

URL : <https://news.amdi.usm.my/fullnews.php?id=QVFmcGhsZnhJcVZHTTIDbFdXMURQZz09>

AMDI Magazine

e-issn 2735-041X, Volume 5, Issue 2 (2024)

Expert Column

# Navigating the Challenges of an Aging Population, Healthcare, and Blood Transfusion Services in Malaysia

DR. CHUAH SEAN YEW (MASTER OF MEDICINE (TRANSFUSION MEDICINE)), DR. NUR ARZUAR BIN ABDUL RAHIM (MEDICAL LECTURER)

[f Share on Facebook](#) [WhatsApp \(Mobile Only\)](#)

PUBLISHED : 05 DECEMBER 2024



Photo By IPPT

Dr. Chuah Sean Yew (Master of Medicine (Transfusion Medicine)) and Dr. Nur Arzuar Bin Abdul Rahim (Medical Lecturer)

## Introduction

As Malaysia's population ages and non-communicable diseases (NCDs) become more prevalent, our healthcare system faces unprecedented challenges. This essay explores Malaysia's progress in healthcare, the impact of demographic shifts, and the critical need for forward-looking policies that meet the evolving demands of the nation, particularly in blood transfusion services. By addressing these challenges, Malaysia can build a healthcare system that supports the needs of all generations.

## Progress in Malaysian Healthcare

Since gaining independence, Malaysia's public health system has made remarkable strides. Life expectancy has increased from 53 years in the 1950s to 76 years in 2024<sup>1</sup>. The reduction in maternal mortality rates is also commendable, decreasing from 282.2 per 100,000 live births in 1957 to 25.7 in 2024<sup>2</sup>. Malaysia was also the first country in the World Health Organization's Western Pacific Region to eliminate mother-to-child transmission of HIV and syphilis<sup>3</sup>. These milestones underscore our strong commitment to public health and the well-being of all Malaysians.

## Malaysia's Changing Demographics

While we celebrate these accomplishments, new challenges loom. More Malaysians are now living well into their 70s and 80s, while the fertility rate has declined from 6.3 births per woman in 1960 to just 1.9 in 2024<sup>4</sup>. This sharp reduction results in an increasing proportion of older Malaysians and a shrinking younger population.

## The "Silver Tsunami" in Malaysia

The United Nations defines a "super-aged" society as one in which over 20% of the population is aged 65 or older. Japan is currently the world's oldest super-aged society, with projections that one-third of its population will be over 65 by 2036<sup>5</sup>. In Malaysia, the Department of Statistics projects that by 2040, 14.5% of the population will be 65 or older, reaching 20.5% by 2057<sup>6</sup>. Scholars use the term "silver tsunami" to describe the rapid expansion of the elderly population, which will require strategic healthcare planning and resource allocation<sup>7</sup>.

## Current and Future Healthcare Challenges

The increased life expectancy in Malaysia is a direct result of socioeconomic progress and an urban shift in economic activities. As more Malaysians live in cities, sedentary lifestyles and high-calorie diets have contributed to rising obesity rates. In 2023, Malaysia topped the obesity list in Southeast Asia, with half of Malaysians classified as overweight or obese<sup>7</sup>. This trend is closely linked to Type II diabetes, affecting one in five Malaysians<sup>8</sup>. Together, these conditions mean that while Malaysians are living longer, many are experiencing more health complications associated with NCDs.

In 2019, ischemic heart disease (20.6%) and cerebrovascular disease (13.9%) were the leading causes of death<sup>9</sup>. However, by 2023, pneumonia had emerged as the top cause of death, reflecting the long-term effects of COVID-19<sup>10</sup>. Although ischemic heart disease remains the main cause of death among individuals aged 40-59, pneumonia has overtaken it in those aged 60 and above. As the effects of COVID-19 subside, NCDs are likely to return as the primary mortality drivers among older adults. The burden of NCDs, combined with an aging population, places significant pressure on Malaysia's healthcare system. Dementia, for example, is now a major cause of disability among older adults<sup>11</sup>. Obesity is heavily linked to Type II diabetes, which in turn increases the risk for conditions like dementia, coronary artery disease, and cerebrovascular disease<sup>12</sup>. As the saying goes, "prevention is better than cure"—by preventing obesity and diabetes, Malaysia can save valuable healthcare resources and improve quality of life.

