

Healthy Ageing & the Role of Life-Course Immunisation: Southeast Asia Roundtable Series

Singapore Key Takeaways



Healthy Ageing & the Role of Life-Course Immunisation

7 July 2021

Asia's population is ageing. By 2050, about 25% of Asia's population will be made up of older adults aged 60 and above.¹ Asia is also projected to house 62% of the elderly population, which makes the region the oldest in the world.²

The United Nations has proclaimed 2021-2030 to be the Decade of Healthy Ageing,³ to improve the lives of older people, their families and communities. An equally important and complementary strategy is that of the World Health Organization's Immunization Agenda 2030,⁴ to ensure that everyone, everywhere, at every age, fully benefits from vaccines to improve health and wellbeing – including older adults.

Despite the obvious benefits, Southeast Asia lags behind the rest of the world when it comes to life-course immunisation – falling significantly short of the 75% immunisation target rate set by the World Health Organisation.⁵

In response, the EU-ASEAN Business Council, KPMG and Sanofi, with the support of the Western Pacific Pharmaceutical Forum (WPPF) in 2021, published a report on 'The Decade of Healthy Ageing in ASEAN: Role of Life-course Immunisation',⁶ unveiling healthy ageing barriers in Southeast Asia and calling for an urgent and greater focus on the implementation of life-course immunisation.

To ensure that the report recommendations translate into relevant and actionable solutions at a country level, a series of five roundtables are being organised across Southeast Asia. The Singapore roundtable was held on 7 July 2021, with multi-stakeholders in Singapore from various sectors, including health policy, healthcare industry, academia, elderly advocacy groups and health technology. The attendees aligned on progressive policy activities and devised a national roadmap to improve the access to and uptake of life-course immunisation in Singapore.

The Chatham House Rule was applied during the roundtable. The insights and solutions gathered during the roundtable have been summarised in this report, with no direct attribution to any participants. However, contributing participants and organisations have been credited as a contributor to these highlights.

We thank all roundtable participants for their valuable contribution.

Life-course immunisation landscape in Singapore

Singapore is currently classified as an ageing society and will soon be an aged society. By 2050, it is projected that the elderly population will make up 35% of the whole population.⁷ As we age, our immune system becomes weaker, which increases the incidence of diseases, such as influenza. The average influenza-associated deaths among adults aged 65 and above is estimated at 167.8 per 100,000 people annually in Singapore.⁸

As well as increasing mortality rates, it is projected that healthcare costs in Singapore will rise significantly as a result of its ageing population. The annual expenditure for the elderly is expected to increase tenfold to SGD 49 billion in 2030.⁹ There is also a total of 157,000 lost work days across the whole population.¹⁰

Life-course immunisation is a critical pillar to achieve a healthy ageing population. Many diseases that affect the ageing population can be prevented by immunisation. For example, the risk of heart attack increased by 6-10 times following influenza infections and vaccination can play a role in reducing this risk.^{11,12,13} As well as an efficient way of disease prevention, life-course immunisation is cost-effective. There was a return of USD 51 for every USD 1 spent on immunisation programs from 2011 to 2020 in low- and middle-income countries.¹⁴

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Despite the introduction of a National Adult Immunisation Schedule (NAIS) in 2017, the rate of adult vaccination in Singapore is well behind the WHO goal. For example, influenza vaccination among the elderly population in Singapore is currently between 14-20%.¹⁵

There was a consensus that the Singapore government has played and will continue to play an important role in driving a successful national immunisation program. Beyond this, there is a need to further leverage and elevate the infrastructure that's already in place – such as national databases – to conduct targeted and personalised communication. Engaging with the private sector as well as providers in primary care settings can further help to support uptake of life-course immunisation.

What are the barriers to life-course immunisation uptake in Singapore?

