

The tobacco endgame in Hong Kong: public support for a total ban on tobacco sales

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Received 2 April 2013

Revised 29 August 2013

Accepted 30 August 2013

Published Online First

17 September 2013

ABSTRACT

Background Tobacco endgame policies are increasingly advocated to end tobacco use. This study investigated public support for a total ban on tobacco sales, use and possession in Hong Kong.

Methods A telephone survey was conducted among 1537 randomly selected residents in 2012 to assess their support for a total ban on tobacco sales, usage and possession. Information on sociodemographic characteristics, smoking, and second hand smoke exposure were collected. Logistic regression was used to investigate factors associated with support for a total ban.

Results Most of the never smokers (75.3%), ex-smokers (63.9%), and nearly half of current smokers (48.9%) backed some form of a total ban on tobacco. A total ban on tobacco sales was the most popular option among the three groups, with over half (64.8%) of all respondents supporting a ban within 10 years. Current smoking and higher educational attainment were associated with less support for a total ban on tobacco sales. Among current smokers, having quit intentions and attempts to quit were associated with support for a total ban.

Conclusions A total ban on tobacco sales was supported by most respondents. Ex-smokers and current smokers also voiced substantial support, although less than never smokers. A total ban on tobacco sales before 2022 should be the goal as it is supported by most of the respondents. Interim tobacco control measures, such as tax increases, expansion of smoking cessation services and plain packaging should be implemented to help current smokers quit and reduce smoking initiation before implementation of the ban.

INTRODUCTION

Hong Kong has progressively implemented stringent tobacco control policies since the early 1980s; as a result, daily smoking prevalence halved from 23.3% in 1982 to 11.1% in 2010, currently the lowest among high income nations.^{1–2} Smoking has been banned in all indoor work places, public transport carriers, most public indoor places (eg, restaurants, bars, shopping malls, and entertainment venues) and many outdoor places including parks, playgrounds, beaches, and common areas of public housing estates where nearly half (46.8%) of the Hong Kong population live.³ Tobacco advertising and sponsorship are prohibited; however, the display of cigarettes at retail outlets is allowed, and indirect tobacco promotions in movies have been documented.⁴ Free smoking cessation services are provided and the government has pledged to promote a smoke-free Hong Kong through comprehensive smoke-free legislation, banning tobacco promotions, and public education.⁵ Nonetheless,

the government currently has not laid out a plan for ending tobacco use.

Local tobacco control advocates have called for a tobacco endgame in Hong Kong to rapidly reduce smoking prevalence to no more than 5% by 2022.² Tobacco endgame strategies include regulating tobacco marketing, price and profit,^{6–7} regulating product content to remove addictive substances and toxins,⁸ a sinking lid strategy to progressively reduce cigarette supply,⁹ prohibition of smoking by those born on or after a certain date,¹⁰ a smoker licensing system,¹¹ and bans on tobacco sales, use or possession. Although only Bhutan has banned tobacco sales, support is high for this policy option in several western nations. Nearly half of the general public in the USA (45%) and England (45%), and 46% of smokers in New Zealand, backed banning cigarette sales.^{12–14} Recent studies also found that banning tobacco sales within 10 years was backed by the general public in the USA (43%) and in the Australian state of Victoria (53%).^{15–16} Findings from qualitative studies among New Zealand policymakers, journalists, public health practitioners, and the general public also showed support for a tobacco sales ban.^{17–19} Given the importance of public opinion in formulating public health policy,²⁰ this study assessed public opinion in Hong Kong towards particular endgame proposals: total bans on tobacco sales, possession or use of tobacco.

