

Messages Matter: A Spotlight on Influenza Vaccination Campaigns

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CHANGING THE CONVERSATION ON ADULT INFLUENZA VACCINATION

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Executive Summary

Influenza is one of the most common infectious diseases in the world and kills upward of 650,000 people every year.² Older adults and those with underlying health conditions or a compromised immune system are especially at-risk of serious life threatening complications compared with the general population.

Immunization is one of the most effective public health interventions against infectious diseases, second only to clean water. Despite national influenza vaccination programs and campaigns timed to optimize protection across all ages vaccine coverage rates among older adults remain generally poor.

If vaccination uptakes rates are the main indicator of national campaigns, then they are mediocre at best with little or no published research on either the effectiveness of awareness-raising message(s) and / or the impact of distribution pipelines. Given the profound underuse of vaccination among the general public but most importantly those at greatest risk there is a real and urgent need to improve messages and campaigns toward people taking actions to be vaccinated with confidence.

The “*Changing the Conversation on Adult Vaccination*” analyzed message content, structure, and methods of dissemination of influenza vaccination campaign messages in ten countries in response to what appears to be a relative lack of attention to communicating to the most at-risk target groups. It aims to inform policymakers and other stakeholders toward more effective public health communication on adult influenza vaccination, and therein helping to improve uptake rates.

Across the ten countries studied one of the most important observations was the *universality of messages* to those most at-risk especially from government portals. While this could be viewed as a positive result (e.g. people age 65 years and over are eligible for a free flu shot) there appeared in most countries little incentive or rationale for people to be vaccinated. The ‘sameness’ of messages and tendency to have most information distributed through online channels does not account for varying levels of risk, health literacy nor populations who do not have access to the internet.

Another limitation of most public health messages is a *lack of quality and persuasiveness* which is unknown or seldom recognized by creators as there are no clear guidance on message design and strategies. Some messages focus on addressing the general influenza-related inquiries rather than prioritizing the information needs of certain groups or accounting for different levels of health literacy. Also some messages are incomplete, using a tagline, which de-emphasize benefits of vaccination and only rely on speaking to the risks and recommended actions.

Tailored messages to individual or group needs is critical but largely ignored by campaign leads as they fail to make use of the interactive nature of public health messages. Most audiences passively receive information from a variety of channels including fact sheets, videos, brochures, posters and press releases but have little opportunity to ask personal questions .

Drawing from the findings and cross-country comparison seven key components that characterize effective communication campaigns and strategies on adult influenza vaccination were identified and formed an important conceptual framework.

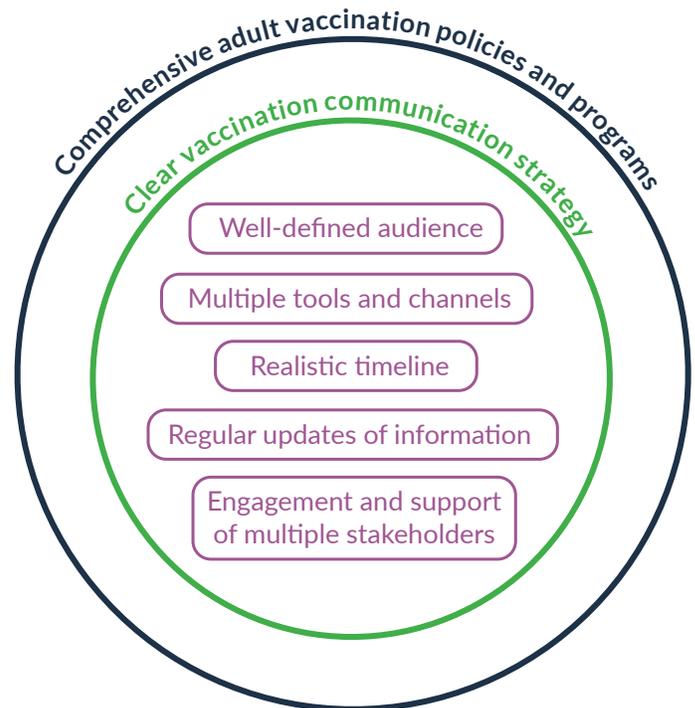
Overall, an effective vaccination campaign should be supported by a conducive policy environment and long-term government commitment to provide publicly funded influenza vaccination for at-risk populations. The study found that this was not always the case.

A communication strategy and action plan must comprise clearly defined goals, target audiences, expected roles of public health authorities and partner organizations, communication tools and timeline, and an evaluation of the impact.

The kernel of this framework is that the implementation of all components within the framework should be tailored to specific at-risk groups and local country needs to ensure messages effectively and positively impact behavior.

Communicating effectively with those most vulnerable about the importance of influenza vaccines remains a key issue for public health community to address and an opportunity for campaign improvement. Intelligence from this study provides a reference base to bring attention to the gaps and best practices in conveying messages that stimulate improved awareness and uptake rates.

Figure 1: Framework for an Effective Adult Influenza Vaccination Campaign



Introduction

Globally, seasonal influenza is thought to be responsible for around three to five million cases of severe illness and anywhere from 290,000 to 650,000 deaths.² Of these deaths, approximately 90% occur in people aged 65 years and older.¹ Older people who are more likely to have complex comorbidities and a weakened immune system are more vulnerable to the infection and associated complications which could lead to chronic poor health, loss of functional ability and autonomy, hospitalization and even death.

