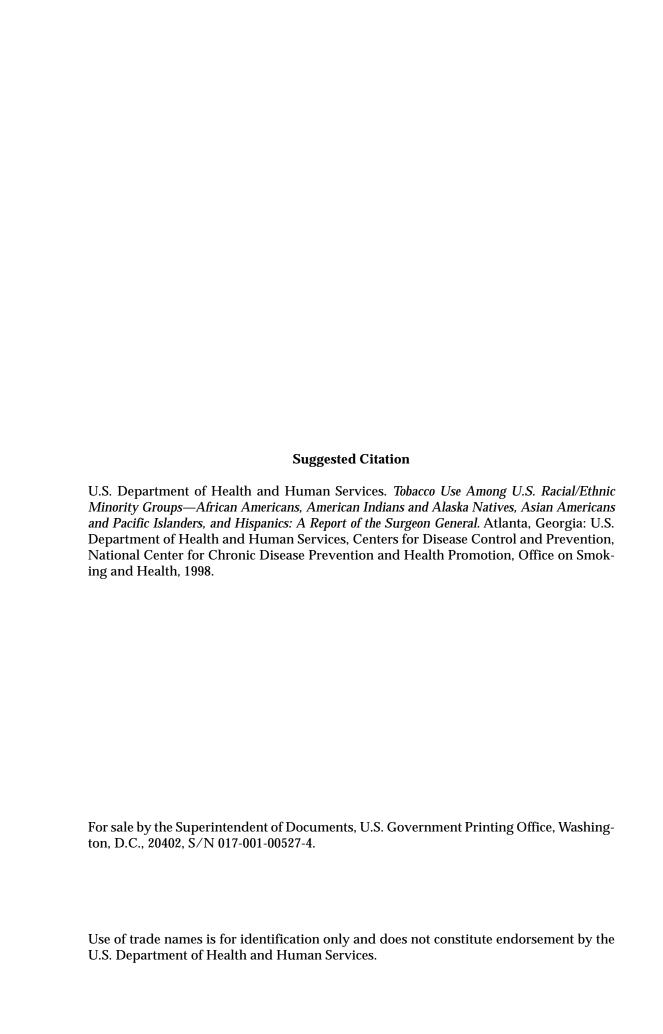
Tobacco Use Among U.S. Racial/Ethnic Minority Groups

African Americans American Indians and Alaska Natives Asian Americans and Pacific Islanders Hispanics

A Report of the Surgeon General 1998





Foreword

The United States of America is a rich blend of cultures. This diversity demands close attention from the agencies and individuals responsible for protecting the public's health. For too long in tobacco control, attention to diversity has been less consistent than is necessary for planning and developing effective health programs. As a result, we sometimes lack sufficient information on which to base tobacco control interventions. With this report, we begin to address such problems and point the way to filling these gaps in knowledge.

Tobacco use causes devastating disease and premature death in every population in the United States. For four major U.S. racial/ethnic minority groups—African Americans, American Indians and Alaska Natives, Asian Americans and Pacific Islanders, and Hispanics—patterns of tobacco use, adverse health effects, and the effectiveness of interventions need to be understood in terms of tobacco's cultural and socioeconomic effects on the members of these groups. This report describes the complex factors that play a part in the growing epidemic of diseases caused by tobacco use in these four groups.

Since 1964 when the first Surgeon General's report on smoking and health was released, this report is the first to focus exclusively on tobacco use among members of these four racial/ethnic groups. Together these groups constitute about 25 percent of the U.S. population, and that proportion is growing rapidly. Public health programs must effectively address the health needs of this significant proportion of people. Such action is of paramount importance to reducing tobacco use in the United States and meeting national health objectives for the year 2000. We hope that this report will provide the basis for renewing our commitment to develop more effective tobacco control programs and policies for people of every racial and ethnic background. In addition, the report can be used by parents and communities as a tool to develop their own solutions. With continued diligence, we shall strive to reach and exceed whenever possible our stated health goals by the year 2000 and reduce the enormous health burden caused by tobacco products.

