the media as an influence on adolescent and adult behavior.

Brian R. Flay, PhD, is professor of public health at Oregon State University. He has a long history in prevention research, including school-based randomized trials, methodological developments, and the development of health behavior theory. Most of his past work has concerned the development and evaluation of programs for the prevention of substance abuse, violence, and AIDS. Recent studies focus on positive youth development, including social and character education. Dr. Flay is currently conducting several studies of the *Positive Action* program, which addresses most of the distal and proximal influences on youth development, and so is likely to influence a broad array of both positive and negative behaviors as well as school performance.

Michelle Fortier, PhD, is a physical activity psychology researcher and a professor at the School of Human Kinetics at the University of Ottawa. Her research program aims to understand and promote physical activity behavior change with an emphasis on motivation. She has extensive research experience examining the determinants of physical activity adoption and maintenance in different healthy and clinical populations, and has been involved in the development and evaluation of physical activity promotion interventions.

David Groulx is the acting policy and planning specialist in the Resources, Research, Evaluation, and Development Division at the Sudbury and District Health Unit. He received his BScN from Laurentian University and his MPH from Lakehead University. He has spent the last decade working as a public health nurse, with a particular focus in health promotion.

Denise Haynie, PhD, MPH, is a staff scientist in the Prevention Research Branch, Division of Epidemiology, Statistics and Prevention Research, Eunice Kennedy Shriver National Institute of Child Health and Human Development, National Institutes of Health. Her training is in developmental psychology and maternal and child health. Dr. Haynie's research interest focus is on adolescent health behavior, including peer and parent influences.

Stevan E. Hobfoll, PhD, is the Judd and Marjorie Weinberg Presidential Professor and Chair of the Department of Behavioral Sciences at Rush Medical College. His Conservation of Resources (COR) theory has become one of two most widely cited theories of stress and has been related to the full spectrum of stress from burnout to mass casualty. His most recent work focuses on the lifetime impact of trauma in women's lives and on the impact of war and terrorism.

Everold Hosein, PhD, born in Trinidad and Tobago, is the senior communication advisor-consultant, World Health Organization (WHO), Geneva and is an international communication expert with more than thirty years of experience in strategic

communication, integrated marketing communication, advocacy, and public relations, health education, and IEC (information-education-communication) related to social development issues and behavioral impact/behavior change/behavioral development.

Mel Hovell, PhD, is an Al Johnson Distinguished Professor of Public Health and director of the Center for Behavioral Epidemiology and Community Health, San Diego State University, San Diego. His areas of expertise include behavioral epidemiology, individual and population experimental trials, and theory development. He has published more than 250 coauthored peer-reviewed articles in national and international journals. Dr. Hovell has an established record of NIH funding, including current research concerning HIV/TB epidemiology, tobacco prevention, and promotion of diet and activity in youth and young adults. He is coprincipal investigator for the National Children's Study, a twenty-one year analysis of healthy development and disease processes in children and families.

Barbara Kahan is a principal of Kael Consulting, and editor of the Web site IDM Best Practices (www.idmbestpractices.ca). She received her MHS in health promotion from the University of Toronto. For the last twelve years she has focused on developing and applying a comprehensive, situation-sensitive health promotion best practices approach.

Kelli McCormack Brown, PhD, CHES, is a professor of health education and behavior at the University of Florida. She was the director of the first community-based prevention marketing project conducted in Sarasota, Florida. She has been able to blend her health education experience with community-based prevention marketing and through these efforts has written numerous peer-reviewed articles on how health educators and communities can use social marketing to develop behavior change interventions.

Robert J. McDermott received his BS, MS, and PhD degrees from the University of Wisconsin-Madison. He was a faculty member in the Department of Health Education, at Southern Illinois University, Carbondale, from 1981 to 1986. Dr. McDermott came to the University of South Florida College of Public Health in 1986. He headed an effort that successfully led to its being designated a Prevention Research Center by the U.S. Centers for Disease Control and Prevention (CDC) in 1998. He continues to serve as co-director of this Center, which has created and field-tested a new model for health behavior change in communities—community-based prevention marketing (CBPM). In addition to more than 220 scientific articles, he has written 56 book chapters, and three books, each of which appeared in multiple editions.

Kenneth R. McLeroy, PhD, is professor of Social and Behavioral Health at the Texas A&M Health Science Center. He has written extensively about community-based programs and interventions and currently serves as principal investigator on the

CDC-funded Prevention Research Center for Community Health Development and the National Center on Minority Health and Health Disparities–funded Program for Rural and Minority Health Disparities Research.

Paul Monaghan, PhD, MA, is an assistant professor in the Department of Agricultural Education and Communication at the University of Florida. His research focuses on community participation in behavior change on topics such as farmworker health safety, homeowner water conservation, and environmental protection in the state of Florida.

Elizabeth Noelcke is a project assistant, focusing on Medicaid and state policy issues, at the Center for Health Transformation in Washington. Prior to that, she was a post-baccalaureate research fellow in the Prevention Research Branch, Division of Epidemiology, Statistics, and Prevention Research, Eunice Kennedy Shriver National Institute of Child Health and Human Development, National Institutes of Health. She is a graduate of the University of North Carolina at Chapel Hill.

Barbara L. Norton is an assistant professor of research at the University of Oklahoma, College of Public Health, and in 2008 served as managing associate for the Association for the Study and Development of Community in Gaithersburg, Maryland. She received her DrPH from the University of Oklahoma, conducting research on the relationship between community connectedness and health behaviors in an environmentally stressed community.

