

A photograph of an elderly couple smiling and laughing together outdoors. The man is on the right, wearing a white polo shirt, and the woman is on the left, wearing a grey top. They are both looking towards the camera with joyful expressions. The background is a soft-focus green, suggesting foliage.

Financing life-course immunisation
in a post-pandemic era:

HAS COVID-19 MOVED THE NEEDLE?



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FOREWORD

As one of the largest global public health crisis in modern times, the COVID-19 pandemic has changed our perceptions of healthcare services and preventive healthcare. More than ever, there is an increasing recognition on the benefits of immunisation for all ages to prevent infectious diseases and its severe complications, as well as protection for vulnerable populations, including immunocompromised individuals and the elderly.

At the same time, the pandemic unveiled the gaps in healthcare systems around the world. COVID-19 demonstrated the importance of investing in and strengthening preventive care policies. The increased prioritisation of this can create a resilient healthcare system that effectively addresses infectious diseases and wider health complications, an ageing population, as well as other upcoming health challenges.

Taking learnings from the pandemic, we need to implement and advocate for preventive care as a core element of any healthcare system, such as improving access and uptake of life-course immunisation programmes, which refers to vaccination throughout all stages of life, from childhood to old age.

For example, in Southeast Asia, in 2023, Singapore launched the Healthier SG initiative, which provides the elderly with free nationally recommended vaccinations, namely influenza and pneumococcal vaccines.¹ Nearby, the Australian Government, in their Budget 2023-24, announced that \$114.1 million will be invested over the next four years to increase vaccination access points, by funding pharmacists to administer vaccines under the National Immunisation Program.²

Though there remain significant barriers towards the implementation of life-course immunisation programmes in the region, such strategies are a step in the right direction in making vaccination more accessible.

At a regional level, the Association of Southeast Asian Nations (ASEAN) Member States have identified vaccine security and self-reliance as a priority strategy for health to effectively address vaccine-preventable diseases.³ Additionally, as

per the ASEAN Post-2015 Health Development Agenda (APHDA) goals, ASEAN Member States have also committed to promoting healthy lifestyles throughout the life-course, as well as strengthening health systems and access to care for the community. This includes enhancing the ability and readiness in dealing with risk factors and their related diseases, as well as improving accessibility to medicine and vaccines.⁴

To ensure that ASEAN Member States can achieve the commitments made, we need to continue leveraging on the increased prioritisation afforded to life-course immunisation, and for vaccines beyond the COVID-19 vaccine. Learnings from countries such as Australia and Singapore are important but tailored approaches are needed for each country's capacity and capability. Most importantly, we also need to ensure governments can sustainably fund for immunisation programmes now and in the future, against other competing health priorities, so no one is left behind from accessing life-saving vaccines.



Chris Humphrey,
Executive Director, EU-ASEAN Business Council

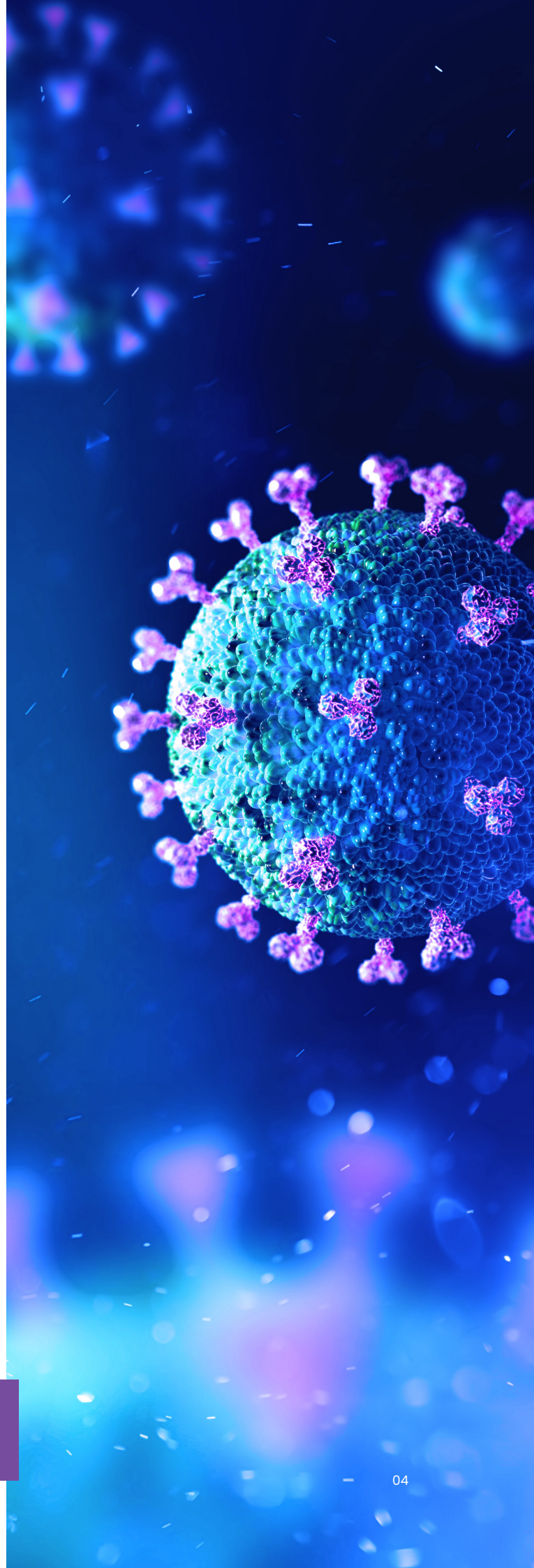
INTRODUCTION

The COVID-19 pandemic exacerbated weaknesses in immunisation programmes globally.² Countries with weaker health systems faced significant setbacks in vaccination efforts, as routine immunisation programmes were suspended to curb the spread of the SARS-CoV-2 virus.² Additionally, countries that did not have elderly immunisation strategies and infrastructures in place faced difficulties in quickly deploying immunisation programmes for this vulnerable population and suffered from low awareness levels on the value of vaccinations during the initial stage of the pandemic.