Claire V. Broome, M.D.
Acting Director
Centers for Disease Control and Prevention
and
Acting Administrator
Agency for Toxic Substances and Disease Registry

Preface

from the Surgeon General, U.S. Department of Health and Human Services

Effective strategies are needed to reduce tobacco use among members of U.S. racial/ethnic groups and thus diminish their burden of tobacco-related diseases and deaths. Cigarette smoking is the leading cause of preventable disease and death in the United States. There is enormous potential to reduce heart disease, cancer, stroke, and respiratory disease among members of racial and ethnic groups, who make up the most rapidly growing segment of the U.S. population.

This Surgeon General's report is the first to address the diverse tobacco control needs of the four major U.S. racial/ethnic minority groups—African Americans, American Indians and Alaska Natives, Asian Americans and Pacific Islanders, and Hispanics. This report is also the only single, comprehensive source of data on each group's patterns of tobacco use, physical effects related to tobacco smoking and chewing, and societal and psychosocial factors associated with tobacco use.

The findings detailed in this report indicate that if tobacco use is not reduced among members of these four racial/ethnic groups, they will experience increasing morbidity and mortality from tobacco use. The toll is currently highest for African American adults. Findings also suggest that some close, long-term relationships between tobacco companies and various racial/ethnic communities could hamper U.S. efforts to lower rates of tobacco use by the year 2000. Also notable is the support that members of racial/ethnic groups have shown for legislative efforts to control tobacco use, sales, advertising, and promotion.

As this report goes to press, discouraging news comes from a report published by the Centers for Disease Control and Prevention on the Youth Risk Behavior Survey about tobacco use among African American and Hispanic high school students. Past-month smoking increased among African American students by 80 percent and among Hispanic students by 34 percent from 1991 through 1997. The consistent decline once seen among young African Americans has sharply reversed in recent years. Past-month smoking prevalence increased from 13 percent to 23 percent among African Americans and from 25 percent to 34 percent among Hispanics.

Although cancer remains common in Americans of all racial and ethnic groups, the pattern of increasing lung cancer deaths in the 1970s and 1980s among African American, Hispanic, and some American Indian and Alaska Native subgroups has been halted or reversed for some groups from 1990 through 1995. Some encouraging news from *Cancer Incidence and Mortality, 1973–1995: A Report Card for the U.S.* was just published by the American Cancer Society, the National Cancer Institute, and the Centers for Disease Control and Prevention. The report described lung cancer trend data from 1990 through 1995 for African Americans, Asian Americans and Pacific Islanders, and Hispanics. Lung cancer death rates declined significantly for African American men and for Hispanic men and women from

1990 through 1995; death rates did not change significantly for African American women or for Asian American and Pacific Islander men or women. Although lung cancer trends may continue to decline among some racial/ethnic groups for several more years, recent increases in smoking prevalence among adolescent African Americans and Hispanics and among Asian American and Pacific Islander adolescent males, coupled with the lack of decline among American Indian and Alaska Native adults, do not bode well for long-term trends in lung cancer.

One purpose of this report is to guide researchers in their future efforts to garner more information needed to develop effective prevention and control programs. Several significant research questions need to be addressed. For example, why are African American youths smoking cigarettes in lower proportions than youths in other racial/ethnic groups? How does acculturation affect patterns of tobacco use among immigrants to the United States? What are the differential effects of gender on tobacco use among members of certain racial/ethnic groups? What racial- and ethnic-specific protective factors and risk factors will promote the development of culturally appropriate interventions to prevent and control tobacco use? And to what extent are culturally specific tobacco control programs necessary to curb tobacco use among racial/ethnic populations? While researchers are redirecting their focus, federal, state, and private tobacco control partners need to address program issues, such as how to develop and evaluate culturally appropriate prevention and cessation interventions.

This report includes examples of numerous racial- and ethnic-specific tobacco control programs used in communities across the country. These and other racial/ethnic group-specific programs must be disseminated to all areas of the country, where program planners can develop their own strategies, taking into consideration the cultural attitudes, norms, expectations, and values of the targeted cultural groups.

In each of these endeavors, we will succeed only if we are sensitive to our cultural differences and similarities. I challenge federal and state agencies as well as researchers and practitioners in the social, behavioral, public health, clinical, and biomedical sciences to join me in the pursuit of effective strategies to prevent and control tobacco use among racial/ethnic groups. By meeting this challenge, we will progress toward achieving the nation's year 2000 tobacco-related health objectives and will help to prevent the unnecessary disability, disease, and deaths that result from tobacco use.

