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Special report

Policy Functions of Smoking Control in Japan

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Abstract

Analysis of policy functions, with a focus on their major participants, elicits a clear picture of the decision-making process for smoking control in Japan. Activities of various advocacy groups have affected the functions of policy, including: Intelligence, Promotion, Prescription, Invocation, Application and Appraisal. In fulfilling these functions, they have affected every issue they faced by creating, transforming and propagating information in line with their interests and by influencing government decisions using coalition-building and the lobbying of elected officials. Furthermore, they have determined the development and implementation of various programs, even assuming key roles in substantiating the decisions. On the other hand, political leverage by the tobacco industry, exercised through various policy functions, intimidated the government leadership and eventually controlled its actions. When the nonsmokers' rights groups emerged, they gradually started to take part in policy functions, sometimes in cooperation with the health agency. The initial and final forms of smoking control policies in society have been deeply affected by the involvement of these groups.

Key words: smoking control, policy functions, nonsmokers' rights movement, tobacco industry, Japan

Introduction

Smoking is now considered one of the major preventable causes of cancer, heart disease and premature death in many countries. While several measures have been taken to decrease smoking and its adverse health consequences in these countries, progress in smoking control has been neither easy nor straightforward [1, 2]. Powerful material interests, and even some competing ideals, have been arrayed against calls and demands for smoking regulation. Consequently, policies for smoking control only rarely have been the products of technocratic processes, and instead are usually the products of politics. In the political struggle for smoking control, private participants such as advocacy coalitions and volunteer health organizations have sometimes played significant roles not only in changing government policies, but individual smoking behavior as well [3]. They have sometimes assumed essential leadership in the process of agency mobilization for smoking control [4, 5].

Japan has one of the highest smoking prevalence figures among industrialized countries, and the Japanese government has taken some steps in an attempt to control cigarette smoking. This prevalence has been declining since the late 1960s. Between 1958 and 1974, it ranged between 76% and 84% among males, and between 11% and 17% among females, but with no net decrease in either sex over that period. However, in the 15 years following that period, real rates of decline were observed, coming down to 61% among males and 13% among females (annual average declines were 1.34% and 0.34% respectively) [6]. As was argued in other countries [7], one can attribute this decline to the effects of anti-smoking campaigns, which were especially remarkable in the latter period. A number of smoking control policies were then introduced by the government, and various programs were implemented by non-government organizations [8].

While any present set of governmental policies must be understood in the context of their being the results of political procedures of the past [9], the processes of policy decisions and their subsequent implementation have scarcely been analyzed systematically. Originating in Lasswell's conceptualization of policy and its interaction with society, policy is understood as a combination of several functions: Intelligence, Promotion, Prescription, Invocation, Application, Appraisal and Termination. This model captures the processes in which certain policies are adopted, implemented and terminated [10]. Through such an analysis of policy functions, this paper examines how the tobacco industry and the health advocacy groups in Japan have affected government involvement in smoking control and have participated in the efforts against smoking in more direct ways. It

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thus aims to demonstrate how the emergence of nonsmokers' rights groups transformed smoking control politics and policies, and, based on the analysis of policy functions as fulfilled by the various participant groups, it will discuss what functions and essential roles societal groups have played in determining the initial and the final forms of smoking control policies.

Policy and its Analytical Framework: Policy Function Framework (PFF)

Lasswell conceptualized a set of functions of policy having seven components, namely: Intelligence, Promotion, Prescription, Invocation, Application, Appraisal and Termination [10-13]. These functions are normally interrelated in series, in parallel, or hierarchically, but still conceived as distinct components of the process by which government action is determined [14]. For the purposes of this report, this model is named the Policy Function Framework (PFF), and will provide a comprehensible dissection of the whole process of policy evolution.

Intelligence is the gathering, processing and dissemination of information as a basis for public policy decision and private choice. Promotion is the use of persuasion and other means to sharpen the perceptions and affect the opinions of both the public and policy makers. Moreover, it comprises the activities which gain the attention and focus of decision makers sufficient to permit judgments of priority regarding proposals and justifications. Prescription is the articulation of authoritative norms and sanctions through legislative statutes, executive decrees or administrative regulations. Invocation denotes the initial acts of implementing a prescription through establishment of administrative structures and allocation of funds, manpower and facilities. Application is the continuous process of carrying out a policy through specific action programs. In its operation it correlates prescriptions to circumstances. Appraisal is the evaluation of the intended and unintended effects of a policy and the allocation of credit or blame. This stage often gives birth to the Intelligence stage for a new policy. Finally, Termination is the ending of a particular prescription and its application, and the adjustment of residual claims.

