International Federation on Ageing

Vaccines 4 Life

ADULT VACCINATION ADVOCACY TOOLKIT (AVAT)

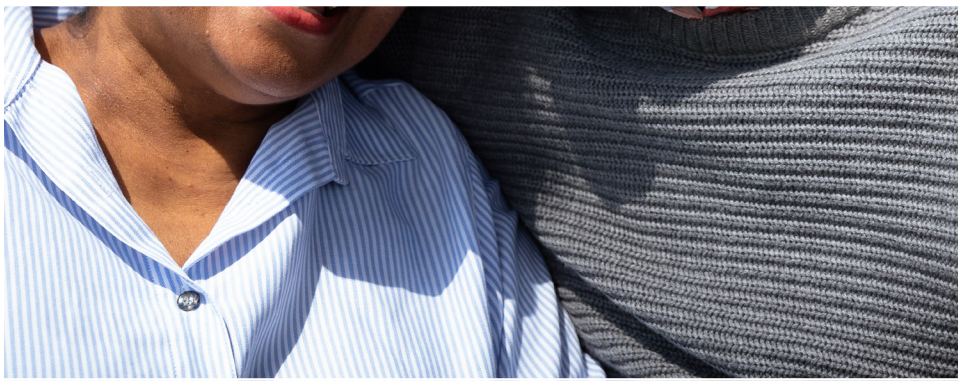

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Table of Contents

Executive Summary > | Vaccination Pathways > | Vaccine Administrators > | Targeted Public Messages > | Equity in Vaccination > | Conclusion >

Executive Summary

On 14 December 2020, the United Nations declared 2021-2030 the Decade of Healthy Ageing, sending a clear signal that by working as one, we will be able to not only add years to life but life to years. Four inter-connecting facts prompt the need for a policy-focused adult vaccination advocacy toolkit: a rapidly ageing global population; the rise of noncommunicable diseases, which are often associated with older age groups; age-related weakening of the immune system (immunosenescence); and vaccination programs tend to focus on children even though the major burden of vaccine-preventable deaths is in adults.

The Adult Vaccination Advocacy Toolkit is a collection of authoritative and adaptable resources designed around four key policy issues that impact the rates of adult vaccination at an individual and population-based level. The policy drivers considered paramount to change the adult vaccination landscape are *the simplification of the vaccine pathways, expansion of the pool of vaccine administrators, effective targeted adult vaccination campaigns, and an environment that strives for vaccination equity.*

These policy drivers respond to gaps in the implementation of a life course approach to immunization, and specifically adult vaccination. For each driver, the environment and context are described followed by a collection of resources that frames the step-by-step actions to help inform policy at all levels of government.

As influencers in shaping policy debates and informing national health policy, the AVAT is aimed at civil society organizations including but not limited to patient, faith-based, and advocacy organizations as well as professional and community associations. As part of the reorientation of health care systems to health promotion and prevention it is also seen to be useful in building greater understanding across sectors and disciplines.

Protecting and prioritising immunization through life is an essential pillar of expanded prevention strategies and a central component of universal health coverage. The first step toward this is a comprehensive, funded vaccination plan reflective of the recommendations of a National Immunization Technical Advisory Group or equivalent body. Identifying and addressing barriers to access vaccines and vaccination is unique to every setting and regulatory framework. The barriers may include cost, a lack of awareness and consequences of infectious diseases and value of vaccines, misinformation or no information, complicated health care systems, insufficient qualified vaccinators and even basic transportation systems, to name a few.

There is an urgent need to shift health care systems from treating disease to preventing it at all stages of life. Investing in vaccines saves time, money, and lives of every age and leads to healthier, sustainable healthcare systems and communities. The toolkit is produced as a public service to translate the belief that people and the organizations they represent – with information from a variety of disciplines, including applied behaviour analysis and public health – can help improve the health and well-being of their communities through improve rates of adult vaccination.

Executive Summary > Vaccination Pathways > Vaccine Administrators > Targeted Public Messages > Equity in Vaccination > Conclusion >

Background

Today, the world is experiencing unprecedented forces of demographic change, including rapid population growth in some developing economies, increasing longevity, population ageing, urbanization, and international migration.

The United Nations (UN) General Assembly on the 14 December 2020 declared 2021-2030 the Decade of Healthy Ageing.(1) This resolution sent a clear signal that it is only by working as one – collectively with governments, civil society, and the private sector – that we will be able to not only add years to life but also life to years. Since health is a principal component to the experiences and opportunities that ageing brings, there are four interconnecting facts that prompt the need for a policy-focused adult vaccination advocacy toolkit.

First, globally, the population aged 65 years and over is growing faster than all other age groups.(2) According to data from the World Population Prospects: the 2019 Revision, one in six people in the world will be over the age of 65 years (16%) by 2050.(2) The number of persons aged 80 years or over is projected to triple, from 143 million in 2019 to 426 million globally also by 2050.(2) For the first time in history, those aged 65 years and above outnumbered children under the age of five globally in 2018. By 2050, one in four persons living in Europe and North America could be aged 65 years or over.(2)

Second, noncommunicable diseases (NCDs), such as heart disease, stroke, cancer, chronic respiratory diseases, and diabetes, are often chronic conditions that compromise the immunity of a person against serious complications of vaccine-preventable diseases. While people of all age groups, regions, and countries are affected by NCDs, the conditions are often associated with older age groups because of the cluster of risk across the lifetime. Ageing populations, combined with the rise in chronic health conditions that require complex support services, are driving unprecedented demand for health and social care.

Third, age-related deterioration of the immune system (immunosenescence) and medical conditions such as diseases of the heart, lungs, and diabetes are directly related to morbidity and mortality associated with infectious diseases.(3) Older people and those with underlying chronic conditions are rapidly growing populations that have the greatest risk of serious complications from vaccine-preventable diseases, including influenza, pneumococcal pneumonia, pertussis, shingles, diphtheria, tetanus, and hepatitis.(4)

Fourth, vaccination has been one of the major drivers in advancing life expectancy by reducing deaths from complications of coexisting chronic conditions and infectious diseases.(5) Vaccination programs tend to focus on reducing mortality and morbidity in children even though the major burden of vaccine-preventable deaths is in adults.(6)

Immunization is a vital element of modern primary healthcare. It reduces and controls the spread of life-altering diseases that place the lives of both healthy and vulnerable populations at risk.

Vaccines are one of the safest and most economically efficient ways to ensure that older persons and those with chronic conditions are protected from infectious diseases that disproportionately impact these groups.

Civil society organizations (CSOs) can play a vital role in influencing and helping to shape policies that include simplified vaccine pathways; expansion of vaccine administrators; targeted public health messages; immunization equity across the life course with attention to those at high-risk of vaccine-preventable diseases. Civil societies are key changemakers within the field of health advocacy and with the appropriate tools, they can generate equitable outcomes for older persons and those with complex health needs.(7)

Why is a Toolkit Necessary?

Vaccination is a widely accepted public health action against routine infectious diseases such as influenza, pneumococcal pneumonia, pertussis, and shingles for adults and, most importantly, those with chronic health conditions. Despite this general acceptance, national statistics(8) and numerous studies(9) show suboptimal adult vaccination uptake rates that are linked to various situational barriers, some of which can be influenced through effective policy development and implementation.

Apart from CSOs whose core business is immunization (e.g., Immunize Canada or Shot@ Life), most patient and ageing organizations have not strategically prioritized vaccination until recently. While COVID-19 has been an important lever, it should not camouflage the fact that CSOs have expressed the need for evidence-based information and guidance to help build the capacity and capability to inform policy and promote the importance of vaccines.

The Adult Vaccination Advocacy Toolkit (AVAT), a collection of authoritative and adaptable resources, is designed to respond to specific barriers for which policies need to be developed or refined to improve uptake rates of adult vaccination at an individual and population-based level.

Vision and Goal

Vision: A world of healthy older people whose rights to safe and appropriate vaccines are protected and respected through programs that hold high the principles of prevention, access, and equity.

Goal: To influence and help shape policy to improve uptake rates of adult vaccination by helping to build the capacity and capabilities of civil society.

Executive Summary > Vaccination Pathways > Vaccine Administrators > Targeted Public Messages > Equity in Vaccination > Conclusion >

How to Use the Toolkit

The AVAT is primarily for civil society, including non-governmental organizations (NGOs), advocacy organizations, professional and community associations, faith-based organizations. However, it will be useful for a range of stakeholders in health promotion, including all levels of government, health care providers, and private sector interests.

The toolkit contains four policy drivers that are universally essential for improving adult vaccination coverage:

1. Simplification of vaccination pathways
2. Expansion of vaccination administrators
3. Targeted vaccination campaign
4. Vaccination equity

In the toolkit, each policy issue contains:

1. Context and scenarios that illustrate the barriers to accessing adult vaccination
2. Links to useful tools and resources
3. Actions for advocacy and knowledge assets

Depending upon the barrier(s) and situational context this interactive toolkit offers clear explanations of the impact of the policy issue and offers step by step actions to gather evidence to be in a strong position to advocate for changes that will lead to improving adult vaccination uptake.