David Satcher, M.D., Ph.D. Surgeon General and Assistant Secretary for Health

Acknowledgments

This report was prepared by the U.S. Department of Health and Human Services under the general direction of the Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, Office on Smoking and Health.

Claire V. Broome, M.D., Acting Director, Centers for Disease Control and Prevention, Atlanta, Georgia.

James S. Marks, M.D., M.P.H., Director, National Center for Chronic Disease Prevention and Health Promotion, Centers for Disease Control and Prevention, Atlanta, Georgia.

Virginia S. Bales, M.P.H., Deputy Director, National Center for Chronic Disease Prevention and Health Promotion, Centers for Disease Control and Prevention, Atlanta, Georgia.

Michael P. Eriksen, Sc.D., Director, Office on Smoking and Health, National Center for Chronic Disease Prevention and Health Promotion, Centers for Disease Control and Prevention, Atlanta, Georgia.

The editors of the report were

Gerardo Marín, Ph.D., Senior Scientific Editor, Professor, Department of Psychology, University of San Francisco, San Francisco, California.

Gayle Lloyd, M.A., Managing Editor, Office on Smoking and Health, National Center for Chronic Disease Prevention and Health Promotion, Centers for Disease Control and Prevention, Atlanta, Georgia.

Valerie R. Johnson, Senior Editor, National Center for Chronic Disease Prevention and Health Promotion, Centers for Disease Control and Prevention, Atlanta, Georgia.

Anne M. Pritchett, Technical Editor, Cygnus Corporation, Rockville, Maryland.

Contributing authors were

Neal L. Benowitz, M.D., Professor and Chief, Division of Clinical Pharmacology, Departments of Medicine, Pharmacy, and Psychiatry, School of Medicine, University of California, San Francisco, California.

Alan Blum, M.D., Associate Professor, Baylor College of Medicine, Houston, Texas.

Ronald L. Braithwaite, Ph.D., Associate Professor, Division of Behavioral Sciences and Health Education, Emory University School of Public Health, Atlanta, Georgia.

Felipe G. Castro, M.S.W., Ph.D., Director, Hispanic Research Center, and Associate Professor, Department of Psychology, Arizona State University, Tempe, Arizona.

Moon S. Chen, Jr., Ph.D., M.P.H., Professor, Department of Preventive Medicine, Ohio State University, Columbus, Ohio.

David B. Coultas, M.D., Associate Professor of Medicine, School of Medicine, University of New Mexico, Albuquerque, New Mexico.

Luis G. Escobedo, M.D., M.P.H., Medical Epidemiologist, Office on Smoking and Health, National Center for Chronic Disease Prevention and Health Promotion, Centers for Disease Control and Prevention, Atlanta, Georgia.

Dorothy L. Faulkner, Ph.D., M.P.H., Epidemiologist, Office on Smoking and Health, National Center for Chronic Disease Prevention and Health Promotion, Centers for Disease Control and Prevention, Atlanta, Georgia.

Larri L. Fredericks, Ph.D., M.P.H., Associate Scientist, American Indian Cancer Control Project, Medical Research Institute, Berkeley, California.

Gary A. Giovino, Ph.D., Chief, Epidemiology Branch, Office on Smoking and Health, National Center for Chronic Disease Prevention and Health Promotion, Centers for Disease Control and Prevention, Atlanta, Georgia.

Sandra W. Headen, Ph.D., Assistant Professor, Department of Health Behavior and Health Education, School of Public Health, University of North Carolina, Chapel Hill, North Carolina.

Felicia Schanche Hodge, Dr.P.H., Principal Investigator and Director, Center for American Indian Research and Education, Berkeley, California.

Nancy J. Kaufman, R.N., M.S., Vice President, Robert Wood Johnson Foundation, Princeton, New Jersey.

Juliette S. Kendrick, M.D., Medical Epidemiologist, Division of Reproductive Health, National Center for Chronic Disease Prevention and Health Promotion, Centers for Disease Control and Prevention, Atlanta, Georgia.

Gary King, Ph.D., Assistant Professor and Coordinator, Urban Health Research Program, School of Medicine, University of Connecticut Health Center, Farmington, Connecticut.

