International Federation on Ageing

Vaccines 4 Life

a contribution to the Decade of healthy ageing

Addressing Adult Immunisation Inequity and Improving the Uptake Rates of Adult Vaccination Among Older People

A Policy Brief

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Introduction

The advancement of population ageing is unprecedented, as is the prevalence of people with non-communicable diseases (NCDs). By 2030, which marks the end of the UN Decade of Healthy Ageing, the number of people aged 60 years and older will be 34% more than today, reaching 1.4 billion [1]. By 2050, this population will have more than doubled to 2.1 billion and will outnumber adolescents and young people aged 15–24 years [2].

Noncommunicable diseases kill 41 million people each year which is equivalent to 71% of all deaths worldwide [3]. In developed nations, about one in four adults have at least two chronic medical conditions, and more than one half of all older adults have three or more conditions. In Europe, cardiovascular diseases, diabetes, cancer, chronic respiratory diseases, and mental disorders together represent approximately 77% of the disease burden and 86% of total deaths [4].

Older people and those with chronic medical conditions are especially at-risk of serious life threatening complications from vaccine-preventable diseases (VPDs) compared with the general population [1]. Vaccine-preventable diseases such as influenza, pneumococcal pneumonia and pertussis are responsible for a significant portion of morbidity and mortality across the life course, and in all countries - low-, middle- and high-income. Sustained and diminished loss in functional ability and autonomy, hospitalisation and even death are known consequences of VPDs [1]. For example, in adults aged 50 years or older, lower respiratory tract infections including influenza and pneumonia resulted in 1.5 million deaths globally in 2017 and accounted for 23 million years of life lost due to premature mortality [1].

Vaccination is a frontline public health action and one of the most successful measures of modern times, preventing up to six million deaths worldwide every year. Vaccination plays an important role in preventing diseases across the life course (from childhood to adult-hood) and as such is an essential component in healthy ageing policy and programs. In addition to health benefits, vaccination has a sig-nificant return on investment for both the individual and the society. Investing in health promotion and prevention across the population has a significant return on every dollar invested.

A study done in European Union countries found that the economic and social value of vaccination is significant and every €1 spent on immunisation can yield €4 in economic returns [5]. Moreover, in a study focusing on low- and middle-income countries, investment in immunisation programs resulted in a return of US$ 51 for every US$ 1 spent from 2011-2020, and are projected to generate even higher returns from 2021-2030 [6].

Despite clear evidence in support of life course immunisation, National Immunisation Programs (NIPs) are largely paediatric focused and across all vaccine-preventable diseases (influenza, pneumococcal pneumonia and shingles) the update rate of adult vaccination remains suboptimal, with rates in recent times declining [1].

Understanding why countries are consistently below adult vaccination targets or why targets do not exist in various countries is a pressing issue. Social and economic conditions play a central role in health equity [1] and the pandemic has highlighted this in the most brutal way across ages and also environments particularly those for older people and at-risk populations. Now more than ever, there is a need to respond to the gaps and barriers with evidence-based policies to ensure equitable access to adult vaccination [7].

To maintain and improve the health of ageing populations, it is imperative that life course immunisation is a component of a comprehensive public health strategy manifested and monitored through national policies and actions, guided by global agendas. Global agendas including the WHO Immunisation Agenda 2030, the UN Decade of Healthy Ageing and the WHO Global Report on Ageism are indirectly linked to the 13th General Programme of Work (2019-2023) to promote well-being for all ages through triple billion targets: one billion more people benefiting from universal health coverage; one billion more people better protected from health emergencies; and, one billion more people enjoying better health and well-being [8–11]. When aligned and connected strategically, these agendas have the potential to contribute to policy change that will improve health outcomes through sustained investment in health promotion and prevention, improved immunisation infrastructure and preservation of function at all stages of life through a comprehensive immunisation schedule [7].

In the conceptual framework of the life course defined by the WHO, 'functional ability' and 'intrinsic capacity' are shown diagrammatically as idealised curves across the life course. Intrinsic capacity refers to the internal attributes that we are born with, such as our physical and mental health. Yet it is the direct relationship with the environment that can enhance and / or detract functional ability throughout life. Adopting the life course approach means identifying opportunities for minimising risk factors and enhancing protective factors through evidence-based interventions at important life stages.

