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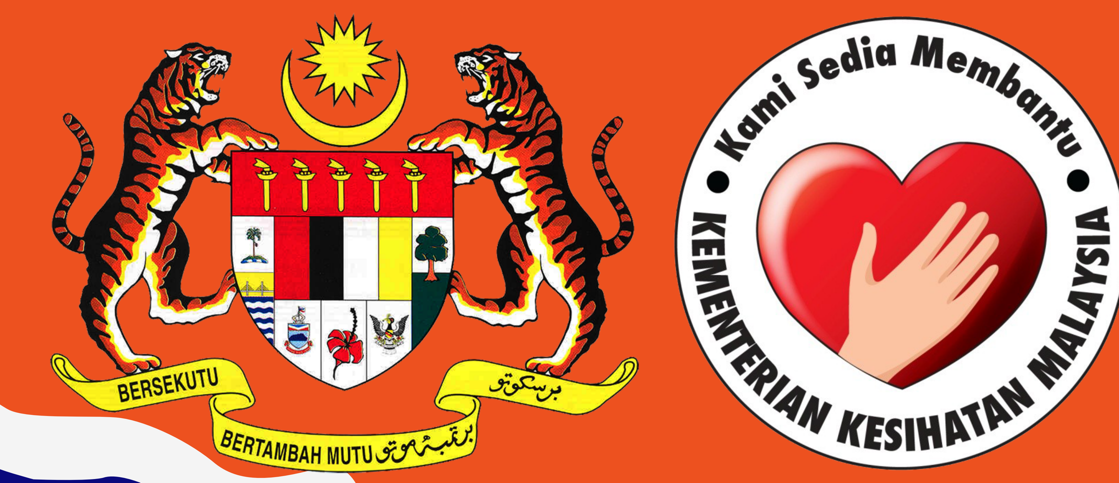

THE ANALYSIS OF NATIONAL HEALTH SCREENING INITIATIVE (NHSI) IN KUALA LUMPUR AND PUTRAJAYA

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01. INTRODUCTION

The National Health Screening Initiative (NHSI) is one of the initiatives of the Healthy Malaysia National Agenda (Agenda Nasional Malaysia Sihat) under Core 3: Self-Health Screening. Regular health screening can detect non-communicable diseases (NCD) at an early stage and treatment can be given immediately. Subsequently, one can improve the quality of life and prevent premature mortality due to (NCD) such as diabetes, hypertension, high cholesterol, heart disease and many more. The NHSI program was launched in July 2022 by the Ministry of Health (MOH) to address the low rate of health screening among the public (Ketua Pengarah Kesihatan, 2022). The objective of this program is to empower community to screen and detect health risks and then to take necessary measures to manage and modify their lifestyles. The empowerment of the people in health care is important to enable them to take appropriate action in disease prevention.

02. OBJECTIVE

The aim of this study is to describe the sociodemographic characteristics, behavioural risk factors, anthropometric, blood investigation as well as mental health assessment findings of NHSI in Kuala Lumpur and Putrajaya.

03. METHODOLOGY

This was a cross-sectional study carried out using secondary data obtained from MyVas system that was used to store clients' health screening data. Data extracted were those who had been screened in the healthcare facilities as well as at the community level in Kuala Lumpur and Putrajaya. Data extracted was for the period of six months of the NHSI program which is between 16 July 2022 until 16 January 2023. All 58,222 clients screened for the six months period were included in this study. Duplicated data entry of the same client was not allowed by the system itself. Information on sociodemographic characteristics, behavioural risk factors, anthropometric measurements, blood test result and mental health screening were included in the study. Descriptive analysis was employed. All data were analysed using Microsoft Excel 2019 and IBM SPSS Statistics Version 21.

