

Adult Vaccination Health Care Professional ECHO Scaling Up Program

Technical Report

April 2024

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Introduction

Globally, populations around the world are rapidly ageing, particularly those that are 65 years and over, which are growing faster than all other age groups. In 2021, through the [United Nations \(UN\) Decade of Healthy Ageing \(The Decade\)](#), governments pledged to leave no one behind. This pledge aims to ensure that all humans can fulfill their potential in dignity and equality and within a healthy environment.

Globally, the proportion of older persons is expected to increase from 9.3 percent in 2020 to 16.0 percent in 2050.⁽¹⁾ Additionally, there is increased vulnerability to infectious diseases for those with non-communicable diseases (NCDs) and this occurs simultaneously with the process of ageing. This is an important consideration as NCDs are the cause of death for 41 million people each year, which is the equivalent of 74% of all deaths globally.⁽²⁾ Older people and those with chronic underlying medical conditions are both rapidly growing populations who are more at-risk for serious complications and morbidity associated with infectious diseases. Vaccine preventable diseases (VPDs) pose serious risks not only to the health and well-being, functional ability, and survival of older people and those living with chronic conditions, but also to the health care professionals (HCPs) that work on the frontlines.

Although immunization is a key action within the public health agenda of health promotion and prevention, life course immunization has not been a priority for governments around the world. The societal value of childhood immunization is well-known across the globe and although its prioritization is important, government investment has been lacking to ensure that all populations and HCPs who are most at-risk of serious impacts from infectious diseases, have an informed understanding of the importance of vaccination and consequences of not being vaccinated. When HCPs are well-informed and supported with evidence-based knowledge assets, as members of civil society, they have the potential to play a critical role in promoting adult vaccination. To support this goal, learning communities must be established to help build capacity and capability for health professionals as they are pivotal in dialogues for policy change.

Gap in continuous education for healthcare professionals

VPDs such as influenza, pneumococcal disease, and respiratory syncytial virus (RSV), pose very serious risks to the health, well-being, functional ability, autonomy, and survival of older adults and individuals living with chronic medical conditions. These same VPDs also pose risks to the HCPs who care for individuals belonging to these populations. As vaccine hesitancy is emerging more than ever, HCPs remain among the most trusted advisors, advocates, and influencers of vaccination decisions.

HCPs have a responsibility to promote vaccines and adhere to evidence-based immunization guidelines. HCPs also play a vital role in communicating the health and safety of vaccines and addressing vaccine hesitancy by ensuring that their patients are consistently informed about vaccinations. Vaccine competency training programs are available for those who are qualified to administer vaccines, but there remains a significant gap in the continuous education of HCPs, which results in their lack of confidence and uncertainty in promoting immunization. Moreover, there is also inadequate information and training on the latest evidence surrounding adult immunization, such as the concerns of older adults, barriers to being vaccinated and most up-to-date recommendations. This gap in vaccination education, especially for those most at-risk, has been recognized by health professional associations during the COVID-19 pandemic. Although this recognition exists, professional efforts to promote education on vaccination as one of the most effective public health interventions for those most at-risk, remains significantly absent.

The voice of civil society in adult vaccination

Civil society organizations (CSOs) and HCPs have been continuously demonstrating that they view adult immunization as very important but are often limited by budgets and funding opportunities to further their advocacy work. The absence of funding and budgets, combined with a lack of expertise in adult vaccination and the right human resources to coordinate education also contribute to their limited ability for advocacy.⁽³⁾ CSOs are often trusted sources of information and help to inform the decisions of their constituents and members with advocacy and policy-based strategies. CSOs may include professional associations (e.g. International Association of Gerontology and Geriatrics (IAGG), World Dental Federation, International Council of Nurses and National Associations of Long-Term Care Workers), ageing organizations (e.g. National Seniors Australia, AARP, and Age UK), and patient associations (e.g. International Diabetes Federation and the International Association of Patient Organizations). CSOs are important partners to ensure curriculum of continuous education for HCPs can be targeted, comprehensive, and reliable, and reach key groups with the ability to impact adult vaccination uptake.

