IMPACT, Canada’s Immunization Monitoring Program ACTive, is a national surveillance initiative managed by the Canadian Paediatric Society (CPS) and carried out by the IMPACT network of infectious disease specialists and nurse monitors. Surveillance is supported primarily by the Public Health Agency of Canada (PHAC). The information collected complements existing national surveillance systems; supports public health action; informs policy dialogue with federal, provincial and territorial governments and other national stakeholders; and assists in meeting Canada’s international immunization commitments.

Please share this newsletter. You can also subscribe at www.cps.ca/en/impact.

SURVEILLANCE UPDATES

1. Since 2015, the IMPACT network has used the Brighton Collaboration definitions to assess the level of certainty for adverse events following immunization (AEFI) that have published case definitions such as thrombocytopenia, Guillain-Barré syndrome (GBS), encephalitis/myelitis/ADEM, aseptic meningitis, and generalized convulsion.

IMPACT was approached by the Coalition for Epidemic Preparedness and Innovation (CEPI) to conduct a qualitative assessment of the Safety Platform for Emergency vACCines (SPEAC) data abstraction forms and interpretation tools for determining level of certainty of several published case definitions. These forms will be used for COVID-19 vaccine safety monitoring.

The tools are specifically designed for medical chart review in hospital settings to collect the information needed to assess whether or not a case meets the applicable Brighton Collaboration case definition. They provide a data abstraction form for summarizing key historical, physical exam and investigation results. They also serve as a guide to determine values for each of the criteria and provides algorithms for use in determining the level of certainty. The tools have been developed but required assessment in terms of clarity, efficiency and validity. IMPACT conducted this assessment in spring 2021.

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SURVEILLANCE UPDATES (CONTINUED)

2. The Public Health Agency, through its COVID-19 Immunity Task Force (CITF) and Vaccine Surveillance Reference Group (VSRG) is supporting a new IMPACT study that will monitor the effects of COVID-19 infections, and the safety and effectiveness of COVID-19 vaccines in Canadian children and adolescents.

During the surveillance period, 12 IMPACT centres, in addition to a 13 pediatric tertiary care center (McMaster Children’s Hospital) will closely monitor hospital and emergency room visits to identify COVID-19 cases, and health events related to COVID-19 vaccination. Surveillance will include identifying cases of acute COVID-19, multisystem inflammatory syndrome in children (MIS-C), myocarditis/pericarditis as well as other AEFI symptoms monitored by IMPACT. The network will be ready to track the effectiveness of COVID-19 vaccines as they become available to the paediatric population.

PUBLICATIONS AND PRESENTATIONS

IMPACT is now in its 30th year of surveillance. The IMPACT team has produced an impressive list of peer-reviewed publications (75) and scientific presentations (137) presented nationally and internationally. The most up-to-date list is available at https://www.cps.ca/en/impact. Over the past 30 years, the team has also participated in many other knowledge translation activities that are not on the official list, including mentoring other international IMPACT-like groups.

Recent Publication

Recent Presentations


Kayur Mehta, MD, Shaun K. Morris, MD, MPH, Julie A Bettinger PhD, Wendy Vaudry, MD, Taj Jadavji, MD, Scott A. Halperin, MD, Christina Bancej, PhD, Manish Sadarangani, MD, PhD, Nandini Dendukuri, PhD and Jesse Papenburg, MD, MSc, for the Canadian Immunization Monitoring Program Active (IMPACT) Investigators. Antiviral use among Canadian children hospitalized for influenza 2010-2019. E-poster presentation at AMMI Canada-CACMID 2021 Annual Conference, April 25-30, 2021 (virtual conference). Poster presentation at the Pediatric Academic Societies (PAS) 2021 virtual meeting phase 1, on April 30-May 4, 2021. This E-poster was awarded the Canadian Association for Clinical Microbiology and Infectious Diseases (CACMID) Poster Award.

Damon Dhillon, Hana Mitchell, Ben Tan, Joanne Embree, Wendy Vaudry, Anita Li, Raymond Tsang, Shaun K. Morris, Laura Sauvé, Julie A. Bettinger, Scott Halperin, Manish Sadarangani for the members of IMPACT. Haemophilus Influenzae Clinical Features and Outcomes in Children in
PUBLICATIONS AND PRESENTATIONS (CONTINUED)


UPDATES

Canada Communicable Disease Report
The National Influenza Mid-Season Report for 2020-21

PHAC
The Flu Watch 2019-2020 annual web report (published online: March 25, 2021)

Welcome new team members

A warm welcome to the following new IMPACT team members:

- Kendrix Kek (research assistant at the data center)
- Dr. Fatima Kakkar as new co-investigator (CHU Sainte-Justine in Montreal)
- Dr. Rupesh Chawla as new co-investigator (Jim Pattison Children’s Hospital in Saskatoon)

