Guidance for Influenza Vaccine Delivery in the Presence of COVID-19

Preamble

The purpose of this document is to provide guidance for the delivery of seasonal influenza vaccine in fall 2020, when ongoing COVID-19 activity may continue to stress public health capacity and affect clinic operations and attendance. This guidance has been developed by the Public Health Agency of Canada (PHAC) in consultation with the Canadian Immunization Committee and the National Advisory Committee on Immunization (NACI)and adapted for the province of New Brunswick.
Reducing the burden of influenza is particularly important this fall and winter to prevent an increase in health care utilization at the same time as there is a potential resurgence of COVID-19 activity. In its seasonal influenza vaccine statement for 2020-2021, NACI advises that priority should be given to providing influenza vaccine to persons at high risk of influenza complications or complications and those capable of transmitting infection to them.

The seasonal influenza immunization campaign provides an opportunity to develop and practice approaches that may be used for the anticipated COVID-19 immunization program and to ensure consideration of the diverse needs of population groups based on vulnerability, ethnicity/culture, ability status and other socioeconomic and demographic factors. These approaches may also be useful for the provision and catch-up of routine immunization. Additional advice for the provision of routine immunization programs during the COVID-19 pandemic routine immunization programs during the COVID-19 pandemic is available from NACI and from provinces and territories.

For the 2020-2021 influenza season New Brunswick is offering a universal immunization program whereby all residents of the province are eligible to receive free publicly funded vaccine. Quadrivalent influenza vaccine will be offered to individuals age 6 months and older including residents of a long-term care facility who are under the age of 65 year. Fluzone® High-Dose will be offered to residents aged 65 years and older living in long-term care facilities (licensed nursing homes and adult residential facilities).

Challenges posed by COVID-19

The COVID-19 pandemic creates a series of challenges for the delivery of the seasonal influenza immunization program, including:

- need for measures to avoid transmission of covid-19 to staff, volunteers and clients (many of whom are at increased risk of severe disease from both influenza and covid-19);
- availability of personnel to provide immunizations, as staff may be deployed to covid-19 work and cautions apply to the involvement of staff or volunteers who are considered to be at high risk for severe illness from covid-19;
- access to sufficient supplies of PPE for vaccinators and other staff;
- access to or suitability of usual venues for immunization administration;
- risk of a resurgence of covid-19 activity concurrently with scheduled influenza immunization delivery;
- public fear of exposure to covid-19 while accessing immunization services; and
- potentially increased demand for influenza vaccine starting early in the campaign, as seen in the Southern hemisphere.

Recommendations for influenza immunization programs

Consider alternate models of influenza vaccine delivery this fall

New Brunswick uses varying systems for the seasonal influenza program; local factors also play an important role in the planning and delivery of influenza vaccine. This fall, consideration should be given to using a wide range of strategies to deliver influenza vaccine, with the goal of reducing crowding while maintaining or increasing vaccine uptake. Alternate models include the use of non-traditional settings as permitted by legislation. If demand is high, potential vaccine supply limitations may affect the decision to use some alternate delivery models.

Approaches to be considered include:

- holding multiple smaller public clinics instead of large clinics with many attendees;
- considering extended clinic hours to avoid crowding;
- providing immunization opportunistically to patients and their accompanying persons when they are discharged from hospital or are seen for other reasons such as
    - primary care offices
    - outpatient clinics
    - pharmacies;
- in primary care settings, designating specific times for immunization clinics to ensure that only well persons are in the area at the time,
    - for example, at the start or end of the day;

- cooperation between several medical practices to operate a joint influenza vaccine clinic in a dedicated space with dedicated staff;
- providing influenza vaccine during senior shopping hours at pharmacies in grocery stores, or creating special hours for seniors and other vulnerable persons at pharmacies and other venues;
- administering vaccines outdoors (weather permitting)
    - for example, in a provider's parking lot or a drive-through clinic;
- establishing mobile clinics in vans or buses to visit neighbourhoods;
- developing an outreach strategy to administer influenza vaccine to vulnerable persons, housebound persons, and seniors who are sheltering in place;
- providing immunization during home care visits;
- administering influenza vaccine at congregate living centres such as
    - retirement homes
    - group homes
    - homeless shelters
    - student residences
    - correctional facilities
- having health care organizations, including long-term care facilities provide their own immunization for staff, volunteers and patients/clients (usual practice);
- encouraging workplaces to organize their own on-site immunization programs.

