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Views

Introduction

Malaysia is facing a historically unprecedented trend in its demography: there are now more people aged 60 years and older than there are children younger than five years old, according to figures from the Malaysian Department of Statistics (DOS). DOS estimates that in 2015, the proportion of the Malaysian population aged 60 years and older is 9.1%, outnumbering the proportion of children younger than five years old by 0.6%. Although this may seem like a small difference, the gap between the two age groups is set to increase continuously and dramatically over the next three decades, as demonstrated in Chart 1 below. This is a reflection of the phenomenon known as *population ageing*, defined by the United Nations (UN) as "the process by which older individuals become a proportionally larger share of the total population."[1] According to the National Population and Family Development Board (LPPKN), based on projections made by DOS, Malaysia is expected to reach ageing population status by the year 2035, at which point 15% of the

[1] UN (2001).

total population will be 60 years and older.[2] This article looks into why this is happening, what it means, and what the consequences may be for the nation.

Chart 1: The percentage of the Malaysian population aged 60 years old and above compared to the population younger than five years old, 2000-2040

Source: DOS (n.d.).
Notes:

1. These are based on population estimates by DOS.
2. DOS population projection take into account a combination of factors including estimated birth rates, mortality rates, and net migration, with certain assumptions.

WHAT IS DRIVING THIS CHANGE?

The World Health Organisation (WHO) has identified two key drivers of global population ageing: longer life expectancies and falling fertility rates.[3] In general, the world has seen an increase in life expectancy, largely thanks to improvements in living conditions and advances in medical science contributing to lower mortality rates in the recent decades. For example, improved sanitation and immunisation has led to a drop in the number of deaths due to infectious diseases such as pneumonia and measles. In Malaysia, DOS estimates that babies who were born in 2014 are expected to live to the age of 74.7, 2.5 years longer than babies born in 2000.[4] At the same time, fertility rates have fallen. In 2000, the total fertility rate in Malaysia was 3.0 children born per woman; in 2012, the figure dropped to 2.1 children per woman.[5]

[2] LPPKN (n.d.)
[3] WHO (2011).
[4] DOS (2014).
[5] LPPKN (n.d.).

While longer life expectancy is generally considered to be a positive outcome, (after all, keeping people living for longer is one of the main purposes of medicine), when coupled with decreased fertility rate, causes some concern over the potential implications on the population structure.

Malaysia is not alone in facing population ageing – indeed, it is a global phenomenon. In 2010, the WHO estimated that 8% of the world's population was aged 65 or older. By 2050, this is expected to double, with 16% of the world belonging to the 65 years old and above age group. Developing countries are expected to see the highest rate of ageing, with the number of older people projected to increase more than 250%, compared with a 71% increase in developed countries.[6]

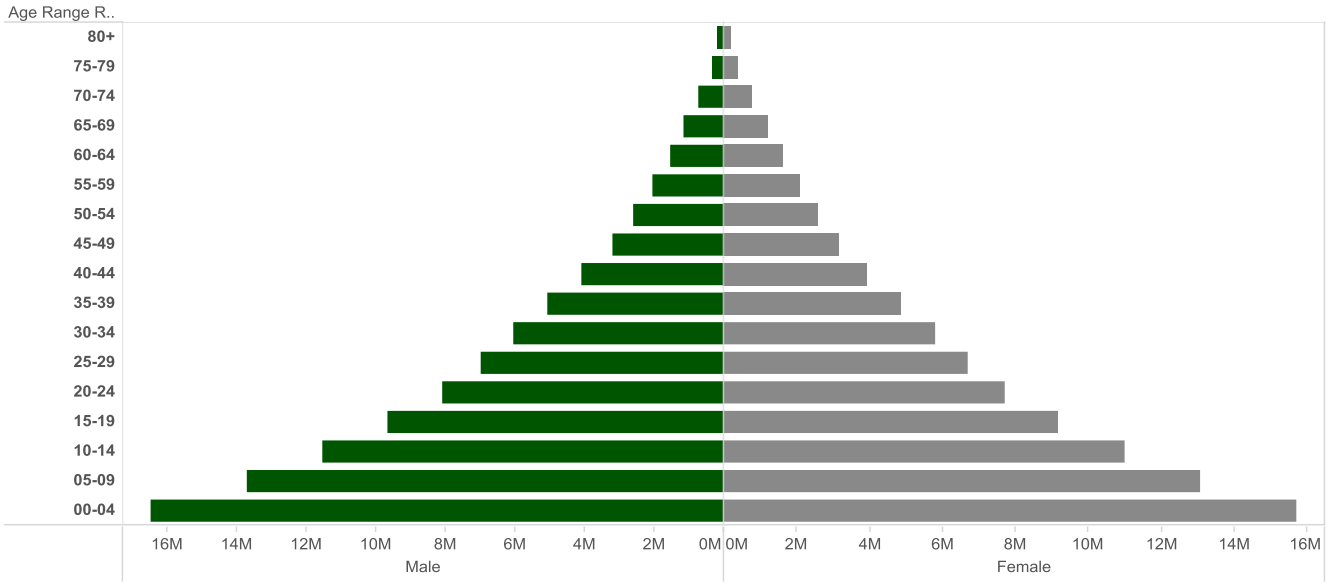
WHAT DOES THIS MEAN?

