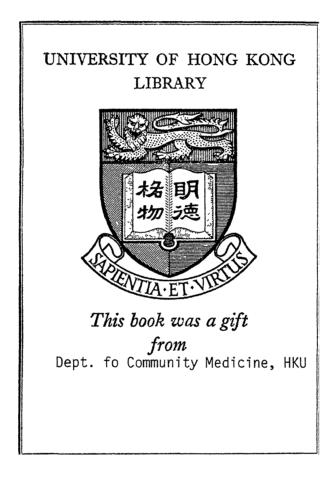
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> "Smoke-out" Campaign, Hong Kong, 1985 : 1986.



# "Smoke-out" Campaign, Hong Kong, 1985 Evaluation of its Success

#### ABSTRACT

"Smoke-Out Day" 1985 in Hong Kong was held on December 3, 1985. A study was conducted to attempt an evaluation of the success of a campaign that accumulated into "Smoke-Out Day" by telephone interviews of a random sample of more than 1000 households proportionally distributed according to administrative areas. The investigation consisted of three surveys: the first among all households sampled, the second among households with smokers and the third among households with smokers who stopped or reduced smoking on "Smoke-Out Day". Among male smokers 10.5% stopped smoking on "Smoke-Out Day" while 6.0% claimed reduced smoking. The comparable figures for females were 11.3% and 7.5%. Some smokers showed delayed action and at the third survey (4-6 weeks after "Smoke-Out Day") 1.9% of all male smokers stopped smoking and 9.1% said they reduced smoking. For women smokers the percentages were 1.9% and 7.5%.

If these findings can be inferred to all estimated number of smokers in Hong Kong we may conclude that more than 76,000 smokers either stopped or reduced smoking as from "Smoke-Out Day" 1985 for at least 4-6 weeks.

Keywords: "Smoke-Out Day" - evaluation anti-smoking campaign - Hong Kong.

#### INTRODUCTION

The 1985 SMOKE-OUT Steering Committee\*, Hong Kong held a second "Smoke-Out Day" in Hong Kong on December 3, 1985. The first "Smoke-Out Day" was organised in 1984. This time however, it was felt, it would be desirable to attempt to assess the impact of the Smoke-Out Day Campaign on the public. The Department of Community Medicine of the University of Hong Kong took up the task to conduct surveys aimed at finding out:

- 1. Whether the campaign in its various activities has been noticed by members of the public and if so:
- 2. Whether action was taken by the public that could be attributed to the objectives of the campaigns and if so:
- 3. Whether this action could be quantified and eventually inferred to the Hong Kong population at large.

#### **MATERIALS & METHODS**

The assessment of success of the campaign was planned into three telephone interview surveys. The first survey was scheduled 6-10 days before "Smoke-Out Day", the second 6-10 days and the third approximately four weeks after "Smoke-Out Day".

In order not to introduce undue emphasis on smoking the interview in the first survey contained questions on alcohol consumption, use of Chinese herbs and western medicine in

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addition to smoking. A smoker was defined as a person who reported to smoke cigarettes regularly. Also two questions were added for information on illness during a period of six months prior to the interview. All this information was invited for adult persons in the household only, an adult being defined as person over 18 years of age. See a copy of the English version of the interview format in Annex I. The second survey was carried out among members of households with smokers. Information was recorded for members of the household who observed "Smoke-Out Day" either by not smoking at all or by reduced smoking for one day. Those who took action were asked what aspect of the campaign were known to them, if at all. Because the interview took place 6-10 days after "Smoke-Out Day 1985", those who took action were asked whether this change of smoking behaviour had continued up to the day of the interview. See Annex 2.

The third survey was limited to smokers who claimed to have either stopped or reduced smoking on "Smoke-Out Day".

The main information sought then was whether action taken was continued up to the day of the second interview.

Most interviews in the first and second surveys were proxy-interviews: information was given by one person, usually the head of the household for other adult members. Only in the third survey an effort was made to speak directly to the person involved.

