

COVID-19
Community of
Practice for Ontario
Family Physicians

October 8, 2021

**Dr. Allison McGeer
Dr. Jeff Kwong
Dr. David Kaplan
Dr. Liz Muggah**



Changing the Way We Work

**Flu shots, managing ILI, COVID vaccine
boosters, and more**



Family & Community Medicine
UNIVERSITY OF TORONTO

Ontario College of
Family Physicians



Flu shots, managing ILI, COVID vaccine boosters, and more

Moderator: Dr. Tara Kiran

Fidani Chair, Improvement and Innovation

Department of Family and Community Medicine, University of Toronto

Panelists:

- Dr. Allison McGeer, Toronto, ON
- Dr. Jeff Kwong, Toronto, ON
- Dr. David Kaplan, Toronto, ON
- Dr. Liz Muggah, Ottawa, ON

This one-credit-per-hour Group Learning program has been certified by the College of Family Physicians of Canada and the Ontario Chapter for up to 1 Mainpro+ credits.

The COVID-19 Community of Practice for Ontario Family Physician includes a series of planned webinars. Each session is worth 1 Mainpro+ credits, for up to a total of 26 credits.

Land Acknowledgement

We acknowledge that the lands on which we are hosting this meeting include the traditional territories of many nations.

The OCFP and DFCM recognize that the many injustices experienced by the Indigenous Peoples of what we now call Canada continue to affect their health and well-being. The OCFP and DFCM respect that Indigenous people have rich cultural and traditional practices that have been known to improve health outcomes.

I invite all of us to reflect on the territories you are calling in from as we commit ourselves to gaining knowledge; forging a new, culturally safe relationship; and contributing to reconciliation.



Opinion

Sep 30, 2021 by Suzanne Shoush

On this Orange Shirt Day, don't nitpick the facts. Accept the outrage and anger.

2 Comments

Share on:



AUTHORS



Suzanne Shoush
Contributor

To make donations please consider:

- Toronto Council Fire
- Call Auntie Network, Seventh Generation Midwives of Toronto
- Toronto Indigenous Harm Reduction
- Thunder Women's Healing Lodge
- Native Women's Cultural Centre
- Nameres
- Auduzhe Mino Nesewinong
- Well Living House

<https://healthydebate.ca/2021/09/topic/orange-shirt-day-nitpick-the-facts/>

Changing the way we work

A community of practice for family physicians during COVID-19

At the conclusion of this series participants will be able to:

- Identify the current best practices for delivery of primary care within the context of COVID-19 and how to incorporate into practice.
- Describe point-of-care resources and tools available to guide decision making and plan of care.
- Connect with a community of family physicians to identify practical solutions for their primary care practice under current conditions.

Disclosure of Financial Support

This CPD program has received in-kind support from the Ontario College of Family Physicians and the Department of Family and Community Medicine, University of Toronto in the form of logistical and promotional support.

Potential for conflict(s) of interest:

N/A

Mitigating Potential Bias

- The Scientific Planning Committee has full control over the choice of topics/speakers.
- Content has been developed according to the standards and expectations of the Mainpro+ certification program.
- The program content was reviewed by a three-member national/scientific planning committee.

Planning Committee: Dr. Tara Kiran, Patricia O'Brien (DCFM), Susan Taylor (OCFP) and Mina Viscardi-Johnson (OCFP), Liz Muggah (OCFP)

Previous webinars & related resources:

<https://www.dfcem.utoronto.ca/covid-19-community-practice/past-sessions>



Dr. Allison McGeer – Panelist

Infectious Disease Specialist, Mount Sinai Hospital



Dr. Jeff Kwong– Panelist

Twitter: @DrJeffKwong

Epidemiologist, Family Physician, Toronto Western Family Health Team



Dr. David Kaplan – Panelist

Twitter: @davidkaplanmd

Family Physician, North York Family Health Team and Chief, Clinical Quality, Ontario Health - Quality



Dr. Liz Muggah – Co-Host

Twitter: @OCFP_President

OCFP President, Family Physician, Bruyère Family Health Team

Speaker Disclosure

- Faculty Name: **Dr. Allison McGeer**
- Relationships with financial sponsors: Novavax, Medicago, Sanofi-Pasteur, GSK, Merck
 - Grants/Research Support: Sanofi-Pasteur, Pfizer
 - Speakers Bureau/Honoraria: Moderna, Pfizer, AstraZeneca, Novavax, Medicago, Sanofi-Pasteur, GSK, Merck
 - Others: N/A
- Faculty Name: **Dr. Jeff Kwong**
- Relationships with financial sponsors: ICES; Public Health Ontario; DFCM, University of Toronto;
 - Grants/Research Support: CIHR; Health Canada; US Centres for Disease Control and Prevention
 - Speakers Bureau/Honoraria: Ontario College of Family Physicians
 - Others: N/A
- Faculty Name: **Dr. David Kaplan**
- Relationships with financial sponsors:
 - Grants/Research Support: N/A
 - Speakers Bureau/Honoraria: Ontario College of Family Physicians
 - Others: Ontario Health (employee)

Speaker Disclosure

- Faculty Name: **Dr. Liz Muggah**
- Relationships with financial sponsors:
 - Grants/Research Support: N/A
 - Speakers Bureau/Honoraria: Ontario College of Family Physicians
 - Others: N/A

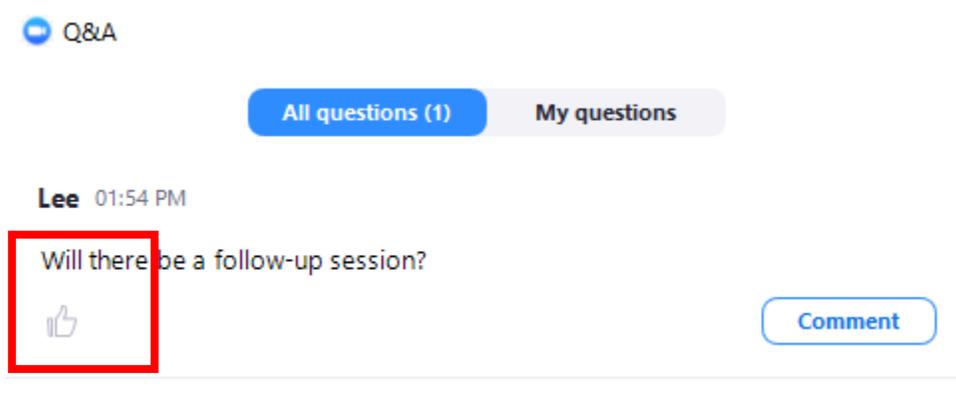
- Faculty Name: **Dr. Tara Kiran**
- Relationships with financial sponsors:
 - Grants/Research Support: St. Michael's Hospital, University of Toronto, Health Quality Ontario, Canadian Institute for Health Research, Toronto Central LHIN, Toronto Central Regional Cancer Program, Gilead Sciences Inc.
 - Speakers Bureau/Honoraria: Ontario College of Family Physicians, Ontario Medical Association, Doctors of BC, Nova Scotia Health Authority, Osgoode Hall Law School, Centre for Quality Improvement and Patient Safety
 - Others: N/A

How to Participate

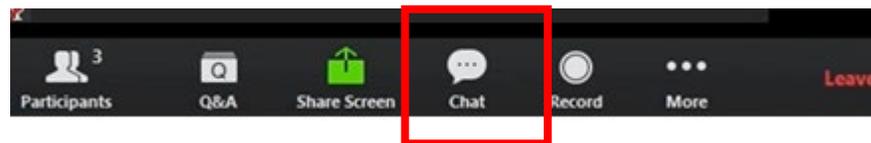
- All questions should be asked using the Q&A function at the bottom of your screen.



- Press the thumbs up button to upvote another guests questions. Upvote a question if you want to ask a similar question or want to see a guest's question go to the top and catch the panels attention.



- Please use the chat box for networking purposes only.