Purpose of Interactive Learning Series

Project ECHO: Education model for health care providers

Learning to build capacity in a collaborative and interactive manner is central to a training model that is innovative in engaging learners and educators. The IFA has previously delivered a successful pilot adult vaccination program called the *Adult Vaccination Mentorship Program* by using the ECHO model as a tool to bring CSOs in the field of ageing and HCPs together. This pilot had the aim of strengthening skills and competencies for promoting and advocating for adult immunization and led to positive evaluations and responses. These positive outcomes from the pilot led to the leveraging of the ECHO model to respond to gaps in education for HCPs within the scope of adult immunization. The Adult Vaccination Health Care Providers (AV-HCP) ECHO addresses the need to improve continuous education of HCPs by fostering a learning community with peer-to-peer exchanges and collaborative problem-solving across all relevant professional groups involved in adult vaccination.

The second iteration of the [AV-HCP ECHO program](#) was developed in follow-up to the first learning series for HCPs to build a larger learning community and further improve their capacities and capabilities to advocate for policy changes within adult vaccination, with an innovative and expanded curriculum.

As per the [Project ECHO model](#), sessions or modules are organized into four main components, which includes a didactic presentation, case presentation, moderated discussion, and summary of key recommendations. The target participants or 'learners' of this series are HCPs. The hub team, or subject matter experts, is comprised of specialists from diverse and relevant areas of expertise who attend every session, providing recommendations to learners. The didactic presentation is often given by an expert on the topic for the given module and will provide an overview and in-depth understanding relevant to HCPs. The didactic presentation supports HCPs' understanding of important background knowledge on the topic related to adult vaccination. The case presentation that is often given by a learner demonstrates application of the module's topic with a case study from their practice. The subsequent moderated discussion allows learners to ask questions to the didactic and case presenters as well as to the hub team members. The opportunity for HCP learners to directly engage with experts helps support their understanding and confidence with the topic. Finally, key recommendations provided by the experts in the session reinforces the important takeaways and best practices on the session topic.

Program Development and Delivery

Keeping the key strengths from the first iteration of the program in mind, a newly structured format of the ECHO program was adapted to capture the ongoing participation of learners and engagement of like-minded organizations.

The second iteration of the AV-HCP ECHO program aimed to scale up (strengthen and expand) the core competencies and recommendations gathered from the global leaders involved in life course immunization. As defined by the WHO, scaling up is the “deliberate efforts to increase the impact of successfully tested health innovations so as to benefit more people and to foster policy and program development on a lasting basis”.⁽⁴⁾ The AV-HCP ECHO program has proven its successful impact through the capacity building of its learners to become confident champions of adult vaccination. IFA aimed to build on the established network and successful format of the program in its second iteration. The program was delivered with a redefined and comprehensive curriculum, which leveraged connections to collaborate with larger associations.

Five virtual modules (sessions) were held and were open to all HCPs worldwide. These sessions were guided by innovative recommendations from program subject matter experts coming from various influential associations. The critical lessons that were acquired from the AV-HCP ECHO project were heavily considered and allowed for refinement of this scaled up program’s structure and curriculum. This allowed for a more effective and sustainable learning series. Given the gap in vaccination education for many HCPs, this program expansion integrated more new HCPs entering the healthcare field. Finally, innovative communication strategies were used to promote the program to a new audience and to continuously garner interest and sustain knowledge after the sessions through short videos, evidence-informed knowledge assets, shareable communication infographics (Figure 1) and social media tiles (Figure 2).

Figure 1. Infographic example from Module 4 of the AV-HCP ECHO program.