METHODS

Sampling

As a part of the FAMILY project (<http://www.family.org.hk>), the Hong Kong Family and Health Information Trends Survey (FHInTS) was conducted in 2012 using a random telephone-based survey of the general public to monitor opinions and behaviours related to family health and communication. All interviews were conducted by trained interviewers of the Public Opinion Programme, The University of Hong Kong. As Chinese account for 93.6% of the total population in Hong Kong, the survey targeted Cantonese-speaking adults aged 18+. We are uncertain about the smoking prevalence of other sub-populations in Hong Kong as almost all public opinion surveys in Hong Kong exclude non-Cantonese speaking minority groups. A two-stage random sampling method was used. Telephone numbers were retrieved from residential telephone directories which cover about 76% of Hong Kong residents.²¹ A computer programme was used to generate a list of the telephone numbers in random order for interviews. Invalid household numbers, non-responses, and ineligible households (people



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To cite: Wang MP, Wang X, Lam TH, et al. *Tob Control* 2015;**24**:162–167.

aged <18 or not able to speak Cantonese) were excluded (N=8748). In the second stage, after interviewers introduced the purpose of the study, adult respondents were asked how many eligible persons were living in the household. All eligible persons were listed and the one with the date of the next birthday closest to the interview day was selected. Each interview took about 25 min to complete. Among 2080 people with confirmed eligibility, 1537 adults were successfully interviewed, yielding a response rate of 73.9%.²² Ethical approval was granted by the institutional review board of the University of Hong Kong/Hospital Authority Hong Kong West Cluster.

Measurement

Respondents were asked to indicate which type(s) (if any) of a total ban on tobacco should be implemented in Hong Kong using the question 'Do you agree that Hong Kong should totally ban tobacco by using which form(s)?', with the multiple responses of 'a total ban on tobacco sales', 'a total ban on tobacco usage', 'a total ban on tobacco possession', 'other forms' and/or 'no restriction'. Very few respondents indicated support for a partial ban (n=6), stated that it would be difficult to ban (n=8), had no opinion (n=2) or other forms (n=10); they were not included in the analysis. Timing (years) for the introduction of a total ban of tobacco sales was asked using the open-ended question 'Do you support a total ban on tobacco sales in Hong Kong and when should the ban be implemented?'. The responses were then categorised into 'immediately', 'within 1 year', 'within 3 years', 'within 5 years', 'within 10 years', 'within 20 years', 'after 20 years', 'not sure when', or 'did not support a total ban'. We arbitrarily categorised the responses as within 10 years, after 10 years, and did not support (reference). Smoking was measured using the question 'Do you have a smoking habit' with the responses of 'yes, I smoke daily', 'yes, I smoke occasionally', 'no, I have quit >6 months', 'no, I have quit ≤6 months' and 'I never smoked'. Smoking status was classified as current smoker (daily or occasional smoking), ex-smoker, and never smoker. Information collected also included demographic characteristics (sex, age), socioeconomic status (education, employment, and household income), history of chronic diseases, and second hand smoke (SHS) exposure. Among smokers, information about the number of cigarettes smoked per day, quit attempts during the last 12 months, and intentions to quit were also recorded. Quit intentions was categorised as preparation (having intentions to quit within 1 month), contemplation (having intentions to quit within 6 months) and pre-contemplation (having intentions to quit after 6 months or no intention) (reference).²³

Statistical analysis

Stata 10 was used for data analysis and all data were weighted by sex, age, and educational attainment from 2011 Hong Kong census data. Cohen's effect size (w) was used to compare the distribution of sex, age, education attainment, and household income in our sample to the general population. A smaller Cohen's w (<0.3) indicates a small difference between the sample and the population.²⁴ Logistic regression yielded adjusted odds ratios (aOR) for support for a total ban on tobacco sales, use and possession in relation to sociodemographic status, smoking, SHS exposure, chronic disease, cigarette consumption, quit attempt(s), and intentions to quit in smokers.

RESULTS

After excluding those missing information on age (n=15) and education (n=6), table 1 provides the sociodemographic details of the 1516 respondents (98.6% of the sample). The sample was representative of the general population as indicated by small differences in sex, age, educational attainment, and household income (all Cohen's w <0.3). Prevalence of current smoking was 11.2% (9.5% daily and 1.7% occasional) and 8.4% were ex-smokers.