Dr. Allison McGeer – Panelist

Infectious Disease Specialist, Mount Sinai Hospital



Dr. Jeff Kwong – Panelist

Twitter: @DrJeffKwong

Epidemiologist, Family Physician, Toronto Western Family Health Team



Dr. David Kaplan – Panelist

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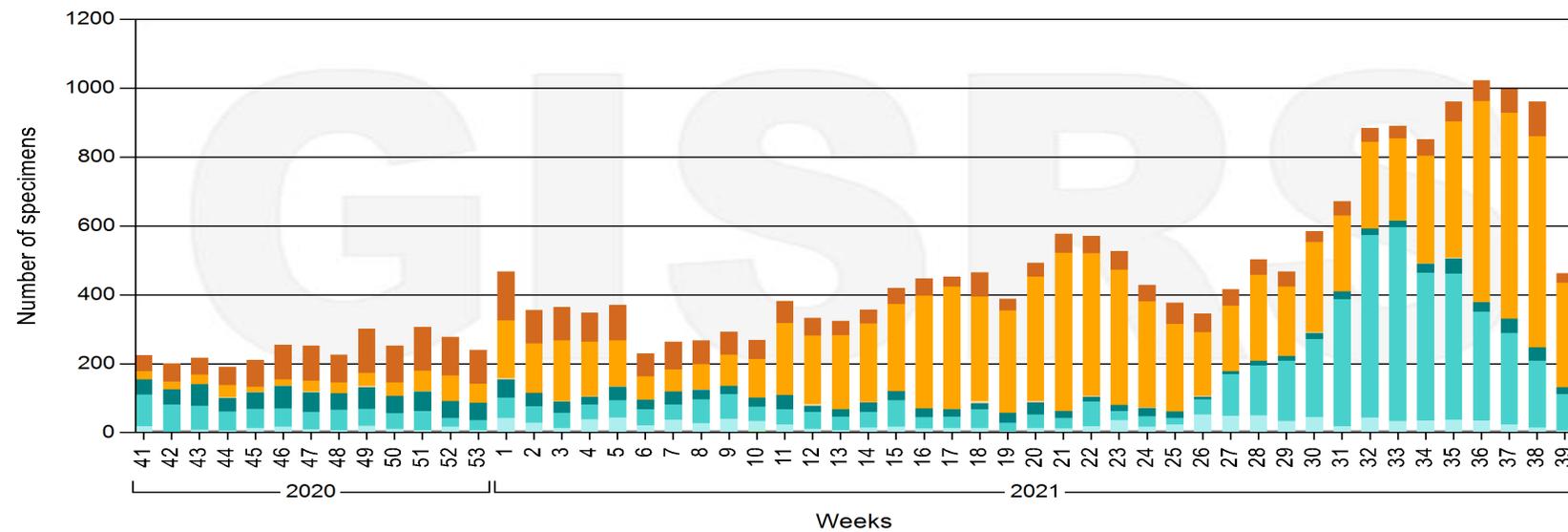
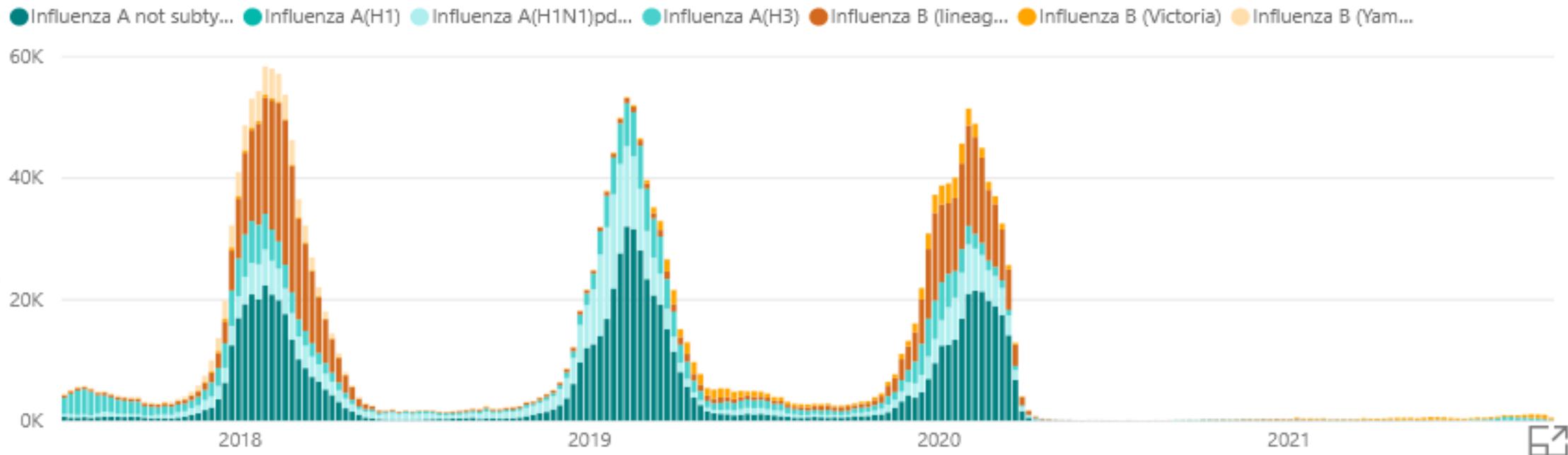