Executive Summary > Vaccination Pathways > Vaccine Administrators > Targeted Public Messages > Equity in Vaccination > Conclusion >

Policy Issues

1. Vaccination pathways

Good practice in vaccination pathways is an environment that informs, simplifies, and streamlines the step-by-step process for individuals and specific populations to be vaccinated by qualified professionals. In some countries, the steps to be vaccinated differ depending on the vaccine, which can be confusing and an impediment for adults trying to navigate the vaccination landscape.

The scenarios described below illustrate how the steps (or pathways) to be vaccinated can be a barrier:

1. Pop-up vaccination clinic

During the COVID-19 pandemic, pop-up vaccination clinics responded to local situations but, for some populations, they did not provide greater access because:

- The location and duration of the clinic were not consistently communicated through traditional channels (e.g., TV, radio) but rather websites and social media, which are not always readily accessible for older populations.
- Appointments could not be booked due to the uncertainty of supplies, so long wait times in queues did not always result in vaccination.
- A central booking system was either not available, not updated, or not accessible which then contributed to inaccurate information and confusion about availability, eligibility, and vaccine locations.

2. Complex pathways

- Regulatory bodies (government and professional associations) determine the health care professional groups qualified to administer vaccines and to what populations. This varies from country to country can also vary within countries (e.g., Canada).
- To be vaccinated may mean a three-step process starting with an appointment with the General Practitioner (GP) for a consultation and prescription.
- This then needs to be filled by the pharmacist, followed by another appointment with the GP for the vaccine to be administered.
- Information about vaccine schedules, locations, and qualified vaccinators on websites is not always up to date which poses a significant gap and barrier.

Actions for Advocacy

1.1 Develop a pathway map

Pathway maps are a useful tool to gain a better understanding of what it takes for an individual to be vaccinated in a specific setting. The map is a visual representation that illustrates vaccination entry points and barriers, starting with:

- Identifying the various pathways and steps that an older person (or someone with a chronic health condition) must know to be vaccinated from the time that a decision is made to the point of being vaccinated.

  The pathway may be different depending upon the vaccine (e.g., influenza, pneumococcal pneumonia, shingles, or pertussis) and the health care professional who administers it.

- Identifying the various roles of the health care professionals who provide information about vaccines, as well as prescribing and / or administering vaccinations.

Knowledge Assets: Pathway Map

The "pathway map" (Figure 1) illustrates various complications that prevent and inhibit easy access to the shingles vaccine in Ontario.(10) These steps can be time consuming and especially confusing for those who are unfamiliar with the public health system, as information is not always easily available or communicated by public health authorities in the province.

Adults who are not eligible to have the vaccine through the publicly funded program in Ontario may face additional barriers of cost and no insurance coverage as the cost of shingles vaccines can differ across cities and pharmacies.

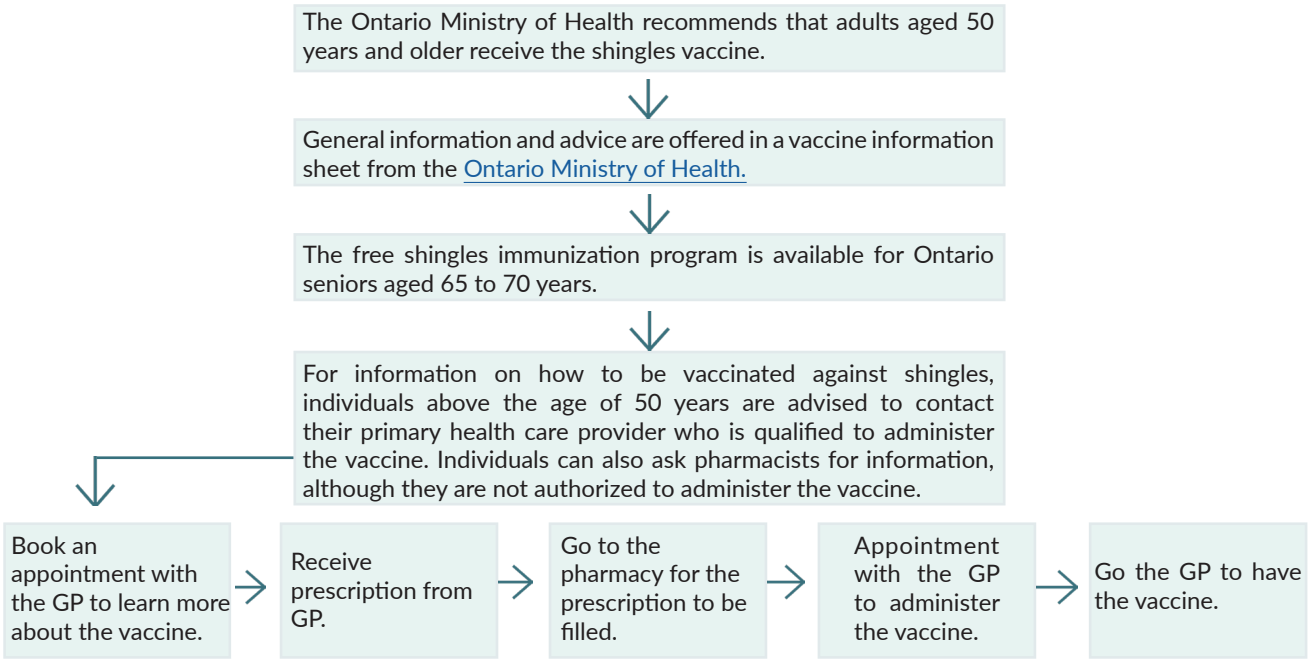

Figure 1: *Pathway map illustrating the pathway than an adult aged 50 years and older must follow to become vaccinated against shingles in Ontario, Canada.*

1.2 Build relationships to empower advocacy efforts

Building and sustaining meaningful organizational relationships is the first step toward developing a common agenda and action plan to advocate for greater access to vaccines and vaccination for older adults.

Knowledge Assets: Build relationships

Collaborations to help influence adult immunization policy and practice should also be across both disciplines and sectors reflecting the many facets of the life course. Below is a list of organizations that work in the field of adult vaccination, as examples to consider from a national or local perspective.

- The Coalition for Life-Course Immunization (CLCI) is a diverse network of experts and associations representing public health, patients, academics, and health professionals from across Europe that advocates for a life course approach to immunization and the elimination of barriers to vaccination pathways.
- The International Longevity Centre UK collaborates across different sectors and disciplines to deliver evidence and meaningful dialogues to policymakers on a variety of topics, including immunization for at-risk populations.
- Generations United bridges the importance of immunization within segmented groups into an intergenerational conversation and promotes vaccination through a lifespan approach.
- The European Interdisciplinary Council on Ageing, with the support of the European Union Geriatric Medicine Society (EUGMS), aims to diversify the institution's activities in the education of health care professionals working with older patients.
- CanAge is a Canadian seniors' advocacy organization, working to improve the lives of older adults through advocacy, policy, and community engagement on a variety of topics, including immunization.
- The NCD Alliance is designed to engage all interested stakeholders committed to achieving the shared goals of improving the wellbeing of individuals living with non-communicable diseases. The network includes national and regional NCD alliances, over 1,000 global and national CSOs, scientific and professional associations, and academic and research institutions.
- The International Pharmaceutical Federation (FIP) is the global organization representing pharmacists, with a network of nearly 150 country-level member organizations. FIP and its members work to facilitate access to vaccination services through adequately trained pharmacists, particularly to older adults, people living with NCDs, and other at-risk population groups.
- Cittadinanzattiva is an organization with its headquarters in Italy and links to the European Commission. It promotes and protects citizens' rights in the health sector, recently focusing on vaccination.

1.3 Build capacity and capability to improve pathways to vaccination

Conversations and formal dialogues with CSOs who have an interest in improving adult vaccination rates leads to new knowledge and sharing resources on points of access to vaccination.

Knowledge Assets: Building capacity

Helping to influence and shape policy and practice requires many voices with a common agenda and commitment to plan and implement a series of actions. Consider hosting several informal virtual events to gain a better understanding of the gaps and opportunities to work together and drive policy change.

Steps include:

- Starting an interactive dialogue
- Building trusted partnerships
- Mobilising collective action

Table 1: *Steps that can be taken to help influence and shape policy and practices.*

Starting an interactive dialogue Amplifying civil society voices to improve rates of adult vaccination in Germany
Civil society organizations have a considerable responsibility in conveying accurate, up-to-date information on preventative actions that support healthy ageing and good quality of life. These stakeholders are known to be trusted sources of information and can play a vital role in promoting the pathways to vaccination. A significant gap in our understanding to explain the continually poor uptake rates is the view from civil society who represent millions of citizens potentially at-risk to the life-threatening consequences of vaccine-preventable diseases. 'Amplifying civil society voices to improve rates of adult influenza vaccination in Germany' is a project template describing a two-stage methodology (environmental scan and interview findings) to gain a clearer understanding of the organizational perspectives towards adult influenza vaccination. Recommendations include: • A multisectoral and cross sectoral approach is optimum to improving the uptake rates. • Continuing education on vaccines and the schedule is imperative for all health care professionals across all age groups, particularly those populations at the highest risk of serious complications. • Professional associations in the field of health should be champions to prioritize immunization throughout life as a key pillar of expanded prevention strategies. • Targeted evidence-based information and resources should be accessible to civil society to build their capacity and capability to be champions for their members and constituents.