05. ANALYSIS

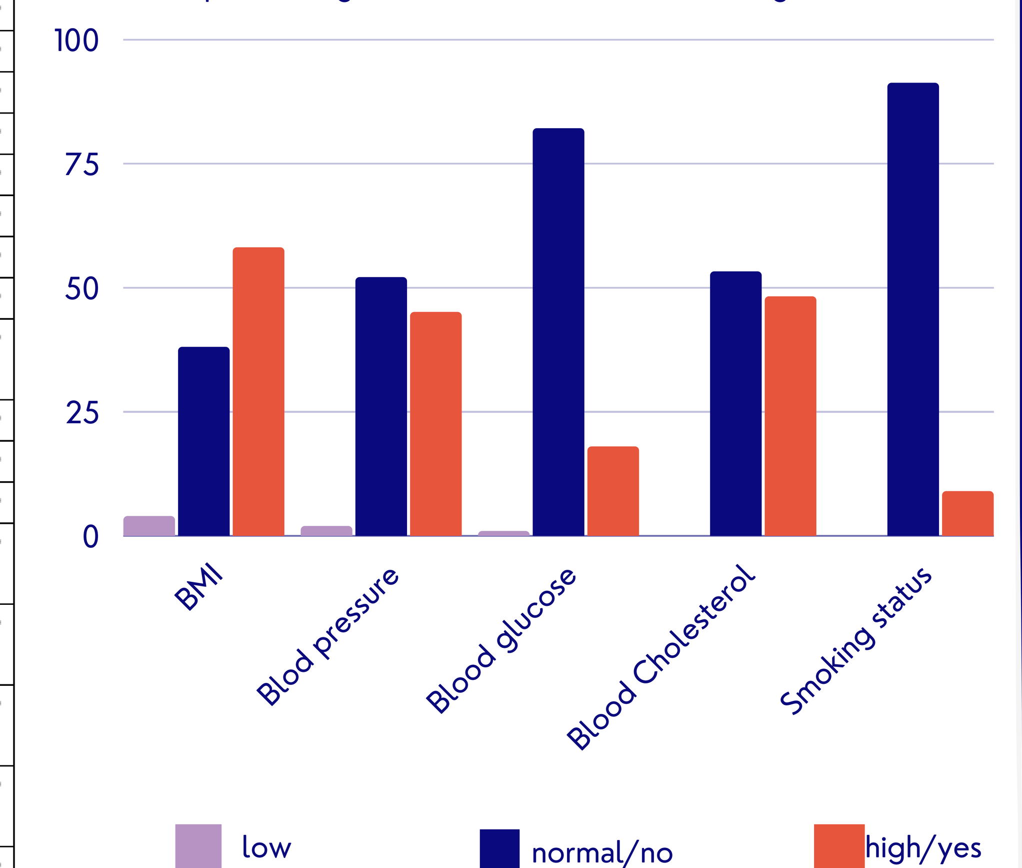
Table 1: The characteristics of NHSI clients in KL&P

CHARACTERISTICS	CHARACTERISTICS	N	%
Age (Mean: 41.75)	18-40	30539	52.45%
	40-60	20872	35.85%
	>60	6807	11.68%
Gender	Male	25052	43.03%
	Female	33159	56.95%
Ethnicity	Malay	43649	74.97%
	Chinese	8784	15.09%
	Indian	3865	6.64%
	Others	1924	3.31%
Body mass index (BMI) (Mean: 27.31)	Underweight	2267	3.89%
	Normal Weight	22280	38.27%
	Overweight	20147	34.60%
	Obese	13528	23.23%
Blood glucose level (BGL) (Mean: 6.62)	High Blood Glucose	10209	17.53%
	Low Blood Glucose	441	0.76%
	Normal Blood Glucose	47572	81.71%
Blood cholesterol level (BCL) (Mean BCL: 5.27)	High Blood Cholesterol	5920	10.17%
	Normal Cholesterol	6535	11.22%
	Not Done	45767	78.61%

