# RESEARCH ARTICLE

# **Practical Use of Cancer Control Promoters in Municipalities** in Japan

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#### **Abstract**

The Cancer Control Act in Japan became effective in 2006. In Ibaraki, Toyama, and Hyogo prefectures, the Cancer Control Promoter (CCP) plan was created to strengthen partnerships for cancer prevention. This study aimed to examine the curre nt status of CCP utilization and analyze relationships with intersectoral collaboration, both within the government and with outside partners. In 2008, we mailed questionnaires to 100 administrators responsible for disease prevention and health promotion in municipal governments of the three prefectures. Ninety-one administrators responded (response rate, 91.0%). We analyzed responses to questions regarding whether or not the municipalities had used CCPs. Items assessing intersectoral collaboration examined municipality characteristics and relationships with outside partners and sectors specializing in areas other than community health. Among 90 administrators with valid data, 33 municipalities (36.7%) used CCPs while 57 (63.3%) did not. The Fisher's exact test revealed that intersectoral collaboration for using CCPs was associated with communication with all of the municipal government sectors not related to health. The present study indicated that CCPs were not consistently used in municipalities. However, we found that intersectoral collaborations, especially within the local government, may be related to the practical use of CCPs. This, in turn, may result in effective cancer control and prevention, as well as improvement in community health.

Keywords: Cancer Control Promoter (CCP) - intersectoral collaboration - municipality - Japan

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#### Introduction

Cancer is the leading cause of death in Japan (Ministry of Health, Labour and Welfare, 2013). According to statistics, half of the Japanese population will be diagnosed with cancer in their lifetime (Matsuda et al., 2013). The Cancer Control Act, approved in 2006, has three basic strategies: prevention and early detection of cancer, equalization of care, and research promotion. It allows patient support groups and other interested parties to be official liaisons to the Ministry of Health, Labor and Welfare as members of the Cancer Control Promotion Council. The Basic Plan to Promote Cancer Control Programs was developed in 2007, covering fiscal years 2007–2011. It aimed to reduce cancer-associated mortality, reduce patient and family burden, and improve their quality of life (Moore and Sobue, 2009). During this period, each of Japan's 47 prefectures was required to develop their own cancer control promotion plan by the end of March 2008.

To promote cancer control in Japan, the Japanese government, including the Ministry of Health, Labor and Welfare and the National Cancer Center, work on equalization of care through increasing the number of designated cancer care hospitals (Moore and Sobue, 2009). Furthermore, some studies are leading to the development of programs for primary and secondary prevention of cancer. The contribution of strengthening community action for disease prevention is well documented in health promotion literature; this is a fundamental strategy outlined in the Ottawa Charter for Health Promotion (WHO, 1986). The charter states that "community development draws on existing human and material resources in the community to enhance self-help and social support, and to develop flexible systems for strengthening public participation in and direction of health matters" and "this requires full and continuous access to information, learning opportunities for health, as well as funding support". However, current cancer control programs in Japan target community action mainly to enhance patient advocacy groups. For example, the Basic Plan to Promote Cancer Control Programs required all 47 prefectures to involve cancer patients and their families in the policy-making process. However, we questioned whether it overlooks targeting community action; that is, involving not only cancer patients and their families but also the general population without cancer

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to enhance social support such as healthcare volunteers.

Municipalities have been responsible for conducting cancer screenings in Japan, however, cancer screening rates in Japan are much lower than those in Western countries and Korea, including examinations other than population-based screening that are conducted as part of a public policy to reduce mortality rates (Sano et al, 2014). The plans of Ibaraki, Toyama, and Hyogo prefectures included the establishment of Cancer Control Promoters (CCPs) to strengthen partnerships for cancer prevention (Figure 1). CCPs are healthcare volunteers appointed by the prefectural government who play an active part in their own municipalities of residence. Most of them are originally housewives and have been active as health volunteers, such as advocating healthy lifestyle and supporting governmental health promotion programs in municipal government health centers, who are called Health Mates or Health Cooperators. CCPs were initially established in Toyama in 1989, with the aim of encouraging residents to have an early cancer examination. CCPs in Ibaraki were established in 1990, with emphasis on advocating primary as well as secondary prevention of cancer. CCPs in Hyogo were established most recently in 2008 as part of the prefectural government plan against cancer, following Toyama's example. However, to date, there have been no studies on the development of CCPs. We wonder if effective use of CCPs is related to intersectoral collaboration as mentioned by the Jakarta Declaration, which calls for consolidating and expanding partnerships for health; that is, for partnerships and social development between the different sectors of governance and society at all levels (WHO, 1997).

