



Adult Vaccination Scientific Workshop Meeting Report Hong Kong

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Adult vaccination as part of healthy ageing

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Adult vaccination as a strategy to healthy ageing

As age expectancy increases globally, the World Health Organization (WHO) continues to emphasise on healthy ageing.¹ Healthy ageing is defined as the process of developing and maintaining the functional ability that enables wellbeing in older age, and adult vaccination is one of the focus areas identified by the United Nations (UN).^{1,2} The action plan comprises of integrated, long-term care for high-risk individuals and is facilitated by a close-knit collaboration between stakeholders through strengthening research, data and innovation.² Understanding the country-specific demographic shifts and investigating the reason behind suboptimal adult vaccination rates are crucial in executing a comprehensive stepwise process for change.^{1,2} Multiple challenges in optimising adult immunisation have been identified, including poor public health awareness; inconsistent policies, standards and guidelines; underrepresentation of adult vaccination experts in National Immunisation Technical Advisory Groups (NITAG); inadequate public education; unclear costs and reimbursement policies as well as limited and incomplete data collection.

Prevention, access, and equity

Aligned with the UN's Decade of Healthy Aging and WHO's Immunisation Agenda 2030, the International Federation on Ageing (IFA) organised a Vaccines4Life Programme.³ The programme targets challenges in adult vaccination, acts as a knowledge mobilisation platform and serves as a point of connection across disciplines and sectors to work on the most urgent matters related to adult vaccination.³ It aims to combat inequity, improve access to immunisation and promote a life course approach to immunisation.³ The ultimate goal of Vaccines4Life is to preserve function and help prevent disability and death.⁴ To achieve these goals, the key is to increase public awareness on adult vaccination for common infectious diseases such as influenza,⁵ pertussis, pneumococcal disease and herpes zoster.

Prioritising immunisation throughout life represents a key pillar of disease prevention and a central component of universal health coverage.⁶ Strategies include the provision of effective public health messages, building region-specific consensus, and enhancing capacity and advocacy skills.⁷ The expansion in the portfolio on health promotion is of utmost importance because adult immunisation is affected by the social determinants of health,⁶ defined as the interrelationship between the individual and the environment, which can be shaped by a wider set of forces, such as economics, social policies and politics.⁸ Addressing social determinants is critical because this can help prevent illness, but also promote healthy lives and social equity, especially the attitude of the older generation. The decisions that individuals make would thereby impact health decisions and life expectancy, as exemplified by the COVID-19 pandemic.

In addition to disease prevention through vaccination, identifying and removing barriers to ensure equal access to appropriate immunisation is equally important.³ However, due to the differences in policies, individuals' access to different vaccines could differ across countries, especially during the COVID-19 pandemic. On an international level, improving access entails broadening the representation of experts in the NITAGs network, which are multidisciplinary groups of national experts who provide scientific recommendations to their respective policy makers on issues related to immunisation and vaccines.^{9,10} An overview of the current NITAG composition highlighted several limitations including an underrepresentation of experts specialising in adult immunisation or geriatrics.¹⁰ There is therefore an urgency to include



representatives from different specialties; from paediatricians and public health specialists to vaccinology experts and geriatricians, to contribute to evidence-based recommendations on immunisation.¹⁰ This multidisciplinary approach would in turn improve and expand current vaccination pathways for eligible individuals and create a comprehensive schedule across the life course to combat a progressive functional decline.¹⁰

Social determinants have a tremendous impact on the health and wellbeing of a person as they age, which often contributes to inequality across the life course. Studies comparing public health messages across regions and countries suggest that inequality often exists because the language used in educational materials may assume the same level of health literacy and equal access to online materials. The ambition is thus to reduce inequality in time and ensure appropriate and affordable access to immunisation through life, such as increasing vaccine awareness and advancing immunisation for older adults. Central to creating an environment that enables older adults to have equal access to vaccination is to combat ageism and protect their rights, which can manifest as acknowledging the need for immunisation for these high-risk individuals and scaling up interventions for long-term care. The profound impact of underlying social determinants was also highlighted by the Towards Ending Immunization Inequity study, which demonstrated that level of income, racial identity, culture and access to health services influence individuals' ability to receive and understand vaccine-related messaging.¹¹ Therefore, effort should not only be invested in reducing inequalities and guaranteeing affordable access to immunisation, especially for high-risk groups, but also providing support for older adults on vaccine awareness, removing communication barriers and creating a safe environment for individuals to communicate effectively with healthcare professionals.