Beverly S. Kingsley, Ph.D., M.P.H., Epidemiologist, Office on Smoking and Health, National Center for Chronic Disease Prevention and Health Promotion, Centers for Disease Control and Prevention, Atlanta, Georgia.

Rod Lew, M.P.H., Health Education Director, Asian Health Services, Oakland, California.

Ann M. Malarcher, Ph.D., Epidemiologist, Office on Smoking and Health, National Center for Chronic Disease Prevention and Health Promotion, Centers for Disease Control and Prevention, Atlanta, Georgia.

Robert K. Merritt, M.A., Health Scientist, Division of Reproductive Health, National Center for Chronic Disease Prevention and Health Promotion, Centers for Disease Control and Prevention, Atlanta, Georgia.

Michael D. Newcomb, Ph.D., Professor, Department of Psychology, University of California, Los Angeles, California.

John P. Peddicord, M.S., Computer Scientist, Office on Smoking and Health, National Center for Chronic Disease Prevention and Health Promotion, Centers for Disease Control and Prevention, Atlanta, Georgia.

Richard Pollay, Ph.D., Professor of Marketing, and Curator, History of Advertising Archives, University of British Columbia, Vancouver, British Columbia, Canada.

Amelie G. Ramirez, Dr.P.H., Associate Professor, Department of Family Practice, University of Texas, and Director, South Texas Health Research Center, San Antonio, Texas.

Patricia A. Richter, Ph.D., M.P.H., Toxicologist, Office on Smoking and Health, National Center for Chronic Disease Prevention and Health Promotion, Centers for Disease Control and Prevention, Atlanta, Georgia. Robert G. Robinson, Dr.P.H., Associate Director for Program Development, Office on Smoking and Health, National Center for Chronic Disease Prevention and Health Promotion, Centers for Disease Control and Prevention, Atlanta, Georgia.

Richard B. Rothenberg, M.D., M.P.H., Professor, Department of Family and Preventive Medicine, Emory University School of Medicine, Atlanta, Georgia.

Jonathan M. Samet, M.D., Chairman, Department of Epidemiology, School of Hygiene and Public Health, The Johns Hopkins University, Baltimore, Maryland.

Michael W. Schooley, M.P.H., Epidemiologist, Office on Smoking and Health, National Center for Chronic Disease Prevention and Health Promotion, Centers for Disease Control and Prevention, Atlanta, Georgia.

Dana Shelton, M.P.H., Epidemiologist, Office on Smoking and Health, National Center for Chronic Disease Prevention and Health Promotion, Centers for Disease Control and Prevention, Atlanta, Georgia.

Michael B. Siegel, M.D., M.P.H., Assistant Professor, Boston University School of Public Health, Boston, Massachusetts.

Charyn D. Sutton, President, The Onyx Group, Bala Cynwyd, Pennsylvania.

Scott L. Tomar, D.M.D., Dr.P.H., Assistant Professor, Department of Dental Public Health and Hygiene, School of Dentistry, University of California, San Francisco, California.

Bao-Ping Zhu, M.S., M.B.B.S., Ph.D., Visiting Scientist, Office on Smoking and Health, National Center for Chronic Disease Prevention and Health Promotion, Centers for Disease Control and Prevention, Atlanta, Georgia.

Reviewers were

Jasjit S. Ahluwalia, M.D., M.P.H., M.S., Assistant Professor of Medicine, Emory University School of Medicine, Atlanta, Georgia.

David G. Altman, Ph.D., Associate Professor, Department of Public Health Sciences, Bowman Gray School of Medicine, Wake Forest University, Winston-Salem, North Carolina.

Glen Bennett, M.P.H., Coordinator, Office of Prevention, Education, and Control, National Heart, Lung, and Blood Institute, National Institutes of Health, Bethesda, Maryland.

Gilbert J. Botvin, Ph.D., Director, Institute for Prevention Research, Department of Public Health, Cornell University Medical College, New York, New York.

L. Jackson Brown, Director, Epidemiology and Oral Disease Prevention Program, National Institute of Dental Research, National Institutes of Health, Bethesda, Maryland.

Linda Burhansstipanov, Dr.P.H., Director, Native American Cancer Research Program, American Medical Center Cancer Research Center, Denver, Colorado.

David Burns, M.D., Professor of Medicine, University of California at San Diego Medical Center, San Diego, California.