The Singapore government has prioritised healthy ageing and set a nationwide SGD 3 billion budget for an Action Plan for Successful Ageing.¹⁶ The NAIS, established in 2017, outlines vaccine recommendations for 11 infectious diseases, which are eligible for subsidies.¹⁷ Health data is stored centrally and can be accessed by providers and patients via the National Immunisation Register. However, as highlighted by the EU-ABC, KPMG, Sanofi and WPPF report, awareness of the benefits of vaccination included in the NAIS is low. There is generally a low level of health education across the population, with 9 in 10 elderly Singaporeans aged 65 and above possessing limited English Health Literacy.¹⁸ Additionally, issues of misperception and hesitancy are on the rise in Singapore due to an 'infodemic' of information.

Beyond the report, participants also discussed additional barriers, as follows:

Education and awareness

Education and awareness remains a key barrier to life-course immunisation uptake in Singapore, which in this context does not only refer to public campaigns, but also media education and identifying sources of information that are credible.

1. Media understanding of vaccines.

Among members of the media, there remains misperception on vaccination, especially those that are considered 'elective' vaccinations like influenza, which could lead to misrepresentation of information in the media and consequently vaccine hesitancy in Singapore.

2. Unverified information sources.

Many senior citizens obtain information from unreliable and unverified sources, such as Facebook articles and forwarded messages on WhatsApp. Many also rely on immediate family members and friends for health advice, who may not necessarily have the right information at hand.

3. Generic public campaigns.

Due to the mass nature of public education campaigns, they can be homogenous in their approach and may not take into account the varied socio-economic backgrounds, language and age of the target audience. For example, the socio-economic and primary language of one 60-year-old in Singapore could drastically differ from that of another 60-year-old in Singapore, and the same campaign may appeal to one but not the other.

Value of life-course immunisation

When it comes to healthy ageing, prevention is a key topic that is discussed in Singapore. Adopting a healthy lifestyle to avoid chronic diseases (e.g. the BEAT Diabetes campaign), strengthening muscles in order to avoid frailty and falls are just some of the examples of such prevention campaigns. However, life-course immunisation rarely features in this prevention discourse. Additionally, information related to older adults, such as retirement, chronic diseases and frailty, is disseminated in silos, which may not leave enough resources to address other pressing health issues such as life-course immunisation.

Operationalising life-course immunisation

Different priorities exist in primary care, which could lead to life-course immunisation not being given as high a priority. Additionally, the process for immunisation

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reimbursement can be complicated for some, especially in the private market, where 80% of Singaporean primary care exists. Finally, with different vaccinations on the NAIS, the public may not be aware of which to prioritise.

What are the solutions to life-course immunisation uptake in Singapore?

The EU-ABC, KPMG, Sanofi and WPPF report highlights three recommendations for Singapore:

- 1. Incentivise practitioner-led advocacy.** Practitioner from healthcare facilities, home care, nursing homes and old age homes should be incentivised, so there is wider access for patients to obtain vaccinations.
- 2. Increase support for non-governmental organisations & grassroots organisations.** Non-governmental and grassroots organisations can be supported through grants and funds to conduct marketing and outreach efforts such as creating and distributing guidebooks and toolkits on the benefits and importance of vaccination.
- 3. Target earlier ages for intervention.** Explore delivery and financing mechanism for earlier ages, so younger adults are more aware of vaccination benefits for their later life.

Beyond the report, participants also discussed additional solutions, as below.

Participants discussed the need to lay the foundation by establishing the value and importance of vaccination through the right communication and messages.

Overarching approach: Honing messages and narratives around life-course immunisation

Communication is key. Understanding the channels of communication, specifically where older adults and their caregivers are obtaining information, is needed to build an effective communication strategy that utilises a multi-channel approach. For example, older adults are increasingly using digital applications while their family members, such as their grandchildren, are using new platforms like TikTok. As such, a diversified approach is needed. At the same time,

targeted and customised messaging and approaches are needed, taking into account languages and socio-economic background, to effectively target different segments of the ageing population.