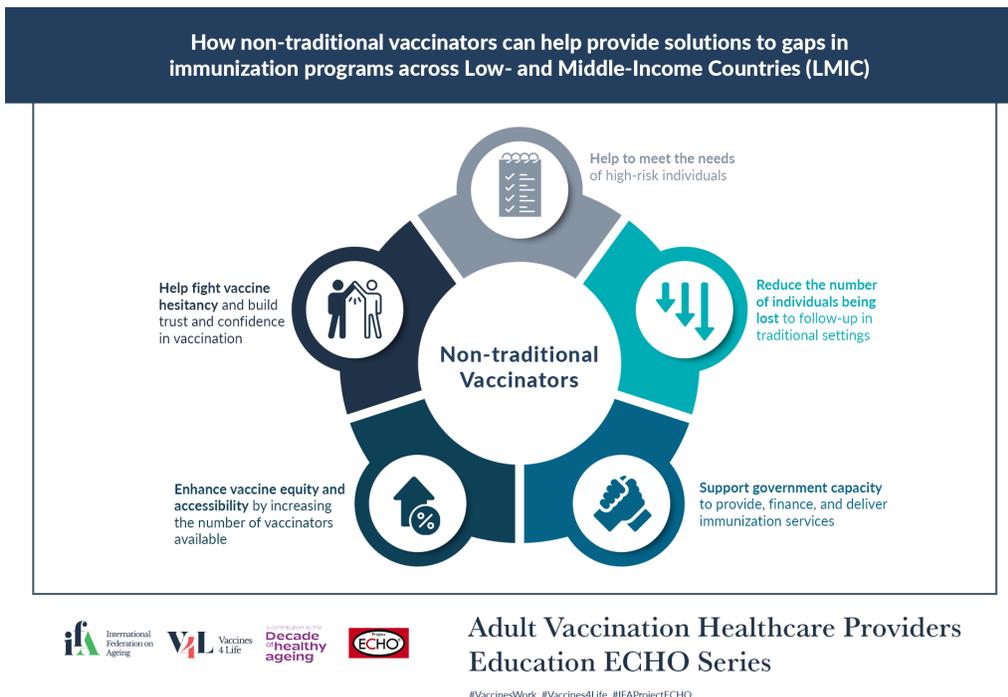


Figure 2. Social media tile used to promote the AV-HCP ECHO program.



Survey

A post-evaluation survey was developed to understand the impact and success of the AV-HCP ECHO program. The survey was comprised of 19 questions, of which 6 were demographic-based, 11 were Likert-scale questions assessing the learner's perceptions of how relevant the sessions were to the curriculum of the program, and 2 were close-ended questions on further interest in the resources and future participation. All answers to the survey were collected anonymously. Overall, the survey aimed to understand the key strengths and effectiveness of each of the learning modules and of the entire series, relevance to the diverse group of HCPs and the information they require to enhance their practices and knowledge on adult vaccination.

Recruitment

The recruitment of the advisory committee was based on members representing health sectors targeted by the AV-HCP ECHO program, including physicians, nurses, long-term care/community care workers, dentists, pharmacists, rehabilitation specialists, personal support workers, and patient and ageing organizations. The aim was for members of the advisory committee to also have global representation across WHO regions.

Based on recommendations from the advisory committee, there was recruitment of five individuals for the hub team. The members of the hub team were selected based on their ground-level experience to address the topics for each module. Hub team members were also chosen based on ability and capacity to participate in the modules via didactic lecture presentations, provision of key recommendations and additional insight into each session's topic and supporting the amplification of the promotional and recruitment efforts for the series.

Learners or participants for this series were recruited via a robust three-pronged approach in advertising campaigns. Both targeted and broad recruitment strategies were used, including promotion through the IFA and IFA's Vaccines4Life (V4L) websites and newsletter, social media posts on Facebook, LinkedIn, and X (formerly Twitter), and through email campaigns to the advisory committee, universities with HCP programs, and other relevant organizations to share a promotional package that was developed to target diverse networks outside of IFA's typical reach. This recruitment strategy focused on the curriculum for this AV-HCP ECHO series, highlighted the value of dialogue-based learning and the opportunity to ask questions to an expert panel.