Executive Summary > Vaccination Pathways > Vaccine Administrators > Targeted Public Messages > Equity in Vaccination > Conclusion >

Building trusted partnerships

Bringing Canadian patient advocacy organizations together in the fight against influenza

Despite awareness of the risks of infectious diseases, organizations representing and working with older people do not usually prioritize adult vaccination. Increasingly smaller budgets, limited expert knowledge in the area, competing priorities, and insufficient human resources impact their ability to have a stronger voice in health promotion and prevention-including immunization.

'Bringing Canadian patient advocacy organizations together in the fight against influenza' presents a useful way of improving understanding of the barriers that civil society experiences in being a champion for adult vaccination through qualitative methods. Participants in executive leadership positions participated in a semi-structured conversation on the topic of adult vaccination and at-risk populations in Canada.

Key principles to building trusted relationships included:

- A collaborative effort is needed to improve adult vaccination uptake rates through partnerships with like-minded stakeholders who aim to put forward reliable, unbiased, and useful information to their constituents.
- Building a common agenda around a life course approach to vaccination could take the form of a national, civil society-led strategy.

  The strategy would require a series of open conversations among leaders of key patient, ageing, and professional organizations on the barriers and motivators of vaccination.
- Developing clear and consistent messaging across all knowledge translation platforms that is scientifically informed and consistent across all organizations is vital to address diverse needs.

Mobilizing Collective Action

"Mobilizing Patient Groups to Change Vaccine Policy Through Cooperation, Collaboration, Solidarity and Accountability

Harnessing the expertise and experiences of civil society in targeted advocacy to influence and shape adult vaccination policy requires sustained action. An effective way to start building collective action is to convene a meeting of experts who reflect a multidisciplinary approach to healthy ageing, including in the fields of health promotion and prevention.

"Mobilising Patient Groups to Change Vaccine Policy…" was an expert meeting designed to bring together representatives of the European Federation of Allergy and Airways Diseases Patients' Associations (EFA) with professional associations and representatives of the Joint Action on Vaccination.

New intelligence and mobilization of a collective response to build partnerships through the Joint Action on Adult Vaccination was informed by 42 members in 25 countries. These organizations included the European Geriatric Medicine Society, the European Centre for Disease Prevention and Control, the European Public Health Agency, Vaccines Europe, the International Council of Nurses, and the International Pharmaceutical Federation.

Outcomes informed new and strengthened partnerships and broader coalition-building in accordance with objectives set out by the European Commission Joint Action on Vaccination and inform European Union (EU) vaccination and health policy for adults.

Executive Summary > Vaccination Pathways > Vaccine Administrators > Targeted Public Messages > Equity in Vaccination > Conclusion >

(cont.) Mobilizing Collective Action

"Mobilizing Patient Groups to Change Vaccine Policy Through Cooperation, Collaboration, Solidarity and Accountability

Using the COVID-19 pandemic as an entry-point, the cost-neutral actions were identified that could be undertaken to catalyse changes and policy action in adult vaccination including:

- Contributing to a shared calendar to streamline events and leverage messages and actions.
- Developing a message bank of short communications related to topics including vaccine safety and hesitancy.
- Advocating collectively for government budgets to be allocated to health promotion and disease prevention at a national and regional level by sharing evidence on the economic value of vaccination to countries and regions that fail to allocate adequate funding and resources.

1.4 Increasing awareness

A synthesis of the data gaps and intelligence gathered from various sources (e.g., roundtables, in-depth interviews) about the vaccination pathways will help to determine the best courses of action to advocate for greater access for older people and those with chronic conditions.

Targeted engagement strategies (e.g., fact sheets, flowcharts, or infographics) help bring awareness of vaccination pathways and promote the need to simplify the process for those at most risk.

Knowledge Assets: Interactive Flowchart

Interactive flowcharts are a simple yet effective way to bring awareness of the various aspects of health and social systems that could shape the pathways to be vaccinated.

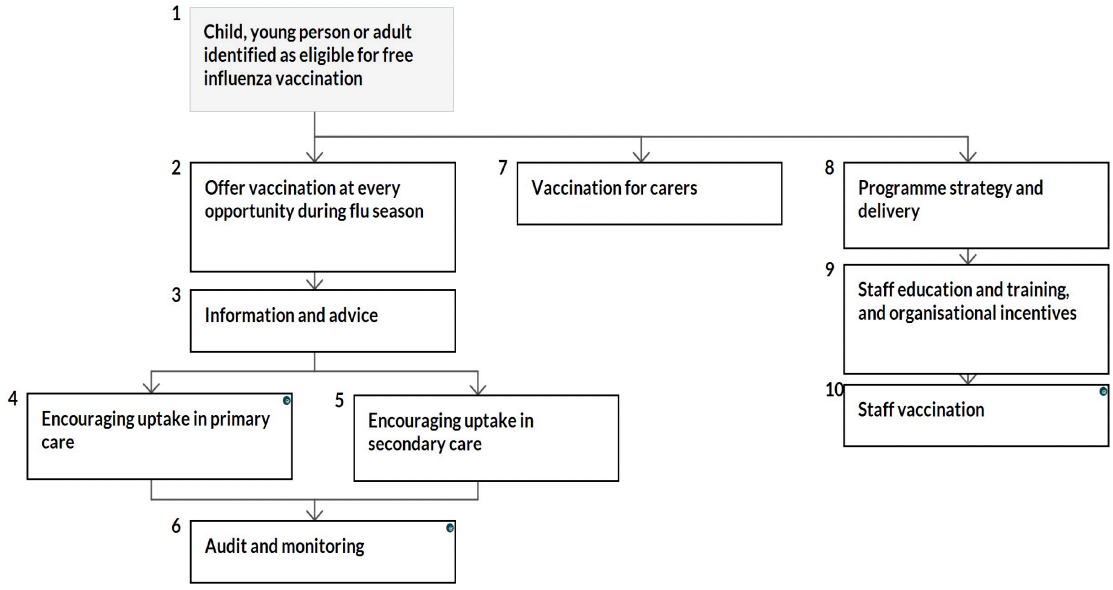

Figure 2: *The influence vaccination pathway for a child, young person, or adult to be vaccinated(11)*

The influenza vaccination pathway (Figure 2), developed by the National Institute for Health Care Excellence (NICE;(11) shows the pathway for a child, young person, or adult to be vaccinated, while at the same time identifying complexities and / or gaps in the health care system. Key learnings include:

- Health care professionals are trusted sources to help improve awareness and educate on the importance of vaccination while considering cultural sensitivities.(11)
- Primary care staff and nurses working in the community (such as district nurses, specialist nurses, and those working in rehabilitation) should offer the flu vaccination to at-risk populations, including older people, who have not been vaccinated and attend routine hospital appointments.
- When offering vaccines to at-risk groups, qualified[1] administrators should ensure information is targeted specific to the individual risk level. Where appropriate, offering and administering the vaccine during the same visit is efficient and effective.

[1] Throughout this document, the term **qualified** will be used to mean an individual who is legally permitted to administer vaccines in a given location; it will not be used to mean that an individual has the skills, knowledge, or ability to administer a vaccine.

2. Vaccine Administrators

A robust national immunization plan requires an adequate supply of qualified vaccinators according to the nature and density of populations. Unfortunately, this is not always the case.

Government regulations in large part shape the nature, form, and number of qualified vaccinators in normal times where the pressure is most often felt during the influenza season.

The capacity and capability of health care professionals as qualified vaccinators is central to an effective vaccination policy. The following issues highlight potential barriers for at-risk groups and may also be touchpoints in developing specific knowledge assets for this policy issue.

The scenarios described below illustrate how the steps (or pathways) to be vaccinated can be a barrier:

- In many countries there is a lack of publicly available information on who is authorized to administer specific vaccines (e.g., shingles, pneumococcal pneumonia, pertussis) for the general population as well as those most at-risk.
- Health care professionals, including, but not limited to, nurses, physicians, pharmacists, and community care workers, are often authorized to administer vaccines; however, regulations differ across and within countries.
- Governmental regulations determine the health care professionals who are qualified to administer specific vaccines for certain age groups.
    - In Canada, for example, although physicians are the primary vaccinators, pharmacists can also administer influenza vaccines in at least six provinces and territories.(12) Regulations can differ for each province.
    - In a conversation with a member from the International Federation on Ageing who is a physician in Japan (Dr. Hisashi Hozumi 2022, oral communication, 19th January), it was clarified that in Japan, only medical doctors are authorized to administer vaccines across all infectious diseases, although nurses can perform the procedure if supervised by a physician.[2]

While the expansion of qualified vaccinators is important, improved rates of vaccination can only be achieved and sustained through enhanced and sustained infrastructure such as refrigeration, workplace flexibility, and continuous education.

[2] As a response to COVID-19, the Ministry of Health in Japan expanded the scope of professionals eligible to administer COVID-19 vaccines. This included dentists, emergency medical technicians, and clinical laboratory technicians. To do this, they had to undergo the necessary training on intramuscular injections.