With great appreciation to:

- Dr. Ben Tan, who was the lead investigator in Saskatoon since 1999 when our network expanded to a twelfth site. Dr B. Tan was also associated with IMPACT from 1991 as a field Epidemiologist at the Laboratory Center for Disease Control (LCDC) when IMPACT first begun. He was the data captain for 3 surveillance target working groups, namely varicella-zoster and *Haemophilus influenzae*, and contributed as well to the AEFI working group.
- Dr. Athena McConnell who served as an IMPACT co-investigator alongside Dr. Ben Tan.
- Debbie Coté who was the lead monitor in Winnipeg since 2006. Thank you for your dedicated work over the many years.
- Wendy Klassen and Nasrin Chowdhury for their contributions at the data center.

UPDATES (CONTINUED)

Influenza update

Flu watch provides Canadians with a weekly update on the status of the Canadian influenza season. The 2021-22 national influenza surveillance started on Sunday, August 29, 2021 and will end on Saturday, August 27, 2022


Immunization update

NACI (recommendations on the use of COVID-19 vaccines)


Canadian immunization guideline updates

Immunization of persons with chronic diseases - July 2021


Seasonal influenza vaccine


Dr. Ben Tan with current lead nurse monitor, Shauna Richards, and Chris Cadman (back-up monitor) who retired from IMPACT in 2020.
UPDATES (CONTINUED)

Centre site update
Kristal Sneesby (back-up monitor) has taken on the lead monitor role in Winnipeg (center 04) in July 2021.

Annual meetings
The next meeting of the IMPACT Investigators and Nurse Monitors will be combined and will take place virtually November 1, 2021.

RESOURCES

Canadian websites, recent updates and professional development opportunities


♦ Immunize Canada (all resources are available online, they will be kept free and can be printed for Promotional use): [www.immunize.ca](http://www.immunize.ca).

♦ Canadian Association for Immunization Research and Evaluation (CAIRE): [www.caire.ca](http://www.caire.ca)

♦ Canadian Immunization Research Network: [www.cirnetwork.ca](http://www.cirnetwork.ca)

♦ CANVax: [www.canvax.ca](http://www.canvax.ca) CANVax presents several podcasts featuring Canadian experts. These podcasts offer various perspectives about emerging issues in immunization and the initiatives that aim to combat them.

♦ The Can Immunize App has many resources available to help you track and give you further information: [www.canimmunize.ca/en/home](http://www.canimmunize.ca/en/home).

Canadian Paediatric Society


♦ Canadian Paediatric Surveillance Program (CPSP): [www.cpsp.cps.ca](http://www.cpsp.cps.ca)

♦ From April 1, 2020 to May 31, 2021, the CPSP collected weekly data on children hospitalized with COVID-19, non-hospitalized children who have tested positive for COVID-19 and have chronic co-morbid conditions and hospitalized patients with paediatric inflammatory multisystem syndrome/Kawasaki Disease temporally associated with COVID-19. The principal investigators are Dr. Shaun Morris, Dr. Fatima Kakkar and Dr. Charlotte Moore Hepburn. The protocol, case definition and questionnaire are available on the CPSP website.


♦ Canadian Paediatric Society (CPS): [www.cps.ca](http://www.cps.ca)


♦ CPS 100th year Anniversary - Annual Conference will be held in Montreal QC on May 26-28, 2022.

♦ Education Program for Immunization Competencies (EPIC) (3rd edition) is now available on the CPS website. This course was revised and redesigned to help health care professional provide accurate and complete information on immunization.

RESOURCES (CONTINUED)

International

♦ United States: Centers for Disease Control and Prevention [www.cdc.gov/vaccines/index.html]
♦ Immunization Action Coalition: [www.immunize.org]
♦ World Health Organization:
  ◦ [http://gvsi-aefi-tools.org/new/]
  ◦ [https://vaccine-safety-training.org/investigation/]
♦ Australia:
  ◦ National Centre for Immunization Research and Surveillance: [www.ncirs.edu.au/]
  ◦ The Paediatric Enhanced Disease Surveillance (PAEDS): [www.paeds.edu.au/]

Funding

IMPACT is a surveillance program conducted by the Canadian Immunization Monitoring Program Active (IMPACT) network of paediatric investigators and managed by the Canadian Paediatric Society (CPS). CPS receives ongoing funding from the Public Health Agency of Canada’s (PHAC’s) Centre for Immunization and Respiratory Infectious Diseases (CIRID).

In 2020, funding to conduct meningococcal surveillance was provided through unrestricted grants by GlaxoSmithKline Biologicals SA and Pfizer Canada Inc.