#### SAMPLING

Sampling units were telephone numbers from the most recent issues of the Hong Kong Telephone Directories which were used as sampling frames. We aimed at a sample of 1000 telephone numbers in which the distribution according to main geographical areas of the Territory was represented. For the actual sampling procedure See Annex 3. The total number of telephone numbers actually dialled was 1461. At first contact it was found out that 155 numbers were cancelled and 30 were

<sup>\*</sup> Chairman: Mr. John Irvine, M. PH, Adventist Hospital, Hong Kong.

actually numbers for business only. Of the remaining 1276 contacted households we received 24 outright refusals while in 1035 (81.1%) households the contact persons were cooperative. Nine questionnaires were considered incomplete and were destroyed, making the number of usable questionnaires 1026.

Table I Shows the number of households eventually participating in the first survey according to main administrative areas together with the total number of adult males and females in these households.

These data compare well with the latest similar information from the Census & Statistics Department although Kowloon etc. seemed to be under-represented while the New Territories were over-represented. See Table II. This will be discussed later.

	Hong Kong	Kowloon	New Territories	Total
	%	%	%	%
Nr. of households	243 (23.7)	486 (47.4)	297 (28.9)	1026 (100)
Males Females Total persons	465 (53.3) 408 (46.7) 873 (100)	960 (52.2) 878 (47.8) 1838 (100)	539 (52.4) 489 (47.6) 1028 (100)	1964 (52.5) 1775 (47.5) 3739 (100)
Nr. of adult persons p. household	3.6	3.8	3.5	3.6

Table	Ι	Households par					
		and members o	f persons a	icco	ordir	ng to s	ex

# a) Number of Domestic Households by Census District

Area			Hong Kong Annual Digest of Statistics 1984 (1981 Census)			
	Sample	%	Census	%		
Hong Kong Island and Outlying Island	243	(23.7)	313,043	(25.3)		
Kowloon, New Kowloon and Saı Kung South & Hang Hau	486	(47.4)	644, 166	(52.0)		
New Territories (excl. Sai Kung South, Hang Hau & Outlying Islands)	297	(28.9)	280.434	(22.7)		
ALL LAND AREAS:	1026	(100)	1,237,643	(100.0)		

Test for Goodness of Fit:  $X^2 = 22.2$  P = 0.00 (Statistically significant difference)

### b) Population (19 years of age and over) by Census District:-

Area		Male	Sample Female	Both		81 Census Ta U* Popn by A Census Female	
Hong Kong Island and Outlying Island	%	465 53.3	408 46.7	873 100.0	421,035 50.9	405,948 49.1	826,983 100.0
Kowloon, New Kowloon and Saı Kung South and Hang Hau	%	960 52.2	878 47 8	1838 100.0	861,374 53.0	764,668 47.0	1,626,042 100.0
New Territories (excl. Sai Kung South, Hang Tau and Outlying Islands)	%	539 52.4	489 47.6	1028 100.0	373,015 52.7	334,538 47.3	707,553 100.0
ALL LAND AREAS:	%	1964 52.5	1775 47.5	3739 100.0	1,655,424 52.4	1,505,154 47.6	3,160,578 100.0

# Test for Goodness of Fit for sex proportions on each areas: all: P > 0.05 (Statistically not significant)

\* Tertiary Planning Unit

\*\*The 1986 By-Census figures were not yet available when this report was written.

# Table II: Comparison Between Sample and Census Data

#### FINDINGS Smokers

Table III gives an account of the number of smokers among the members of households contacted.

	Hong Kong Ko		Kow	loon	New Territories		Total	
		%		K		%		%
Males smoking Total males	122 465	(26.2)	316 960	(32.9)	$\frac{162}{539}$	(30.1)	600 1964	(30.5)
Females smoking	11	(2.7)	48	(5.5)	16	(3.3)	75	(4.2)
Total females	408	(2.7)	878		489		1775	

# Table III : Smokers among the members of households contacted in the pre-campaign survey

Among 1964 males recorded there were 600 smokers (30.5%) and only 75 out of 1775 females (4.2%), which made an overall prevalence of 18.1% for both sexes together.

Of the total of 1026 households 447 (43.6%) reported to have at least one regular smoker.