The challenges associated with the world's ageing population are complex; identity and lived experiences have a substantial impact on the health decisions an individual makes, and can represent a challenge in the promotion of healthy ageing. Efforts have been made by international organisations including the WHO, UN and IFA. The Vaccines4Life Programme under the IFA identified current unmet needs in advancing adult immunisation and established three major areas for improvement: prioritising a life course approach to immunisation; ensuring equal access for all eligible adults and minimising inequalities, and support appropriate and affordable access for high-risk groups.

Adult vaccination in Hong Kong – The current situation

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The 2021 report released by the Census and Statistics Department estimated that individuals aged ≥ 50 account for approximately 44.7% of the population in Hong Kong.¹² The ageing trend is supported by the Hong Kong Population Projections report, which estimated a progressive increase in median age from 44.6 in 2019 to 54.2 in 2069, of which, the proportion of individuals aged ≥ 65 was estimated to rise from 18.5% in 2019 to 33.3% in 2039 and 38.5% in 2069.¹³ These data highlighted the significance of prioritising adult vaccination, as part of the strategy to promote healthy ageing.

Current guideline recommendations on immunisation against vaccine-preventable diseases

Current local adult vaccination recommendations and implementation in Hong Kong are based on joint effort by the recommendations of the Scientific Committee of Vaccine Preventable Diseases (SCVPD), government vaccination programmes and schemes supported by the Department of Health and service advice provided by Primary Healthcare Office. The SCVPD was set up to provide science-based advice on

vaccine use at the population level and release recommendations on adult vaccination against vaccine-preventable diseases including hepatitis B in newborns, measles in children and adults and COVID-19 in the pandemic setting. Key recommendations from the SCVPD focusing on adult vaccinations include the use of COVID-19 and influenza vaccines for all individuals; pneumococcal vaccine for high-risk groups and older adults (individuals of 65 years or older); and dTap (tetanus, diphtheria, and pertussis booster) for pregnant women.^{14–17}

Programmes, access points of vaccination and subsidy schemes

The government launched multiple programmes to facilitate population-wide adult vaccination, including the Government Vaccination Programme (GVP), Residential Care Home Vaccination Programme (RVP) and Vaccination Subsidy Scheme (VSS).^{18–20} The GVP has been providing free seasonal influenza and pneumococcal vaccinations to adults in eligible groups, while the complementary RVP expanded the coverage of free seasonal influenza and pneumococcal vaccinations to adults in eligible groups.^{18,19} The VSS was designed to provide incentive to eligible Hong Kong residents to receive vaccination by subsidising seasonal influenza and pneumococcal vaccination through the participation of private doctors.²⁰ To provide subsidies for older adults to receive private primary healthcare services that best suit their needs, the government introduced older adults healthcare vouchers in 2009, which can be used towards vaccination.²¹ To summarise the currently available programmes which support adult vaccination, an overview of currently available vaccines and subsidised coverage in Hong Kong is listed in **Table 1**. Other access points that support vaccination include public hospitals, Port Health and Family Health Services. These initiatives are complemented by the Reference Frameworks, which provide primary care professionals with a common reference to facilitate the provision of continuing, comprehensive and evidence-based care in the community.²² The Preventive Care for Older Adults in Primary Care Settings is one of the established frameworks and the chapter focusing on immunisation for adults aged ≥65 years recommends these individuals to receive annual seasonal influenza vaccination as well as pneumococcal vaccination (a single dose of pneumococcal conjugate vaccine 13 [PCV13] or a single dose of 23-valent pneumococcal polysaccharide vaccine [23vPPV] for those without high-risk conditions and a single dose of PCV13, followed by a single dose of 23vPPV one year later for those with high-risk conditions).²³ Another framework – the Framework for Diabetes Care for Adults in Primary Care Settings, which was tailored for those with diabetes, recommends all individuals living with chronic illnesses such as diabetes to receive pneumococcal and seasonal influenza vaccination.²⁴

Table 1. Vaccine availability and subsidised coverage for eligible adults in Hong Kong