Adaptations to usual immunization procedures

The text box below highlights the types of adaptations to usual immunization practices that are recommended in the presence of COVID-19 activity. The sections that follow provide additional details.

Adaptations to usual immunization procedures

- ✓ Screening for illness/exposure to COVID-19 – staff, volunteers and clients
- ✓ Physical distancing: may affect the physical layout and number of clients that can be accommodated at any given time
- ✓ Infection prevention and control (IPC) requirements, including the need for personal protective equipment (PPE)
- ✓ Increased environmental cleaning
- ✓ Potential need for longer hours and increased staff
- ✓ Use of appointment systems to reduce clinic crowding
- ✓ Use of technology and other methods to reduce contact (e.g., on-line registration, paperless registration, consent and recording processes)
- ✓ Potential reduction of post-immunization observation time (pending NACI advice)
- ✓ Visible and audible communications explaining COVID-19 adaptations to influenza immunization campaigns in accessible formats

Screening and entry – all venues

All persons attending the venue should be passively screened (through signage) and actively screened before entry, even if they were already pre-screened by telephone when the appointment was made. Staff and volunteers should be screened before each shift. There are various options for active screening, for example:

- providing or linking to an online screening tool to be used the day of immunization;
- screening clients by telephone on arrival before they enter the building
    - for example, while still in their car
- screening arrivals in person, preferably before entering the building.

Signage at the door should advise visitors not to enter if they are ill, to put on their non-medical mask or face covering, use the hand sanitizer provided on entry, practice respiratory etiquette, and maintain physical distancing. Masks should be available for those who come without, preferably at no cost to the client.

If any persons are identified with symptoms on arrival at the venue, they should be instructed to perform hand hygiene, put on a medical mask and be redirected for assessment (for example to a COVID-19 assessment site depending on their symptoms). The GNB website should be consulted for screening language and tools.

Physical distancing

A two-metre physical distance should be maintained as much as possible, using strategies such as:

- scheduling/appointments to avoid crowds;
- asking people to arrive at their assigned time;
- having people wait in cars and calling them in when ready (by phone or text);
- using signage, barriers or floor markings for persons who are waiting;
- spacing chairs in waiting areas two metres apart
    - increased space should be allotted for people using wheelchairs, walkers or strollers and for families and accompanying persons;
- monitoring entries and exits, waiting areas and lineups to maintain physical distancing.

Infection prevention and control

IPC measures are needed to prevent transmission of COVID-19 in the immunization setting. These include:

- requiring ill staff and volunteers to stay at home;
- screening clients as per provincial/territorial advice and not proceeding if they are ill;

- implementing engineering controls if feasible
    - for example, installing clear plastic barriers at reception areas and between immunization stations in community clinics;
- implementing administrative controls to maintain physical distancing (as described in the physical distancing and clinic set-up sections);
- providing hand sanitizer stations throughout the venue, including entry, immunization stations and exit;
- ensuring that administration, clinical and patient areas, and washrooms are cleaned and disinfected frequently.
    - guidance for cleaning and disinfection is available for ambulatory care settings and for public spaces);
- cleaning and disinfecting immunization stations between clients (for example., with wipes);
- carrying out hand hygiene before and after providing immunization; and
- ensuring that all staff are trained in the use of PPE.