Actions for Advocacy

2.1 Mapping the administration of vaccines

Knowledge on who can administer which vaccines, and to whom, is baseline information that forms the basis for policy dialogue to improve uptake rates. A key barrier to vaccination for older people may be the limitation of health care professionals who are qualified to administer the vaccine.

There is an emerging trend in many countries to expand the role of some health care professionals so that equitable access to vaccination is more achievable. Steps to consider when helping to drive policy change include:

- Identifying health care professionals qualified to administer vaccines and understanding whether there are restrictions pertaining to the age group (e.g., children versus older adults) and location (e.g., with a GP practice or community).

  Before making the case to expand the pool of vaccine administrators, it is important to understand whether regulations (e.g., government or professional associations) constitute the main barrier.

- Mapping information provides an important visual that highlights the different policies and practices which may present barriers for expanded vaccinators. It will also be invaluable to refine an advocacy strategy and actions to address this policy issue.

Knowledge Assets: Mapping information

Interactive flowcharts are a simple yet effective way to bring awareness of the various aspects of health and social systems that could shape the pathways to be vaccinated.

Table 2: *Examples of how to map information to highlight the different policies and practices which may present barriers for vaccine access*

Canada: Provincial variations			
Region/Province	**Disease**	**Eligible groups**	**Vaccinator**
Ontario	Pneumococcal pneumonia	Adults aged 65 years and over	Primary care provider (e.g., family doctor, nurse practitioner) and pharmacist.(13,14)
Quebec	Pneumococcal pneumonia	Adults aged 65 years and over	Primary care provider (e.g., family doctor, nurse practitioner) and pharmacist.(15)
In Ontario and Quebec, the pneumococcal vaccine is recommended for adults aged 65 years and older to receive the pneumococcal vaccine. In both provinces, the vaccines can be administered by both primary care providers and pharmacists.			

Executive Summary > Vaccination Pathways > Vaccine Administrators > Targeted Public Messages > Equity in Vaccination > Conclusion >

Australia(16):		
Disease	**Eligible groups**	**Vaccinator**
Influenza	Persons aged 10 years and over	Pharmacist, and primary health care providers (e.g., family doctor, nurse practitioner).
Diphtheria, Tetanus, and Whooping Cough	Persons aged 16 years and over	Pharmacist, and primary health care providers (e.g., family doctor, nurse practitioner).
Measles, Mumps, and Rubella	Persons aged 16 years and over	Pharmacist, and primary health care providers (e.g., family doctor, nurse practitioner).
Shingles	Adults aged 60 years and over; and adults aged 50 years and over who are household contacts of a person who is immunocompromised(17)	Primary health care providers (e.g., family doctor, nurse practitioner).
In Australia, various vaccinations are for the general population, including older adults (e.g., influenza, diphtheria, tetanus, and pertussis, and measles, mumps, and rubella). These vaccinations can be provided by a pool of qualified administrators, including pharmacists and health care providers. The shingles vaccine is recommended specifically for adults aged 60 years and older or aged 50 years and older who are at risk of being immunocompromised. It can only be administered by health care providers.(18)		

2.2 Building multisectoral engagement

Influencing and helping to shape policy is a complex and often lengthy process. One of the first steps towards addressing any policy issue is to build strong relationships with like-minded organizations and optimally across sectors and disciplines (e.g., NGO, academia, clinical, public health agency, and government) toward a common agenda.

In the first phase of building multisectoral engagement, "slow and steady" are the keywords to put into action. As outlined below, share ideas and create opportunities for others to showcase what they are doing as a platform of knowledge exchange.

- Identify individuals and organizations that have (or could have) an interest in expanding existing and innovative infrastructure for immunization beyond the traditional pathways such as pharmacies but to mobile clinics, door-to-door practices and community centres.
- Collaboration among various stakeholder groups (e.g., government, civil society, and professional associations) and sectors (e.g., health and economy) to jointly achieve a policy outcome requires a shared and common vision.

This multistakeholder approach can provide opportunities to exchange knowledge while helping to build capacities and capabilities in terms of strategies and actions. It requires consistent work over time to build relationships and trust. The key principles of multisectoral action are the cornerstones to establishing a joint commitment for policy action:

1. Establish collaborative models of informing vaccination policy through agreed goals, missions, and priorities (e.g., expanding the pool of vaccination administrators).
2. Clarify contributions to help build capacity and capability of stakeholders to inform vaccination policy.
3. Enhance transparency and consistency of shared resources and information (e.g., who can administer vaccines, barriers to limited vaccine administrators, and health professional regulations).
4. Evaluate progress aimed to inform vaccination policy by identifying and measuring the key indicators of success.

Knowledge Assets: Outreach

2.2.1 Shared Calendar

A shared calendar is a valuable tool to not only connect people and organizations from diverse sectors and disciplines but to also improve communication. It is a platform to exchange knowledge and mobilize events of all kinds (e.g., podcasts, webinars, and dialogues). It is a no-cost means to promote collaboration, productivity, and the development of time management skills.

As an example, the Global Shared Calendar of the Vaccine4Life program showcases interactive events that bring together civil society, public health, and industry experts interested in improving the uptake rates of adult vaccination. In addition, it helps to serve as a focal point for awareness building on key global agendas (e.g., Immunization Agenda 2030, UN Decade on Healthy Ageing).

2.2.2 60-Second Fact Check Videos

60-second videos are an innovative way to share new knowledge that may not always be accessible for the general population as well as those most at risk. The videos can also serve as a vehicle for public health experts, thought leaders, and global influencers to communicate their perspectives on expanding the role of health care professionals in order to help improve uptake rates of adult vaccination.

As an example, Vaccines4Life's 60-second fact check video campaign was produced through IFA-led partnerships with civil society including Fighting Infectious Diseases in Emerging Countries (FIDEC), VaccinesToday, Lung Health Foundation, the European Union Geriatric Medicine Society, and many others.

The purpose of this campaign is to increase awareness of the safety of vaccines, reduce vaccine hesitancy, and build trust among civil society. As part of the campaign, Dr. Lujan Soler and FIDEC partnered with Vaccines4Life to bring awareness of the World Health Organization (WHO) approved vaccines that older adults should prioritize receiving to ensure they are protected against life altering diseases.

2.3 Driving policy change

Meaningful action can be advanced through collective approaches that build strategies to inform vaccination policy and practice. An effective action plan responds to identified needs for support and awareness-raising in the community (e.g., limited pool of qualified vaccine administrators).

To understand how to effectively inform vaccination policy the following diagram (Figure 3) may help provide a visual depiction of the relationships between the available (or needed) resources to conduct the planned activities that aim to achieve the desired outcome.

Figure 3: *An effective action plan is based on a series of steps that respond to identified needs for support and awareness-raising in the community. This diagram is depicting the necessary steps to create a thorough action plan for implementation.*

Executive Summary > Vaccination Pathways > Vaccine Administrators > Targeted Public Messages > Equity in Vaccination > Conclusion >

Knowledge Assets: Advocacy Strategy

Successful strategies to improve adult vaccination are built on knowledge gained through strong multisectoral and multidisciplinary relationships where there is a common agenda and agreed outcomes.

The advocacy strategy aimed to expand the pool of qualified adult vaccine administrators as outlined below can serve as a sampler or guide to understand actions to help to influence and shape policy.

Table 3: *An advocacy strategy aimed to expand the pool of qualified adult vaccine administrators.*

Goal: Expansion of qualified adult vaccine administrators	
Key gaps or barriers	• Lack of available and accessible information on who is qualified to administer vaccines for at-risk populations, including older people and those with chronic health conditions. • Limited authorized persons to administer specific vaccines for at-risk populations. • Regulations that prohibit certain health professionals (such as pharmacists) from administering specific vaccines to the general population as well as those most at-risk.
Objectives	• To identify and bring awareness of the health care professionals who are authorized to administer specific vaccines to at-risk groups. • To determine the barriers to expanding the pool of authorized vaccinators. • To identify organizations that could be invested and supportive of policies to expand qualified vaccinators. • To determine a detailed plan of action that includes educating and building the capacity of CSOs to address the issue.
Target audience	• Civil society (e.g., patient, ageing, and professional organizations)

Actions	• Map the administration of vaccines: connect with pharmacy and nursing associations and identify health care professionals (groups) qualified to administer vaccines by infectious disease and population group.
	• Determine the current gaps and barriers identified in the policy issue.
	• Develop a list of CSOs that share the objective to and collaborate on building a shared agenda and actions.
	• Bring awareness of the knowledge gained through engagement with pharmacy and nursing associations, at-risk groups, and patient and ageing organizations.
	  ○ Develop a social media plan to share with civil society on the current gaps, barriers, and opportunities to expand the pool of vaccinators (e.g., key messages, factsheets, and infographics).
	  ○ When developing a social media plan, consider the timeline (perhaps in alignment with the flu season), key messages, and target audience (e.g., adults with lung disease).

