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

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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 years¹. The ageing of the population affects various aspects of society, such as employment and working conditions, health services, and family structures¹. This scenario threatens the sustainability of health systems, especially those based on tax payment by working individuals¹. 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 2021–2030². However, with the exception of seasonal influenza and pneumococcal disease, the World Health Organization (WHO) currently has few recommendations for routine older adult vaccination². 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 adults². 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).

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

<table>
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<th>Operational challenges</th>
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<td>General</td>
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<td>Ensuring equitable access</td>
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chronological age, but for our purposes we consider adults aged ≥50 years; in line with the practical definitions used in available literature⁶.

**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 security⁵. 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 everyone². 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 inequities². 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 population². 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 seniors⁸. Another strategy is maximizing first contact accessibility by mobilizing support from community stakeholders², 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 Kingdom⁶.

Using context-specific, tailored interventions can address accessibility issues posed by limited vaccine infrastructure for older adults⁶,⁷. Appropriate use of digital technologies has great potential and can facilitate access to information about vaccines, locate clinics, check eligibility and register for follow-up¹⁰. 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 people⁷,¹¹,¹². Good health communication is an effective tool to influence vaccine uptake¹⁴. 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 information¹³. Ensuring credibility of sources delivering the information is also important¹¹. 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 demographic². This should include clear information about the benefits, possible side effects, and where to seek help¹¹. 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 interventions¹⁵. 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 effective¹²,¹⁶. Therefore, to guide future campaigns, it is necessary to invest in monitoring and evaluation of the impact of communication strategies¹³.

**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 needed⁶,¹⁸. Experts recommend establishing national vaccination registries that are disaggregated by age groups, including those aged >65 years⁶. However, acknowledging the difficulty of this in a fragmented health system, efforts should instead concentrate on improving synchronicity of data collection between different sub-national jurisdictions⁶. 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 pandemic¹⁵. 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. 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. 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 for routine immunization, allows for greater accessibility and equity. Additionally, private-public partnerships could afford an alternative for governments to seek financial support.

**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.

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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.

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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
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