Tsao Foundation

ILC Singapore
International Longevity Centre
A Tsao Foundation Initiative

IMMUNISATION OF OLDER ADULTS IN THE ASIA PACIFIC: BARRIERS, FACILITATORS, AND STRATEGIES TO IMPROVE ACCESS TO VACCINES

POLICY BRIEF

PHASE I

(AUSTRALIA, SINGAPORE, INDONESIA, AND PHILIPPINES)

Publishers

About Tsao Foundation

Tsao Foundation is dedicated to transforming the ageing experience so the extra decades of life in longevity is an opportunity for us to actualise our full potential for growth, well-being, and fulfilment in a society for all ages. Established in 1993 as a non-profit, operational foundation, Tsao Foundation is an Institution of Public Character (IPC) with the goal of being a catalyst for constructive change at practice, systems and policy levels through innovations and excellence.

Ageing-in-place and active ageing have been our battle cry since inception. For almost three decades, Tsao Foundation has pioneered new approaches, services and programmes in ageing, longevity, and community-based eldercare, and the Foundation's work is taken forward through four synergistic initiatives: Hua Mei Centre for Successful Ageing, Community for Successful Ageing (ComSA), Hua Mei Training Academy and International Longevity Centre Singapore.

For more information, please visit www.tsaofoundation.org.

International Longevity Centre Singapore

The International Longevity Centre Singapore (ILC Singapore) aims to promote the well-being of older people and contribute to national development through supporting policy, practice and capacity building by enabling a "connecting of the dots" between community, practitioners, academia, policy makers and the private sector through the creation of relevant stakeholder platforms as well as high impact research that strives to inform policy, facilitate cogen policy-action translation, and promote quality, effective practice in Singapore and internationally.

ILC Singapore is member of the ILC Global Alliance, a multinational research and education consortium which aims to address longevity and population ageing in positive and productive ways, typically using a life course approach, highlighting older people's productivity and contributions to family and society as a whole.

As an initiative of the Tsao Foundation, ILC Singapore's mission is to drive for constructive change in how society approaches and responds to ageing.

Website: https://tsaofoundation.org/what-we-do/research-and-collaboration/about-ilc-singapore

Acknowledgement

We would like to acknowledge the funding support for this study from MSD. We would like to acknowledge Research For Impact as the lead authors of this report, with contributing authors from the Centre for Behavioural and Implementation Science Interventions (BISI) and the Asia Pacific Immunisation Coalition, Yong Loo Lin School of Medicine, National University of Singapore.

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Foreword

The Asia Pacific region is experiencing a rapid increase in its aging population, with the number of individuals aged 65 and older projected to more than double by 2050. (United Nations, 2017). This demographic shift poses significant public health challenges, as older adults are more susceptible to severe illnesses, including infectious diseases. To that end, life-course immunisation is particularly important in the Asia-Pacific, as many of the infectious diseases older adults are susceptible to are vaccine-preventable (Bianchi and Tafuri, 2022). In response, Tsao Foundation, through its International Longevity Centre Singapore, conducted a study to understand better the barriers to immunisation of older people in selected countries – Australia, Indonesia, the Philippines and Singapore.

This report presents the findings of study, which includes a literature review and interviews with key stakeholders involved in older adult immunization. The report outlines research methods and synthesizes the results, offering insights into strategies for policymakers and stakeholders to enhance immunization rates among older adults in the Asia Pacific region, leveraging vaccine-preventable measures to address this pressing health concern. By understanding and addressing these barriers, the foundation can make a meaningful contribution to public health, reduce healthcare costs, and improve the quality of life for older individuals not only in Singapore but in the region as well.

We want to thank our partners and colleagues from the following organisations- Behavioural and Implementation Sciences Interventions (BISI) at the National University of Singapore, the Asia Pacific Immunisation Coalition (APIC), the Research for Impact Singapore (RFI) for their valuable contributions in the conduct of the study and in preparing this report. We also want to acknowledge the funding support from the MSD.

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September 2023

Executive Summary

Given the rapid pace at which the Asia Pacific population is ageing, the immunisation of older adults in this region is important to avoid diseases to which they are susceptible. Vaccination also plays a key role in preventing or controlling outbreaks of infectious disease. However, overall rates of vaccine uptake in the Asia Pacific are low and there is little data on immunisation among the older adult population to support appropriate planning and policy making.

Based on a review of the literature and the expert insights of opinion leaders, this report describes key policy gaps as well as social, cultural, and economic barriers to immunisation for older people in the Asia Pacific. In particular, it examines the factors influencing vaccine uptake among older adults in Australia, Singapore, Indonesia, and the Philippines.