(cont.) Goal: Expansion of qualified adult vaccine administrators	
	○ Host an interactive dialogue series to share and learn knowledge with CSOs and other stakeholders and contribute to building a common agenda on expanding authorized vaccinators. ○ Write a letter to the policymaker informing them of the gaps to limited vaccinators, and specify key asks backed by evidence.

3. Targeted Public Health Messages

Evidence-based public health education and awareness campaigns on societal issues, such as substance abuse, alcohol, and road safety have saved millions of lives around the world. Yet, messages and campaigns on vaccinations have not translated to improved uptakes rates in those populations most at risk of life-threatening complications from infectious diseases.

Targeted public health messages on vaccinations are vital to building and maintaining a healthy society. However, developing and implementing effective public health campaigns is a complex enterprise and science in itself. Targeted vaccination campaigns directed to at-risk groups are limited and may well contribute to sub-optimal rates.

Vaccination messages are presented through various channels, including mass media, government, and health care systems, with a modicum of success. Many governments implement seasonal influenza campaigns aimed at the general population, and, to a much lesser extent, at vulnerable groups. Similarly, unless the core business of civil society is immunization (e.g., Immunization Action Coalition), patient and age-related advocacy organizations neither have the capacity nor capability to develop and implement a campaign in adult vaccination.

Regarding the issue of equity, national campaigns in large part assume the same level of health literacy for all populations, which is not the case. These varying literacy levels are barriers to positive health outcomes and are rarely considered and integrated into communication strategies. This highlights limited understanding regarding if and how vaccination messages could reach those most at-risk (including marginalized and isolated communities).

Effective vaccination campaigns include:

- A comprehensive national immunization plan where the audience is well-defined,
- tools and channels used appropriately,
- regularly updated information, and
- engagement and support from multiple stakeholders.

The following scenarios about vaccination messages may be helpful when assessing local and national campaigns and determining the approach to shape the policy ask.

Scenario 1:

Some vaccination awareness campaigns and messages lack quality and persuasiveness to effectively reach at-risk populations.

For example, in Germany, public health messages are directed to the general population and less so to at-risk groups. They are available on governmental and organizational websites and through printed pamphlets and brochures offered in medical offices.(19)

Scenario 2:

Public health messages and campaigns seldom consider the social determinants of health (e.g., education, literacy, gender).

In the development of campaigns, there appears to be an assumption that health literacy is the same across the entire population, highlighting the need to develop content that is accessible, understandable, and meaningful to diverse groups. Campaigns should also provide opportunities for meaningful dialogue between the consumer and health care professionals.

Scenario 3:

Misinformation and miscommunication can both contribute to vaccine hesitancy among older people and those with chronic health conditions. The reliability, accuracy, and credibility of messages should be assessed, monitored, and amended routinely, based upon evidence to effectively reach at-risk groups.

Vaccine hesitancy is a complex phenomenon and should not be the 'catch-all' for why an individual has not been vaccinated.

Actions for Advocacy

3.1 Establishing a baseline of immunization campaigns

Health communication has been defined as "the art and technique of informing, influencing, and motivating individual, institutional, and public audiences about important health issues."(20) The key message behind adult vaccination campaigns is that vaccines are effective against the serious and sometimes life-altering consequences of infectious diseases such as influenza, pneumococcal pneumonia, pertussis, and shingles.

Health communication has been defined as "the art and technique of informing, influencing, and motivating individual, institutional, and public audiences about important health issues."(20) The key message behind adult vaccination campaigns is that vaccines are effective against the serious and sometimes life-altering consequences of infectious diseases such as influenza, pneumococcal pneumonia, pertussis, and shingles.

Immunization campaigns and communication strategies are often designed for the general population with sparse attention to tailored messages for groups such as older people. To advocate for a more targeted approach to public health messages, baseline information on the nature, content, structure, and distribution channels of the current governmental and civil society vaccination campaigns is essential.

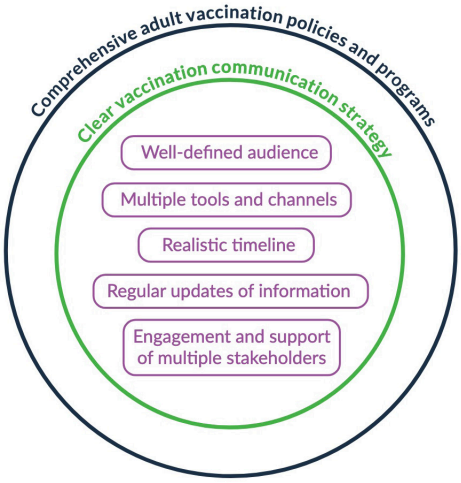

Figure 4: *The Framework for an effective adult vaccination communication campaign.*

The *Framework for an effective adult vaccination communication campaign* (21) (Figure 4) is a useful template to assess the seven critical elements of an effective targeted campaign. The implementation of these critical elements should be tailored to each unique environment to ensure the campaign effectively and positively impacts behaviour. (21)

Knowledge Assets: Vaccination throughout life

Effective public health immunization campaigns are built on a sound understanding of the national immunization plan (NIP).

The NIP should be informed by the National Immunization Technical Advisory Group (such as the Australian Technical Advisory Group on Immunization [ATAGI] and Joint Committee on Vaccination and Immunization [JCVI] in the United Kingdom) and / or the National Ministry of Health.

According to the WHO, there are 172 reported National Immunization Technical Advisory Groups (NITAGs) across the globe.(22) They comprise multidisciplinary groups of national experts responsible for providing independent, evidence-informed advice to policymakers and programme managers on policy issues related to immunization and vaccines. A NITAGs is considered functional if it meets the six defined process indicators:

1. a legislative or administrative basis,
2. formal terms of reference,
3. at least five areas of expertise represented among its membership,
4. at least one meeting per year,
5. distribution of the agenda and background documents at least one week before meetings, and
6. mandatory disclosure of conflict of interests.(23)

Executive Summary > Vaccination Pathways > Vaccine Administrators > Targeted Public Messages > Equity in Vaccination > Conclusion >

Status of National Influenza Vaccination Campaign

Comprehensive policies and programs	Influenza vaccination is recommended by government and advisory bodies for at-risk populations including older adults and people with chronic diseases	
	Influenza vaccination is funded under the National Immunization Program (NIP) and administered through the state program for at-risk populations including older adults and people with chronic disease	
Clear communication strategy	Published context-specific communication strategy and action plan which defines communication goals, target audiences, expected roles of partner organizations, communication tools and timeline	
Well-defined audience	Universal message distributed to undifferentiated populations (general audiences regardless of age and underlying health condition)	
	Dedicated and tailored information for specific at-risk audience	
Multiple tools and channels	Online communication such as web content, digital technology, social media, online publications, email	
	Messages are disseminated offline by TV, radio, printout (e.g. leaflet, poster, brochure, outdoor ads)	
	Interactive communication including individual consultation, street campaign and face-to-face mobilization	
Realistic timeline	Timely flu season alert and vaccination reminder	
	National/regional events scheduled for intensive awareness campaign such as national vaccination day/week/month	
Regular updates of information	Information is updated on a regular basis to reflect the most recent evidence and policy, such as recommending newly licensed vaccines for specific recipient	
Engagement and support of civil society	Communication on influenza by patient associations, ageing organizations and advocacy groups	

Well-developed Partially developed Not yet developed / No evidence

Figure 5: *The status of Brazil's national influenza vaccination campaign, obtained through the Changing the conversation on adult influenza vaccination study.*

The National Immunization Program (NIP) (or vaccine schedule) is the list of government-funded vaccines which aims to increase national immunization coverage to reduce the number of cases of diseases that are preventable by vaccination in the country. For example, the Hong Kong Government Vaccination Programme is organized by priority groups, eligible groups for subsidized vaccination, and qualified administrators. (24) Spain as an example has a comprehensive national immunization program reflective of a life-course approach. The vaccination calendar is a public health tool that is updated annually and responds to different target groups including older people and those with chronic comorbidities.

In the absence of a reported national plan or one that is out-of-date, the WHO monitoring system of vaccine-preventable diseases and the European Centre for Disease Prevention and Control (ECDC) Vaccine Scheduler provides basic information on the recommended vaccines in specific countries, which could be a lever to discuss the lack of national or sub-national information with policymakers.

3.2 Targeted communication strategy

Second to a comprehensive immunization programme is a clear communication strategy, which includes the goal, target populations, use of diverse communication tools and methods, timing of rollout, and evidence-based information.

As an example, data gathered and analysed through the *Changing the conversations on adult influenza vaccination Brazil study* (Figure 5) illustrated 10 out of twelve elements of the public health campaign are well developed. The exceptions are a clear, targeted communication strategy and the engagement of civil society.

To build a successful vaccination campaign, the following elements should be considered:

- a well-defined audience,
- multiple tools and channels,
- a realistic timeline,
- regular updates of information, and
- engagement and support from multiple stakeholders.

Monitoring and evaluation of national immunization campaigns is not routinely conducted. Findings from the CCAV study provide important insights to develop more effective public health messages to inform a person's decision to be vaccinated.

Knowledge Assets: Message Development

A comprehensive assessment using the *Framework for an effective adult vaccination communication campaign* (Figure 4), helps to benchmark strengths and weaknesses of national vaccination campaigns. Six essential elements of the Framework are outlined above and will be discussed in detail.

