Special Report

Tobacco or Health: Status in the Americas, 1992[1]

THOMAS E. NOVOTNY,[2] ERIC S. NICHOLLS,[3] & HELENA RESTREPO[4]

INTRODUCTION

This paper summarizes the content of *Tobacco or Health: Status in the Americas, 1992* (*1*), a status report published by the Pan American Health Organization containing information available as of late 1990 on tobacco use, tobacco related disease, and tobacco-use prevention and control efforts in the Region of the Americas. The PAHO report focuses on Latin America, the Caribbean, and Canada and complements the 1992 U.S. Surgeon General's Report, entitled *Smoking and Health in the Americas*, which was prepared by the U.S. Department of Health and Human Services (USDHHS) in collaboration with PAHO (*2*).

[1]This report will also be published in Spanish in the *Boletín de la Oficina Sanitaria Panamericana*, Vol. 113, 1992.

[2]M.D., M.P.H.; Senior Editor, U.S. Centers for Disease Control; Consultant to the Health Promotion Program, Pan American Health Organization; currently, CDC Liaison Officer, UC Berkeley School of Public Health. Address: 19 Warren Hall, Berkeley, CA 94720, U.S.A.

[3]M.D., M.P.H.; Regional Adviser in Noncommunicable Diseases, Pan American Health Organization, Washington, D.C., U.S.A.

[4]M.D., M.P.H.; Coordinator, Health Promotion Program, Pan American Health Organization, Washington, D.C., U.S.A.

RATIONALE FOR THE REPORT

Life-style and personal behaviors are primary determinants of morbidity and mortality associated with chronic health problems such as cardiovascular disease and neoplasms (*3*). Many of the noncommunicable disease risk factors, such as tobacco use, become more prevalent with increasing urbanization and changing life-styles. Most primary disease prevention activities in developing countries, however, are still directed at acute and infectious diseases or maternal and child health problems. As these types of health problems are brought under control, longevity increases and the population ages. Such changes in health and disease patterns interact with changes in economic and sociologic determinants to constitute what is known as the "epidemiologic transition," in which chronic noncommunicable diseases displace infectious diseases as the primary causes of morbidity and mortality. The epidemiologic transition is an ongoing process in developed countries and has begun in developing countries (*4*).

Because of changes in the age structure of the Latin American population, chronic disease is expected to increase substantially relative to acute disease over the next few decades (*3*). The rapidly emerging epidemic of smoking-related diseases, particularly lung cancer, affecting the Americas will be thrust upon poorly equipped health systems designed mainly to control infectious diseases and maternal and child health problems (*5*). It is increasingly important that the nations of the Americas understand the history, economics, politics, and public health ramifications of tobacco use and tobacco production so that they can more effectively plan control measures to alleviate the impending burden of smoking-related diseases.

In response to declining tobacco sales in the developed world, the transnational tobacco corporations have expanded into foreign markets. The history of this market penetration into Latin America is well documented in the 1992 Surgeon General's Report (*2*). While the disease burden related to long-term exposure to tobacco is not yet manifest in most countries of the Americas, it is obvious that chronic disease morbidity due to smoking will place an increased demand on health care systems. What also should be obvious is the potential to prevent much of this burden through concerted public health efforts to reduce tobacco use and other risk factors, but in developing countries these efforts often have little leverage in the face of the perceived economic benefits of tobacco production and manufacture (*6*).

Information, knowledge, and skills that help officials address tobacco as a public health problem are essential elements of the primary prevention effort against tobacco-related diseases. Public health officials must understand the current sociodemographic environment, collect data on tobacco use and its determinants, and analyze disease outcomes associated with tobacco use. Legislators must support regulation and legislation, cigarette taxes, and direct investments in government tobacco control programs. The current state of tobacco control efforts in Latin America, the Caribbean, and Canada is summarized in the PAHO report (*1*).