Germann and Wilson (2004) pointed out that the collaboration between health organizations and people with the capacity to create healthier environments and communities was not fully investigated in past studies. They further argued that the concept of "community capacity" is accompanied by that of "organizational capacity" for facilitating community development

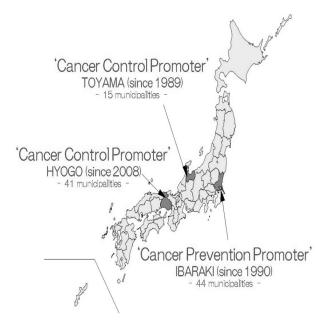


Figure 1. Cancer Control Promoters in Japan

processes. Organizational capacity includes mediation between multiple sectors within the organization (Hawe et al., 1998; Germann and Wilson, 2004). In Kreuter's social capital theory of community change (Kreuter et al., 2001), two assumptions were made with regard to partnership with organizations: the presence of high trust and cooperation between organizations strengthens the probability that a community-based health promotion program will succeed, and that collaboration among organizations varies across communities.

In the process of using CCPs, administrators may require the approval of the mayor or need to secure funds as well as build intersectoral collaboration. We investigated whether municipal administrators had such a process for the CCP program; that is, if mayoral factors or specific kinds of budgets impact the use of CCPs. This study aimed to examine the current status of CCP utilization and analyze relationships related to communication to address intersectoral collaboration, both within the government and with outside partners in 100 municipal governments within three prefectures in Japan.

#### **Materials and Methods**

We conducted a self-administered survey from October 1 to December 31, 2008. Questionnaires were mailed to administrators responsible for disease prevention and health promotion in 100 municipalities; 44 in Ibaraki Prefecture, 15 in Toyama Prefecture, and 41 in Hyogo Prefecture. Most returned the questionnaire within one month to the National Cancer Center (Division of Cancer Information Services and Surveillance, Center for Cancer Control and Information Services). Reminders were sent to non-respondents at five and nine weeks after the initial mailing. We asked authorities from each prefecture and local government to publicly support our survey. Ninetyone administrators responded (response rate, 91.0%); 90 (90.0%) provided valid responses and 1 returned blank entries.

The questionnaire surveyed municipality characteristics, current use of CCPs, and communication with non-government and government personnel. Regarding communication, each respondent was asked about 12 sectors inside the government and 12 community partners outside the government: "For each of the following sectors/partners, please check the box if you had any direct contact with them officially from April 1, 2007 to March 31, 2008." By direct contact we meant contact by telephone, in writing, or in person. The survey was conducted anonymously. Written informed consent was obtained from each respondent. This study was approved by the Ethics Committee of the National Cancer Center.

Responses from 90 participants to the question of whether or not they used CCPs were analyzed. Items assessing intersectoral collaboration examined municipality characteristics and relationships with outside partners and sectors specializing in areas other than community health.

Chi-square or Fisher's exact test was used to analyze the relationship between the use of CCPs and

municipality characteristics. We used Fisher's exact test for communication with non-government as well as government personnel that associated with use of CCPs, classifying the communication into four categories, government sector (health-related), government sector (not health-related), non-government sector (health-related) and non-government sector (not health-related).