Table 2 shows that support for a total ban on tobacco sales (52.2%) was higher than support for banning tobacco use (41.0%) or possession (26.4%). Most of the never smokers (75.3%), ex-smokers (63.9%), and nearly half of the current smokers (48.9%) backed some type of ban (sales, use or possession). More than half of the never smokers (54.2%) supported banning tobacco sales, which was higher than ex-smokers (51.7%) and current smokers (38.0%). Similar patterns were observed for banning tobacco use and possession. A total ban on tobacco sales within 10 years was supported by 64.8% (26.2% immediate, 18.0% within 1 year, 13.1% within 3 years, 5.7% within 5 years, 1.8% within 6–10 years); 6.4% supported a total ban after 10 years and 28.8% did not support a sales ban. Support for a ban within 10 years for never smokers, ex-smokers and current smokers was 68.0%, 59.4%, and 45.4%, respectively. Support for a ban after 10 years was similar for all three groups (6.7%, 5.2%, and 5.1%, respectively).

Table 3 shows that support for a total ban on tobacco sales was negatively associated with higher educational attainment (aOR for trend=0.75, p <0.05), higher household income (aOR for trend=0.85, p <0.05), and being current smokers (aOR=0.30, 95% CI 0.20 to 0.47). Current smokers were also less likely to support bans on tobacco use (aOR=0.13, 95% CI 0.07 to 0.23) and possession (aOR=0.05, 95% CI 0.02 to 0.12). Older age was negatively associated but unemployment was positively associated with support for a ban on tobacco possession.

Having higher educational attainment was also associated with lower odds of support for a total ban on tobacco sales within 10 years (aOR for trend=0.62, p <0.01) (table 4). Similarly, lower odds of backing a total ban on tobacco sales within 10 years were observed for current smokers (aOR=0.28, p <0.001) and ex-smokers (aOR=0.45, p <0.05) compared with never smokers. In contrast, SHS exposure was associated with a higher odds of support (aOR=1.66, 0 <0.01).

Among current smokers, having quit attempt(s) in the past 12 months and higher intentions to quit were associated with higher aORs of 2.64 (95% CI 1.10 to 6.37) and 3.91 (95% CI 1.34 to 11.39) for backing a total ban on tobacco sales within 10 years (table 5). Sociodemographic characteristics (sex, age, education, and household income) were not significantly associated with support for a total ban among current smokers (data not shown).

DISCUSSION

This is the first survey in Asia on public support for different types of tobacco bans and the results showed that a total ban on tobacco sales (52.2%) was the most favourable policy, followed by total bans on tobacco use (41.0%) and possession (26.4%). Over half (64.8%) of respondents backed a total ban on tobacco sales within 10 years, which is higher than support observed in the Australian state of Victoria (53%), England (45%), and the USA (45%).^{12 14 16} This is probably due to the lower smoking prevalence in Hong Kong (11%) versus Australia (17.5%),

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Table 1 Basic characteristics of respondents

