

# **Building on Success** Leveraging Pandemic Learnings into Lifelong Vaccination Practices

Presented by: Kat MacDonald

CANVax Webinar | August 2023



# **COVID-19 Pandemic**

A partnership-driven response leads to a successful vaccine rollout.

# **Lessons Learned**

Reflecting on what worked and how we can improve.

# **Moving Forward**

Looking at what we can do now to catchup and prepare for the future.





**CANImmunize** is a proudly Canadian, digital health company working to build the technological future that our health systems deserve.

Our platform and services are designed to help governments and organizations manage immunization programs and data intelligently.

45 **Employees** 



# **Internationally Recognized**



# **Core Principles** Canada's COVID-19 Immunization Plan: Saving Lives and Livelihood

# Science-Driven Decision Making

# Fairness and Equity

# **Public Involvement**

Transparency

## Coherence and Adaptability

# **Consistent Reporting**

# 2021 **Responding | Building**

### January 2021

- Long Term Care vaccinations via cohorts
- Health Care Worker invite-only appointment booking

# **April 2021**

- Age-based booking with a province-wide booking page
- Improvements to Admin experience (clinic setup)

## **July 2021**

- Vaccine receipt portal
- Product interchangeability
- Multi-person appointments
- Improvements to Admin experience (dose management; series override)

### October 2021

- Federal Proof of Vaccine credential
- Support for out-ofprovince vaccine uploads
- Improvements to Admin experience (user management)

# 2022 **Adjusting | Enhancing**

### January 2022

- Boosters and Additional dose bookings
- Self Check-in module

## **April 2022**

- Pediatric dose bookings
- Invalid doses
- Second boosters
- Earliest availability display

### July 2022

- Infant doses bookings
- Revamped forecaster to support series complexity

### October 2022

- Mpox campaign
- Launch of COVID-19 and Flu bookings

# 2023 **Sustaining | Expanding**

### January 2023

• Improvements to Admin experience (availability configuration)

## **April 2023**

- Support for drop-in appointments
- Publicly funded vaccines pilot

### July 2023

- Creation of e-Consent module for School Immunizations
- Launch of VaxRecordNS

### October 2023

• TBD!

# ClinicFlow

# **End-to-End Immunization Software**

	6		♥ Book a Pediatric Routine Immu × +
Page × + .canimmunize.ca/en/covid-flu-booking	9 Ft 0		nize.dev/clinics/83131346-1897-4274-9a88-
Rennindenze Calendorido Harbooking	Powered By CANimmunize	CANImmunize CANImmunize CANImmunize CLINIC CLINIC CLINIC CLINIC	
Book a COVID-19 or Influenza vaccine appoint You can use this service to book a COVID-19 or Influenza vaccination appointment.	ntment in Nova Scotia	€ 12:22 PM Tue Jun 6 To 38% ■ C	
<ul> <li>Before you start</li> <li>You need a valid Nova Scotia health card to use this service.</li> <li>You need a telephone number in case we have to contact you.</li> <li>If you provide an email when you book this appointment, you will receive a confirmation email, a reminder the day before the appointment, and a link to the vaccination record.</li> </ul>	<ul> <li>After you book this appointment</li> <li>You will be required to complete a COVID-19 screening form, health status questionnaire, and vaccination consent form for yourself or on behalf of the person receiving vaccine.</li> <li>Do not come to the clinic if you have <u>COVID-19 symptoms</u> or are required to self-isolate. You will be screened for COVID-19 when you arrive at the clinic.</li> </ul>	Appointme     Date     Date     2023-08-2      Vaccine     Vaccine     Vaccine     Vaccine     Vaccine	
Each clinic has a set number of appointments available for the clinic dates. If you need help booking your appointment, or reside in Nova Scotia but do not have If you are booking an additional or booster dose of COVID-19 vaccine, you may be n you may be turned away.	e a health card, call 1-833-797-7772. equired to show proof of eligibility at your appointment. If you cannot provide proof,	Lot Number  Immunization History This table shows the patient's dose history that is relevant to this service. No previous doses recorded  Forms	What's an Availability Rule?
Select Service(s) and Review Eligibility Please enter the information for the person you are booking an appointment for, exactly a process. Date of Birth: • Month Day	is it appears on their health card. <b>Changing the date of birth will restart your booking</b> Year	No forms configured for this service and vaccine       7:30am         AEFI & Clinical Notes       0         Clinical Notes       8am         Onote(s) available for this patient       8am         Adverse Event Following Immunization O note(s) available for this patient       8:30am         Decision to Vaccinate       8:30am	appointment slots that can be b into, when linked to booking pag Availability rules can have a sing service or multiple services, how only allow one product per servi the rule is housed under a clinic has been linked to a booking pa the availability rule, clinic, and b page are all set to active, the re availability can be booked into.
Select v Select	v Select v	Please complete all required forms in order to proceed with vaccination. Core Immunization Screening Form is missing.       9am         Vaccinate Patient       Complete without Vaccination         Decision Notes:       Tap to Enter	



# **Success Factors** Equitable Access

# **Centralized Booking Page**

Enabled single, booking experience regardless of where you booked across the province.