BACKGROUND OF THE REPORT

Although PAHO has been concerned with tobacco and health since the early 1970s, specific program activities did not begin until the mid-1980s. In 1984, PAHO sponsored a meeting in Punta del Este, Uruguay, to discuss programs for controlling noncommunicable diseases. A PAHO advisory group then recommended that subregional workshops on tobacco control be held in Member Countries. Workshops were convened for the Southern Cone and Brazil in 1985, the Andean area in 1986, the English-speaking Caribbean in 1987, and Central America in 1988. Also in 1988, during its XXXIII meeting, the Directing Council of PAHO adopted a resolution entitled "The Fight Against the Use of Tobacco" (Resolution CD33/22), which was endorsed by the Ministers of Health of the Americas. At its 1989 meeting, the Council approved a Regional Plan of Action for the Prevention and Control of the Use of Tobacco (Resolution CD34/12) (*2*). This plan calls for public health actions at the regional and national levels to prevent and control the use of tobacco as well as to protect the health of nonsmokers. The plan also calls for the development of national policies, plans, programs, and technical advisory services; mobilization of resources; management and dissemination of information; training; and research.

The PAHO report described here and the 1992 Surgeon General's Report were a direct outgrowth of the planning that took place in the mid-1980s. The Surgeon General's Report contains a broad over-

view of the historical, social, economic, and regulatory aspects of tobacco use in the Americas. The PAHO report provides a country-by-country assessment of public health status related to tobacco use.

METHODOLOGY

Roles of Various Contributors

Staff of the PAHO Health Promotion Program and its Tobacco or Health component were responsible for producing the report, based on the contributions of individuals identified in each country or political entity who had specific knowledge of tobacco-related issues and programs. These "country collaborators" were usually public health workers or epidemiologists. In all cases, PAHO solicited the cooperation of the Ministry of Health to support these persons. In the Caribbean territories and dependencies, the Caribbean Epidemiology Center—a PAHO specialized center in Port of Spain, Trinidad—helped select collaborators and produce final chapters. In the U.S. Virgin Islands and Puerto Rico, the territorial health departments supplied the names of collaborators. The collaborators' primary responsibility was to complete a detailed survey that contained questions on tobacco use behavior, per capita consumption, mortality and morbidity from tobacco-related diseases, tobacco-related legislation and policies, and tobacco control programs.

Subregional editors were selected to oversee the data collection and to produce initial drafts of specific country chapters. Central data sources were used to supplement the collaborators' reports.

Central Data Sources and Their Limitations

The U.S. Office on Smoking and Health Technical Information Center and PAHO staff performed literature searches in both the English- and Spanish-language medical literature. Information on general health and economic indicators for each country was obtained from documents published by the World Bank (*7, 8*), the Centro Latinoamericano Demográfico (CELADE) (*9*), and PAHO (*10, 11*). Country-specific mortality data from the PAHO data bank were used to analyze smoking-related mortality. As a general rule, only data for the 10 years prior to the report (usually dating back to 1978 or 1979) were included in the country chapters.

Data on tobacco production, importation, exportation, manufacturing, and consumption were obtained from the U.S. Department of Agriculture's (USDA) computerized data base (unpublished data, 1990). These data are collected by USDA Overseas Emissaries attached to U.S. embassies in various countries. In addition, data on each country's tobacco industry were obtained from reports of the Tobacco Merchants Association of the U.S., Inc. (*12*), the *Maxwell Consumer Report* (*13*), ERC Statistics International Limited (*14*), Agro-Economics Services Ltd. and Tabacosmos Ltd. (*15*), and the Food and Agriculture Organization of the United Nations (*16*). When possible, these data were compared to data collected by the country collaborators.

Finally, newspaper reports, tobacco industry publications such as *Tobacco Journal International*, USDA reports such as *World Tobacco*, and unpublished reports of surveys on tobacco use were included as references.

