

Tobacco smoking patterns in a rural community in Negri Sembilan

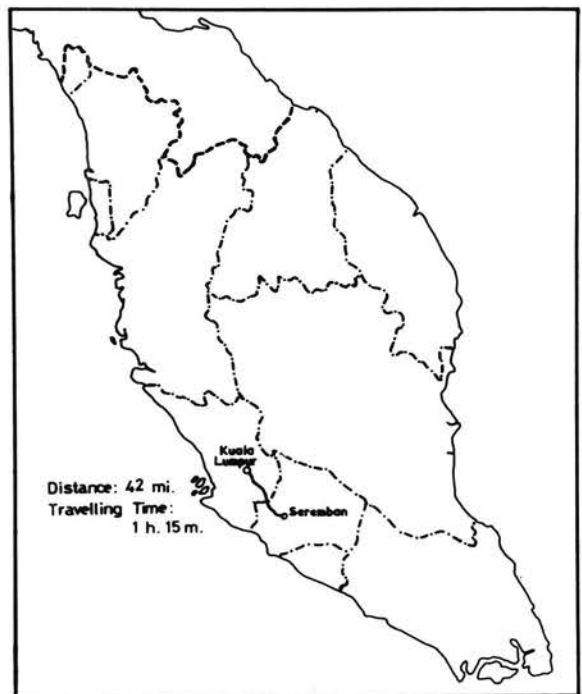
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The morbidity and mortality associated with cigarette smoking is causing increasing concern in the medical world. However economic interests in many countries including Malaysia foster the production and sale of tobacco and cigarettes and there is little epidemiological information on the smoking habits in the country.

During March 1973 a survey was conducted in a small rural community in Negri Sembilan. This community was selected for no better reason than that the author was supervising a student teaching assignment in the area at that time.

THE SURVEY AREA

The 4 villages (Kampongs) selected were linear settlements along the north-south trunk road in the district of Rembau in Negri Sembilan. One of the villages was ten (10) miles south of the capital city of Seremban while the others were twenty (20) miles south. All the villages had populations of less than 1,000 each and had neither piped water supply nor electricity. However they were easily accessible from the main trunk road and adjacent townships had provision shops and coffee shops where cigarettes and tobacco were readily available. Giant cigarette advertisement billboards line the trunk road beside the villages. The main occupations in all the villages were rubber tapping and rice farming.





Method

After an initial introduction to the householders by a community leader living in the village, every dwelling unit was identified, numerically tagged and the entire resident population aged 15 years and above were identified as eligible respondents.

These respondents were interviewed in their homes by the author or her assistant, a public health nurse (W.L.H.) using a standard series of questions. Information regarding smoking habits was readily volunteered and samples of cigarettes and tobacco were produced whenever requested.

Respondents who admitted to currently smoking cigarettes were classified as smokers and information was obtained on the amount they smoked. The main types of cigarettes smoked were commercial brands and self-produced paper-rolled cigarettes.

THE STUDY POPULATION

389 adults were included in the study population.

The demographic pattern of the community was rather unusual. The largest village (Gaing Pedas) had an adult population of 179 composed of 55.6% Malays and 46.3% Chinese. The other three (3) villages were predominantly Malay (90.5% - 100%). Females (61.4%) outnumbered males in the study population. The age distribution was very atypical - there being a remarkable scarcity of adults (only four (4) in the 15 - 24 age group). This demographic

pattern was also noted by Swift in other matrilineal residence rule communities in Negri Sembilan, and was attributed by him to the matrilineal tracing of descent and inheritance patterns peculiar to these communities, and to developing wage-earning opportunities outside the community. It is difficult to assess what effect this socio-cultural background had on the cigarette smoking patterns in the community.

SMOKING HABITS

133 (34.2%) of the adult population in the study community were current cigarette smokers. The smoking habit was significantly more prevalent amongst males Malays and in the older age groups (Tables I (a), I (b) and I (c)).

TABLE I (a) SMOKING AND SEX

	CURRENTLY SMOKING		NOT SMOKING		TOTAL	
	No.	%	No.	%	No.	%
Males	84	56.0	66	44.0	150	100
Females	49	20.5	190	79.5	239	100
$\chi^2 = 53.49$			$P \ll 0.001$			

TABLE I (b) SMOKING HABIT ETHNIC GROUP

	CURRENTLY SMOKING		NOT SMOKING		TOTAL	
	No.	%	No.	%	No.	%
Malays	110	37.2	185	62.7	295	100
Chinese	23	24.5	71	75.5	94	100
$\chi^2 = 8.49$			$0.05 > p > 0.02$			

TABLE I (c) SMOKING HABIT AND AGE GROUP

AGE	SMOKING HABIT					
	CURRENTLY SMOKING		NOT SMOKING		TOTAL	
	No.	%	No.	%	No.	%
25-44	15	9.9	137	90.1	152	100
45 years & above	118	49.8	119	50.2	237	100
TOTAL	133		256		389	
$\chi^2 = 65.59$			$p < 0.001$			

Each of the villages (Kampongs) varied in its ethnic and age-sex compositions and the smoking rates by ethnicity, age and sex are shown in Table II.