Table 2: The characteristics of NHSI clients in KL&P

CHARACTERISTICS	CHARACTERISTICS	N	%
Blood pressure (BP)	At Risk	11150	19.15%
	High Blood Pressure	15304	26.29%
	Low Blood Pressure	1393	2.39%
	Normal Blood Pressure	30375	52.17%
Smoking status	No	52751	90.60%
	Yes	5471	9.40%
Alcohol consumption	High Risk	14	0.02%
	Moderate Risk	52	0.09%
	Low Risk / No consumption	58156	99.89%
Mental health status	Risk	8145	14.00%
	No risk	28409	48.79%
	Not done	21668	37.21%
Depression	Not at Risk / Minimal Depression	7174	12.32%
	Mild to Moderate Depression	853	1.46%
	Moderately Severe to Severe	118	0.20%
Generalized Anxiety Disorder	No risk / Minimal anxiety	8091	13.90%
	Mild Anxiety	25	0.04%
	Moderate to Severe Anxiety	29	0.05%

Graph 1: The percentage of clients according to BMI, blood pressure, glucose, cholesterol and smoking status



04. RESULTS/FINDINGS

Majority of clients were less than 40 years old (52.45%), female (56.95%) and Malay (74.97%). About 57.83% or one in two of clients were overweight and obese, in line with NHMS findings (NHMS, 2019). Clients with high blood glucose and blood pressure were 17.53% and 26.29% respectively which were slightly lower than NHMS 2019 findings. According to NHMS 2019, overall prevalence of Diabetes Mellitus and Hypertension were 18.3% and 30.0% respectively.

Meanwhile, for blood cholesterol level, only 21.39% of clients have done the cholesterol blood test due to limitation of the cholesterol strips. Hence, a big number of populations were not tested and missed the early intervention if tested positive. Out of those tested for cholesterol level, about 47.53% of them has hypercholesterolemia. This finding is higher than 38.1% hypercholesterolemia found in NHMS 2019 study. This high finding was significantly correlated with age ($r=0.053$, $p=0.001$) and glucose blood level ($r=0.024$, $p=0.007$), even though it was a weak positive Pearson correlation. Similar findings found in correlation study between blood cholesterol and blood sugar (Daboul, 2011).

Apart from that, only 9.4% of clients admitted their smoking habits. This is not comparable with NHMS 2019 and Global Adults Tobacco Survey (GATS) 2011 study that found that the prevalence of smokers among those age 15 years old and above is 21.3% and 23.1% respectively. Due to lack of staff, the NHSI health screening survey is based on clients' self-report rather than interview. Most of them did not admit their addiction to tobacco product. The decline in the social acceptability of tobacco use has the potential consequence that smokers may conceal their smoking from health care providers due to high perception of smoker-related stigma (perceptions that they were devalued because they smoke) (Stuber & Galea, 2009). The same scenario was observed in alcohol consumption. About 2.38% NHSI clients were alcohol drinkers as compared to 11.8% among NHMS 2019 respondents.

For mental health status, 62.78% clients had done the screening. About 22.28% (8145) clients were at risk. Out of this, 971 (2.7%) clients had mild to severe depression and 54 (0.2%) clients had mild to severe anxiety disorder which is comparable with national prevalence of depression 2.3%. All screened patient with positive findings were managed accordingly in term of dietary and physical activity advice, smoking and alcohol cessation advice and/or referral to the nearest health facilities for further investigation, treatment and follow up. The findings of NHSI are shown in Table 1, Table 2 and Graph 1.

06. CONCLUSION

In conclusion, sufficient resources are crucial in implementing the NHSI program. Adequate cholesterol strips must be provided for early detection of hypercholesterolemia in view of high prevalence of hypercholesterolemia in Kuala Lumpur and Putrajaya. Human resources also play an important role in this program in order to engage in health screening activities in the community and agencies as well as to cater for MyVAS data entry. More professionals such as Psychology Officers, Physiotherapist, doctors and paramedics are in high demand specially in running the post-screening interventions. All these resources are important to ensure the successfulness of NHSI program.

Related Literature

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