Implementing older adult vaccination within the Immunization Agenda 2030: A discussion of potential challenges and solutions

Sophia D. Whang[1], Vivian Yim[1], Mariel Cabrera[1], Michael Moore[1,2], Marta Lomazzi[1,3]

AFFILIATION
1 World Federation of Public Health Associations (WFPHA), Geneva, Switzerland
2 The University of Canberra, Bruce, Australia
3 Institute of Global Health, University of Geneva, Geneva, Switzerland

CORRESPONDENCE TO
Marta Lomazzi. World Federation of Public Health Associations, Campus Biotech - G6 Chemin des Mines 9, 1202, Geneva, Switzerland.

E-mail: marta.lomazzi@wfpha.org
ORCID ID: https://orcid.org/0000-0002-8460-0059

KEYWORDS
ageing, vaccination, healthy ageing, global health, life course

Received: 13 February 2023, **Revised:** 7 April 2023
Accepted: 13 April 2023

Popul. Med. 2023;5(April):12

https://doi.org/10.18332/popmed/163244

ABSTRACT

As the World Health Organization moves forward into the Decade of Healthy Ageing in 2020, developing immunization programs with a life-course and integration approach for older people is one of the key strategic priority areas, and is highlighted in the Immunization Agenda 2030 roadmap. The World Federation of Public Health Associations (WFPHA) conducted a focus group discussion on 11 November 2021. Nine national experts specializing in vaccination policy from Canada, the United States, Taiwan, Brazil, and El Salvador were recruited through the World Federation Public Health Associations network to participate in an online focus group discussion to discuss the operational challenges and potential strategies for the implementation of older adult vaccination programs. Experts' recommendations were presented using the Immunization Agenda 2030 roadmap after consensus was reached. Key recommendations were that it is important to ensure equitable vaccine access using a people-centered approach; that optimizing health communication channels and strategies can combat hesitancy and promote knowledge of vaccination among older people; that there is a need for data-driven strategies to guide the surveillance and monitoring of disease burden and vaccination status; and that the success of such programs will depend on sustained government funding and support. As countries start to look beyond the immediate impact of the COVID-19 pandemic, there is a window of opportunity to re-prioritize vaccination programs within existing health systems to protect older adults. Moving forward, creative solutions and buy-in from a wide range of stakeholders are required, and further research is needed to fill in knowledge gaps.

INTRODUCTION

Adult immunization is a priority for public health. By 2050, it is estimated that 20% of the global population will be aged ≥60 years[1]. The ageing of the population affects various aspects of society, such as employment and working conditions, health services, and family structures[1]. This scenario threatens the sustainability of health systems, especially those based on tax payment by working individuals[1]. There is an opportunity to re-prioritize vaccination programs to protect older adults as countries start to look beyond the immediate impact of the COVID-19 pandemic. As part of the Decade of Healthy Ageing action plan, developing vaccinations programs with a life-course and integration approach for older people is a key strategic priority area. This approach is noted in the Immunization Agenda 2030 (IA2030), a global strategy for immunization for the decade 2021–2030[2]. However, with the exception of seasonal influenza and pneumococcal disease, the World Health Organization (WHO) currently has few recommendations for routine older adult vaccination[3]. To increase global awareness of this public health problem, the World Federation of Public Health Associations (WFPHA), through its International Immunization Policy Taskforce, developed a dedicated policy aimed at supporting public health professionals worldwide to advocate for more effective vaccination of older adults[4]. In this policy case

study, we present the findings from WFPHA's formative research which aimed to better define the gaps in knowledge regarding older adult vaccination, specifically the barriers to immunization, and highlight examples of effective strategies to improve uptake.

The World Federation of Public Health Associations (WFPHA) conducted a focus group discussion with nine vaccination policy and implementation experts on 1 November 2021. An online recruitment call was circulated among WFPHA's member associations, and interested national experts were invited to voluntarily participate. We recruited experts from Taiwan, the United States, Canada, Brazil, and El Salvador, which allowed for representation from three separate World Bank regions (East Asia and Pacific, Latin American & the Caribbean, and North America), and three different economies based on World Bank Classification (Canada, the United States and Taiwan were classified as high-income economies, Brazil as upper middle-income, and El Salvador as lower middle-income, respectively)[5].

