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 update

During the first year of our Respiratory Syncytial Virus (RSV) surveillance, over 2,000 RSV hospitalized cases were identified by our IMPACT centers between November 1, 2017 and June 30, 2018. A second year of RSV surveillance will be conducted by our network to better assess the high variability that can be seen in RSV seasons and to gain a better understanding of RSV burden and severity. The data generated from this study will inform the National Advisory Committee on Immunization regarding the burden of RSV for future recommendations on RSV vaccines.

Publications and presentations

The current listing of IMPACT publications and presentations can be accessed at www.cps.ca/en/impact

IMPACT is now entering its 27th year of surveillance and there have been over 70 publications and 125 scientific presentations presented around the world.
**IMPACT pneumococcal data presented at the International Symposium on Pneumococci and Pneumococcal Diseases** (written by Julie Bettinger)

In April 2018, Dr. Manish Sadarangani and I presented IMPACT pneumococcal surveillance data at the International Symposium on Pneumococci and Pneumococcal Diseases (ISPPD). This biennial meeting took place in Melbourne, Australia this year and showcased all the latest research from the field. It was inspiring to see the depth and breadth of pneumococcal research going on around the world. Manish and I had the opportunity to attend pre-conference workshops on genomic testing and time-series analysis, both subjects highly relevant to IMPACT’s pneumococcal data and isolate collection. The IMPACT data were well received. I presented 26 years of pneumococcal epidemiology in Canada at an oral abstract session and Manish presented health outcomes of the IPD cases in a poster session. I noticed IMPACT had one of the largest and most comprehensive collections of cases and isolates at the conference. The next ISPPD conference is in Toronto in June 2020, so mark your calendars.

After the conference, I was invited to speak at the National Centre for Immunisation Research & Surveillance (NCIRS), an Australian research organization that provides independent expert advice on all aspects of vaccine preventable diseases and social and other issues related to immunization to inform policy and planning for immunization services in Australia (see http://www.ncirs.edu.au/). They run a hospital based surveillance system similar to IMPACT (called PAEDS- Paediatric Enhanced Disease Surveillance) and were very interested to learn more about IMPACT in general and our influenza surveillance in particular. I spent an engaging day meeting with their researchers and exchanging knowledge and ideas with Drs. Kristine Macartney, Frank Beard, Aditi Dey, Julie Leach and others. It was helpful to learn what our colleagues “down under” are doing around vaccine preventable disease surveillance and to compare similarities and differences between our two countries. I am hopeful the exchange will lead to increased collaboration between our networks.
Julie A. Bettinger, Manish Sadarangani, Shaun K. Morris, James D. Kellner, Nicole Le Saux, Joanne Embree, Otto G. Vanderkooi, Irene Martin, Walter Demczuk, Gregory J. Tyrrell, Wendy Vaudry and Scott A. Halperin on behalf of the members of the Canadian Immunization Monitoring Program, Active. **Twenty-Six years of Invasive Pneumococcal Disease in Canadian Children, 1991-2016, the Canadian Immunization Monitoring Program, Active.** Oral presentation at the 11th International Symposium on Pneumococci and Pneumococcal Diseases, Melbourne, Australia, April 1-19, 2018. This will also be presented at the Canadian Immunization Conference (CIC) being held in Ottawa this December.


Joanne McNair, BSc Pharm; Alyssa Smith, MD; Julie A. Bettinger, PhD, MPH; Wendy Vaudry, MD; Ben Tan, MD; Shalini Desai, MD, MSc, Scott A. Halperin, MD; Karina A. Top, MD, MS for the Canadian Immunization Monitoring Program Active (IMPACT) Investigators. **Invasive Haemophilus influenzae type b (Hib) infections in children with cancer in the era of infant Hib immunization programs (1991–2014): A report from the Canadian Immunization Monitoring Program Active.** The Pediatric Infectious Disease Journal: July 2018.