Dr. Liz Muggah – Co-Host

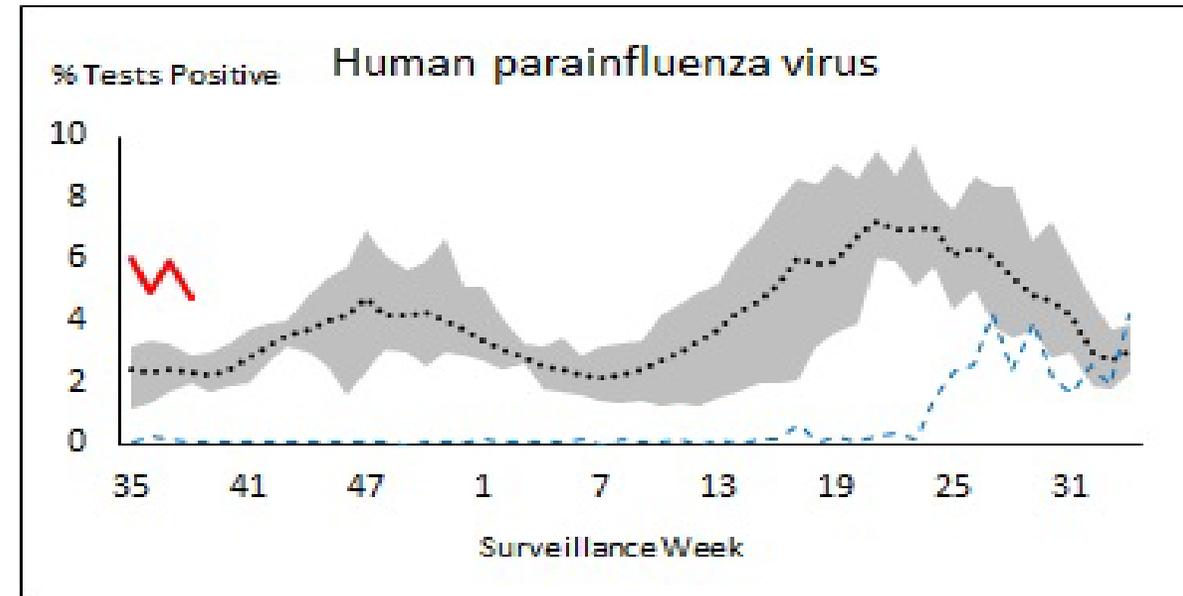
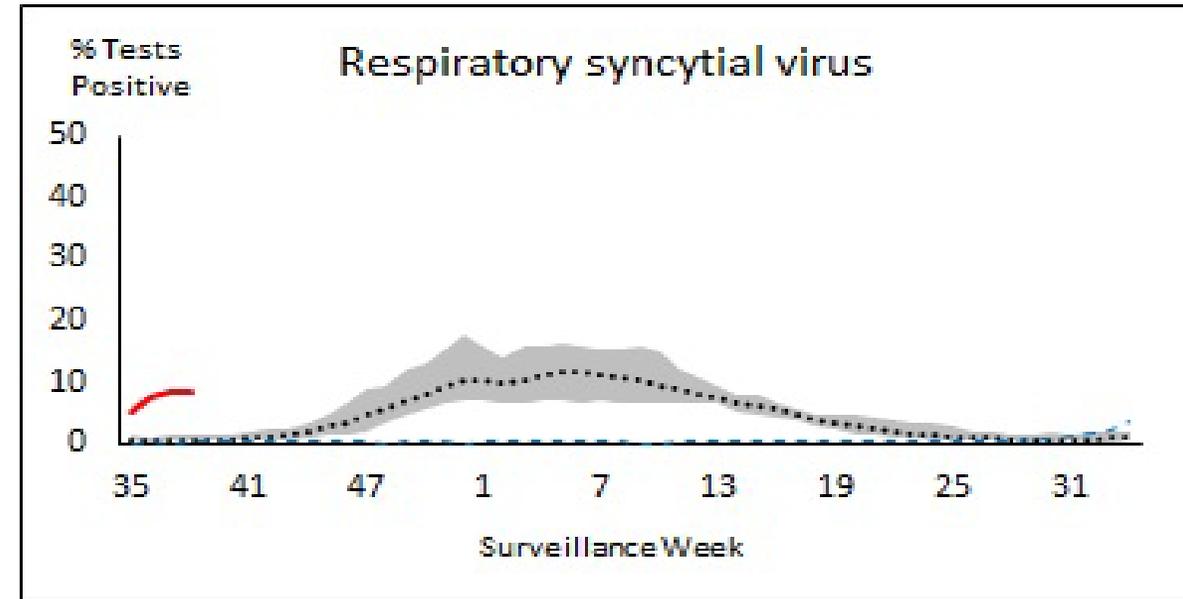
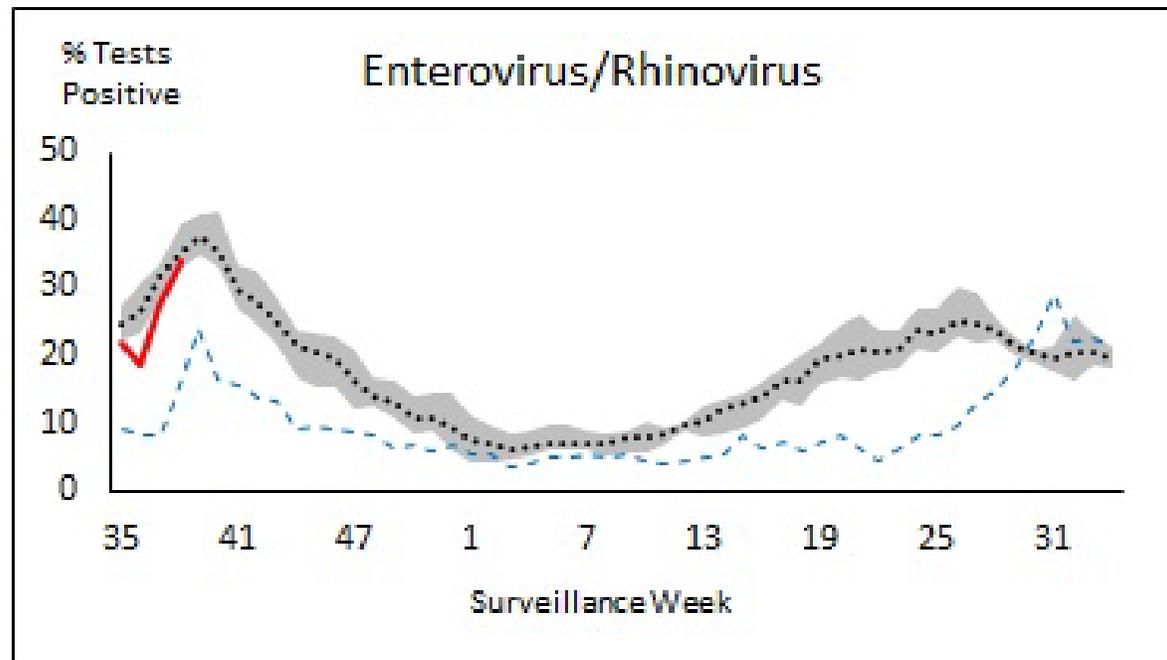
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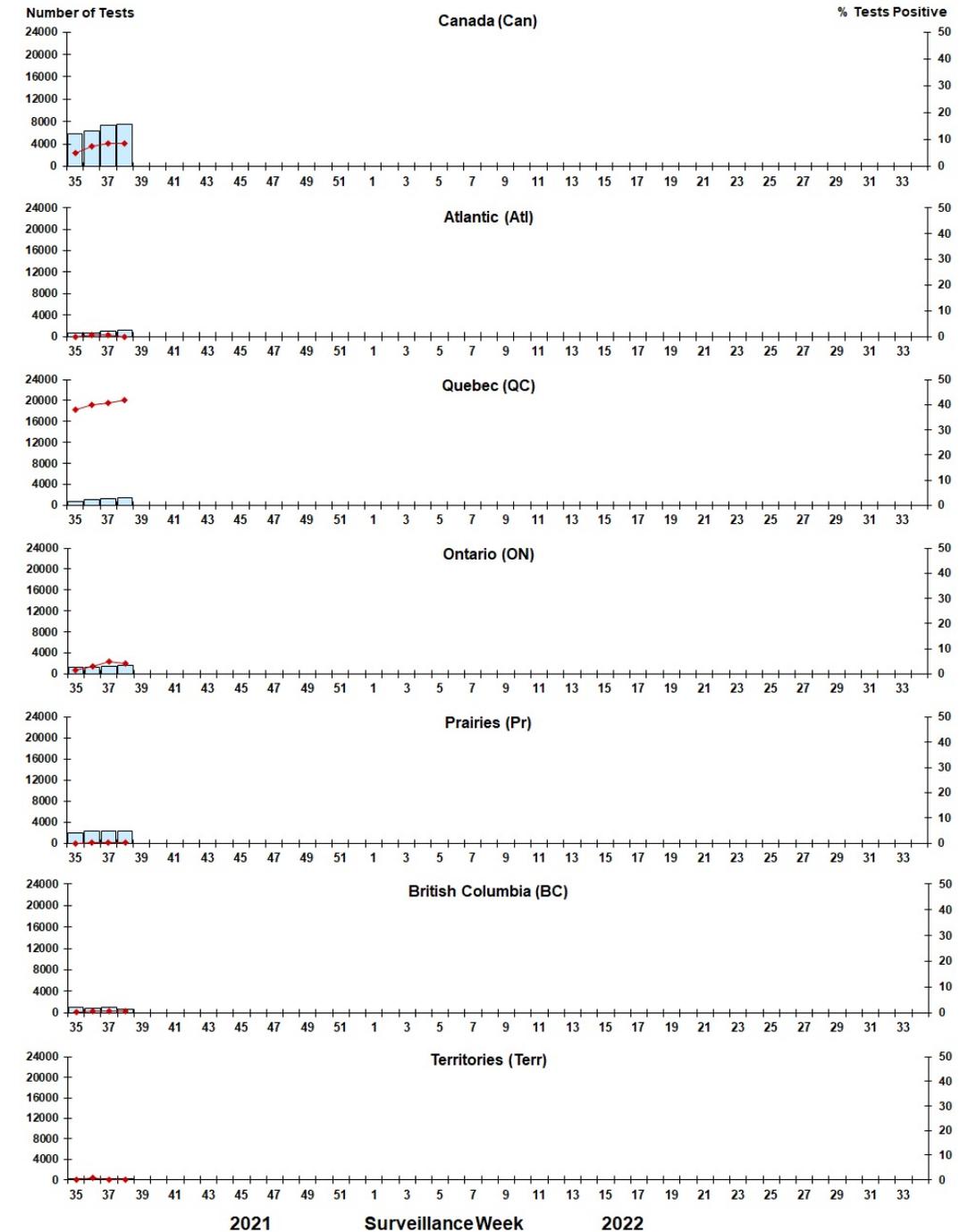
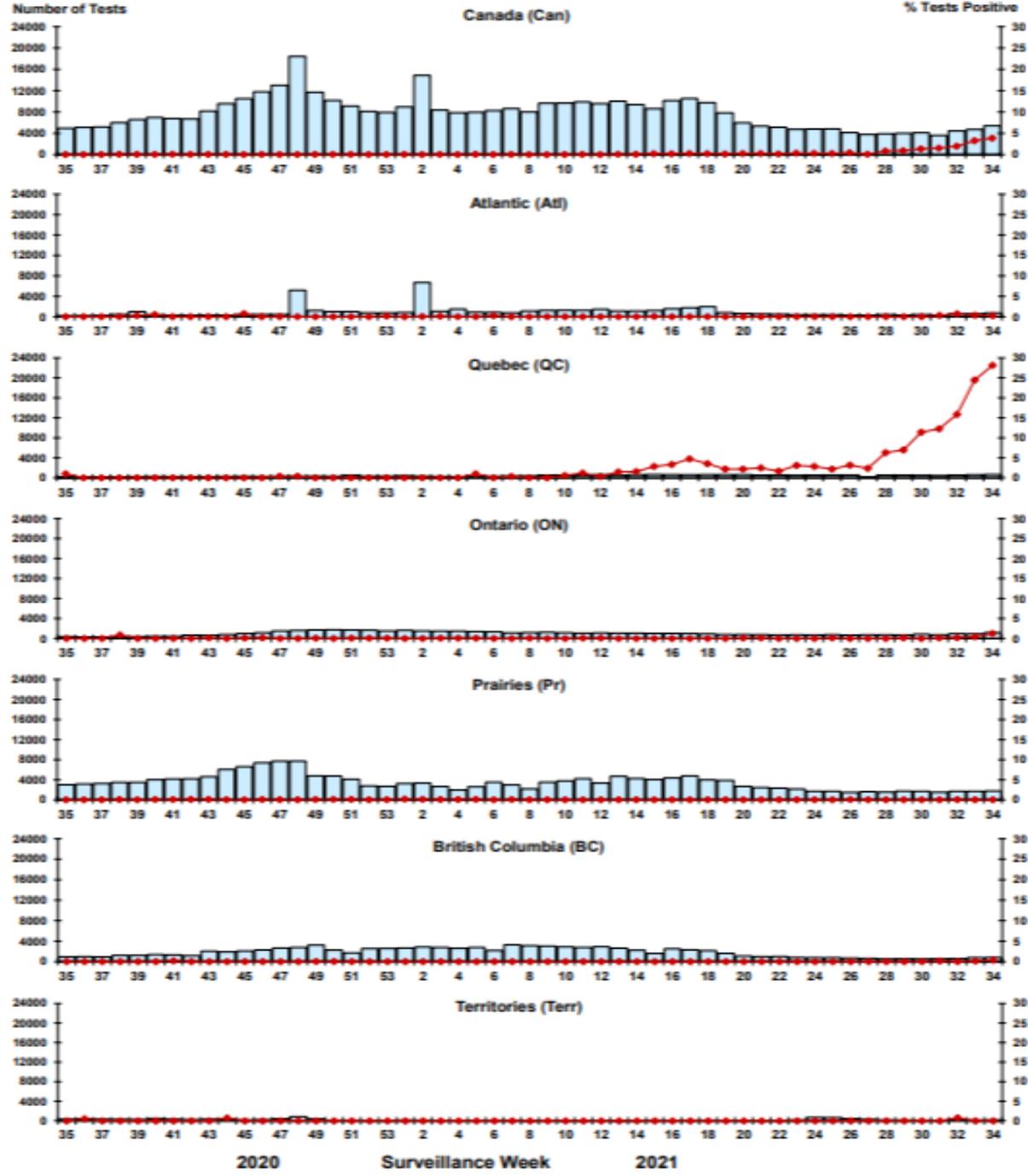
OCFP President, Family Physician, Bruyère Family Health Team

