

COMMUNITY RESIDENCY PROGRAMME (CRP) 2005

Station : Jasin, Malacca

*“A Study on the Knowledge and Awareness
of Tuberculosis (TB) among the local rural
community in Jasin, Malacca”*

MBBS PHASE 3A

2002/2007



INTRODUCTION

- Tuberculosis (TB) is a global emergency.¹
- World Health Organization (WHO) estimates that roughly 1/3 of the world's population or 2 billion persons are infected with TB.²
- TB is one of the leading infectious causes of death among adults worldwide.³
- In Malaysia, TB is one of the notifiable diseases. According to the Epidemiology Analysis of National TB Control Program Year 2004, a total of 15,307 cases of TB had been reported in Malaysia.⁴
- TB cases in Jasin, Malacca showed an increasing trend (49 cases reported last year).
- This survey is carried out to assess the knowledge and awareness of the selected local rural community on TB.



OBJECTIVES

General Objective

- To assess the level of knowledge and awareness about Tuberculosis (TB) among selected rural communities in Jasin, Malacca.

Specific Objectives

- To assess the awareness about the etiology, symptoms, mode of transmission, prevention and treatment relating to TB
- To study the relationship of the level of TB awareness with age, sex, educational status and occupation among selected rural communities in Jasin, Malacca



Materials & Methods

Cross-sectional study

Prepare questionnaire
on knowledge and awareness
about TB

Systematic random sampling
method to select 50 households
each from 4 assigned villages

Face to face interview
all adults aged ≥ 18 years
in the selected households

Each correctly answered
question was given 1 score
(Total scores = 23)

Data - entered & analyzed
using SPSS
(Windows version 11.5)

Median score was used as
arbitrary cut-off point to divide
into high and low knowledge group
Cross-tabulations –
socio-demography & knowledge level