CHANGE IN POPULATION PYRAMID STRUCTURES

To grasp what population ageing means, it may be best to look at population pyramids over time. A population pyramid illustrates the population distribution by sex across various age groups. As its name indicates, traditionally, the shape of a population pyramid is one with a wide base, with more people in the younger age groups reflecting a high fertility, and fewer people in older age groups as death rates increased with age. This is typically the case for countries in the early stages of development, such as in Nigeria, whose population is still young (see Chart 2 below).[7] However, for many countries, this is no longer the case, as their populations age. This will be particularly true for Japan, which is currently the country whose population is ageing most rapidly, with 25% of the total population were 65 years old and above in 2013, according to the World Bank (see Chart 3 below).[8] Singapore's population pyramid, shown in Chart 4 below, also depicts a move away from the classic triangular shape of a population pyramid, as its population has also aged.

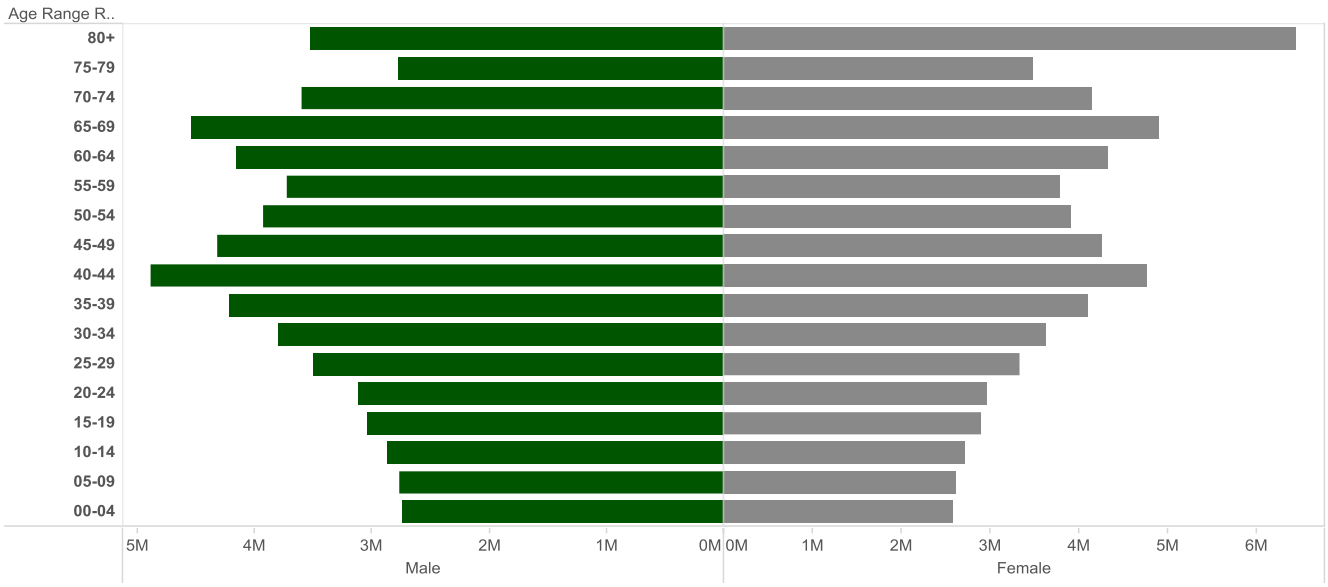
[6] WHO (2011).
[7] Weeks (2014).
[8] World Bank (n.d.).