The Ministry of Health has taken steps, such as implementing a sugar-sweetened beverage (SSB) tax of RM0.40 per litre in 2019, increasing to RM0.90 in January 2025<sup>13</sup>. Studies show that SSB taxes reduce consumption, particularly among low-income groups. Additionally, the Fit Malaysia campaign, launched in 2014, promotes physical activity<sup>14</sup>. However, despite these efforts, obesity and diabetes rates remain high.

## Learning from Singapore

Singapore faces similar challenges with an aging population and rising obesity and diabetes rates. To address this, Singapore established the Health Promotion Board in 2001, promoting healthy lifestyle choices<sup>15</sup>. By 2018, surveys showed Singaporeans were consuming fewer calories and more whole grains, fruits, and vegetables<sup>16</sup>. Programs like the Healthier Choice Symbol (HCS) on packaged foods and the Healthier Dining Programme (HDP), which subsidises healthier menu options, have contributed to these positive trends. Singapore's National Steps Challenge<sup>17</sup>, which incentivises physical activity with rewards, has also encouraged healthier living<sup>17</sup>. Malaysia has adopted some similar measures, like the Healthier Choice Logo in 2017<sup>18</sup>. However, the Malaysian government could further incentivise healthy choices, as Singapore has done. Singapore's lower obesity and diabetes rates demonstrate the effectiveness of these initiatives.

## Transfusion Services and the Aging Population

As Malaysia's population ages, the demand for blood transfusion services rises. Older adults in developed countries are more likely to require transfusions due to conditions such as anaemia—often secondary to chronic diseases like diabetic nephropathy, congestive heart failure, and cancer—and age-related surgeries like joint replacements and cardiac procedures<sup>19</sup>. These demands will place greater strain on the blood supply, which will require sustained donations to keep pace with demand. Currently, only 2.2% of Malaysians donate blood annually, compared to 3.5–5% in developed countries<sup>20</sup>. In the past year, only 46,000 new donors were aged 17–24, while just 32,000 were aged 25–34<sup>21</sup>. As younger donors are crucial to sustaining blood donation programs, our demographic shift to silver tsunami poses a serious risk to the stability of Malaysia's blood supply. To address this, transfusion services must readily target to retain and recruit more older donors. However, without large pool of healthy adults, we will never succeed in enlarging our donor base. Hence, reducing obesity and diabetes rate should be the common quest for transfusion medicine and public health fraternity. Transfusion medicine staff should always promote healthy lifestyle to existing and potential blood donors.

Malaysia's healthcare system is known for affordability, with nominal fees in public facilities. Regular blood donors receive incentives such as waived inpatient and outpatient fees, but these may be less appealing given the already low fees for non-donors. Rather than offering financial incentives, which could conflict with voluntary donation principles, raising awareness about blood donation's importance can foster a sense of altruism.

## Leveraging Technology in Transfusion Services

Artificial intelligence and digital platforms can enhance blood donor recruitment and retention. For instance, the Ministry of Health's new Rekod Saya app, which tracks personal health information, could also educate and promote blood donation. Artificial intelligence could be utilised to analyse the existing big data to help forecast the best time and place to hold blood donation drives. Real time data on blood demand and stock can help to manage blood stock effectively and avoid wastage. For example, surplus blood supply at a particular blood centre can be easily redistributed to centre which is facing shortage. Without AI, the process of coordinating blood stock is time consuming and laborious.

While advanced technology is valuable, a culture of altruism remains key to a safe, sustainable blood supply. Malaysians are known for our generosity; with the right policies and effective implementation, our donation rates can match those of developed nations

## Conclusion

Malaysia's aging population presents unique healthcare challenges, particularly in transfusion services and public health. While we have made notable progress, sustaining these achievements requires proactive, innovative healthcare strategies. By strengthening transfusion services, enacting adaptable policies, and fostering community support, Malaysia can ensure a healthcare system that remains equitable, efficient, and compassionate for all citizens. Through foresight and collaboration, we can secure a healthy future for the entire nation.