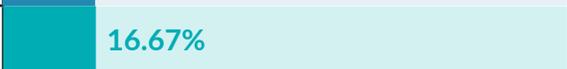
Program Impact

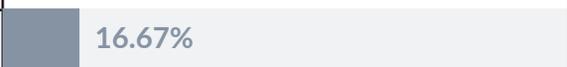
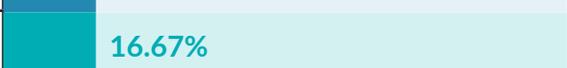
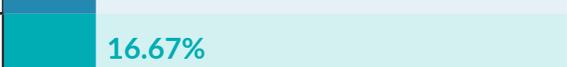
The AV-HCP ECHO program ran from October to December, with an average of 30-55 participants that were present for each session. A total of 200 global learners representing 40 countries were registered for the program. Each session had consistent participation during the question-and-answer portions. Engagement from participants was quite high as noted by the number of questions that were posed both orally and within the chat function exceeding the time allocated for discussion. Across all social media campaigns including over LinkedIn, Facebook, and X (formerly Twitter), engagement was well received with approximately 2054 impressions in total for all posts. Through IFA's email campaigns using Constant Contact, there were approximately 3536 emails sent out for registration, followed by registration reminders and reminders before each of the five sessions to ensure engagement with learners was consistent and intentional. Post-session resources were also delivered via Constant Contact email, which came with great reception through personal feedback. Participants noted these resources reinforced their learnings from the session and were something they could share with colleagues.

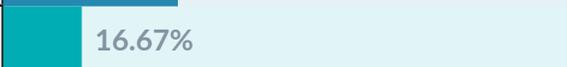
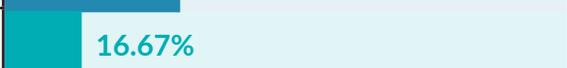
The results from the post-evaluation survey questions were collected to assess engagement as well as the learning impact on participants. These results have been summarized below in Table 2.

From the results of the survey, it was evident that most participants found that the program increased their understanding of adult vaccination, as 100% of participants who responded agreed that the program supplemented their knowledge to apply to their practice and/or within their organization. Based on participant responses, the experience of the sessions was predominantly positive. For example, 83% of respondents agreed that the case presentations were relevant and that 84% of participants responded that the learning environment enhanced their learning experiences. Suggestions include looking at innovative ways in which participants can feel more confident in applying the knowledge and recommendations from the session. This may be considered when launching future ECHO programs and asking participants ways in which they believe this can be achieved in a survey provided before the series begins.

Table 1: Post Program Evaluation Survey

Question	Response	
Participation in the Adult Vaccination Healthcare Provider Education ECHO program increased my understanding in the field of vaccination and the unique patient experiences that shape vaccination rates.	Strongly agree	 66.67%
	Agree	 16.67%
	Neutral	 16.67%
	Disagree	
	Strongly Disagree	
I am confident in describing the importance of adult immunization in reducing vaccine-preventable diseases and promoting healthy ageing.	Strongly agree	 66.67%
	Agree	 16.67%
	Neutral	 16.67%
	Disagree	
	Strongly Disagree	
The program has supplemented my knowledge of adult vaccination which can be applied to my practice and/or within my organization.	Strongly agree	 50%
	Agree	 50%
	Neutral	
	Disagree	
	Strongly Disagree	
The program included a low to middle- income perspective on adult immunization and learnings which may be applied to this setting.	Strongly agree	 66.67%
	Agree	 16.67%
	Neutral	 16.67%
	Disagree	
	Strongly Disagree	

Question	Response	
I feel confident in applying the knowledge and expert recommendations I acquired during the program in my work.	Strongly agree	 50%
	Agree	 33.33%
	Neutral	
	Disagree	 16.67%
	Strongly Disagree	
The presentations and corresponding discussions were relevant to each session's topic and learning objectives.	Strongly agree	 66.67%
	Agree	 16.67%
	Neutral	 16.67%
	Disagree	
	Strongly Disagree	
The program created a rich learning environment which allowed participants to feel safe, openly comment and ask questions during discussions.	Strongly agree	 66.67%
	Agree	 16.67%
	Neutral	 16.67%
	Disagree	
	Strongly Disagree	
I am likely to share the knowledge and/or skills I have acquired from this Program with my colleagues.	Strongly agree	 66.67%
	Agree	 16.67%
	Neutral	 16.67%
	Disagree	
	Strongly Disagree	

Question	Response	
The relevancy of the case presentations enhanced my learning experience.	Strongly agree	 50%
	Agree	 33.33%
	Neutral	 16.67%
	Disagree	
	Strongly Disagree	
The relevancy of the AV-HCP curriculum and learning objectives encouraged me to join.	Strongly agree	 66.67%
	Agree	 16.67%
	Neutral	 16.67%
	Disagree	
	Strongly Disagree	
The opportunity to ask for expert recommendations during the AV-HCP ECHO encouraged me to join.	Strongly agree	 50%
	Agree	 33.33%
	Neutral	 16.67%
	Disagree	
	Strongly Disagree	