Considerations for PPE selection

Physical distancing may be difficult to maintain at immunization venues and the immunization procedure requires close physical proximity between the vaccinator and the client. The following recommendations are based on PHAC IPC guidance for ambulatory care settings and apply in geographical areas where there is known or possible community transmission of COVID-19. Refer to the GNB website , PHAC , and organizational policies for specific recommendations for use of masks, and other PPE (including eye protection), PPE conservation strategies, and the use of non-medical masks by the public . **These may differ over time based on the changing epidemiology of COVID-19**.

Staff and volunteers

- vaccinators and staff involved in immunization (for example, recovery room monitors and first aid providers) should wear a medical mask.
- vaccinators need not wear gloves except when administering intranasal influenza vaccine or oral non-influenza vaccines, because of an increased likelihood of contact with a client's mucous membranes and bodily fluids during these procedures
    - if used, gloves should be changed between clients and hand hygiene performed after gloves are removed.
    - precautions for aerosol-generating procedures are not necessary for administration of nasal or oral vaccines;[1]

[1] Centres for Disease Control and Prevention. Interim guidance for immunization services during the COVID-19 pandemic. Available from: https://www.cdc.gov/vaccines/pandemic-guidance/

- staff and volunteers who are able to maintain a two-metre physical distance or will have only transitory closer contact (such as walking by) should also wear a medical mask;
- staff who are behind a barrier do not need to use PPE except for protection between co-workers behind the barrier;
- PPE may be used for the full duration of a shift,
    - extended use of the same mask but should be replaced after a break.
    - soiled, wet or damaged masks should be replaced
- PPE including medical mask, eye protection, gown and gloves should be immediately available to all personnel who need to provide first aid or respond to a health emergency.

When immunization is provided during another health care visit (for example, primary care visit, home care or while in hospital), it is anticipated that the health care professional will already be using PPE appropriate for the situation. In addition to the ambulatory care guidance already cited, IPC guidance is available for home care providers.

Clients and their accompanying persons

Clients and their accompanying persons are required to wear a non-medical mask or face covering. This recommendation may be waived for young children for whom mask use is problematic. In addition, non-medical masks or face coverings should not be placed on children under the age of two years, anyone who has trouble breathing, or is unable to remove the mask without assistance.

Clinic set up and immunization process

Priority clinic modifications for COVID-19 have already been identified in this document (screening for illness, physical distancing, and IPC measures). The following are additional suggestions for modifying the clinic set up and immunization process:

- assessing the physical suitability of the site, including the adequacy of ventilation; however, it is appreciated that ideal sites are not always available;
- considering the size of the site, physical distancing requirements, and jurisdictional restrictions on the size of gatherings when determining the number of clients that can be scheduled in a given time period;
- providing extra clinic staff and volunteers as needed such as for:
    - monitoring traffic flow and waiting areas
    - screening
    - assistance with registration and consent processes
    - cleaning
- using an appointment system (for example, online or through a call centre) to
    - make appointments,

- collecting registration information and
- conduct pre-clinic wellness screening;

- minimizing the number of persons coming to the appointment
  - for example, only the client plus a caregiver if necessary; only bringing children if they are being immunized);
- instructing clients to wear accessible clothing (for example, short sleeves) to minimize the need for removal of clothing and possibly the mask to gain access to the arm, and to bring a non-medical mask to wear at the clinic;
- adjusting consent and recording processes to reduce contact, making them paperless if possible;
  - having staff complete information forms on behalf of clients
  - if a signature is needed for consent, having each client use a separate pen and cleaning pens between use
- minimizing movement through the clinic to avoid clients walking through administrative areas,
  - for example, by using a dedicated entrance/exit (where available) and establishing one-way traffic flow;
- ensuring that the cold chain is maintained in all settings including outreach and mobile clinics and outdoor clinics;
- ensuring that clients can be monitored for the recommended observation period following immunization in all settings
  - including mobile and drive-through clinics, and that the supplies necessary to manage anaphylaxis are readily available[2]
- maintaining a list of staff and clients attending each clinic to facilitate contact tracing if needed.