Results & Discussion

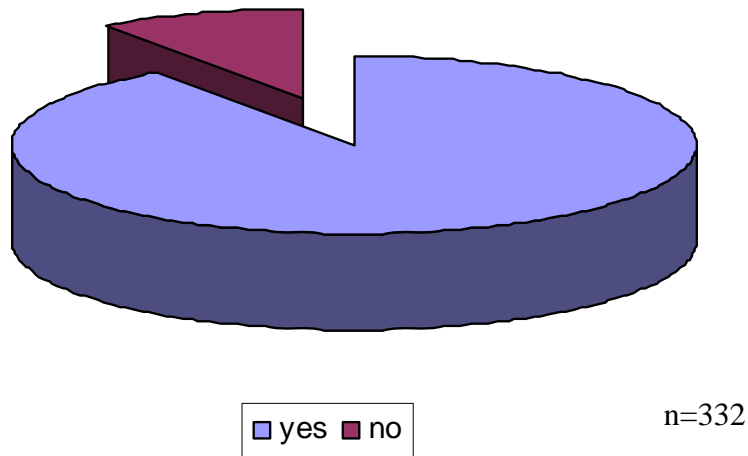


Figure 1: The information about tuberculosis among the respondents

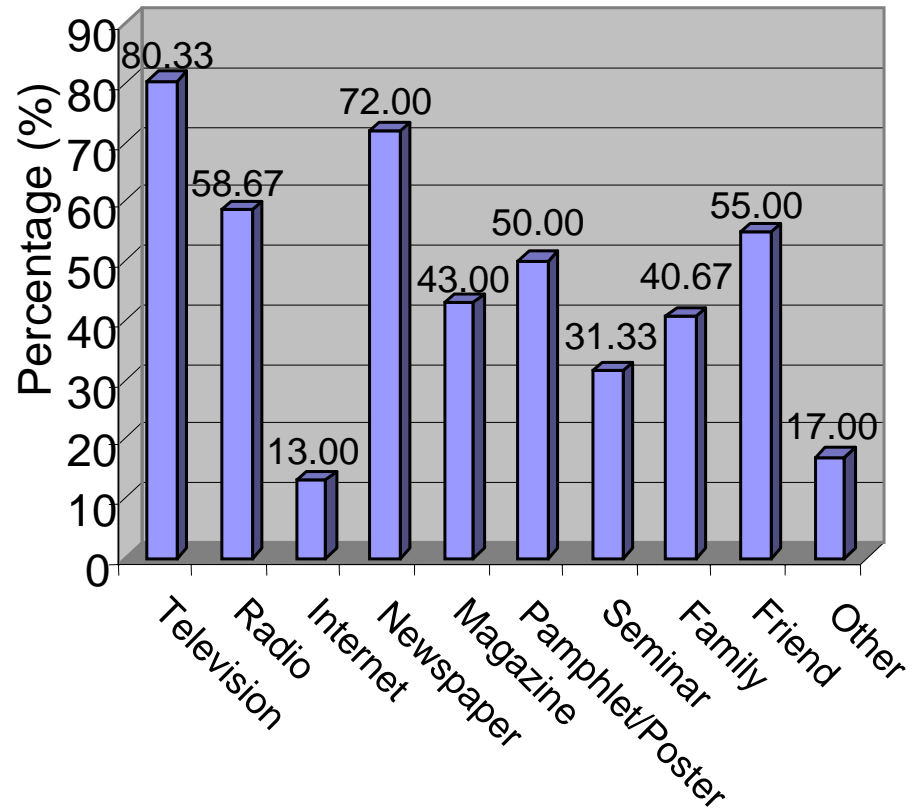


Figure 2: Various Sources from which the Residents get the information about Tuberculosis (n=300)

- Most of the respondents (90.36%) claimed that they had heard of Tuberculosis (TB).
- Television, newspaper, radio and pamphlet/poster were effective way to channel information about TB
- These media should be used to increase the knowledge and awareness among the folks.

Results & Discussion

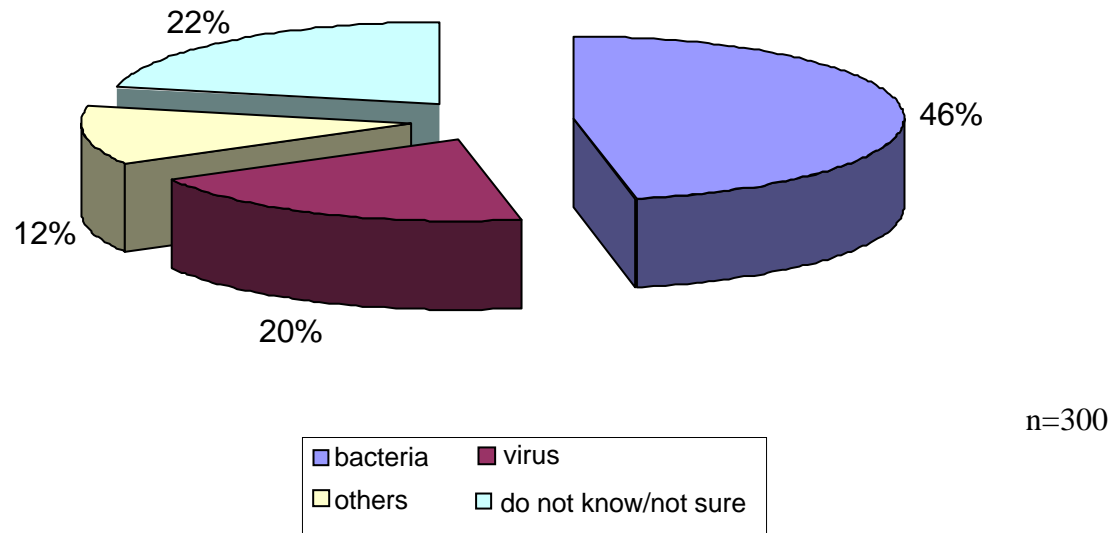


Figure 3: Knowledge about the cause of TB

- Only 46% of them answered correctly.
- 12% answered others, like cold air, exposure to dust and smoking.
- Low level of understanding on the causes of TB, plus with incorrect knowledge about the cause may affect timely reporting of patients to the health institutions and facilitate transmission of the disease.

