

Bridging the gap between science and public health: taking advantage of tobacco control experience in Brazil to inform policies to counter risk factors for non-communicable diseases

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ABSTRACT

Aims and design The historical and economic involvement of Brazil with tobacco, as a major producer and exporter, was considered an insurmountable obstacle to controlling the consumption of this product. Nevertheless, the country was able to achieve significant progress in implementing public policies and to take an international leadership position, meeting its constitutional commitment to protect public health. In this paper we provide a brief historical overview of tobacco control (TC) in Brazil, and analyse the factors that contributed to the major decline in tobacco consumption in the country over the last 20 years, as well as identify the challenges that had to be overcome and those still at play. **Findings** The Brazilian case demonstrates how cross-sectorial collaborations among health-related groups that capitalize on their respective strengths and capacities can help to influence public policy and overcome industry and population resistance to change. Although Brazil still lags behind some leading TC nations, the country has an extensive collaborative TC network that was built over time and continues to focus upon this issue. **Conclusions** The tobacco experience can serve as an example for other fields, such as alcoholic beverages, of how networks can be formed to influence the legislative process and the development of public policies. Brazilian statistics show that problems related to non-communicable diseases are a pressing public health issue, and advocacy groups, policy-makers and government departments can benefit from tobacco control history to fashion their own strategies.

Keywords Advocacy, alcohol, Brazil, government, non-communicable diseases, tobacco control.

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INTRODUCTION

During the last 10 years, the search for ways to reduce the burden of non-communicable diseases (NCDs), including cancer, diabetes, stroke and heart disease, has become a central concern in public health globally. The high incidence of NCDs is already responsible for two in three deaths world wide, and at least four-fifths of these cases occur in low- and middle-income countries [1]. In Brazil, 72% of deaths were attributed to NCDs in 2007, and in 2011 the Brazilian Government unveiled a plan to reduce rates in the next 10 years. The plan takes into considera-

tion the main preventable risk factors that lead to the development of NCDs, including smoking, alcohol use, poor diet, physical inactivity, overweight and obesity [2].

While the focus on NCDs is relatively recent, some of the earliest initiatives in this area were undertaken several decades ago in conjunction with tobacco control (TC). These early interventions involved multiple groups from different sectors working together, and led to an increasingly integrated and collaborative approach to TC that resulted in the development of a comprehensive international treaty, as well as effective national laws and policies.

In this paper we discuss the development of TC in Brazil as a case study in how stakeholder groups can be mobilized to help leverage public health initiatives. We provide a brief historical overview of the factors that contributed to a reduction in tobacco consumption in the country, as well as the challenges that had to be overcome.

HISTORICAL CASE: TOBACCO CONTROL IN BRAZIL

Brazil is a leading global tobacco producer, and has traditionally given economic priority to this commodity, establishing in the last century a number of policies to protect the tobacco agro-business. One symbol of this commitment is the national coat of arms. Created in 1822, and remodelled before the proclamation of the republic in 1889, the coat of arms features a star and constellation central emblem that is surrounded by branches of coffee and tobacco.

Despite this long-standing relationship with tobacco, during the past several decades Brazil adopted comprehensive TC measures to reduce rates of tobacco use during a time when rates were rapidly increasing. Due to the success of these policies, the country was identified recently as an example for policy makers world wide of how initiatives to control NCDs could be designed, with high-level leadership and collaboration across different sectors [3].

The main form of tobacco consumption in Brazil is cigarette smoking, and cigarette sales accelerated dramatically to epidemic proportions in the period after 1970. By 1986, the total number of cigarettes sold in the domestic market increased by 132% when compared to 1970, and annual adult per capita cigarette consumption rose from 780 units to more than 1200. In contrast, the Brazilian adult population grew only 69% in the same period. The result was approximately 25 million smokers in the country in mid-1970 and, 10 years later, 33 million smokers: an increase of 32% [4].

Since the late 1980s this trend has essentially reversed: a nationally representative survey conducted in 1989 revealed an adult smoking prevalence (age 15 years or more) of 34.8%, yet by 2008 this rate had declined to 17.2% [5]. During the intervening decades several TC measures that were supported by stakeholders gained widespread public support, and were adopted by the government [6,7].