Ben Tan, Julie A. Bettinger, Athena McConnell, Roseline Thibeault, Taj Jadavij, Francesca Reyes Domingo, Heather Samson, Alberto Severini, Wendy Vaudry, Scott A. Halperin, for the members of IMPACT, Surveillance and Epidemiology Division, National Microbiology Laboratory. **Varicella hospitalizations in IMPACT (Immunization Monitoring Program, Active) centers after introduction of 1- and 2-dose varicella vaccination programs between 2000 and 2015.** Poster presentation at the 95th Canadian Paediatric Society Annual Conference, May 30-June 2, 2018, Quebec City, Quebec. This will also be presented at the 2018 Canadian Immunization Conference in December.

Julie A. Bettinger, Manish Sadarangani, Shaun K. Morris, Nicole Le Saux, Karina A. Top, Wendy Vaudry, Scott A. Halperin and Raymond Tsang on behalf of the members of the Canadian Immunization Monitoring Program, Active (IMPACT). **The effect of quadrivalent vaccination program in Canada.** Poster at the International Pathogenic Neisseria Conference (IPNC) Asilomar, USA September 23-28, 2018. This will also be presented at the 2018 Canadian Immunization Conference in Ottawa this December.
Manish Sadarangani, Morris Shaun K. Morris, Nicole Le Saux, Karina A. Top, Wendy Vaudry, Scott A. Halperin, Julie A. Bettinger, Raymond Tsang; for members of the Canadian Immunization Monitoring Program Active (IMPACT). **Molecular epidemiology of *Neisseria meningitidis* in children and adults with invasive meningococcal disease in Canada between 2002 and 2017.** Poster at the International Pathogenic Neisseria Conference (IPNC) Asilomar, USA September 23-28, 2018. This will also be presented at the 2018 Canadian Immunization Conference in December.

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**Canada Communicable Disease Report updates**

**Vaccine safety surveillance in Canada: Reports to CAEFISS 2013-2016:**

**Influenza updates**

1) **Statement on influenza vaccine 2018-2019**

2) **Flu watch provides Canadians with a weekly update on the status of the Canadian influenza season.**
   The 2018-2019 season started on Sunday, August 26, 2018

3) **Flu prevention week: October 29-November 2 (Immunize Canada site, [https://immunize.ca/](https://immunize.ca/))**

4) **Pocket guide for health care providers**

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**Canadian Paediatric updates**

Recent CPS position statement on potential strategies to improve childhood immunization rates in Canada.

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**Welcome to new team members**

A warm welcome to the following new IMPACT team members:

- Dr Cheryl Foo, co-investigator at the Eastern Health Janeway Children’s Hospital
- Diane Delli Colli, new back-up monitor at the Montreal Children’s Hospital
- Ivor Chee, nurse monitor at BC Children’s Hospital taking over from Karen Kroeker who retired over the summer. Karen Kroeker was the lead monitor from 2005 to 2018.
- Jasmine Wong, new back-up monitor at BC Children’s Hospital

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Canadian websites and recent updates

- Canadian Paediatric Society (CPS): [www.cps.ca](http://www.cps.ca)
- Canadian Paediatric Surveillance Program (CPSP): [www.cpsp.cps.ca](http://www.cpsp.cps.ca)
- Immunize Canada: [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)

International

- Centers for Disease Control and Prevention [www.cdc.gov/vaccines/index.html](http://www.cdc.gov/vaccines/index.html)
- Immunization Action Coalition: [www.immunize.org](http://www.immunize.org)
- Global Alliance for Vaccines and Immunization [www.gavi.org](http://www.gavi.org)

Professional Development

The Canadian Paediatric Society (CPS) is pleased to announce that an updated Education Program for Immunization Competencies (EPIC) will be launched at the 2018 Canadian Immunization Conference (CIC) in Ottawa on December 4-6. This 14-module program will provide an in depth review of the immunization competencies for health professionals. You can register at [www.cps.ca/en/epic-pfci](http://www.cps.ca/en/epic-pfci).