### **Results**

Table 1 shows the results of characteristics of municipalities with and without the use of CCPs. Among the respondents, 33 municipalities (36.7%) used CCPs while 57 (63.3%) did not. Based on these responses, we divided participants into "Use of CCPs" and "No use of CCPs" groups and compared their characteristics. We found a significant difference in the budget for primary cancer prevention, with the "CCPs" group more frequently using a subsidy than those municipalities without the use of CCPs (p<0.005). No significant differences were found in other municipal characteristics, including recumbent status of the mayor and the mayor's former occupation.

Table 2 shows the results of communication among municipal government sectors and partners outside the government. A high percentage of respondents communicated with the public welfare and safety (70.0%), social welfare (94.4%), and education and culture (72.2%) sectors of the government, as well as hospital or medical clinic directors (86.7%), prefectural health center administrators (97.8%), and board of education members (87.8%) outside the government. Fisher's exact test revealed that intersectoral collaboration for using CCPs was associated with communication among some municipal government sectors more than those among sectors in the community

Table 1. Characteristics of Municipalities with and without the use of CCPs (n=90)

Characteristics		se of CPs	No use of CCPs		
		I=33)		=57)	
	,	. (%)	`	(%)	
Administrative classification					
City	21	(63.6)	44	(77.2)	
Town	9	(27.3)	13	(22.8)	
Village	3	(9.1)	0	(0.0)	
Population					
<30000	10	(30.3)	9	(15.8)	
30000-49999	9	(27.3)	19	(33.3)	
50000-99999		(21.2)		(31.6)	
100000-299999		(15.2)		(12.3)	
≥300000	1	(3.0)		(7.0)	
Inauguration term of the mayor (years)†		()	-	( )	
In the first term (<4)	19	(57.6)	28	(49.1)	
In the second term ( $\geq 4$ ,<8)		(15.2)		(26.3)	
In the third term or later ( $\geq 8$ )		(24.2)		(15.8)	
Former occupation of the mayor†	Ü	(21.2)		(15.0)	
A member of the municipal assembly	14	(42.4)	22	(38.6)	
A member of the municipal assembly  A member of the prefectural assembly		(27.3)		(26.3)	
An office worker or independent businessman		(27.3) $(18.2)$		(20.5) $(10.5)$	
Does the administrative policy of the mayor address					
Yes				(43.9)	
No		(39.4)			
		(60.6)		(56.1)	
Does the administrative policy of the mayor address					
Yes		(15.2)		(10.5)	
No		(84.8)		(89.5)	
Is the budget for primary cancer prevention exprevention?†	xclusive	ly used	for p	orimar	
Yes	5	(15.2)	18	(31.6)	
No		(84.8)		(68.4)	
Does the budget for primary cancer prevention of		. ,			
programs?†					
Yes	21	(63.6)	20	(35.1)	
No	12	(36.4)		(64.9)	
Does the budget for primary cancer prevention use					
municipal governments?‡		(22.2)	2	(5.0)	
Yes	11	(33.3)	3		
No		(66.7)	54	(94.7)	
Are there other budgets for primary cancer prevent	-	(2.0)	_	(0.5)	
Yes	1	(3.0)	2	(3.5)	
No	32	(97.0)	55	(96.5)	

Table 2. Communication among Municipal Government Sectors and Partners Outside the Government (n=90)