Global influenza activity, WHO surveillance



Other Respiratory Virus Activity in Canada





Influenza Vaccine Composition for Northern Hemisphere, 2021

2020-21 Northern Hemisphere Egg-based vaccines	2020-21 Northern Hemisphere Cell- based vaccines	2021-22 Northern Hemisphere Egg-based vaccines	2021-22 Northern Hemisphere Cell- based vaccines
A/Guangdong- Maonan/SWL1536/2019 (H1N1)pdm09	A/Hawaii/70/ 2019 (H1N1)pdm09	A/Victoria/2570/ 2019 (H1N1)pdm09	A/Wisconsin/588/ 2019 (H1N1)pdm09
A/Hong-Kong/2671/ 2019 (H3N2)	A/Hong Kong/45/ 2019 (H3N2)	A/Cambodia/e0826360/ 2020 (H3N2)	A/Cambodia/e0826360/ 2020 (H3N2)
B/Washington/02/2019 (B/Victoria lineage)	B/Washington/02/2019 (B/Victoria lineage)	B/Washington/02/2019 (B/Victoria lineage)	B/Washington/02/2019 (B/Victoria lineage)
B/Phuket/3073/2013 (B/Yamagata lineage)	B/Phuket/3073/2013 (B/Yamagata lineage)	B/Phuket/3073/2013 (B/Yamagata lineage)	B/Phuket/3073/2013 (B/Yamagata lineage)

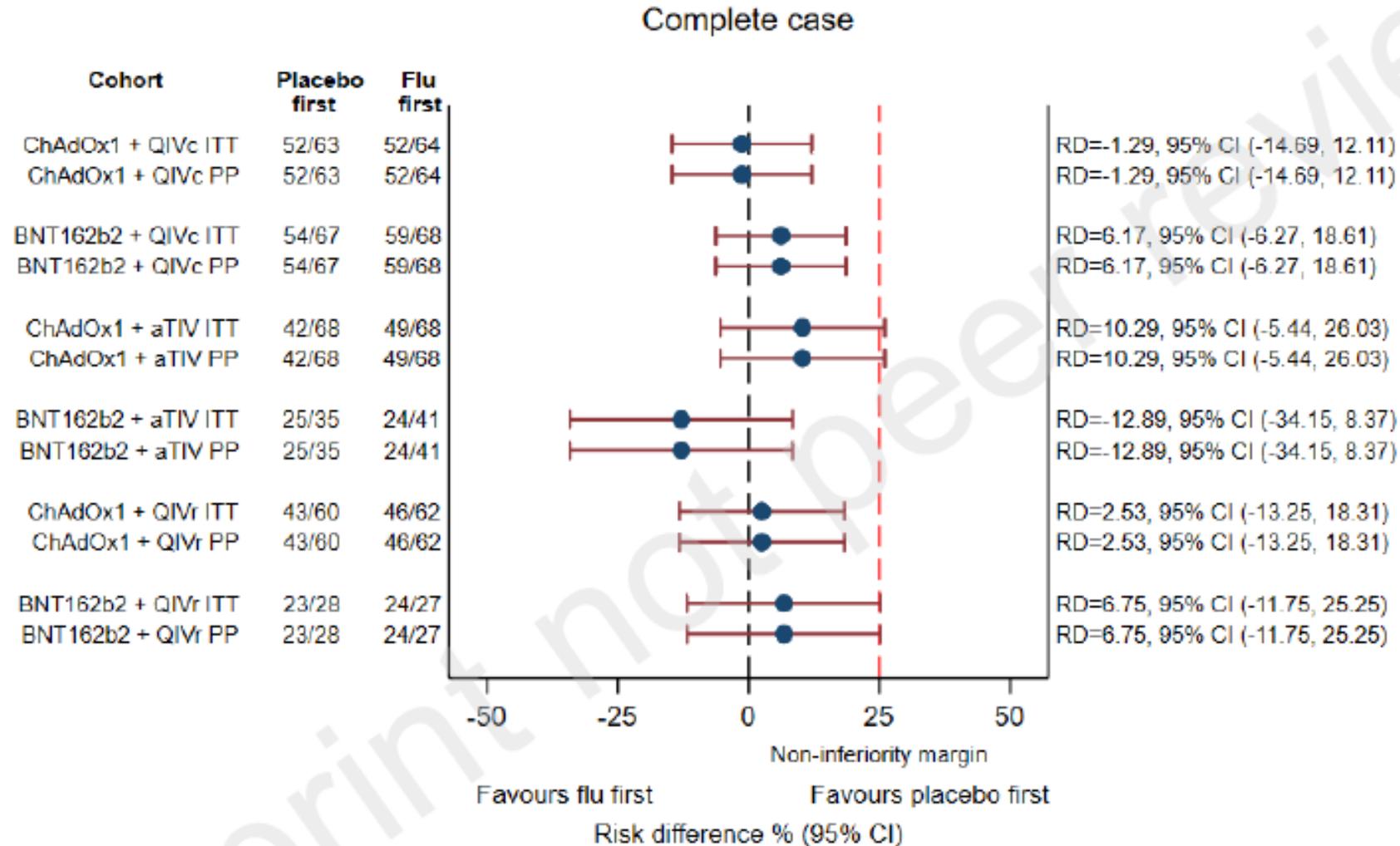
Ontario UIIP Vaccines for 2021-22

Age	Type of Product	Product Name
6 mos - 1 yr	Standard-dose quadrivalent (QIV)	FluLaval Tetra Fluzone® Quadrivalent
2 yrs to 4 yrs	Standard-dose quadrivalent (QIV)	FluLaval Tetra Fluzone® Quadrivalent Flucelvax® Quad
5 to 64 years	Standard-dose quadrivalent (QIV)	FluLaval Tetra Fluzone® Quadrivalent Flucelvax® Quad Afluria® Tetra
65 years +	High-dose quadrivalent (HD-QIV) Adjuvanted trivalent (TIVadj) Standard-dose quadrivalent (QIV)	Fluzone® High-Dose Quadrivalent Fluad® Trivalent Any of the four standard-dose QIV

New NACI recommendation re concomitant vaccines

- NACI recommends that COVID-19 vaccines may be given concomitantly with, or at any time before or after, other vaccines*. (Discretionary NACI Recommendation)
 - * including live, non-live, adjuvanted, or unadjuvanted vaccines*
- NACI has concluded that a precautionary approach is now no longer necessary and recommends that COVID-19 vaccines may be concomitantly with (i.e. same day), or any time before, non-COVID-19 vaccines (including live, non-live, adjuvanted, or unadjuvanted).