Lessons Learned

This AV-HCP ECHO program took elements that required refining from the previous AV-HCP ECHO program to help accomplish improvements. For example, a terms of reference document was created for hub team members to help outline their roles and responsibilities. The terms of reference was meant to ensure the program's sustainability and success through hub members' consistent commitment. Though this was certainly helpful, there is still room for improvement in terms of ensuring hub members can attend all sessions and post-session debriefings. As hub members have very busy schedules, scheduling for program sessions should be confirmed at the onset of the program with all hub members, thus providing a more guaranteed presence at all the sessions.

As stated in the survey there were still a portion of participants that were not confident in applying their learnings from the sessions. To address this gap, next iterations of the program may include more thorough review of case presentations and increased flow between didactics and case presentations to ensure that the participants' learning is reinforced in a consistent manner throughout the session. Another idea is integrating a part of the session for each module that allows participants to create their own roadmaps based on their regional capacities and policies. This will also enable direct participation, allow participants to ask experts questions, and leave the session with more confidence in how to apply their learnings to their given situations. Additionally, in the pre-series survey, participants can be asked what they believe would instill more confidence in applying their learnings from these sessions. Keeping an open dialogue throughout the sessions and checking in with participants may also support their confidence in learning.

In a future series, strategies such as accreditation can be explored to incentivize participation from these key groups. As addressed in personal feedback, many HCPs expressed interest and value in receiving accreditation or a participation certification after attending the entire series. This can motivate future cohorts of HCPs to take part in these series and ultimately start including their learnings on adult vaccination as part of their practices.

Expert Recommendations

At the end of each module session, the expert hub team helped make recommendations for HCPs that were provided to all participants in post-session resources. These recommendations are organized into organizational level interventions and good practices for HCPs. The organizational level interventions are upstream recommendations that organizations and institutions can implement at procedural or policy level. The good practices for HCPs are recommendations that can be actioned and integrated by HCPs into their scope of work with the patients that they care for. The following recommendations were identified across all sessions:

Table 2: Summary of Expert Recommendations

Theme	Expert Recommendations	
	Organizational Level	Good Practices for HCPs
Effective Communication and Education	There should be policy changes made with registered health professional organizations to enhance the health education and literacy on immunization that is available to HCPs in their training.	HCPs should be communicating the safety and efficacy of immunization, while ensuring that their messaging is tailored to their patient population.
Cultivate Trust and Build Relationships	Investing in support from community organizations and leaders on immunization programs will help members of the community gain trust in being vaccinated.	To build trust with patients, HCPs should listen actively to their concerns and accordingly address them empathetically, while leveraging important relationships in the community to collaborate on efforts to share accurate information on immunization.
Strengthen Immunization Efforts through Innovation	Policy changes should be made to ease systemic barriers that deter immunization of adults through actions that either utilize current structures and systems or help create new ones.	Collaboration between HCPs and other non-traditional vaccinators or established services can help improve immunization of more individuals.

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<p>Mobilize HCPs as Advocates</p>	<p>HCP training should include teachings and knowledge on how to advocate for patient immunization.</p>	<p>HCPs that wish to expand their network of advocacy can share and use resources such as advocacy-based handbooks or toolkits to help other providers leverage their knowledge and advocate for their patients' immunization.</p>
<p>Improve Accessibility and Convenience</p>	<p>Policies on promoting vaccine equity need to be improved on to ensure that everyone has access to immunization knowledge and ability to receive vaccines as per recommendations.</p>	<p>Where possible, HCPs can help improve accessibility and convenience for patients to be vaccinated by offering expanded vaccination options such as flexible clinic hours, providing vaccinations at more locations, and understanding and addressing any logistical and financial barriers patients may be facing.</p>

Effective Communication and Education

At an organizational level, policy changes should be made amongst registered health professional organizations that work to enhance the immunization-based health education and literacy available to HCPs in their training. This will enable HCPs to gain a better understanding of immunization and integrate it into their clinical practice. In terms of the practices that HCPs can undertake within their patient care, they should be communicating about immunization safety and efficacy, while ensuring that their messaging is tailored to their patient population. This will prevent misinformation or disinformation that patients may encounter when seeking information on their own, have limited health education or being unaware of trusted, reputable sources.