CURRENT TEAM CONTACTS

<table>
<thead>
<tr>
<th>Centre</th>
<th>Lead/Backup Nurse Monitors</th>
<th>Investigators/Co-Investigators</th>
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<tbody>
<tr>
<td>IWK Health Centre</td>
<td>Andrea Hudgin/Karen Branscombe</td>
<td>Dr. Karina Top</td>
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<td>Halifax, N.S.</td>
<td>Trish Smith/Heather Samson</td>
<td>Dr. Scott Halperin (Network Co-PI)</td>
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<td>Le Centre Mère-Enfant Soleil</td>
<td>Lynn Poirier/Marie-France Nolin</td>
<td>Dr. Roseline Thibeault</td>
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<td>Québec City, Que.</td>
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<td>The Hospital for Sick Children</td>
<td>Suganya Lee/Kim Simpson</td>
<td>Dr. Shaun Morris</td>
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<tr>
<td>Toronto, Ont.</td>
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<td>Health Sciences Centre</td>
<td>Kristal Sneesby</td>
<td>Dr. Joanne Embree</td>
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<td>Winnipeg, Man.</td>
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<td>B.C. Children’s Hospital</td>
<td>Ivor Chee/Jasmine Wong</td>
<td>Dr. Manish Sadarangani (Network Co-PI)</td>
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<tr>
<td>Vancouver, B.C.</td>
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<td>Dr. Laura Sauvé (Co-Inv)</td>
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<td>Children’s Hospital of Eastern</td>
<td>Chantal Bergeron/Jennifer Bowes</td>
<td>Dr. Nicole Le Saux</td>
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<td>Ontario</td>
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<td>Ottawa, Ont.</td>
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<td>Alberta Children’s Hospital</td>
<td>Shannon Pyra/Eileen Pyra</td>
<td>Dr. Taj Jadavji</td>
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<tr>
<td>Calgary, Alta.</td>
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<td>Dr. Cora Constantinescu (Co-Inv)</td>
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<tr>
<td>The Montreal Children’s Hospital</td>
<td>Lorraine Piché/Diane Delli Colli</td>
<td>Dr. Jesse Papenburg</td>
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<td>Montreal, Que.</td>
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<td>Eastern Health Janeway</td>
<td>Debbie Harnum/Krista Rideout</td>
<td>Dr. Cheryl Foo</td>
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<tr>
<td>St. John’s, NL</td>
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<td>Dr. Natalie Bridger (Co-Inv)</td>
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<tr>
<td>CHU Sainte-Justine Montreal, Que.</td>
<td>Sophie Bouchard/Lise-Angela Ouellet</td>
<td>Dr. Marc Lebel</td>
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<td>Dr. Fatima Kakkar (Co-Inv)</td>
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<tr>
<td>Stollery Children’s Hospital</td>
<td>Barb Neufeld/Chris Bon</td>
<td>Dr. Wendy Vaudry</td>
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<tr>
<td>Edmonton, Alta.</td>
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<td>Dr. Catherine Burton (Co-Inv)</td>
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<tr>
<td>Jim Pattison Children’s Hospital</td>
<td>Shauna Richards</td>
<td>Dr. Rupeena Purewal</td>
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<tr>
<td>Saskatoon, Sask.</td>
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<td>Dr. Rupesh Chawla (Co-Inv)</td>
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<tr>
<td>McMaster Children’s Hospital</td>
<td>Anna Adamowicz</td>
<td>Dr. Jeffrey Pernica</td>
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<td>Hamilton, Ont. (meningococcal surveillance</td>
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<td>and COVID/MIS-C surveillance)</td>
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Other contacts:

Public Health Agency of Canada (PHAC): Susanna Ogunnaike-Cooke (Acting Executive Director, Vaccine Safety Division); Dorcas Taylor (Acting Director, Vaccine and Immunization Program Surveillance and Epidemiology Division); Christina Bancej (Manager, Influenza and Emerging Respiratory Infections Section); Susan Squires (Acting Chief, Vaccine-Preventable Diseases).

Canadian Paediatric Society (CPS): Marie Adèle Davis (Executive Director); Melanie Laffin Thibodeau (Manager, Surveillance); Bonnie Sowiak (Finance Director); Melanie King (Surveillance coordinator, newsletter formatting).

IMPACT Data Centre: Dr. Julie Bettinger (Epidemiologist & Data Centre Chief); Kim Marty (Data Manager); Jennifer Mark (Data Research Assistant); Kelly Simmons (Data Scrutineer); Lizi Bonifacio and Kendrix Kek (Data Research Assistants); Mistin Wilkinson (Administrative Assistant).

McGill University Vaccine Study Centre: Annick Audet (IMPACT Nurse Monitor Liaison)

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Traduction Le bout de la langue, inc.: Dominique Paré (French translator)