Influenza also poses serious risks to the health and well-being, functional ability and survival of people living with chronic conditions (such as diabetes, cardiovascular disease (CVD) and chronic lung disease). For those with heart disease, it is estimated that respiratory infections associated with influenza increase the chance of having a heart attack by six-fold within a week of onset², and trigger 50% of heart failure exacerbations.³

Vaccines save between two and three million lives annually around the world. While there has been an expansion in the number of countries providing free influenza vaccines to populations 65 years and over, rates of vaccination in this age group are far below the WHO target of 75%. France, as an example, had only about 50% of this population vaccinated against influenza in the 2018-2019 season.⁴

There are numerous barriers to vaccination in the older adult population, including misconceptions about the adverse effects of the vaccine⁵, a poor awareness of the seriousness of vaccine preventable diseases (VPD), a prevailing opinion that only childhood immunization programs are a priority⁶, beliefs that actions such as exercise and good nutrition boost the immune system to provide protection against influenza infection⁷ and an inadequate availability of the vaccine at medical or specialist clinics.⁸

Stepping back from the barriers that impact the rates of adult vaccination, vaccine coverage remains sub-optimal in the most vulnerable populations irrespective of health campaigns and media attention

aimed at improving vaccination rates. The messages and channels to promote the importance of, and the consequences of VPD are rarely evaluated, nor are good practices shared. This is a serious gap requiring urgent action in order to develop a robust sustainable strategy to improve adult influenza uptake rates.

As a contribution to the development and dissemination of effective public health campaigns and messages to encourage improved adult influenza vaccination rates *Changing the Conversation on Adult Vaccination* establishes a critical reference point on which to build and scale up good practices as well as lessons to be learned.

Methodology

Emanating from the business worlds over the past half century environmental scanning entails the process of seeking, gathering, interpreting, and using information from the internal and external environments to inform strategic decision-making and to direct future action. This approach has been used in the “*Changing the Conversation on Adult Vaccination*” (CCAV) project as a process to identify, assess and understand public health communication strategies as a potential barrier and / or an enabler in adult influenza vaccination rates. The process included identifying influenza vaccination campaigns (government and civil society), reviewing general and specific messages and associated materials, determining the primary drivers, charting the data (information gathered from campaign material) and analyzing the results.

In the first instance, for each country data was collected and briefly summarized about the burden of influenza, vaccination rate, influenza immunization policy, vaccination priorities, responsibilities of authorities/agencies, primary messages, communication channels used, and evaluation of the campaign impact.

Each country scan began with a review of publicly accessible information of immunization policies, campaign resources and other promotional materials across various sources including websites, and gray literature such as press releases, infographics and reports. A structured search was conducted to filter information obtained from government and organizational websites, using the terms “flu” or “influenza;” and “vaccine” or “vaccination” or “immunization.” For each search that referenced an influenza awareness campaign, a targeted search was performed to collect campaign materials that include information for older adults and people with chronic conditions, such as print resources, social media pages, mobile apps and media mentions.

Following the data collection, analyses and syntheses of primary campaign and messages, experts in the countries studied were invited to validate and assess the completeness of collected information and the report. A cross-country comparison was then conducted using the seven key components which were realised through the study as critical in delivering an effective influenza vaccination campaign.

Country Selection

Purposeful sampling of the countries was used to ensure information-rich campaigns related to influenza vaccination of the most at-risk populations are studied.

In making the selection attention was given to population ageing as a demographic driver, prevalence of noncommunicable diseases, evidence of a national immunisation plan and annual influenza campaign, and representative patient and ageing organisations. For completeness geography as well as culture were taken into consideration. Aligned with the World Health Organization (WHO) regions of those countries studied 4 are in the Western Pacific Region (WPR) (China, Japan, Korea, Australia); 3 in the European Region (Euro) (France, Germany, United Kingdom) and 3 in the Pan American Health Organization Region (PAHO) (Brazil, United States, Canada).

Patient and ageing organizations representing most at-risk groups have an essential role in helping to inform the policy and influenza campaigns. Overall, 24 non-government organizations (NGO) at a local or national level were studied together with 2 international associations. The selection was based on the existence of campaign material associated with seasonal influenza.

Inclusion and Exclusion Criteria

Influenza campaigns in the 2018-2019 season were studied with a focus on identifiable messages for populations most at-risk namely older people and/ or those with chronic conditions. Of particular interest were the communication focus on using active outreach strategies rather than serving as an information clearinghouse. Campaigns and resources that targeted health care professionals were not within the scope of populations studied and therefore excluded.

Campaigns studied were in the national language of the targeted country and accessible online. For each of the country scans, messages and resources used in national campaigns and campaigns led by the government, patient, ageing organizations or

immunization advocacy groups were collected. For countries where the administration of immunization is devolved to the state / provincial governments and associated with a national campaign the scan is confined to a particular locality.

Message Analysis

To gain a deeper understanding of how to effectively inform certain at-risk groups case studies were conducted to determine content structure and message patterns from 3 countries (Brazil, Canada and the United States) and an international association (World Heart Federation). These analyses aim to showcase elements and principles of good practices for adaptation in other settings and most importantly inform guidelines for message design and dissemination.