Chart 2: Nigeria's population pyramid, 2013



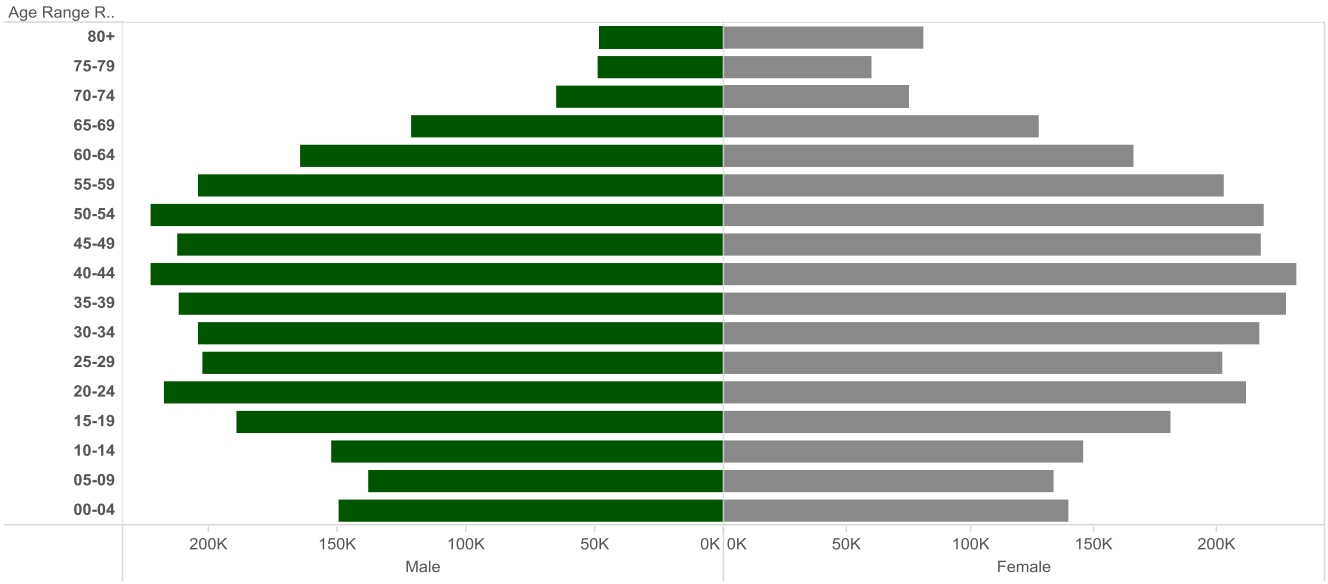
Source: World Bank (n.d.).

Chart 3: Japan's population pyramid, 2013.



Source: World Bank (n.d.).

Chart 4: Singapore's population pyramid, 2013.