Vaccine	Government recommendations and funding available*	Self-paid
COVID-19	✓ (all)	
Seasonal influenza	✓ (50+, pregnant women, other specific groups†)	✓
Pneumococcal	✓ (65+)	✓
Herpes zoster		✓
Diphtheria, tetanus, pertussis	✓ (pregnant women)	✓
Hepatitis A		✓
Hepatitis B		✓
Meningococcal ACWY + B		✓
Mumps, measles, rubella		✓
Varicella		✓
Japanese encephalitis		✓
Human papillomavirus		✓

CSSA, Comprehensive Social Security Assistance

* Some vaccines are available in public hospitals for high-risk populations, which is not part of the government vaccination and subsidy programme.

† Other specific groups include individuals with intellectual disability, recipients of disability allowance/standard rate of “100% disabled” or “requiring constant attendance” under CSSA, residents of residential care homes, individuals with chronic medical problems, healthcare workers, poultry workers, pig farmers/ slaughtering industry personnel²⁵



Statistics on vaccination coverage of common infectious diseases, attitudes and barriers in Hong Kong

COVID-19 vaccine

Up until March 2022, more than 14 million doses of COVID-19 vaccines were administered, and the uptake rate of the second dose was highest in the aged 40–49 group (93.0%).²⁶ A low COVID-19 vaccine uptake rate was noticed between the 60–69 group to the 70–79 group (77.8% vs 64.3%) and even fewer individuals in the aged ≥ 80 cohort had received two doses of vaccines (34.3%).²⁶ Notably, this was a significant increase in the uptake rate compared with November 2021, when the meeting was convened, in which only 43.2% and 16.3% of those aged 70–79 and ≥ 80 years had received two doses of vaccines, respectively.

Seasonal influenza vaccine

Vaccination coverage statistics showed that there was a slight increase in seasonal influenza vaccine coverage from 2011 to 2020 for individuals of age 50–64 years (from 9.7% to 12.3%) and those aged 65 and above (from 31.7% to 45%).^{27,28} The increase in vaccination rate was driven by the rise in individuals utilising the GVP scheme in 2016–2017.²⁷ A survey studying the demographic who received seasonal influenza vaccination in the past 12 months suggested that enhancing immunity (94.4%), feeling protected (92.3%) and quick recovery from flu (69.5%) were the top three reasons for individuals to receive vaccination.²⁹ These individuals were also more likely to have low household income and education level, attend public clinics and self-perceived to have fair to poor health.²⁹

Pneumococcal vaccine

According to the statistics on vaccination programmes in the past 3 years released by the Centre for Health Protection (CHP), fewer than 50% of older adults aged ≥ 65 received pneumococcal vaccination (PV), and the vaccination coverage remained largely consistent between 2019 (44.6%) and 2020 (46.9%).²⁸ The uptake rate and factors associated with PV completion in older adults were assessed in a retrospective study conducted from May to July 2019. Study results indicated that PV completion rate was only 10% among all participants, of which 16.5% of individuals did not have high-risk conditions. Alarming, only 6.4% of individuals who had any high-risk condition(s) for severe invasive pneumococcal disease (IPD) were fully vaccinated.³⁰ The higher likelihood of PV completion was associated with multiple factors, including older age, higher education level and a history of seasonal influenza vaccination.³⁰

Herpes zoster vaccine

Public data on the uptake rate of herpes zoster (HZ) vaccine are not currently available. A cross-sectional study conducted in 2015 recruiting Hong Kong citizens aged ≥ 50 years revealed that 26.9% of adults received seasonal influenza vaccination in the past year, 14.3% had received the pneumococcal vaccine in the past 5 years, and only 2.8% received HZ vaccines in the past 12 months ($n=391$).³⁰ The main barriers to receiving HZ vaccination were unawareness of availability (47.1%), inadequate promotion from doctors and public education (32.4%) and relatively high cost of the vaccine (28.4%).³¹

Summarising the vaccine uptake rates for seasonal influenza, pneumococcal disease, HZ and COVID-19, data have indicated that vaccine coverage differs across vaccine types and age groups. Although an increase in seasonal influenza vaccine uptake rate among those aged ≥ 65 suggested a positive impact of the subsidy and outreach programmes, efforts should be made to strengthen public education to increase the awareness of vaccination in the 50–60-year age group while also further improving the uptake rate in those aged ≥ 65 . In the older adult population, the suboptimal vaccination coverage for pneumococcal disease ($<50\%$) and COVID-19 (34.3% in those aged ≥ 80) suggests that there is room for improvement, for example, investigating strategies on improving education and vaccine access for seasonal influenza,

pneumococcal disease and COVID-19. Greater effort should also be invested in exploring the extension of government subsidisation for certain vaccines such as HZ vaccine and dTap booster for older adults and high-risk populations, including those with chronic illnesses.