Edith A. Parker, DrPH, is an associate professor of Health Behavior and Health Education and the Associate Dean for Academic Affairs at the University of Michigan at Ann Arbor, School of Public Health. Dr. Parker's research focuses on development, implementation, and evaluation of community-based participatory interventions to improve health status and reduce racial disparities in health, with a special interest in both epidemiological research on environmental causes of disease and research on public health and policy interventions to address environmental causes of disease.

Will Parks, PhD, is an internationally recognized specialist in social policy, public health, medical anthropology, health promotion, and participatory appraisal, monitoring, and evaluation. For the past seventeen years, he has contributed to the planning, management, and evaluation of international and national social policies and public health programs, as well as conducted training and research for the prevention and control of communicable and noncommunicable diseases in close collaboration with ministries of health and nongovernment organizations throughout the

world. Based in Fiji, Parks is currently Chief of Policy, Advocacy, Planning, and Evaluation with UNICEF Pacific covering child-focused programs in fourteen Pacific Island countries.

Dr. Heather Patrick is a Research Assistant Professor at the University of Rochester working with Dr. Geoffrey C. Williams on a large tobacco-cessation induction trial and developing translational projects for nutrition, physical activity, and diabetes prevention. She earned her PhD in Social Psychology from the University of Houston in 2003. She completed a post-doctoral fellowship in Behavioral Nutrition at the Children's Nutrition Research Center (CNRC) at Baylor College of Medicine. While at the CNRC, Dr. Patrick received funding from the US National Cancer Institute to pilot a self-determination theory-based intervention utilizing computerized personal trainers.

John Petraitis, PhD, is a professor of psychology at the University of Alaska Anchorage. His research focuses on risk factors for adolescent substance use—an area in which he has coauthored numerous articles and book chapters—and potential evolutionary explanations for sex and age differences in risky behaviors.

Richard E. Petty is Distinguished University Professor and chair of the Department of Psychology at Ohio State University. He received his BA from the University of Virginia and his PhD from Ohio State. Petty's research focuses on the factors (both conscious and unconscious) that are responsible for changes in beliefs, attitudes, and behaviors.

Leah M. Phillips, MPH, is the coordinator for the Florida Prevention Research Center at the University of South Florida. Her interests include community-based participatory research, social marketing, research methods and evaluation, and project administration.

Scott D. Rhodes, MD, MPH, CHES, is an associate professor in the Departments of Social Sciences and Health Policy and Internal Medicine at Wake Forest University, School of Medicine. His research explores sexual health, HIV and sexually transmitted disease (STD) prevention, obesity prevention, and other health disparities among vulnerable communities. Committed to partnership approaches to blend research and practice, Dr. Rhodes has extensive experience working with Latino communities, urban African American adolescents, persons living with HIV and AIDS, men of color, self-identifying gay and bisexual men, and men who have sex with men.

Renata Schiavo, PhD, MA, is the founder and principal of Strategic Communication Resources, which provides health communication and strategic planning counseling

and training to leading U.S. and international organizations in the public health field. She has almost two decades of U.S. and global health experience. Select experience includes the National Association of Pediatric Nurse Practitioners (NAPNAP); National Ministry of Health (Angola); Solving Kids' Cancer; UNICEF; and the World Bank. In addition to her consulting practice, she is also an adjunct assistant professor of public health at New York University, Steinhardt School, where she is on the faculty of the Community Public Health and Global Public Health MPH programs. She is the author of *Health Communication: From Theory to Practice* (San Francisco: Jossey Bass, 2007) and several peer-reviewed publications.

Jeremiah A. Schumm, PhD, formerly at Harvard Medical School and the VA Boston Healthcare System, is now assistant professor of clinical psychiatry at the University of Cincinnati and staff psychologist at the Cincinnati VA Medical Center's PTSD and Anxiety Disorders Division. His work focuses on the impact of stress and substance abuse on PTSD and individual and family-focused interventions.

Paul A. Shuper, PhD, is an Independent Scientist at the Centre for Addiction and Mental Health and an assistant professor in the Department of Psychology at the University of Toronto in Toronto, Canada. His research focuses on behavioral and psychological factors associated with health outcomes, particularly in the area of HIV prevention. Dr. Shuper's work has ranged from controlled laboratory research assessing the impact of sexual arousal and sexual partner characteristics on HIV+ MSM's condom use intentions, to the development, implementation, and evaluation of theory-based adherence-promotion and risk-reduction interventions for people living with HIV/AIDS.

Bruce Simons-Morton, ED, MPH, is chief of the Prevention Research Branch, Division of Epidemiology, Statistics, and Prevention Research, Eunice Kennedy Shriver National Institute of Child Health and Human Development, National Institutes of Health. Dr. Simons-Morton directs an intramural research group that conducts research on adolescent health behavior, with an emphasis on social influences. He is the author of the textbook, *Introduction to Health Education and Promotion*, second edition, and 2006 Research Laureate of the American Academy of Health Behavior.

Shane Sweet is a doctoral student at the School of Psychology at the University of Ottawa. His doctoral research focuses on understanding physical activity behavior change using theoretical-based motivational constructs. His research experience centers on motivation and confidence towards physical activity across healthy and clinical populations. He was the principal research assistant in Dr. Michelle Fortier's