		Un-weighted, n (%)	Weighted*, n (%)
Sex (Cohen's $w=0.16$)†	Male	569 (37.0)	725 (47.9)
	Female	968 (63.0)	790 (52.1)
Age (years) (Cohen's $w=0.16$)†	18–24	161 (10.6)	200 (13.2)
	25–44	337 (22.1)	516 (34.0)
	45–64	722 (47.4)	559 (36.9)
	65+	302 (19.8)	241 (15.9)
Education (Cohen's $w=0.24$)†	Primary or below	284 (18.6)	441 (29.1)
	Secondary education	754 (49.3)	702 (46.3)
	Tertiary education	492 (32.2)	371 (24.5)
Household monthly income HK\$ (US\$1=HK\$7.8) (Cohen's $w=0.05$)†	<\$10 000	275 (21.5)	267 (20.9)
	\$10 000–\$19 999	273 (21.3)	319 (25.0)
	\$20 000–\$29 999	251 (19.6)	249 (19.5)
	\$30 000–\$39 999	178 (13.9)	168 (13.2)
	\$40 000+	302 (23.6)	274 (21.4)
Employment status	Employed	757 (49.3)	843 (55.7)
	Unemployed/unable to work	58 (3.8)	68 (4.5)
	Homemaker/student	344 (22.4)	301 (19.9)
	Retired	377 (24.5)	302 (19.9)
Smoking status	Never smoker	1307 (85.3)	1217 (80.5)
	Daily smoker	96 (6.3)	144 (9.5)
	Occasional smoker	17 (1.1)	25 (1.7)
	Ex-smoker	113 (7.4)	126 (8.4)
Second hand smoke exposure	No	409 (26.6)	356 (23.5)
	Yes	1126 (73.4)	1158 (76.5)
Chronic disease	None	936 (63.1)	973 (66.7)
	Any	548 (36.9)	486 (33.3)

*Data were weighted by sex, age, and education level of 2011 Census population data.

†Effect size: comparing the distribution of unweighted data with 2011 Census population data.

England (21%), and the USA (22%).²⁵ Strong public support is imperative for policy formulation. Our findings have provided strong evidence for Hong Kong policymakers to plan for a tobacco endgame policy on tobacco sales, which should include a clear target date and detailed implementation strategies.²⁶ Banning tobacco sales should be more feasible in Hong Kong than in many other Asian countries given its low smoking prevalence, free smoking cessation and nicotine replacement services, stringent border controls, and relatively advanced tobacco control legislation. Moreover, the finding that younger people are more supportive of a ban indicates that the support for an endgame strategy is only likely to increase in the future.

In the multivariate analyses, higher educational attainment and family income were significantly associated with less support for

a total ban on tobacco sales and sales within 10 years, which is consistent with the pattern observed in England.¹² The reasons for this finding are unclear and need to be further explored by qualitative studies. One of the possible explanations is that disadvantaged groups suffer more from tobacco attributable diseases and their associated financial burden, or are less concerned about future health benefits, and thus are more likely to support a ban which will strongly motivate or legally force them to quit smoking.²⁷ We also observed that respondents with SHS exposure were significantly more likely to support a total ban on tobacco sales within 10 years compared with those without SHS exposure. This probably reflects the strong sentiments of many non-smokers who continue to suffer from their exposure and hence want smoking to be eliminated. As we did not record the

Table 2 Prevalence of support for various tobacco bans by smoking status, % (95% CI)

	n	All	Never smokers	Ex-smokers	Current smokers
Types of total ban					
Any type	1082	71.4 (69.1 to 73.7)	75.3 (72.7 to 77.7)	63.9 (54.8 to 72.1)	48.9 (41.6 to 57.2)
Tobacco sales ban	791	52.2 (50.0 to 54.8)	54.2 (51.4 to 57.1)	51.7 (42.9 to 60.9)	38.0 (30.5 to 45.6)
Tobacco use ban	626	41.0 (38.8 to 43.9)	45.1 (42.3 to 48.0)	38.8 (30.1 to 47.6)	15.8 (10.8 to 22.4)
Tobacco possession ban	400	26.4 (23.2 to 28.8)	28.4 (25.8 to 31.0)	30.5 (22.8 to 39.5)	9.3 (5.5 to 14.9)
All type(s)	301	20.0 (18.0 to 22.1)	21.6 (19.3 to 24.0)	24.2 (17.2 to 32.8)	4.6 (2.1 to 9.1)
Time to totally ban tobacco sales					
0–10 years	951	64.8 (62.2 to 67.2)	68.0 (65.3 to 70.7)	59.4 (50.5 to 68.4)	45.4 (37.7 to 53.7)
After 10 years	94	6.4 (5.2 to 7.8)	6.7 (5.3 to 8.3)	5.2 (2.3 to 9.6)	5.1 (1.8 to 10.2)
Did not support	423	28.8 (26.5 to 32.2)	25.3 (22.8 to 27.8)	35.5 (27.1 to 44.6)	49.4 (41.4 to 57.4)

Data were weighted by sex, age, and education level of 2011 Census population data.