W. Michael Byrd, M.D., M.P.H., Visiting Research Fellow, Department of Health Policy and Management, Harvard School of Public Health, Boston, Massachusetts.

Portia S. Choi, M.D., M.P.H., District Health Officer, Dr. Ruth Temple Health Center, Los Angeles, California.

Nathaniel Cobb, M.D., Director, Cancer Prevention and Control Program, Indian Health Service Headquarters West, Albuquerque, New Mexico.

Janet L. Collins, Ph.D., Director, Division of Nutrition and Physical Activity, National Center for Chronic Disease Prevention and Health Promotion, Centers for Disease Control and Prevention, Atlanta, Georgia.

Robert J. Collins, D.M.D., Chief Dental Officer, U.S. Public Health Service, Rockville, Maryland.

Linda S. Crossett, R.D.H., Research Scientist, Division of Adolescent and School Health, National Center for Chronic Disease Prevention and Health Promotion, Centers for Disease Control and Prevention, Atlanta, Georgia.

K. Michael Cummings, Ph.D., Director, Smoking Control Program, Roswell Park Cancer Institute, New York State Department of Health, Buffalo, New York.

Dorynne J. Czechowicz, M.D., Associate Director for Medical and Professional Affairs, Division of Clinical Research, National Institute on Drug Abuse, National Institutes of Health, Rockville, Maryland. Ronald M. Davis, M.D., Director, Center for Health Promotion and Disease Prevention, Henry Ford Health System, Detroit, Michigan.

Richard A. Daynard, Ph.D., J.D., Chairman, Tobacco Products Liability Project, Northeastern University School of Law, Boston, Massachusetts.

Jane L. Delgado, Ph.D., President and Chief Executive Officer, National Coalition of Hispanic Health and Human Services Organization, Washington, D.C.

John Elder, Ph.D., M.P.H., Professor, Graduate School of Public Health, San Diego State University, San Diego, California.

Harmon Eyre, M.D., Deputy Executive Vice President for Medical Affairs and Research, American Cancer Society, Atlanta, Georgia.

Michael C. Fiore, M.D., M.P.H., Director, Center for Tobacco Research and Intervention, University of Wisconsin Medical School, Madison, Wisconsin.

Adele M. Franks, M.D., Assistant Director for Science, National Center for Chronic Disease Prevention and Health Promotion, Centers for Disease Control and Prevention, Atlanta, Georgia.

Harold P. Freeman, M.D., Director of Surgery, Harlem Hospital Center, New York, New York.

Thomas J. Glynn, Ph.D., Chief, Prevention Control Extramural Research Branch, National Cancer Institute, National Institutes of Health, Rockville, Maryland.

Michael G. Goldstein, M.D., Associate Professor of Psychiatry and Human Behavior, Brown University School of Medicine, Providence, Rhode Island.

Robert A. Hahn, Ph.D., M.P.H., Epidemiologist, Epidemiology Program Office, Centers for Disease Control and Prevention, Atlanta, Georgia.

Betty Lee Hawks, M.A., Special Assistant to the Director, Office of Minority Health, U.S. Department of Health and Human Services, Rockville, Maryland.

Clark W. Heath, Jr., M.D., Vice President for Epidemiology and Surveillance Research, American Cancer Society, Atlanta, Georgia.

Jack E. Henningfield, Ph.D., Vice President, Pinney Associates, Bethesda, Maryland.

John H. Holbrook, M.D., Director of Internal Medicine, University of Utah Hospital, Salt Lake City, Utah.

Thomas Houston, M.D., Director, Department of Preventive Medicine and Public Health, American Medical Association, Chicago, Illinois.

Rudolph S. Jackson, Dr.P.H., Professor, Department of Health Education, North Carolina Central University, Durham, North Carolina.

Elaine M. Johnson, Ph.D., Director, Center for Substance Abuse Prevention, Substance Abuse and Mental Health Services Administration, Rockville, Maryland.

Nora L. Keenan, Ph.D., Epidemiologist, Office of Surveillance and Analysis, National Center for Chronic Disease Prevention and Health Promotion, Centers for Disease Control and Prevention, Atlanta, Georgia.

