



**Working with Experts, Evidence and Technology to
Build Confidence in Vaccination:
the Immunize Canada Experience**

Conflict of Interest

Immunize Canada has received funding from the following organizations:

- Public Health Agency of Canada
- Merck Canada
- Sanofi Pasteur
- Novartis Canada
- GSK Canada
- Pfizer Canada

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Overview

- About Immunize Canada
- Why is our work important?
- Building confidence in vaccines via specific initiatives:
 - Knowledge translation of pain and fear management during vaccination
 - Using the ImmunizeCA app to broaden knowledge translation outreach
- Where are we heading?

About Immunize Canada

- Immunize Canada is a national coalition with a specific interest in promoting the understanding and use of vaccines as recommended by the National Advisory Committee on Immunization (NACI).
- Mission:
 - To contribute to the control/elimination/eradication of vaccine preventable diseases in Canada by increasing awareness of NACI recommended immunizations for all ages via education, promotion, advocacy and media relations.
- Mandate:
 - To be the go-to source of information for Canadians, public health and health care professionals (including immunizers) for information on immunizations (clearinghouse)
 - Remain a trustworthy and independent voice in support of immunization of children, adolescents, adults, and health professionals

Why is Our Work Important?

- Subpopulation of vaccine hesitant individuals who:
 - Don't trust government and manufacturers
 - Are misinformed
 - Misinterpret VPD risk
 - Question vaccine components and manufacturing processes
 - Base their vaccination decisions on the experience of others within their close circles
 - **Vaccinate 'a la carte'**

Public Health Agency of Canada. Best brains exchange: Achievement of optimal vaccine coverage rates in Canada: identifying and addressing the challenge of vaccine hesitancy. Ottawa, April 2015.

Noni E MacDonald, Jane C Finlay; Canadian Paediatric Society . Working with Vaccine Hesitant Parents. Paediatr Child Health 2013;18(5):265-7.

World Health Organization WHO. Report of the SAGE Working Group on Vaccine Hesitancy. 2014;

http://www.who.int/immunization/sage/meetings/2014/october/SAGE_working_group_revised_report_vaccine_hesitancy.pdf.

Initiatives that build confidence in vaccines

1. Knowledge translation of pain and fear management during vaccination

Why Address Pain and Fear During Vaccination?

- World Health Organization (WHO). Meeting of the Strategic Advisory Group of Experts on immunization, April 2015: conclusions and recommendations. Reducing pain and distress at the time of vaccination. [Wkly Epidemiol Rec \(WER\). 2015;90:269-71.](#)
- 2015 survey of Canadian HCPs by PHAC found that HCPs perceived pain to be ~ 21% of the time responsible for vaccine hesitancy in adults and children; while fear of needles rated at 48% for adults and 28% for children
- Taddio et al. (University of Toronto) found pain/fear is a barrier to vaccination with a prevalence of 10% in parents, 20% in children and 10% in adults (A. Taddio et al. Canadian Immunization Conference. 2014. Abstract.)

A. Taddio. Working pain and fear reducing interventions into routine immunizations: practice guidelines for clinicians. Public Health Physicians of Canada. Webinar May 26, 2015. Available at <http://nsscm.ca/page-1842040>

What Does the Evidence Tell Us?

- Less pain and less fear lead to a better vaccination experience, vaccination compliance and acceptance
- Effective, safe, and feasible procedural, pharmacological, physical, and psychological pain and fear relieving interventions are available

BUT

- Health care providers need to be informed/educated and accepting of change ie. to best practices
- General public needs to be educated and offered tools that they can use to prepare for vaccination day

KT Tools for Public & Professionals

- Immunize.ca web pages on pain for parents and clinicians
- Factsheets about pain during immunization for parents
- Factsheets on pain reducing strategies for clinicians
- Videos on YouTube Channel
- Social media

The image displays a collage of digital content related to immunization. At the top, a Twitter post from Immunize Canada (@immunizedCa) dated 8 Jan 2015, 7:45 AM, promotes a video contest to reduce vaccination pain in babies, with the hashtag #CIHR. The tweet includes a video thumbnail of Dr. Anna Taddio, Professor of Pharmacy at the University of Toronto. Below the tweet is a sign-up form for updates from Immunize Canada, with fields for Full name, Email, and Password, and a 'Sign up' button. To the right, a factsheet titled 'Reduce the Pain of Vaccination in Kids and Teens: A Guide for Parents' is shown, featuring sections on 'Plan ahead to reduce pain' and 'How to reduce pain'. At the bottom, there are more website snippets, including one titled 'How to help kids overcome the fear of needles - Today's Parent' and another from Immunize Canada stating 'Flu shot reduces risk of rare Guillain-Barré Syndrome in most cases, study finds'.