Each message analysis was informed by Morrison's framework⁹ comprising four essential concepts in public health messages:

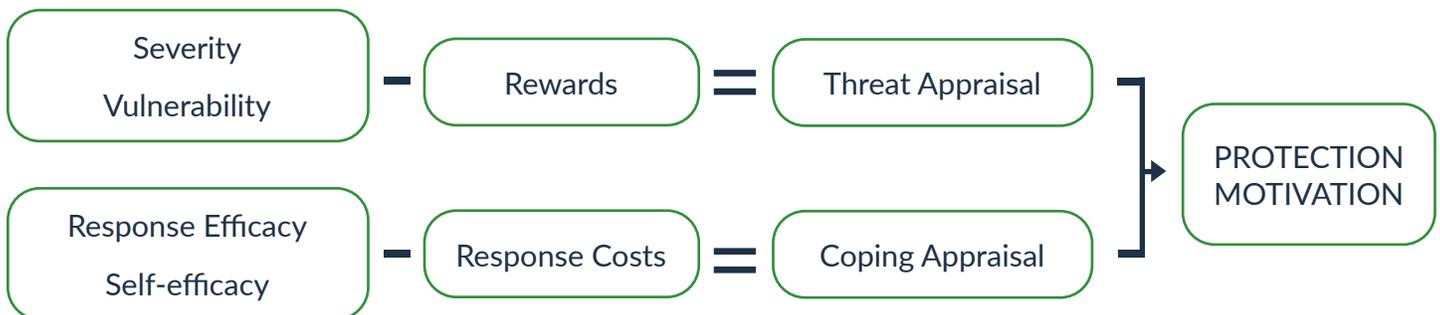
- a message **recipient**
- **threats** to health
- **actions** to be performed to reduce the threat
- **benefits** achieved from performing the actions

Sentences in the health messages were deconstructed into text elements and mapped to the four concepts of Morrison's framework by identifying and assigning key words. To determine the relationship between concepts within a sentence, further analysis of the pairs was performed with several fixed pair patterns identified including RT (Recipient is exposed to Threat), AT (Action reduces Threat), TB (Threat precludes Benefit), RB (Recipient desires Benefit) and RA (Recipient performs Action).

In addition, concepts from the Protection Motivation Theory (PMT)¹⁰ were incorporated to analyze the function of message elements/phrases in contributing to the entire argument and mobilizing vaccination behaviors. PMT describes how individuals are motivated to react in a self-protective way to prevent a health threat through two paths including threat appraisal and coping appraisal.

Threat appraisal describes the role of fear-appeals in behavior change and comprises two components: the individual estimate of the severity of the disease (perceived severity) and the person's estimate of the chance of contracting the disease (perceived susceptibility). The model's coping appraisal consists of an individual's expectancy that carrying out recommendations can remove the threat (response efficacy) and belief in one's capability to execute the recommended course of action successfully (self-efficacy).

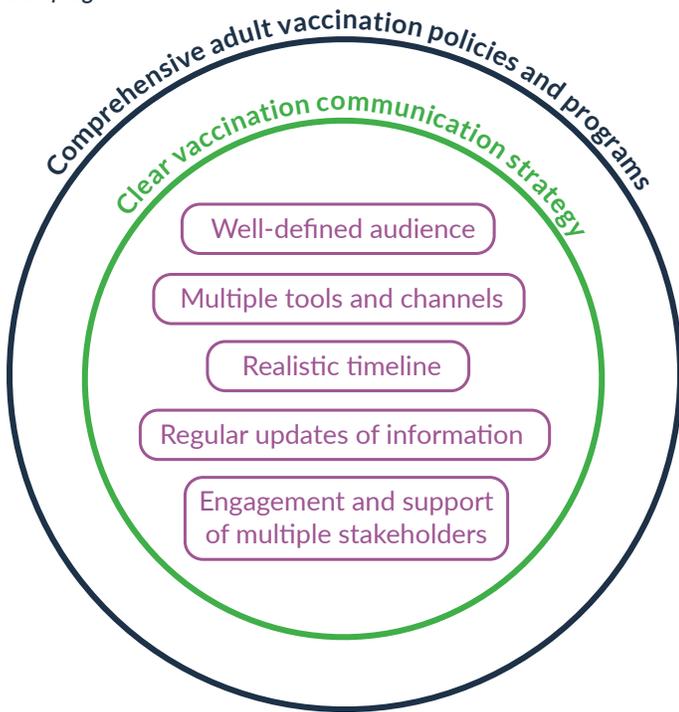
Figure 2: Protection Motivation Theory (PMT)



Effective Adult Influenza Vaccination Campaign

Data from public health campaigns gathered through environmental scans of ten countries and followed by specific case studies highlighted seven key components essential for an effective adult influenza vaccination campaign.

Figure 3: Framework for an Effective Adult Influenza Vaccination Campaign



Influenza vaccination campaigns can be reasonably viewed as most effective when underpinned by a strong regulatory framework and long-term government commitment to fund vaccines for the general population and those most at-risk of serious complications.

Intrinsic to the campaign is a communication strategy and action plan that clearly defines the communication goals, target audiences, expected roles of public health authorities and partner organizations, communication tools and timeline, and systematic evaluation of the impact.

The gold standard of monitoring and evaluation would provide insights into the public health message(s) that was precipitous to a person deciding to be vaccinated against influenza for the season.

Component 1: Comprehensive adult influenza vaccination policies and programs

Influenza immunization policy should be representative of a life course approach that aims to protect and save the lives of citizens of all ages. National Immunization Technical Advisory Groups (NITAGs) are multidisciplinary groups of national experts responsible for providing independent, evidence-informed advice to policy makers and program managers on policy issues related to immunization and vaccines. In 2017 according to the World Health Organization (WHO) 99 countries met the six process indicators to be regarded as well-functioning groups.¹¹

Recommendations for vaccination against seasonal influenza vaccines are made by NITAGs on a routine and systematic basis, however this does not always equate to government-funded vaccination programs, namely the National Immunization Program (NIP), as is the case in some countries like China and the United States. Furthermore, the definition of at-risk populations (chronological age as well as those conditions which are characterized by a compromised immune system) in the NIP varies across countries and within countries, which impacts who can be eligible for a free or subsidized vaccination.