Monina Klevens, D.D.S., M.P.H., Medical Officer, Division of HIV/AIDS, National Center for Infectious Diseases, Centers for Disease Control and Prevention, Atlanta, Georgia.

Norman A. Krasnegor, Ph.D., Chief, Human Learning and Behavior Branch, Center for Research for Mothers and Children, National Institute of Child Health and Human Development, National Institutes of Health, Bethesda, Maryland.

Leonard E. Lawrence, M.D., President, National Medical Association, University of Texas Health Sciences Center at San Antonio, San Antonio, Texas.

Edward Lichtenstein, Ph.D., Research Scientist, Oregon Research Institute, Eugene, Oregon.

Douglas S. Lloyd, M.D., M.P.H., Associate Administrator for Public Health Practice, Health Resources and Services Administration, U.S. Department of Health and Human Services, Rockville, Maryland.

Judith Mackay, M.B.E., J.P., F.R.C.P., Director, Asian Consultancy on Tobacco Control, Kowloon, Hong Kong.

Audrey F. Manley, M.D., M.P.H., President, Spelman College, Atlanta, Georgia.

Alfred McAlister, Ph.D., Associate Professor and Associate Director, Center for Health Promotion Research and Development, The University of Texas at Austin, Austin, Texas.

J. Michael McGinnis, M.D., Scholar-in-Residence, National Academy of Sciences, Washington, D.C.

Bertha Mo, Ph.D., M.P.H., Senior Program Officer, International Development Research Centre, Ottawa, Ontario, Canada.

C. Tracy Orleans, Ph.D., Senior Program Officer, The Robert Wood Johnson Foundation, Princeton, New Jersey.

Terry F. Pechacek, Ph.D., Visiting Scientist, Office on Smoking and Health, National Center for Chronic Disease Prevention and Health Promotion, Centers for Disease Control and Prevention, Atlanta, Georgia.

Cheryl L. Perry, Ph.D., Professor, Division of Epidemiology, School of Public Health, University of Minnesota, Minneapolis, Minnesota.

John P. Pierce, Ph.D., Sam M. Walton Professor for Cancer Research, Department of Family and Preventive Medicine, University of California, San Diego, California.

Donald H. Reece, Tobacco Control Coordinator, Indian Health Service, Albuquerque, New Mexico.

Patrick Remington, M.D., M.P.H., Chief Medical Officer, Wisconsin Division of Health, Madison, Wisconsin.

Irene Reveles-Chase, M.P.H., Health Education Consultant, Tobacco Control Section, California Department of Public Health, Sacramento, California.

Nancy A. Rigotti, M.D., Director, Quit Smoking Service, General Internal Medicine Unit, Massachusetts General Hospital, Boston, Massachusetts.

Donald J. Sharp, M.D., Medical Epidemiologist, Office on Smoking and Health, National Center for Chronic Disease Prevention and Health Promotion, Centers for Disease Control and Prevention, Atlanta, Georgia.

Donald R. Shopland, Coordinator, Smoking and Tobacco Control Program, National Cancer Institute, National Institutes of Health, Bethesda, Maryland.

Beverly R. Singer, M.A., Research Staff Associate, School of Social Work, Columbia University, New York, New York.

Jesse L. Steinfeld, M.D., Surgeon General, U.S. Public Health Service, 1969–1973, San Diego, California.

Jonathan R. Sugarman, M.D., M.P.H., Medical Epidemiologist, Portland Area Indian Health Service, Seattle, Washington.

Michael J. Thun, M.D., Director, Analytic Epidemiology, American Cancer Society, Atlanta, Georgia.

Michael H. Trujillo, M.D., M.P.H., Director, Indian Health Service, Rockville, Maryland.

Kenneth E. Warner, Ph.D., Richard D. Remington Collegiate Professor of Public Health, Department of Health Management and Policy, School of Public Health, University of Michigan, Ann Arbor, Michigan.

Raymond Weston, Ph.D., Postdoctoral Fellow, Memorial Sloan-Kettering Cancer Center, Division of Psychiatry, New York, New York.

Judith Wilkenfeld, J.D., Assistant Director, Division of Advertising Practices, Federal Trade Commission, Washington, D.C.

Jerome Williams, Ph.D., Professor of Marketing, Pennsylvania State University, University Park, Pennsylvania.

Ernst L. Wynder, M.D., President, American Health Foundation, New York, New York.