Cultivate Trust and Build Relationships

Governments and organizations should invest in the support of community organizations and leaders on immunization programs. This investment will help other members of the community build confidence and trust in getting vaccinated at an organizational level. For HCPs to establish good practices in building trust with their patients, they should listen actively to their concerns and address them in an empathetic manner. To supplement these actions, HCPs should leverage important relationships within their communities and work on collaborating with leaders and respected members to collectively share accurate information on immunization.

Strengthen Immunization Efforts through Innovation

Novel policy changes are required at the organization level to help immunization efforts and ease systemic barriers that exist. Current structures and systems that are already in place can be improved to ease barriers, for example updating existing vaccination guidelines or public health communication efforts with the latest evidence. There can also be development of new structures and systems to help remove these barriers completely and make way for procedural changes that prioritize immunization. For example, new national immunization plans and programs can be created to support improved access and infrastructure to adult vaccination. To help strengthen HCPs' immunization efforts in meaningful and pioneering ways, HCPs should collaborate with non-traditional vaccinators or established services to adapt existing models or guidelines and implement them in their practices. This collaboration and sharing of knowledge will improve reach and accessibility to vaccinate more individuals.

Mobilize HCPs as Advocates

HCP training and education curriculum should include teachings and knowledge on how to advocate for patient immunization. This will enable HCPs to advocate for older adults' immunization from the onset of their practice. Including this education as part of continuous learning for HCPs will also enable experienced professionals to engage in advocacy work. To incorporate advocacy into their practice, HCPs can be involved in knowledge-exchanges with those experienced in advocacy work and using resources such as advocacy-based handbooks or toolkits to help leverage their knowledge and advocate for the immunization of their patients.

Improve Accessibility and Convenience

To support the improvements in accessibility and convenience of vaccination for older adults, there should be reshaping of policies that promote vaccine equity to ensure that individuals can easily obtain recommended vaccines and information on vaccination. HCPs can help improve this accessibility and convenience for patients to receive their vaccines by working to expand vaccination options in their practice. For example, as good practice, HCPs can work towards understanding and addressing any logistical and financial barriers that patients may be facing, offer more flexible clinic hours for vaccination or more locations to receive vaccinations.

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Conclusion and Next Steps

The Adult Vaccination Health Care Provider ECHO program is a refined informative program that through education and advocacy, enables HCPs to become more knowledgeable about adult immunization, act as champions for adult vaccination in their practices and engage in advocacy to influence policies. This program has demonstrated the value of using the ECHO platform to foster an interactive learning community that facilitates peer-to-peer learning, promotes capacity building and tools for understanding and enhancing policy dialogue, ultimately improving vaccination rates for adults. This iteration of the AV-HCP ECHO program was designed to strengthen and expand the core competencies and recommendations gathered from global leaders in the field of vaccination across the life course. This scaled up training series of the AV-HCP ECHO program also deepened the understanding of adult vaccination by integrating lessons from the previous program and developing new methods of practice to advance the curriculum, program structure, and recruitment of members for the advisory committee, hub team, and participants.

The AV-HCP ECHO program has proven successful in improving knowledge, skills, and capacity of HCPs that work within the field of healthy ageing. To enhance confidence in applying learnings from the program, it is proposed to include more interactive components such as building roadmaps in sessions and motivating learners to think about how they can incorporate lessons into their ongoing work or future work in their practices. HCPs should leave the program feeling informed about how they can advocate for their patients regarding immunization and how to help colleagues expand their practices in similar ways. Ultimately, life course immunization should be globally understood and incorporated into national policies and programs with support from HCPs as advocates and trusted members of the community.

Acknowledgement

The IFA values the support of the GSK in scaling up the AV-HCP ECHO program to improve adult vaccine education among HCPs and subsequently vaccination uptake and coverage.

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