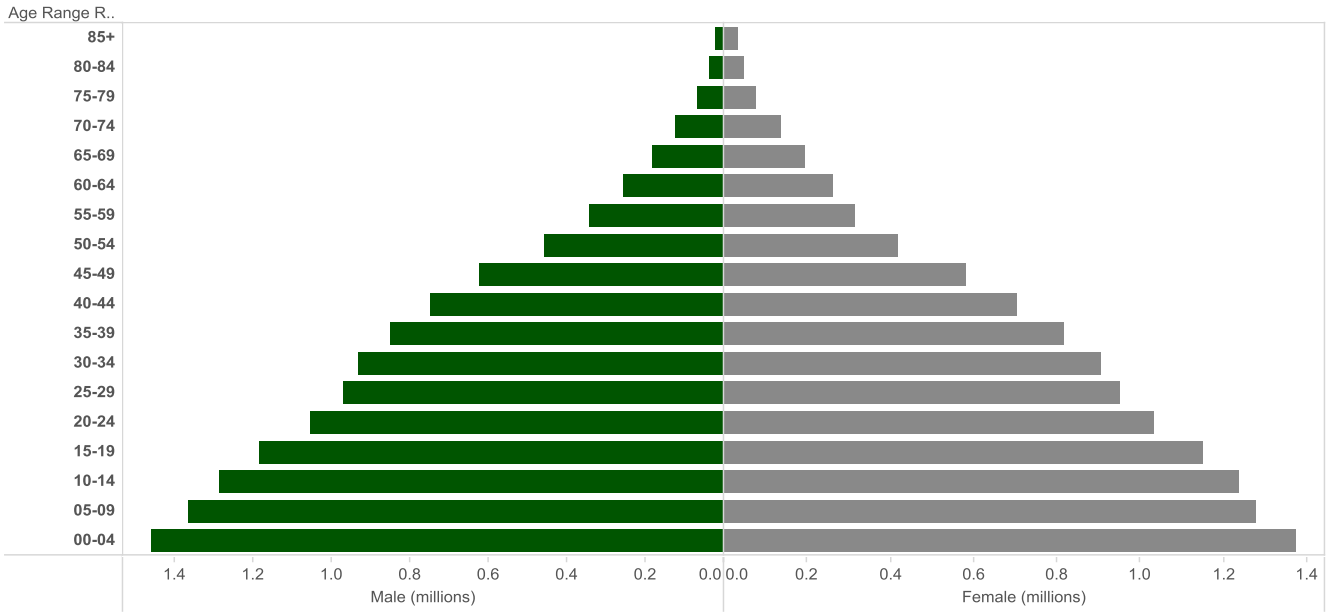


Source: World Bank (n.d.).

MALAYSIA'S POPULATION PYRAMID

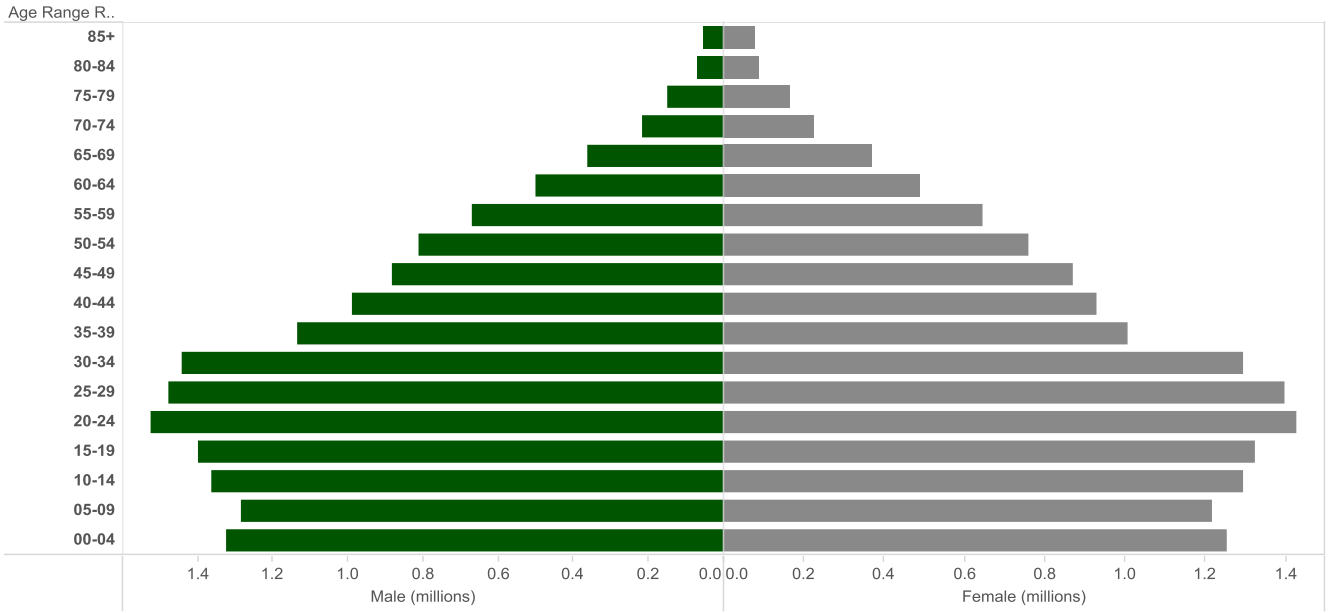
Malaysia will see a change in the structure of the country's population pyramid over the next three decades – into something that less resembles a pyramid, as Charts 5, 6 and 7 below demonstrate.

Chart 5: Malaysia's population pyramid, 2000.