#### Actions taken by smokers

In the first post-campaign survey an attempt was made to contact all 447 households which had reported at least one smoker. Forty eight of these did not comply with their earlier agreement for a second interview. The remaining 399 households (89.3%) consisted of 1625 adult members, 54.9% males and 45.1% females. These proportions compare well with the percentages given in Table I.

As expected, the proportion of smokers in these households was much higher compared to the pre-campaign sample: Of the 1625 persons recorded in the second survey 57.7% (515 out of 892) males and 7.2% (53 out of 733) females were smokers.

Table  $\mathbb{IV}$  shows in detail the various actions taken by smokers in connection with "Smoke-Out Day 1985".

'No Action' in **Table** IV means that smokers continued smoking as before. Categories marked with \* are interesting because these persons decided to take some action on their smoking habit after "Smoke-Out Day 1985".

#### Publicity effect of the Campaign

The contact person of each household was asked whether the "Smoke-Out Day" campaign in its various manifestations was known to the members of the household. Of the 399 households, all with at least one member smoking, 185 (46.4%) were unaware of the activities of the campaign. The remaining 214 households consisted of 286 males, (55.5% of all male smokers in the second survey) and 25 females (47.2% of all female smokers in the second survey) who were somehow informed about "Smoke-Out Day". A break down of sources of publicity indicated by the informants is shown in Table V.

# Table V: Manifestations of "Smoke Out Day 1985" known to households interviewed (second survey). More than one choice was possible.

There was no significant difference in any of the categories between households with smokers who observed "Smoke Out Day, 1985" and those without.

	A. MA	LES		B. FI	EMALES
	Action on Smoke-Out Day	Action on Day of 2nd Interview		Action on Smoke-Out Day	Action on Day of 2nd Interview
Total number 515/892	<ul> <li>no action 430 (83.5%)</li> <li>stopped smoking 54 (10.5%)</li> <li>reduced smoking 31 (6.0%)</li> </ul>	<ul> <li>Smoking 418 (97.2%)</li> <li>reduced smoking* 12 (2.8%)</li> <li>smoking again 23 (42.6%)</li> <li>reduced smoking 20 (37.0%)</li> <li>stopped smoking 11 (20.4%)</li> <li>smoking again 10 (32.3%)</li> <li>reduced smoking 21 (67.7%)</li> </ul>	Total Number 53/733	<ul> <li>no action 43 (81.1%)</li> <li>stopped smoking 6 (11.3%)</li> <li>reduced smoking 4 (7.5%)</li> </ul>	<ul> <li>smoking 40 (93.0%)</li> <li>reduced smoking* 3 (7.0%)</li> <li>smoking again 5 (83.3%)</li> <li>stopped smoking 1 (16.7%)</li> <li>smoking again 0</li> <li>reduced smoking 4 (100%)</li> </ul>

Table N: Smokers' action in connection with "Smoke- Out Day 1985

#### The third survey

The third survey was carried out 4-6 weeks after "Smoke-Out Day 1985" among those smokers who took action on that day either by stopping smoking or by reducing smoking. Included also were smokers who reduced smoking between "Smoke Out Day" and the date of the second interview. The results of this survey are shown in Table V].

	Second	survey	Third s	Third survey		
Males	Stopped smoking Reduced smoking	11 53	Not smoking Smoking again Reduced Smoking again	10 1 47 6	1.9% 9.1%	
Females	Stopped smoking Reduced smoking	1 7	Not smoking Reduced Smoking again	1 4 3	1.9% 7.5%	

## Table VI Resolutions of smokers who were interviewed 4-6 weeks after "Smoke Out Day 1985"

#### DISCUSSION

First and foremost we need to discuss the design of the study and its possible consequences on the data it was intended to bring out.

We defined a smoker as "a person who reported to smoke cigarettes regularly" with emphasis on "regularly". We thought that this definition would cover daily (habitual) smokers and the majority of occasional (social) smokers. "Occasional" might have invited slightly biased recording of daily light smokers who, in our opinion, should be considered habitual smokers. Thus we did not ask for "occasional" smokers.

Defining an adult as a "person over 18 years of age" was a definite flaw of the survey. Part of the explanation comes from the Chinese (超過十八歲) wording. We have thus excluded in our survey all 18 years' olds. What does this mean in terms of numbers of potential smokers not included in this survey?