Results & Discussion

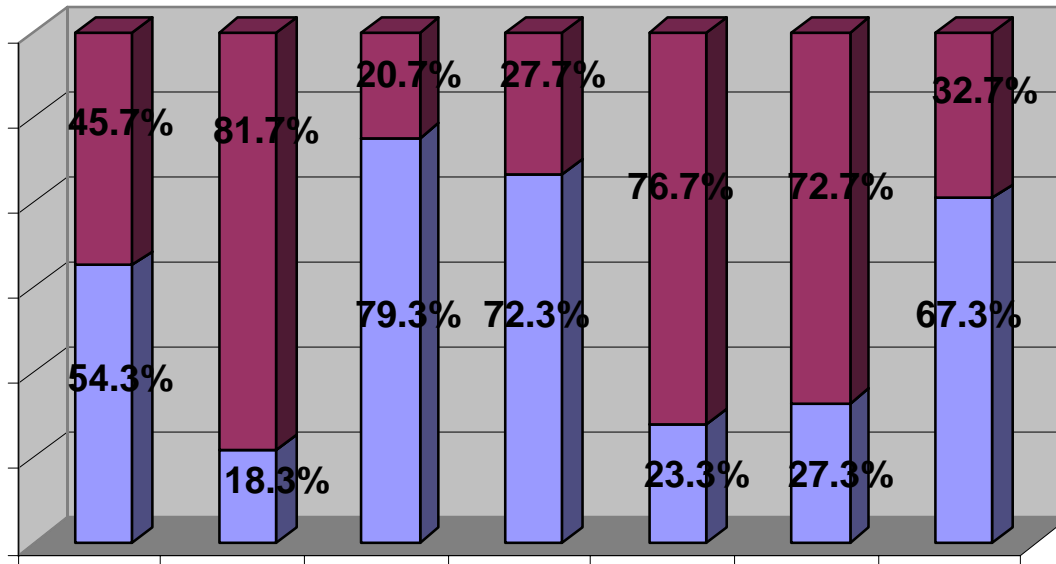
Table 1: The Mode of Transmission of TB according to Respondents in Jasin District. (n=300)

	Direct Contact	Indirect Contact	Airborne	Waterborne	Foodborne	Mosquito Bite	Sexually Transmitted
Yes	26 11.0%	53 22.4%	200 84.4%	119 50.2%	124 52.3%	61 25.7%	53 22.4%
No	211 89.0%	184 77.6%	37 15.6%	118 49.8%	113 47.7%	176 74.3%	184 77.6%
Total	300 100%	300 100%	300 100%	300 100%	300 100%	300 100%	300 100%

- Majority of the respondents (84.4%) know that TB is an airborne disease.
- Most respondents also realized that TB is not transmitted through direct/indirect contact, mosquitoes and sexual contact.
- However, more than half of the respondents who thought that TB is transmitted via food and water.
- The wrong knowledge about water and food as routes of transmission needs to be addressed to remove any misconceptions about the disease so as to help in removing the stigma attached with the disease.

Results & Discussion

Figure 4: Symptoms of TB (n=300, p<0.05)



- Most answered correctly on the symptoms of TB (fever, haemoptysis, loss of weight, loss of appetite)
- Many did not know night sweats was a symptom
- Fairly good level of knowledge on symptoms of TB among the respondents.
- This may help to improve the passive case finding.

■ Yes ■ No



Results & Discussion

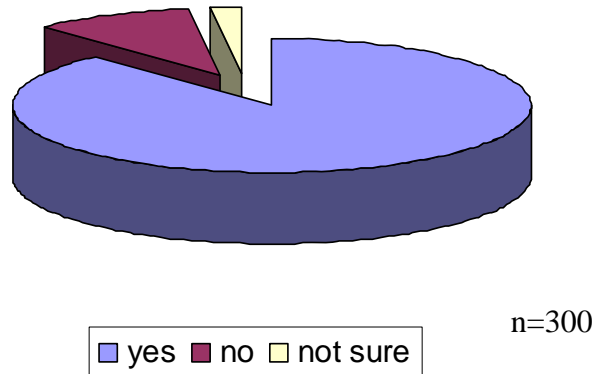


Figure 5: Response of respondents as to whether they will go for screening if someone close to them is infected with tuberculosis

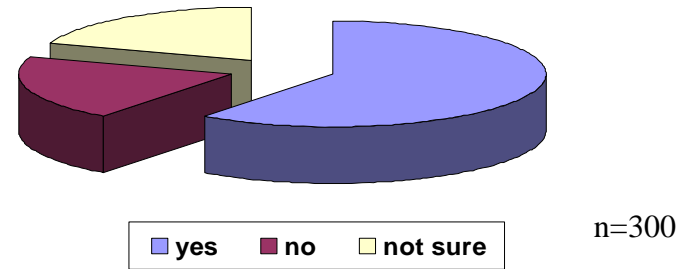


Figure 6: Awareness of the availability of TB vaccination among the respondents in Jasin district

- Most agreed that screening is necessary when their closed one contracted tuberculosis.
- This may improve early detection as well as prevent transmission of the disease.
- Awareness of tuberculosis vaccination is average only despite nearly 100% infants had received BCG vaccination.
- A number of them did not really know the purpose of the BCG injection.