The pandemic has brought preventive healthcare to the forefront of many countries' priorities. Preventive healthcare strategies encourage individuals who may be at risk of diseases to adopt lifestyle changes or other preventive measures to mitigate the onset of the disease.⁵ During the COVID-19 pandemic, vaccination was one of the key and most effective preventive strategy to safeguard against the virus and is estimated to have prevented 19.8 million deaths from the disease.⁶ It also emphasised the importance of vaccinating the elderly and those with comorbidities, as they are more susceptible to worse complications from infectious diseases.

Even more so, government bodies are beginning to recognise preventive healthcare as an effective strategy to foster a healthier population, reduce burden on healthcare systems and ensure healthcare expenditure is more sustainable. The pandemic has improved awareness on the value of vaccination beyond paediatric settings, and policymakers should capitalise on this increased awareness to promote the importance of vaccines beyond COVID-19 as an important strategy of preventive health.

Southeast Asia is projected to see over 20% of its population become an ageing population,⁷ and with that comes increased susceptibility to infectious and chronic diseases. It is more important than ever to start safeguarding the health of ageing populations, so they can remain healthy and productive even in old age.





Countries across the region are still recovering from the economic losses and high spending during the pandemic. An ageing working population and the rise in informal jobs will see lower sources of publicly available funds through taxation. Fiscal tightening requires governments to explore new financing mechanisms to sustain healthcare services and implement additional strategies including life-course immunisation that have significant cost-benefits in the long-term.

These innovative approaches have played an important role in introducing new vaccines to low- and middle-income countries. For example, in the Philippines, the purchase and inclusion of new vaccines, including pneumococcal vaccine, in the National Immunization Program (NIP), were made possible following the introduction of the Sin Tax Law to earmark taxes on tobacco and alcohol for health.

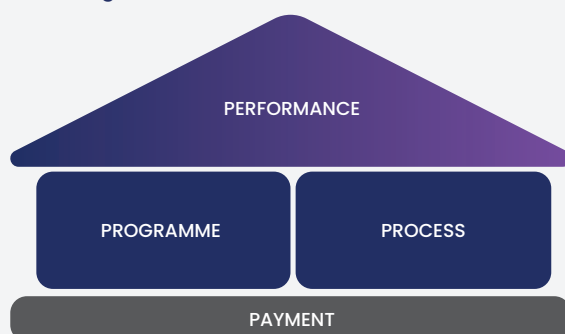
With COVID-19 bringing on more awareness and advocacy around vaccination, this whitepaper will explore if and how the COVID-19 pandemic has moved the needle in prioritising and financing life-course immunisation in a post-pandemic era, and the path forward in making financing life-course immunisation as a priority.

This whitepaper has been informed through desk research and interviews with experts across countries including Malaysia, the Philippines, Vietnam and Thailand (Refer to Acknowledgments for a full list). The experts are from a wide-range of sectors, including academia, advocacy, public policy and health. This whitepaper primarily examines the challenges and opportunities to implement and fund life-course immunisation programmes, as well as the impact of the COVID-19 pandemic on prioritisation and funding of life-course immunisation programmes. Experts also discussed components of effective life-course immunisation policies, with a key focus on sustainable financing models.

KEY RECOMMENDATIONS

To effectively and sustainably implement and fund life-course immunisation, especially for the elderly population in ASEAN, this whitepaper recommends the following policy actions. They have been developed based on the proposed 4Ps model:

4Ps: A proposed model for achieving sustainable financing for life-course immunisation in ASEAN



Payment:

- Increase affordability of vaccinations through free or subsidised vaccines
 - Utilise existing funds more efficiently through innovative financing mechanisms like sin taxes and individualised health savings account, and allowing tax deduction for vaccine insurance coverage

Programmes:

- Incorporate life-course immunisation as part of national immunisation policies
 - Establish and expand national vaccine schedules and guidelines across all ages
- Increase awareness, education and engagement of the public and healthcare providers
 - Tailor awareness campaigns and initiatives to raise vaccine literacy and confidence
 - Provide training and resources to healthcare providers as advocates for vaccinations
- Promote vaccination advocacy
 - Leverage influence of healthcare providers, local health communities, public health officials and media to advocate for the benefits of immunisations

Process:

- Improve vaccine procurement, supply chain and logistics
 - Build data systems for effective inventory management of vaccines
 - Strengthen infrastructure to manage cold chain logistics and ensure vaccine integrity

Performance:

- Develop robust data surveillance systems and infrastructure
 - Improve surveillance infrastructure to regularly track and monitor uptake rates of vaccination
 - Enhance data systems to inform long-term vaccine supply and purchase
- Improved vaccine quality and research
 - Allocate research funding to inform vaccine efficacy and cost-effectiveness data for evidence-based policy-making