# **Multiple Pathways**

Employed multiple pathways to get vaccinated, including cohort-based, mobile clinics, community booking pages, multi-person appointment, and drop-ins.



News / Local News

# **Ottawa-designed vaccine system** praised in Nova Scotia, envied in 'chaotic' Ontario

"Everybody in the world gets vaccinated, so it seemed obvious to us that there had to be a need for this."

**Elizabeth Payne** 

Published Apr 28, 2021 • Last updated Apr 28, 2021 • 5 minute read



Nova Scotia has consistently led the other provinces since mid-Summer 2021; as of 25 December 2021, 90.8% of Nova Scotians aged 18+ were double-vaccinated, Canada's third highest rate [...]

Centralization of vaccination booking within provinces may have decreased overall barriers to access and vaccination uptake.



Fitzpatrick et al. 2023

# Safety and Speed

# **Eligibility Logic**

Ensured the right people booked the right appointment at the right time.

# **Consent Forms**

Resulted in consistent and up-todate documentation programwide.

# **Pre-Screening**

Allowed patients to independently screen out and/or prepare questions for their appointment.

# **User Friendly App**

Vaccine product information and lot numbers pre-populated based on the CVC. 8:44 PM Wed Oct 12

K Back to Patient

### Yu, Jessica COVID-19 Vaccination

### Vaccine

Vaccine Moderna Spikevax Red Cap 0.20 mg/mL COVID-19... Q

ᅙ 🛲 31% 🔲

Lot Number

### Immunization History

This table shows the patient's dose history that is relevant to this service. No previous doses recorded

### Forms

~	<b>Pfizer/Moderna Health Status</b> A few seconds ago on 12-Oct-2022 by Flu-Preprod, Kathryn	1 🛤 >
0	Pediatric Health Status Incomplete	>
0	Consent Incomplete	>
٩EFI	& Clinical Notes	
0	<b>Clinical Notes</b> 0 note(s) available for this patient	+
•	Adverse Event Following Immunization	

**66** The CANImmunize platform has massively supported pharmacy clinics in starting to administer COVID-19 vaccines.

"That platform has really simplified the process, the administrative process, for pharmacies," she said. "So, they can really focus on the patient and getting that immunization in, and they don't have to worry about a lot of paperwork and behindthe-scenes stuff — it's just really quick and simple."