When considering the population as a whole, functional ability and intrinsic capacity can vary across the second half of life and general trajectories can be divided into three common periods: relatively high and stable capacity; declining capacity, and significant loss of capacity. The focus of public health strategies including immunisation should be on helping to maintain and improve function for as long as possible. Environmental strategies will therefore be crucial in encouraging healthy behaviours, both by building personal skills and knowledge, and through the implementation of broader environmental strategies.

Barriers to adult vaccination and actionable steps towards increasing uptake rates

Immunisation inequity and disparities across the population can only be dealt with by identifying and addressing specific national and situational barriers [11]. Modifiable barriers to improving adult vaccination can be broadly divided into systemic and population-based or personal and situational attributes (e.g. education) and linked to the social determinants of health [12]. Considering the interconnected nature of these factors there is a need for an integrated approach to improve adult vaccination uptake.

Addressing the barriers to vaccination is critical to implement sustainable immunisation policies and interventions towards achieving life course immunisation as outlined in the table below. Multisectoral collaboration between diverse stakeholders including government, civil society and academia is essential to effectively address barriers and ensure sustainable implementation of a life course approach to immunisation.

Barriers to adult vaccination	Actions to increase adult vaccination rates
Lack of recommendations for adults in National Vaccination Programs Despite clear evidence in support of adult vaccination, the life course approach to vaccination is not well implemented globally. Only a few countries have inclusive national immunisation programs (NIPs) and those that do are still largely paediatric focussed with little outreach for routine adult immunisation [13].	**Comprehensive life-course approach to immunisation in national program** Implementation of a life course approach to immunisation requires sustained governmental commitment to the health and well-being of citizens of all ages. Reorientation of the health system towards health promotion and prevention is necessary and must include a comprehensive NIP that includes adult vaccination.
Lack of access to vaccination Lack of access to healthcare services is a known barrier to adult vaccination uptake that takes varied forms [14] . For example, studies show that more than 60% of older people in some low income countries do not access health care because of the cost of the visit and / or transportation [11]. Regardless of the country income transportation may impact access to vaccination centers particularly for those who live in rural areas. Cities or urban communities usually have higher vaccination coverage rates with easier access to health facilities [14].	**Ensuring access to vaccination through building effective infrastructure** Sustained governmental investment is optimum for building the necessary infrastructure to respond to systemic yet modifiable barriers to adult vaccination. An effective action plan should respond to the identified needs of a population group or community. For example, expanding the pool of qualified professionals to include dentists, care workers, nurses and pharmacists [16].

In addition to structural barriers there may be a paucity of healthcare professionals (HCPs) who are qualified to administer vaccines to older adults. Government regulations determine who is qualified to administer which vaccines to what population groups varies across and within countries [15].

In addition, COVID-19 has prompted the development of innovative methods to administer vaccines across entire populations such as through the use of mobile units, shopping centres and tented villages.

Complex vaccination pathways

The process or path to be vaccinated is often complex and situational and even more so for those who are older and with chronic conditions. Further compounding the process for those population groups most at risk is a lack of awareness of HCPs, and up to date Information about vaccine schedules, locations and qualified vaccinators [15].

In some countries, a three-step process is required to be vaccinated starting with an appointment with a General Practitioner (GP) for a consultation and prescription, which is then filled by a pharmacist, and followed by another appointment with the GP for the vaccine to be administered [15]. The pathway to vaccination may also differ depending on the type of vaccine which complicates understanding of how and where to access vaccines [1].

Simplified vaccination pathways

Simplifying the vaccination pathway across vaccines and communicating a step-by-step process to be vaccinated is essential to improving uptake rates of adult vaccination.

Communication on vaccination pathway must include information such as the type of vaccine, eligibility, the health care professional who administers it, and the location of health care facilities to access vaccines [15].

Out of pocket cost for vaccines

Out-of-pocket costs to be vaccinated against routine infectious diseases including influenza, pneumococcal, pertussis and shingles vary significantly depending upon VPD and the population group.