Experts were invited to discuss three areas related to the IA2030 framework: 1) barriers and facilitators of vaccination policy, program planning and implementation; 2) any specific recommendations on how to tackle barriers to older adult vaccination programs; and 3) any specific strategies used to target vaccination of vulnerable subgroups within the older adult population. The discussion, which was chaired by two moderators with extensive experience in vaccination policy, was conducted in English using an online video call platform and lasted approximately 90 minutes. A junior researcher prepared a summary of the main discussion points and disseminated the document virtually among all focus group participants to review and amend. Consensus was reached after undergoing two rounds of online consultation. Experts' recommendations were presented within the IA2030 framework for the consideration of decision makers who are interested in realizing the potential of immunizing older people. Notably, the WHO does not define 'older adults' by

Table 1. A summary of operational challenges and suggestions from the focus group discussion with nine national experts in vaccination policy and implementation from Canada, the United States, Taiwan, Brazil, and El Salvador in November 2021

Operational challenges		Expert suggestions
General	Specific	
Ensuring equitable access	Limited infrastructure[6,7]	'Needle-to-arm' strategy[8]
		Mobilizing community stakeholders (e.g. community health workers or pharmacists)[9]
		Digital technologies (e.g. access to information, facilitate logistics)[10]
Good health communication	Lack of awareness on vaccines[7,11,12]	Creative communication strategies (e.g. combining narratives with scientific information)[13]
		Multi-disciplinary involvement (e.g. health workers, academic/scientific institutions, the media, community leaders, civil society organizations)[2]
		Combining traditional and non-traditional media platforms (e.g. digital, social media)[13]
	Little evidence regarding effective communication strategies[14]	Invest in monitoring and evaluation of the impact of communication strategies[13]
Employing data-driven strategies for surveillance and monitoring	Lack of effective surveillance system[2,6]	Establishing national vaccination registries disaggregated by age[6]
		Synchronization of data collection between different jurisdictions[6]
		Use of existing outbreak response and COVID-19 vaccination infrastructure[15]
Ensuring adequate government support and funding	Complex vaccination processes[7]	Establishing a standardized, national immunization schedule
	Lack of funding	Sustained government funding or private-public partnerships[2]

chronological age, but for our purposes we consider adults aged ≥50 years; in line with the practical definitions used in available literature[6].

COMMENTARY

Challenges in and suggestions for implementing older adult vaccination programs

Life course and integration is one of the strategic priority areas of the IA2030, which presents a framework to place robust vaccination programs at the core of resilient primary healthcare systems to safeguard global health security[2]. WFPHA experts identified four key operational challenges to this approach: ensuring equitable access, using good health communication, employing data driven strategies for surveillance, and ensuring adequate government support and funding. They also provided concrete examples, highlighted in the text, to inspire other professionals, national public health associations, and government in their activities (Table 1).

Ensuring equitable access

A strategic priority of the IA2030 is to achieve high, equitable access and vaccination coverage for everyone[2]. This includes conducting comprehensive health needs assessment to identify specific barriers to the access of services for disadvantaged populations, such as age-related factors, and applying context-specific interventions to address inequities[2]. Experts recommend embracing a 'people-centered' approach, which advocates for organization and provision of care based on the needs of individuals and communities to improve coverage and accessibility to vaccination services by addressing the specific needs of the target population[2]. Examples include a 'needle-to-arm' strategy to deliver vaccines directly to those in need. In Canada, this was achieved through mobile vaccine clinics at workplaces or in-home appointments for homebound seniors[8]. Another strategy is maximizing first contact accessibility by mobilizing support from community stakeholders[2], such as involving community health workers or pharmacists. The former was done to successfully increase vaccination uptake for Taiwanese Indigenous populations, and the latter in the United Kingdom[9].

Using context-specific, tailored interventions can address accessibility issues posed by limited vaccine infrastructure for older adults[6,7]. Appropriate use of digital technologies has great potential and can facilitate access to information about vaccines, locate clinics, check eligibility and register for follow-up[10]. However, failure to consider those who have limited access and/or means to own or operate an electronic device, risks exacerbating inequitable access. Policy makers should account for older adults' access to technology and technological literacy. Innovative measures and public-private partnerships between government and mobile network operators can reduce inequities (e.g. providing subsidies for broadband access, providing access at community centers such as libraries, and buying electronic devices)[10].

Good health communication

Notions surrounding vaccines are varied, with older adults holding beliefs that vaccination is for children or believing vaccines irrelevant for healthy older people[7,11,12]. Good health communication is an effective tool to influence vaccine uptake[14]. Suggestions to facilitate older adult engagement in advocacy and educational initiatives include utilizing a mix of media (e.g. traditional, digital, or social), or combining narratives with scientific information[13]. Ensuring credibility of sources delivering the information is also important[11]. This is in line with expert suggestions for a transparent, multi-disciplinary approach to develop evidence-based, targeted communication strategies that are sensitive to the perspectives of different subpopulations within the older demographic[2]. This should include clear information about the benefits, possible side effects, and where to seek help[11]. Experts suggest engaging a wide range of stakeholders, including healthcare workers, academic or scientific institutions, the media, community leaders, and civil society organizations with an interest in healthy aging.