LEVERAGING LESSONS FROM THE COVID-19 PANDEMIC



While many countries adopted comprehensive immunisation plans for COVID-19, it is important to extend these learnings to other vaccines. The pandemic has created an opportunity to accelerate the implementation of life-course immunisation, due to increased awareness of the benefits of vaccinations, as well as updated knowledge of vaccine development and deployment, especially for countries without any previous frameworks for adult immunisation.³

There are several success stories across ASEAN. For example, leveraging on its existing COVID-19 vaccination programme, Thailand's Ministry of Public Health (MoPH) recommends vulnerable populations to receive both a COVID-19 booster shot and the influenza vaccine to prevent severe symptoms.⁸ Such strategies can potentially reduce the possibility of a 'twin-demic', where healthcare systems are overwhelmed by a surge of both influenza and COVID-19 infections at the same time. Building on its existing technology created during the pandemic, the MoPH is transforming a mobile application that was

initially designed for COVID-19 contact tracing into a national online health platform with services including access to influenza vaccination, telemedicine, health appointment scheduling and information on health policies.⁹ The National Health Security Office (NHSO) has also announced its plans to purchase 860,000 additional influenza vaccine doses, increasing the inventory to 5.26 million vaccines for vulnerable populations.

In 2022, Singapore announced that it will be shifting its healthcare focus towards preventive care¹⁰ and has been increasing efforts to expand its immunisation programme for individuals of all ages. Since the pandemic, Singapore has introduced its Healthier SG initiative, which includes providing the elderly population with free nationally recommended vaccinations, such as influenza and pneumococcal vaccines.¹ The Singapore government is estimated to spend more than \$1 billion over the next three to four years to implement and roll out the Healthier SG initiative.¹¹

In Malaysia, the Ministry of Health has also incorporated learnings from COVID-19 and developed a white paper to guide reforms over the next 15 years to create a more sustainable and resilient health system.¹² One of the main pillars of the whitepaper is on advancing health promotion and disease prevention that includes driving more evidence-based public and preventive health interventions like public vaccination programmes.¹³

In the Philippines, adult immunisation was strengthened through the establishment of multisectoral structures with dedicated operations arms for influenza and pneumococcal disease, expanded healthcare services in non-traditional settings (e.g., malls, churches), improved risk communications through media training and grassroots health promotion efforts, as well as the formation of an expert group, National Immunization Technical Advisory Group (NITAG), on emerging infectious diseases. However, the implementation of vaccine mandates for all populations and a proposed bill to incentivise vaccinations for vulnerable populations and increase access points to pharmacies remains a contentious issue.

These interventions show that there generally has been more awareness in preventive health in some economies, which includes life-course immunisation. But how has this translated into prioritisation and allocation of funding for life-course immunisation?



STATE OF LIFE-COURSE

IMMUNISATION AWARENESS & PRIORITISATION IN ASEAN

While some governments are recognising the value of preventive care and leveraging on infrastructure developed during the pandemic, experts suggest there are remaining gaps to successfully implement life-course immunisation across the region. Lessons from the pandemic are at risk of being forgotten. For example, resources and funding are now being redirected to address other initiatives to rebuild economies, potentially neglecting the importance of sustained commitment, adequate funding and strong political will to ensure comprehensive immunisation coverage across populations.

Complacency from success of COVID-19 vaccination campaigns

Across the world, the pandemic has increased the visibility of adult immunisation, with governments committing significant COVID-19 vaccine supplies, as well as implementing communication and advocacy plans to build confidence levels towards vaccination. However, among expert interviewees in Malaysia, a key concern was that the success of COVID-19 vaccination programme may create a false sense of security, leading people to believe that vaccination efforts are limited to addressing this specific pandemic alone. This misconception may divert attention and funding away from other infectious diseases that require ongoing immunisation efforts.

Continued focus on childhood routine immunisation

Despite efforts to strengthen adult immunisation following COVID-19, governments have predominantly focused on regaining setbacks in routine childhood immunisation, which was

severely impacted across some countries in Southeast Asia during the pandemic. For example, in 2021, the Philippines was listed as one of the 10 countries globally with the highest number of zero-dose children, children who have not received a single routine childhood vaccination.¹⁴ The vaccine coverage rates for routine immunisation are well below the standard for an economy like the Philippines and comparatively lower than previous years – vaccination against the BCG vaccine was 63% and DTP1 vaccine was 74% in 2022.¹⁵ The rates also fall short of the target of 95% set by the World Health Organization. Consequently, the Filipino government, as well as others in the region, spearheaded an intensified catch-up immunisation programme.

Decreasing vaccine confidence level

While there is no regional-wide vaccine confidence data on other adult immunisation, we can assess the COVID-19 vaccine confidence level for a benchmark. From 2020 to 2022, the median COVID-19 vaccination acceptance rate was reported as 71% in Southeast Asia,¹⁶ which was higher than the global prevalence of 64.9%.¹⁷ However, when zoomed into the year-on-year data, there was a downward trend, from 74% acceptance rate in 2020 to 56% in 2022. Since the peak of the pandemic, the public has constantly been reminded of the benefits of vaccinations and are encouraged to receive multiple COVID-19 vaccinations and boosters. However, over time, individuals may be less receptive to such messaging and hence less likely to receive the needed vaccinations. Greater efforts must be put into place to address this vaccination fatigue, which could possibly be tackled by exploring targeted and coordinated approaches during vaccination drives.

FUNDING OF LIFE-COURSE IMMUNISATION IN ASEAN

Interviews with experts across the region showed that prioritisation and funding of life-course immunisation in the region continues to remain a challenge.