COVID-19 has created an awareness of the role of vaccines on a scale that has never before been seen. This momentum should be leveraged to translate the messaging and learnings towards messaging for other types of vaccination. Similar to messaging around COVID-19 vaccines, a two-pronged approach to messaging around life-course immunisation can be adopted, in particular to highlight the value of life-course immunisation: the benefits of life-course immunisation, as well as the consequences of not getting vaccinated such as health complications and the loss of independence resulting from health complications.

As Singapore is an ageing population, undoubtedly there are a number of programs addressing various aspects of ageing such as chronic diseases, preparing for retirement and health screening. Stakeholders should look into combining messages related to ageing, as well as including life-course immunisation, in order to consolidate the mass of information available as well as to share a more holistic approach to healthy ageing.

Government-led policies

1. Leverage national data infrastructure to push vaccine reminders.

Singapore already has strong and secure data infrastructure in place. By leveraging these existing databases and insights, automated and personalised reminders for vaccination can be sent to target audiences – older adults or their caregivers – through smartphones or even paper reminders.

2. Clinical incentives

Life-course immunisation should be included as part of Continuing Medical Education for healthcare providers to further encourage enthusiasm and increase awareness of the benefits of vaccination, which are then relayed to patients.

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3. Policies to expand authorisation of immunisation administration.

With different priorities and resources at primary care clinics, one way to put a focus on immunisation is to utilise different touchpoints, such as nursing homes and pharmacies, where nurses and pharmacists respectively can administer vaccination. These healthcare providers will also be specially trained to address issues and provide information around healthy ageing and the role of life-course immunisation, subsequently helping to dispel misconceptions and hesitancy about vaccines. However, for pharmacies in particular, a financing mechanism will need to go hand-in-hand with the authorisation of vaccination.

4. Public incentives.

As with other national health programmes in Singapore that have adopted an incentive-based approach like

the National Steps Challenge, incentivising vaccination uptake can help engage Singapore's elderly on the benefits of vaccination.

Corporate-led initiatives

Provision of annual vaccination programs within employee health benefits can incentivise more individuals to vaccinate. To support these health benefit programs, insurance programs can be developed to incentivise uptake of vaccination.

Collaboration between various organisations that focus on ageing-related topics should be fostered in order to pool together resources that will be able to address healthy ageing in a holistic way – from exercise and nutrition to financial planning for retirement right down to life-course immunisation.

Attendees

- Ada Wong – Sanofi Asia Public Affairs Lead
- Ardi Hardjoe – Thye Hwa Kwan Nursing Home
- Azwar Kamaruddin – Novartis
- Charles Bark – HiNounou
- Chris Hardesty – KPMG Asia-Pacific Healthcare & Life Sciences Director (Moderator)
- Chris Humphrey – EU-ASEAN Business Council Executive Director (Moderator)
- Jacqueline Beh – Lions Befrienders Service Association
- John Jackson – Western Pacific Pharmaceutical Forum President
- Karen Wee – Lions Befrienders Service Association
- Krystal Wai Yee Khine – Public health and policy expert
- Li Na Lim – Lions Befrienders Service Association
- Marion Neubronner – NUS Medicine International Council, National University of Singapore
- Mark Chan Peng Chew – Centre for Geriatric Medicine, Tan Tock Seng Hospital
- Maximilian Unfried – The Centre for Healthy Longevity, National University of Singapore
- Qi Feng Tan – Lions Befrienders Service Association
- Rueben Ng – Lee Kuan Yew School of Public Policy, National University of Singapore
- Sairam Azad – AWWA
- Whei Chern Ho – Fullerton Health
- Zhe Han – Pharmacy-Based Immunisation Delivery Training Program, National University of Singapore