ComFluCOV



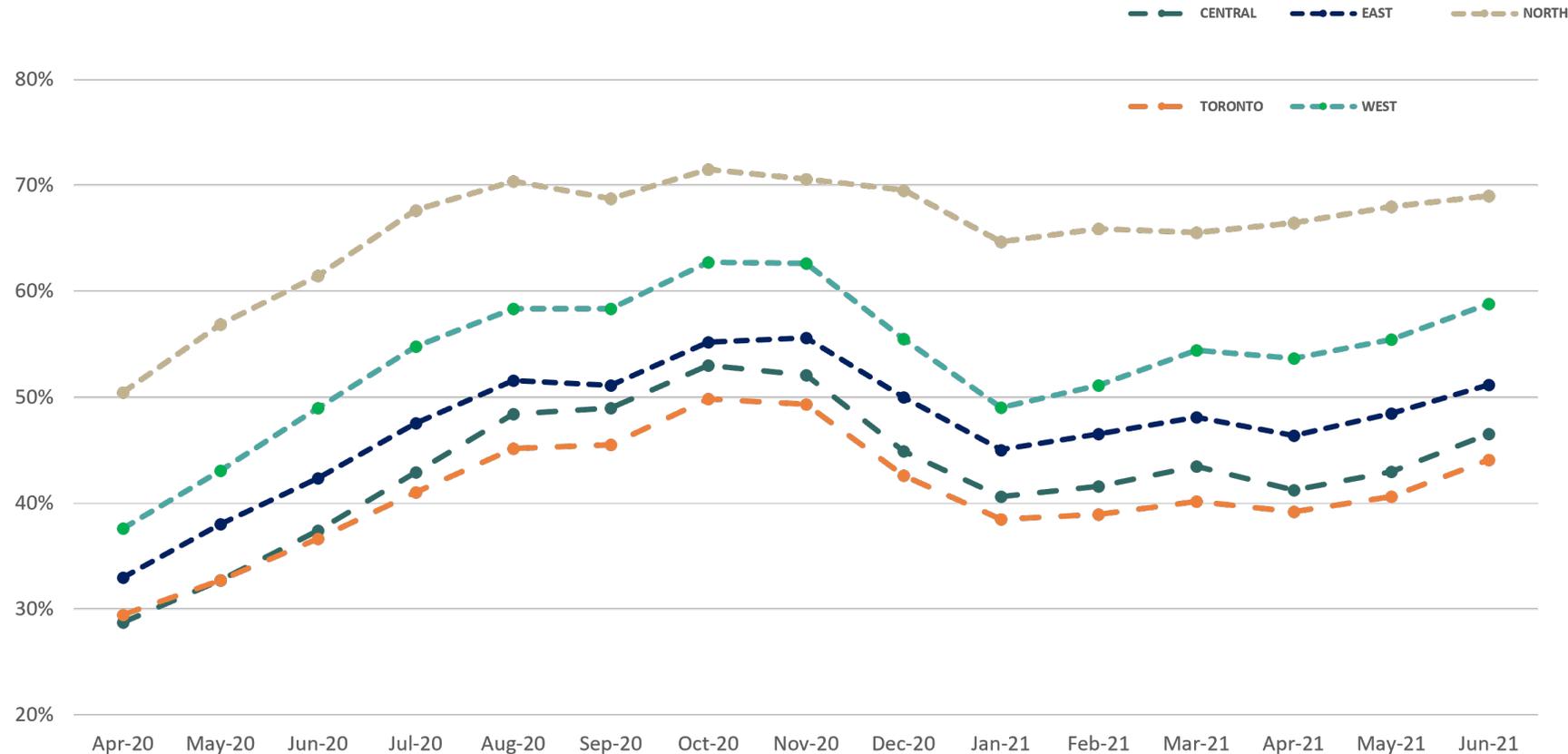
COVID, Flu, What to do?

DR. DAVID M. KAPLAN MD MSC CCFP FCFP
VICE PRESIDENT, QUALITY
CLINICAL INSTITUTES AND QUALITY PROGRAMS

ASSOCIATE PROFESSOR, FAMILY & COMMUNITY MEDICINE
JOINT CENTRE FOR BIOETHICS
TEMERTY FACULTY OF MEDICINE, UNIVERSITY OF TORONTO

Monthly trend in percent in-person by region

% In-person FY20 and FY21 (Apr-Jun)



- The North consistently had the highest proportion of in-person visits while Central and Toronto have had the lowest proportion of in-person visits, generally less than 50% of total visits.

* Preliminary results based on incomplete data.

Data Source: Claims History Database, MOH: Service dates from April 1 2019 to June 30 2021, assessment dates < July 31st of respective year. Excludes WSIB, community labs, out of province physicians and technical claims. Includes professional, shadow billed and OTN claims. Note: Analysis based on interim data – expected to represent 90%-95% of services provided.

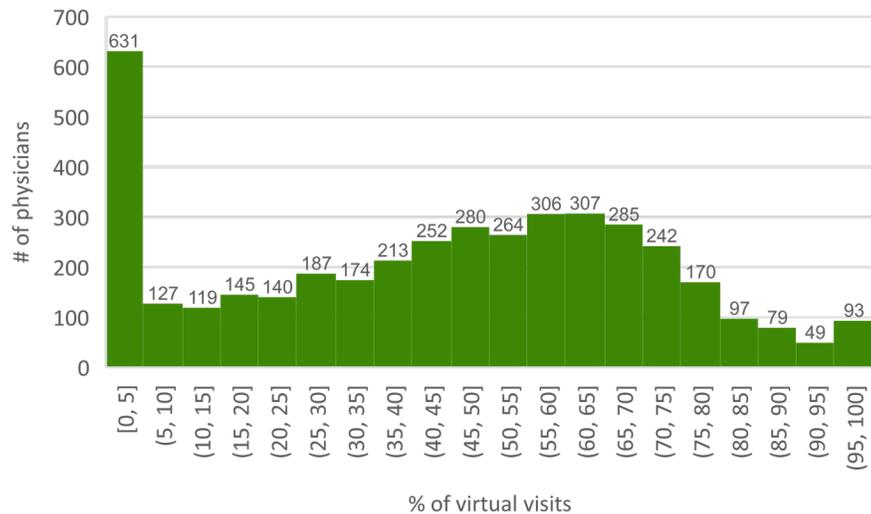


**Thank-you for all you have done
and continue to do**

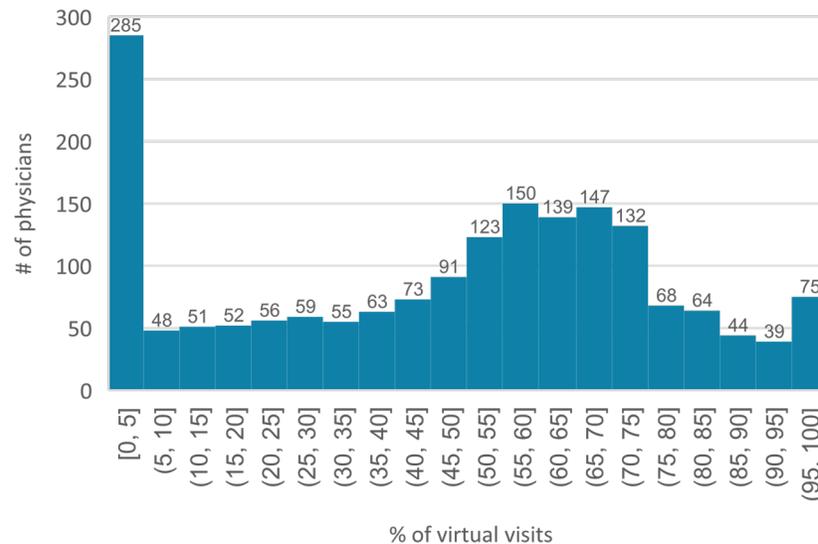
Distribution of GP virtual visit volumes across regions (Jan–June 2021)