However the numbers involved are too small to comment on the significance of the variation in smoking rates in the different villages

TABLE II CIGARETTE SMOKING RATES IN EACH KAMPONG

by Ethnicity Sex and AGE Group

	GAINS PEDAS	TANAH DATAR	CHENONG KEDAI	CHENONG ULU
TOTAL ADULT Population	179	88	80	42
SMOKING RATES				
MALAYS	32.9% (32)	39.7% (35)	45.9% (34)	23.6% (9)
Chinese	22.9% (19)	Nil (Nil)	42.8% (3)	25.0% (1)
MALES	49.3% (34)	22.7% (20)	63.6% (21)	47.3% (9)
FEMELES	15.5% (17)	17.0% (15)	40.0% (16)	4.5% (2)
25 - 44 yrs	12.0% (12)	15.0% (6)	32.3% (10)	12.5% (2)
45 years and above	35.0% (35)	54.1% (26)	46.1% (24)	26.9% (7)

FOOTNOTE: The figures in brackets refer to actual numbers.

Amount of cigarettes smoked

Chinese in the study community smoked more "heavily" (i.e. 20 or more cigarettes per day) than did the Malays

TABLE III AMOUNT SMOKED BY ETHNICITY

	No. of cigarettes smoked per day						Total	
	10		10 - 19		20 & above			
	No.	%	No.	%	No.	%	No.	%
MALAYS	44	40.4	44	40.4	21	19.2	109	100
CHINESE	3	12.5	10	41.7	11	45.8	24	100
TOTAL	47		54		32		133	
	$\chi^2 = 10.17$				$p < 0.01$			

Type of tobacco used

Current smokers in the villages (Kampongs) used commercially available cigarettes cigars, or cheroots or self-produced cigarettes made up by rolling loose

tobacco in either dried nipah (*Nipah fruticans*) leaf or cigarette paper. The loose tobacco as well as the cigarette paper and dried nipah leaf could be obtained in the provision shops in the neighbouring townships.

TABLE IV TYPE OF TOBACCO USED BY CURRENT SMOKERS

TYPE OF TOBACCO USED	CURRENT SMOKERS	
	Age <45 years	Age 54+ years
Commercial brands of cigarettes	14	77 (62.6%)
Paper rolled cigarettes	—	31 (25.2%)
Leaf rolled cigarettes	—	7 (5.6%)
Other forms of tobacco	1@	5 (4.1%)
Cigarettes and other tobacco	—	3 (2.4%)
	15	123 (99.9%)

@ Respondents smoking other forms of tobacco i.e. pipe cherrot etc. have not been included as 'smokers' in the rest of this paper.

Younger smokers (below age 45 years) smoked commercial brands of cigarettes while amongst older smokers 62.6% used commercially available varieties and 25.2% rolled their own cigarettes using cigarette paper such self produced cigarettes being cheaper than the commercial brands.

DISCUSSION

The small and rather select rural community studied showed an interesting epidemiological pattern of cigarette smoking with an overall smoking rate of 34.2%. In other communities where much larger and more significant studies have been carried out for example in the United States (1966) self respondents aged 25 years and above² had 25.2% current cigarette smokers; and in 1969 in an urban population sample aged 15 years and above in Kandy, Ceylon³ a current smokers rate of 25.2% was demonstrated. It would certainly be interesting to study the epidemiological pattern of cigarette smoking in a larger Malaysian population sample including urban and rural residents.