Table 3 Factors associated with support for various tobacco bans

	Total ban on tobacco sales†		Total ban on tobacco use†		Total ban on tobacco possession†	
	Crude OR (95% CI)	aOR (95% CI)‡	Crude OR (95% CI)	aOR (95% CI)‡	Crude OR (95% CI)	aOR (95% CI)‡
Sex						
Male	1	1	1	1	1	1
Female	1.30 (1.03 to 1.64)*	1.05 (0.77 to 1.43)	1.63 (1.27 to 2.08)***	1.15 (0.83 to 1.60)	1.51 (1.15 to 1.98)**	1.20 (0.83 to 1.75)
Age (years)						
18–24	1	1	1	1	1	1
25–44	0.71 (0.48 to 1.04)	1.06 (0.66 to 1.71)	0.63 (0.42 to 0.93)*	0.94 (0.56 to 1.56)	0.59 (0.39–0.90)*	0.84 (0.48 to 1.45)
45–64	1.03 (0.70 to 1.51)	1.06 (0.65 to 1.74)	0.92 (0.62 to 1.37)	0.98 (0.58 to 1.67)	0.68 (0.44 to 1.04)	0.56 (0.31 to 1.00)
65+	1.23 (0.78 to 1.94)	0.84 (0.42 to 1.69)	1.19 (0.74 to 1.89)	1.20 (0.56 to 2.58)	0.92 (0.56 to 1.52)	0.75 (0.32 to 1.75)
Trend for age (4 groups)	1.15 (1.01 to 1.31)*	0.96 (0.78 to 1.18)	1.15 (1.00 to 1.31)*	1.13 (0.82 to 1.55)	1.01 (0.87 to 1.18)	0.76 (0.59 to 0.98)*
Education						
Primary or below	1	1	1	1	1	1
Secondary education	0.80 (0.61 to 1.07)	0.85 (0.58 to 1.24)	0.89 (0.66 to 1.19)	1.15 (0.76 to 1.75)	1.00 (0.72 to 1.39)	1.12 (0.70 to 1.78)
University degree or above	0.53 (0.39 to 0.73)***	0.56 (0.35 to 0.91)*	0.71 (0.51 to 0.99)*	0.92 (0.55 to 1.54)	0.59 (0.40 to 0.86)**	0.63 (0.35 to 1.13)
Trend for education (3 groups)	0.73 (0.62 to 0.86)***	0.75 (0.60 to 0.95)*	0.84 (0.71 to 1.00)	0.94 (0.73 to 1.21)	0.77 (0.64 to 0.94)**	0.80 (0.60 to 1.06)
Employment status						
Employed	1	1	1	1	1	1
Unemployed/unable to work	1.73 (0.93 to 3.22)	1.63 (0.75 to 3.56)	1.99 (1.05 to 3.76)	2.15 (0.89 to 5.12)	3.03 (1.59 to 5.77)**	4.00 (1.47 to 10.95)**