Quintiles by % virtual

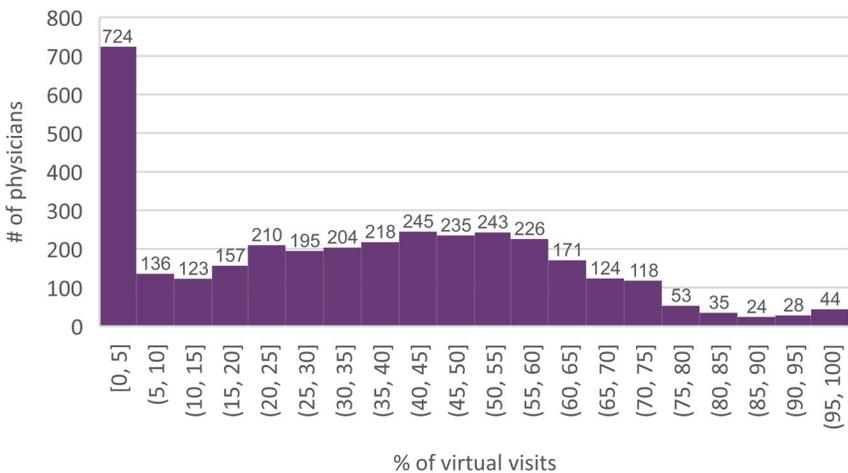
Central Region



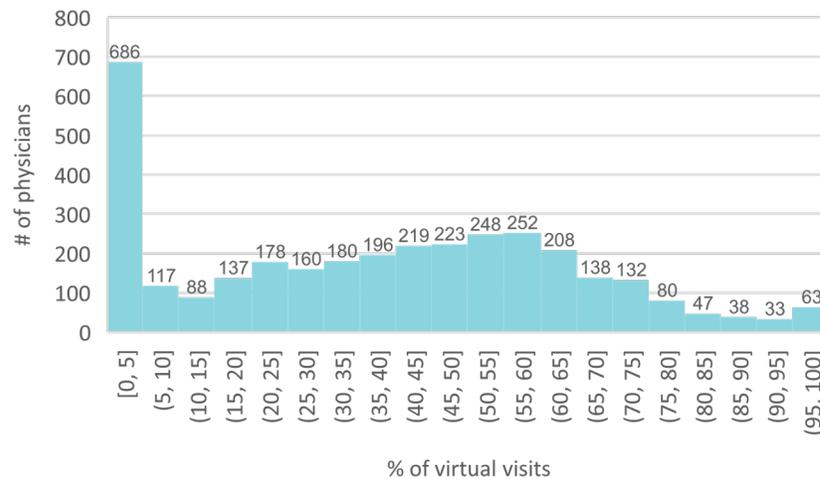
Toronto Region



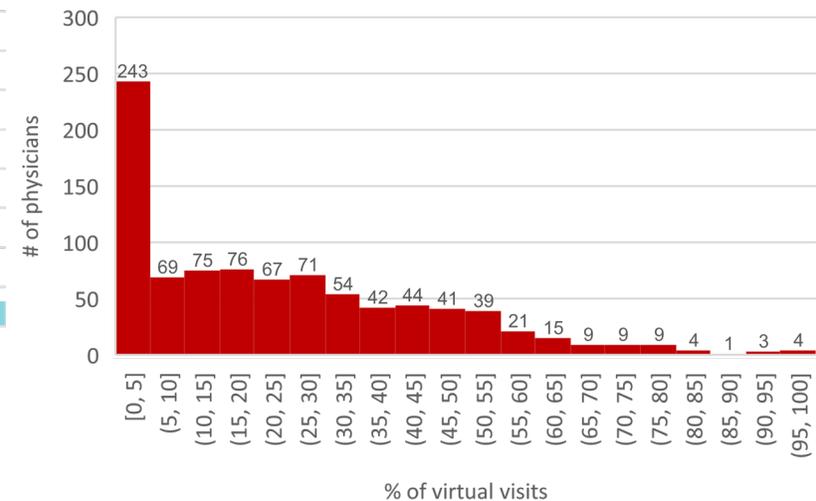
West Region



East Region



North Region



Primary Care Role in COVID Response and Recovery

1. Increase volume of in-person care
2. Resume/continue non-COVID care activity
3. Manage influenza-like illness

Where local need and capacity within the primary care practice exist, ***an additional priority may include*** COVID testing, assessment, and vaccinations (in collaboration with public health and Ontario Health regions)

Influenza-like Illness

- CDC definition for ILI is fever (temperature of 37.8C [100F] or greater) and a cough and/or a sore throat without a known cause other than influenza.
- PPE, Test Kits and Rapid Test can be ordered online
 - [Critical PPE, Swab Kit and Rapid Test: Intake Form](#)

Reminders about Symptomatic Testing

[COVID-19 Provincial Testing Guidance Update](#)

[PHO - Specimen Types for COVID-19 testing by Patient Characteristic](#)

Reminders about Symptomatic Testing in the Community (outpatients)

Serology should NOT be used for screening and diagnosis of acute COVID-19 infection, determining immune status, vaccination status.

Antigen POCT should NOT be used to test for COVID-19 infection in symptomatic individuals, individuals with known contact with a COVID-19 case or in outbreaks.

Anyone presenting with at least one symptom or sign should be **considered** for COVID-19 molecular testing. Clinicians should continue to use their clinical judgment during patient assessment and in deciding whether to order testing, in consideration of local epidemiology and exposure risks.

Adult ILI guidance – to Emergency Department

- Patients who are experiencing at least one symptom of COVID-19 and have any of the following symptoms of severe illness should be **directed to the nearest emergency department:**
 - Severe difficulty breathing (struggling for each breath, can only speak in single words)
 - Severe chest pain (constant tightness or crushing sensation)
 - Altered level of consciousness, drowsiness

Pediatric ILI guidance – to Emergency Department

- Children who should be directed **to the emergency department** include:
 - Infants under 3 months of age with fever or trouble breathing or who appear unwell
 - Children and infants over 3 months of age with any of the following:
 - Fever longer than 7 days, or immune compromised with a fever
 - Fast breathing or trouble breathing
 - Bluish skin colour
 - Not drinking enough fluids
 - Not waking up or not interacting
 - Being so irritable that the child does not want to be held

Table 1 – ILI Patient Assessment Pathways for Primary Care

PRACTICE READINESS	ACCESS TO ASSESSMENT CENTRES		
<p>Practice readiness may include physical plant size, practice resources, infrastructure, personal protective equipment, hours of operation, ability to electronically submit results for rapid molecular COVID-19 tests, and established pathways for delivery to labs for lab-based PCR tests.</p>	<p>Limited access to COVID AC in community</p>	<p>Access to COVID AC in community</p>	<p>Access to ILI AC in community</p>
<p>LOW 1 or 2 providers working in a small footprint with limited ability to implement IPAC standards and limited ability to coordinate the transport of swabs to labs.</p>	<p>Consider seeing patients for COVID swabbing in office during designated hours when not seeing other non-COVID patients</p>	<p>Consider directing patient to COVID AC; with follow-up care provided by primary care provider after negative test</p>	<p>If appropriate and available, direct patient to ILI AC; with note back to primary care provider via Health Report Manager (HRM)</p>
<p>MEDIUM 3 to 8 co-located providers working in an office with a larger footprint, the resources to implement IPAC standards, and established lab delivery pathways.</p>	<p>Consider seeing patients for COVID swabbing in office during designated hours when not seeing other non-COVID patients; consider being a referral site for smaller and solo providers in your area</p>	<p>Collaborate with local COVID AC to provide COVID testing and assessment of other ILI conditions, prescribe meds and provide follow-up support; consider becoming a regional ILI hub</p>	

COVID-19, COLD & FLU/ILI Resources in Toronto Region - October 7, 2021

Outlined below are resources available to support COVID-19 assessment and testing, as well as Cold, Flu and Influenza-like illness (ILI) assessments.