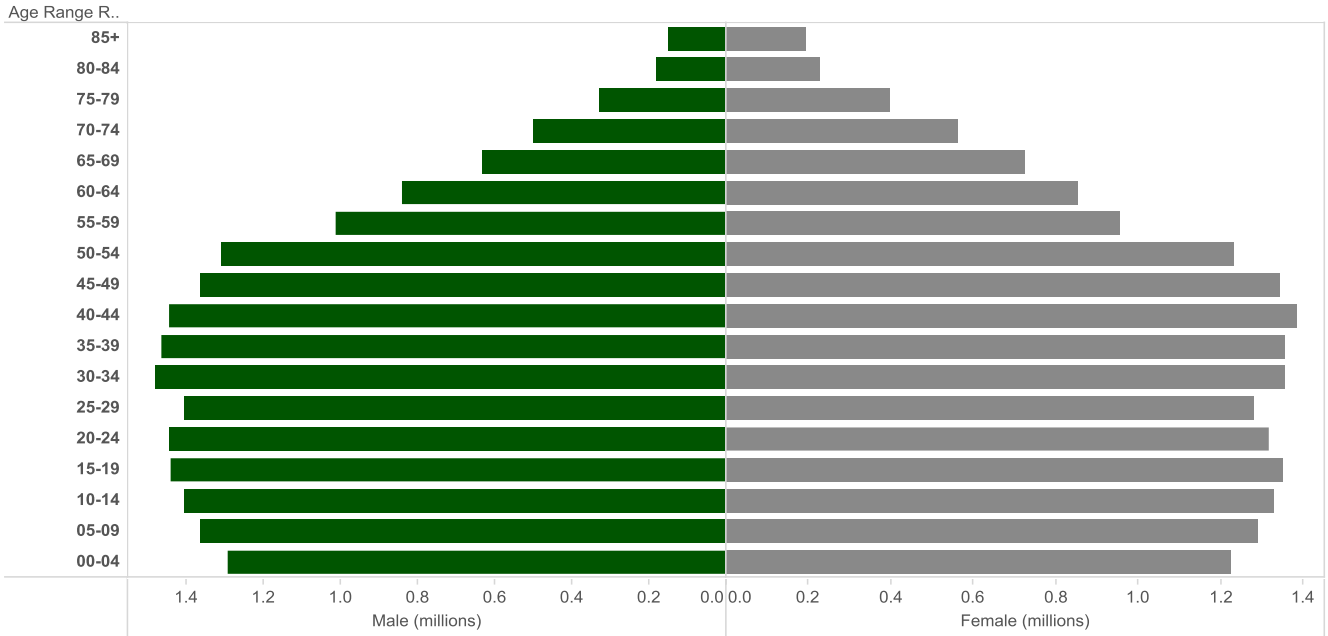
Source: DOS (n.d.).

Chart 6: Malaysia's population pyramid, 2015.



Source: DOS (n.d.).

Chart 7: Malaysia's population pyramid, 2035.



Source: DOS (n.d.).