Homemaker/student	1.60 (1.16 to 2.19)**	0.99 (0.63 to 1.48)	1.93 (1.39 to 2.67)**	1.19 (0.77 to 1.83)	1.78 (1.24 to 2.55)**	1.08 (0.68 to 1.72)
Retired	1.72 (1.25 to 2.35)**	1.38 (0.84 to 2.27)	1.68 (1.21 to 2.34)*	1.18 (0.68 to 1.88)	1.57 (1.08 to 2.26)*	1.24 (0.68 to 2.28)
Household monthly income (HK\$)						
<\$10 000	1	1	1	1	1	1
\$10 000–\$19 999	0.71 (0.47 to 1.05)	0.79 (0.50 to 1.25)	0.78 (0.51 to 1.18)	1.14 (0.69 to 1.88)	0.87 (0.55 to 1.38)	1.17 (0.67 to 2.04)
\$20 000–\$29 999	0.56 (0.37 to 0.85)**	0.58 (0.35 to 0.94)*	0.63 (0.41 to 0.97)*	0.71 (0.42 to 1.20)	0.70 (0.44 to 1.13)	0.80 (0.45 to 1.42)
\$30 000–\$39 999	0.47 (0.29 to 0.74)**	0.56 (0.33 to 0.97)*	0.61 (0.38 to 0.98)*	0.84 (0.46 to 1.51)	0.61 (0.35 to 1.03)	0.95 (0.49 to 1.85)
\$40 000+	0.41 (0.27 to 0.60)**	0.51(0.30 to 0.85)*	0.54 (0.36 to 0.82)**	0.73 (0.41 to 1.28)	0.49 (0.31 to 0.78)**	0.72 (0.38 to 1.35)
Trend for income (5 groups)	0.80 (0.74 to 0.88)***	0.85 (0.76 to 0.96)*	0.87 (0.79 to 0.95)**	0.90 (0.79 to 1.01)	0.83 (0.75 to 0.93)**	0.88 (0.77 to 1.01)
Smoking status						
Never smoker	1	1	1	1	1	1
Ex-smoker	0.65 (0.44 to 0.98)*	0.57 (0.35 to 0.93)	0.59 (0.38 to 0.90)*	0.61 (0.37 to 1.02)	0.74 (0.47 to 1.16)	0.81 (0.46 to 1.42)
Current smoker	0.34 (0.24 to 0.48)***	0.30 (0.20 to 0.47)***	0.17 (0.11 to 0.27)***	0.13 (0.07 to 0.23)***	0.16 (0.09 to 0.28)***	0.05 (0.02 to 0.12)***
Second hand smoke exposure						
No	1	1	1	1	1	1
Yes	1.28 (0.97 to 1.69)	1.36 (0.97 to 1.91)	1.09 (0.82 to 1.45)	1.17 (0.82 to 1.68)	1.20 (0.87 to 1.66)	0.96 (0.65 to 1.44)
Chronic diseases						
None	1	1	1	1	1	1
Any	1.14 (0.89 to 1.48)	0.89 (0.66 to 1.22)	1.17 (0.90 to 1.53)	1.00 (0.72 to 1.40)	1.11 (0.83 to 1.49)	1.15 (0.78 to 1.68)