	Total (N=90)		Use of CCPs (N=33)	No use of CCPs (N=57)		p value
	No	. (%)	No. (%)	No.	(%)	
Government sector, health-related						
Public welfare and safety	63	(70.0)	26 (78.8)	37	(64.9)	
Social welfare	85	(94.4)	31 (93.9)	54	(94.7)	
Hospital	25	(27.8)	16 (48.5)	9	(15.8)	< 0.005
Government sector, not health-related						
Management	16	(17.8)	12 (36.4)	4	(7.0)	< 0.005
General affairs	22	(24.4)	16 (48.5)	6	(10.5)	< 0.001
Policy planning	27	(30.0)	17 (51.5)	10	(17.5)	< 0.005
Financial affairs	22	(24.4)	14 (42.4)	8	(14.0)	< 0.005
Industry and economy	18	(20.0)	12 (36.4)	6	(10.5)	< 0.01
Construction	3	(3.3)	3 (9.1)	0	(0.0)	< 0.05
Education and culture	65	(72.2)	29 (87.9)	36	(63.2)	< 0.05
Waterworks	3	(3.3)	3 (9.1)	0	(0.0)	< 0.05
No communication	1	(1.1)	0.0)	1	(1.8)	
Non-Government Sector, health-related						
A director of a hospital or medical clinic	78	(86.7)	31 (93.9)	47	(82.5)	
A director of a social service agency or organization	57	(63.3)	25 (75.8)	32	(56.1)	
An administrator of prefectural health centers**	88	(97.8)	33 (100.0)	55	(96.5)	
Non-Government Sector, not health-related						
A school principal	47	(52.2)	22 (66.7)	25	(43.9)	< 0.05
A member of a board of education (chair of a local school board)	79	(87.8)	30 (90.9)	49	(86.0)	
A director of a neighborhood business association or local Chamber of Commerce	26	(28.9)	12 (36.4)	14	(24.6)	
An owner or manager of a realty company	1	(1.1)	1 (3.0)	0	(0.0)	
An officer of a bank or savings and loan	2	(2.2)	2 (6.1)	0	(0.0)	
An editor of either of the papers (newspaper editor-in-chiefs)	32	(35.6)	17 (51.5)	15	(26.3)	< 0.05
A mayor (or city manager) or a high-ranking mayoral staff member	61	(67.8)	26 (78.8)	35	(61.4)	
A local chief of police or another high-ranking police department official	25	(27.8)	10 (30.3)	15	(26.3)	
A member of an assembly (prefecture representative or legislator)	60	(66.7)	27 (81.8)	33	(57.9)	< 0.05

<sup>\*</sup>Fisher's exact test; \*\*official from the Prefecture Health Department

#### Discussion

Our results suggest that intersectoral collaboration, especially within the local government, may be associated with the use of CCPs, since a high percentage of respondents communicated with government sectors such as public welfare and safety, social welfare, and education and culture sectors, as well as with community partners such as board of education members, hospital or medical clinic directors, and prefectural health center administrators. However, a part of such communication was not associated with CCP use. To our knowledge, a variety of literature on the many health promotion activities in Japan seem to emphasize strengthening community action for health and building partnerships with people in the community. Our results support these community endeavors, which facilitate multidisciplinary collaboration in the community through the use of CCPs and also suggest that intersectoral collaboration within the government can promote the use of CCPs. Communication across sectors within the government has historically less ties with the health sector. This may be useful in promoting CCP use in comparison to those with already well-established lines of communication, such as the public welfare and safety, social welfare, and education and culture sectors. One of the approaches regarding intersectoral collaboration among government sectors is "Health in All Policies" (Freiler et al, 2013). "Health in All Policies" represents a network approach of policy-making that accepts that there are different interests in the policy arena and considers the importance of building relationships between policy-makers in order to ensure policy outcomes (Kickbusch and Buckett, 2010). For example, the World Health Organization has defined new terms on health promotion such as health impact assessment (HIA). HIA is a means of assessing the health impacts of policies, plans and projects in diverse economic sectors using quantitative, qualitative and participatory techniques (WHO, 2014). HIA calls for urgent empowerment of citizens in order to facilitate their influence on the decision-making process in all aspects of policy implementation (Phoolcharoen et al., 2003). Through this idea, health administrators need to make other sectors aware of the critical importance of cancer prevention.