Parallel to our study the Community Information Division of the City and New Territories Administration (CNTA) carried out a telephone interview study on "The Smoke-Out Day 1985 Publicity" (unpublished). Their sample population was 1529 respondents of the age of 15-64 years. From their data we may assume that we may have missed 75 individuals among whom there may have been 5 smokers. For next years' evaluation of Smoke-Out Day we plan to follow the CNTA's lower age limit.

Under-representation of residents in Kowloon and overrepresentation of residents in the New Territories can be explained by the on-going movement of people from the crowded areas of Kowloon to the new towns in the New Territories. Our sampling frame consisted of telephone directories of 1983 and 1984. There is already a considerable time lag between the year of issue and the contents of a telephone directory and there is a further time difference between the issue of directories and the survey. Within these periods movement of households to the more peripheral areas of the Territory has been considerable.

We found an overall smokers rate of 18.1%. This compares well with the data from the CNTA Survey: 320 (21%) smokers among respondents of whom 266 (17%) were daily smokers and 54 (4%) occasional smokers.

The sex differential found in our study compared equally well, 30.5% for male (CNTA 32%) and 4.2% for females (CNTA 3%). Of all smokers 88.9% were males in our survey and 90% in the other survey.

Table  $\mathbb{N}$  shows the action taken by smokers on Smoke-Out Day and on the day of the second interview of all smokers, male and female, 54 out of 568 (10.5%) stopped and a further 31 (6.0%) reduced smoking on Smoke-Out Day. The latter proportion is far less compared to that reported by the CNTA survey (25%).

There are two options in explaining this difference:

- 1. The differences are real and the samples are in fact not comparable. Each survey may have sampled from a different universe. We have no evidence to assume that the sampling methods for selecting households in both surveys were essentially different.
- 2. The differences can be explained by the different kind of interviews practised. We obtained our information from the adult contact person who was to speak for all adult members of the household (proxy-interview), while the other study selected at random an adult person out of the members reported not necessarily the person who answered the telephone. In our experience with medical interviews proxy-interviews in Hong Kong tend to lead to under-reporting while person-to-person interviews may either result in under - or over-reporting, depending on the relationship between interviewee and interviewer and the expected ideal answer assumed by the interviewee.

Among the smokers who took no action on Smoke-Out Day there were a few who reduced smoking between Smoke-Out Day and the day of the 2nd interview. See Table IV.

Perhaps peer's example may have played a role in their action. However, we did not attempt to clarify this phenomenon.

The Hong Kong public is known to be keen television (TV) watchers and newspaper readers. TV is for entertainment while newspaper articles satisfy the people's interest in local affairs. This is reflected in replies to the questions on the source of their knowledge about Smoke-Out Day. As can be seen from Table 5, 73% of housholds which claimed awareness of activities related to Smoke-Out Day named TV as their source while newspapers were second highest with 35%. One household claimed they saw the special Publicity Van on Smoke-Out Day. The van however was out of order on the day and most likely another van with stickers was identified as such.

The high percentage of households which were aware of Smoke-Out Day activities (54%) did not surprise us. Although the total campaign was rather limited in duration, coverage by TV was rather intensive.

The high percentage of households which were aware of Smoke-Out Day activities (54%) did not surprise us. Although the total campaign was rather limited in duration, coverage by TV was rather intensive.

The task remains to infer our findings to the Hong Kong population at large. At best this exercise should be speculative. Although we are quite confident we did not make grave mistakes in our sampling and in conducting our surveys we can not really claim that we have interviewed a truly representative part of the population of Hong Kong households and smokers.

The following table summarizes the projections that may be calculated from our results for all smokers in Hong Kong.

In view of the limited campaign of the Smoke-Out Day Committee these results are encouraging indeed with 76,259 smokers who give heed of the Committee's aims of using the day as an impetus to stop smoking permanently or to reduce smoking. However we need to be cautious. Perhaps some smokers took action on Smoke-Out day and beyond irrespective of our efforts, but for reasons of their own.