GENERAL RESULTS

Tobacco use, economics, disease impact, and control measures vary greatly throughout the Americas; however, several common themes emerge from the individual country reports. Some of these

themes, which are covered in more detail in the 1992 Surgeon General's Report (2), are summarized below, along with highlights and comparisons of tobacco control activities in Canada and the United States.

Situation Regarding Tobacco Use in Latin America and the Caribbean

Sociodemographic Changes

Several important sociodemographic changes have taken place in Latin America and the Caribbean, especially in the more developed countries: decreases in all-cause mortality rates, infant mortality rates, and fertility rates; increases in average life expectancy at birth; and gradual aging of the population. These changes, which result from general improvement of health conditions, control of infectious diseases, and progress in preventing and managing maternal and child health problems, permit the emergence of chronic diseases as the dominant cause of disease, disability, and death in most countries of the Americas. In addition, urbanization, higher literacy rates, and the entry of women into the work force have prompted more people to adopt behaviors akin to those in developed countries, including increased tobacco use. However, most countries, especially those in Central and South America, experienced severe economic crises in the 1980s that may have led to decreases in the per capita consumption of manufactured cigarettes. Price clearly affects the demand for tobacco products in Latin America and the Caribbean. In fact, the decrease in consumption as prices increase has been cited as the basis for including higher tobacco taxes as a component of health policy in the Third World (*17*).

The Tobacco Industry

The multinational tobacco companies have established market dominance in most countries of the Americas, and recent sociodemographic changes in these countries have helped expand the market for cigarettes. In most countries, particularly in South America, dark tobacco consumption is falling and that of blond tobacco rising. Cigarettes containing blond tobacco now dominate most markets in the Americas.

Today, multinational tobacco companies saturate the Western Hemisphere with tobacco product advertising. In addition, tobacco companies use sponsorship of cultural and sports events and even philanthropy toward health care systems to promote good will and product identification. Recently, some nations have moved to limit tobacco product advertising. Venezuela banned such ads on television, but found it necessary to shut down television stations when tobacco companies were allowed to evade the regulation by presenting the logo without mentioning the product.

The economic impact of the tobacco industry varies greatly among countries in the Americas. Some have a negative balance of trade due to the importation of tobacco products or goods used in cigarette manufacture, while others, such as Brazil, with major tobacco manufacturing and exporting industries, rely more heavily on the revenues from tobacco sales. Most countries report that minimal percentages of the agricultural and industrial work forces are involved in tobacco production and manufacturing. Cost-benefit analyses of tobacco use in these countries are impossible to conduct because the costs—in terms of health care for tobacco-related diseases, disability, premature mortality, lost productivity, and diversion of expenditures from other products—have not been calculated fully.

Tobacco Use

Although PAHO sponsored a standardized survey of tobacco use and its determinants in eight cities of Latin America in 1971 (*18*), few other such studies of adult and adolescent tobacco use are available for countries in the Region, except Canada and the United States. Most surveys cover individual cities, urban populations, or specific subgroups such as health department employees. Thus, few reported data are nationally representative or comparable. Several general statements can be made regarding smoking in these countries, however. Smoking is more prevalent in urban than in rural areas, and it is more common among upper socioeconomic groups than among those with less education and lower incomes. In general, smokers in Latin America and the Caribbean smoke fewer cigarettes per day than do smokers in the United States and Canada. USDA and other data on cigarette consumption in Latin American and Caribbean countries probably substantially underestimate true consumption because of unreported sales, illegal trade in cigarettes, and substantial duty-free sales, particularly in the Caribbean.

Few countries report nationally representative data on tobacco use among adolescents, and most surveys have been conducted in school populations only. Several drug use surveys in Latin America and the Caribbean include questions on tobacco use by adolescents. In general, low percentages of adolescents report daily cigarette use; however, initiation and experimentation with cigarettes appears to be most common in the middle and late teenage years, as it is in the United States and Canada.