Our results also demonstrated that the backgrounds of local mayors, such as former occupation and administrative policy, were not associated with the use of CCPs. The Adelaide Recommendation states that health is the responsibility of bodies at different political levels in most countries, and finding new ways for collaboration within and between these levels is desirable (WHO, 1988). On the other hand, in this study, we also demonstrated that communication with mayors (or city managers) or high-ranking mayoral staff members and members of an assembly were moderately high (67.8% and 66.7%, respectively). The process of political decisions on health promotes access to information by citizens and expands their rights to health (Kickbusch and Szabo, 2014), and in some instances Japanese administrators may take this process for granted. It is rare that local leaders prioritize

investments in health, regardless of being within or outside the health sector, and provide sustainable financing for health in order to value health promotion as a core responsibility as mentioned by the Bangkok charter (WHO, 2005).

Public awareness of cancer risk factors among the Japanese general population is poor (Inoue et al., 2006). This may be attributed to social conditions such as inadequate information from the mass media and other sources on disease epidemics. However, programs for cancer prevention are currently under development. More specifically, our results indicate that only a minority of municipalities (15.2% with CCPs and 31.6% without CCPs) had a budget exclusively dedicated to primary prevention of cancer. We considered two approaches to create a budget for primary cancer prevention. First, a subsidy from the national or prefectural government may be a useful asset. Second, combining budgets from cancer-specific lifestyle programs, such as tobacco, alcohol, eating habits, physical activities, weight control, and hepatitis may be productive as recommended by the World Cancer Research Fund and American Institute for Cancer Research (2007) and the National Cancer Center of Japan (Epidemiology and Prevention Division, Research Center for Prevention and Screening, National Cancer Center, 2010).

Our results suggest that 63.3% of self-reporting municipalities have not used CCPs. However, this study was unable to determine whether participants' lack of interest to increase community participation in primary cancer prevention was a reason behind low CCP use. To our knowledge, practical use of CCPs along with other health promoters such as Health Mates (HM) and Health Cooperators (HC) in Japan, Community Health Advisors (CHA) in the US (Raczynski et al., 2001; Littleton et al., 2002; Hinton et al., 2005; Lisovicz et al., 2006; Navarro et al., 2007; Cornell et al., 2009; Holt et al., 2009; Faridi et al., 2010), Village Health Volunteers (VHV) in Thailand (Kauffman and Myers, 1997; Kamproh and Fungpong, 2008; Phomborphub et al., 2008), Barangay Health Workers (BHW) in the Philippines (Lariosa, 1992; Lacuesta et al., 1993; Bautista, 1995; Vera and Monzon, 1995), is a requisite for primary cancer prevention.

There are several limitations to this study. First, although municipal administrators were encouraged to seek additional input, the responses largely reflect the knowledge and perspectives of single individuals. Thus, they were asked to confirm their answers to colleagues at the beginning of the survey. Second, we were unable to calculate odds ratios and 95% confidence intervals for items of health-related sectors involved in cross communication because policy constructs for the use of CCPs have not yet been developed and disseminated. Finally, because the study design was cross-sectional, we could not evaluate if there was a causal relationship between the use of CCPs and communication with nongovernment and government personnel.

However, the strengths of the study are substantial. First, because the number of respondents was high, with a 90% response rate, the results are considered to represent well the characteristics of the study subject.

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Second, the 100 administrators and authorities from each prefectural government had the opportunity to review our data to ensure that their intended meaning was intact. We provided each prefectural government or municipality with a report on the study after the survey. We believe that this study will encourage municipalities to promote cancer control through practical use of CCPs. It is our hope that the practice of CCPs will spread throughout local governments in Japan in the future. This will lead to more effective cancer control and prevention, as well as improve community health.

In conclusion, This study suggests that CCPs are not consistently used in Japan, only 36.7% of respondents used CCPs across municipalities in the three prefectures. However, intersectoral collaborations, especially within the local government, seem to associate with the use of CCPs.

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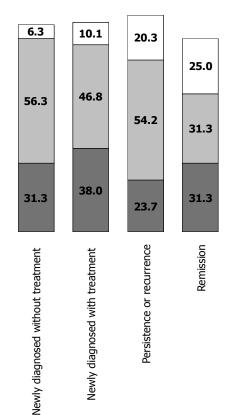
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