

THEMATIC PROJECT

Health Status among Elderly in
Malaysia- Community Survey

Alor Gajah 2007

ELDERLY

- According to Ministry of Health, elderly is defined as individuals who are aged 60 and above.
- The proportion of elderly has been increasing gradually since 1957 till today.
- Due to this, the population age-structure has changed.
- As a result of demographic transition, elderly population is at risk of non-communicable and chronic health problems.

OBJECTIVES

- General objective
 - To assess the main problems in elderly population regarding smoking status and chronic illnesses.
- Specific objectives
 - To describe the **socio-demographic** characteristic among the elderly population in Malaysia
 - To describe the smoking status among the elderly population in Malaysia
 - To determine the **prevalence of common illnesses** among the elderly population in Malaysia
 - To determine the relationship between smoking status and **sociodemography characteristics** .
 - To determine the association between **sociodemography factors** and **chronic illnesses** among the elderly.
 - To determine the association between **health behaviours** and **chronic illnesses** among the elderly.

Study Design

- A cross sectional study which involved 16 villages under the districts of Alor Gajah, Kubang Pasu, Bentong and Raub was carried out from 12th to 15th June 2007.

Study instrument

- The questionnaire was prepared and pre- translated into Bahasa Melayu by the SPM department.
- The survey was carried out face to face between the interviewers and respondents. Observation by interviewer was required for certain questions.

Study population

- Our target population is all elderly who are aged 50 years old and above in every interviewed household.
- Total elderly respondents - 627

Inclusion Criteria

- The study participants were selected according to the following criteria:
 - aged 50 years old and above referring to birth date.
 - Malaysian citizens and those who obtained permanent resident of Malaysia

Sampling

- 200 households in the 4 villages in each district were selected through random sampling method using SPSS programme, Version 13.

Study Variables

(I) The independent variables are:

- Sociodemographic: age, sex, occupational status, marital status, educational status, economic status

dependent variables: smoking status

(II) The independent variables :Sociodemographic and smoking status
dependent variables:

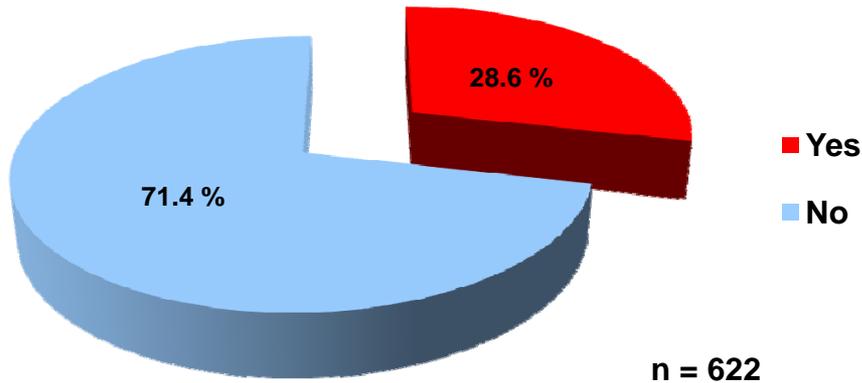
- Chronic illnesses: hypertension, diabetes mellitus

Socio-demographic characteristics of elderly

		Number of respondents	Percentage (%)
Sex (n=626)	Male	267	42.7
	Female	359	57.3
Race (n=626)	Malay	543	86.8
	Chinese	45	7.2
	Indian	18	2.9
	Other Bumiputera	18	2.9
	Others	2	2.3
Educational status (n=624)	Yes	166	26.6
	No	458	73.4
Working status (n=626)	Yes	381	60.9
	No	245	39.1

Tobacco Consumption

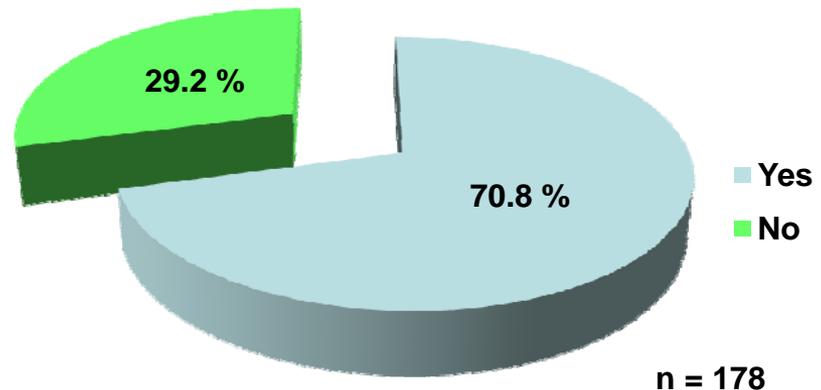
Smoke >100 sticks of cigarette



There are 178(28.6%) respondents who smoked more than 100 sticks of cigarette in their life time.