## Reference:

1. [https://datacommons.org/tools/timeline#&place=country/MYS&statsVar=LifeExpectancy\\_Person](https://datacommons.org/tools/timeline#&place=country/MYS&statsVar=LifeExpectancy_Person)
2. [https://open.dosm.gov.my/data-catalogue/deaths\\_maternal?visual=rate](https://open.dosm.gov.my/data-catalogue/deaths_maternal?visual=rate)
3. [https://www.who.int/news/item/07-10-2018-malaysia-eliminates-mother-to-child-transmission-of-hiv-and-syphilis#:~:text=Malaysia eliminates mother-to-child transmission of HIV and syphilis,-7 October 2018&text=Malaysia was today certified by,Region to achieve this milestone.](https://www.who.int/news/item/07-10-2018-malaysia-eliminates-mother-to-child-transmission-of-hiv-and-syphilis#:~:text=Malaysia%20eliminates%20mother-to-child%20transmission%20of%20HIV%20and%20syphilis,-7%20October%202018&text=Malaysia%20was%20today%20certified%20by,Region%20to%20achieve%20this%20milestone.)
4. [https://open.dosm.gov.my/data-catalogue/fertility?age\\_group=tfr&visual=fertility\\_rate](https://open.dosm.gov.my/data-catalogue/fertility?age_group=tfr&visual=fertility_rate)
5. [https://www.oecd-ilibrary.org/docserver/f7ebe745-en.pdf?expires=1731308775&id=id&accname=guest&checksum=3F78AF5941A429E3DC03BA1B7EF75E2F#:~:text=Definitio and comparability&text=In this report, we qualify,share is 21% or higher.](https://www.oecd-ilibrary.org/docserver/f7ebe745-en.pdf?expires=1731308775&id=id&accname=guest&checksum=3F78AF5941A429E3DC03BA1B7EF75E2F#:~:text=Definitio%20and%20comparability&text=In%20this%20report,%20we%20qualify,share%20is%2021%20or%20higher.)
6. <https://www.malaymail.com/news/malaysia/2024/09/06/dosm-malaysia-to-become-aged-nation-by-2040-with-population-over-60-set-to-surge/149508#>
7. [https://pmc.ncbi.nlm.nih.gov/articles/PMC7908089/#:~:text=Among Southeast Asian countries, Malaysia,from 4.4% to 17.7%.](https://pmc.ncbi.nlm.nih.gov/articles/PMC7908089/#:~:text=Among%20Southeast%20Asian%20countries, Malaysia,from%204.4%20to%2017.7%.)
8. [https://www.moh.gov.my/moh/resources/Penerbitan/Rujukan/NCD/Diabetes/National\\_Diabetes\\_Registry\\_Report\\_2013-2019\\_26082021.pdf](https://www.moh.gov.my/moh/resources/Penerbitan/Rujukan/NCD/Diabetes/National_Diabetes_Registry_Report_2013-2019_26082021.pdf)
9. <https://iku.nih.gov.my/images/poster2023/84.pdf>
10. [https://www.bernama.com/en/general/news.php?id=2357696#:~:text=Mohd Uzir further said that,deaths, or 16.4 per cent.](https://www.bernama.com/en/general/news.php?id=2357696#:~:text=Mohd%20Uzir%20further%20said%20that,deaths,%20or%2016.4%20per%20cent.)
11. <https://www.who.int/news-room/fact-sheets/detail/dementia>
12. <https://pmc.ncbi.nlm.nih.gov/articles/PMC9408882/>
13. <https://www.malaymail.com/news/malaysia/2024/10/18/crave-a-sweet-drink-heres-how-much-will-you-can-expect-to-pay-for-sodas-and-sweet-teas-in-2025/154083>
14. <https://www.bharian.com.my/taxonomy/term/3/2014/09/4994/fitmalaysia-gelombang-ubah-gaya-hidup-rakyat-bersukan>

15. <https://www.hpb.gov.sg/about/about-us>
16. <https://www.moh.gov.sg/newsroom/speech-by-mr-ong-ye-kung-minister-for-health-at-world-diabetes-day-2021>
17. <https://www.ourcommons.ca/Content/Committee/421/HESA/Brief/BR10093093/br-external/MinistryOfHealth-Singapore-e.pdf>
18. [https://www.moh.gov.my/moh/resources/Pemakanan/Buku\\_Guidelines\\_on\\_Healthier\\_Choice\\_Logo\\_Malaysia1.pdf](https://www.moh.gov.my/moh/resources/Pemakanan/Buku_Guidelines_on_Healthier_Choice_Logo_Malaysia1.pdf)
19. <https://www.who.int/news-room/fact-sheets/detail/blood-safety-and-availability>
20. <https://pmc.ncbi.nlm.nih.gov/articles/PMC8260069/>
21. <https://data.moh.gov.my/dashboard/blood-donation>

SDG 3 - Ensure healthy lives and promote well-being for all at all ages