Each of these functions is considered to be important for the adoption of certain policies as well as their effective implementation [14]. The rules advancing prescribed purposes can depend upon controlling the outcome of any phase of a complete decision process: Information and plans in the intelligence function; alternative development in the promotion function; the choice and articulation of alternatives in the prescription function; and initial resource allocation and program development in the invocation and subsequent application functions; appraisals of the effectiveness of these programs; and termination of the rules, when the policy has been ineffective, or is no longer needed.

The "policy process model" is another framework with a long tradition that provides a rational examination of complex policy processes. This model conceives the process of policy making as a combination of several stages in sequence [15-17]. The first stage of the traditional policy process, problem definition, involves the emergence and recognition of some problem or crisis. Second, a policy to address specific problems is formulated by various governmental and non-governmental actors, such as legislators, executive branch officials, the courts, citizens and special interest groups. Specific policy proposals are adopted in the third stage. The fourth stage is policy implementation, wherein the adopted alternatives are executed by administrative units. Finally, in the policy evaluation stage, policy makers determine whether the policy has achieved its goals [18]. However, this model has been criticized due to frequently observed deviations from the sequential stages [16, 19]. Policy evolution usually involves multiple, interacting cycles initiated by participants at different levels of government, and occasionally involving non-governmental participants [20, 21]. The PFF avoids this pitfall because it has a focus on functions, not on sequential stages.

When the PFF is applied to the subject of smoking control, Intelligence includes the creation, collection and propagation of information on the health hazards of smoking, the scale of their social impact, the norms associated with smoking and its control, and the allocation of responsibility over these activities. Promotion encompasses the debates among the legislators, the establishment of councils, the building of coalitions, and lobbying and advocacy activities of both pro-tobacco and anti-tobacco groups. Prescription involves various official decisions made by different government agencies, which include law, guidance, notice and other informal communications. Invocation and Application are the actions by administrative agencies, frequently involving the participation of societal groups, such as the industry associations and the health advocacy citizen groups. Appraisal includes both the assessment of the performance and effectiveness of the policies in place. The Termination function is self-evident. This framework is used to provide an analytical lens to the process of policy formation and implementation in the case of smoking control, which resulted from the interactions between official institutions and private groups.

This study covers about four decades, examining the process of smoking control policy making in Japan, and it is divided into two periods. Period I is from the years 1955 to 1974; Period II, from 1975 to 1994. In the first period, the issue of the health hazards of smoking emerged and the government responded to it by introducing a series of smoking control measures. In the latter period, when the hazards of environmental tobacco smoke became known, nonsmokers' rights groups and health organizations came into play, resulting in the government adopting further steps against smoking. Policy processes in these two periods are presented through the perceptive lens of the Policy Function Framework.

Evolution of Smoking Control in Japan

The organized mass production of tobacco in Japan began in the mid-19th century. Around the turn of the century, a tax on tobacco was introduced. The government soon decided to monopolize leaf cultivation and tobacco manufacturing in order to collect this tax effectively. In post-WWII, the Japan Public Monopoly Corporation (JPMC) was established to assume a managerial role in the tobacco business, and the Ministry of Finance (MOF) was assigned the jurisdiction in order to supervise the Corporation and the industry overall. The popularity of tobacco use significantly increased. Japan's first survey on smoking in 1958 disclosed that the prevalence of smoking was 75.9 percent among males and 12.4 percent among females [22].

The official reconfirmation of smoking hazards by the US and UK governments since the 1950s attracted much public attention in Japan. In the several decades since then, the Japanese

government has adopted a series of policies to control smoking. For instance, in the early 1970s, warning labels were introduced, with nicotine and tar (NT) contents disclosed. Official symposia and educational campaigns were begun in the mid-1980s. Two distinct periods can be discerned in which these policies evolved, and in quite different fashions. Institutionally, most of the measures in the early period were adopted mainly by the MOF and the Ministry of Health and Welfare (MHW), while those in the later period were taken by a wider set of administrative agencies, including the MOF, the MHW, the Ministry of Labor (MOL) and others (Table 1)[6].