Surveillance, epidemiology and research of vaccine-preventable infectious diseases in Hong Kong

Professor Benjamin Cowling

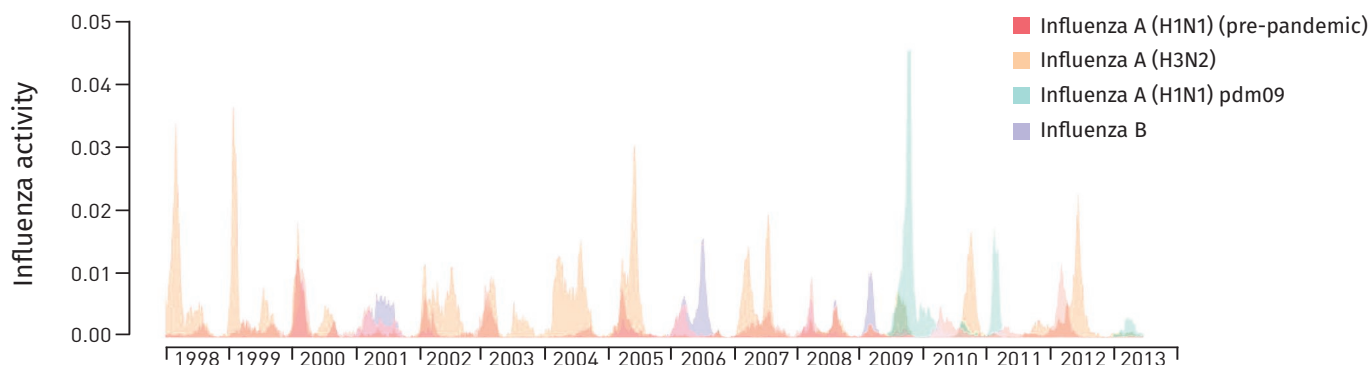
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Seasonal influenza

Seasonal influenza viruses cause infections worldwide in all age groups, and can result in hospitalisation, severe outcomes and complications, and death.³² In Hong Kong, seasonal influenza vaccines are recommended to be given in autumn.³³ However, the prolonged duration of disease activity of influenza can last from November to August, with two distinct peaks in January to March/April and July to August.³³ Local laboratory surveillance results from 2017–2021 showed a dramatic reduction in the incidence of seasonal influenza since the beginning of 2020; only 0.1% of respiratory specimens received tested positive for seasonal influenza A or B viruses in November 2021.³⁴ The temporary eradication of seasonal influenza could be a result of the implementation of non-pharmaceutical measures due to COVID-19, such as mask wearing and social distancing. This observation, however, does not accurately represent the disease burden of seasonal influenza as reflected by surveillance data collected between 1998 to 2013.

A study was initiated to estimate the influenza-associated hospitalisation and mortality, taking into account hospitalisation and mortality rates related to common comorbidities such as cardiovascular and respiratory diseases that might not be captured previously using collected hospitalisation data, mortality data and influenza data in Hong Kong retrospectively from 1998–2013.³² Results indicated that during the study period of 15.5 years, there were two distinct epidemics in some years such as 2000, 2003 and 2008, and prolonged epidemics in 2002 and 2004 (**Figure 1**).³² Furthermore, influenza was associated with high annual excess hospitalisations (12,700, 95% confidence interval [CI] 11,700–13,700) and mortality (431, 95% CI 358–503), with a majority of deaths occurring in older adults, suggesting a substantial disease burden in this age group from 1998–2013.³² To tackle the challenges of prolonged disease activity in Hong Kong, the practicality of biannual vaccination and the use of enhanced vaccines are currently being explored to combat the long duration of influenza activity in Hong Kong and extend the protection of individuals.