In countries in the Americas, other than Canada and the United States, the few surveys that covered attitudes, beliefs, and knowledge about tobacco and its health impact have reported widespread knowledge of the adverse health effects of smoking. On the other hand, tolerance for smoking and lack of concern about personal risk also have been evident. In most countries of the Americas, smoking still appears to be socially acceptable.

Smoking and Health

Because of limitations in the quality of mortality data from many countries in Latin America and the Caribbean, the results of trend analyses, proportionate mortality analyses, and smoking-attributable mortality calculations are difficult to interpret. Where mortality data were adequate (as in Uruguay), the estimated proportion of smoking-attributable mortality was found to be similar to that in the United States (where 20% of all deaths are attributable to smoking). Using cancer registry data, some countries or areas were able to demonstrate that mortality rates for lung and other cancers related to smoking had increased over time. These patterns are typical of populations that have been heavily exposed to tobacco over the past 20 to 30 years.

Several countries submitted information on lung cancer mortality rates for men and women aged 45 to 54 and 55 to 64. In these age groups, it is unlikely that anything but smoking caused lung cancer. Thus, these data may help demonstrate the impact of smoking in countries where mortality reporting is incomplete or unreliable. In most countries conveying such data, lung cancer mortality rates were rising for men but not for women.

Cardiovascular disease appears to be one of the most common causes of death in countries of the Americas. Much of this mortality is due to life-style factors such as smoking, but separating the effects of the various risk factors, as well as weighing the impact of improvements in medical management, is impossible

without longitudinal studies in defined populations. Nonetheless, although the impact was less than on lung and other cancers, past increases in cigarette use in the Americas contributed to the higher incidence of cardiovascular diseases in the 1980s. Mortality rates for cardiovascular disease are beginning to decrease in some Latin American countries and the Caribbean, as they have in the United States and Canada.

Smoking Prevention and Control Activities

In most countries of the Americas, the problem of tobacco use has not been assigned the same public health importance as have infectious diseases or maternal and child health problems. A few countries have established government programs to control tobacco use, but most of these efforts have been poorly funded and staffed. In some countries, cigarette tax revenues have been used to fund research on smoking or interventions against it. In many countries, nongovernmental organizations, such as medical associations, anticancer associations, and churches, have provided leadership in the development of policy, school-based education, and public information campaigns on tobacco-related issues. Specific evaluations of the effects of these programs have been rare, partly because of the lack of data on tobacco use in targeted populations.

Most countries have a basic public health infrastructure for preventing and controlling tobacco use. Many have enacted laws to limit smoking in public places, tobacco product advertising, and access to tobacco by young persons. The extent of compliance with these laws is unknown. However, the mere presence of efforts to control tobacco use, whether educational or legislative, indicates a favorable environment for changing the current social norms that support smoking. Additional financial and personnel resources, as well as improved data collection, are essential to strengthen these undertakings.

Situation Regarding Tobacco Use in Canada and the United States

In these two countries, the epidemic of tobacco use and its associated diseases has been recognized and confronted by a variety of increasingly visible public health efforts to prevent and control smoking. Much has been written about the epidemic, particularly in the United States.

In Canada, a comprehensive program to control tobacco use began in the late 1960s. The national strategy included incentives to farmers to cease cultivation, heavy taxation on tobacco products, extensive restrictions on smoking in public places and work sites, health education and health promotion directed at high-risk groups, development of communication and information resources, and vigorous government support for a social milieu that discourages smoking (*19*). In addition, Canada has banned all forms of tobacco product advertising, but this ban is being challenged in the courts. Because of the scope and innovation of the Canadian tobacco control program, considerable space in the PAHO report has been devoted to describing and analyzing it.

CONCLUSIONS AND RECOMMENDATIONS

Tobacco or Health: Status in the Americas, 1992 contains information from hundreds of individuals and publications from throughout the Western Hemisphere. The process of data collection and collaboration by so many diverse agencies, governments, and individuals has, in itself,

increased public awareness of tobacco as one of the most important health issues in the Americas for the 1990s. In recent decades, the international public health community has focused most of its attention on communicable and childhood diseases. It is clear from the PAHO report, however, that chronic noncommunicable diseases, especially those caused by smoking, will need to be addressed more aggressively by governments and international health agencies in years to come.