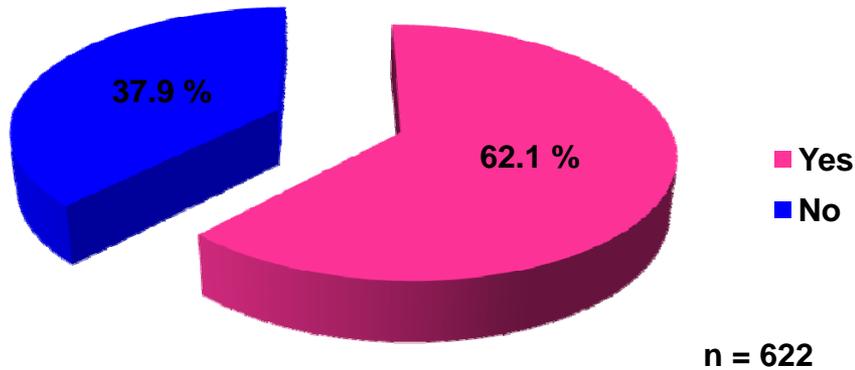
There are 126(70.8%) respondents who are still smoking.

Respondents who still smoking



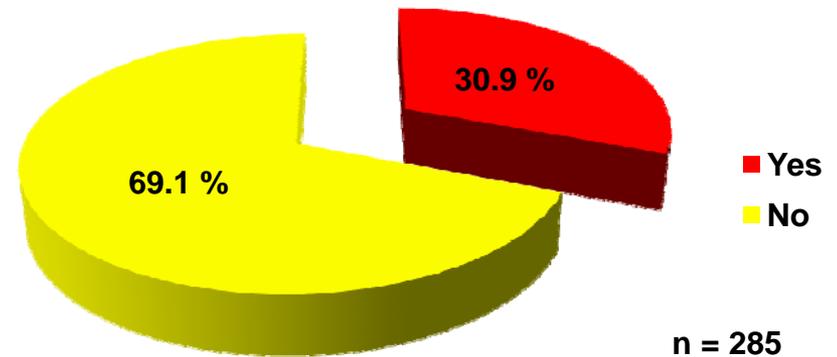
Exposure to Cigarette Smoke

Exposed for cigarette smoke for at least 15 mins a day at home



There are 236(37.9%) respondents who are exposed to cigarette smoke for at least 15 minutes a day at home.

Exposed for cigarette smoke for at least 15 mins a day at work



There are 88(30.9%) respondents who are exposed to cigarette smoke for at least 15 minutes a day at work.

Prevalence of Chronic Illnesses among Elderly

- There are 231 (36.9%) out of 579 respondents are **hypertensive**.
- There are 152 (26.3%) out of 578 respondents who have **arthritis or rheumatism**.
- 108 (18.7%) respondents out of 579 are diagnosed with **Diabetes mellitus**.
- There are 84 (14.6%) out of 575 respondents having **high blood cholesterol**.
- 54 (9.3%) out of 579 respondents are diagnosed with **CVS problems**.
- 40 (6.9%) out of 578 respondents have **respiratory disease**
- 18 (3.1%) out of 579 respondents are diagnosed with **stroke**.

Sociodemography associated with smoking status

		Smokers	Non-smokers	OR	95% CI	p-value
		n (%)	n (%)			
Sex (n=621)	Female (n=354)	25 (7.1%)	329 (92.9%)	1		
	Male (n=267)	153 (57.3%)	114 (42.7%)	17.7	11.0-28.4	<0.05
Education (n=619)	No (n=164)	35 (21.3%)	129 (78.7%)	1		
	Yes (n=455)	142 (31.2%)	313 (68.8%)	1.7	1.1-2.6	<0.05
Occupation (n=621)	No (n=376)	72 (19.1%)	304 (80.9%)	1		
	Yes (n=245)	106 (43.3%)	139 (56.7%)	3.2	2.2-4.5	<0.05

*Age group and income are not significantly associated with smoking.

Discussion - smoking

A) Gender

- The **value** of the ASIAN society that women should not smoke,
- Men often have more **job-related stress** compared to women.