Given Brazil's record in TC and the advanced state of TC measures compared to other health initiatives associated with NCDs, including those targeting alcohol and fast foods, this paper can serve as a reference for how research, advocacy and government policies can help to change public behaviour and, consequently, the inci-

dence of NCDs. Seven factors are identified that were seminal in Brazil. These can also be interpreted as strategies for initiating public policy change.

FACTOR 1: INVOLVING MULTIPLE PLAYERS FROM THE BEGINNING

The first organized reaction to rising smoking rates in Brazil came in 1979 when 46 entities, including medical organizations, universities and state health departments, held a meeting to discuss potential TC strategies. Although the movement was still uncoordinated and relied upon a few pioneering physicians and professional agencies, during this period some states made history through their early and decisive action in collaboration with non-government groups, raising awareness about smoking and implementing communication measures that paved the way for an eventual federal response to the tobacco epidemic [8].

Federal engagement in TC was initiated by the Ministry of Health, in particular through the National Cancer Institute. These initiatives were central in advancing the tobacco control agenda, and involved multiple sectors including the Ministries of Finance, Agriculture, Education, Justice, Agrarian Development and collaboration with academia and non-government agencies.

Ultimately, TC in Brazil can be analysed as a complex and effective conjunction of players including scientists, policy-makers and advocacy groups, informed by other countries' experiences and the development of international standards for protecting public health.

FACTOR 2: USING SCIENCE TO FRAME POLICIES

Scientific knowledge has long been used to help inform TC policies and health promotion strategies [9–11]. Starting in the 1950s, research studies and evidence summarized in medical reports were used to identify and communicate the harmful effects of smoking to the health sector and the general public. Research findings were also used to establish credibility for policy-makers and advocacy groups. Despite this, scientific evidence still tends to be underutilized by these groups [12,13], and collaboration between scientists and policy-makers in most national contexts tends not to be developed sufficiently to enable research to be translated straightforwardly into policies [14].

In Brazil, successful dissemination of information about the hazards of smoking was based on studies conducted mainly in other countries. The successful adaptation of these studies to local use shows that even non-population-specific evidence can be valuable for supporting strong tobacco control measures. The first

'anti-smoking' groups became active in the 1970s and 1980s [15]. In 1993 the government, through the National Cancer Institute (INCA), organized the First Brazilian Tobacco Control Congress to increase public awareness of tobacco-related health problems and the need for legislation [16]. Despite the opposition of the tobacco industry—deploying one of their widely known strategies of discrediting science to delay regulatory procedures [11]—the event attracted the media's attention. From 1995 to 1998 several studies were commissioned to assess various aspects of TC in the Brazilian context, including areas that lacked information, such as economics and product testing [17,18]. These studies were disseminated widely by the media, which became a major facilitator of TC [18], and helped to build public awareness and support for TC regulation in the country.

FACTOR 3: ESTABLISHING INFRASTRUCTURE, POLICY FRAMEWORK AND LEGISLATION

The Brazilian federal government became involved in TC in 1985 with the establishment of the Tobacco Control Advisory Group (GACT) by the Minister of Health and subsequently the National Tobacco Control Program (NTCP), which was coordinated by the Ministry of Health.

The first federal law on tobacco control was approved in 1986 (Law no. 7488/1986), creating a National Day Against Smoking to alert the public to the harms of tobacco use. The annual event (29 August) provided a platform for regular multi-sectorial, awareness-raising initiatives in the country about the dangers of smoking, and helped to mobilize favourable public opinion and support for further regulation. Equally importantly, it also marked a shift in Brazilian legislation that until then was dedicated solely to the protection of the tobacco agro-industry. This annual event continues to be observed widely and celebrated at federal, state and municipal levels [19].

Two years later a new Brazilian Constitution was enacted which included a provision for the regulation of tobacco product advertising. Despite attempts by the Ministry of Health to promote TC measures, however, legally binding regulations did not pass until 1996, when Federal Law no. 9294/1996 provided for smoke-free environments, advertising restrictions and health warnings.