Low spending on preventive healthcare

While several countries have increased spending on preventive health and life-course immunisation strategies since the pandemic, this is still reported to be low. The optimum spending for preventive health to see returns has been reported to be US\$250 per person, with 10% of that going towards life-course immunisation.¹⁸

In 2020, an average of US\$1.15 per person was allocated towards the National Immunisation Program (NIP) in the Philippines.^{19–21}

Similarly in Singapore, an average of US\$99 per person was allocated towards preventive health in 2021,^{22,23} falling short of the recommended spending for preventive health and life-course immunisation.

The road to recovery from COVID-19 has resulted in significant hits in countries' economies. Economic activities have been greatly affected due to lockdowns,²³ and large COVID-19 response packages have also resulted in increased fiscal deficits and debt levels.²⁴ As such, government bodies could explore innovative financing models to support the financing of adult immunisation programmes. Following the COVID-19 pandemic, Malaysia has also recognised the importance of innovative health financing in its proposed 2023 Health White Paper.¹²

Additionally, healthcare systems also need to consider the agility of pathways that enable innovation. With the advancement of science and research, more effective solutions that can better protect vulnerable populations, such as the elderly, will further help to reduce healthcare system burden and should be considered within healthcare financing plans.

Countries could take learnings from successful innovative financing models such as the Philippines Sin Tax Law, which was introduced in 2012, and devise policy plans that would be relevant to their country's economy. In this instance, the Sin Tax Law increases the excise tax on tobacco and alcohol. Within five years of its introduction, the Department of Health's budget tripled and had a positive spillover effect on the NIP. It was reported that 42% of the programme was funded from sin taxes in 2015, and the increase in funding has also allowed for the implementation of new and underutilised vaccines, such as the pneumococcal vaccines.²⁵

Across ASEAN Member States, there is an overall lack of policy framework to fund and support access to adult immunisation

Financing sustainable immunisation programmes is a challenge, especially for low and middle-income countries.³ While ASEAN Member States provide full subsidies on basic immunisation services for children under their NIPs, adult immunisations tend to be partially subsidised or not covered at all.

As such, the masses may not be motivated to pay for immunisation services throughout the life-course, as it will largely be borne out-of-pocket. In Asia Pacific, more than two-thirds of senior citizens do not receive a pension,²⁶ and may not have the financial capacity to seek healthcare independently. For example, in the Philippines, less than 5% of the elderly have savings in the bank²⁷ and between 70–86% of people surveyed mentioned they received financial support from their children.²⁸ Due to a dependence on family members for healthcare, compounded by high costs and unwillingness to pay, the elderly may not proactively seek vaccinations.

MALAYSIA



With no population-wide adult immunisation programme in place, vaccination rates in adults remain low in Malaysia, with only 5.5% of the elderly population vaccinated for influenza.²⁹ While adult vaccines are recommended by the Minister of Health, including for high-risk groups like the elderly, individuals have to pay entirely out-of-pocket for immunisation expenses.³ Influenza vaccines are mostly accessed through private healthcare facilities, while only 10% of adult vaccinations are administered through public healthcare facilities.³

VIETNAM



In 2017, the government covered only around half of routine immunisation expenses, with donors covering the remaining expenses.³⁰ Subsidised immunisation services are limited to community health centres and are available only 1–3 days per month.³⁰ There is also a lack of subsidy for the elderly to access influenza vaccines, except during specific public health campaigns.³⁰

PHILIPPINES



Challenges persist in the Philippines' immunisation efforts, despite significant progress in budget allocation for vaccination programmes over the last decade. While sin tax can potentially support health programmes, some policymakers believe it should be allocated elsewhere, such as sanitation

initiatives. Currently, around 85% of sin tax is earmarked for the health sector, including funding for the Department of Health's programmes and activities. However, concerns have been raised about the proper utilisation of these funds, highlighting the need for improved efficiency and equity.³¹

In addition, subsidies are allocated for a few adult vaccinations, which improved access, but more can be done. For example, the Expanded Programme on Immunisation mandates pneumococcal and influenza vaccination for senior citizens. While this has increased the adult pneumococcal vaccine rate to 52.9%, the adult vaccine coverage rate for influenza remains low at 36.3%, due to a lack of comprehensive immunisation policy.³ Influenza vaccines are provided free only to indigent older citizens, leaving more than 75% of individuals aged 60 and above ineligible.⁴

THAILAND



Although there is no formal adult immunisation schedule, seasonal influenza vaccination for older adults is prioritised and subsidised.³ Over time, there has been a steady increase in influenza vaccination rate from 20% in 2012 to nearly 30% at present, with higher rates in people with comorbidities.^{32,33} However, the availability of reimbursed influenza vaccines is only limited to a few months, despite infections occurring year-round in Thailand.³ Moreover, the absence of reimbursement for other adult immunisation likely contributes to overall low immunisation rates.

A common thread among the barriers to successful implementation of life-course immunisation in ASEAN is the need for improved financing. Insufficient financial resources from the government and the public pose significant challenges to expanding and sustaining comprehensive immunisation programmes. These investments should extend beyond vaccine procurement and encompass healthcare infrastructure, cold chain management, and healthcare/administration personnel.^{34,35} Public health measures such as awareness campaigns, as well as disease surveillance, monitoring and evaluation are needed to ensure the effectiveness of the vaccination programme.