*p<0.05, **p<0.001, ***p<0.001.

†Reference group included people who did not support any form of a total ban on tobacco.

‡Adjusting for sex, age, education, employment, income, smoking, second hand smoke exposure, and chronic diseases.

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Table 4 Factors associated with supporting a total ban on tobacco sales within 10 years from 2012†

	Crude OR (95% CI)	aOR (95% CI)‡
Sex		
Male	1	1
Female	1.40 (1.11 to 1.76)**	1.12 (0.83 to 1.52)
Age (years)		
18–24	1	1
25–44	0.79 (0.53 to 1.19)	1.06 (0.67 to 1.67)
45–64	1.04 (0.72 to 1.49)	0.94 (0.59 to 1.51)
65+	1.56 (0.98 to 2.48)	0.86 (0.43 to 1.74)
Trend for age (4 groups)	1.19 (1.05 to 1.36)**	0.95 (0.84 to 1.53)
Education		
Primary or below	1	1
Secondary education	0.89 (0.67 to 1.19)	0.86 (0.58 to 1.26)
Tertiary education	0.47 (0.34 to 0.64)***	0.41 (0.26 to 0.65)***
Trend for education (3 groups)	0.68 (0.58 to 0.79)***	0.62 (0.49 to 0.79)***
Employment status		
Employed	1	1
Unemployed/unable to work	1.18 (0.68 to 2.05)	1.09 (0.52 to 2.31)
Homemaker/student	1.99 (1.45 to 2.72)***	1.07 (0.71 to 1.59)
Retired	2.14 (1.53 to 2.99)***	1.79 (1.08 to 2.96)*
Household monthly income		
<\$10 000	1	1
\$10 000–\$19 999	0.64 (0.43 to 0.95)*	0.76 (0.48 to 1.19)
\$20 000–\$29 999	0.65 (0.43 to 0.99)*	0.76(0.46 to 1.24)
\$30 000–\$39 999	0.60 (0.37 to 0.94)*	0.81 (0.48 to 1.24)
\$40 000+	0.42 (0.28 to 0.63)***	0.67 (0.40 to 1.12)
Trend for income (5 groups)	0.84 (0.77 to 0.91)***	0.94 (0.84 to 1.05)
Smoking status		
Never smoker	1	1
Ex-smoker	0.62 (0.42 to 0.92)*	0.45 (0.28 to 0.73)**
Current smoker	0.34 (0.24 to 0.48)***	0.28 (0.18 to 0.44)***
Second hand smoke exposure		
No	1	1
Yes	1.23 (0.94 to 1.60)	1.66 (1.20 to 2.30)**
Chronic diseases		
None	1	1
Any	1.34 (1.04 to 1.75)*	0.97 (0.71 to 1.32)

*p<0.05, **p<0.001, ***p<0.001.

†Reference group included people who did not support a total ban on tobacco sales, excluding people who supported a ban after 10 years or did not know when.

‡Adjusting for sex, age, education, employment, income, smoking, second hand smoke exposure, and chronic diseases.

reasons for a lack of support, it is uncertain why people with higher socioeconomic status had lower levels of support for a total ban. Other qualitative studies have found that a lack of support was mainly related to the concerns regarding the feasibility of implementation and the potential for a ban to violate individual rights.¹⁸ Although further qualitative studies to explore detailed opinions towards ending tobacco sales are needed, our findings suggest that the government and tobacco control advocates/organisations should promote a total ban on tobacco sales among the general public, and engage with those who were less supportive to address their concerns.

As expected, ever smokers (current and ex-smokers) were less likely to support all three types of tobacco ban compared with never smokers. However, nearly half (45.5%) of current smokers supported banning tobacco sales within 10 years. The level of support is similar to that observed among New Zealand

(46.0%) and Australian (42.2%) smokers^{13 16} and much higher than our previous study on smokers' support for smoke-free restaurants (29.0%).²⁸ Similar to the New Zealand study,¹³ we have found that higher quit intentions and more quit attempts were associated with support for a total ban on tobacco sales within 10 years. These smokers probably need and demand the strongest tobacco control measures to 'force' them to quit. Increasing resources to promote and enhance smoking cessation services could increase their support for ending tobacco sales.

Hong Kong advocates for higher tobacco taxes and other stringent tobacco control measures have often faced challenges from opponents who ask: 'If tobacco is so harmful, why don't you seek to totally ban smoking?' With the present results showing strong public support, policymakers maybe more willing to consider banning sales.

Our study has several limitations. First, the representativeness of the findings could be undermined by non-response bias and incomplete and declining landline household telephone coverage in Hong Kong. The effect of the bias is uncertain as we did not and could not collect information from non-respondents and people who could not be contacted by landline based random digit dialling. Nevertheless, the similar distribution of sex, age, education attainment, and household income between our sample and the general population suggested that our sample should be representative of the general Hong Kong population. Future surveys should consider methods (eg, mixed sampling method combining landline and mobile phones) which can reduce such bias. Second, support for the bans may be slightly overestimated as the survey under-sampled daily smokers (9.5%) compared to the 2010 government survey (11.1%).¹ This is unlikely to have a large effect on the prevalence of support for a total ban as the absolute number of current smokers is small (estimated number of under-sampled smokers: (11.1%–9.5%)×1537=24.5). Third, the apparently socially desirable answer of support for a smoking ban might inflate levels of support; however, this is unlikely as only 20% of respondents supported all three types of a total ban on tobacco, and there was a clear gradient of decreasing support from banning sales to banning possession. Fourth, the survey provided simple cross-sectional opinions on tobacco bans which may change with time and social atmosphere. Repeated surveys at regular intervals will help monitor opinion regarding various strategies to phase out smoking. Finally, qualitative studies among different social groups including policymakers, public health professionals, the general public (smokers and non-smokers), and people with different social economic status are warranted to further explore attitudes and barriers towards a total ban on tobacco sales in Hong Kong.