Sub-region	Site Name	COVID Assessment & Testing	ILI Assessment	Age Restrictions	Location	Hours of Operation	Booking Appointment
North West Toronto	Humber River Hospital – Finch (COVID Assessment Centre)	✓	✓	6 months and older	2111 Finch Ave. W, North York	Mon-Fri: 11 am to 7 pm; Saturday, Sunday & holidays, 8am to 4pm	Online Booking: Humber River Hospital website Telephone: 416-747-5474
	Humber River Hospital – Church Site (Child & Family Cold, Flu & COVID Assessment)	✓	✓	17 years and younger	200 Church St., North York	Mon-Fri: 9 am to 5 pm	Online Booking: Humber River Hospital website Telephone: 416-243-4333
North York Toronto	North York General Hospital – Branson Site (Cough, Cold & COVID Clinic)	✓	✓		555 Finch Ave. West, North York	Mon-Fri: 8 am to 8 pm	Online Booking: North York General website Telephone: 416-635-2509
North Toronto	Sunnybrook Health Sciences Centre (COVID Assessment Centre)	✓		12 months and older	Vaughan Estate on Sunnybrook's Bayview Campus, 80 Armistice Dr.	Sunday to Thursday, 9 am to 12:30 pm & 1 pm – 5pm	Online Booking: Sunnybrook Health Sciences Centre website Telephone: 416-480-4559
East Toronto	Michael Garron Hospital (COVID Assessment Centre & Pediatric Cold, Flu & COVID Assessment)	✓	✓		825 Coxwell Ave.	7 days a week, 8am to 8 pm	Online Booking: Michael Garron website Telephone: 416-469-6858
	Scarborough Health Network – General Campus (COVID Assessment Centre)	✓		6 months and older	3050 Lawrence Ave. E., Scarborough	Mon-Sat: 8:00am to 6:00pm	Online Booking: SHN Website Telephone: 416-495-2601
	Scarborough Health Network – General Campus (Kids After Hours Clinic)	✓	✓	Paediatric	3050 Lawrence Ave. E., Scarborough	Mon-Fri: 5 pm to 8:30 pm Weekends & Holidays: 10 am to 1:30 pm	Telephone: 416-438-2911 ext. 3415
Downtown Toronto	UHN Toronto Western (COVID Assessment Centre)	✓		12 months and older	347 Bathurst St.	Mon-Fri: 7:30 am to 3:30pm; and Sat & Sun, 10 am to 6pm	Online Booking: UHN website
	Women's College Hospital (COVID Assessment Centre)	✓		None	76 Grenville St.	Mon-Fri: 10:15 am to 5:30 pm	Online Booking: Women's College Telephone: 416-800-1945
West Toronto	Unity Health, St. Joseph's Health Centre (COVID Assessment Centre)	✓		12 months and older	30 The Queensway	7 days a week, 8 am to 4 pm	Online Booking: Unity Health website Telephone: 416-530-6720
West Toronto	Unity Health, St. Joseph's Health Centre (Just for Kids Clinic)	✓	✓	17 years and younger	30 The Queensway	Mon-Fri: 10 am to 8pm; Saturday to Sunday, 10 am to 2 pm	Online Booking: Just for Kids Clinic website Telephone: 416-530-6720

For a comprehensive list of Assessment Centres across Ontario, please see the Ministry's website at [COVID-19 Assessment Centre Locations](#)



Ontario Health

Central

COVID, Cold and Flu Care Clinic

Location

Barrie and Community Family Medicine Clinic
COVID-19, Cold and Flu

829 Big Bay Point Rd D13, Barrie, ON L4M 4S6

Queen Square FHT COVID-19 Cold and Flu Clinic

11692 Hurontario St, Brampton, ON L7A 1K5

Caledon Centre for Recreation and Wellness

14111 Regional Road 50 North, Bolton, ON L7E 2V

Dufferin-Caledon COVID-19 Cold and Flu Clinic

1 Elizabeth St, Orangeville, ON L9W 7N7

Mississauga Health Cough and Flu Clinic

120-2695 N Sheridan Way, Mississauga, ON L5K 2N6

Couchiching COVID-19 Clinic

Kiwanis Building 170 Colborne St W Orillia, ON L3V 2Z3

Additionally, you can locate Assessment Centre locations in your own communities here: <https://covid-19.ontario.ca/assessment-centre-locations>

Pfizer RCT

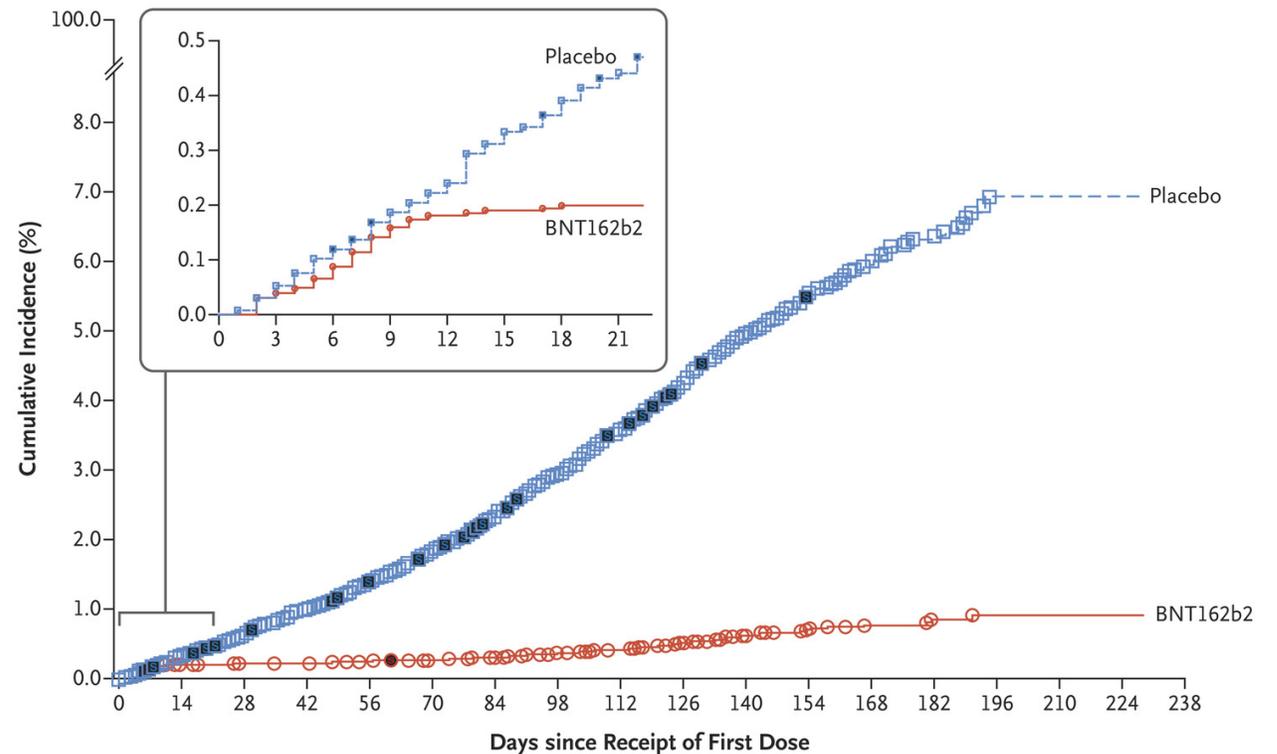
The NEW ENGLAND JOURNAL of MEDICINE

ORIGINAL ARTICLE

Safety and Efficacy of the BNT162b2 mRNA Covid-19 Vaccine through 6 Months

S.J. Thomas, E.D. Moreira, Jr., N. Kitchin, J. Absalon, A. Gurtman, S. Lockhart, J.L. Perez, G. Pérez Marc, F.P. Polack, C. Zerbini, R. Bailey, K.A. Swanson, X. Xu, S. Roychoudhury, K. Koury, S. Bouguermouh, W.V. Kalina, D. Cooper, R.W. Frenc, Jr., L.L. Hammitt, Ö. Türeci, H. Nell, A. Schaefer, S. Ünal, Q. Yang, P. Liberator, D.B. Tresnan, S. Mather, P.R. Dormitzer, U. Şahin, W.C. Gruber, and K.U. Jansen, for the C4591001 Clinical Trial Group*

ABSTRACT



Efficacy End Point	BNT162b2 (N=23,040)		Placebo (N=23,037)		Vaccine Efficacy % (95% CI)		
	No. of cases	Surveillance time 1000 person-yr	No. at risk	No. of cases Surveillance time 1000 person-yr			
Overall: first occurrence of Covid-19 after receipt of first dose	131	8.412	22,505	1034	8.124	22,434	87.8 (85.3 to 89.9)
After receipt of first dose up to receipt of second dose	46	1.339	22,505	110	1.331	22,434	58.4 (40.8 to 71.2)
<11 Days after receipt of first dose	41	0.677	22,505	50	0.675	22,434	18.2 (-26.1 to 47.3)
≥11 Days after receipt of first dose up to receipt of second dose	5	0.662	22,399	60	0.656	22,369	91.7 (79.6 to 97.4)
After receipt of second dose to <7 days after	3	0.424	22,163	35	0.422	22,057	91.5 (72.9 to 98.3)
≥7 Days after receipt of second dose	82	6.649	22,132	889	6.371	22,001	91.2 (88.9 to 93.0)
≥7 Days after receipt of second dose to <2 mo after	12	2.923	22,132	312	2.884	22,001	96.2 (93.3 to 98.1)
≥2 Mo after receipt of second dose to <4 mo after	46	2.696	20,814	449	2.593	20,344	90.1 (86.6 to 92.9)
≥4 Mo after receipt of second dose	24	1.030	12,670	128	0.895	11,802	83.7 (74.7 to 89.9)

US

Effectiveness of mRNA BNT162b2 COVID-19 vaccine up to 6 months in a large integrated health system in the USA: a retrospective cohort study