Results & Discussion

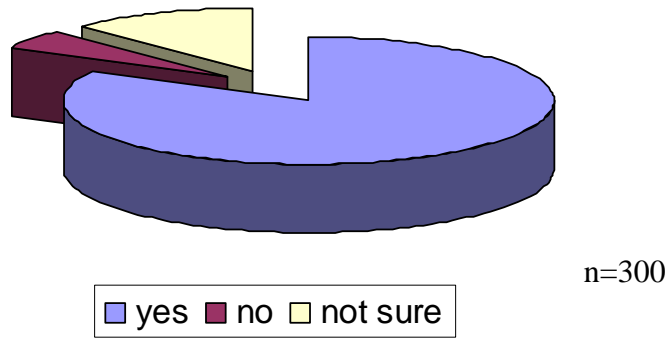


Figure 7: Knowledge on curability of TB

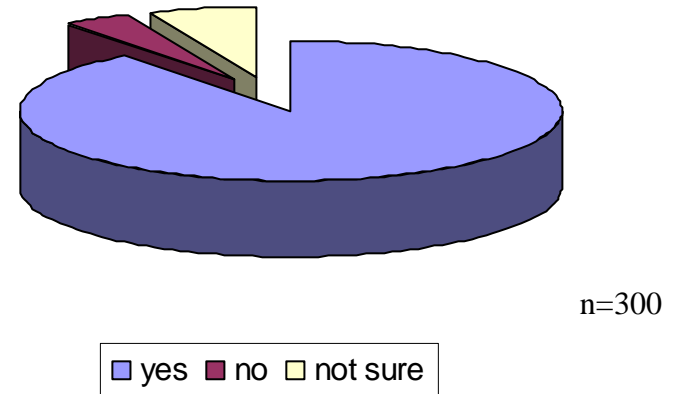


Figure 8: Knowledge of respondents regarding the possibility of death caused by tuberculosis

- Most of the respondents were aware that TB is a very serious disease.
- Most of them also recognized that TB can be cured in part due to current scientific and medical advancement.
- These may influence the health seeking behaviour.