More primary research pertaining to health communication is required to evaluate the effectiveness of interventions[14]. For example, while getting recommendations from healthcare workers is associated with a positive effect among vaccine-hesitant older adults, there is little evidence showing what kind of communication strategies are effective[12,16]. Therefore, to guide future campaigns, it is necessary to invest in monitoring and evaluation of the impact of communication strategies[13].

Employing data-driven strategies for surveillance and monitoring

The lack of an effective surveillance system to collect data on the local epidemiology of vaccine preventable diseases, disease burden and vaccine coverage among older adults prevents local authorities from identifying high-risk population subgroups and directing resources to where they are most needed[2,6]. Experts recommend establishing national vaccination registries that are disaggregated by age groups, including those aged >65 years[6]. However, acknowledging the difficulty of this in a fragmented health system, efforts should instead concentrate on improving synchronization of data collection between different sub-national jurisdictions[6]. Countries should be encouraged to make use of their existing outbreak response and COVID-19 vaccination infrastructure. For example, the government of El Salvador was able to mobilize resources to construct vaccination centers, strengthen distribution and supply chains, and invest in the use of information technology for vaccine registries, monitoring, and analysis early in the pandemic[15]. These public health investments can be used beyond the pandemic to support older adults' vaccination. Ultimately, data-driven

strategies allow for priority setting and the evaluation of a program's impact and effectiveness.

Ensuring adequate government support and funding

Complex vaccination processes and lack of funding can present operational challenges for vaccination programs and are often associated with how a country's health system is structured and funded[7]. In Canada, there is no nationally standardized vaccination schedule. It is up to subnational jurisdictions to implement recommendations from the National Advisory Committee on Immunization. Thus, publicly funded vaccine schedules can differ depending on provincial differences regarding health budget and priorities[11]. Experts recommend establishing a standardized, national immunization schedule to facilitate prioritization and implementation. Furthermore, sustained government funding and commitment to policies focusing beyond childhood vaccination are needed. National funding or mandated insurance coverage, such as Medicare coverage of all vaccines recommended by the Advisory Committee on Immunization Practices in the United States, allows for greater accessibility and equity. Additionally, private-public partnerships could afford an alternative for governments to seek financial support[2].

CONCLUSION

The COVID-19 pandemic has afforded the opportunity to re-prioritize vaccination for older adults within existing health systems. For policy decision makers interested in realizing the potential of older adult vaccination programs, this article considered four operational areas and offered achievable solutions to tackle these challenges (Table 1). Success will require creative solutions and buy-in from a wide range of stakeholders. Integrating older adult vaccination with other priorities, such as universal health coverage, can be beneficial. Moving forward, further research should focus on filling in knowledge gaps for adult vaccination, such as defining the burden of vaccine preventable disease for older adults in different settings including lower middle-income countries, understanding the impact on the control of non-communicable diseases, identifying the wider socio-economic benefits of immunization for the community, and strengthening the evidence for implementation of context-specific interventions.

