Original Research

Morbidity patterns and healthcare utilisation among older people in Malaysia: 1996—2015

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ABSTRACT

Objective: This article examines the trends in morbidities and healthcare utilisation in Malaysian older people aged 60 years and above.
Study design: This is a repeated cross-sectional study.
Methods: Data from three nation-wide community-based surveys, which were conducted in 1996, 2006, and 2015 were analysed. Multivariate analysis was performed for 2015 data to identify factors associated with healthcare utilisation.
Results: Analysis noted increasing trends in the prevalence of diabetes, hypertension, hypercholesterolaemia and obesity from 1996 to 2015. Decreasing trends were noted in the prevalence of current smokers and drinkers over this 20-year period, whereas health service utilisation increased with age in all surveys. In 2015, both inpatient and outpatient care are significantly associated with increasing age and diabetes.
Conclusions: Increasing trends of health problems and healthcare utilisation were observed among older people in Malaysia. Policymakers should plan for appropriate resources to meet the challenges of an ageing population in Malaysia.

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Introduction

Worldwide, the population aged 60 years and above has tripled in the past 50 years, and it is estimated that this number will more than triple in the coming 50 years.[1] It has been noted that the rate of population ageing is much faster in developing countries than in developed countries, which will thus have less time to adjust to the consequences of population ageing.[1] Based on Malaysian Census 2010, the total population of Malaysia has reached 28.3 million. The proportion of those aged 60 years or above was noted to be 7.9%, with 5.1% aged 65 years or above, compared to only 3.9% in the year 2000. This increment is in line with the transition towards an ageing population of Malaysia.[2]

Population ageing poses a great impact on healthcare. The Global Burden of Disease Study reported that 23% of global burden of diseases arises in older people and chronic non-communicable diseases contributed significantly to this burden.[3] An increasing older population is associated with higher morbidity, more demands on healthcare services, outpatient care and hospitalisation, with higher possibility of specialised care that leads to an increase in health expenditure.[1,4,5] To support programme managers, studies on health trends of the older people were recommended to assess various indicators of health, namely demands for care, chronic diseases and disability.[5] Information on this morbidity pattern is vital for the estimation of future health burden among the older population in Malaysia, particularly for the planning of health services for older people.

Researchers with interest in trends of elderly health focus on various methods, depending on the purpose of the analysis. Approaches used include trends in mortality, disability, physical functioning, disease prevalence and incidence, risk factors, self-reported health or a combination of mortality and morbidity.[6]

The Global Burden of Disease Study estimates that 23.1% of the total disease burden is attributable to older people aged 60 years and above, with cardiovascular diseases as the leading contributors. Major modifiable risk factors identified were dyslipidaemia, hypertension, diabetes, smoking and obesity.[3] Thus, identifying burdens from these risk factors will provide policymakers with a guide in the planning of promotive and preventive strategies.

In this study, we aimed to assess the health pattern of older people in Malaysia from 1996 to 2015, examining the trends of non-communicable disease prevalence and risk factors, and healthcare utilisation for both inpatient and outpatient care, based on the findings from three community-based nationwide surveys conducted in 1996, 2006 and 2015. We also aimed to identify factors that contribute to healthcare utilisation of inpatient and outpatient services, based on the latest data in 2015. This study is expected to represent the situation in a middle-income country and may benefit policymakers in Malaysia and other countries that are facing a similar rapid ageing population, in the planning of health services for the population.

Methods

Sample and design

We extracted data from three nationwide community-based surveys, known as the National Health and Morbidity Surveys (NHMS); NHMS 1996, 2006 and 2015.[7—9] These community-based surveys were conducted at regular intervals so as to provide health-related community-based data and information to support the Ministry of Health in reviewing health priorities, program strategies and activities, and effectively planning for allocation of resources. These surveys used a multistage stratified sampling design involving all residents in Malaysia, irrespective of age. In these surveys, all states and Federal Territories were included as the first strata, which were then further stratified into urban and rural areas. Enumeration Blocks (EBs) in each state, which constituted the primary sampling unit, were then randomly selected from a sampling frame obtained from the Department of Statistics Malaysia based on the required sample size of each survey. Living Quarters (LQs), which represented the secondary sampling units, were then randomly selected from the selected EBs. Details of sampling methods of the surveys were explained in the respective NHMS reports.[7—9] Main scopes covered in these surveys were non-communicable diseases and healthcare utilisation. Table 1 summarises the number of EBs, LQs and older people sampled from the three surveys and the instruments used in the surveys.

Table 1 — Summary of sampling and instruments used in NHMS 1996, 2006 and 2015.			
	1996	2006	2015
Enumeration Block (EB)	2196	2150	869
Living Quarters (LQ)	17,995	15,519	10,428
Response rate (%)	86.9	90.0	86.4
Number of sample (aged 60 years and above)	3886	4954	2790
Instrument for blood glucose and cholesterol	Accutrend GC	Accutrend GC	CardioChek PA
Blood pressure measurement	Electronic BP metre (Visomat OZ 30)	Omron Digital Automatic BP HEM-907	Omron Digital Automatic BP HEM-907
Weighing scale	TANITA HD-319	TANITA HD-319	TANITA HD-319
Height measurement	Seca 206 Bodymeter	Seca 206 Bodymeter	Seca 213 Stadiometer