Policy Functions in Period I (1955 - 1974)

In this period, the Intelligence function was fulfilled principally by the media reports on scientific findings (Table 2). The first surge, starting around 1954, consisted of reports on the health hazards of smoking that came from the UK and the US. The technical reports of the Royal College of Physicians and of the WHO were soon translated by a health organization known as the Japan Anti-Tuberculosis Association (JATA)[23]. In response to the emerging public concern, the MHW launched its first epidemiological study on cancers in 1965. When the 1970 WHO resolution highlighted the issue again, the Ministry started to survey smoking behaviors as part of its annual nutrition survey[6]. Since 1950, the JPMC had conducted its own annual surveys on smoking, which, incidentally, included the age at which a smoking habit was acquired. However, with the issue of smoking hazards becoming increasingly covered by the media, the company no longer conducted their surveys openly[24]. On the other hand, while domestic government agencies did not fully engage themselves in collecting scientific reports or in funding research, the JPMC funded its own scientific research on the effects of smoking on health, subsequently establishing its own research institute. At the same time, the JPMC publicly cast doubt on these foreign reports, questioning and trivializing the possible hazards[25].

As for Promotion, although no groups in society visibly lobbied elected officials, high smoking prevalence and the foreign reports on smoking hazards, both of which were highlighted by the media, motivated politicians to speak in favor of smoking control. Although the tobacco industry sometimes pressured the Diet members to refrain from advocating stringent official actions, the debates in the Diet continued to urge the involvement of government agencies. As a focal point for discussion, the MHW set up a temporary committee of experts in 1964, which nevertheless failed to reach a decisive conclusion[25]. It did result in the Ministry issuing a Guidance encouraging local governments to take measures for smoking control, but it did not specify concrete policy measures nor did it allocate funds. The Ministry lost its initiative and thereafter assumed no advocacy role for over a decade.

Meanwhile, in 1970, the WHO resolution came out, which, besides conveying technical information, clearly recommended that its member states take action. After debates in the Diet, the MOF established a permanent committee on the issue of smoking and health, which was supposed to review the issue, examine possible policy measures and iron out policy proposals. Being dominated by the industry members, however, the council only endorsed those proposals made by the industry[26]. For the benefit of the decision makers, as well as for the public, the JPMC not only questioned the scientific validity of the smoking hazards, but also stressed the historical legitimacy of tobacco and its usefulness. In 1972, the Minister of Finance issued its Order to the JPMC, which mandated warning labels, required efforts to prevent juvenile smoking, and recommended further research. However, many of the designated measures lacked clear goals and standards, nor did they accompany clear sanctions for violation.

In Invocation and Application, these central government agencies did not assume a substantive role. The development and implementation of programs were basically left to other institutions. Consequently, their lack of commitment substantially determined the fate of the policies. Following the MHW Guidance in 1964, no concrete actions were reportedly made by the local governments[27]. On the other hand, the 1972 MOF Order more or less was accompanied by action: the JPMC was required to put health warnings on cigarette packages, and other items in the Order had already been implemented as voluntary actions by the industry: the JPMC was disclosing NT content by 1969, set a voluntary code on advertising and started annual campaigns aimed at preventing juvenile smoking in 1970[28].

Although activities of the JPMC were conducted continuously, the industry retained a great deal of discretion in developing and implementing the final programs, since the Order did not specify concrete measures. For instance, while inviting several government agencies, such as the National Police Agency (NPA), to participate, the JPMC stayed in control of the annual campaign to prevent juvenile smoking. The NPA sometimes paid for the efforts to enforce the Juvenile Smoking Prohibition Law of 1890, but this was quite sporadic[29]. Juvenile smoking was regarded primarily as an issue of delinquency, as the industry campaign propagated. Under the industry's codes on advertising

Table 1 Policies for smoking control in Japan

Period I (1955 - 1974)	Period II (1975 - 1994)
1964 Expert committee, Guidance (MHW)	1978-84 Smoking restriction in medical facilities (MHW)
1965 Survey on cancers (MHW)	1980 Notice on the World Health Day (MHW)
1969 NT disclosure and advertisement codes (JPMC)	1984-6 School curricula revision (MOEd)
1970 Expert committee (MOF)	1985 Codification of warning labels and limits on excess advertisement (MOF)
1970 Campaign against smoking by minors (JPMC, NPA)	1987 WCOSH, White Paper (MHW, MOL)
1972 Warning labels (MOF)	1988 World No Tobacco Day poster (MHW)
	1989 School curricula revision (MOEd)
	1989 Ordinance on vending machines, Health warning revision (MOF)
	1992 Restriction on workplace smoking (MOL)
	1993 Second White Paper, APACT symposium (MHW)
	1994 Group for Action Plan (MHW)

MHW: Ministry of Health and Welfare, JPMC: Japan Public Monopoly Corporation, MOF: Ministry of Finance, NPA: National Police Agency
MOEd: Ministry of Education, MOL: Ministry of Labor, WCOSH: World Conference on Smoking and Health
APACT: Asia-Pacific Action for the Control of Tobacco

without clear standards, cigarette advertising gradually increased. Without official regulation, the installation of vending machines increased rapidly, too.