Figure 1. Weekly influenza activity in Hong Kong from 1998 to 2013 measured by ILI+ proxies^{32*}



*The excess hospitalisation and mortality data were estimated by comparing the predicted hospitalisation and death rates under the linear regression model with ILI+ proxies set to zero with the predicted rates with ILI+ proxies set to their observed values. ILI+ proxies were calculated by multiplying the rate of influenza-like illness consultations per 1,000 consultations with the proportion of specimens testing positive for each type/subtype of influenza.



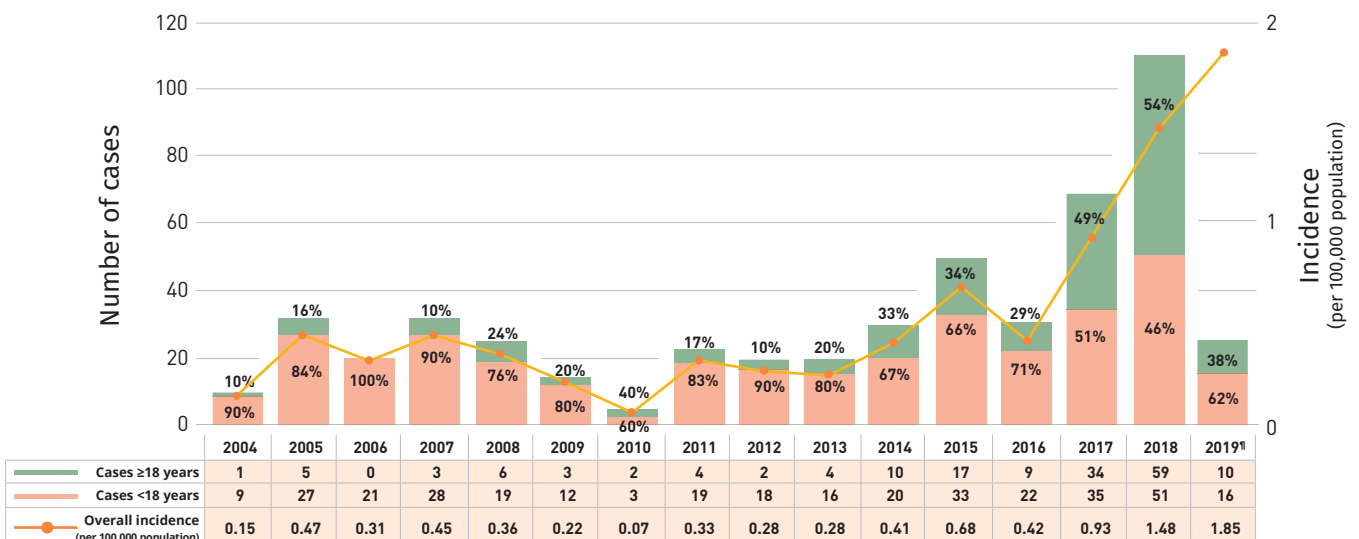
Invasive pneumococcal disease

PCV7 was first introduced in Hong Kong in 2009, covering the seven most prevalent serotypes in invasive pneumococcal disease (IPD). New-generation vaccines including PCV10 and PCV13 have since been introduced to the childhood immunisation programme in Hong Kong in 2010 and 2011, respectively.³⁵ According to two reports by the Centre for Health Protection which analysed the number of IPD cases from January 2015 to September 2021, the most significant IPD burden was observed in young children (2–4 years old) and older adults (≥65 years old),³⁶ and the most common serotypes were serotype 3 (52.9%), 19A (5.8%) and 13 (4.8%).³⁷ In fact, of the 189 IPD cases recorded in 2018, 139 were adult cases (≥18 years old).³⁷ A 14-year population-based interrupted time series analysis which compared the change in monthly hospitalised pneumonia cases pre- and post-PCV immunisation from 2004 and 2017 found a slight declining trend in pneumonia admissions after PCV introduction in older adults.³⁸ However, the disease burden is still substantial and boosting the uptake rate of pneumococcal vaccine in older adults remains a priority.