The lack of a fully funded comprehensive national immunisation program negatively impacts the uptake rate of adult vaccination to the extent that population-based inequities not only remain but increase the health divide. For example, in Canada, while the herpes zoster vaccine is recommended by the National Advisory Committee on Immunisation (NACI), only the province of Ontario provides public funding for this vaccine [4]. Out of pocket costs for vaccines is a significant barrier to the up-take of adult vaccination.

Fully funded comprehensive National Immunisation Program

A universal national immunisation program that reflects a life course approach is key to improving vaccination uptake rates. Programs to increase vaccination knowledge and increase uptake may have low impact if vaccine costs are prohibitive [7].

Lack of data collection on adult vaccination

Poor surveillance and monitoring systems are a significant barrier to implementing effective adult vaccination policies. Historically, and even more so, as a result of the pandemic, the lack of age disaggregated data as well as data on vaccine coverage rates and disease burden significantly impacts the development of strategies, actions and pro-grams for adult vaccination.

Improving data collection through effective surveillance and monitoring systems

Increased data generation and collection on provision of adult vaccination services, coverage rates and VPD burden is essential to effectively invest in health systems with a health promotion and prevention lens. Generating reliable public health data through strengthening surveillance and monitoring systems is crucial to ensure the development of evidence-informed vaccination programs and policies.

Lack of targeted public health messages and campaigns

The generic nature and form of public health mes-sages and campaigns on the benefits, eligibility, and pathway to vaccination is a barrier. Inaccurate or poorly narrated messages can contribute to the fear of side effects, perceived lack of benefits and a lack of trust in vaccines [17].

Although vaccination campaigns aim to increase confidence and trust in vaccines and improve adult vaccination knowledge, their impact and efficacy remains underwhelming to those most at-risk [17].

In a study analyzing the content, structure and methods of dissemination of vaccination messages across ten countries, one of the most important observations was the universality of messages for most at-risk populations, including older people, healthcare workers and pregnant women [18]. The universality or sameness of messages and distribution largely through online channels does not account for the varying levels of risk and health literacy [18].

Although a universal approach for the general population is reasonable, it does not seem to prompt action in most at-risk groups.

Targeted and effective public health messages and campaigns

Public health messages and campaigns are critical to improve vaccination knowledge by informing both the general population and those sub populations at greatest risk of serious complications. A targeted approach to both the content and form of vaccine-related messages and varied communication channels for older adults is essential to increase knowledge and improve vaccine confidence [18].

Establishing trust in the purpose and effectiveness of immunisation is a complex process that is not only situational and population specific but also very personal. There is no universal narrative hence the need to understand the target population such as older adults and set the scene as one where vaccines are part of the broader healthy ageing agenda. [19]

Effective messaging and knowledge mobilization requires reframing through positive storytelling while prioritizing evidence-informed science and knowledge. The importance of older adults to be vaccinated against VPDs should be thoroughly explained as well as information about the pathway to access and obtain vaccinations [20]. Expanding tailored messaging for older adults around vaccination campaigns, such as pneumococcal pneumonia campaigns, may improve vaccination coverage rates [18].

Messaging and campaigns should be developed in collaboration with diverse and multisectoral stakeholders, including geriatricians and experts in population ageing to provide specific and clear recommendations.

Lack of knowledge about vaccination among older adults

Studies have shown that older adults often do not feel they have adequate information and knowledge about vaccines to make an informed decision [1].

Healthcare providers remain one of the most trusted sources of health-related information including vaccination for people of all ages, and especially older people [16].

However, lack of accurate information from a healthcare provider, or lack of access to a GP coupled with external drivers such as income and language can negatively influence the ways to receive meaningful information. [1]

Increasing vaccination knowledge through healthcare providers

Healthcare providers play a central and trusted role in the successful implementation of vaccination programs, and as such, should be part of an integrated approach to improve awareness of vaccination. They often have a responsibility to assess the immunisation needs of patients and consumers in general, and provide a meaningful narrative about the role of vaccination in healthy ageing [16].