References

1. United Nations, Department of Economic and Social Affairs, Population Division. (2015). 'World Population Ageing: 2015'. [Online]. Available: https://www.un.org/en/development/desa/population/publications/pdf/ageing/WPA2015_Report.pdf.
2. J Menon & A Melendez-Nakamura, Asia Development Bank. (2009). 'Aging in Asia: Trends, impacts and responses'. [Online]. Available: <https://www.adb.org/sites/default/files/publication/28500/wp25-aging-asia.pdf>.
3. World Health Organisation. 'UN Decade of Healthy Ageing: 2021-2030'. [Online]. Available: <https://www.who.int/initiatives/decade-of-healthy-ageing>.
4. World Health Organisation. (2020). 'Immunisation Agenda 2030: A Global Strategy to Leave No One Behind'. [Online]. Available: <https://www.who.int/teams/immunization-vaccines-and-biologicals/strategies/ia2030>.
5. EU-ABC, KPMG, Sanofi and WPPF. (2021). 'The Decade of Healthy Ageing in ASEAN: Role of Life-course Immunisation'. Available: <https://healthyageingasean.org>.
6. EU-ABC, KPMG, Sanofi and WPPF. (2021). 'The Decade of Healthy Ageing in ASEAN: Role of Life-course Immunisation'. Available: <https://healthyageingasean.org>.
7. United Nations, Department of Economic and Social Affairs, Population Division (2019). Probabilistic Population Projections Rev. 1 based on the World Population Prospects 2019 Rev. 1. [Online]. Available: <http://population.un.org/wpp/>
8. A. Chow, S. Ma, A.E. Ling, S.K. Chew. 'Influenza-associated deaths in tropical Singapore.' Emerg Infect Dis. 2006;12(1):114-121.
9. Oliver Wyman. (2016). 'Asia's \$20 Trillion Elderly Medical Bill: Will rising elderly healthcare costs slowly fuel a regional healthcare crisis?' [Online]. Available: https://www.oliverwyman.com/content/dam/oliver-wyman/v2/publications/2016/dec/RJ6_1_4-Asias-Elderly_Medical_Bill.pdf.
10. T.P. Ng, K.H. Pwee, M. Niti, L. G. Goh. 'Influenza in Singapore: assessing the burden of illness in the community' Annals of the Academy of Medicine, Singapore. 2002;31(2):182-188.
11. J.C. Kwong, K.L. Schwartz, M.A. Campitelli, H. Chung, et al. 'Acute myocardial infarction after laboratory-confirmed influenza infection.' The New England Journal of Medicine. 2018;378(4):345-353.
12. C. Warren-Gash, L. Smeeth, A. C. Hayward. 'Influenza as a trigger for acute myocardial infarction or death from cardiovascular disease: a systematic review.' The Lancet Infectious Diseases. 2009;9(10):601-610.
13. C. Warren-Gash, R. Blackburn, H. Whitaker, J. McMenamin, A. C. Hayward. 'Laboratory-confirmed respiratory infections as triggers for acute myocardial infarction and stroke: a self-controlled case series analysis of national linked datasets from Scotland.' European Respiratory Journal. 2018;51(3):1701794.
14. S.Y. Sim, E. Watts, D. Constenla, L. Brenzel, B.N. Patenaude. 'Return on investment from immunization against 10 pathogens in 94 low- and middle-income countries, 2011–30.' Health Affairs. 2020;39(8):1343-1353.
15. Chua A. (2017). MOH introduces new list of recommended vaccine jabs for adults. Today Online. Oct 22. [Online]. Available: <https://www.todayonline.com/singapore/moh-introduces-new-list-recommended-vaccine-jabs-adults>
16. T.Z. Woon, K. Zainal, Civil Service College Singapore (2018). Successful ageing: Progressive governance and collaborative communities. [Online]. Available: <https://www.csc.gov.sg/articles/successful-ageing-progressive-governance-and-collaborative-communities>
17. Ministry of Health Singapore (2021). Nationally Recommended Vaccines. [Online]. Available: <https://www.moh.gov.sg/resources-statistics/nationally-recommended-vaccines>
18. S. Suppiah, Y.W. Tan, G.H-L. Cheng, W.E. Tang, R. Malhotra. Mediators of the association of limited English health literacy with medication non-adherence among Singaporean elderly. Proceedings of Singapore Healthcare. 2020;29(1): 25-32.