To optimise vaccine delivery, improve engagement and support for vaccine programmes, and increase older adults' vaccine confidence, four key areas have been identified for intervention: education, persuasion, incentivisation and enablement (i.e., to improve access to vaccines). This report then proposes recommendations for action at three tiers, focusing in turn on individuals, communities and systems.

Taken together, the findings and recommendations of this study are intended to help inform the development of strategies and programmes to improve appropriate vaccine uptake among older adults in the Asia Pacific.

Introduction

According to the United Nations (2017), the Asia Pacific region's older adult population (aged 65 and older) is expected to more than double from 535 million to about 1.3 billion by 2050. Meanwhile, global health crises such as the COVID-19 pandemic serve as reminders of the importance of preventing and controlling infectious disease outbreaks. Life-course immunisation is particularly important in the Asia Pacific, as many of the infectious diseases to which older adults are susceptible are preventable by vaccines.

Despite the widespread benefits of immunisation as a cost-effective investment into human and population health, overall rates of immunisation uptake in the Asia Pacific remain low. Furthermore, the scarcity of data on the older adult population makes it challenging for policymakers who are working to increase vaccine uptake among these people.

This study examined the experiences of immunisation and immunisation programmes concerning older adults in four health systems across the Asia Pacific, namely Australia, Singapore, Indonesia, and the Philippines. Australia and Singapore have well-developed healthcare systems and rapidly ageing societies, with older adult populations of 17% and 14%, respectively (The World Bank, 2022). Meanwhile, Indonesia and the Philippines have developing health systems and are expected to become ageing societies by 2030 (KPMG & Sanofi, 2019).

This report draws on best practices identified in the research literature as well as the expertise and experience of key stakeholders from a variety of relevant backgrounds. It first explores key policy gaps and social, cultural, and economic barriers to immunisation for older people in the region, noting how these barriers may vary across different country settings and subpopulations. Four key areas of learning are identified: individual drivers of vaccination decision-making, systemic drivers of vaccine acceptance and uptake, disparities across subpopulations, and learnings from past interventions. Alongside, four key areas have been identified for intervention: education, persuasion, incentivisation and enablement (i.e., to improve access to vaccines).

Based on our findings, this report presents recommendations to improve vaccine uptake among older adults in the Asia Pacific. In brief, there is action needed at three tiers, focusing on the individual, the community and systems, using strategies to:

- Optimise the immunisation of older adults under current vaccination programmes
- Strengthen engagement and support for vaccine programmes among key stakeholders, such as charities and patient advocacy groups
- Improve older adults' vaccine confidence and encourage them to seek vaccination

Factors Affecting Vaccine Uptake

Individual drivers of vaccination decision-making are complex and cross-cutting.

The information about vaccines and their efficacy is very complex. However, an individual's willingness to be vaccinated depends greatly on their knowledge, perceptions, and attitudes concerning health, disease and vaccines, specifically:

- Perceptions regarding one's own risk of disease and disease severity
- Awareness and knowledge (including misconceptions and incorrect beliefs) of vaccines, vaccine delivery and vaccination programmes
- Perceptions with respect to vaccine efficacy/ benefit versus risk (particularly for new vaccine technologies or those who had prior negative experiences with vaccination)
- Perceptions of other health-related benefits (e.g., strength and longevity)
- Attitudes regarding personal health and preventive healthcare (e.g., older adults may be more passive and less motivated with respect to preventive health measures)

One's awareness and perceptions are affected by national policies. For example, funded vaccines are perceived to be more essential than unfunded ones, which impacts their uptake; in Indonesia, a lack of awareness regarding vaccination was found to be consistent with the exclusion of adult vaccination from the national insurance scheme. Furthermore, there are other incentives (e.g., access to travel and public spaces, such as during the COVID-19 pandemic) and concerns (e.g., vaccination requirements for the hajj and other religious considerations) that may be taken into account.

Drivers of vaccine acceptance and uptake at the community- and systems-level shape the environment in which older adults make vaccination decisions.

An individual's knowledge, beliefs and attitudes are greatly influenced by their community, although there is a risk of misinformation getting amplified through social networks. Connections with family and friends may give older adults motivation to get vaccinated to protect their loved ones, particularly if they are caregivers for young children, or to contribute to community protection.

Within the community, community organisations play a vital role in facilitating immunisation beyond the healthcare setting. Indeed, strong integration with community-based initiatives and other efforts by social care organisations has served as a key element of success.