The PAHO report will serve as a baseline data source for Latin American and Caribbean nations as they tackle the complex task of preventing and controlling tobacco use. Certainly, the epidemic of lung cancer and other tobacco-related diseases that has been painfully evident in the United States and Canada need not expand throughout the hemisphere before primary prevention is enacted. The countries of the Americas can learn from each other, and they can join in combatting an industry that thrives on political complacency.

In recent years, the Americas have made impressive progress in controlling infectious disease and maternal and child health problems. However, the harm these problems caused to national progress, personal well-being, and productivity was relatively obvious, whereas tobacco use is more difficult to identify as a public health problem because positive images associated with smoking are common in television and radio advertising and on billboards, street signs, and kiosks throughout the hemisphere. An additional difficulty is that many governments, farmers, and retailers depend on taxes and profits from tobacco.

In several countries, individuals with the most education and income (including physicians), who presumably would be the agents of change toward healthy life-styles, smoke at higher rates than do those in lower socioeconomic strata. The health consequences of smoking may not be as apparent in Latin America and the Caribbean because of a lack of behavioral survey data and adequate mortality data to demonstrate the health effects of smoking. Finally, resources and personnel rarely are assigned to address the health effects of tobacco, even when health indicators show the growing potential for substantial tobacco-related morbidity.

The Region of the Americas can use the information presented in this status report (*1*) and the 1992 Surgeon General's Report (*2*) to build an international coalition against one of the most important public health threats of the 1990s. On the basis of information in the report, PAHO offers several recommendations for action:

1. The collection of data on behavior, attitudes, knowledge, and beliefs associated with tobacco use should be improved and standardized. These data should be published regularly and used to help support changes in public opinion as well as political action against tobacco use.
2. Data on mortality and morbidity should be improved. Systematic collection and analysis is needed to accurately determine and communicate the current and future burden of smoking-related diseases. Without such data, policy makers and the public will not fully appreciate the health consequences of tobacco use.
3. Public health agencies should support efforts to divert economic and human resources away from dependence on tobacco production and manufacture, even though short-term costs for this diversion may be appreciable.
4. Policies and legislation that prohibit smoking in public places, advertising and promotion of tobacco prod-

ucts, and access to tobacco by young persons should be strengthened and enforced. These actions serve to decrease the social acceptability of smoking and are essential to changing individual behavior.

5. Ad valorem taxes on cigarettes should be increased substantially and periodically as a means of reducing consumption.

6. Public health agencies should augment monetary and personnel resources dedicated to the prevention and control of tobacco use. Elevating the stature of tobacco control efforts is essential to changing individual behavior and to preventing chronic diseases associated with tobacco use.