Brazil has an example, has a comprehensive influenza immunization program for at-risk individuals including children under the age of six years, older people 60 years and over, indigenous peoples, pregnant women, puerperal women (up to 45 days after delivery), health workers, educational professionals, prisoners, prison staff, low-income adolescents and young people aged 12 to 21 years, as well as those with noncommunicable diseases and other special clinical conditions.

Component 2: Clear vaccination communication strategy

A successful influenza vaccination campaign should have an agreed goal, vaccination priorities and message receivers, specified roles of different stakeholders, what, how and when tools and channels will be used to facilitate action over what period of time.

The United Kingdom (UK) Flu Plan, for example, published with the Department of Health, Public Health England (PHE) and the National Health Service (NHS) England sets out a coordinated and evidence-based approach to planning for the annual influenza program. The Flu Plan serves as an overarching strategic guide to aid development and implementation of the influenza program and provides a summary of the coordination and preparation that needs to be considered by local public authorities and non-government organizations. It details the objectives of the national campaign, roles and responsibilities of all levels of governments, organizations and individuals involved, supported communication strategies, available campaign resources, and flexible measures in different scenarios.

Component 3: Well-defined audience

The target audience of an influenza awareness campaign varies from country to country, depending on the groups identified in the national immunisation program. For example, the national campaign in the United States (US) aims to educate the general population about the importance of influenza vaccination as the US Center for Disease Control (CDC) recommends everyone aged 6 months and over to be vaccinated against influenza.

While a universal approach to messages for the general population is reasonable, those same messages do not seem to prompt action in the most at-risk groups. In order to reduce health and vaccination inequalities, a targeted communication strategy must be integrated to ensure individuals at greatest risk are at the center of the message development and campaigns.

Component 4: Multiple tools and channels

Public health messages on influenza vaccination are distributed through multiple channels using various online and offline tools including website, digital technology, social media, online publications, email, TV, radio, and printout (leaflet, poster, brochure, outdoor ads).

However, what is often overlooked is the fact that target audiences are not passive recipients of messages. It is essential to move beyond purely “messaging” and “information dissemination” to integrate interactive communication approaches into campaigns. Brazil, for example, executes a street campaign every year to provide face-to-face mobilization and instant vaccination services throughout over 40,000 mobile vaccination spots. Interactive conversation is key to enhancing communication around vaccinations as it increases the opportunity for public engagements to respond to concerns and information toward improving vaccine confidence.

Component 5: Realistic timeline

The highly infectious nature of the influenza virus means that influenza alerts and vaccination reminders need to commence well before influenza is recorded in a country.

Annually in France, as an example, between mid-September and early October, more than 12 million people eligible for a free influenza vaccination receive a personal invitation from the public health agency. Television channels being partners in the fight against this virus broadcast influenza alerts and reminders after the weather forecast each evening during the flu season.

As part of the annual campaign some countries have national and state events as well as special days to bring attention to influenza season such is the case in the D-Day in Brazil and National Influenza Vaccination Week (NIVW) in the United States.

Component 6: Regular updates of information

Campaigns historically have the same messages to the same audiences regardless of the nature of various seasonal flu strains. Outdated messages do not necessarily register ‘urgency’ for a person to consider the protective effects of the influenza vaccination, so messages should be updated on a regular basis to reflect the most recent evidence and policy.

If seasonal data suggest a particularly serious strain of the influenza virus, messages should be developed to heighten awareness. The same could be said when referencing the various enhanced vaccines (or commonly known as high-dose vaccines) which are recommended in some countries for older people and those with underlying conditions. Among the ten countries studied, only four countries (United States, United Kingdom, Australia and Germany) in the 2018-2019 season inform older adults through the national campaign of the availability of enhanced (high-dose) vaccines.

Component 7: Engagement and support of multiple stakeholders

Engaging and partnering with multiple stakeholders especially civil society (i.e. patient organizations, ageing associations, and immunization advocacy groups) is critical to a successful influenza communication campaign as they have the capacity to reach millions of the most at-risk populations. Strategies to engage stakeholders across sectors and disciplines is an essential element within the strategic and operational planning of a national campaign.

Canada, for example, in the “Canadian Pandemic Influenza Preparedness: Communications and Stakeholder Liaison Annex” specify the roles and responsibilities of intergovernmental agencies and NGOs. It emphasizes that governments should work together with NGOs to facilitate information exchange to inform communication strategies to meet common objectives. Stakeholder networks can be leveraged to support the flow of timely, trusted, consistent and coherent information sharing.

Influenza Campaign Barometer

Vaccines as an effective public health action are needed more than ever in the fight against vaccine preventable diseases such as influenza that have a devastating effect on people of all ages, and most especially those with weaker immune systems. Just as data informs decisions on vaccines and vaccination schedules so there is an urgent need to gather critical information on a routine basis on public health campaigns and their tangible impact. Policy makers and patient and advocacy organization agree that we can and should do better in measuring impact of interventions that impact the lives and livelihood of citizens.

Currently the shortage of data and evaluations of public health campaigns is stark and yet this should not be a reason to rise to the challenge. In the spirit of commencing the dialogue and encouraging debate on the effective influenza vaccination programs a campaign checklist and scorecard was developed in the Changing the Conversations on Adult Vaccination (CCAV) study in order to better understand and assess the integrity and potential effectiveness of campaigns.