OVERARCHING BARRIER

Overall lack of public immunisation policy framework to implement, promote and fund immunisation costs



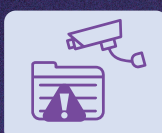
DELIVERY BARRIER

Lack of awareness and low vaccine confidence among public and healthcare providers



FINANCING BARRIER

High out-of-pocket expenses for individuals to cover vaccination costs



ENABLER BARRIER

Lack of data surveillance to establish burden of disease and inform policy development; challenges in vaccine procurement and logistics

Figure 1: Summary of barriers to life-course immunisation

VACCINE UPTAKE RATES

Due to existing challenges across the region, the uptake rate for adult immunisation beyond the COVID-19 vaccine remains low even after the pandemic. For example, the influenza vaccine has only an uptake of 14.9% among the Asian general

population and 37.3% among high-risk groups.³ This stands in stark contrast to other developed nations such as the United Kingdom, where influenza coverage rates for the elderly reach 75%, in line with the World Health Organization's (WHO) target.⁴

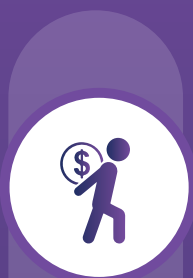
Influenza vaccine uptake rate among the elderly

Malaysia ²⁹	Philippines ³⁶	Singapore ³⁷	Vietnam ³⁸
5.5% (60 years and above)	23.0% (Elderly – age not specified)	32.4% (65 years and above)	<1% (Entire population)

Table 1: Vaccination uptake rate for influenza among the elderly

INVEST NOW, SAVE FOR THE FUTURE

CALCULATING THE COST OF INVESTMENT VS BENEFITS



By reducing the risks and burden of diseases, there are direct healthcare cost savings from decreased hospitalisations and outpatient services. For example, in Thailand, the overall national influenza economic burden for outpatients and inpatients is significant, ranging between **US\$31.1** and **US\$83.6 million** annually.³⁹ As the elderly population is disproportionately affected by influenza, the estimated cost of hospitalisation is more than **US\$212** per episode,³⁹ which bears a significant burden, as more than **80%** of the elderly depend on their families and children for sources of economic support.⁴⁰



Beyond health benefits, vaccination throughout the life-course also has significant returns on investment for future economic revenue, from reduced mortality, workdays gained, increased productivity and increased tax returns.⁴¹ It saves the healthcare system **10 times more** than it costs.⁴² Another study predicted that a flu pandemic can cost the economy **US\$60 billion annually**, but pandemic preparedness, including developing robust immunisation infrastructure and capabilities, could cost only **US\$4.5 billion a year**.⁴³ In addition, cost-effectiveness of vaccinating vulnerable populations, such as the elderly, against influenza has been widely discussed and confirmed in countries such as the United States, China and Italy.⁴⁴



A study of low- and middle-income countries concluded a **US\$44 return on every US\$1 spent** on immunisation.⁴⁵ A separate study looking at the cost-effectiveness of influenza and pneumococcal vaccinations has also found that they can yield a potential cost savings of up to **US\$50,000** per quality-adjusted life year gained in countries such as the United States.⁴⁶ The returns from vaccinations are expected to further increase between 2021–2030.



The lack of epidemiological and cost data across Southeast Asia underscored the importance of data collection on vaccine coverage rates, as well as cost-effectiveness studies to inform immunisation policy implementation. For example, in 2019, the Malaysia Health Technology Assessment was unable to determine evaluation on the cost effectiveness of local influenza vaccination for the elderly.⁴⁷



"Governments often fail to recognise the broader benefits of vaccines beyond health, yet they readily appreciate the immediate and tangible benefit of other areas like infrastructure in driving economic development. By emphasising the long-term economic prosperity and improved population wellbeing from vaccination, we can help policymakers and stakeholders to understand the value of investing in vaccines."

– Assoc. Prof. Dr Pham Quang Thai

Vice Head of Communicable Diseases Control and Prevention Department, National Institute of Hygiene and Epidemiology of Vietnam, cum Head of EPI Office – Northern Region

"Recognizing the critical need for pandemic preparedness and response, it is imperative that we reshape our discourse on life-course immunisation. It's not just about preventing infectious diseases; it's about understanding that life-course immunisation is a strategic investment that benefits our societies economically. By emphasising its profound economic impact, we bolster public confidence in vaccination. This, in turn, strengthens the argument for substantial government investments in comprehensive immunisation programs across all age groups. This proactive approach is indispensable in mitigating the present and future threats of infectious diseases."

– Prof. George Gotsadze

President, Curatio International Foundation



As populations age, disease prevention will become increasingly important for personal and societal wellbeing, as well as for easing pressure on health systems and ensuring their sustainability.^{2,48} Furthermore, with the rising retirement age and individuals working longer, immunisation throughout the life course becomes more relevant for maintaining workforce productivity.⁴⁸ ASEAN is

particularly susceptible to these challenges, as most countries, including Malaysia, Vietnam, Thailand and the Philippines, are projected to experience ageing or aged societies by 2030, with serious implications for economies, social spending programmes and retirement schemes, among other things.⁴



A WHOLE-OF-SYSTEM APPROACH FOR FINANCING LIFE-COURSE IMMUNISATION

The investment towards life-course immunisation should encompass the whole system. Successful immunisation programmes require a holistic view of the whole ecosystem, from availability, access, promotion to the administration of vaccines to the public. This requires **cross-sector collaboration**, **committed leadership** and **sustainable financing** towards the holistic ecosystem, so it can be sustained in the long term. While developing new

financing mechanisms may have initial logistical and funding challenges, the returns and cost savings that life-course immunisation brings are significant.