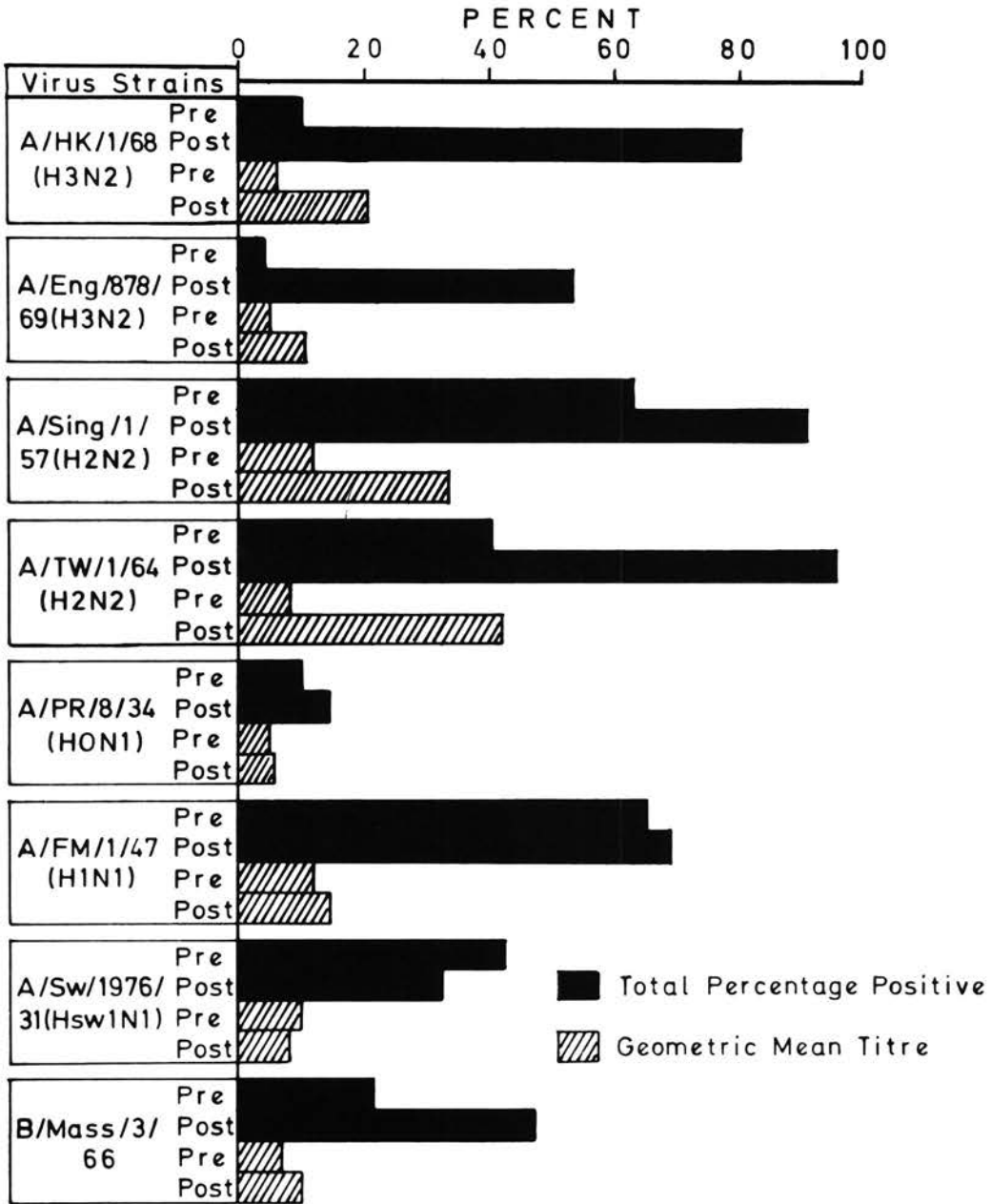
The ethnic sex and age variations in smoking patterns shown in these Rembau villages (Kampongs) may be a function of the particular community studied but the possibility that these characteristics have a great influence on cigarette smoking patterns in the larger Malaysian community as well is worth further investigation. It would also be interesting to know whether the particular way of life in these villages (Kampongs) did not encourage the smoking

habit earlier in life or whether the younger emigrants from the villages (Kampongs) had a disproportionately high percentage of current and potential smokers compared to those of their age group who remained behind. Certainly it is clear that smoking is very much a part of the way of life of the older rural residents in these Rembau villages (Kampongs). How much is it also a way of life among other Malaysians?

SUMMARY

A house to house interview of 389 Malay and Chinese adults living in four rural villages (Kampongs) in the district of Rembau, Negri Sembilan showed that 34.2% of them were currently cigarette smokers—the large majority of them smoking commercially available brands of cigarettes. In the community studied, Malays, males and the older age group (45 yrs and above) had higher smoking rates although the Chinese who smoked were heavier smokers.

This epidemiological study in a very select rural Malaysian community suggests that the study of epidemiological patterns of cigarette smoking in larger Malaysian communities including urban and rural samples might reveal interesting and useful knowledge of ethnic age and sex variations in smoking habits in Malaysia. This information would be of great importance in assessing mortality and morbidity associated with cigarette smoking in the country and could provide useful guidelines for future action aimed at reducing this mortality and morbidity.



THE TOTAL PERCENTAGE POSITIVE AND GEOMETRIC MEAN TITRE OF HI ANTIBODIES AGAINST 8 INFLUENZA VIRUS STRAINS IN MALAYSIAN SERA COLLECTED BEFORE AND AFTER THE HONGKONG 'FLU OUTBREAK IN 1968

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