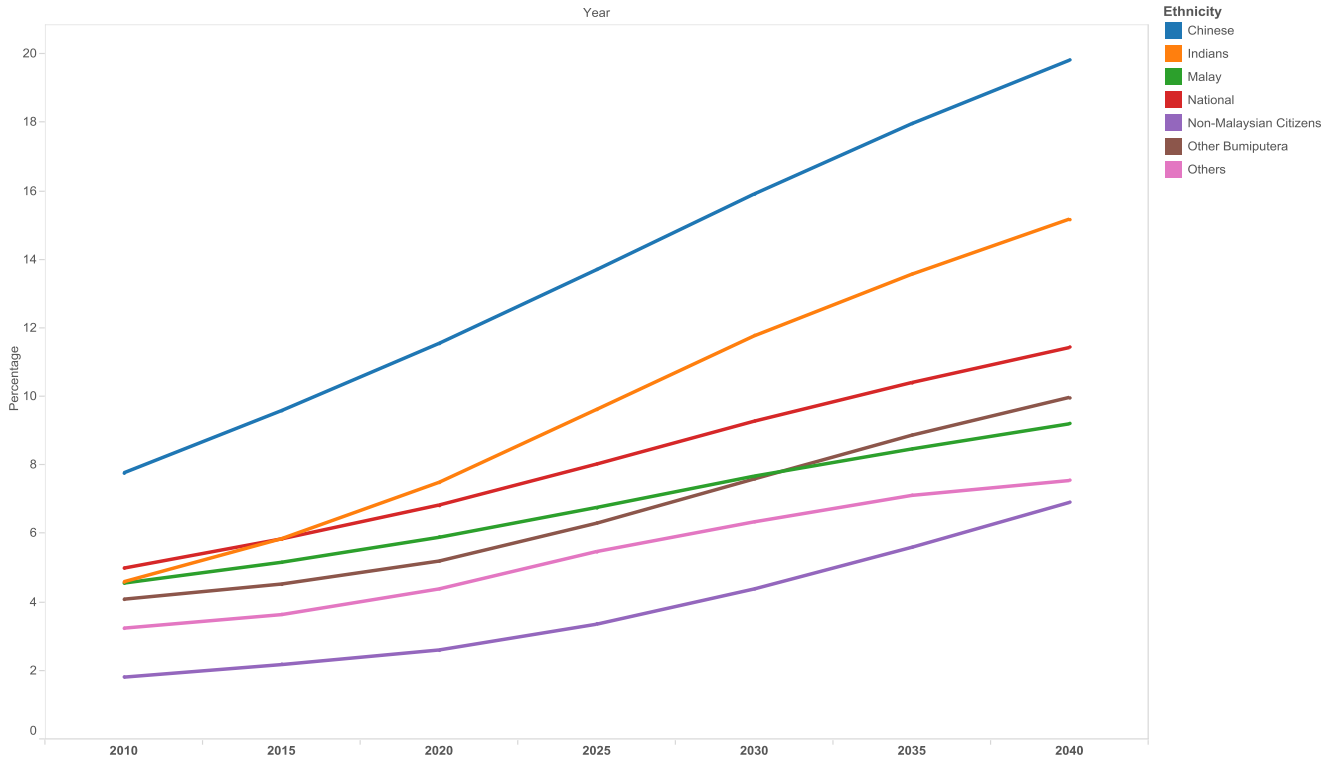
As can be seen in Chart 5, in 2000, Malaysia's age and sex structure still resembled the classic shape of a population pyramid – higher fertility rates and shorter life expectancy meant that there were

more people being born than there are people who make it to old age, leading to the base of the pyramid being the widest part of the structure, which then tapers off towards the older age groups.

However, as can be seen in Chart 6, in 2015, the pyramid has begun to shift upwards, with the base no longer the widest part of the "pyramid". This shows that the proportion of people in the younger age groups is decreasing relative to the older age groups, as fewer children are being born while older people live longer. The change in the structure of Malaysia's population pyramid is particularly prominent in Chart 7 showing the projected population pyramid for the year 2035, which barely resembles a pyramid at this stage.

These population pyramids reflect the future change in the Malaysian population's age structure, which is projected to rapidly move towards an ageing population. Interestingly, this shift is projected to occur particularly rapidly for the Chinese and Indian ethnic groups, as it appears that they are ageing at a faster rate compared to the national average.

Chart 8: The percentage of the population aged 60 years old and above across ethnic groups, 2010-2040.



Source: DOS (n.d.).

As Chart 8 illustrates, while the DOS projections indicate that 15% of the entire national population will be over 60 years old by 2035, the Chinese population is expected to reach this level within the next five years. Similarly, the Indian population is expected to reach this level within

the next 15 years, at least five years earlier than the national average. This is likely a reflection of the lower fertility rates of both the Chinese and the Indian ethnic groups in comparison to the Malays, which in 2012 were 1.7, 1.5 and 2.7 respectively.[9]

Furthermore, Chinese men and women tend to live longer than their Bumiputera and Indian counterparts, as shown in Table 1. This also contributes to the high proportion of older people in the Chinese and Indian ethnic groups compared to Malays. It is difficult to pinpoint the exact reason why certain ethnic groups survive longer compared to other ethnic groups. Several medical studies that studied the differences in disease and mortality patterns across ethnic groups in a population often find that the reason lies not necessarily in genetic differences, rather more as a result of the interplay of socioeconomic factors, including behavior, lifestyle, access to good nutrition and medical care, and level of education.[10] [11]

TABLE 1: LIFE EXPECTANCY AT BIRTH OF THE MAJOR ETHNIC GROUPS, 2012 AND 2040

	2012		2040	
	Male	Female	Male	Female
Total	72.3	77.0	78.0	83.0
Bumiputera	71.0	75.8	76.7	81.4
Chinese	74.8	79.6	80.2	86.4
Indians	67.6	75.8	76.9	84.2

Source: DOS (2014).