Considering the significant impact that language and health literacy may have on health decisions, health professionals must have access to up-to-date information and education on a routine and regular basis. Course should be certified and considered essential to conversing with those populations most at risk of VPD.

Path towards action

The implementation of a life course approach to immunisation is an effective, evidence-based public health intervention that builds an essential bridge between the UN Decade of Healthy Ageing, WHO Immunisation Agenda 2030 and the Global Report on Ageism. An effective vaccination strategy planned around protecting older adults and implemented across the life course will have profound social, health and economic benefits, and inevitably contribute to the triple billion targets [21].

Addressing the barriers to adult vaccination is crucial to ensure access to vaccination, improve knowledge and awareness, increase vaccine confidence, and ultimately increase the adult vaccination up-take rates. To foster immunisation equity and uptake and improve health across the life course, there is an urgent need for the following actions through global and national collaboration.

Calls to action

- Prioritize immunisation throughout life as a key pillar of expanded prevention strategies that can help facilitate healthy ageing;
- Increase investment in infrastructure to ensure access to vaccination for those at high-risk of VPDs including older adults and individuals with chronic conditions;
- Implement a life course approach to immunisation through a comprehensive national immunisation plan that respects the rights of all people regardless of age;
- Identify and act upon modifiable barriers-simplification of pathways, expansion of vaccinators, and target specific populations to reduce inequities;
- Improve surveillance and monitoring systems to ensure there is capacity to identify at-risk populations, adopt and recommend specific vaccines, and monitor and evaluate uptake rates;
- Develop and deliver effective immunisation campaigns that translate evidence into action to improve the uptake rates of adult vaccination. Campaigns should be tailored to the local context and provide reliable, up-to-date, evidence-informed information that is accessible through multiple channels;
- Increase public confidence in vaccines by driving health-seeking behaviour and communicating the value of immunisation through trusted stakeholders including health care professionals.

Conclusion

Addressing adult immunisation inequity and improving the uptake rates of adult vaccination among older people requires a deep understanding of the evidence, the policy gaps and the unequivocal need to use a sustained multistakeholder approach to drive change in the context the Immunisation Agenda 2030 and the UN Decade of Healthy Ageing.

The COVID-19 pandemic demonstrated the ability of all governments to develop, implement, and monitor immunisation policies for the health of all citizens and especially those most at-risk of serious complications and death. These lessons learned in the direst of circumstances must be leveraged to ensure that older adults have access to routine vaccinations (e.g., influenza, pneumococcal pneumonia, pertussis, and shingles) in a timely and affordable manner.

This policy brief has highlighted the importance of ensuring that governments and policymakers consider the unique situational contexts, and the increased risk certain environments pose to those most at-risk when developing vaccine-related policies.