REFERENCES

1. Pan American Health Organization. *Tobacco or health: status in the Americas, 1992.* Washington, DC: Pan American Health Organization, 1992. (PAHO scientific publication 536).
2. US Department of Health and Human Services (DHHS). *Smoking and health in the Americas—a 1992 report of the Surgeon General of the United States, in collaboration with the Pan American Health Organization.* Atlanta, Georgia: U.S. Department of Health and Human Services, Public Health Service, Centers for Disease Control, National Center for Chronic Disease Prevention and Health Promotion, Office on Smoking and Health; 1992. (DHHS publication no (CDC) 92-8420).
3. Mosley WH, Jamison DT, Henderson DA. The health sector in developing countries: problems for the 1990s and beyond. *Annu Rev Public Health.* 1990;11:335–58.
4. Omran AR. The epidemiological transition: a theory of the epidemiology of population change. *Milbank Fund.* 1971;49:509–38.
5. Lopez AD. Causes of death in the industrialized and the developing countries: estimates for 1985. Washington, DC: Population, Health and Nutrition Division, Population and Human Resources Department, The World Bank; November 1990. (Health sector priorities review; HSPR-20).
6. Barry M. The influence of the US tobacco industry on the health, economy, and environment of developing countries. *N Engl J Med.* 1990;324:917–20.
7. World Bank. *World development report 1989.* New York: Oxford University Press; 1989.
8. World Bank. *World development report 1990—poverty.* New York: Oxford University Press; 1990.
9. Centro Latinoamericano Demográfico (CELADE). *Boletín demográfico, no 45.* Santiago, Chile: CELADE; January 1990.
10. Pan American Health Organization. *Health conditions in the Americas, 1981–1984.* Washington, DC: Pan American Health Organization; 1986. (PAHO scientific publication 500).
11. Pan American Health Organization. *Health conditions in the Americas, 1990 edition.* Washington, DC: Pan American Health Organization; 1990. (PAHO scientific publication 524).
12. Tobacco Merchants Association of the US, Inc. *Special report—production and consumption of tobacco products for selected countries, 1979–1988.* Princeton, New Jersey: Tobacco Merchants Association of the US; 28 September 1989. (Special report 89-3).
13. Maxwell JC. *The Maxwell consumer report; international tobacco 1989, part three.* Richmond, Virginia: Wheat First Securities/Butcher and Singer, Inc; 30 October 1990. (WFBS 5685).
14. ERC Statistics International Limited. *The world cigarette market: the 1988 international survey.* Newmarket, Suffolk, England: ERC Statistics International Ltd; 1988.
15. Agro-Economics Services Ltd, and Tabacosmos Ltd. *The employment, tax revenue, and wealth that the tobacco industry creates.* London: Agro-Economics Services Ltd, and Tabacosmos Ltd; September 1987.
16. Food and Agriculture Organization of the United Nations (FAO). *Tobacco supply, demand, and trade projections, 1995 and 2000.* Rome: FAO; 1990. (FAO economic and social development paper 86).
17. Warner KE. Tobacco taxation as health policy in the third world. *Am J Public Health.* 1990;80:529–30.
18. Joly DJ. *Encuesta sobre las características del*

hábito de fumar en América Latina. Washington, DC: Pan American Health Organization; 1977. (PAHO scientific publication 337).

19. Rogers B. Public health gains against smoking and the economic health of the Canadian tobacco industry. *Chronic Dis Canada.* 1991;12:53–5.

Building a Tobacco-free World

The 8th World Conference on Tobacco or Health was held from 30 March to 3 April 1992 in Buenos Aires, Argentina. The conference theme, "Building a Tobacco-free World," was highlighted in the discussion of four main topics: countering tobacco marketing, advertising, and promotion; preventing tobacco use by children; establishing clean indoor air policies; and building support for tobacco control. Sponsors of the conference were the Unión Antitabáquica Argentina, the American Cancer Society, and the Latin American Coordinating Committee on Smoking Control. PAHO and WHO were among the cosponsors.

Dr. Antonia Novello, Surgeon General of the United States of America, served as the honorary chairperson and delivered the opening address. She presented to the conference the salient findings from the 1992 Surgeon General's Report, *Smoking and Health in the Americas,* a Spanish version of which was prepared by PAHO. In addition to plenary speeches and panel discussions, skill-building workshops and scientific paper presentations were features of the program. Each afternoon included regional planning sessions to assist countries in developing tobacco control plans and regional support networks.

Freeing a specific area of everyday life from tobacco was the theme of the fifth World No-Tobacco Day, celebrated on 31 May 1992. The message "Tobacco-free workplaces: safer and healthier" was promoted through events and media messages in countries throughout the world. WHO provided guidance for organizing local activities and information for publicizing the threat to nonsmokers of environmental tobacco smoke as well as the economic burden posed by smoking in terms of lost productivity and medical expenses.