As for Appraisal, neither the policy measures of the MHW nor those of the MOF were ever assessed in terms of their processes or their performance. Smoking prevalence disclosed by the JPMC and by the MHW were the only possible indicators which could reflect policy effects. But they were not really discussed in relation with the policies adopted, nor were new indicators introduced. The reports of the NPA on the arrested cases of juvenile smoking were published annually, and sometimes cited in order to call for further NPA commitment in smoking control. However, these reports did not necessarily represent the state of affairs on smoking among minors. The cases reported therein were merely dependent upon the levels of enforcement by the Agency. When criticized for loose enforcement against juvenile smoking, the NPA stressed its participation in the JPMC-hosted annual campaigns[30].

Because of the shortcomings of the policies thus far, especially the lack of true assessments, the Termination function was hardly necessary.

Policy Functions in Period II (1975-1994)

The reports on the hazardous health effects of smoking, both for smokers and nonsmokers alike, were supplied in abundance by the media and the WHO technical reports. Emerging citizen groups and many of the existing voluntary health organizations then collected and reproduced these reports[31,32](Table 3). Pressed by the debates in the Diet, in the late 1970s the MHW provided research funds to study the effects of smoking on pregnancy. To

Table 2 Policy functions of smoking control in Period I

	Diet, Politicians	Government agencies	Industry	Citizen groups	Medical organizations	Mass media
Intelligence		MHW surveys	JPMC surveys Rearch funding Research Institute	(Citizen groups)	JATA reports, WHO report	Newspapers UK/US Reports etc.
Promotion	Inspired politicians	MHW Committee MOF Council	(Council members) (Public relations)		WHO resolution	Newspapers
Prescription		MHW Guidance MOF Order				
Invocation			JPMC voluntary actions, ordered actions			
Application		NPA(sporadic enforcement)	JPMC actions	Nonsmoking campaigns, Public transportation		
Appraisal						

MHW: Ministry of Health and Welfare, MOF: Ministry of Finance, NPA: National Police Agency, JPMC: Japan Public Monopoly Corporation
JATA: Japan Anti-Tuberculosis Association

Table 3 Policy functions of smoking control in Period II

	Diet, Politicians	Government agencies	Industry	Citizen groups	Medical organizations	Mass media
Intelligence		MHW, MOL, PMO	JPMC Research Institute	Nonsmokers' Rights (NSR) groups	WHO, JATA, Japan Cancer Association	Newspapers
Promotion	(Diet debates)	MHW reports, councils, symposia		NSR groups WCOSH	WHO, JATA, WCOSH, APACT	Newspaper editorials
Prescription		MHW Guidance & Campaigns, MOL Guidance MOF Ordinance MOEd Guidelines				
Invocation		Announcements, MHW budget allocation	(Voluntary code revision)			
Application		MHW annual events, campaigns, reports; NPA enforcement; Local gov't programs	Voluntary actions, ordered actions TIOJ campaigns	Events, Symposia Smoking restriction in public places / transportation	Symposia, Educational programs	
Appraisal	(Diet debates)	MHW surveys MOL surveys	Industry reports	Watchdog reports		Sporadic surveys

MHW: Ministry of Health and Welfare, MOL: Ministry of Labor, PMO: Prime Minister's Office, MOF: Ministry of Finance, MOEd: Ministry of Education
NPA: National Police Agency, JPMC: Japan Public Monopoly Corporation, TIOJ: Tobacco Institute of Japan
WCOSH: World Conference on Smoking and Health, JATA: Japan Anti-Tuberculosis Association, APACT: Asia-Pacific Action for the Control of Tobacco

summarize scientific reports on smoking, in 1987 the MHW published the White Paper on Smoking and Health [6]. The Ministry of Labor (MOL) also published the reports on the health effects of smoking in the workplace [33]. As for the status of smoking and its consequences, surveys on smoking prevalence were made regularly by the MHW and the JPMC. Increased incidences of lung cancer, which grew continuously over the period, occasionally drew public attention. While no official survey was available on juvenile smoking, citizen groups, local associations of school teachers and the health departments of local governments conducted questionnaire surveys. Non-governmental medical organizations such as local medical associations were also involved in these efforts [6].