3.2.1 A well-defined audience

In order to reduce health inequalities, a targeted communication strategy must ensure that individuals at high risk are at the centre when developing vaccination messages and campaigns. For example,

- American Lung Association's Pneumococcal Pneumonia Fast Facts aims to educate the consequences of pneumococcal pneumonia and benefits of vaccines for adults 65 years and older with chronic health conditions such as chronic obstructive pulmonary disease (COPD), asthma, diabetes, and heart disease. This strategy uses key statistics to help bring awareness of the prevalence of this disease within this group.
- The World Heart Federation (WHF), which represents more than 200 heart foundations, has developed an influenza fact sheet that aims to educate at-risk groups, including health care workers, older people, children, pregnant women, and those with underlying health conditions on the definition of the virus, its complications, vaccine benefits, and other preventive measures.
- Australian Government Department of Health (DOH) launches a national influenza campaign annually that is disseminated through real-time news releases, fact sheets, and a consultation hotline.

  However, the national campaign largely focuses on universal communication and is relatively limited in messages targeting older Australians and those with chronic conditions. The lack of a well-defined audience is a limitation to effectively addressing the needs and concerns of those most at-risk.

3.2.2 Multiple tools and channels

Vaccination campaigns and messages are most effective when distributed through multiple (online and offline) tools and channels, including websites, social media, the news, email, TV, radio, and printouts (letters, posters, brochures, and ads). It is also important that these tools and channels integrate interactive communication approaches to increase the opportunity for public engagement and meaningfully respond to diverse concerns. For example,

- In Brazil, vaccination campaigns are widespread through various channels used in everyday life such as websites, tv, radio, newspapers, and bus and subway panels. In addition to that, the Brazilian Department of Health has a street campaign annually to provide face-to-face and instant influenza vaccination services in over 40,000 mobile clinics throughout the country.(25)
- In Canada, the Public Health Agency of Canada (PHAC) leads national vaccination awareness campaigns through posters, websites, videos, booklets, social media, and press releases. However, there is no evidence to suggest that these communication strategies integrate interactive approaches, including individual consultation, street campaigns, and face-to-face mobilization.

3.2.3 Realistic timeline

Immunization established traditions such as the WHO World Immunization Week (24 – 30 April 2021), World Pneumonia Day (12 November), and National Influenza Vaccination Week (5-11 December 2021) in the United States.

In France (during mid-September and early October), millions of people who are in a high-risk group and eligible for a free influenza vaccination receive a personal invitation from the public health agency and other partners who work to broadcast alerts and reminders during the flu season.(26)

While various themes frame the campaign, the underlying principle focuses on:

- increasing trust and confidence in vaccines to maintain or increase vaccine acceptance;
- increasing investment in vaccines, including routine immunization, to remove barriers to access.

The COVID-19 pandemic has called for solidarity and trust in vaccination as a safe and effective public health intervention that saves lives and protects the health and wellbeing of all.

3.2.4. Regular updates of information

Vaccination messages and campaigns must be evidence-based and regularly updated to ensure reliability, accuracy, and transparency. There is insufficient attention by public health agencies and civil society to evaluate general and targeted communications regularly and routinely.

Prioritising immunization throughout life as a key pillar of expanded prevention strategies and a central component of universal coverage requires timely dissemination of updated information.(27) Examples from the United States and China illustrate this note.

- In the United States, the Center for Disease Control and Prevention leads national vaccine-preventable disease (VPD) awareness campaigns on recommended vaccines for at-risk groups such as influenza, shingles, and pneumococcal pneumonia. All materials can be shared, customized, and are regularly updated.
- In China, national vaccination campaigns are largely absent as most information is produced for health care professionals which can be accessed on the Chinese Center for Disease Control and Prevention website. The latest influenza surveillance data were updated in 2005.(28)

3.2.5. Engagement and support of multiple stakeholders

Engaging and partnering with stakeholders from diverse sectors and disciplines (e.g., patient, ageing, and professional organizations, and advocacy groups) is a vital action toward a common agenda and set of universal actions with the capacity to reach millions of people globally. For example,

- The United Kingdom (UK) Flu Plan is an example of a well-coordinated evidence-based approach to planning for a seasonal program through the involvement of multiple stakeholders, including civil society, local public authorities, and non-government organizations.
- In Canada, civil society contributes to the national vaccination awareness campaigns through various channels, including the CANimmunize App, which serves as a portable source of information on VPDs and immunization schedules by province and territory. (29)

3.2.6. Communication toolkits

Social media can play a significant role in improving awareness and knowledge about vaccines and vaccination. While web-based information is not accessible to all older people, the development of key messages is a helpful good practice when trying to reach at-risk groups.

Communication toolkits suggested below provide templates on which to develop situational and disease-specific immunization messages for older people and those with chronic health conditions.

Executive Summary > Vaccination Pathways > Vaccine Administrators > Targeted Public Messages > Equity in Vaccination > Conclusion >

Table 4: *Examples of communication toolkits that can be used to develop key messages to improve awareness and knowledge about vaccines.*

Communication Toolkits	
Confederation of Meningitis Organizations (CoMO)	World Meningitis Day on 24th of April in 2021 had the theme "Take Action", which following the WHO approval of the first ever Global Roadmap to defeat Meningitis by 2030. The Toolkit resources are free to download and use to assist with advocacy efforts and raise awareness of meningitis and World Meningitis Day.
Immunize Canada	Canada's National Immunization Awareness Week (NIAW) is held annually in late April to highlight the importance of immunization. Immunize Canada's NIAW social media toolkit aims to educate at risk groups on the importance of immunization and the impact to protecting and saving lives.
Centers for Disease Control and Prevention (CDC)	CDC's seasonal flu vaccination campaign materials are available to assist partners in communicating about the importance of vaccination. This digital toolkit includes details on events/activities, social media and newsletter content, web assets, and media prep material. The material can be downloaded, shared, and adapted to various settings.
National Foundation for Infectious Diseases	The Shingles Awareness Toolkit includes communication materials such as FAQs, posters, sample social media posts, and public service announcement videos to help share information about shingles and the importance of prevention through vaccination.
Generations United	The Social Media Toolkit aims to promote vaccinations through a lifespan approach by providing online tools and resources to encourage intergenerational conversations.
Influenza Hub	The Influenza Hub and its website seek to raise awareness about influenza and the need for prevention and protection against its complications. The campaign on Facebook has content aimed at older people and those with chronic health conditions that can be shared and downloaded.

4. Equity in Vaccination

Equity is the absence of avoidable, unfair, or remediable differences among groups of people, whether those groups are defined socially, economically, demographically, geographically, or by other means of classification.(30) It is about an individual being able to have what they need to survive or succeed—access to opportunity, networks, resources, and supports—it is about reaching full potential.(31)

The COVID-19 pandemic has brought into harsh reality the devastating inequities in the health and social system that impact the most vulnerable populations and their families. It has shown that healthcare decisions based on discriminatory parameters (e.g., age) are not socially acceptable. Actions to provide equitable access to healthcare and prevention to everyone, no matter their situation, are impacted by the social determinants of health.

Suboptimal rates of adult vaccination persist within and among countries, with rates even falling in some areas. Some studies have identified modifiable barriers to adult vaccination, such as the misconceptions of adult vaccination, the limited knowledge of existing immunization policies, and logistical issues related to vaccine delivery, including insufficient supply of age-specific vaccines, complex vaccination procedure, inability to determine timing and type of vaccination, and lack of funding for vaccines or vaccine visits.(32)

However, there is a more silent and insidious issue. In large part, campaigns to inform and encourage older people about vaccines appear blind to the inequity caused through standard universal messages that do not consider the social determinants of health. Social determinants of health, such as individual and household income, education, literacy, and access to and understanding of information, impact immunization uptake, as well as general health outcomes – even in high-income countries.

While there is a solid understanding of the current global policy environment regarding the health, social, and economic benefits of vaccines, there are serious inequities within and across countries related to the optimal use of vaccines throughout each stage of life.

Understanding and executing the steps to address situational and societal barriers reflecting the social determinants of health is key to reducing immunization inequities especially in high-risk populations. Inequities in adult immunization manifest in a myriad of ways depending upon the context, situation, and population groups.

Actions for Advocacy

4.1 Access to vaccines

The unequal distribution of wealth, knowledge, health care services, and supply of goods can lead to unfair conditions that impact a persons' health and wellbeing.

The unequal distribution of wealth, knowledge, health care services, and supply of goods can lead to unfair conditions that impact a persons' health and wellbeing.

Gaining a deeper understanding of the impact of the social determinants is vital to meaningful dialogue on the diverse barriers that prevent marginalized groups from accessing vaccines and drive sustainable action. The following resources serve as a starting point for determining factors that can influence access to vaccination for those most marginalized and at-risk groups.

Knowledge Assets: Resources about the Social Determinants of Health

A comprehensive assessment using the *Framework for an effective adult vaccination communication campaign* (Figure 4), helps to benchmark strengths and weaknesses of national vaccination campaigns. Six essential elements of the Framework are outlined above and will be discussed in detail.