First and foremost, though the *effective influenza vaccination framework* is assembled on the basis of a comprehensive adult influenza vaccination set of policies which was found to not always be the case. Even though national vaccination advisory committees recommended influenza vaccine in the ten countries for both older adults and those with chronic conditions, four countries (Chinaⁱ, Japanⁱⁱ, the USⁱⁱⁱ and South Korea^{iv}) and certain provincial governments^v have not yet fully funded the influenza vaccines for all at-risk adults. The cost of annual influenza vaccine can be a factor discouraging at-risk adults and families from receiving voluntary vaccinations.

The *influenza campaign barometer* is a high-level overview of the strengths and gaps in national adult influenza campaigns indicating an effective

i. In China influenza vaccine is not included in the National Immunization Program (NIP) but reimbursement policies are available at the provincial, prefecture and county levels.
ii. Japanese aged 60 years and over and/or with underlying chronic diseases are eligible for free or subsidized influenza vaccine depending on municipal plans.
iii. In the US only adults aged 65 years and over are eligible to government funded influenza vaccine (covered by Medicare Part B).
iv. In the south Korea, adults living with underlying chronic conditions are not eligible for free influenza vaccine.
v. The province of Quebec in Canada provides free influenza vaccine to older adults aged 75 years and over.

Figure 4: Environmental Scan Results –
Influenza Campaign Barometer



		Australia	Brazil	Canada	China	France	Germany	Japan	South Korea	United Kingdom	United States
Comprehensive policies and programs	Influenza vaccination is recommended for at-risk populations	Well-developed									
	Influenza vaccination is provided free for at-risk populations	Well-developed	Well-developed	Partially developed	Not yet developed / No evidence	Well-developed	Well-developed	Partially developed	Partially developed	Well-developed	Partially developed
Clear communication strategy	Published context-specific communication strategy and campaign plan	Not yet developed / No evidence	Not yet developed / No evidence	Well-developed	Not yet developed / No evidence	Well-developed	Not yet developed / No evidence	Well-developed	Not yet developed / No evidence	Well-developed	Not yet developed / No evidence
Well-defined audience	Universal message distributed to undifferentiated populations	Well-developed									
	Dedicated and tailored information for specific at-risk audience	Partially developed	Well-developed	Partially developed	Partially developed	Well-developed	Well-developed	Partially developed	Well-developed	Well-developed	Well-developed
Multiple tools and channels	Online communication	Well-developed	Well-developed	Well-developed	Partially developed	Well-developed	Well-developed	Well-developed	Well-developed	Well-developed	Well-developed
	Messages are disseminated offline	Partially developed	Well-developed	Well-developed	Partially developed	Well-developed	Well-developed	Well-developed	Well-developed	Well-developed	Well-developed
	Interactive communication	Partially developed	Well-developed	Not yet developed / No evidence	Partially developed	Not yet developed / No evidence	Not yet developed / No evidence	Not yet developed / No evidence			
Realistic timeline	Timely flu season alert and vaccination reminder	Well-developed	Well-developed	Well-developed	Partially developed	Well-developed	Well-developed	Partially developed	Well-developed	Well-developed	Well-developed
	National/regional events scheduled for intensive awareness campaign	Not yet developed / No evidence	Well-developed	Well-developed	Not yet developed / No evidence	Well-developed					
Regular updates of information	Information is updated on a regular basis to reflect the most recent evidence and policy	Well-developed	Well-developed	Well-developed	Not yet developed / No evidence	Well-developed	Well-developed	Partially developed	Well-developed	Well-developed	Well-developed
Engagement and support of civil society	Civil society contributes to the national campaign	Well-developed	Partially developed	Well-developed	Not yet developed / No evidence	Not yet developed / No evidence	Partially developed	Not yet developed / No evidence	Partially developed	Well-developed	Well-developed

Well-developed Partially developed Not yet developed / No evidence

communication campaign must be equipped with a clear strategy for a well-defined audience, multiple tools and channels, regular updates of information, a realistic timeline and a strong engagement and support of multiple stakeholders.

While all 10 countries studied are implementing different components of the framework to varying degrees, significant gaps have been identified in the clarity of a communication strategy, the interactive methods to reach the target audience, the urgency of the messages and campaign and the purposeful engagement of stakeholders across sectors and disciplines to reach a broader audience and know to be at-risk target groups.

Overall, the national-level campaigns focus on universal messages to undifferentiated populations. Tailored messages targeting specific at-risk groups are relatively limited or largely buried in a mass of information. Generic messages are of limited effectiveness in motivating behavior change as

the risks faced by these groups appear to be fundamentally different.

The campaign led by the federal government of Canada for example is directed to the adult population as a whole regardless of age or medical conditions. While this finding should be tempered with the reality that vaccination schedules and vaccines vary depending upon the province, the messages are too general for health care professionals as well as advocates and those most at-risk.

The same is true for the universal communication campaigns in Australia where messages are directed to all at-risk groups comprising pregnant women, persons aged 65 years and over, those with chronic conditions and health care providers.

More than half of the countries do not have an overarching communication strategy to guide the national campaign which is a key obstacle for improving the adult influenza campaign and

Table 1: Elements in the infographic messages

Elementary concepts	Example in message
Recipient (R)	Seniors aged 65 years and over; and those with chronic conditions like diabetes, heart disease or lung disease
Threat (T)	Increased risk and severity of influenza; life-changing or life-threatening complications; hospitalization; loss of health and functional ability
Action (A)	Annual immunization; specifically designed vaccines; talk to your doctor, nurse, pharmacist or local public health office
Benefit (B)	Stronger immune response

The first section featuring the statement pattern “RT” (Recipient is exposed to Threat) draws attention to the susceptibility to influenza infection and the disease severity and consequences for seniors. For instance, the statement “Aging is associated with an increase in the risk and severity of influenza” incorporates a sense of susceptibility and reveals the fact that seniors (R) are most affected by severe influenza (T). The severity of influenza is articulated by using accurate adjectives, such as the statement: “Influenza and influenza-related complications can be severe, life-changing or life-threatening for seniors”, and by exemplifying flu-related consequences such as complications, hospitalization and loss of health and functional ability.