[9] DOS (2014).
[10] Anderson et al (2004).
[11] Lim et al (2013).

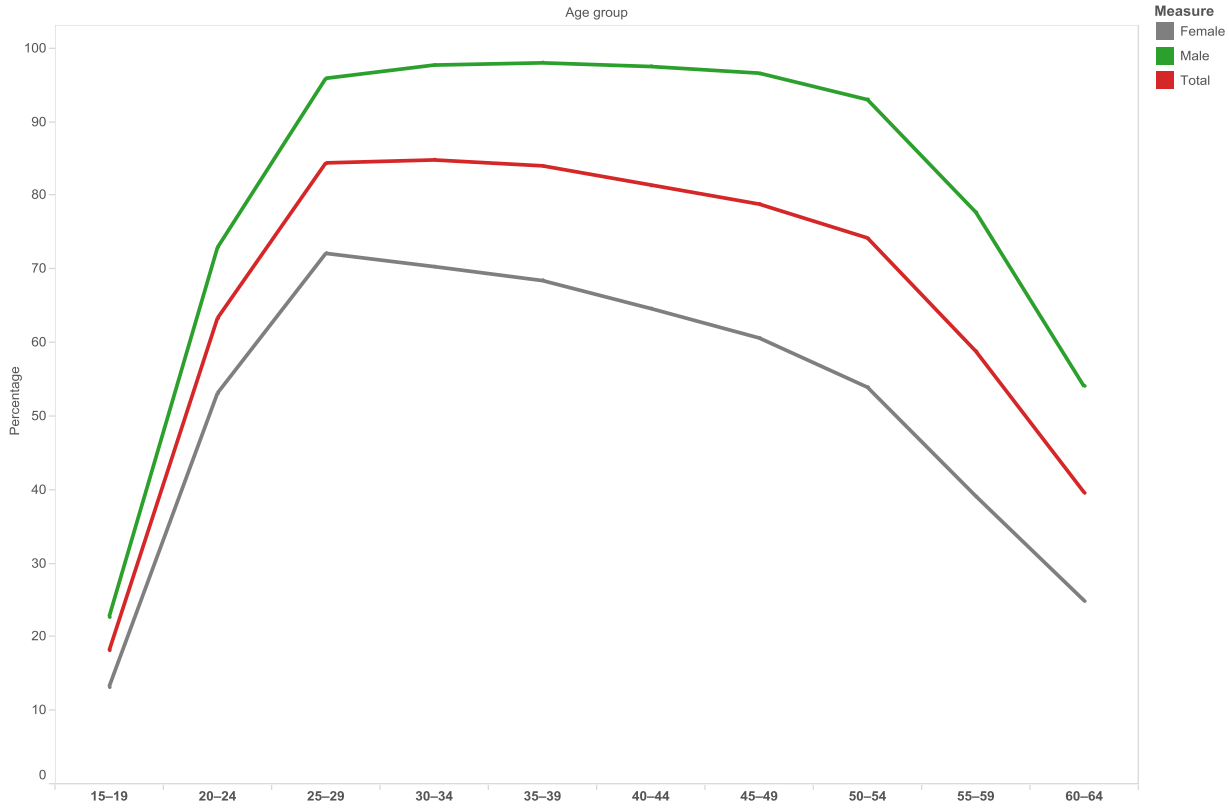
WHAT ARE THE IMPLICATIONS?

Many have voiced concerns over the potential socioeconomic effects of population ageing globally, particularly its effects on economic growth, availability of public funds, and financing of the healthcare system.

REDUCTION IN ECONOMIC GROWTH

A higher proportion of older age groups would limit the population's economic growth, due to a decrease in productivity. This is because there is a tendency for fewer older individuals to participate in the labour force compared to younger and middle-aged individuals. This can be seen in Chart 9 below, showing Malaysia's labour force participation rate, which declines with age, particularly for women. Thus, if the older age groups constitute a large proportion of the total population, this population may see lower productivity compared with a population with predominantly working age (between 15 and 64 years old) individuals.

Chart 9: Malaysia's labour force participation rate by sex and age group, 2014.



Source: DOS (2015).