- The impact that the social determinants of health have on policy and practice is comprehensively discussed as a health topic within the WHO. While the areas of critical action in the WHO Global Commission on social determinants of health (2008) are beyond the scope of this toolkit, they do provide insight into the importance of implementation of immunization programs throughout life, with new and sustained governmental investment.
- Nagata et al., (2013) reviewed 58 studies to assess the social determinants of health preventing adults 65 years of age and over from accessing and accepting seasonal influenza vaccination.(32) Structural social determinants such as age, gender, marital status, education, ethnicity, socio-economic status, social and cultural values, as well as intermediary determinants including housing-place of residence, behavioural beliefs, social influences, previous vaccine experiences, perceived susceptibility, sources of information, and perceived health status influenced seasonal influenza vaccination.

  Healthcare system-related factors, including accessibility, affordability, knowledge, and attitudes about vaccination, and physicians' advice were also important determinants of vaccination.

  This systemic review demonstrates that the ability of older people to receive influenza and presumably other vaccines are influenced by structural, intermediate, and healthcare-related social determinants, which have an impact at the health system, provider, and individual levels.

4.2 Promoting immunization throughout life

The Immunization for All Ages (IFAA) initiative as an example is working to combat inequity and improve access to immunization to help promote health throughout life, to preserve function and to help prevent death and disability. To achieve this, efforts in support of a life course approach to immunization must be strengthened through strategic alignment with international health agendas such as the UN Decade and the Immunization Agenda 2030.

Three key actions outlined in the IFAA Manifesto capture a clear pathway and set of principles that are applicable across countries and populations.

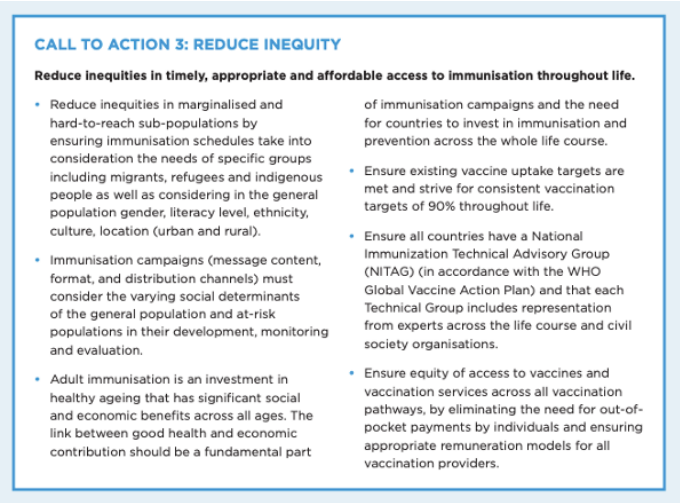

Figure 6: *The third call to action outlined in the Immunization for All Ages (IFAA) Manifesto that captures a clear pathway and set of principles that can be applied across countries and populations.*

1. Prioritise prevention: Prioritise immunization throughout life as a key pillar of expanded prevention strategies and a central component of universal health coverage.
2. Ensure access for all: Remove barriers to access for appropriate immunization throughout life to ensure all people are protected and no one is left behind.
3. Reduce inequity (Figure 6): Reduce inequities in timely, appropriate, and affordable access to immunization throughout life.

The IFAA initiative is a unique partnership across disciplines and sectors that progresses into action through a common agenda at a global level which has relevance and practice at a national and local level.

The IFAA initiative is a unique partnership across disciplines and sectors made up of CoMO, FIP, the World Federation of Public Health Associations (WFPHA), the International Longevity Centre UK (ILC), Shot@Life, Pfizer, and the International Federation on Ageing (IFA). The IFAA initiative progresses into action through a common agenda at a global level which has relevance and practice at a national and local level.

Each statement is the basis for actions to influence policy. For example, ensuring all countries have a NITAG whose membership is qualified and representative of the expertise across the life course is critical.

Knowledge Assets: Effectiveness of NITAGS

There are 172 countries with NITAGs of varying functions that provide scientific recommendations to their respective ministries of health to enable them to make evidence-based, immunization-related policy and programme decisions.

Structure for Environmental Scan	
Composition	• Expertise and representation among core members • Nomination process
Mechanism of operation	• Decision-making and recommendations process • Involvement of Working group
Vaccinaion schedule	• Current Adult Vaccination Programme • Working definition/inclusion criteria for "older adults", "at-risk population"

Figure 7: *The structure of an environmental scan as a tool to identify gaps and potential calls for action.*

The National Immunization Technical Advisory Group Resource Database is a useful resource to become familiar with the role of NITAGs but is not sufficiently detailed to advocate representation of experts in the field of geriatrics and adult vaccination.

In England, for example, the NITAG is the Joint Committee on Vaccination and Immunization (JCVI).

The JCVI comprises seventeen experts in a range of health professional disciplines, including general hospital practitioners, infectious disease physicians, and paediatricians. Only one member is from the field of geriatrics.(33)

The agenda for JCVI meetings is based on matters relating to communicable and preventative diseases through immunization to advise the Secretary of State for Health and Welsh Ministers. The committee also undertakes to identify vaccines likely to be licensed in the next 3-5 years. (34)

The wealth of a country is not necessarily related to the integrity of the NITAG. With a per capita gross domestic product (GDP) of around US$ 1,7004, Zambia is a lower middle-income country (LMIC) with consistent and robust economic growth yet one of the poorest countries in the world.(35)

A further example is that of the Zambia Immunization Technical Advisory Group (ZITAG) which was established in 2016 to provide the Ministry of Health (MoH) with evidence-based recommendations on vaccine policy. The Committee was established by ministerial decree, to add value to existing immunization committees such as the National Certification Committee for Polio Eradication (NCC), National Polio Experts Committee (NPEC), National Task Force (NTF), National Epidemics Committee (NEC), and the Inter-Agency Coordination Committee (ICC). Zambia has been receiving funds from Gavi, the Vaccine Alliance since 2001 for its Expanded Programme on Immunization (EPI), new vaccine introductions, Immunization Services Support (ISS) and Health System Strengthening (HSS).

The responsibility of ZITAG is to provide the Ministry with independent, transparent, evidence-based public health advice that include national policies and strategies that extend to the control of all vaccine-preventable diseases as well as serving as a strategic advisory group in programme-activity implementation. The group comprises seven core members, two resource persons, three secretariat members and one liaison, with a range of expertise in the adult medicine, public health, epidemiology, nursing, and primary health care.(36)

4.3 Building and mobilizing the community

The life-course approach to ageing which is embedded in the UN Decade of Healthy and the Madrid International Plan of Action on Ageing is foundational to the implementation of the WHO Immunization Agenda 2030, and particularly Strategic Priorty 4 (SP4). To date the linkages between population ageing, older people, immunisation and the issue of inequality and inequity have not been sufficiently addressed at the global, regional, and national levels.

There is an urgent need for action with the common goal to improve health by expanding prevention strategies, including immunization throughout life as part of a central component of universal health coverage.

Knowledge Assets: Developing Partnerships to End Immunization Inequity

Global collaboration that brings together civil society, international agencies, professionals, academia, the media, and the private sector is vital to improving the lives of older people, families, and communities. This can be achieved with suggestions outlined below:

- The digital Platform of the UN Decade of Healthy Ageing designed as an inclusive collaborative space where all resources and relevant information can be accessed and shared by everyone around the world.
- Global changemakers can connect through the Connect Hub and Innovative Strategies can be sourced through the Platform which provides information on organizations and networks as well as people interested in improving immunization equity.
- The Vaccine Safety Net (VSN) is a global network of diverse digital information sources, established by the WHO. Members can have access to and share reliable, accurate, understandable, and accessible evidence-based information on vaccines, located in different countries around the world and in various languages.

  Members also have the opportunity to connect, learn, and collaborate at an international level with other changemakers to increase awareness about the barriers to communicating the safety of vaccines. Through the VSN, participants can contribute to interactive dialogues and international campaigns that aim to improve messages on immunization inequity (e.g., partnership with Facebook for effective vaccination campaigns).

- The Association of Immunization Managers' (AIM) Adult Immunization Resource Guide characterizes a selection of varied activities and strategies to build and strengthen partnerships with diverse stakeholders aimed to improve immunization services and programs. However, unlike the extensive federal and state infrastructure support around childhood immunization, public health funding for adult vaccines is more limited. These resources help to implement strategies that can be adapted through a collaborative approach of champions to strengthen adult immunization delivery in states, cities, and territories.

- The tailoring immunization programme (TIP) approach was developed by WHO Europe to support countries in identifying populations with suboptimal vaccination uptake, barriers to and drivers of vaccination in those population groups, and interventions to address barriers.
- Adult Vaccines Access Coalition (AVAC) has developed a variety of resources for policymakers, healthcare providers, and immunization advocates aimed to mobilize collective action to improve immunization inequity within the older adult population.
- The National Adult and Influenza Immunization Summit (NAIIS) is dedicated to addressing and resolving adult immunization inequities and improving the use of vaccines recommended by CDC's Advisory Committee on Immunization Practices. The NAIIS consists of over 700 partners, representing more than 130 public and private organizations.