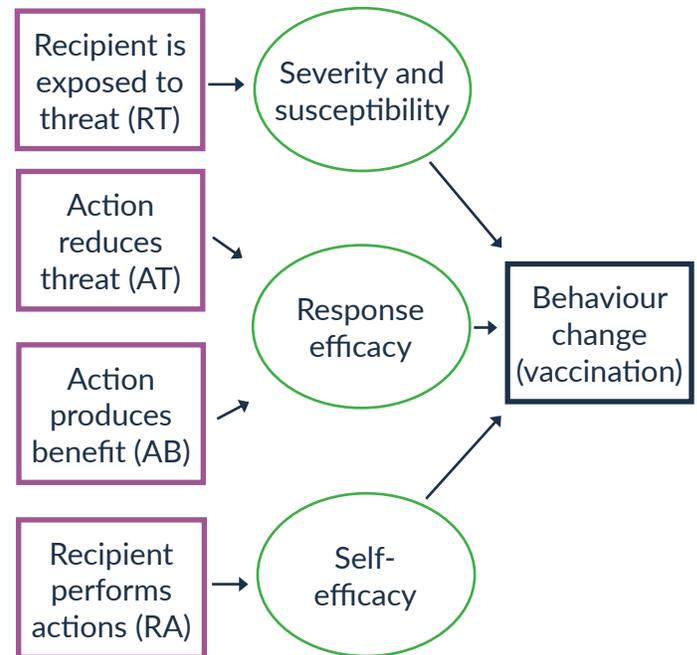
“AT” (Action reduces Threat) and “AB” (Action produces Benefits) types are in the statements “Immunization prevents 40% of hospitalization due to influenza in seniors over 65” and “specifically-designed vaccines help create a stronger immune response”.

Informed by evidence, those messages enhance the reader’s beliefs about response efficacy, which refers to perceived effectiveness of recommended actions to avert threats.^{11,14}

“RA” pattern (Recipient performs Action) is embedded in the call to action – “Talk to your doctor, nurse, pharmacist or local public health office about getting immunized against influenza.” This

persuasive message aims to stimulate the desired action, giving readers confidence that they can access recommended vaccination, which is defined as self-efficacy.¹⁴

Figure 6: Application of Protection Motivation Theory in understanding the function of content elements from the infographic



Case Study 2: Tailored Messages for a Target Audience

Fact sheets are a dominant medium for public health education, well demonstrated by the World Heart Federation.

The World Heart Federation (WHF) is the principal representative body for the global cardiovascular community, representing more than 200 heart foundations, scientific societies, civil society and patient organizations from over 100 countries.

The fact sheet on influenza is a concise and deliberate medium that educates readers on the definition of the virus, those groups who are at high-risk of VPD and its complications, vaccine benefits and efficacy and other preventive measures.

The fact sheet has four main sections with descriptive headers in the form of questions such as “What is influenza and who is affected by it?” and “Should people with cardiovascular disease get their annual

Figure 7: World Heart Foundation fact sheet

What is influenza and who is affected by it?

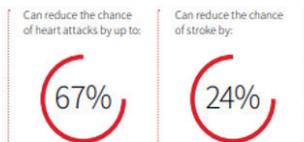
Influenza ("the flu") is caused by influenza viruses which affects all parts of the world. Each year influenza is estimated to result in about 3 to 5 million cases of serious illness, and about 290,000 to 650,000 deaths^{1,2}.
Everyone can be affected but some are more at risk than others³:

I have cardiovascular disease, what problems can I have if I get the flu?

- There are several studies that show that getting the flu can be particularly serious for people with cardiovascular disease:
- 1 In persons with cardiovascular disease, respiratory infections (which could be caused by the influenza virus) increase the risk of stroke and heart attacks three- and five-times respectively, in the three days following the beginning of the respiratory infection.
 - 2 The risk of dying from acute myocardial infarction and chronic ischaemic heart disease is 30% greater during the influenza season.
 - 3 Influenza patients may have underlying heart disease. A study showed that 50% of adults hospitalized during the 2014-2015 flu season in the USA had a heart condition.

Should people with cardiovascular disease get their annual flu shot?

The World Health Organization recommends that people with cardiovascular disease get their annual flu shot. Studies show that influenza vaccination in cardiovascular disease patients:



But does the flu shot really work?

Because usually the vaccines contain elements from circulating influenza viruses, influenza vaccination will protect you against such infections and potential complications. However it may not protect you against all influenza viruses; sometimes new influenza viruses suddenly appear for which the vaccine will be less protective. Influenza vaccination will also not protect you against other infections, which can also give similar disease symptoms as influenza. Thus, although influenza immunization will protect you against infections and potential complications, it will not provide protection against all illness which might occur in the influenza season.

You can take other measures to help prevent the flu, such as covering your nose and mouth with a tissue when you cough or sneeze (throw the tissue in the trash after you use it), washing your hands often with soap and water, and avoiding touching your eyes, nose and mouth.