Pertussis

In recent years, a resurgence of pertussis has been observed in countries with high vaccination coverage. Similarly, there was an upsurge in the number of notified pertussis cases in 2017 in Hong Kong, from 20–50 cases per year during 2011 to 2016, to 69 cases in 2017. Since then, the number of cases continued to increase in 2018 (110 cases) and 2019 (26 cases as of March 10, 2019 and 96 cases in total) (Figure 2).^{37,39} Data released by CHP in 2019 revealed that 54% of pertussis cases were found in adults (n=59) in 2018.³⁷ Specifically, an age-stratified analysis of pertussis cases in Hong Kong from 2014–2019 showed that approximately 44% of cases were of adults ≥18 years old. Amongst those cases, 86% had not received vaccination or had an unknown vaccination status, and 50% were not born locally.⁴⁰ It is also worth highlighting that older adults contribute the highest proportion of cases amongst all adult cases,⁴⁰ which could partially be explained by the lack of a universal preventative measure for those born before 1956, as the pertussis-containing vaccine was only introduced in 1957. This observation, together with the lack of a booster programme for dTap, could contribute to the high pertussis cases observed in older adults. From 2019 to 2021, a progressive decrease in the number of incidences was observed,^{39,41,42} contributed by the implementation of non-pharmaceutical measures during COVID-19. These epidemiology reports implied that unvaccinated individuals as well as older adults are at risk of pertussis and thus represent an opportunity for targeted immunisation strategies such as a booster campaign.

Figure 2. Annual number of notified pertussis cases by age group from 2004–2019 (Figure as of March 10, 2019)^{37,39}



Adapted from data obtained from the Communicable Disease Watch 2019 Volume 16 and Number of notifiable infectious diseases by month in 2019 from the Centre for Health Protection.

[†]Data as of March 10, 2019

Herpes zoster

Varicella is an endemic disease in many parts of the world and is the most commonly reported notifiable infectious disease in Hong Kong.⁴³ According to seroprevalence data from the CHP for 2020, 97% of Hong Kong adults >39 years old have been infected with varicella zoster virus and are therefore at risk of Herpes zoster (HZ).⁴⁴ A retrospective study which aimed to assess the epidemiology of varicella and HZ in Hong Kong collected inpatient admissions and data from the accident and emergency department (A&E) in public hospitals from September 2004 to August 2014 which recorded 23,456 A&E attendances and 12,885 inpatient admissions. Complications occurred in 23% of HZ admissions, with post-herpetic neuralgia (13%) and ophthalmic complications (5%) being the most common.⁴³ Results showed that the average annual A&E admission and hospitalisation rate for HZ increased with age; individuals aged ≥ 60 were at the highest risk of A&E admission and hospitalisation, and the rate of admission in patients aged ≥ 80 was nearly four times higher than that of those aged 60–79.⁴³ Around 19% of individuals who were admitted had multiple A&E admissions or hospitalisations, demonstrating the severe outcomes of HZ in some cases.⁴³ The real-world evidence suggested the value of a HZ vaccination programme and the necessity of surveillance data collection to demonstrate the benefit of vaccination.

In conclusion, epidemiology reports of the common infectious diseases implied that older adults are at highest risk of these diseases or the disease-associated complications. These observations suggested that enhancing the education on vaccine availability and appropriate vaccine schedules for this cohort is crucial. Moreover, there is a need to explore how to optimise the current vaccination strategies for each disease, including the best-suited vaccination strategy for seasonal influenza by taking the prolonged seasonality into consideration, the benefit of introducing 20-valent pneumococcal vaccine, the need for a dTap booster campaign for pertussis, as well as the potential benefits of a HZ vaccination programme. In addition, the need to enhance surveillance for other vaccine-preventable infectious diseases should also be explored as these data will play a significant role to better assess the optimal strategy for the introduction of related vaccines in the future.

Experts' opinion on current unmet needs and ways to improve adult vaccination in Hong Kong

The discussion session was moderated by Chairperson and the panel shared their insights on topics revolving around existing gaps and next steps to improve adult vaccination in Hong Kong. The following subtopics and opinions were raised during the discussion.

Vaccination recommendations and subsidies

Explore the effectiveness of an opt-out system for older adults

Inspired by the mass vaccination programme designed for school-age children, the practicality of an opt-out system targeting older adults for them to receive vaccination once they have reached a certain age, for example, 60 years old, can be explored to improve vaccine uptake rate in this cohort. The opt-out programme could help reduce expenditure on disease awareness programmes and relieve stress on the public health sector.