Conclusion

Vaccination is a simple, safe, and effective way of protecting people against harmful infectious diseases and is a key component of healthy ageing. Yet globally, rates of adult vaccination are suboptimal, and vaccination campaigns are rarely directed to at-risk groups. There is an urgent need to orientate health care systems from treating disease to health promotion and prevention at all stages of life, including older adults.

The Adult Advocacy Vaccination Toolkit is designed to help build the capacity and capability of civil society to influence and shape adult vaccination policy at local, national, and global levels through an evidence-to-action model of engagement across sectors and disciplines. It is produced as a public service to translate the belief that people and the organizations they represent; with information from a variety of disciplines, including applied behaviour analysis and public health; can change their communities for the better.

The development and implementation of immunization policies that address barriers to prevention, access, and equity for those at elevated risk of serious and life-threatening complications from vaccine-preventable diseases is essential. The global health community needs to vigorously protect the progress made in immunization and ensure sustained investment across generations with attention on older people.

Executive Summary > Vaccination Pathways > Vaccine Administrators > Targeted Public Messages > Equity in Vaccination > Conclusion >

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Executive Summary > Vaccination Pathways > Vaccine Administrators > Targeted Public Messages > Equity in Vaccination > Conclusion >

Glossary of Terms

Advocacy
Strategic action taken by an individual or groups of individuals to achieve positive health outcomes and drive policy change.

Adult vaccination
Vaccines that are recommended to protect adults (above the age of 50 years) against the severe consequences of infectious diseases (e.g., influenza, shingles, pneumonia, hepatitis).

Civil society organizations (CSOs)
At-risk patient and ageing organizations, NGOs (nongovernmental organizations in the field of healthy ageing whose outreach is to older people), academic and professional associations that collaborate closely with the community and have an organized mission to ensure better health outcomes for their constituencies.

Cross sectoral partnerships
Collaborative action between individuals or organization from non-profits, NGOs, professional associations, and government on a shared mission to improve vaccine policy.

Epidemic
When there is a large, sometimes unexpected, increase of the number of cases of a specific disease in a specific geographical area.(36)

To become an epidemic, a disease does not necessarily have to be contagious. For example, diabetes is considered an epidemic by the WHO.(37)

Equality
The division of a resource (e.g., food, medicine, or opportunities) equally amongst all parties involved; it does not consider an individual's needs or assets

Equity
The absence of avoidable, unfair, or remediable differences among groups of people, whether those groups are defined socially, economically, demographically, geographically, or by other means of classification.(29)

Health communication
The art and technique of informing, influencing, and motivating individual, institutional, and public audiences about important health issues.(20)

Health equity
Systematic differences in the health status of different population groups- these inequities have significant social and economic costs both to individuals and societies.(38)

Health literacy
An individual's ability to find, understand, and use information and services to make informed decisions about their health.(39)

High-risk groups
The groups for whom vaccination is particularly recommended to and whose risk to hospitalization and death can be increased when contracting infectious diseases.(40)

Immunocompromised
When an individual has a weakened immune system. This weakened immune system can be caused by genetic defects or by medical treatments (i.e., use of corticosteroids).(41)

Immunosenescence
The natural aspects of immune responses that decline or change with age.(42)

Immunization
The process of being able to resist infection by being immune to disease.

Immune system
A set of cells, tissues and organs that work together to help the body fight off harmful infections and protect in maintaining good health and wellbeing.

Infectious disease
Diseases that can spread from the environment or from one person to another resulting in illness in communities.(43)

Knowledge translation
A dynamic and iterative process that takes complicated information and puts it in simpler terms. It includes synthesis, dissemination, exchange, and ethically sound application of knowledge, often with the goal to improve population health, provide more effective health services and products, and strengthen the health care system.(44)

Life course approach to immunization
Strategies to ensure all people benefit from recommended immunizations throughout the life.(45)

Multisectoral partnerships
Collaborative action between individuals or organization from non-profits, NGOs, professional associations, and government on a shared mission to improve vaccine policy.

Non-government organizations (NGOs)
A non-profit organization that is separate from the government.

Noncommunicable diseases (NCDs)
Noncommunicable diseases (NCDs) also known as chronic diseases, such as heart disease, stroke, cancer, chronic respiratory diseases, and diabetes, are often chronic conditions that compromise the immunity of a person against serious complications of vaccine-preventable diseases. They are the most common cause of death and disability worldwide, accounting for 70% of all deaths and more than three out of four years lived with a disability.(46)

National Immunization Technical Advisory Groups (NITAG)
National Immunization Technical Advisory Groups (NITAGs) are multidisciplinary groups of national experts responsible for providing independent, evidence-informed advice to policymakers on issues related to immunization and vaccines.(47)

Pandemic
The term *pandemic* does not refer to the severity of a disease, rather it refers to the level of spread of the disease. A pandemic refers to an epidemic that has spread across countries and continents and is affecting a large number of people.(36)

Qualified
Throughout this document, the term qualified will be used to mean an individual who is legally permitted or authorized to administer vaccines in a given location; it will not be used to mean that an individual has the skills, knowledge, or ability to administer a vaccine.

Social determinants of health (SDH)
The social determinants of health (SDH) are the non-medical factors that influence health outcomes. They are the conditions in which people are born, grow, work, live, and age, and the wider set of forces and systems shaping the conditions of daily life.(48)

Structural determinants and conditions of daily life constitute the social determinants of health and are responsible for a major part of health inequities between and within countries.(49)

Universal health coverage
According to the WHO, universal health coverage refers to the universal access to health services by all people who need them. These health services should be accessible when and where people require them without financial hardships.(50)

Vaccination uptake
The proportion of the adult population who received a vaccine during a specific time and is vaccinated.

Vaccine
A substance that is injected into an individual to protect their health and wellbeing against the consequences of an infectious disease.

Vaccine administrator
An authorized health expert who vaccinates an individual or groups of individuals in a safe and timely manner.

Vaccine confidence
Vaccine confidence concerns the belief that vaccination – and by extension the providers and range of private sector and political entities behind it – serves the best health interests of the public and its constituents.(51)

Vaccine hesitancy
The delay in acceptance or the refusal of vaccines despite availability of services.(52)

Vaccination pathway
Refers to the regulatory process that an individual or groups of individuals must go through to be vaccinated.

Vaccine-preventable disease (VPD)
Diseases that could lead to disability or death that can be avoided by being immunised on time. Examples include cholera, influenza, measles, shingles, and invasive pneumococcal disease.(53)

Vaccine safety
Refers to the clinical development in making sure that the vaccine is harmless and does not cause adverse reactions (e.g., kidney damage, disability, or nerve injury).

Executive Summary > Vaccination Pathways > Vaccine Administrators > Targeted Public Messages > Equity in Vaccination > Conclusion >

Appendix

List of Figures

List of Tables

List of Acronyms

AIM	Association of Immunization Managers
ATAGI	Australian Technical Advisory Group on Immunization
AVAC	Adult Vaccines Access Coalition
AVAT	Adult Vaccination Advocacy Toolkit
C.A.R.P.	Formally "the Canadian Association of Retired Persons"
CDC	Centers for Disease Control and Prevention
CLCL	The Coalition for Life-Course Immunization
CoMO	Confederation of Meningitis Organizations
COPD	Chronic Obstructive Pulmonary Disease
COVID-19	Corona Virus Disease 2019
CSOs	Civil Society Organizations
DOH	(Australian Government) Department of Health
ECDC	European Centre for Disease Prevention and Control
EFA	European Federation of Allergy and Airways Diseases Patient's Associations
EPI	Expanded Programme on Immunization
EU	European Union
EUGMS	European Union Geriatric Medicine Society
FIDEC	Fighting Infectious Diseases in Emerging Countries
GDP	Gross Domestic Product
GP	General Practitioner
HSS	Health System Strengthening
ICC	Inter-Agency Coordination Committee
IFA	International Federation on Ageing
IFAA	Immunization for All Ages Initiative
ISS	Immunization Services Support
JCVI	Joint Committee on Vaccination and Immunization
LMIC	Lower Middle-Income Country
MoH	Ministry of Health
NAIIS	The National Adult and Influenza Immunization Summit
NCC	National Certification Committee for Polio Eradication

Executive Summary > Vaccination Pathways > Vaccine Administrators > Targeted Public Messages > Equity in Vaccination > Conclusion >

NCDs	Noncommunicable Diseases
NEC	National Epidemics Committee
NGO	Non-Government Organization
NIAW	National Immunization Awareness Week (Canada)
NICE	National Institute for Health Care Excellence
NIP	National Immunization Plan
NITAG	National Immunization Technical Advisory Group
NPEC	National Polio Experts Committee
NTF	National Task Force
PHAC	Public Health Agency of Canada
TIP	Tailoring Immunization Programme
UK	United Kingdom
UN	United Nations
VPD	Vaccine-preventable Disease
VSN	Vaccine Safety Net
WHF	World Heart Federation
WHO	World Health Organization
ZITAG	Zambia Immunization Technical Advisory Group

Executive Summary > Vaccination Pathways > Vaccine Administrators > Targeted Public Messages > Equity in Vaccination > Conclusion >

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