¹<http://www.who.int/newsroom/factsheets/fs114/en/>
²Wang, J., Thompson, C.C., Hill, A.J., Muthari, R., Farrington, P. and Nelson, R. (2009) Risk of Hospital Admission and Stroke After Acute Infection or Vaccination: The New England Journal of Medicine, 361, 2002-2010
³Wang, J., Hill, C.C., Thompson, C.C., Muthari, R., Farrington, P., Nelson, R., Hill, A.J., and Campbell, S.M. (2007) Influenza Vaccination and the Risk of Hospital Admission and Stroke After Acute Infection or Vaccination: The New England Journal of Medicine, 357, 2220-2228
⁴WHO (2014) <http://www.who.int/newsroom/factsheets/fs114/en/>
⁵Wang, J., Hill, C.C., Thompson, C.C., Muthari, R., Farrington, P., Nelson, R., Hill, A.J., and Campbell, S.M. (2007) Influenza Vaccination and the Risk of Hospital Admission and Stroke After Acute Infection or Vaccination: The New England Journal of Medicine, 357, 2220-2228
⁶WHO (2014) <http://www.who.int/newsroom/factsheets/fs114/en/>



flu shot?" Asking leading questions is an innovative way to engage readers as opposed to using headings like "Definition", "Risks" or "Complications".

The primary audience for this fact sheet is people with cardiovascular disease but also accessible to secondary audiences such as older people, pregnant women, children, and healthcare providers. The fact sheet is translated into multiple languages including English, French and Spanish to enable broader outreach.

The WHF fact sheet frames a narrative to people with heart disease with clear evidence based messages. Life-altering complications associated with influenza in this subgroup were listed including

heart attack, acute myocardial infarction, chronic ischemic heart disease and hospitalization. Also, data on the possible effect of influenza was well used to support the statement on the association between influenza and heart complications - "the risk of dying from acute myocardial infarction and chronic ischemic heart disease is 30% greater during the influenza season".

The expression of "Threat" as a communication strategy was used in the fact sheet to motivate readers to have the influenza vaccination. Although the fact sheet did not mention benefits of being vaccinated against influenza, it implicitly conveys the positive effect of this action by leveraging the argument structure of "Action reduce Threat" (AT) e.g. "Influenza vaccination will protect you against such infections and potential complications."

Table 2: Elements in the factsheet messages

Elementary concepts	Example in message
Recipient (R)	Everyone; elderly; people with underlying heart conditions; persons with cardiovascular disease; children under 59 months of age; pregnant women; healthcare workers
Threat (T)	Serious illness; deaths; respiratory infections; stroke; heart attacks; chronic ischaemic heart disease; hospitalized
Action (A)	Annual flu shot; influenza immunization; covering your nose and mouth with a tissue when you cough or sneeze; washing your hands often with soap and water; avoiding touching your eyes, nose and mouth

Case Study 3: Real-life Stories Reshape Communication

The American Lung Association (ALA) is the leading organization working to save lives by improving lung health and preventing lung disease through education, advocacy, and research.

Through the campaign “MyShot” the Association is urging adults aged 50 years and over to have their annual flu shot. Personal stories from older adults about their decision to be vaccinated are powerful testimonies and a centre piece to the campaign messages.

Figure 8: American Lung Association “My Shot” Brian’s story



Each story exemplified by “Brian” shared through a collection of videos, photos, texts and graphs the potential impact of influenza on vulnerable populations. Independently and collectively the stories reinforce the need for adults aged 50 years and over to talk with their health care providers about vaccination options.

With a diagnosis of lung disease Brian (56 years) is at-risk of serious complications and even death from a VPD such as influenza. His experiences fighting against influenza was part of the “MyShot” public health campaign that included a brief personal description and take away messages about the benefits of being vaccinated.

The MyShot website is an innovatively designed medium that delivers meaningful insights and learnings to people with lung disease through

narratives that resonate with target audience and convey in real terms the magnitude and impact of flu.

MyShot messages communicate that vaccination prevents disease, helps to maintain and improve functional, quality of life, family and community wellbeing and employment. Unlike fear-arousing communication strategy which focuses on “threat” and “risk” education, MyShot messages tend to use positive messages to appeal to behavior changes.

Brian’s story referred to the benefits of influenza vaccination which are beyond disease prevention in individuals and associated with family and community- “I love hanging out with my families and friends, my new grandkids and also my donor’s family and I make sure I get Myshot”. Influenza vaccination helps protect against more than just infection and complications but also provides indirect protection for family and friends.

Table 3: Elements in the MyShot messages (case story of Brian)

Elementary concepts	Example in message
Recipient (R)	Brian; people with COPD and Alpha-1 antitrypsin deficiency; people with limited functional ability; persons with already weakened lungs; 50 years of age and older
Threat (T)	Double lung transplant; complications; hospitalization; major problems and lung damage; serious illness; severe impacts to health; die; recovery take a long time
Action (A)	Precaution; washing hands; covering his mouth; get his flu shot; wash hands
Benefit (B)	Prevent the flu; stay healthy; enjoy life; hang out with friends and family

Case Study 4: Time Sensitive Alerts

The National Influenza Vaccination Campaign in Brazil harnessed the power of public transportation to send messages across cities and communities.

Posters on public transportation provides point-in-time information about the hazards that influenza may bring to communities.

Figure 9: Public transport poster



It describes the life-threatening impact and expected consequences for communities and communicates the importance of vaccination to avoid the threat of impending danger or harm of influenza.

This poster (or advertisement used on buses and in subways) is a “fear appealing” strategy to create a persuasive message attempting to arouse public fear of influenza. Messages about the deadly consequences from influenza are in large and imposing with the campaign slogan: “Influenza killed 1,381 Brazilians in 2018.”