Other contributors were

Marco Andujar, Telecommunications Specialist, Office on Smoking and Health, National Center for Chronic Disease Prevention and Health Promotion, Centers for Disease Control and Prevention, Atlanta, Georgia.

Ruth Atchison, Proofreader, Cygnus Corporation, Rockville, Maryland.

Cheryl Baldwin, Graphic Artist/Desktop Publishing Specialist, High 5 Design, Gaithersburg, Maryland.

Mary Bedford, Proofreader, Cygnus Corporation, Rockville, Maryland.

Christine V. Bellantoni, Graduate Student, University of Connecticut Health Center, Farmington, Connecticut.

Maureen Berg, Desktop Publishing Specialist, Market Experts, Silver Spring, Maryland.

Marissa Bernstein, Indexer, Cygnus Corporation, Rockville, Maryland.

Nowell D. Berreth, Writer-Editor, Office on Smoking and Health, National Center for Chronic Disease Prevention and Health Promotion, Centers for Disease Control and Prevention, Atlanta, Georgia.

Joyce Buchanan, Administrative Assistant, Institute for Social Research, Survey Research Center, University of Michigan, Ann Arbor, Michigan.

Janine E. Bullard, Proofreader, Cygnus Corporation, Rockville, Maryland.

Ralph S. Carabello, Ph.D., Epidemiologist, Office on Smoking and Health, National Center for Chronic Disease Prevention and Health Promotion, Centers for Disease Control and Prevention, Atlanta, Georgia.

Jeffrey H. Chrismon, Systems Analyst, TRW Inc., Atlanta, Georgia.

Paulette Clark McGee, Proofreader, Cygnus Corporation, Rockville, Maryland.

Coreen A. Colovos, Copy Editor, Cygnus Corporation, Rockville, Maryland.

David F. Coole, M.S., Statistical Programmer, TRW Inc., Atlanta, Georgia.

Karen M. Deasy, Associate Director, Office on Smoking and Health, National Center for Chronic Disease Prevention and Health Promotion, Centers for Disease Control and Prevention, Washington, D.C.

Susan R. Derrick, Program Analyst, Office on Smoking and Health, National Center for Chronic Disease Prevention and Health Promotion, Centers for Disease Control and Prevention, Atlanta, Georgia.

Ellen C. Dreyer, R.N., M.S., Project Director, Cygnus Corporation, Rockville, Maryland.

Rita Elliott, M.A., Editorial Consultant, University of New Mexico, School of Medicine, Albuquerque, New Mexico.

Raymond J. Gamba, M.S., Graduate Student, The Claremont Graduate School, Claremont, California.

Maritta Perry Grau, M.A., Copy Editor, The Write Touch: Editorial Services, Frederick, Maryland.

Sarah Gregory, Acting Managing Editor, Office on Smoking and Health, National Center for Chronic Disease Prevention and Health Promotion, Centers for Disease Control and Prevention, Atlanta, Georgia.

Lillian E. Hatch, M.S.L.S., Information Specialist, Cygnus Corporation, Rockville, Maryland.

Elizabeth L. Hess, Copy Editor, Cygnus Corporation, Rockville, Maryland.

Thomya Hogan, Proofreader, Cygnus Corporation, Rockville, Maryland.

Reta N. Horton, M.A., Secretary, Office on Smoking and Health, National Center for Chronic Disease Prevention and Health Promotion, Centers for Disease Control and Prevention, Atlanta, Georgia.

Frederick L. Hull, Ph.D., Writer-Editor, Technical Information and Editorial Services Branch, National Center for Chronic Disease Prevention and Health Promotion, Centers for Disease Control and Prevention, Atlanta, Georgia.

Mescal J. Knighton, Writer-Editor, National Center for Chronic Disease Prevention and Health Promotion, Centers for Disease Control and Prevention, Atlanta, Georgia.

Anh Lé, Project Coordinator, Vietnamese Community Health Promotion Project, University of California, San Francisco, California.

Yun Chen W. Lin, M.P.H., Technical Information Specialist, TRW Inc., Atlanta, Georgia.

William T. Marx, M.L.I.S., Technical Information Specialist, Office on Smoking and Health, National Center for Chronic Disease Prevention and Health Promotion, Centers for Disease Control and Prevention, Atlanta, Georgia.