These are some of the areas that should be considered when implementing funding for life-course immunisation:

INNOVATION

Expand immunisation schedule to include a comprehensive list of vaccines needed throughout the life-course, which follows the guidelines set by the World Health Organization's Expanded Programme on Immunization. Introduce new and more effective vaccines that have the potential to prevent serious and life-threatening diseases, as they become available in the future.



DATA AND SURVEILLANCE

Build surveillance systems to monitor and communicate the impact of infectious diseases, as well as to inform prevention and control efforts. Tracking vaccine coverage provides epidemiological data on its effectiveness from a health and economic perspective and reveals patterns that may better inform long-term vaccine supply and purchase.



PROCUREMENT AND LOGISTICS

Build data systems for more effective inventory management of vaccines. Procurement of sufficient vaccines is needed to promote the equitable and timely access for all populations, especially high-risk groups. Adequate infrastructure is needed to store vaccines under the required temperature conditions, as well as to distribute them to all areas across the country.



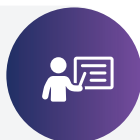
ACCESS

Expand access points of vaccination services to include areas frequently visited by individuals for healthcare services, including pharmacies and nursing homes, to offer convenience and flexibility for interested individuals. Pharmacists and nurses are also well-poised to act as community educators, advocating and providing up-to-date information about the value of vaccination.



TRAINING

Equip more healthcare workers to deliver vaccinations to strengthen health systems, as it increases multiple touchpoints and access to vaccines, through rapid and comprehensive training programmes for community health workers, nursing home nurses and pharmacists.



AWARENESS

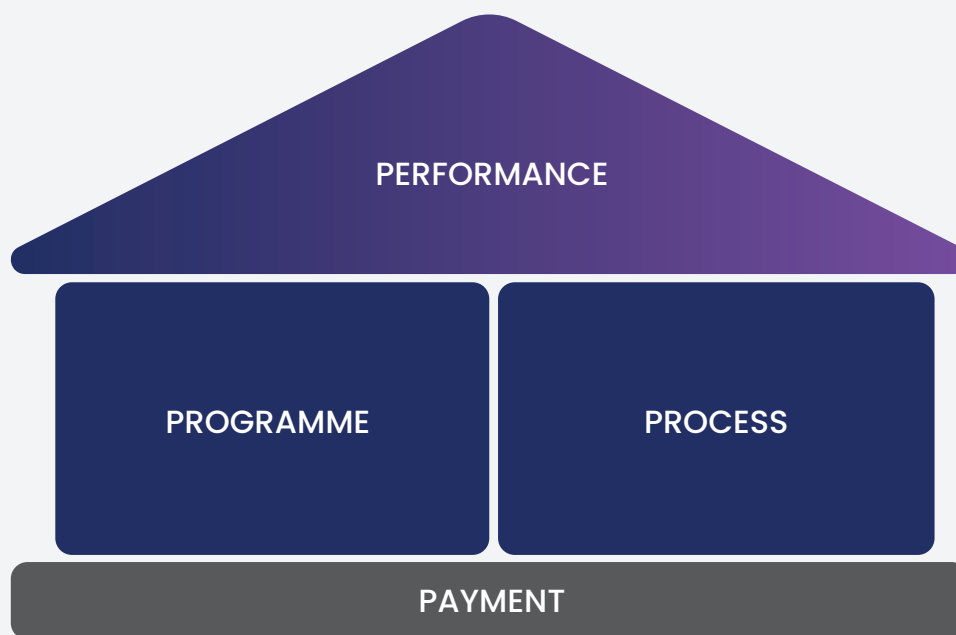
Tailor awareness campaigns that consider the language and geographic diversity, as well as behavioural motivations, especially for marginalised communities and subpopulations, to communicate the benefits of vaccination and improve vaccine confidence.



BRIDGING THE GAP

TOWARDS A MORE EFFECTIVE AND SUSTAINABLE VACCINE FINANCING IN ASEAN

4Ps: A proposed model for achieving sustainable financing for life-course immunisation in ASEAN



The World Health Organization's Immunisation Agenda 2030 defines sustainable financing for immunisation as "a situation whereby countries can mobilize and ensure allocation of adequate and predictable resources and use resources in ways that support high-quality delivery of immunisation services".³⁴ Several factors, including shifting economies, demographics, health outputs and political landscapes, can positively and negatively affect immunisation programmes over time.⁴⁹

To overcome the challenges outlined in previous sections, countries must adopt innovative approaches to establish resilient financing models and ensure the prioritisation and continuity of immunisation programmes during transition periods.⁴⁹ In this regard, a proposed financing framework that addresses four essential pillars could be explored in ASEAN:

I. PAYMENT

Funding aimed at supporting sustainable and growing immunisation programmes to encompass populations beyond childhood



Immunisation financing levels varies across Southeast Asia, from 0.5% of the health budget in Vietnam to 3.5% in Malaysia in 2015.⁴⁹ To ensure efficient use of budgets, it is essential to explore new domestic revenue sources and innovative spending methods beyond the traditional models of financing.^{49,50}

One approach is adopting a co-payment adult immunisation financing system. For instance, Singapore implemented a co-payment system that diverts 7%–9.5% of wages into a medical account (MediSave), allowing individuals to access subsidised vaccination such as for influenza.⁵⁰ Moreover, governments could also explore a composite universal health coverage model that combines the best of both taxes and social insurance.⁵⁰