Table 4: Elements of the bus and subway poster

Elementary concepts	Example in message
Recipient (R)	People over 60 years; children from 6 months to under 6 years; pregnant women; postpartum mothers (up to 45 days); people with special needs; chronic patients; teachers; health professionals
Threat (T)	Kill people
Action (A)	Get vaccinated; look for a health unit; take vaccination booklet

Principles for Influenza Vaccination Campaigns

Vaccine preventable diseases such as influenza have the brutal capability of life-threatening consequences including diminished function and death for millions of people. The gap between the health we have and the health we could have is often not primarily a failure of knowledge. However, it is a failure to develop compelling evidence-based messages and share them effectively, and to translate it into action.

Whether it is the maintenance and improvement of health, containment of immediate public health crises, or a response to an influenza outbreak or pandemic, messages that are developed, sent and received are critical to improving vaccination rates among those most at-risk. Knowledge and skills in communicating effectively are essential prerequisites to bridging the gap between what is known, what is communicated, and what informs vaccination policy and practice.

Communicating such messages effectively is not an easy task. While the challenges to increase influenza are great, there are more tools, knowledge and channels than ever before. Technology has fundamentally transformed the nature of communication, yet it is equally important to develop and use methods to reach those populations who have in the past been unreachable. Policymakers and those who would harness the power of communication need to be equally swift and innovative in their response and have a balanced approach between technology and hard copy messages and information.

1. Integrate multiple elements and statement patterns

According to the WHO Strategic Communication Framework¹⁵, effective communication needs to build awareness of existing or emerging health threats and benefits and support the adoption of healthy behaviours in audiences.

Consistent and complementary messages in influenza vaccination campaigns that mix metaphors about threats, benefits and suggested actions provide a more complete picture of the issue and action.

2. Assemble facts and figures

Quality information is the foundation of public health communication. With proven facts, reliable data, and good scientific explanation behind the information, messages have credibility, legitimacy, and the trust of audiences.

3. Use charts and graphs

Visual depictions of facts and figures are more powerful and easier to grasp than text alone. Images in the form of infographics (as an example) can illustrate to various and diverse audiences, the burden of influenza (e.g. hospitalization and death rate), the potential complications triggered by the infection, the benefits of vaccination (e.g. reduction of disease prevalence and death rate) and the effective methods of prevention such as timely vaccination, hand washing, and isolation.

4. Keep messages simple

Today more than at any time in history people have access to information through conversations, advertisements, and news programs, but may have less time to read, listen, and absorb. To distill the complex information into concise, simple messages in understandable terms enables readers of all levels of literacy to learn and be informed.

5. Tailor messages and materials for specific audiences

People respond best to issues that affect them personally. Messages can be more powerful when they target concerned audiences. Understanding the informational needs and literacy of various audiences and tailoring messages to meet their needs is essential.

Messages for older adults could focus on age-specific risks of influenza (e.g. loss of functional ability) and benefits of vaccination (e.g. healthy ageing, prevention of chronic condition, protection to grandchildren) and provide more cost-related information (free vaccination) and practical guidance (when, where, how to be vaccinated).

6. Narrative Messages

Personal messages, stories and insights generated from real-world examples rather than a summary of facts and figures about influenza and vaccination appear to be vastly more effective in resonating with the audience.

7. Time-Sensitive messages

Alerts provided immediately before and during flu season are a worthy tactic to inform the general public and at-risk populations about the influenza season and necessary preventive actions including vaccination.

8. Outreach

Campaign messages must be developed and shaped with not only the target population in mind but view through the lens of culture, tradition, gender, and literacy. In 2019 alone the number of international migrants globally was 272 million people representing 3.5% of the world's population.¹⁶ Campaigns in seven of the 10 ten countries studied were solely in the language of that country even though this doesn't not represent the culturally and linguistically diverse nature of the population. There is an urgent need to reflect diversity in the campaign structure and delivery.

9. Audience-driven messages

Messages are communicated to the general public through many channels, from face-to-face conversation to mass media, and from online to offline pipelines. Notwithstanding this targeted and tailored messages addressing the specific needs of those most at-risk need further attention both in content and accessible channels. For example, older people in some countries depend upon their family doctors for information and trust their counsel, so brochures and a conversation with health professionals may be the primary form of delivery.

Conclusion

Influenza, one of the most common infectious diseases, kills up to 650,000 people every year. Of these deaths, some 90% occur in people aged 65 years and older.¹⁷ While the influenza vaccine is a recommended action, rates of vaccination remains sub-optimal among older adults and those with weaker immune systems.

Changing the Conversation on Adult Vaccination responds to the paucity of detailed examination about the nature, drivers and delivery of influenza vaccination campaigns in ten countries from the Western Pacific, Europe and Pan American Health Region. It showed unequivocally that insufficient attention is paid to developing and implementing effective public health communication on adult influenza vaccination

The universal and passive nature of messages to undifferentiated populations such as 'older people' is not effective nor resulting in a greater awareness of the risks of influenza, or an increase in rates of vaccination. Campaigns must account for varying levels of risk, health literacy or the fact that some populations may not have access to the internet and are unable to locate essential information.

Seven essential pillars form the IFA Framework for Effective Adult Vaccination Influenza Campaigns to inform future campaigns assembled on the platform of a comprehensive adult influenza vaccination set of policies. An effective communication campaign must be equipped with a clear strategy for a well-defined audience, multiple tools and channels, regular updates of information, a realistic timeline, and a strong engagement and buy-in across disciplines and sectors.

The IFA is the first international organization that brings attention to the gaps and good practices in conveying messages that stimulate improved influenza vaccination awareness and uptake rates. We call upon professional, patient and advocacy organizations, together with all levels of government to change the conversation on adult influenza vaccination.

Now more than ever in the history of public health action is the time to invest in adult vaccination campaigns that translate messages into action so that no one is left behind.

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