- Allison Bodnar,

CEO, the Pharmacist Association of Nova Scotia in HalifaxToday.ca



	PATIENT									
itory	<ul> <li>Grey, Mered</li> </ul>	ith (Mer)								Z Edit Delete
ntments	Copy ID									
ts	Patient Info									
	First Name	Meredith			Last Name Grey			Preferred Name	Mer	
ts	Date of Birth	March 6, 1989 (34 years old)	)		Gender		Female		Pronoun	
ng Pages	Health Card Number	1564651451 (NS)			Email		kathryn+mer@canimmunize.ca		Phone	(613) 555-8899
	Address	123 Street Road, Unit/Apt Un	it 2, Ottawa K1M1M1		Managing Organizat	tion	Kats Test Clinic			
aigns	Forecast Status									Reforecast
	Disease COVID-19	Service COVID-19 Vaccination	Series	Primary Se		ist Dose Rec	eived 023 3:38 PM AST	Recommende Booster: Augus		
					ccinated Fe			Booster: Augus		
izations t t Lookup Centre	COVID-19	COVID-19 Vaccination	Standard :	G Fully Va	rted	bruary 21, 2		Booster: Augus	st 28, 2023 i	
t Lookup	COVID-19 Influenza	COVID-19 Vaccination	Standard i Standard i	<ul> <li>Fully Va</li> <li>Not Star</li> </ul>	rted Au	bruary 21, 2	023 3:38 PM AST	Booster: Augus Influenza Recu Monkeypox Pri	st 28, 2023 i	26, 2023
: Lookup entre	COVID-19 Influenza Monkeypox	COVID-19 Vaccination Influenza Vaccination Monkeypox Vaccination	Standard : Standard : Standard :	<ul> <li>Fully Va</li> <li>Not Star</li> <li>In Progr</li> </ul>	rted Au	bruary 21, 2	023 3:38 PM AST	Booster: Augus Influenza Recu Monkeypox Pri	st 28, 2023 : rring: August 28, 2023 : mary (Dose 2): September	< (1) >
: Lookup entre	COVID-19 Influenza Monkeypox Meningococcal disease	COVID-19 Vaccination Influenza Vaccination Monkeypox Vaccination	Standard : Standard : Standard :	<ul> <li>Fully Va</li> <li>Not Star</li> <li>In Progr</li> </ul>	rted Au	bruary 21, 2	023 3:38 PM AST	Booster: Augus Influenza Recu Monkeypox Pri	nt 28, 2023 ; nring: August 28, 2023 ; mary (Dose 2): September hary: August 28, 2023 ; Add Vaccination	< (1) >
: Lookup entre pry	COVID-19 Influenza Monkeypox Meningococcal disease	COVID-19 Vaccination Influenza Vaccination Monkeypox Vaccination	Standard : Standard : Standard :	<ul> <li>Fully Va</li> <li>Not Star</li> <li>In Progr</li> </ul>	rted Au	bruary 21, 2	023 3:38 PM AST 23 9:39 PM ADT	Booster: Augur Influenza Recu Monkeypox Pri Meningitis Prin	nt 28, 2023 ; nring: August 28, 2023 ; mary (Dose 2): September hary: August 28, 2023 ; Add Vaccination	< (1 > Proof of Vaccination
: Lookup entre pry	COVID-19 Influenza Monkeypox Meningococcal disease Vaccinations Vaccination Sma IMVAMUNE BN	COVID-19 Vaccination Influenza Vaccination Monkeypox Vaccination Men-B	Standard   Standard   Standard   Standard	<ul> <li>Fully Va</li> <li>Not Star</li> <li>In Progr</li> </ul>	rted Au	bruary 21, 2	023 3:38 PM AST 23 9:39 PM ADT Date	Booster: Augur Influenza Recu Monkeypox Pri Meningitis Prin MADT PM AST	at 28, 2023 : rring: August 28, 2023 : mary (Dose 2): September nary: August 28, 2023 : Add Vaccination Forec	< (1 > Proof of Vaccination

# **Success Factors** Real-time, High Quality Data

# **Standardized & Integrated**

All clinics were mandated to use ClinicFlow and vaccine data was captured using standards from the Canadian Vaccine Catalogue. Data flows automatically into Panorama nightly.

# Comprehensive

Health status, demographic, and REI data captured and reviewed at every vaccination encounter.

# **Real-Time**

Province-wide view of booking and vaccination data supported real-time decision making regarding where to target new clinics and/or public health restrictions.

# **Core Principles**

# **Science-Driven Decision Making**

# Fairness and Equity

# Public Involvement

Transparency



# **Coherence and** Adaptability

# Consistent Reporting



# **The End; Now What?** Leveraging our Learnings from COVID-19

# 77

We must promise ourselves and our children and grandchildren, that we will never make those mistakes again.

- Tedros Adhanom Ghebreyesus, WHO Director-General We still have incredible challenges when it comes to our health-care system, particularly when it comes to primary health [...] vaccination infrastructure needs to be maintained in Canada for COVID and other viruses to prevent further burden on hospitals.

- Dr. Prabhat Jha, professor at U of T

Transparent public reporting using comparable data from modernized health systems will be an important improvement effort [for the health-care system].

Kathleen Morris, CIHI VP Research & Analysis

# Vaccine Landscape **Rapidly Expanding**

HOME | HEALTH | CORONAVIRUS

# What to know about EG.5, the latest **Omicron subvariant in Canada**

New subvariant predicted to be in 36 per cent of Canadian cases of COVID-19 in the past week

Politics

Braced for an increase in COVID cases, Health **Canada reviews 3 new vaccines** 



If authorized for use, new vaccine formulations will roll out this fall

John Paul Tasker · CBC News · Posted: Aug 28, 2023 4:43 PM EDT | Last Updated: August 28

Health

### Health Canada approves 1st RSV vaccine for people 60 and older



Future of Health

### **BioNTech, Roche's experimental** pancreatic cancer treatment wins Nature plaudit

Reuters



By Rachel Arthur 12-Apr-2023 - Last updated on 12-Apr-2023 at 10:44 GMT



Shot expected to be available in 'limited' amounts this year

Jennifer La Grassa · CBC · Posted: Aug 04, 2023 5:29 PM EDT | Last Updated: August 4

May 10, 2023 11:18 AM EDT · Updated 4 months ago

# Moderna announces new vaccine candidates against Lyme disease and



<

Aa

Д

# **Maintaining Trust**

# **Crucial for Future Success**

# **Engage Patients**

- Increase access and visibility to trusted sources of information.
- Decision-support tools for the public to allow them to make autonomous, informed decisions.
- Provide citizen access to their data.