KT Impact

KT outreach

11,681 web page views (English & French); **~ 5,000 network dissemination**; **38,776 YouTube video views**

Research studies

1) BC Centre for Disease Control (Vancouver, British Columbia)

PHNs received KT interventions; results: overall use of one newly recommended pain strategy increased from 49.8% to 77.6%

2) St. Michael's Hospital outpatient clinic (Toronto, Ontario)

Intervention targeted to new parents ie. pamphlets, videos, posters and sucrose solution available on-site; results: significant use of pain materials in parents from outpatient clinics and prenatal classes.

2. Using the ImmunizeCA app to
broaden knowledge translation
outreach

Features

- A free bilingual (English & French) tool that provides **access to recommended and routine immunization schedules**
- Available on 3 user centric platforms: iOS, Android and BlackBerry
- Ability to **track received and upcoming recommended immunizations** with the capability of data migration
- Expert reviewed vaccination information

What it does NOT offer

- Ability to connect to a remote server (data for app users remain on their mobile devices)
- Access via the Internet (no web solution)
- Sharing between devices
- Access in various languages
- Adaptable schedules for individuals considered “off schedule” i.e. people with chronic conditions or on immunosuppressive therapy

Development

Dr Kumanan
Wilson
conceptualizes
app for Ontario

OHRI
launches
ImmunizeON

Release of
ImmunizeCA app

2012

November

2013

March 21, 2014

Collaboration
formed between
OHRI, CPHA &
Immunize Canada

Funding from
PHAC

First
Government
endorsed app

Impact

Reach

- 104,943 Canadian users

User characteristics

- 24 to 35 age group
- Average immunization profile (or records) stored in one app is 1-3
- App usage: average is “a few times” per year, which is consistent with immunization protocols and interventions
- Users download app to track their family’s immunizations (75%), monitor outbreaks (58%) and learn about vaccine safety (42%)
- Average session time 2:21 min; time on screen 34 sec; screens per session 4:53

Broadening of Outreach of Pain and Fear Management KT Tools

Example	Knowledge Translation tool (English only) Jan to Sept 2015	Target	Views
Example #1	Factsheet for parents: reducing pain during vaccination in babies <1 year at immunize.ca	Parents	2,300
Example #2	Pain management during vaccination for babies <1 year in app	Parents	8,100 ↑
Example #3	Factsheet for parents: reducing pain during vaccination in kids & teens at immunize.ca	Parents	2,100
Example #4	Pain management during vaccination for kids & teens year in app	Parents	5,200 ↑

Where Are We Heading?

- Partnering with researchers to generate new knowledge, for example:
 1. A. Taddio on studying impact of pain and fear interventions in 3042 post partum mothers at Mt. Sinai Hospital (Toronto, Canada)
 2. J. Isenor- Dalhousie University (IWK): Focus group on adult pain/fear management pamphlet (recruitment through pharmacies)
 3. Surveying Canadian grade 6 schools, specifically students, teachers and principals to gather their views/experience of pain during school vaccinations.
- Exploring novel KT activities for improving outreach ie. social media and gaming in order to educate about the importance of vaccines, adherence to recommended schedules and maintaining immunity throughout the life span

Thank You to Our Members

Association of Medical Microbiology and Infectious Disease Canada
Asthma Society of Canada
Canadian Center for Vaccinology
Canadian Diabetes Association
Canadian Geriatrics Society
Canadian Gerontological Nursing Association
Canadian Association of Paediatric Health Centres
Canadian Institute of Child Health
Canadian Lung Association
Canadian Medical Association
Canadian Nurses Association
Canadian Nursing Coalition for Immunization
Canadian Paediatric Society
Canadian Pharmacists Association
Canadian Public Health Association
College of Family Physicians of Canada
Infection Prevention and Control Canada

Council of Chief Medical Officers of Health
Heart and Stroke Foundation of Canada
March of Dimes Canada
Meningitis Research Foundation of Canada
Neighbourhood Pharmacy Association of Canada (formerly CACDS)
Public Health Physicians of Canada
Society of Obstetricians and Gynaecologists of Canada
Victorian Order of Nurses

Government members (non-voting):

Public Health Agency of Canada
Public Health Ontario
First Nations and Inuit Health Branch,
Health Canada

Sponsor members (non-voting):

GlaxoSmithKline Limited
Merck Canada Inc.
Novartis Pharmaceuticals Canada Inc.
Pfizer Canada
Sanofi Pasteur Limited



THANK YOU!