#### **ACKNOWLEDGEMENTS**

We are grateful for the devoted service given by the interviewers Mrs J Cheang, Miss M Chi, Miss A Chow, Mrs T Lam, Miss R Lo, Mrs J Wong, Miss C Yip and for the extra work carried out by Miss A Chow in typing all the drafts and the final report of this study. We are indebted to Mr KK Au of the CNTA who discussed our findings exhaustively from his own extensive experience and to Dr Judith Mackay who commented with insight on our conclusions. Mr. S. Chan assisted with the data processing.

	Total population Age-group 19 and older, 1985*	Smokers mid-July '85*	Stopped smoking up to day of 3rd Survey	Reduced smoking up to day of 3rd Survey
Males	1,969,800	630,336 (32%)	11,976	57,361
Females	1,841,000	73,640 (4%)	1,399	5,523

\*Adapted from General Household Survey July 1985, Census & Statistics Department, Hong Kong.

Series No.	
Telephone No.	
Interviewer:	

# Date: \_\_\_\_\_

ANNEX 1

1

# "SMOKE-OUT" CAMPAIGN EVALUATION Telephone Interview

"Smoke-out" Campaign, Hong Kong, 1985 Evaluation of Its Success

Name of Householder:

- Interviewer: \* Introduce yourself as a member of the Health Team of the Department of Community Medicine, University of Hong Kong. Introduce yourself also by name.
  - \* Request permission to interview contact person(s) on matters of health and assure contact person that our information is for research purpose only.

#### **1. PRE-CAMPAIGN INTERVIEW**

1.1	How many adult person	ns (over 18 years of age) are there in the household?			M	F
1.2	How many of the adult a. drink alcohol re b. take Chinese ho c. smoke cigarette d. buy western ma	gularly? erbs regularly? es regularly?			M	F
1.3	Has anyone of the adul	ts been having some health problem during the last six	: months? 1. Yes	a 2. No	]	
1.4	What was wrong with I	nim/her?	What	Where		
1.5	Where was he/she trea	ited?			 	
Tha		May I call you again within the next four weeks? 1. Yes 2. No 3. Not definite				

END OF INTERVIEW

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	Series No.	
	"SMOKE-OUT" CAMPAIGN EVALUATION Telephone No.	
	Telephone Interview Interviewer:	
	ST-CAMPAIGN INTERVIEW (within 6-10 days) (For HH's with smokers)       Date:         erviewer:       * Introduce yourself again and remind the contact-person of the first interview.         * Try to get the previous contact-person again but DON'T INSIST to speak only to him/	her.
2.1	We have recorded last time that in your household there were males female adult persons. Is this number correct? 1. Yes 2. No	[]
	2.1.1 What is the correct number?	l
	Male: Female Reasons given for different number:	
2.2	We have also recorded last time that among the adults in your household there were males females, who smoked cigarettes regularly. Is this number correct? 1. Yes 2. No	
	What is the correct number?	
	Male: Female Reasons given for different number:	
2.3	We want to know whether the smoking members in your household know that there has been a "smoke-out day" campaign on 3.12.1985 in Hong Kong and what are their response to the campaign. Can you answer the question for them? 1. Yes 2. No/Don't know	
	2.3.1 Can you or your family member answer the questions after checking with them?	
	1. Yes 2. No $\downarrow$	
	Appointment: No further enquiry Date:	
	Time:	
2.4	Do any of the smokers know that there has been a "smoke-out day" campaign on 3.12.1985 in Hong Kong?	
	1. Yes 2. No $\downarrow$	
	No further enquiry	
	→ How many of them? Male Female	
2.5	Can you tell me where they saw or heard about this special day?	
	1. TV	
	2. Radio 3. Poster/sticker	
	4. Newspaper/magazine	
	5. Leaflets 6. Publicity van	
	<ol> <li>7. Opening ceremony at the statute square</li> <li>8. Others (please specify)</li> </ol>	
2.6	How many of the smoking members of the household stopped smoking on that day?	in a second s
	Stopped: Male Female	
	Reduced: Male — Female —	
2.7	Of those who stopped smoking for one day, how many managed not to smoke until now?	
	Stopped: Male — Female —	
	Reduced: Male Female	
	Of those who have been stopped smoking until now, how many plan to quit smoking entirely?	
	Stopped: Male Female	
	Reduced: Male — Female — END	18
	Thank You!	