# **Transparent Data**

- Build infrastructure to support pan-Canadian data collection and analysis.
- Implement data standards to enable pooled analysis.



# **Engaging Patients** CANImmunize







# Childhood Immunizations

# A Need to Catch Up

# nature

About the journal ~ Explore content ~ Publish with us ~

nature > news > article

**NEWS** 26 July 2022

# Pandemic drives largest drop in childhood vaccinations in 30 years

Subscribe

Last year alone, 25 million children missed out on immunizations against infections such as measles and polio, leading to avoidable outbreaks of disease.









### Local News

### **Dropping childhood immunization** rates are putting children at risk: **Dr. Vera Etches**

"The lack of protection with childhood vaccines is concerning."

**Elizabeth Payne** 

Published Sep 20, 2022 • 3 minute read

Calgary

### Health experts warn vaccine-preventable illnesses could rise in Alberta



Routine childhood vaccinations have dwindled during the pandemic

### Fewer Canadians believe in value of childhood vaccines, according to new global report

# **Supporting Programs** CANImmunize

Clinic Start Date 2023-08-01 Clinic Lead Name	Robin Woods Clinic Lead Email robin+edit@canimmunize.ca		
Q Search		Clinic Lead Phone (902) 555-4465	
Name	Parent/Guardian 💠 🐨 Last Email Sent 💠 Date Consent Complete		
Demo, New Incomplete Denize, Finch Reviewed	Yes 2023-07-18 10:06 AM 2023-07-18 10:23 AM	Required Forms	
Gordon, Hummingbird	Yes 2023-08-28 01:15 PM	Bily Cabernet	
MacDonald, Wren	Yes 2023-07-17 06:35 PM 2023-07-17 06:42 PM	School Immunization Consent Form	
MacPhee, Starling C	Yes 2023-07-17 06:36 PM	This consent form covers the Hepathia B Vaccine; Human Papil Vaccine; and Totanza; Diphtheria; and Acebular Pertussis (Glap privacy of your personal health information; in accordance with data is collected by Public Health and is used for reporting to as	) Vaccine. Nova Scotia Health is committed to pro the Personal Health Information Act. Aggregate i
Smith, Kiwi Birdie Reviewed	Yes 2023-08-28 01:16 PM	within Nova Scotia. • In Section 1, as sure to indicute whether your child has an if your child has ever received any of these vecches, be as This will help the nurse determine which vecches your child	n allergy or has had a reaction to a vaccine. ure to note the dates on which they received then
		Section 1: Student's Personal Information	
		First Name •	Last Name *
		Preferred Name	Pronoun
		Address	Postal Code
		Health Cord Number * 464511120	Date of Birth * 2010-09-09
ne ne ne ne ne ne ne ne		Parent / Guardian Name*	Parent / Guardian Email
		Bily Dad Cabernet	kathrys+1@casimmunize.ca
		Parent / Guardian Phone	Family Doctor's/Nurse Practitioner's Name



### ● ● ● ♥ Book a Pediatric Routine Immu × + ← → C ■ kcf.flow.canimmunize.ca/en/vaccinatean/

### Select Service(s) and Review Eligibility

Please enter the information for the person you are booking an appointment for, exactly as it appears on their health card. Changing the date of birth will process.

### Date of Birth:

Month		Day		Year
Select	~	Select	×	Select
Select	all the services you want to book an a	opointment for:		
~	Vaccine History Assessment			
~	2, 4, & 6 Months Routine Vaccination	3		
$\sim$	12, 15 & 18 Months Routine Vaccinat	ions		
$\sim$	4-6 Years Routine Vaccination			
$\sim$	Grade 7 School Vaccination			
$\sim$	14-16 Years Routine Vaccination			
$\sim$	COVID-19			
		Select add	itional service(s)	or press "Continue to Booking"
- /	h <del>n han har ha</del> r http://www.	<i>alter</i> aterater	· · · · · · · · ·	

Clinic )23 9:00 AM ) <b>  C</b>	<b>C</b> Refresh	
	March 3, 2021	
	2 years	
	Female 🔻	
eening	>	
2023 by Emily,	>	
2023 by Emily,	 >	
patient	 >	

# Summary

# "The best time to start was yesterday. The next best time is

**NOW.** - Unknown





# **Power in Partnerships**

Leverage the expertise of both government and private to build the health system we need.

# **Prioritize the Patient**

Empower them, with knowledge and their own data, to make their own decisions.

# **Reduce Barriers**

For providers and the public, giving time back for what matters most.

# **Real-Time Data**

Data is essential for mainitaing trust and making timely, informed decisions.

# Thank you! **Questions?**

kathryn@canimmunize.ca in katmmacdonald