REFERENCES

1. Bonanni P, Bonaccorsi G, Lorini C, et al. Focusing on the implementation of 21st century vaccines for adults. Vaccine. 2018;36(36):5358–5365. doi:10.1016/j.vaccine.2017.07.100
2. Immunization Agenda 2030. Implementing the Immunization Agenda 2030. IA 2030. Accessed April 7, 2023. https://cdn.who.int/media/docs/default-source/immunization/strategy/ia2030/ia2030_frameworkforactionv04.pdf?sfvrsn=e5374082_1&download=true
3. World Health Organization. Immunization, Vaccines and Biologicals: WHO recommendations for routine immunization - summary tables. WHO; 2023. Accessed April 7, 2023. https://www.who.int/teams/immunization-vaccines-and-biologicals/policies/who-recommendations-for-routine-immunization---summary-tables
4. World Federation of Public Health Associations. Policy Statement on Vaccination of Older Adults. WFPHA; 2022. Accessed April 7, 2023. https://drive.infomaniak.com/app/share/141741/8c4e56c4-6620-4c77-8095-e967707d8c8a/files/40333/preview/pdf/46968
5. The World Bank. World Bank Country and Lending Groups. The World Bank; 2023. Accessed April 7, 2023. https://datahelpdesk.worldbank.org/knowledgebase/articles/906519-world-bank-country-and-lending-groups
6. Privor-Dumm LA, Poland GA, Barratt J, et al. A global agenda for older adult immunization in the COVID-19 era: a roadmap for action. Vaccine. 2021;39(37):5240–5250. doi:10.1016/j.vaccine.2020.06.082
7. Teresa Aguado M, Barratt J, Beard JR, et al. Report on WHO meeting on immunization in older adults: Geneva, Switzerland, 22–23 March 2017. Vaccine. 2018;36(7):921–931. doi:10.1016/j.vaccine.2017.12.029
8. Pelley L, Nasser S. Use mobile vaccinations to reach Ontario's 75,000 homebound seniors, says COVID-19 science table. Canadian Broadcasting Corporation. March 31, 2021. Updated April 1, 2021. Accessed April 7, 2023. https://www.cbc.ca/news/canada/toronto/in-home-covid-19-vaccines-ontario-mobile-1.5971995
9. Deslandes R, Evans A, Baker S, et al. Community pharmacists at the heart of public health: a longitudinal evaluation of the community pharmacy influenza vaccination service. Res Soc Adm Pharm. 2020;16(4):497–502. doi:10.1016/j.sapharm.2019.06.016
10. Lee HW. Addressing the digital divide and inequality: a road to equitable COVID-19 vaccine delivery. The World Bank Blogs. June 2, 2021. Accessed April 7, 2023. https://blogs.worldbank.org/digital-development/addressing-digital-divide-and-inequality-road-equitable-covid-19-vaccine
11. Acton M, Barratt J, IFA. Identifying barriers to adult Influenza vaccination in Canada. IFA; 2019. Accessed April 7, 2023. https://ifa.ngo/wp-content/uploads/2019/11/IFA-Canada-Expert-Meeting_Final.pdf
12. Bhanu C, Gopal D, Walters K, Chaudhry U. Vaccination uptake amongst older adults from minority ethnic backgrounds: a systematic review. PLoS Med. 2021;18(11):e1003826. doi:10.1371/journal.pmed.1003826
13. Barratt J, Acton M, Kimpton P, IFA. Targeted Communications: Worth the Shot. Strategically Improving Adult Vaccination Rates. IFA; 2019. Accessed April 7, 2023. https://ifa.ngo/wp-content/uploads/2019/10/Targeted-Communications_Worth-the-Shot.pdf
14. Goldstein S, MacDonald NE, Guirguis S, et al. Health communication and vaccine hesitancy. Vaccine. 2015;33(34):4212–4214. doi:10.1016/j.vaccine.2015.04.042

15. The World Bank. World Bank to provide US$100 million to further support the COVID-19 response and vaccination efforts in El Salvador. The World Bank; 2022. Accessed April 7, 2023. https://www.worldbank.org/en/news/press-release/2022/06/16/el-banco-mundial-proporcionar-us-100-millones-para-continuar-el-apoyo-a-la-respuesta-y-vacunaci-n-contra-la-covid-19-en-
16. Glenton C, Carlsen B, Lewin S, et al. Healthcare workers' perceptions and experiences of communicating with people over 50 years of age about vaccination: a qualitative evidence synthesis. Cochrane Database Syst Rev. 2021;7(7):CD013706. doi:10.1002/14651858.CD013706.pub2

ACKNOWLEDGEMENTS
We would like to thank the WFPHA International Immunization Policy Working Group for their advice throughout the study and the subject matter experts who participated in interviews for their invaluable contribution.

CONFLICTS OF INTEREST
The authors have completed and submitted the ICMJE Form for Disclosure of Potential Conflicts of Interest. The authors declare that they have no competing interests, financial or otherwise, related to the current work. M. Moore reports that since the initial planning of the work, he received support from Pfizer and in the past 36 months he received honoraria from Pfizer and MSD, for a workshop on advocacy, and that he received support for attending meetings and/or travel from Pfizer. Finally, M. Moore reports that in the past 36 months he received an honorarium from Pfizer as a Member of Immunization for All Ages (IFAA). M. Lomazzi reports that since the initial planning of the work, WFPHA has received an unrestricted grant from GSK for a broad project which also includes this article.

FUNDING
WFPHA has received an unrestricted grant from GSK. Generally, the funders had no role in the design of the study; in the collection, analyses, or interpretation of data; in the writing of the manuscript; or in the decision to publish the results.

ETHICAL APPROVAL AND INFORMED CONSENT
Ethical approval and informed consent were not required for this study.

DATA AVAILABILITY
The data supporting this research are available from the authors on reasonable request.

PROVENANCE AND PEER REVIEW
Not commissioned; externally peer reviewed.