Vaccine information can be provided in ways that minimize the use of paper, for example:

- considering providing vaccine information online or in advance by mail or email;
- at the clinic, providing pre-immunization information on large wall posters or using videos in pre-immunization and post immunization observation areas;
  - considering adding QR codes for additional information;
- ensuring that information is accessible (for example., available in multiple languages as needed).

[2] National Advisory Committee on Immunization. Canadian Immunization Guide: Part 2 – Vaccine Safety. Early vaccine reactions including anaphylaxis. June 2013. Available from: https://www.canada.ca/en/public-health/services/publications/healthy-living/canadian-immunization-guide-part-2-vaccine-safety/page-4-early-vaccine-reactions-including-anaphylaxis.html

Additional considerations for other settings

School-based clinics

School-based clinics are used to deliver routine immunizations to children and teens, including influenza vaccine in some jurisdictions. These clinics should align with EECDs plans for return to school in fall 2020 (e.g., partial or staggered attendance) and available resources.

Considerations for delivery of vaccines at school include:

- potential need to hold clinics over several days if student attendance is staggered;
- provision of other needed vaccines in addition to influenza vaccine;
- accessibility of sites usually used for immunization such as gyms or cafeterias;
- staggering immunization tables and seating in waiting areas to maintain physical distance; and
- calling in students according to classroom cohorts.

Outreach and mobile clinics

Outreach clinics are an effective way to reach vulnerable populations and persons unable to attend conventional immunization sites. [3,4,5] It is important to choose the location carefully. The best options are places that are most frequented by the vulnerable population(s) being targeted, e.g., food banks, shelters for persons experiencing homelessness, centres providing free meals, centres for immigrants and refugees. Partnering with trusted community leaders is also recommended along with advance clinic promotion to encourage attendance.

Additional information can be found in the references provided above and a CDC resource: Checklist of best practices for vaccination clinics held at satellite, temporary or off-site locations.

Outdoor venues, including drive-through clinics

Drive-through and parking lot clinics (also called drive-in clinics) have been used successfully in some jurisdictions in past seasons for the seasonal influenza vaccine, and are particularly useful for people with reduced mobility or those who are apprehensive about a clinic setting. In the COVID-19 situation, they provide a way to maintain physical distancing by avoiding waiting rooms and lineups.

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[3] Weatherill SA, Buxton JA, Daly PC. Immunization programs in non-traditional settings. Can J Public Health 2004;95(2):133-7.

[4] Kong KL, Chu S, Giles ML. Factors influencing the uptake of influenza vaccine vary among different groups in the hard-to-reach population. Aust NZ Public Health 2020;44:163-8. Doi:10.1111/1753-6405.12964.

[5]Thomsen R, Smyth W, Gardner a, et al. Centrelink; an innovative urban intervention for improving adult Aboriginal and Torres Strait Islander access to vaccination. Healthcare Infection 2012;17;136-41. Doi: 10.1071/HI12035

Potential issues for program planners include inclement weather, availability of suitable locales, and occupational health concerns for vaccinators (for example, exposure to auto exhaust or ergonomic issues if they are trying to reach far into a car). There is also potential for shoulder injury in the recipient if the arm is not adequately visualized while they are in the car, resulting in incorrect landmarking of the injection site.[6]

Parking lot clinics – Providing immunization in the parking lot may be a viable option for some primary care practitioners, pharmacies and public health departments. Detailed advice for mounting a parking lot clinic (also called a drive-in clinic) can be found in an Australian resource: NSW guidance for drive-in immunization clinics.

Drive-through clinics – These clinics are larger-scale operations that may be mounted in fixed or rotating locations. Potential venues should offer shelter for the immunization team and sufficient parking for the required post-immunization observation period. Possibilities include community buildings with a marquee, car washes, warehouses, insurance inspection stations, arena parking lots or drive-through tents erected for the occasion
Planning logistics have been described, including the development of a traffic flow pattern with traffic lanes for the consent and immunization processes and adequate parking spaces for post-immunization monitoring. [7,8,9,10]

Clients should be instructed to wear a non-medical mask and loose-fitting clothes to allow easy access to the deltoid area. Clients should be seated to allow window or door access for the vaccinator, who should not enter the car. Parents may hold their child on their lap for the child's immunization. The entire upper arm (or upper outer thigh in infants) should be exposed to find the correct injection site.