The overall effect of population ageing on economic growth can be seen in Asia, whose economy has benefited from having a large proportion of working age population to drive regional productivity and growth. However, over the next few decades, Asia is likely to see a substantial decline in the youthful demographic contribution to the region's growth, as it faces a reversal in its demographics pattern and is now set to soon becoming the oldest region in the world.[12] The ADB projects that within 2011-2020, for Hong Kong, the Republic of Korea and Singapore, where population ageing is well under way, the change in demography will already have a negative impact on the growth of the respective economies. By contrast, for China, Thailand and Vietnam, whose population ageing began at a later period, the demographics will initially remain favourable to the economy. However, this will not be sustained for long. In the same report, the ADB predicts that although the populations of Malaysia, Indonesia and the Philippines will be sufficiently youthful to continue to positively contribute to economic growth up until 2030, the proportion of contribution will lessen over time as the share of the working age group shrinks relative to the share of the elderly population.[13]

Strain on Public Funds

Aside from affecting productivity and economic growth, it has also been put forward that a high proportion of older people would put a strain on public funds. For example, in Malaysia, the ratio of people of working age to people 65 years old and over is expected to more than halve within three decades, falling from 13.6 in 2010 to 6.0 in 2040.[14] This would likely result in the overstretching of the pension scheme, since the share of the population who contributes most to the system (through the payment of taxes, particularly income tax) shrinks while the proportion of retirees that require support from the pension scheme grows larger.[15]

Financial Pressure on the Health System

An ageing society may also put a financial pressure on the health system. Healthcare systems to date have been focused on getting people to live longer; less focus has been placed on getting people to live longer *well*. This is demonstrated in the fact that although deaths due to infectious diseases had declined in recent decades, there has been an increase in the number of people living with chronic non-communicable diseases such as hypertension and cancer. For example, diseases of the circulatory (including stroke and heart failure) and respiratory systems (including pneumonia

[12] ADB (2013).
[13] ADB (2011).
[14] DOS (n.d.).
[15] Bloom et al (2015).

and lung cancer) caused almost half of the deaths in Malaysian hospitals in 2013.[16] These diseases are often associated with higher cost of care, as they tend to require life-long treatment. These diseases are also often associated with old age – thus, a higher number of older individuals may put additional financial pressure on the health system and the national economy. For example, a study conducted by the Economist Intelligence Unit (EIU) looking into the trends in cancer cases globally estimated that there were 13 million new cancer cases worldwide in 2009, with a minimum associated cost of USD286 billion, with Asia accounting for 15% of the cost.[17] The WHO has predicted that number of cancer cases and the associated costs will likely continue to rise, especially in Asia, as people live longer but not necessarily healthier, due to the increasing trend of adopting Western diets and lifestyles.[18]

RESPONDING TO POPULATION AGEING

However, the situation may not be as dire as it is sometimes made out to be. Falling fertility rates also means that there are fewer children of non-working age (younger than 15 years old) that have to be financially supported by the working population. Additionally, as women are giving birth to fewer babies, women, with less childcare responsibilities, would be more able to participate in the working force, thus contributing to the economic growth. Moreover, as health systems begin to adapt to the changing demographics, it is possible that the older population would be healthier for longer and would thus be able to extend the period of time in which they could contribute to the working force.[19] Furthermore, the WHO has stated that more and more evidence have emerged indicating that "with appropriate policies and programs … people can remain healthy and independent well into old age and continue to contribute to their communities and families."[20] In line with this, the Malaysian government has identified in its 11th Malaysia Plan (11MP) the need to enhance the quality of life of the elderly, by improving the supportive environment for the elderly and promoting active elderly participation in society.[21]

CONCLUSION

Over the next few decades, Malaysia is expected to follow the global trend of population ageing. Although this demographic transition seems to pose severe negative socioeconomic consequences at the outset, the negative effects are not inevitable – they can be mitigated through concerted efforts by the policymakers. The measures outlined in the 11MP are a step in the right direction

[16] MOH (2014).
[17] EIU (2009).
[18] WHO (2011).
[19] Bloom et al (2015).
[20] WHO (2011).
[21] EPU (2015).

to ensure that the growing elderly population in Malaysia are well taken care of and can remain independent and active members of society. Similar measures, as well as their rigorous implementation, will be increasingly necessary as Malaysia continues to face population ageing over the upcoming decades. Without the implementation of these measures, the country risks neglecting its growing elderly population, at the expense of the nation's economic growth.

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