References

1. Sangster, A. V., & Barratt, J. M. Towards Ending Immunisation Inequity. Vaccines. 2021; 9(12). https://doi.org/10.3390/VACCINES9121378
2. United Nations, Department of Economic and Social Affairs. World Population Ageing 2019: Highlights. Retrieved from: https://www.un.org/en/development/desa/population/publica tions/pdf/ageing/WorldPopulationAgeing2019-Highlights.pdf
3. World Health Organization. Noncommunicable diseases. 2022. Retrieved from: https://www.who.int/news-room/fact-sheets/detail/noncommunicable-diseases
4. Hajat, C., & Stein, E. The global burden of multiple chronic conditions: A narrative review. Preventive Medicine Reports, 2018; 12, 284–293. https://doi.org/10.1016/J.PMEDR.2018.10.008
5. International Longevity Centre UK. Adult vaccination – a key component of healthy ageing. Published 2013. Accessed August 2022. Available from: https://ilcuk.org.uk/wp-content/ uploads/2018/11/Adult-vaccination_a-key-component-of-health-ageing.pdf
6. EU-ASEAN Business Council. The Decade of Healthy Ageing in ASEAN: Role of Life-course Immunisation. 2021. Retrieved from: https://www.eu-asean.eu/wp-content/uploads/2022/02/The-Decade-of-Healthy-Ageing-in-ASEAN-Role-of-Life-course-Immunisation-2021.pdf
7. International Federation on Ageing. Promoting immunisation throughout life. 2021.
8. World Health Organization. Thirteenth general programme of work 2019-2023. 2019. Retrieved from: https://www.who.int/about/what-we-do/thirteenth-general-programme-of-work-2019---2023
9. World Health Organization. UN Decade of Healthy Ageing. 2020. Retrieved from: https://www.who.int/initiatives/decade-of-healthy-ageing
10. World Health Organization. Immunisation Agenda 2030: A global strategy to leave no one behind. 2020. https://reliefweb.int/report/world/immunisation-agenda-2030-global-strategy-leave-no-one-behind-enarruzh?gclid=CjwKCAjws--ZBhAXEiwAv-RNLzvVUQBzicZrUDx_SXFYVFe5agsZZBoM1tXP4vXQ3cGXQR4jqnXvWxoCjhAQAvD_BwE
11. World Health Organization. World report on ageing and health. 2019. Retrieved from: https://www. who.int/publications/i/item/9789241565042
12. Kwon, D. S., Kim, K., & Park, S. M. Factors associated with influenza vaccination coverage among the elderly in South Korea: the Fourth Korean National Health and Nutrition Examination Survey (KHANES IV). BMJ open. 2016; 6(12), e012618. https://doi.org/10.1136/bmjopen-2016-01261
13. International Federation of Pharmaceutical Manufacturers and Associations. Life-course immunisation: Benchmarking main markets and model countries. 2022. Retrieved from: https://ifpma.org/publications/life-course-immunisation-benchmarking-main-markets-and-model-countries/
14. Byeon, K. H., Kim, J., Choi, B., & Choi, B. Y. The coverage rates for influenza vaccination and related factors in Korean adults aged 50 and older with chronic disease: based on 2016 Community Health Survey data. Epidemiology and health. 2018; 40, e2018034. https://doi.org/10.4178/epih.e2018034
15. International Federation on Ageing. AVAT - Adult Vaccination Advocacy Toolkit. 2022. Retrieved from https://www.vaccines4life.com/avat/

16. Barratt, J., & Diaz, A. Bringing the Voices of Canadian Seniors Together in the Fight Against Influenza IFA Technical Report. 2022.

17. Alotaibi, F. Y., Alhetheel, A. F., Alluhaymid, Y. M., Alshibani, M. G., Almuhaydili, A. O., Alhuqayl, T. A., Alfayez, F. M., & Almasabi, A. A. Influenza vaccine coverage, awareness, and beliefs regarding seasonal influenza vaccination among people aged 65 years and older in Central Saudi Arabia. Saudi medical journal. 2019; 40(10), 1013–1018. https://doi.org/10.15537/smj.2019.11.24587

18. Yifan, M., Barratt, J., & Sangster, A. Messages Matter: A Spotlight on Influenza Vaccination Campaigns This project is supported by an unrestricted educational grant from Sanofi Global Messages Matter: A Spotlight on Influenza Vaccination Campaigns Changing the Conversation on Adult Influenza Vaccination. International Federation on Ageing. 2020. Retrieved from: https://www.vaccines4life.com/wp-content/uploads/2020/10/Technical-Report_-Final.pdf

19. Mishra V, Barratt J. The Secondary Benefits of Influenza Vaccination. 2019. Retrieved from: https://www.vaccines4life.com/wp-content/uploads/2019/07/IFA-Secondary-Benefits-Report_Final.pdf

20. International Federation on Ageing. Vaccination and the At-risk Population of Adults with Heart and Lung Conditions. 2018. Retrieved from: https://www.vaccines4life.com/wp-content/up loads/2020/02/Sweden-Report-Vaccination-and-the-At-risk-Population-of-Adults-with-Heart-and- Lung-Conditions.pdf

21. Alphons A, Barratt J. Influencing Policy to Improve Adult Vaccination in Germany Expert Meeting Report. International Federation on Ageing. 2020. Retrieved from: https://www.vaccines4life.com/wp-content/uploads/2020/04/Influencing-Policy-to-Improve-Adult-Vaccination-in-Germany_Executive-Report_FINAL.pdf

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