[6] Imran M, Hayley D. Injection-induced axillary nerve injury after a drive-through flu shot. Clinical Geriatrics 2013;21(12). Available from: https://www.consultant360.com/index.php/taxonomy/term/7226
[7] Le N, Charney RL, Gerard J. Feasibility of a Novel Combination of Influenza Vaccinations and Child Passenger Safety Seat Fittings in a Drive-through Clinic Setting. Disaster Med Public Health Prep 2017;11(6):647-651. doi: 10.1017/dmp.2017.3. Epub 2017 May 2
[8] Banks LL, Crandall C, Esquibel L. Throughput times for adults and children during two drive-through influenza vaccination clinics. Disaster Med Public Health Prep 2013;7(2):175-81. doi: 10.1017/dmp.2013.3.
[9] Gupta A, Evans GW, Heragu SS. Simulation and Optimization Modeling for Drive-Through Mass Vaccination – A Generalized Approach. Simulation Modelling Practice and Theory 2013;37(September). Available from https://commons.erau.edu/ww-management-science/1
[10] Zenwekh T, McKnight J, Hupert N, et al. Mass medication modelling in response to public health emergencies: outcomes of a drive-through exercise. J Public Health Management Practice 2007;13(1);7-15.

First Nation communities

First Nations communities have many years of experience with influenza immunization campaigns. Many of the adaptations outlined earlier in this document will be applicable; however, there may be some unique features that warrant special considerations. Suggestions include:

- using public health or primary care teams as an efficient way to provide influenza immunization in some communities.
    - such teams must be carefully screened according to jurisdictional direction before travel;
- collaboration with trusted community leaders and community health staff;
- promoting the clinics as a way to provide community protection in addition to personal protection;
- setting up in popular locations such as grocery stores, and providing immunization door-to-door later for persons unable to attend the clinic;
- providing immunization at community pharmacies if accessible in the community.

Additional Resources

Canada:

Public Health Agency of Canada. Infection prevention and control for COVID-19: Interim guidance for outpatient and ambulatory care settings. May 23, 2020. Available from: https://www.canada.ca/en/public-health/services/diseases/2019-novel-coronavirus-infection/guidance-documents/interim-guidance-outpatient-ambulatory-care-settings.html

Public Health Agency of Canada. Infection prevention and control for COVID-19: Interim guidance for home care settings. 2020-05-01. Available from: https://www.canada.ca/en/public-health/services/diseases/2019-novel-coronavirus-infection/health-professionals/infection-prevention-control-covid-19-interim-guidance-home-care-settings.html

National Advisory Committee on Immunization. Interim guidance on continuity of immunization programs during the COVID-19 pandemic. May 13, 2020. Available from: https://www.canada.ca/en/public-health/services/immunization/national-advisory-committee-on-immunization-naci/interim-guidance-immunization-programs-during-covid-19-pandemic.html

Public Health Agency of Canada. Vaccine annex: Canadian Pandemic Influenza Preparedness: Planning Guidance for the Health Sector. Appendix B – Planning Guidance for Mass Immunization Clinics. Available from: https://www.canada.ca/en/public-health/services/flu-influenza/canadian-pandemic-influenza-preparedness-planning-guidance-health-sector/vaccine-annex.html#appb

Centers for Disease Control and Prevention (CDC):

Centers for Disease Control and Prevention. Interim guidance for immunization services during the COVID-19 pandemic. Available from: https://www.cdc.gov/vaccines/pandemic-guidance/

Centers for Disease Control and Prevention. Guidance for pharmacists. May 28, 2020. Available from: https://www.cdc.gov/coronavirus/2019-ncov/hcp/pharmacies.html