To combat the lack of funding, governments could raise funds earmarked for immunisation through taxation. For example, Philippines and Taiwan have successfully dedicated earmarked taxes for life-course immunisation, utilising revenues from sin taxes to procure new vaccines for their national immunisation programmes.^{49,50}

Other countries with mature expenditures, like Thailand, have focused on efficiency gains as a method to increase fiscal space, employing evidence-based decision-making through strong health technology assessments and strategic purchasing to enhance its immunisation program.⁴⁹

Lastly, policy makers could also consider leveraging on public-private partnerships, such as reinvesting corporate taxes in immunisation, offering tax benefits for immunisation, and designing insurance packages that incentivise life-course immunisations or preventive care.⁵⁰ For example, reduced premium payments could be offered to private insurance policyholders who attend annual checkups and adult immunisation.⁵⁰

II. PROGRAMMES

Funding aimed at improving health literacy and vaccine confidence to ensure populations understand the benefits of life-course immunisation, leading to increased vaccine coverage rates

Health literacy plays a crucial role in promoting preventive health behaviours, particularly in the context of communicable diseases such as influenza.⁵¹ The COVID-19 pandemic has highlighted vaccine hesitancy and fatigue as areas of concern, influenced by factors such as socioeconomic status, cultural and religious beliefs, and vaccine awareness.⁵² This has underscored the importance of vaccine literacy as an effective means to encourage vaccination against viruses,⁵² as well as coordinated approaches in advocating for various vaccines, so individuals are not targeted with many calls to action that could result in burnout.

Investing in awareness-raising campaigns and initiatives can help promote vaccine literacy by educating individuals and communities about the benefits of immunisations across all age groups. These campaigns also provide opportunities in combatting misinformation about vaccines and supporting long-term vaccine acceptance.

To ensure effective messaging, tailored and targeted communications are needed. One way to achieve this is by implementing public awareness campaigns using different approaches and targeted to specific groups.

In Brazil, a tailored campaign was implemented to tackle false information about vaccines using the social media platform WhatsApp.⁴⁸ When targeting the older generation, it's important to recognise that mass information campaigns through social media may not fully reach this population despite their increasing familiarity with such platforms.³ Traditional interventions such as home-based vaccinations, reminder calls and community outreach programmes may be more successful in targeting older adults.

III. PROCESS

Funding to improve the efficiency and resilience of vaccine logistics and supply chain management to ensure equitable and rapid distribution of vaccines



Strengthen supply chains to ensure that high-quality vaccines are always available in the right quantity and form at the right time, in the right place and stored and distributed under the right conditions. Promote integration with other supply chains for more effective delivery of primary health care. Invest in systems and infrastructure to safely manage, treat and dispose of vaccine waste to help reduce their environmental footprint.⁵⁷

**Strategic Framework for the
South-East Asia RVAP
2022–2030**



Successful immunisation programmes rely on functional, end-to-end supply chain and logistics systems, which is vital to ensure vaccines are readily available and accessible. This includes reliable vaccine production, as well as effective vaccine storage, distribution, temperature and logistics management.⁵⁶ Adequate funding is essential to ensure the uninterrupted availability of quality vaccines, ensuring equitable and timely access for all populations and prevent missed vaccination opportunities. As outlined in the Strategic Framework for the South-East Asia Regional Vaccine Action Plan (RVAP) 2022–2030 that complements the global Immunization Agenda 2030, strengthening supply chain and logistics is a key priority to ensure that immunisation programmes are an integral part of primary health care to achieve universal health coverage.^{54,55}

The critical need for an efficient and resilient logistics and supply chain management to ensure equitable and rapid distribution of vaccines is highlighted during the COVID-19 pandemic, where global inequities in vaccine distribution have hindered immunisation efforts.^{58,59} Adequate funding for vaccine rollout and delivery is critical as the vaccine supply increases, and should consider the range of activities required for safe and effective vaccine distribution.⁵⁹

This include a strong cold chain and logistics management system, which is essential to avoid spoilage of vaccines.⁵⁴ Systems that can monitor and forecast for expired inventory, stock availability, storage space and equipment maintenance are all essential investments.⁵⁴

Unfortunately, while countries have increased their public health allocations, they still encounter challenges with vaccine supply chain such as budgetary constraints, weak infrastructures, and fluctuations in global markets, resulting in inventory unpredictability, inadequate cold-chain capacity and insufficient funding. For instance, in Indonesia, many of the public clinics in remote areas lack adequate cold-chain facilities, and those that do have them often experience power outages.⁵⁴

It is imperative that countries should prioritise investment and take an active, collaborative role in managing end to-end, temperature-controlled supply chains, along with research into new technologies and different models to gather evidence-based information on best approaches.^{60,61} Moreover, investing in training for in-country staff is essential to improve supply chain management capacity and human resource management, leading to improved supply chain performance.⁶¹



IV. PERFORMANCE

Funding for the development and implementation of monitoring tools and surveillance systems; data to be used to facilitate improved immunisation programme planning and delivery

Adequate funding for monitoring and surveillance systems is necessary to optimise vaccine coverage and strategies at various levels.⁵³ This funding supports the implementation of integrated data systems as well as rigorous and standardised data collection methodologies and analysis to understand the direct impact of vaccine programmes on communities.^{53,54}

Policymakers can utilise infectious disease surveillance data to make timely and responsive changes to immunisation strategies across the life course, such as responding to outbreaks through emergency vaccination initiatives and targeted campaigns.⁴⁸ For example, in Japan, frequent outbreaks of rubella were thought to have resulted from gaps in vaccine coverage in previous decades, leading to the establishment of a catch-up vaccination programme for men in 2019.⁴⁸ A survey found that close to 26% of respondents had used the free voucher for rubella antibody testing, while only 6% had used the voucher for vaccination in 2019,⁵⁵ which exemplifies the need for continuous public engagement and improvements in the accessibility of vaccination programme.

