

SPRING 2025 NEWSLETTER

Happy #NationalImmunizationAwarenessWeek (NIAW)!

As spring brings new beginnings, it's also a time to reflect on the past and look ahead to a healthier future. In this edition, we're sharing our latest updates in immunization research, recent publications, and community resources—because staying informed today helps protect us for generations to come.



Don't let history repeat itself.

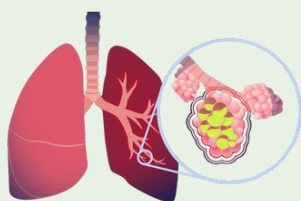
National Immunization Awareness Week

April 21-April 30, 2025

Protect your future. Get immunized.

STUDY UPDATES

Pneumococcal disease in Canada & Development of New Vaccines



Even with the use of pneumococcal vaccines in children's immunization programs, **invasive pneumococcal disease (IPD)** remains a significant issue. IPD can cause severe complications, like meningitis, blood infections, and pneumonia.

[This study](#) looks at how the disease has changed in Canada since the introduction of different **pneumococcal conjugate vaccines (PCVs)** from 2000-2019, and the impact of newer PCVs and the potential impact of protein-based vaccines.

Findings include:

- Targeted vaccines, such as PCV7 and PCV13, target different IPD serotypes (different versions of the bacteria) and have helped reduce IPD in both children and adults. However, IPD serotypes that are not covered by vaccines continue to increase.
- Though newer vaccines (PCV15, PCV20, PCV21) can help combat current serotypes, broader vaccine coverage is still needed.

[AVENGER](#), an **RNA vaccine development platform at UBC**, uses lipid nanoparticles to respond to our emerging need for new vaccines. AVENGER is building infrastructure to create a vaccine pipeline that can bring vaccines to patients **within 100 days**. The AVENGER team, including VEC's director, **Dr. Manish Sadarangani**, will allow for vaccine formulations that can be **custom designed and rapidly deployed** against diseases like IPD.



Optimizing Pertussis (Whooping Cough) Immunization in Pregnancy

- **Whooping cough**, a serious lung infection, is especially dangerous for newborns and young infants. [This study](#) aims to find the **best schedule for pertussis vaccinations in pregnant women and their babies**.
- Despite effective vaccines, **whooping cough cases have risen** in Canada recently.
- Previous research showed that vaccinating pregnant women against pertussis can reduce their infants' immune response to pertussis vaccine.
- Scientists have used mathematical models to test many potential vaccination schedules to find the best timing for pertussis vaccines during pregnancy and infancy. The model suggests that giving the vaccine earlier in pregnancy, and later to infants, may result in better protection.
- **This pre-clinical study will compare the immune responses to the new schedule and the standard schedule** by measuring antibodies. Results from this study will help inform future clinical trials to improve the vaccine's effectiveness in mothers and their babies.



Optimizing Vaccine Uptake after Pediatric Organ Transplant (SOT)

Why are we doing this study?

- **Pediatric SOT recipients are at an increased risk of infection** due to the need for life-long immunosuppression
- Data suggests **pediatric SOT recipients may be under-vaccinated**
- This study will help us **improve how we communicate about vaccines** in transplant clinics

What we're doing

In collaboration with **patient and family partners**, we have developed interview questions to help us **explore perspectives on vaccinations among SOT recipients and their caregivers** in BC, Alberta, & Saskatchewan.

10 Caregivers
4 Adolescents
successfully interviewed,
enrolment is now closed.

Data analysis has begun... **stay tuned!**

Read more about our studies [here](#).

Canadian National Vaccine Safety Network (CANVAS)

- The **CANVAS Network** is a national platform that **monitors vaccine safety**. The current CANVAS study collected survey responses from fall 2024 to early 2025, enrolling 1,200,000 individuals at multiple sites across Canada.
- Here in BC, we invited **approximately 400,000 individuals**. Of those invited, we enrolled 100,000.
- Our study **compares results for individuals who received vaccinations against COVID-19, flu, or both simultaneously**. Our BC team conducted ~750 follow-up calls to gather further information post-vaccination.
- The CANVAS Network has undergone many updates to **our website**, please visit <https://canvas-network.ca> to find out more about this study and our other projects! Further analysis and publication of results is upcoming.

LIVE results
from our
COVID/Flu
dashboard

Total persons enrolled in study:	1217850	
Surveys completed:	1st Survey surveys completed 273178	2nd Survey surveys completed 45280
People experiencing local reaction:		
 47.4% Injection site pain/swelling/redness		

FEATURED PUBLICATIONS

- Ramos, B., Vadlamudi, N. K., Han, C., & Sadarangani, M. (2025). [Future immunisation strategies to prevent Streptococcus pneumoniae infections in children and adults](#). In *The Lancet Infectious Diseases*.
- Meesters, K., Sadarangani, M., Clark, S. A., Borrow, R., Tsang, R. S. W., Le Saux, N., Halperin, S. A., Jadavji, T., Morris, S. K., Bettinger, J. A., & IMPACT members. (2025). [Characterization of Canadian Neisseria meningitidis serogroup B isolates and factor-H binding protein expression, data from the Canadian Immunization Monitoring Program Active \(IMPACT\), 2013-2020](#). In *Vaccine*.
- Top, K. A., Shulha, H. P., Hassan, F., Sauvé, L., Jadavji, T., Purewal, R., Constantinescu, C., Sadarangani, M., Halperin, S. A., Morris, S. K., Bettinger, J. A., & IMPACT investigators. (2025). [Epidemiology of febrile seizures during the COVID-19 pandemic: A Canadian Immunization Monitoring Program-Active \(IMPACT\) study](#). In *The Pediatric Infectious Disease Journal*.
- Carter, J. J., Smith, R. A., Scherer, E. M., Skibinski, D. A. G., Sankaranarayanan, S., Luxembourg, A., Kollmann, T., Marty, K. D., Sadarangani, M., Dobson, S., & Galloway, D. A. (2025). [Term immune memory responses to human papillomavirus \(HPV\) vaccination following 2 versus 3 doses of HPV vaccine](#). In *Vaccine*.

See more of our publications [here](#).

COMMUNITY RESOURCES

[BCCH Immunization Clinic](#)

BC Children's Hospital Family Immunization Clinic provides all publicly funded immunizations to patients at BC Children's and their friends/family.

[Immunization Schedules](#)

The immunization schedule by ImmunizeBC lists the **vaccines recommended** for infants, children, teens and adults and **when it is best to get these vaccines**.

[HPV Vaccine Education Q&A](#)

VEC's Dr. Hana Mitchell answers a Q&A and discusses her recent research on **how school-based immunization programs in BC can support vaccine education among youth**.

[Vaccine Misinformation](#)

The VEC collaborated with Health Quality BC to develop 6 key questions to help families assess vaccine information. Please see [this poster](#) on **learning to spot vaccine misinformation, keep your child safe**.

STAY CONNECTED

...with the Vaccine Evaluation Center on [Instagram](#) and [Facebook](#)!

Follow along for more study updates, exciting news, and behind-the-scenes content you won't want to miss.