Centers for Disease Control and Prevention. Guidelines for Large-scale influenza vaccination clinic planning. 2015 Dec 16. Available from: https://www.cdc.gov/flu/professionals/vaccination/vax_clinic.htm

Centers for Disease Control and Prevention. Checklist of best practices for vaccination clinics held at satellite, temporary or off-site locations. Available from: https://www.izsummitpartners.org/content/uploads/2019/02/off-site-vaccination-clinic-checklist.pdf

Australia

NSW Health. Guidance for drive-in immunization clinics. Advice for Providers During COVID-19.. Available from: https://www.cesphn.org.au/preview/population-health/immunisation-1/3157-drive-in-flu-vaccination-clinics/file

WHO:
World Health Organization. Framework for decision-making: implementation of mass vaccination campaigns in the context of COVID-19. 22 May 2020. Available from: https://apps.who.int/iris/handle/10665/332159
World Health Organization. Guiding principles for immunization activities during the COVID-19 pandemic. Interim guidance 26 March 2020. Available from: https://www.who.int/publications/i/item/guiding-principles-for-immunization-activities-during-the-covid-19-pandemic-interim-guidance
World Health Organization. Immunization in the context of COVID-19 pandemic. Frequently Asked Questions (FAQ). 16 April 2020. Available from: https://apps.who.int/iris/handle/10665/331818

Footnote 1

Centres for Disease Control and Prevention. Interim guidance for immunization services during the COVID-19 pandemic. Available from: https://www.cdc.gov/vaccines/pandemic-guidance/

Footnote 2

National Advisory Committee on Immunization. Canadian Immunization Guide: Part 2 - Vaccine Safety. Early vaccine reactions including anaphylaxis. June 2013. Available from: https://www.canada.ca/en/public-health/services/publications/healthy-living/canadian-immunization-guide-part-2-vaccine-safety/page-4-early-vaccine-reactions-including-anaphylaxis.html

Footnote 3

Weatherill SA, Buxton JA, Daly PC. Immunization programs in non-traditional settings. Can J Public Health 2004;95(2):133-7.

Footnote 4

Kong KL, Chu S, Giles ML. Factors influencing the uptake of influenza vaccine vary among different groups in the hard-to-reach population. Aust NZ Public Health 2020;44:163-8. Doi:10.1111/1753-6405.12964.

Footnote 5

Thomsen R, Smyth W, Gardner a, et al. Centrelink; an innovative urban intervention for improving adult Aboriginal and Torres Strait Islander access to vaccination. Healthcare Infection 2012;17;136-41. Doi: 10.1071/HI12035

Footnote 6

Imran M, Hayley D. Injection-induced axillary nerve injury after a drive-through flu shot. Clinical Geriatrics 2013;21(12). Available from: https://www.consultant360.com/index.php/taxonomy/term/7226

Footnote 7

Le N, Charney RL, Gerard J. Feasibility of a Novel Combination of Influenza Vaccinations and Child Passenger Safety Seat Fittings in a Drive-through Clinic Setting. Disaster Med Public Health Prep 2017;11(6):647-651. doi: 10.1017/dmp.2017.3. Epub 2017 May 2

Footnote 8

Banks LL, Crandall C, Esquibel L. Throughput times for adults and children during two drive-through influenza vaccination clinics. Disaster Med Public Health Prep 2013;7(2):175-81. doi: 10.1017/dmp.2013.3.

Footnote 9

Gupta A, Evans GW, Heragu SS. Simulation and Optimization Modeling for Drive-Through Mass Vaccination - A Generalized Approach. Simulation Modelling Practice and Theory 2013;37(September). Available from https://commons.erau.edu/ww-management-science/1

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Zenwekh T, McKnight J, Hupert N, et al. Mass medication modelling in response to public health emergencies: outcomes of a drive-through exercise. J Public Health Management Practice 2007;13(1);7-15.