Furthermore, information on policy measures to control smoking was supplied by the WHO reports, as well as international symposia such as the World Conference on Smoking and Health (WCOSH) and the Asia-Pacific Action on the Control of Tobacco (APACT). The Second MHW White Paper (1993) included a discussion on policy measures. All of this was disseminated and publicized by the mass media. Public opinion surveys were conducted by the media, the MOF, the Prime Minister's Office (PMO) and local governments [34]. Thus, the Intelligence function was accomplished by many parties, both public and private.

Policy Promotion was conducted increasingly by citizen groups and later also by official agencies. Besides the media reports, the nonsmokers' rights movement highlighted the issue of smoking and health. Various events, such as the World No Tobacco Day proposed by the WHO, served as focusing events that served well to attract the attention of the public and of policy makers. In response to increased visibility of the issue and the advocacy and lobbying efforts by citizen groups, politicians occasionally spoke up for smoking control, too [31]. Their debates in the Diet on such occasions started calling for a commitment from the MHW to smoking control. In 1984, the Ministry not only set up its own permanent committee on smoking and health but also hosted, with four health organizations, the Sixth WCOSH, which had been invited to Japan by citizen groups. The activities of the MHW, such as the publication of the White Paper, in turn triggered further debate in the Diet. On the other hand, the council in the MOF continued to function as it did in the preceding period, for it was again dominated by tobacco industry members. The council encouraged policy measures which would best avert public criticism about government inaction and at the same time be the least detrimental to the industry's own interests.

Prescription was carried out mainly as administrative decision. During the debates in the Diet, the MHW and the Ministry of Education (MOEd) pledged their commitment to smoking control, and issued Guidance to limit smoking in medical facilities. Since 1980, the MHW has issued a series of Notices to local governments, calling for their commitment on various events for smoking control, such as "No Smoking Week" and "World No Tobacco Day." In 1987, the Ministry hosted the WCOSH and issued official reports [6]. In response to the Diet debates and the MHW White Paper, the MOEd revised its curriculum guidelines for elementary, junior high and senior high schools, which resulted in their textbooks including education on the hazards of smoking.

When it came to the Invocation phase, the Guidance and Notices by the MHW were not accompanied by budget allocations in support of programs for another few years. Their implementation was basically left to the local governments and the medical institutions. While the MHW announced various events, such as the symposia and the campaigns for smoking control, other organizations, such as the nonsmokers' rights groups, health organizations and teachers' associations were the ones who translated them into concrete programs. Local governments also played important roles in developing and implementing policies in accordance with the MHW Notices. Since the late 1980s, several local governments have prohibited smoking in public places, including in their office buildings and in public transportation [35]. Finally in 1988, the Diet approved a budget for programs to control smoking, which was used to publish posters, call meetings and support the symposia and educational programs developed by local governments and health organizations, although this remained quite limited [6].

From 1990 onward, the MOL began receiving an annual budget for smoking control in the workplace. With a revision of the Labor Safety and Hygiene Act in 1992, the Labor Ministry included smoking control as one of the aspects for improving the workplace environment. Although the decision to adopt smoking control was basically left to each company, nonsmoking employees occasionally brought their requests to the Labor Standard Offices for mediation. Local Labor Standard Offices would then recommend to the employer to limit smoking in its workplace. Meanwhile the Japan Development Bank was providing low-interest loans to businesses specifically for the improvement of the workplace environment, and these could include establishing ventilated smoking areas in a company's buildings. Some cases were brought to the courts, although they were eventually rejected for their legal standing [36]. Over time, increasing numbers of companies introduced some forms of smoking restriction in their buildings.