	"Smoke-out" Campaign, Hong Kong, 1985 Evaluation of Its Success			ANNEX 2 (Cont)	
			Serial No.:		
	<b>"SMOKE-OUT" CAM</b>	ΡΑΙΩΝ ΈΥΛΙ ΠΑΤΙΟ	Telephone No.:		
		e Interview			
	Post-Campaign Intervi	iew No.2 (5 weeks afte	r campaign) Date:		
Interviewer:	<ul> <li>* Introduce yourself again and remind the health problems, the other about 'Smot * Assure the contact-person that this is</li> </ul>	oke-out Day' Campaign.		onth ago — one about	
household w 1985). We w	interview we recorded that there were ho responded to the 'Smoke-Out Day' Car yould like to ask them whether they have 1 now. Can we make an appointment to co	npaign by stopped smo continuously stopped or	king on the day (Dec 3, r reduced smoking from		
	ointment to contact the smokers	] D	ate:		
<ol> <li>Make appointment to ask the contact-person again</li> <li>Smokers answer the question immediately</li> </ol>		J Ti	me:		
	erson answer the question immediately easons	Na	me:		
3.2 Smoking siut	ations from 'Smoke-Out Day' up to the pr	esent.			
		Situation			

Male Smokers	Stopped up to present	Stopped for some periods	Stopped and smoked again	Reduced up to present	Reduced for some periods	Reduced and smoked again	Others (specify)
(A)	1	2	3	4	5	6	
(B)	1	2	3	4	5	6	
(C)	1	2	3	4	5	6	*******
Female Smokers							
(A) (B)	1 1	$\frac{2}{2}$	3 3	4 4	5 5	6 6	

3.3 Lastly we want to know whether the above smokers drink alcohol regularly?

	Alcohol Drinking Habit			
Male Smokers	Regularly	Occassionally	Never	
(A)	1	2	3	
<b>(B)</b>	1	2	3	
(C)	1	2	3	
Female Smoker				
(A)	1	2	3	
<b>(B)</b>	1	2	3	

3.4 Smoking situation 6-10 days after 'Smoke-out Day' Campaign as recorded in the last interview:
1. Stopped
2. Reduced

3. Resumed

4. Others .....

## THANK YOU VERY MUCH

# SMOKE-OUT DAY' PRE-CAMPAIGN SURVEY SAMPLING DESIGN

A sample of about 1000 households are required, breaking down into Hong Kong, Kowloon and New Territories sub-samples with sizes made proportional to the total number of telephone subscribers in the respective areas.

2. Sampling frame available to us are the 3 telephone directories:

Area	Version	Total Number of pages
Hong Kong Kowloon New Territories	Area Code '5', 1983 Area Code '3', 1984 Area Code '0', 1984	627 1257 755
		2635

- 3. Assuming number of telephone subscribers is proportional to the number of pages in the directory we need 238 for Hong Kong Island, 490 for Kowloon and 294 for New Territories, making a total of 1022 in our sample.
- 4. On every page of the telephone directories, there are 4 columns each comprising 119 lines with subscribers' name, address and telephone number on.
- 5. On average about 9 subscribers occupied a double line, thus leaving only about 110 subscribers on each column.
- 6. Estimated number of subscribers covered in our sampling frame:

110 x 4 (cols) x 2635 (pages) =1,159,400

Sampling fraction =  $\frac{1022}{1,159,400} = 0.88$  per thousand

- 7. The required numbers in our sample are equally divided among our 7 interviewers.
- 8. Each interviewer was given a list of telephones to dial, each telephone specified by a page number (generated randomly) and a column number (assigned systemmatically 1-4). In order to avoid overlapping and to reduce effort, each interviewer is assigned to a particular line number (randomly assigned at the beginning) to obtain her sample.
- 9. In case of double line telephone, omit the one which does not have a telephone number on it.
- 10. Interviewers are asked to make phone calls according to her list from top to bottom. In case no one to answer the phone, skip to the next one on list first and go back to it later.
- 11. In case of 'business users', 'cancelled phone' or 'refusal' replace by the one next on her list.
- 12. Continue the process until her quota for each area has been reached.



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