In 1992 the INCA was assigned the role of coordinator for the NTCP. As part of the Unified Health System (SUS) the NTCP included a network of civil servants from state and municipal health departments who were responsible for developing and implementing country-wide decentralized policies and strategies focused on awareness-raising, regulation, treatment of nicotine dependence and monitoring of tobacco industry prac-

tices. By the time Law no. 9294/1996 was approved, the NTCP was stronger and the state and municipal network was fully operational. Later, in 2004, this coordinating mechanism made it possible to introduce free nicotine dependence treatment within the SUS.

FACTOR 4: GOVERNMENT LEADERSHIP IN ESTABLISHING A STRATEGIC REGULATORY FRAMEWORK

In 1998, Health Minister José Serra undertook additional restrictive measures to control tobacco products. A ground-breaking initiative in 1999—the same year that the World Health Organization (WHO) Framework Convention on Tobacco Control (FCTC) was proposed—positioned tobacco product regulation and regulatory enforcement as legal responsibilities of the newly established Brazilian National Health Surveillance Agency (ANVISA). ANVISA established a regulatory framework for tobacco products that mandated the display of pictorial health warnings on tobacco packs and advertisements. It also banned misleading descriptors and created tobacco products registration requirements, including a reporting mechanism for ingredients and additives. As a health inspection authority, ANVISA was also put in charge of enforcement initiatives for laws such as smoke-free environments.

Also in this period, tobacco advertising, promotion and sponsorship (except at point of purchase) were banned. A decade later, in 2010 ANVISA held important public consultations on the regulation of tobacco additives and tobacco advertising at the point of purchase, and on a proposed increase in the size of pictorial health warnings on tobacco packs. Although ANVISA efforts were opposed strongly by the tobacco industry and allies, it was nevertheless successful in approving a rule to ban tobacco additives. Additionally, at the end of 2011 a federal bill (Law no. 12 546) was approved, although not yet fully implemented, that increased tobacco prices and taxes, required smoke-free environments nation-wide, banned advertising at point of purchase (except the display of packs) and mandated a 30% enlargement of warning labels on tobacco packs. More than a year after the enactment of this law, and at the time of writing this paper, however, the Brazilian government has not yet set out regulatory criteria, making it difficult for governmental agencies, such as state sanitary surveillance agencies, to monitor compliance.

FACTOR 5: INITIATIVES AT STATE AND MUNICIPAL LEVEL

From 2005 (when Brazil ratified the FCTC) to 2011, the most significant TC achievements occurred at the state

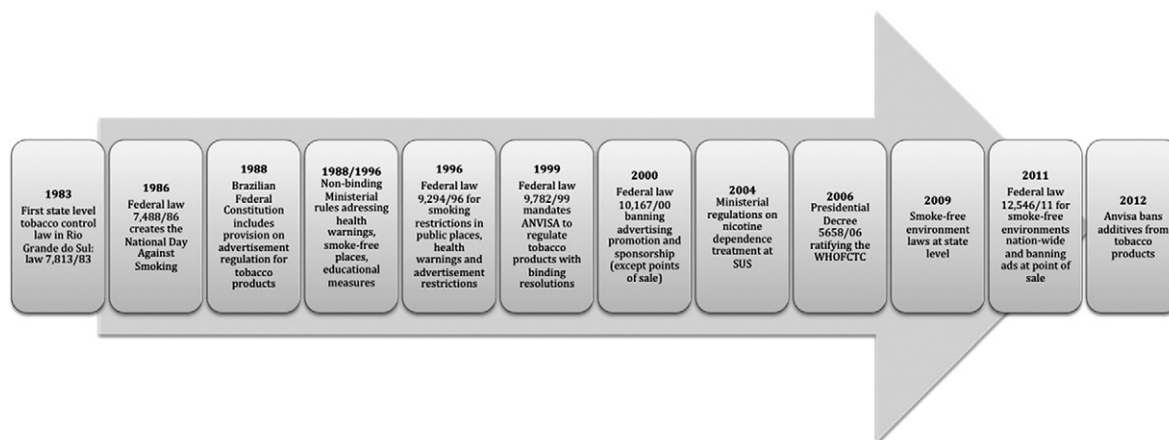


Figure 1 Main regulations with emphasis on policy aspects

level, in part as a result of the long-term investment in programme decentralization and capacity building at local and regional levels through the country's SUS [20].