Such efforts on the ground are critical because vaccine uptake by older adults is strongly impacted by their ease of access to vaccination in terms of availability, logistics and cost, e.g., if the vaccines are easily available at low or no out-of-pocket cost without the need for inconvenient travel or long waits. However, access to vaccines can be difficult. For instance, vaccination facilities for rural and lower-income populations are limited, and there is a lack of vaccine availability for older adults in the public healthcare systems in Indonesia and the Philippines.

Financial concerns may pose a barrier to vaccination for older adults in Australia and Singapore, where some vaccines can have prohibitive out-of-pocket costs while others are perceived as costly, particularly

if people lack a steady income post-retirement or are in a lower income bracket. While subsidies may be available, means-testing (notably in Singapore and the Philippines) may exclude some people from receiving them. Other challenges may also exist for certain groups, such as the language barriers faced by new migrants in Australia and regional residents in Indonesia.

Besides family and community members, healthcare professionals serve as a powerful influence, particularly where there is an established relationship with a trusted provider such as a family doctor. However, doctors themselves face challenges in promoting immunisation to their patients, such as little/no time for discussion during patient consultations, or complicated and changing guidelines about recommendations and subsidies. Healthcare systems generally focus on specialist care and curative medicine, with fewer resources for primary care and/or prevention.

In healthcare systems that are decentralised or mixed, the involvement of multiple healthcare providers and stakeholders may create a fragmented vaccine delivery landscape that makes vaccine uptake challenging. For instance, confusion may arise from the lack of central coordination of data or communication or the increased number of options available.

Finally, there must be trust in the government and the reliability of information provided by the government and local media. This trust takes effort to build and maintain, requiring consistent and credible strategic and fiscal commitment to vaccination at both the national and local levels.

Successful interventions focus on addressing knowledge gaps and access across groups of older adults.

To promote vaccine uptake, there are four key areas of action: education, persuasion, incentivisation, and enablement (i.e., to improve access to vaccines). It is especially important to address disparities in knowledge and access across subpopulations, particularly in socioeconomically vulnerable groups.

It should be noted that while demographic factors such as age, comorbid conditions and socioeconomic status have been observed to play a role at the population level, they may not always apply to individuals. Therefore, interventions and policies should avoid targeting too specific an audience.

Key area	Best practices identified
Education	Education campaigns through the media or in physician waiting rooms; senior citizen newsletters; educational public lectures for older adults; education initiatives targeting family members of older adults.
Persuasion	Use of technology to highlight the value of vaccination and to provide behavioural nudges to physicians and patients; leveraging of older adults' desires to contribute to the family; engagement through senior activity centres and clubs.
Incentivisation	Use of material incentives; vaccine fairs at which older adults can register.
Enablement	Supporting infrastructure such as an electronic records system; environmental restructuring in physical and digital spaces; establishment of vaccination centres in public places and institutional settings; in-home vaccination; enabling of nurses and pharmacists to administer vaccines independently.

Recommendations

For individuals: Improve vaccine confidence and uptake

1. **Education: Address basic gaps in knowledge and attitudes through education and engagement.**

Education initiatives are critical to increase awareness of vaccines and vaccination, to overcome fear and passivity as well as to encourage people to prioritise preventive health. It is essential to "meet seniors where they are", conducting initiatives with respect while showing understanding and empathy for the needs and concerns of the people. Potential interventions may also be tailored as necessary.

2. **Persuasion: Communicate the value of vaccination and preventive health.**

Shifting people's mindsets towards a preventive health approach involves effective communication and engagement, which in turn requires appropriate language and accessible messaging, with support from champions and peer advocates. One should develop a clear understanding of disease risk and vaccine efficacy, the benefits of investing in the vaccination of older adults as a public health strategy, and the financial costs of implementing this strategy. Social determinants of health and the need for more closely intertwined health and social care should also be considered.

3. **Enablement: Use behavioural science to "nudge" individuals into action.**

Individuals can be "nudged" to act by changing how choices are presented to them, thereby facilitating their decision-making to encourage vaccine uptake. For example, vaccine-related information could be simplified for communication to an older audience; vaccination choices could be curated to reduce choices presented and even to offer a "default"; technology solutions could provide "just-in-time" prompts for action.

For communities: Engage and support key stakeholders

1. **Enablement: Foster interconnectivity between partners with common goals.**

To create a sustainable and supportive environment for the vaccination of older adults, it is necessary to engage and build positive relationships with stakeholders such as community and social support networks with localised touchpoints for older adults. Identifying and agreeing on how immunisation and preventive healthcare align with their missions helps to pave the way for successful partnerships.