On the other hand, the MOF hardly responded to the nonsmokers' rights movement nor the Diet debates for a long period of time. At the time of market liberalization in 1985, however, the 1972 MOF Order was incorporated into Tobacco Enterprise Law of 1984. The warning labels, NT disclosure, and juvenile smoking prevention were mandated therein, although clear goals and standards were still lacking. The MOF did not engage itself in its own policy implementation. Instead, development and implementation of actual programs were left to the industry. The industry established the Tobacco Institute of Japan (TIOJ); that is, it was organized by manufacturers, farmers, retailers, deliverers, traders, etc.. Its purpose was to orchestrate the activities of its members, set up the regulatory codes on advertising, conduct annual campaigns to prevent juvenile smoking, and manage the Tobacco Research Institute. The Institute itself also conducted annual campaigns to prevent juvenile smoking, but jointly with the MOF, the NPA and the PMO [31]. As the government agencies participated in the annual campaign only symbolically, the TIOJ continued to control the program, boasting of its social commitments without ever assessing the real impact of their program on smoking. Then in the late 1980s, in response to the MHW White Paper and subsequent debates in the Diet, the MOF issued the Ministerial Ordinance on cigarette vending machine distribution and on advertising regulation, again without clear standards. While the official regulation remained quite vague and lacked specification, voluntary codes of the industry were the only applied rules in marketing regulation [37].

In the meantime, smoking control proceeded without the direct involvement of government agencies, either. In the late 1970s, large scale signature campaigns were made and a series of law suits were filed to establish non-smoking sections by citizen groups. Although these law suits were rejected by court review, these kinds of activities facilitated the responses specifically by the transportation companies. In 1976, the Japan National Railway introduced non-smoking sections, while Japan Air Lines had been doing so in its domestic flights since 1978. In the 1980s, more and more companies introduced non-smoking sections or banned smoking completely on their carriers, responding both to the wishes of its users and to the petitions made by nonsmokers' rights groups. The industry continued to watch the debates on smoking, both in government institutions and in society, and adopted a series of voluntary measures. In the 1990s, the MHW formed a group for the action plan on smoking control, which in turn recommended a ban on advertising and restrictions on vending machine operation. The TIOJ then announced that it would voluntarily stop the operation of vending machines at night, and would no longer deliver cigarette advertising via electronic media, including TV. The industry newspaper explained these actions as a measure to protect the social legitimacy of its tobacco products and business[38].

As before, no systematic or periodic activities were performed officially to assess the performance or effectiveness of any smoking control policies. In the late 1970s and during the 1980s, nonsmokers' rights groups at least sporadically conducted surveys on the compliance of official measures for smoking control. Then, based on their results, these groups were able to lobby politicians to debate the issue, while urging government agencies to report the enforcement status of their policies. The media, citizen groups, health organizations and a few medical researchers also conducted surveys about how the industry complied with official regulatory measures[39]. In the 1990s, the MHW occasionally surveyed local health posts and local governments on how they developed and implemented their programs for smoking contro[16,40]. Also, the MOL report started citing the state of smoking regulations in the workplace. On the other hand, the JPMC published a report which summarized the overall economic benefits to Japan of the tobacco industry[41].

Politics and Policy of Smoking Control in Japan

Social Interests and Policy Functions

Analysis of policy functions disclosed that they were substantially fulfilled both by the government and private institutions. Through their influence on different functions, competing social interests, whether or not in cooperation with official agencies, affected the course of government action, determining both the initial and final shapes of (public) policies. Policies have emerged, evolved, been implemented and/or transformed by, the activities of various institutions and individuals carrying out the different functions.

In Period I, the industry largely determined the government action through its influence on Intelligence, Promotion and Invocation, as well as Application functions. The media and international organizations had some influence and effect in Intelligence and Promotion, but the industry endeavored to deny or trivialize the hazards of smoking, and proceeded to cast doubts on the relevance of government involvement in smoking control. It also succeeded to a great extent in containing the agenda through token management and through lobbying efforts. Public policy issues are constructed by social process and therefore need to be shaped into political spectacles in order to get on the agenda[42]. A society's decision on causation does not result simply from scientific evidence alone but needs a political and social construction of reality as well[43,44]. Under competing social and business forces, Intelligence and Promotion functions were shown to continuously shape the environment in which other functions were to operate.

As Prescription, the MHW issued a recommendation without accompanying concrete activities. Lack of its own resource base, as well as that of cooperative social institutions, made the Ministry incapable of launching viable programs. As long as the MHW remained uninvolved, the MOF was impelled to take actions that were influenced by the Diet debates. Then, the tobacco industry exercised its own substantial influence over the agency's actions, namely its Prescription and Invocation, through their membership in the council: the MOF policies were made and implemented in close consultation with, and with the continuous participation of, the industry.

In Period II, when the health advocacy groups appeared and grew in strength, they started to play their parts in Intelligence and Promotion, as well as Application and, with great significance, in the Appraisal function. They, together with the medical organizations and mass media, collected information, built coalitions, and set the agenda in the Diet as well as in government agencies. In cooperation with, and sometimes ahead of, the official decisions, these groups developed their own programs for smoking control. They frequently legitimized their activities by citing the past MHW Guidance, much of which had long since existed, but merely symbolically[45].