In addition, the greater coordination of non-governmental organization (NGO) activities in the state of São Paulo and the Governor's political commitment led to the passage of a smoke-free environment law in 2009. This was followed by similar laws in the states of Rio de Janeiro, Parana, Amazonas, Paraíba, Mato Grosso, Roraima and Rondônia. An overview of the policy-making process in the country can be seen in Fig. 1.

FACTOR 6: LEARNING FROM THE INTERNATIONAL CONTEXT

The initial disclosure and popularization of international scientific studies associating tobacco consumption with the incidence of fatal diseases comprised the first international boost to TC in Brazil. However, international activities began to exert considerably more influence on the country in 1999, when the 52nd World Health Assembly proposed the FCTC as the first international treaty on TC. The treaty provisions were developed from 2001 to 2003. The result was an evidence-based convention that re-affirmed the right of all people to higher health standards and recognized that scientific evidence had established unequivocally that tobacco consumption and exposure cause death, disease and disability. The FCTC is a legal instrument for international law and a convention for effective measures on TC among its 174 Parties. Global recognition of Brazilian actions at the time led to an invitation to two Brazilian ambassadors, Celso Nunes Amorim and Luiz Felipe de Seixas Correa, to chair the negotiations for the FCTC [21].

The FCTC represented a shift in the Brazilian paradigm for policies to control legal addictive substances because of its emphasis on decreasing demand and supply. Scientific evidence and best practices promoted by the WHO as an intergovernmental organization made a valuable contribution to the Brazilian efforts. The country's leadership role in the negotiation process resulted in greater attention nationally and the development of more effective policies. During the FCTC negotiations, Brazil established an Inter-ministerial Commission to advise the President and reduce potential interference by the tobacco industry. The Brazilian Inter-ministerial Commission for the Implementation of the FCTC (CONICQ) replaced this advisory group after the negotiations.

At this time, the tobacco industry became subject to increased public scrutiny world wide, including in Brazil, when American courts ordered the disclosure of internal tobacco industry documents and, in historic rulings, found that there had been a conspiracy by tobacco companies to mislead public opinion, health professionals, consumers and government. The strategies exposed in these documents have provided Brazilian scientists and advocacy groups with information to counter the interference of tobacco companies in the policy-making process.

FACTOR 7: STRONG ADVOCACY WITH FULL INVOLVEMENT OF CIVIL SOCIETY

One of the most important elements of the success of TC world wide is strong advocacy [22]. While Brazil was discussing the FCTC at the international level, within the country there was little advocacy on the part of civil society. Health groups in the country engaged in a sustained fight with the tobacco industry and its allies to

ratify the FCTC, however, and the industry's tactics created outrage in the public health sector and galvanized active participation of national and international NGOs. This was particularly relevant, as the country experienced a new status internationally as a result of their public health commitments.

The emergence of Brazil's Alliance for the Control of Tobacco Use—ACT (formerly Zero Tobacco Network), an NGO, was a key factor in mobilizing advocacy activities in conjunction with the Brazilian Congress and influencing governmental authorities to ratify and implement the FCTC. ACT was formed as an informal coalition of organizations and professionals from different fields and has since become a formal alliance, with offices with specialized staff, located strategically in three states, and a mission to develop and implement the FCTC as the basis for effective tobacco control [23,24].

The process of countering the tobacco industry's opposition to FCTC ratification (including the tobacco growers' association opposition) served to strengthen the ACT coalition and consolidate its role in Brazil's TC initiatives. In fact, this situation forced all TC proponents in civil society to adopt a stronger position and pressure the government in opposing the industry.

Since the ratification of the FCTC, ACT has played a coordinating role among NGOs and assisted with market surveys and research, training, media campaigns and legislative advocacy. The recent achievements in TC would have been much more difficult without this series of concerted and largely successful advocacy interventions, which have held the government accountable for fulfilling its commitments.