Results & Discussion

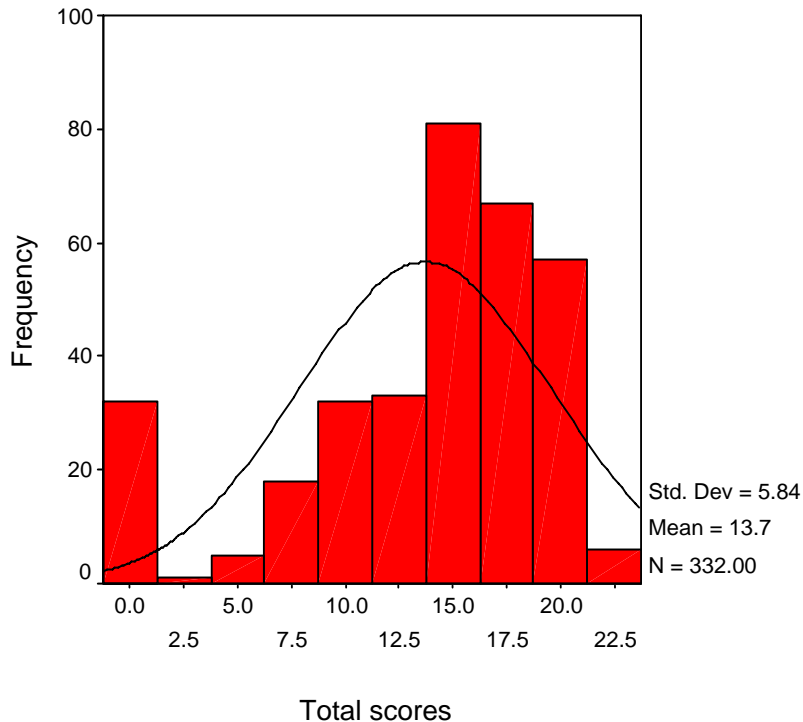


Figure 9: Total scores acquired by the respondents

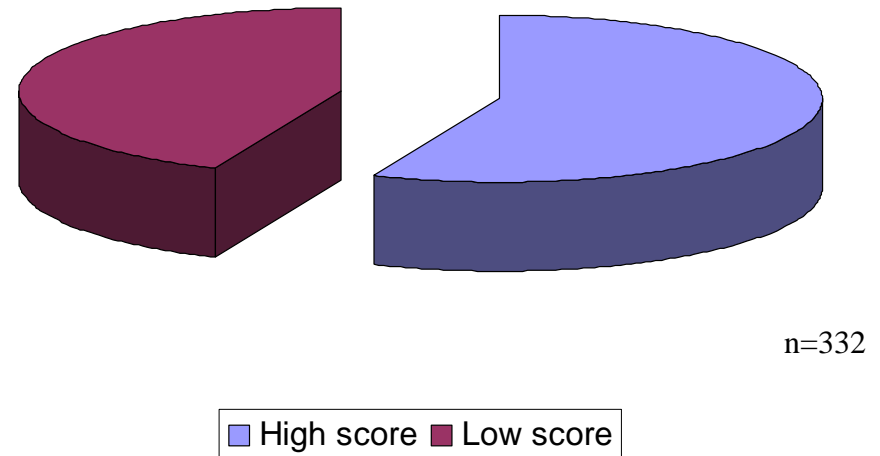


Figure 10: Level of knowledge on TB among respondents in the local rural community

- Though most of the respondents claimed that they had heard of Tuberculosis (TB), the overall knowledge level of the rural community in Jasin district was only average.
- Median score was 15, which was used as cut-off point for high/low knowledge level.

Results & Discussion

Table 2: Association of socio-demographic characteristics with level of knowledge (n=332)

Socio-demographic Characteristics		Level of Knowledge		p value
		Low Score	High Score	
Age (years) n=332	≤ 24	22 (52.4%)	20 (47.6%)	0.120
	25 - 34	13 (29.5%)	31 (70.5%)	
	35 – 44	30 (44.1%)	38 (55.9%)	
	45 – 54	30 (41.7%)	42 (58.3%)	
	55 - 64	19 (38.0%)	31 (62.0%)	
	≥ 65	31 (55.4%)	25 (44.6%)	
Gender n=332	Male	59 (50.9%)	57 (49.1%)	0.053
	Female	86 (39.8%)	130 (60.2%)	
Ethnicity n=332	Malay	74 (33.9%)	144 (66.1%)	<0.05
	Chinese	47 (61.8%)	29 (38.2%)	
	Indian	23 (63.9%)	13 (36.1%)	
	Others	1 (50%)	1 (50%)	

Education Level * n=332	Low education	83 (52.5%)	75 (47.5%)	0.002
	High education	62 (35.6%)	112 (64.4%)	
Occupation n=332	Pensioner	11 (40.7%)	16 (59.3%)	0.145
	Professionals	0 (0.0%)	5 (100.0%)	
	Lesser professionals and traders	13 (31.7%)	28 (68.3%)	
	Skilled manual and clerical	4 (44.4%)	5 (55.6%)	
	Semi-skilled manual	26 (50.0%)	26 (50.0%)	
	Unskilled manual	10 (47.6%)	11 (52.4%)	
	Others	9 (52.9%)	8 (47.1%)	
	Housewife	44 (40.4%)	65 (59.6%)	
	Unemployed	17 (65.4%)	9 (34.6%)	
	Student	11 (44.0%)	14 (56.0%)	

* Low education – primary school level or no formal education

† Chi² tests were done to obtain the p value

High education – secondary school or higher education level



Results & Discussion

- The level of knowledge is statistically different between different ethnic group and education levels of the residents ($p < 0.05$).
- The Malay ethnic group and those with higher level of education showed a higher proportion with high knowledge level on TB.
- Probable reasons : higher incidence of TB among Malay ; most of the information are in Malay language. Information on TB from various sources can be understood better with higher education level.
- 100% professionals were in the high knowledge group and the higher professions also showed better understanding of TB. This is probably because they acquired higher education.
- The level of knowledge was not statistically significant between different age group and gender



Errors & Limitation

- Error in the interviewer stage :
 - Despite training, different interviewers tend to phrase questions differently, which might influence the respondents.
 - Respondents did not understand the questions forcing the interviewer to explain it and thus inevitably giving clues to the respondents.
- Error in the respondent stage:
 - Respondents might tend to agree with the interviewers in order to please their 'guests' due to the Asian hospitality.
 - Respondents might have misunderstood the questions asked.
 - Responses might vary with the approach of the interviewer, language barrier and lack of rapport.
- These errors were minimised by having pre-survey meetings to standardise definitions and questioning methods.



Conclusion

- Level of knowledge on TB among rural community in Jasin was still lacking
- Those with higher education level and the Malay ethnic group have higher knowledge level than the others.
- Effective ways of conveying information on TB are television, radio, newspapers, pamphlets and posters.
- Information in languages other than Malay might be considered since other ethnic groups are particularly having lower level of knowledge on TB.



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