Their efficacy in Promotion, Prescription and Invocation was first indirect and limited, compared to that of the industry, since they did not have direct access to the decision makers by being officially part of the government agency. However limited, advocacy groups helped the MHW in its Intelligence, Promotion, Application and Appraisal, and gradually induced it into action. Increased mobilization of official agencies in turn legitimized their activities, providing more opportunities for their activities. Moreover, these agencies helped consolidate the networks of advocacy groups by arranging their joint actions, and in some instances they granted official (consultant) status as part of the planning body.

Thus, the involvement of health advocacy groups affected government behavior in several ways over the periods. First, their activity in Intelligence, Promotion, Application and Appraisal highlighted the issue and facilitated the enforcement of existing policies. Even without new official Prescription or Invocation, social interests could play central roles in Application. They acted rather independently, justifying their activities by the (sometimes only symbolically) existing policies. Second, the activities of advocacy groups induced the adoption of new official policies. When Promotion had been successfully conducted, Prescription was made by the government, which may or may not have accompanied Invocation. Third, when the government made certain decisions, the involvement of social interests substantiated the programs, using them as the vehicle for their Application and Appraisal. Their cooperation sometimes produced synergetic effects in advancing their common objectives, empowering each other. As were the cases with smoking control[3,46-49] and with other policy areas in other countries[50], advocacy groups played

key roles in the adoption and enforcement of policies.

Among the functions, Prescription and Invocation were fulfilled principally by official institutions such as administrative agencies in both periods. Since Prescription determines both the legal and administrative aspects of the framework around the issue, the initial shapes of policy were substantially affected by it. This resulted in determining the responsibilities and resources of the different agencies. On the other hand, Intelligence, Promotion, Application and Appraisal functions could be carried out with much more contribution from the non-governmental groups in society. As was the case with Prescription and Invocation, these functions were quite important in determining the final shapes of policies. Although the government adopted a series of steps to control smoking, these decisions were not always accompanied by the development and implementation of official programs in combination with Appraisal efforts. Programs developed in this way provided the social interest groups with opportunities to control the programs and then take over the governmental initiatives.

The working of different policy functions, and the activities of the actors affecting them, proceeded simultaneously, not sequentially. Namely, Invocation, Promotion and Appraisal constantly transformed the environment for Prescription, Invocation and Application, and the latter set of functions also affected the activities in the former. The final shapes of policies were determined by social interests, government agencies and the relationships between them.

Advocacy and Smoking Control

This study shows that, as was the case with many countries, advance in smoking control in Japan has been accomplished by the leadership of social interests, rather than by government initiative. It has been shown that effective Promotion by the government was hindered, even though it was the basis for official Prescription and Invocation. It was hindered by the inaction of the Diet, due to pressure from the pro-tobacco interests, and by the long-term reactionary proclivity of the MHW, which might be a result of its poor resource base and of the immobilized Diet. Being a public institution, the JPMC kept close ties with elected officials and the MOF bureaucrats. As a result, the tobacco industry retained a dominant influence over the MOF, and the Diet tolerated the policies devised by them. Consequently, societal groups, both the industry and non-smokers' rights groups, have played significant roles in determining smoking control in Japan. First, smoking control in Japan was determined by the MOF/industry coalition, then, with the emergence of nonsmokers' rights groups, by the competition between these two groups.

In each period, distinct patterns of relationships were observed between the government agencies and the societal groups. In Period I, the industry exercised dominant influence on the smoking control measures introduced by the MOF. The advantages and disadvantages that the existing policies confer on the participants in the political process have an impact on the subsequent political decisions[51]. Preferential access to the deliberation councils was sometimes crucial for the industry to affect its administrative decision making[52]. As was observed in other policy areas, the councils served as a nexus/compact point between the regulation agencies and the regulated[53]. In Period II, while the industry continued to cooperate with the MOF in devising its policy measures, the emerging health advocacy groups induced the mobilization of the MHW, which in turn empowered these groups in society. Health advocacy groups needed the mobilization of the health agency to advance their objectives, but at the same time, the reverse is also true. As happened with the US Environmental Protection Agency, which sought to create a constituency to strengthen its bureaucratic bargaining position and ability to promote policies[54, 55], the Japanese health ministry required the mobilization of social interests as its arms. Competing social interests were then funneled into the official arena through the competing administrative agencies. This pattern of decision making was sometimes observed in other policy areas, as the Bureaucratic Politics Models suggest[56].