Expanding subsidy schemes to include more vaccine types

Subsidisation can be a suitable strategy to boost vaccination uptake rate. HZ vaccine is not currently on the government subsidy list and the public has a low incentive for vaccination with a very low uptake. There is a need to explore the expansion of the subsidised list of adult vaccines by the government, and HZ vaccine should be included due to the negative impact of HZ on functionality and increased morbidity, particularly in older adults.



Vaccination schedules for adults and special groups

Develop vaccination schedules for adults and guideline recommendations for immunocompromised populations

Strategies designed to improve the adult vaccination rate should consider the disease burden, demographics and epidemiology of the region. Setting up a vaccine schedule recommendation for adults, including those who meet certain high-risk criteria, such as immunocompromised individuals, represents a suitable option to promote timely adult vaccination. The vaccine schedule scheme can be facilitated via the eHealth application to remind eligible individuals about their vaccination prior to their upcoming consultations or through public health announcements for the public. Complementary to the vaccine schedule, clear guideline recommendations and subsidy schemes on adult vaccination should be developed to cater for those who are immunocompromised due to diseases or immunosuppressive therapies, for example, individuals who need to undergo transplantations and those with cancer or human immunodeficiency virus (HIV).

Ensure relevancy of vaccine recommendations

The Hong Kong Reference Frameworks which provide a common reference for primary healthcare professionals to facilitate the provision of continuing, comprehensive and evidence-based care in the community, should be updated regularly to reflect the latest medical development and best practices, including recommendations for adult vaccination targeting older adults (The Preventive Care for Older Adults in Primary Care Settings) and those living with diabetes (The Framework for Diabetes Care for Adults in Primary Care Settings).

Testing and reporting of vaccine-preventable disease

Increase recognition and chance of diagnosis of infectious diseases to facilitate the collection of accurate surveillance data

Pertussis

In Hong Kong, diagnostic tests for pertussis include culture and polymerase chain reaction (PCR), but PCR is seldom used in the public setting. Patients can present with prolonged cough but are very rarely offered diagnostic testing for pertussis, both in the public and private sectors. Due to the nature of the disease and the relationship between the onset time of the disease and when the tests are conducted, false negative results are common, making it difficult to accurately diagnose and estimate disease burden. A majority of cases were revealed by hospital admission records. However, not all patients with pertussis will be hospitalised. These observations indicate that the collection of accurate surveillance data is challenging. Enhanced community-level monitoring, such as outpatient data, for pertussis is therefore necessary to obtain accurate surveillance data. Collecting and screening individuals in the tuberculosis (TB) cohort who also have prolonged cough to receive a PCR test prospectively would be a useful strategy to estimate the incidence rate of pertussis and accurately establish disease burden. Moreover, the development of a rapid test for pertussis would also be helpful for accelerating pertussis diagnosis.

Herpes zoster

Similar to pertussis, a lack of surveillance for HZ cases that do not require hospitalisation or emergency admission makes it difficult to assess the epidemiology and burden of HZ in Hong Kong. HZ is a common disease in older adults and efforts should be made to initiate the collection of HZ surveillance data so that the data can accurately reflect the disease burden in Hong Kong as well as the effectiveness of HZ vaccine.

Overall, collecting accurate surveillance and incidence data on common infectious diseases would facilitate the evaluation of the impact and effectiveness of vaccines.

Awareness, education and access

Minimise misconceptions about vaccines to reduce hesitancy

Low incentive for adult vaccination could be a result of perceived lack of immediate benefits. Younger adults, in particular, might consider vaccination unnecessary because of their perception of their own robust immunity. Additionally, the propagation of unauthorised and inaccurate information on vaccines, for example, the safety profile, also contributes to vaccine hesitancy. Campaigns focusing on debunking myths, while providing accurate scientific information to the public would be helpful.

Improve clinician education at the university level

Healthcare professionals play a key role in improving public confidence in vaccination, which in turn improves vaccine uptake rate. There is currently insufficient clinician education on adult vaccination, which can subsequently reduce proactive communication and engagement with the public. Enhancing clinician education starting at the university level targeting medical students would be an effective strategy to improve awareness of the benefits of immunisation. Sufficient education and training should also be provided to healthcare professionals to support delivery of large-scale vaccination.