Maribet McCarty, R.N., M.P.H., Technical Information Specialist, The Orkand Corporation, Atlanta, Georgia.

Margie McDonald, Word Processing Specialist, Cygnus Corporation, Rockville, Maryland.

Linda A. McLaughlin, Word Processing Specialist, Cygnus Corporation, Rockville, Maryland.

Jennifer A. Michaels, M.L.S., Technical Information Specialist, Office on Smoking and Health, National Center for Chronic Disease Prevention and Health Promotion, Centers for Disease Control and Prevention, Atlanta, Georgia.

Barbara A. Mills, Secretary, Office on Smoking and Health, National Center for Chronic Disease Prevention and Health Promotion, Centers for Disease Control and Prevention, Atlanta, Georgia.

Paul D. Mowery, M.S., Senior Research Scientist, Battelle Memorial Institute, Atlanta, Georgia.

Leslie A. Norman, Public Affairs Specialist, Office on Smoking and Health, National Center for Chronic Disease Prevention and Health Promotion, Centers for Disease Control and Prevention, Atlanta, Georgia.

Ward C. Nyholm, Desktop Publishing Specialist, Cygnus Corporation, Rockville, Maryland.

Patrick O'Malley, Ph.D., Research Scientist, Institute for Social Research, Survey Research Center, University of Michigan, Ann Arbor, Michigan.

Anniette Ponce de León, Student, University of San Francisco, San Francisco, California.

Felicia A. Powell, M.S., Statistical Programmer, TRW Inc., Atlanta, Georgia.

Christopher Rigaux, Project Director, Cygnus Corporation, Rockville, Maryland.

Patricia L. Schwartz, Graphic Artist/Desktop Publishing Specialist, Cygnus Corporation, Rockville, Maryland.

Matthew B. Spangler, Proofreader, Cygnus Corporation, Rockville, Maryland.

Catherine T. Timmerman, Chief Operating Officer, Cygnus Corporation, Rockville, Maryland.

Peggy E. Williams, M.S., Proofreader, Marietta, Georgia.

Eve J. Wilson, Ph.D., Project Manager, Cygnus Corporation, Rockville, Maryland.

Beatrice K. Wolman, M.S., Project Manager, Cygnus Corporation, Rockville, Maryland.

Tobacco Use Among U.S. Racial/Ethnic Minority Groups

Chapter 1. Introduction and Summary of Conclusions 3 Chapter 2. Patterns of Tobacco Use Among Four Racial/Ethnic Minority Groups 19 Introduction 21 Long-Term Tobacco-Use Trends and Behavior Among Racial/Ethnic Minority Groups 22 Retrospective Analyses of Smoking Prevalence Among African Americans and Hispanics 74 Effects of Education and Race/Ethnicity on Cigarette-Smoking Behavior 83 Exposure to Environmental Tobacco Smoke 86 Comparisons Between Racial/Ethnic Minority Groups in Current Tobacco Use 87 Chapter 3. Health Consequences of Tobacco Use Among Four Racial/Ethnic Minority Groups 135 Introduction 137 Lung Cancer 137 Other Cancers 149 Chronic Obstructive Pulmonary Disease 158 Coronary Heart Disease 160 Cerebrovascular Disease 164 Smoking and Pregnancy 166 Summary of Health Consequences from Active Cigarette Smoking 172 Effects of Exposure to Environmental Tobacco Smoke Effects of Smokeless Tobacco Use 174 Nicotine Addiction and Racial/Ethnic Differences 175 Chapter 4. Factors That Influence Tobacco Use Among Four Racial/Ethnic Minority Groups 205 Introduction 207 Historical Context of Tobacco 208 Economic Influences 213 Advertising and Promotion 220 Psychosocial Determinants 225 Chapter 5. Tobacco Control and Education Efforts Among Members of Four Racial/Ethnic Minority Groups 257 Introduction 259 Primary Prevention Efforts 266 Smoking Cessation Programs 274

List of Tables and Figures 311

Tobacco Product Regulations 298

Economic Efforts to Reduce Tobacco Use 292

Environmental Tobacco Smoke and Clean Indoor Air Policies 287

Efforts to Control Tobacco Advertising and Promotion 293

Glossary 319

Index 321