Theoretically, statist models suggest that the government invites the interests to cooperate with them to effect its decision[52, 57], while pluralist models suggest that social interests endeavor to take part in the government to affect its decision[58]. In the case of smoking control in Japan, the latter seems a better fit. Throughout both periods, an important part of Promotion, membership in the administrative councils, was determined by social interests. Where the industry acquired this insider status through its political pressure, the health advocacy groups did so by its decades of advocacy and lobbying efforts.

Smoking Control Policies in Japan

Policies thus far introduced have duly been the products of these political processes. They have not outlawed smoking nor the marketing of tobacco products, only placed some limits on them. Under the pressure from the industry, the government did not officially confirm the health hazards of smoking for a long time. Even when the government took action, they stopped short of introducing marketing regulations with clear standards or they recommended certain actions without providing funds to substantiate the programs. Official appraisals were rarely made, which made the existing policies symbolic rather than real and enforceable. This made it all the more necessary for advocacy groups to try to exercise their influence strategically by conducting different functions, and their activities have continuously affected the final shape of government policies for smoking control. Appraisal was also a political process that competing interests endeavored to affect[59, 60].

The progress of smoking control policy in Japan has not been a success story, nor has it been a total failure. It was not a complete failure because a series of smoking control policies was put into effect by the government. In 1995, the regulations on cigarette advertising were tightened as compared to those of the 1970s. Smoking is now restricted in many places, such as in hospitals and on public transportation. Many of the school curriculums include the study of health hazards associated with smoking. Although how these measures are performing is not necessarily clear, the average smoking prevalence among males is gradually declining. It is not, however, an unequivocal success, either, since Japan continues to have one of the highest smoking prevalence rates among the industrialized countries, and the rate of smoking among the younger generation and women has increased in recent years. Furthermore, lung cancer has become the most prevalent cancer among males in the nation[6].

From the standpoint of health promotion, mobilization of social interests was a key to advancing smoking control where the political leverage of the industry was dominant. In a few decades, the initial timidity of the health agency and the objections voiced

by the industry and its allies have both gradually diminished by the activities of health advocacy groups that mobilized general support. Advocacy by the international organizations has also played an essential role: they affected the public's perception of the issue and, when domestic momentum grew, they exercised a sometimes decisive influence on the activities of local groups as well as the government decision. On several occasions highlighted by the international actors, the government first tolerated the activity made by the health advocacy groups, then gradually became involved itself. This phenomenon, that the changing relationships between social interests and the governments have significantly affected the evolution of smoking control policies, was also observed in other countries, such as the UK[61] and the US[62].

Conclusion

Analysis of the policy functions, focusing on the major participants in them, elicits a clear picture of the decision process in the matter of smoking control in Japan. Activities of the advocacy groups affected all the functions of policy from Intelligence through Appraisal. Fulfilling these functions, they affected the issues they faced by creating, transforming and propagating information in line with their interests; they influenced government decisions by building coalitions and lobbying elected officials; and they determined the development and implementation of various programs, including the assumption of key roles in substantiating the decisions.

Smoking control in Japan has evolved differently over the decades. In the early period, mass media and international organizations introduced the issue and the government responded to the emerging public concern. However, the political leverage of the industry, which was exercised in different policy functions, intimidated the government leadership, and eventually controlled its actions. When the nonsmokers' rights groups emerged, they gradually took part in a set of policy functions, sometimes in cooperation with the health agency. Government behavior on the issue of smoking then became determined by the competition between the pro-tobacco and anti-tobacco social interests.

The initial and final forms of smoking control policies have been deeply affected by the involvement of these groups of society. Since the government had not directly developed and implemented concrete programs, they were left largely to societal groups. Without sufficient appraisal efforts, the government policies for smoking control remained symbolic in that they recommended certain actions with various degrees of specificity, but did not actively participate.

Finally this study demonstrates that analysis of policy functions is a potent tool to explore the process of policy decision and implementation. Although many reports found that social interests have substantially affected the adoption and enforcement of smoking control measures, the full scope of their influence has not always been captured or realized. The Policy Function Framework is expected to analyze systematically the social processes by which a variety of social policies are adopted, implemented, appraised, and in some cases, terminated. It would help to examine which actors play which roles in determining policies, policies that are inevitably the products of the interaction between the state and society.

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