A notable effort in Vietnam is the development of a National Immunisation Information System (NIIS) in collaboration with the World Health Organization and the Program for Appropriate Technology in Health (PATH), to digitise the immunisation database and track immunisation records, vaccine stocks and distribution. However, the NIIS covered less than 25% of the population in 2020, and older adults were yet to be included onto the database.³

Reinforced surveillance measures are also crucial for informing policy makers on long-term contracting models to mitigate supply and demand issues, as well as effectively target subpopulations to ensure it reaches the most vulnerable and marginalised communities.⁵⁰ Timely reporting of low stock levels and maintaining records of stocks and supplies are crucial for monitoring vaccine supply and demand and ensuring appropriate corrective actions to be taken in the event of shortages.⁴⁸ Additionally, funding for monitoring and surveillance is essential in guiding budgeting and planning in underserved areas, ensuring that sufficient funds are allocated to reach all communities.

CONCLUDING REMARKS

AND CALL-TO-ACTION

Various strategies, including the World Health Organization's Immunisation Agenda 2030 and the United Nations Decade of Healthy Ageing (2021–2030), have called for a life-course approach to immunisation policy. It is crucial for policymakers and governments to recognise and shift their mindset that life-course immunisation is an economic investment, not a cost.

Viewing healthcare investment in immunisations solely as a cost item hinders the realisation of the full potential of immunisation policies. Instead, governments should understand the value of preventive care, including vaccinations, in reducing the economic burden on the healthcare system and improving economies through increased productivity of our workforce. The opportunity cost of not doing so will be even higher. While our spend during pandemics tend to be irrational, our spend during endemics is understated.

As many countries in ASEAN are transitioning to middle- and high-income, there comes shifts in public and private spending on health, which presents an opportunity to rethink where this investment should be prioritised. This includes preventive care and life-course immunisation to ensure the spread of infectious diseases do not transition into a pandemic.

The adoption of life-course immunisation will require purposeful and committed action, strong political will and collaborative efforts among all levels of society, including policymakers, healthcare providers, non-governmental organisations, community leaders and academia. Best practice sharing among nations of comparable capabilities and capacities across the region is key, to ensure we make progress towards supporting immunisations in ASEAN.

POLICY CALL-TO-ACTION CHECKLIST:

To drive progress in the implementation and funding of life-course immunisation, the following policy actions are recommended:

PAYMENT:

- Increase affordability of vaccinations through free or subsidised vaccines
 - Utilise existing funds more efficiently through innovative financing mechanisms like sin taxes and individualised health savings account, and allowing tax deduction for vaccine insurance coverage

PROGRAMMES:

- Incorporate life-course immunisation as part of national immunisation policies
 - Establish and expand national vaccine schedules and guidelines across all ages
- Increase awareness, education and engagement of the public and healthcare providers
 - Tailor awareness campaigns and initiatives to raise vaccine literacy and confidence
 - Provide training and resources to healthcare providers as advocates for vaccinations
- Promote vaccination advocacy
 - Leverage influence of healthcare providers, local health communities, public health officials and media to advocate for the benefits of immunisations

PROCESS:

- Improve vaccine procurement, supply chain and logistics
 - Build data systems for effective inventory management of vaccines procurement, storage and distribution
 - Strengthen infrastructure to manage cold chain logistics and ensure vaccine integrity

PERFORMANCE:

- Develop robust data surveillance systems and infrastructure
 - Improve surveillance infrastructure to regularly track and monitor uptake rates of vaccination
 - Enhance data systems to inform long-term vaccine supply and purchase
- Improved vaccine quality and research
 - Allocate research funding to inform vaccine efficacy and cost-effectiveness data for evidence-based policy-making

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ABOUT THE EU-ASEAN BUSINESS COUNCIL

The EU-ASEAN Business Council (EU-ABC) is the primary voice for European business within the ASEAN region. It is formally recognised by the European Commission and accredited under Annex 2 of the ASEAN Charter as an entity associated with ASEAN.

Independent of both bodies, the Council has been established to help promote the interests of European businesses operating within ASEAN and to advocate for changes in policies and regulations which would help promote trade and investment between Europe and the ASEAN region. As such, the Council works on a sectorial and cross-industry basis to help improve the investment and trading conditions for European businesses in the ASEAN region through influencing policy and decision makers throughout the region and in the EU, as well as acting as a platform for the exchange of information and ideas amongst its members and regional players within the ASEAN region.

The EU-ABC conducts its activities through a series of advocacy groups focused on particular industry sectors and cross-industry issues. These groups, usually chaired by a multi-national corporation, draw on the views of the entire membership of the EU-ABC as well as the relevant committees from our European Chamber of Commerce membership, allowing the EU-ABC to reflect the views and concerns of European business in general. Groups cover, amongst other areas,

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Executive Board: The EU-ABC is overseen by an elected Executive Board consisting of corporate leaders representing a range of important industry sectors and representatives of the European Chambers of Commerce in South East Asia.

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Executive Board



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