Explore the possibility of setting up an academic society focusing on immunisation

To date, there is a lack of standardised guidelines and recommendations on adult vaccination for older adults as well as patients in special populations, such as those undergoing transplant, individuals prescribed immunosuppressive therapies or those with HIV. Setting up an academic society specific to vaccinology and vaccination would provide a platform for scientific exchange amongst experts for discussing the unmet needs, updating current vaccination framework and facilitating the development of consensus.

Enhance public awareness of the benefit of adult vaccination to increase incentives

COVID-19 has dramatically increased public understanding of the benefits of vaccination. This represents an opportunity for healthcare professionals to promote routine vaccination for other infectious diseases such as pneumococcal, influenza, or dTap and HZ, as a vital component of reducing the risk of contracting vaccine-preventable diseases. It is of utmost importance to ensure the propagation of reliable and accurate information on vaccination and different vaccine types for each infectious disease. Publishing innovative education materials and ensure dissemination of accurate public health data focusing on the disease burden and the effectiveness of vaccines could provide incentives for adult vaccination.

Increase incentives for older adults to receive vaccination

Although subsidy schemes could provide an incentive for vaccination for older adults, vaccination might not be considered a priority. Instead, Traditional Chinese Medicine (TCM) could be some older adults' preferred treatment of choice. Family members or care takers of older adults living in care homes might also refuse vaccination on the older adult's behalf. To encourage vaccination in older adults, a dedicated amount of Elderly Health Care voucher specific for vaccination might be useful in encouraging vaccination and improving the uptake rate. To further increase incentives for vaccination for those who struggle to afford vaccination at private clinics, the provision of universal free vaccination, for example, to include the utilisation of new-generation recombinant seasonal influenza vaccines for older adults, or the addition of other vaccines to be funded by the government should be considered. Efforts should also be made by clinicians to persuade older adults to receive vaccination, including those in elderly homes, as well as care home workers. This can be achieved partly through discussing the potential negative long-term impact of infectious diseases on health such as influenza and frailty.

Streamline vaccine access

Currently, receiving government-subsidised vaccination in the public setting, such as the case of pneumococcal vaccine, individuals who are suitable for pneumococcal vaccines have to be referred by a clinician. This process limits the proportion of eligible individuals to receive vaccination. Simplifying the process could expand vaccine access and thereby boost vaccination coverage.

Lobby the government to increase funding for the subsidy schemes and explore the possibility of free universal immunisation for targeted groups

Successful vaccination campaigns require governmental support. Without governmental subsidies, infectious diseases with low reported incidences, such as pertussis, or a paucity in incidence data, such as HZ, could be regarded as a low priority. The Scientific Committee for Vaccine Preventable Diseases (SCVPD), which provides science-based advice on vaccine use at the population level should, therefore prioritise adult vaccination as an effective approach to protect individuals from vaccine-preventable infectious diseases. The recommendations provided by the committee could assist other government departments to translate the recommendations to actionable items such as extending the subsidy list for other individuals who are at high-risk of infectious diseases, including those with chronic conditions. The possibility of providing fully subsidised adult vaccination programmes equivalent to the childhood vaccination programme supported by the Public Maternal and Child Health Centres (MCHC) can also be investigated.

Conclusion

The Adult Vaccination Scientific Workshop provided a platform for experts who are passionate about immunisation to share their insights on currently available local initiatives and discuss current unmet needs and potential solutions in adult vaccination in Hong Kong. Experts agreed that increasing the vaccine uptake rate requires effort from multiple stakeholders including support from the government and healthcare professionals, improving public recognition of the importance of adult vaccination and collaborations between researchers and clinicians to collect accurate epidemiology and surveillance data. Throughout the meeting, experts also highlighted the importance of raising awareness and increasing incentives for adult vaccination, optimising and expanding current subsidy schemes to include HZ and dTap booster, with a focus on including more vaccine types for older adults, and exploring the possibility of an adult vaccine schedule and fully subsidised vaccination programme. This report highlighted areas that deserve attention and improvement in adult vaccinations in the near future.

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