B) Education status

- **Stress-induced** smoking habit
- Influence of **mass media**

C) Occupational status

- **Persuasion** from colleagues
- Release **stress** from working environment

Sociodemography Associated with Hypertension

		Hypertension	No hypertension	OR	95% CI	p-value
		n (%)	n (%)			
Age (n=579)	50-59 (n=226)	69 (30.5%)	157 (69.5%)	1		
	60-69 (n=209)	94 (45.0%)	115 (55.0%)	1.9	1.3-2.8	<0.05
	70-79 (n=121)	64 (52.9%)	57 (47.1%)	2.6	1.6-4.0	<0.05
Occupation (n=578)	Yes (n=226)	71 (31.4%)	155 (68.6%)	1		
	No (n=352)	160 (45.5%)	192 (54.5%)	1.8	1.3-2.6	<0.05

*Sex, educational status, marital status and income are not significantly associated with hypertension.

Discussion - Hypertension

A) Age

- **Sedentary lifestyle** is common in elderly. They lack physical activities and exercises.
- With increasing age, the body will undergo **physiological aging process**.

B) Occupational status

- Those not working tend to have a **sedentary lifestyle**, leading to an increased risk of hypertension.
- Cross-sectional study: **Complications of hypertension** might have caused disabilities related to mobility and stopped them from working. (temporality)

Health Behavior Associated with Hypertension

		Hypertension	No hypertension	OR	95% CI	p-value
		n (%)	n (%)			
Smoking (n=576)	Yes (n=166)	54 (32.5%)	112 (67.5%)	1		
	No (n=410)	177 (43.2%)	233 (56.8%)	1.6	1.1-2.3	<0.05

*BMI and physical activity are not significantly associated with hypertension.

Discussion- Hypertension

A) Smoking

- Enhanced **atherosclerosis**⁷.
- Inappropriate **constriction**, **luminal clot formation**, and **abnormal interactions with blood monocytes and platelets**.
- Atherosclerotic **plaque** is formed.
- Increased the **resistance** in arteries.
- Other independent risk factors.
- However, the table shows those not smoking are more associated with hypertension.
- Those diagnosed with hypertension are **informed about the risks of smoking** and therefore do not smoke (temporality).
- Survival bias.

Sociodemography associated with Diabetes Mellitus

		Diabetes Mellitus	No Diabetes Mellitus	OR	95% CI	p-value
		n (%)	n (%)			
Age (n=579)	50-59 (n=226)	32 (14.2%)	194 (85.8%)	1		
	60-69 (n=209)	45 (21.5%)	164 (78.5%)	1.7	1.01-2.73	<0.05
	70-79 (n=121)	28 (23.1%)	93 (76.9%)	1.8	1.04-3.21	<0.05

* Sociodemography :Sex, educational status, occupational status, marital status and income are not significantly associated with diabetes mellitus.

** Health behaviour is not significantly associated with diabetes mellitus.

Discussion- Diabetes Mellitus

A) Age

- It is well recognized that **glucose tolerance** declines as age advances.⁸
- The major defect responsible for this “glucose intolerance of ageing” is **peripheral tissue insulin resistance**⁹
- Age related deterioration in glucose tolerance is due to reduced insulin output by a **less sensitive, aged beta-cell**.¹⁰

Recommendation

Prevention of [high blood pressure](#)

1. Maintaining a normal weight, with a [body mass index \(BMI\)](#) of 18.5 to 24.9.
2. Reducing [sodium](#) in your diet to about 2.4 g a day, which is about 1 teaspoon of salt.
3. Exercising, such as brisk walking, at least 30 minutes a day on most, if not all, days of the week.
4. For men, limiting alcohol to 2 drinks (24 ounces of beer, 10 ounces of wine, or 2 ounces of 100-proof whiskey) a day. Women and lighter-weight people should limit alcohol to half that amount.
5. Getting 3,500 mg of [potassium](#) in your diet every day.
6. Following the Dietary Approaches to Stop Hypertension (DASH) eating plan, a diet that is rich in fruits, vegetables, and low-fat dairy products, with reduced amounts of saturated and total fats.
7. Stop smoking.

Prevention of diabetes mellitus

1. Nutrition
on nutrition, recipes, weight loss, meal planning and more.
2. Exercise
include a healthy amount of physical activity into your daily routine.

Conclusion

- The male gender, having education and working are significantly associated with smoking.
- Increasing age and not working are significantly associated with hypertension.
- Not smoking is significantly associated with hypertension in this study probably due to temporality and survival bias.
- Increasing age is significantly associated with diabetes mellitus.

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