DISCUSSION

There are a number of lessons from the TC experience in Brazil. For example, it is clear that the positive changes that occurred depended upon the coordinated actions of a number of different social actors and groups. Health professionals, researchers, advocacy groups and policy makers contributed, within their respective areas of expertise and influence, to the development of laws, policies and regulations consistent with Brazilian public health goals of preserving and protecting the life of its citizens.

Scientific research also helped policy-makers and advocacy groups, with evidence from epidemiology, economics, psychology, sociology and many other fields, and organizational and public leadership provided the necessary direction to ensure that TC remained a priority. International influences, including the release of the tobacco industry documents and ratification of the FCTC, were essential to bolster the credibility of the advocacy move-

ment, as well as to support TC efforts in academia, the health sector and government.

During this period, Brazil came to recognize that policies need to protect the health of the population, not the industry, and that governmental organizations such as ANVISA need the authority and autonomy to act. State and municipal health departments and governmental organizations mandated to fight cancer themselves joined forces with NGOs to control tobacco.

Understanding and monitoring industry practices, and implementing measures to change them, can be an effective strategy for promoting public health [22,25]. In Brazil, the strategy of advocacy groups to counter the tobacco companies' strong influence on the regulatory process has been to expose their interference and conflicts of interest. Corporate social responsibility, for instance, is used widely by these companies, although WHO has long noted 'an inherent contradiction' between the espousal of ethical values and the mortality figures resulting from the consumption of tobacco products [26].

One continuing problem dramatized by TC is the inherent conflict of interest between academia and the tobacco industry, particularly in the area of industry-funded research. Compared to other fields, health professionals in TC are generally more aware of, and therefore more cautious about, tobacco industry goals when investing in research and social responsibility activities. Unfortunately, the same awareness is yet to be seen in other sectors, as in the alcohol field [27,28].

Tobacco control in Brazil may provide examples of strategies for developing effective measures for controlling other legal products which are risk factors for NCDs, such as alcoholic beverages and fast foods. Although these products are not the same as tobacco and present unique characteristics regarding patterns of consumption and harm among the Brazilian population, the tobacco case shows clearly that it is possible to change public health policies and behaviours effectively by building strong collaborations between stakeholders, even in a country such as Brazil with little tradition of citizen involvement and a long tradition as tobacco growers. Furthermore, the growing exposure of the Brazilian population including youth to global marketing requires a sustained and proactive policy response.

ALCOHOL CONTROL AS A NEXT STEP?

In the case of alcohol, there is already a call for a global governance approach that would follow the model of the FCTC [29]. In view of the growing level of alcohol-related problems in Brazil, effective alcohol control policies are needed urgently. The level of binge drinking, alcohol-related health problems, abuse and dependence are sufficiently high to warrant public health measures on a

similar scale to TC [30]. Brazilian adolescents drink 6% of the total alcohol consumed in the country, and alcohol is a growing public health risk [31]. In the last decade, several attempts at strengthening alcohol control regulations have been made, and some temporary successes achieved [32]. However, the lack of enforcement noted in some states and loopholes with the law [33] remain as weaknesses of the Dry Law.

Brazil will be hosting the World Cup in 2014 and the Olympic Games in 2016, and there is a danger that economic interests will surpass social goals. A recent example is the modification of Brazilian law to allow the sale and consumption of alcoholic beverages inside sports stadiums, which had been forbidden by law for several years [34].

At this point, although there are efforts by some sectors of the Brazilian government and growing pressure by a number of pro-health groups (citizens' groups, religious groups, health and substance abuse agencies), interventions on the public health side are still largely weak and disorganized. The same cannot be said of the strategies of the alcohol industry which, like the tobacco industry, are focused, organized, financially sound and can count upon the support of powerful groups, including media organizations, advertising agencies, politicians and parts of academia. Many effective measures and policies to limit drinking, especially underage and problem drinking, can be learnt from TC history, and action by NGOs and international agencies is needed urgently. Public policy changes in this area would be an appropriate legacy of the lessons learned in TC.

Declaration of interests

None.

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