2. **Enablement: Engage partners to leverage their comparative advantage while supporting and strengthening local capacity.**

There are many benefits to engagement and cooperation with partners across all levels, including those with access to local relationships, expertise and knowledge. Besides building mutual trust and respect between partners with different roles, resources and decision-making roles should be allocated fairly.

3. **Persuasion: Support families and community networks.**

It is crucial to engage, support and educate the families of older adults so that they can in turn support their elderly in making better and more informed decisions regarding vaccination. By strengthening networks of friends, peers and neighbours, localised spheres of positive influence can be created for the older adults, to provide additional support and combat vaccine-related misinformation.

For systems: Optimise vaccine delivery

1. **Enablement: Develop a national adult immunisation programme that addresses older adults.**

National adult immunisation programmes remain under development in countries such as Indonesia and the Philippines. Policy changes may be needed to meet the needs of ageing populations and their changing health and social needs. In countries with existing adult immunisation programmes, there is an opportunity to bridge implementation gaps through increased coordination across policies and practices at the regional or local level.

2. **Incentivisation: Review existing guidelines on vaccine recommendations and funding.**

Reviews should be conducted with the intent to improve access to vaccines, as well as to meet rigorous standards of efficacy and cost-effectiveness, build transparency and establish stakeholder consensus, and facilitate clear communication with all stakeholders.

3. **Enablement: Strengthen delivery systems to better meet the needs of an older population.**

There are many opportunities to improve capacity, infrastructure and funding to enhance healthcare for older adults. Examples include expanding funding in conjunction with other forms of social protection, integrating vaccination into community-based and institutional models of care for older adults, enabling nurses and pharmacists to provide vaccination, investing in wider health system supports that underpin better healthcare for older adults (e.g. expanding primary care), enacting oversight and governance mechanisms that are responsive to population needs and evolving vaccine technologies, and building strong monitoring, evaluation, and learning processes to enable continuous systems-level quality improvement.

4. **Enablement: Use technology to enhance system effectiveness and efficiency while managing risks for older adults.**

New technologies such as electronic medical records systems and mobile/digital health applications may be used to better support healthcare providers and patients in their decision-making and their work. These include digital “nudges” to patients and providers, clinical decision support systems, online patient portals that provide individuals with a highly personalised, fully documented healthcare journey, and national immunisation registries. However, potential limitations should be considered, such as unequal access to digital technology, rural-urban disparities in technological literacy, and the overall technological literacy and comfort levels of older adults.

Country Summary: Australia

Overall policy:

Australia has an enabling environment with respect to federal policy and public awareness, with low levels of vaccine hesitancy in the overall older adult population. The National Immunisation Programme (NIP) provides clear guidance for adult vaccines. Vaccines for diseases such as influenza, pneumococcal, and shingles are federally funded for people aged 65 and up.

The government's decision-making process takes into consideration vaccination recommendations from various bodies dealing with seniors, such as the Australian Council on the Ageing and the Department of Veteran Affairs.

By mandate, all nationally funded vaccines must be reported to the Australian Immunisation Register (AIR).

Key individual and systemic determinants

- Past vaccination experience or knowledge of vaccines/vaccine programmes
- Having pre-existing conditions and/or perceived susceptibility to severe illness
- Perceived vaccine effectiveness
- Sense of social responsibility
- Personal health beliefs and practices (e.g., beliefs about effects on general health and longevity, preference for natural immunity, use of alternative medicine)
- Trust in the healthcare system and physician recommendations

Challenges identified

- Access and demand for newer vaccines which are not covered under the NIP
- Bandwidth constraints at the critical interface of primary care
- Vaccine availability in remote/outer-lying or socioeconomically disadvantaged regions
- Cultural barriers or misinformation among minority populations

Key policy and practice priorities – improving implementation and addressing gaps

1. Education: Continue to engage and educate the older adult population at the community-level, especially about new vaccines
2. Enablement: Increase the effectiveness and capacity of primary care to deliver vaccination by leveraging new technologies, such as digital "nudges" for patients and providers
3. Incentivisation: Address gaps across local and national policies related to guidelines and funding as well as disparities among more vulnerable populations

Country Summary: Singapore

Overall policy:

In Singapore, the National Adult Immunisation Schedule (NAIS) guides 11 vaccinations. Subsidies such as the Community Health Assist Scheme (CHAS) and other community-based schemes are available to help defray NAIS vaccination costs for the elderly and lower-income individuals receiving vaccinations in public or private primary care.

