**Vaccination Refusal Trends in Seberang Perai Utara (SPU): A 4-Years Review from 2015-2018**

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**ABSTRACT**

**INTRODUCTION:** Immunisation is a significant public health concern worldwide. The successful of vaccination would reflect the vaccine preventable diseases incidence. Vaccination is the highly effective method for parents to protect their children from contracting vaccine preventable diseases. In Malaysia, National Immunisation Programme was started in 1950 and through all these years it has undergone changes to strengthen the herd immunity amongst Malaysian. Vaccination in Malaysia is delivered through Maternal and Child Health Programme and School Health Services. These services are available throughout Malaysia to ensure that no children eligible for vaccination missed their immunisation. In the recent years there have been an increasing number of parents refusing vaccine in Malaysia. Hence, this study will explore the magnitude of this problem in SPU specifically.

**OBJECTIVES:** To establish the vaccination refusal trends in SPU from 2015 till 2018.

**METHODS:** This is a retrospective study used secondary data of children entitled for immunisation programme that resides in SPU from 2015 till 2018. Data will be collected from database at MCH Unit PKDSPU. Data analysis will be done using SPSS Version 22.

**RESULTS:** There is significant drop of vaccine refusal in SPU from 2017 till 2018

**CONCLUSION:** This study will ascertain reason for parents refusing vaccination in SPU. Identifying magnitude of the problem will allow us to rectify the challenges and gaps for parents refusing vaccine. Developing comprehensive strategies that suits parents' concerns will reduce the vaccine refusal and ultimately reduce mortality and morbidity due to vaccine preventable diseases.

**KEYWORDS:** vaccine refusal, immunization refusal, seberang perai utara district

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**Vegetable Intake Among Malaysian Elderly Population: Findings from Elderly Health Survey (NHMS 2018)**

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**ABSTRACT**

**INTRODUCTION:** Dietary risks were among the leading risk factors for death among elderly population worldwide. However, vegetable intake among Malaysians elderly individuals is still on the low side. The study aimed to determine the adequacy of vegetable intake among Malaysian elderly population.

**METHODS:** A nationwide survey with two stage stratified random sampling was conducted in 2018. Elderly individuals above 60 years old were selected to participate in the survey. Face to face interviews utilizing questionnaires were carried out. Malaysian Dietary Guidelines (MDG) 2010 recommendation is at least three servings of vegetables intake daily.

**RESULTS:** 3977 respondents completed the survey. Overall prevalence of adequate vegetable intake (at least three servings per day) among Malaysian elderly individuals was 10.9%. Higher prevalence among the urban residents 11.4% compared to their rural counterparts 9.8%. Similar Prevalence found between males (10.7%) and females (11.2%). Higher prevalence among the singles (11.5%) compared to the married group (10.7%). Those with tertiary education had the highest prevalence of adequate vegetable intake each day (13.5%). Logistic regression analysis showed, with adjustment of strata, sex, marital status, education, occupation and individual income group, those in income group of RM1000 to RM1999.00 were 1.105 more likely to consume more than 3 servings of vegetables daily.

**DISCUSSION:** The overall vegetable intake of Malaysian elderly individuals is lower than the recommendation. There is a crucial need for strategies and coordinated efforts of program managers and policy makers at all levels to emphasize on the adequate intake of vegetable daily.

**KEYWORDS:** vegetable intake, elderly individuals, health