CONCLUSIONS

A total ban on tobacco sales was supported by the majority of respondents. Ex-smokers and current smokers also voiced substantial support, although less than never smokers. A total ban on tobacco sales before 2022 should be the target as it was supported by most respondents. Policymakers should consider measures to facilitate smoking cessation and reduce smoking initiation before the implementation of the ban, including expanding free smoking cessation services, adopting plain packaging, and greatly increasing tobacco tax, which are among the most effective ways to reduce smoking prevalence. Such essential measures would reduce the number of smokers who need to purchase tobacco, and further strengthen public support and government commitment to proceed with legislation for a total ban.

Table 5 Characteristics of smokers supporting any type of tobacco ban, and a ban on tobacco sales within 10 years (n=139)

	n (%)†	aOR (95% CI)‡	
		Any type of total ban	Ban sales within 10 years
Increasing number of cigarettes (cig) smoked			
Among occasional smokers (mean cig±SD)	6.5 (±5.5)	N/A§	1.22 (0.52 to 2.86)
Among daily smokers (mean cig ±SD)	13.2 (±7.3)	0.98 (0.91 to 1.05)	0.94 (0.87 to 1.02)
Quit attempt in the past 12 months			
No	110 (64.7)	1	1
Yes	60 (35.3)	1.99 (0.85 to 4.65)	2.64 (1.10 to 6.37)*
Intentions to quit¶			
Pre-contemplation	130 (79.2)	1	1
Contemplation/preparation	34 (20.8)	2.35 (0.87 to 6.43)	3.91 (1.34 to 11.39)*

*p<0.05.

†Number of people and % otherwise as indicated.

‡Adjusting for sex, age, education, employment, and family income.

§Too few respondents for analysis (n=25).

¶Pre-contemplation: intention to quit after 6 months or no intention to quit; Contemplation: intention to quit after 1 month and within 6 months; Preparation: intention to quit within 1 month.

What this paper adds

- ▶ Studies conducted in western countries indicated that a total ban on tobacco sales has the support of a large portion of the general public (43–45% in the USA, 45% in England, and 53% in Australia) and of smokers (46% in New Zealand and 42.2% in Australia).
- ▶ This study showed that 52.2% of the general public support a total ban on tobacco sales, and 64.8% of the general public and 45.4% of smokers support a ban within 10 years.
- ▶ Respondents who were younger, never smokers, and with a lower socioeconomic status were more likely to support a total ban on tobacco sales than older respondents, smokers, and those with a higher socioeconomic status.

Acknowledgements We would like to thank the respondents and Public Opinion Programme, The University of Hong Kong for conducting the telephone survey.

Contributors TH Lam and SS Chan conceived the study; MP Wang, X Wang analysed the data; MP Wang did the first draft of the paper; TH Lam, SS Chan and K Viswanath revised the draft; all authors approved the final version.

Funding This study was a part of the project 'FAMILY: A Jockey Club Initiative for a Harmonious Society,' which was funded by The Hong Kong Jockey Club Charities Trust.

Competing interests None.

Provenance and peer review Not commissioned; externally peer reviewed.

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Tob Control 2015 24: 162-167 originally published online September 17, 2013

doi: 10.1136/tobaccocontrol-2013-051092

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