The CPS will also be hosting a pre-conference workshop on December 3 entitled *Moving to acceptance: How to address vaccine hesitancy in your busy practice*. This one-day course meant for frontline immunization providers will enable you to earn up to 8.0 credits towards your maintenance of certification (MOC). For more information, visit [https://cic-cci.ca/program/pre-conference-vaccine-hesitancy/](https://cic-cci.ca/program/pre-conference-vaccine-hesitancy/)
## Current IMPACT team contacts

<table>
<thead>
<tr>
<th>Centre</th>
<th>Lead/Backup Nurse Monitor</th>
<th>Investigator</th>
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| IWK Health Centre, Halifax, N.S.                           | Andrea Hudgin/Karen Branscombe  
Trish Smith                                              | Dr. Karina Top  
Dr. Scott Halperin (Network Co-PI)                                      |
| Le Centre Mère-Enfant Soleil, Québec City, Que.            | Lynn Poirier/Marie-France Nolin                   | Dr. Roseline Thibeault                                                      |
| The Hospital for Sick Children, Toronto, Ont.              | Suganya Lee/Kim Simpson                            | Dr. Shaun Morris                                                            |
| Health Sciences Centre, Winnipeg, Man.                     | Debbie Coté/Michelle Breton                        | Dr. Joanne Embree                                                           |
| B.C. Children’s Hospital, Vancouver, B.C.                  | Ivor Chee/Jasmine Wong                             | Dr. Manish Sadarangani  
Dr. Laura Sauvé (Co-Inv)                                                    |
| Children’s Hospital of Eastern Ontario, Ottawa, Ont.       | Chantal Bergeron/Jennifer Bowes                    | Dr. Nicole Le Saux                                                          |
| Alberta Children’s Hospital, Calgary, Alta.                | Shannon Pyra/Eileen Pyra                           | Dr. Taj Jadavji  
Dr. Rupesh Chawla (Co-Inv)                                                   |
| The Montreal Children’s Hospital, Montreal, Que.           | Lorraine Piché/Diane Delli Colli                   | Dr. Jesse Papenburg                                                        |
| Eastern Health Janeway, St. John’s, NL                      | Debbie Harnum/Krista Rideout                       | Dr. Natalie Bridger  
Dr. Cheryl Foo (Co-Inv)                                                      |
| CHU Sainte-Justine, Montreal, Que.                         | Sophie Bouchard/Marie-Hélène Lavergne              | Dr. Marc Lebel                                                              |
| Stollery Children’s Hospital, Edmonton, Alta.              | Barb Neufeld/Chris Bon                             | Dr. Wendy Vaudry (Network Co-PI)                                            |
| Royal University Hospital, Saskatoon, Sask.                 | Chris Cadman/Brenda Andreychuk                     | Dr. Ben Tan (Lead)  
Dr. Athena McConnell (Co-Inv)                                                 |

### Other contacts:

**Public Health Agency of Canada (PHAC)**
Jennifer Pennock (Director, Vaccine and Immunization Program Surveillance Division); Kerri Watkins (Acting Manager, Vaccine Safety);  
Christina Bancej (Chief, Influenza and Emerging Respiratory Pathogens); Susan Squires  
(Acting Chief, Vaccine-Preventable Diseases)

**Canadian Paediatric Society (CPS):** Marie Adèle Davis (Executive Director);  
Melanie Laffin Thibodeau (Manager, Surveillance)

**IMPACT Data Centre:** Dr. Julie Bettinger (Epidemiologist & Data Centre Chief);  
Kim Marty (Data Manager); Jennifer Mark (Data Research Assistant); Sarah McCann (Data Nurse Scrutineer)

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

*To connect with an IMPACT centre please contact Annick Audet by email at [Annick.Audet@MUHC.MCGILL.CA](mailto:Annick.Audet@MUHC.MCGILL.CA)*

**Canadian Center for Vaccinology (CCfV):** Natalie Giorgis (newsletter formatting)

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