In 2022, means-tested subsidies based on a patient's per capita household income were introduced for NAIS vaccines administered in public healthcare settings. The national medical savings scheme Medisave can be used to pay for out-of-pocket costs.

Forthcoming national HealthierSG reforms addressing population health include the development of health plans for individuals that include appropriate vaccinations throughout one's life.

Key individual and systemic determinants

- Educational attainment and household income
- Past vaccination experience or knowledge of vaccines/vaccine programmes
- Perceived vaccine effectiveness
- Sense of social responsibility
- Influence of family and friends as well as community and social sector organisations
- Personal health beliefs and practices (e.g., disdain of vaccination, religious objections to vaccination or belief in predestination/fatalism)
- Trust in the healthcare system and physician recommendations

Challenges identified

- Understanding and acceptance of new or more complex vaccines
- Out-of-pocket costs
- Physical access/travel time/long waiting hours at polyclinics
- Healthcare professionals' limited prioritisation of vaccines for the elderly
- Potentially negative influence of family and social networks

Key policy and practice priorities – engaging the community and ensuring affordability

1. Persuasion: Continue to engage and educate the older adult population by leveraging families, social relationships as well and community-based organisations, especially about new vaccines
2. Incentivisation: Address challenges to affordability that arise from gaps in coverage or financial literacy
3. Enablement: Reinforce ongoing population health reforms to emphasise the effective and efficient implementation of vaccination policy through primary care

Country Summary: Indonesia

Overall policy:

At the time of writing, Indonesia does not have a national adult immunisation policy. Vaccinations for older adults are excluded from the national health insurance scheme (Jaminan Kesehatan Nasional (JKN)) and are therefore paid for out-of-pocket.

Although JKN is the national platform for achieving universal health coverage (UHC), the scheme currently only covers free routine immunisations for children under age 5 (except for tetanus immunisation for pregnant women, which falls under maternal and child health).

Vaccines for older adults such as influenza are recommended but not covered, implying relatively high out-of-pocket costs for older adults. Certain vaccines, including the influenza vaccine, are recommended to healthcare workers as well as older adults and/or adults with underlying chronic diseases. The meningitis vaccine is mandated for all Hajj pilgrims.

Key individual and systemic determinants

- Past vaccination experience or knowledge of vaccines/vaccination programmes
- Having pre-existing conditions and/or perceived susceptibility to severe illness
- Perceived vaccine effectiveness
- Role of the private sector, especially family doctors
- Local/regional cultural and community practices

Challenges identified

- Lack of awareness and advocacy for the immunisation of older adults
- High out-of-pocket costs
- Poor availability of infrastructure and manpower

Key policy and practice priorities – building a national policy integrated with national UHC aspirations

1. Enablement: Support the formulation of a formal national policy on adult immunisation
2. Incentivisation: Address coverage for adult immunisation under the JKN
3. Enablement: Expand basic public health system capacity, e.g., by working with existing networks of family doctors

Country Summary: The Philippines

Overall policy:

At the time of writing, the Philippines has not yet developed an adult immunisation schedule. PhilHealth, the national health insurance scheme, provides influenza and pneumococcal vaccination to older adults at discounts of 20 – 60% discounts. The Health and Wellness Programme for Senior Citizens provides free influenza and pneumococcal vaccines to 1.3 million needy citizens aged 60 and above (PhilHealth, 2012).

However, the rollout of immunisation campaigns is decentralised. Therefore, in practice, it depends on the efforts and resources of local governments as well as the varied capacity of local healthcare systems.

Key individual and systemic determinants

- Past vaccination experience or knowledge of vaccines/vaccination programmes, notably the dengue and COVID-19 vaccines
- Physical accessibility of vaccination services in communities
- Incentives or disincentives associated with vaccination
- Management of implementation by the local/regional government

Challenges identified

- Costs related to unsubsidised vaccines or excluded populations
- Misinformation and fear regarding vaccination-related risks
- Limited prioritisation of preventive health among medical practitioners
- Severe resource constraints

Key policy and practice priorities – strengthening coverage in a decentralised system

1. Persuasion: Support the formulation of a formal national policy on adult immunisation, complemented by advocacy and support for efforts at the level of the local government
2. Incentivisation: Extend the current breadth of coverage for immunisation to include all older adults, through means such as but not limited to social welfare legislation
3. Enablement: Expand efforts to mobilise additional resources from alternative sources such as community organisations, local advocacy groups or philanthropy

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