Sara Y Tartof, Jeff M Slezak, Heidi Fischer, Vennis Hong, Bradley K Ackerson, Omesh N Ranasinghe, Timothy B Frankland, Oluwaseye A Ogun, Joann M Zamparo, Sharon Gray, Srinivas R Valluri, Kaije Pan, Frederick J Angulo, Luis Jodar, John M McLaughlin

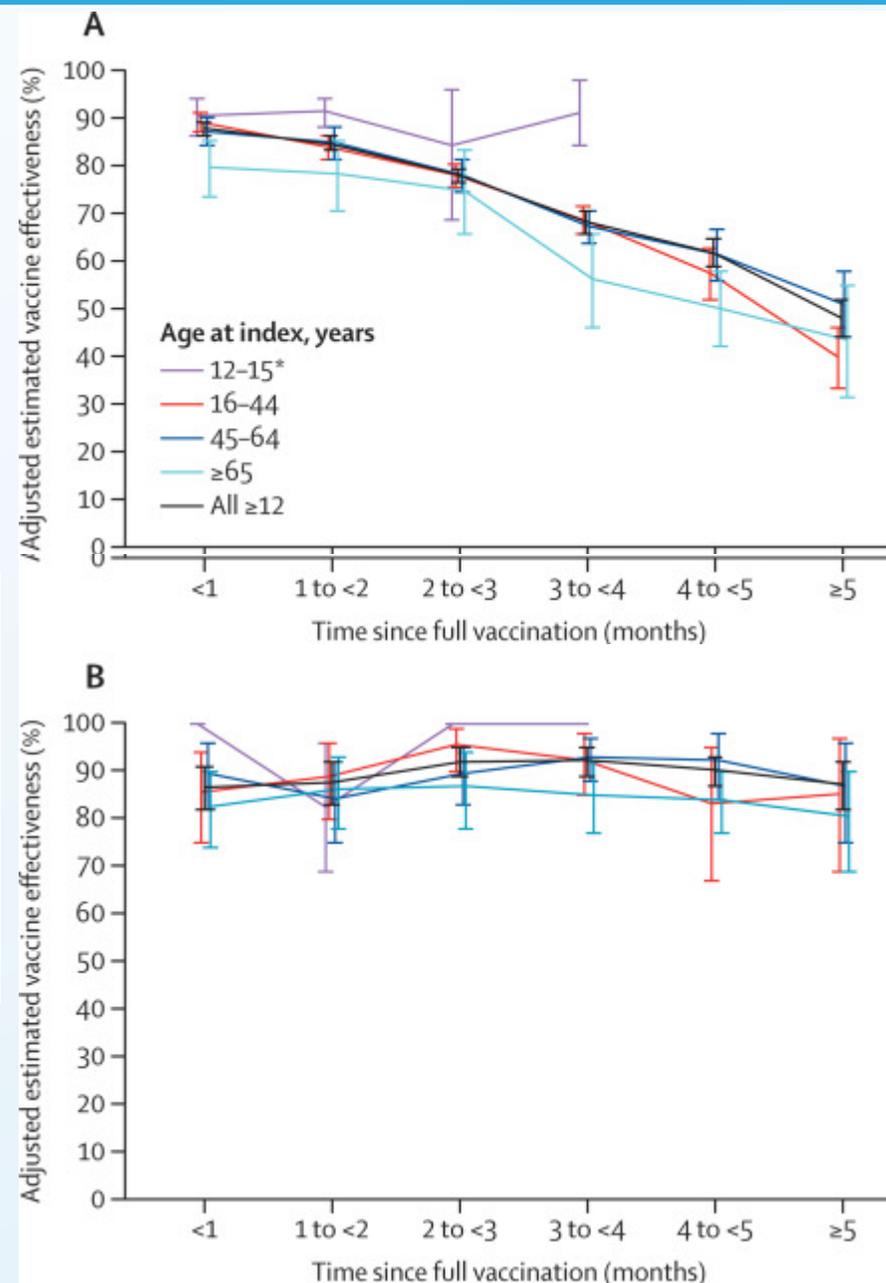
Summary

Background Vaccine effectiveness studies have not differentiated the effect of the delta (B.1.617.2) variant and potential waning immunity in observed reductions in effectiveness against SARS-CoV-2 infections. We aimed to evaluate overall and variant-specific effectiveness of BNT162b2 (tozinameran, Pfizer–BioNTech) against SARS-CoV-2 infections and COVID-19-related hospital admissions by time since vaccination among members of a large US health-care system.



Published Online
October 4, 2021
[https://doi.org/10.1016/S0140-6736\(21\)02183-8](https://doi.org/10.1016/S0140-6736(21)02183-8)

Department of Research and Evaluation, Kaiser Permanente Southern California, Pasadena,



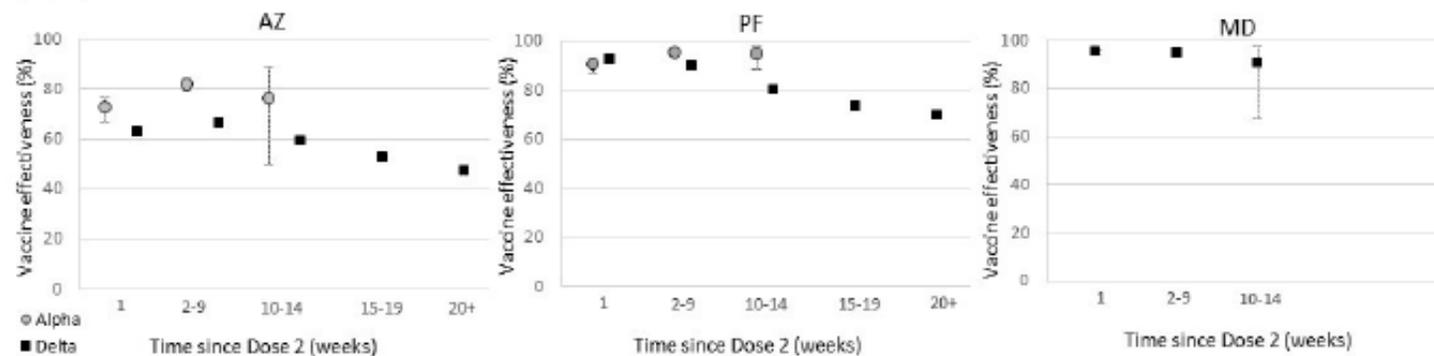
Infection

Hospitalization

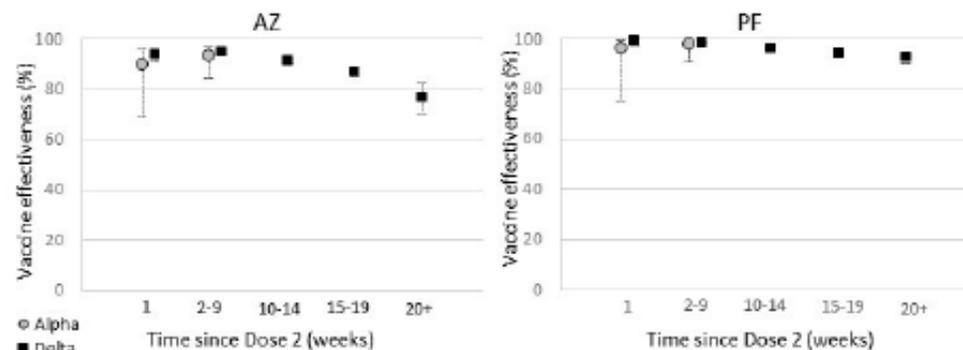


UK

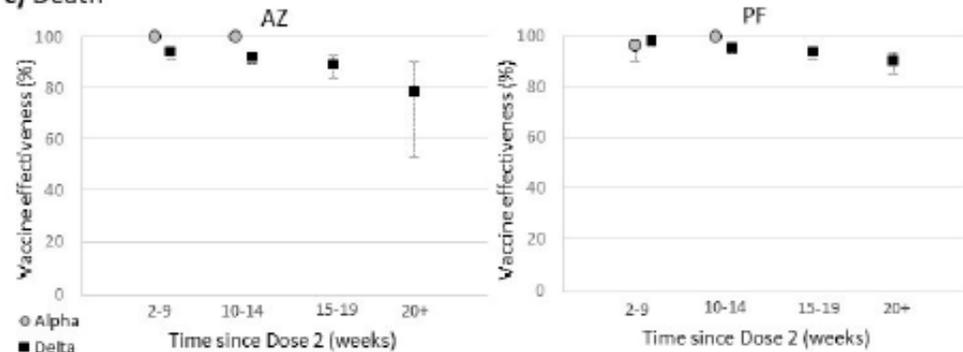
a) Symptomatic disease



b) Hospitalisation



c) Death

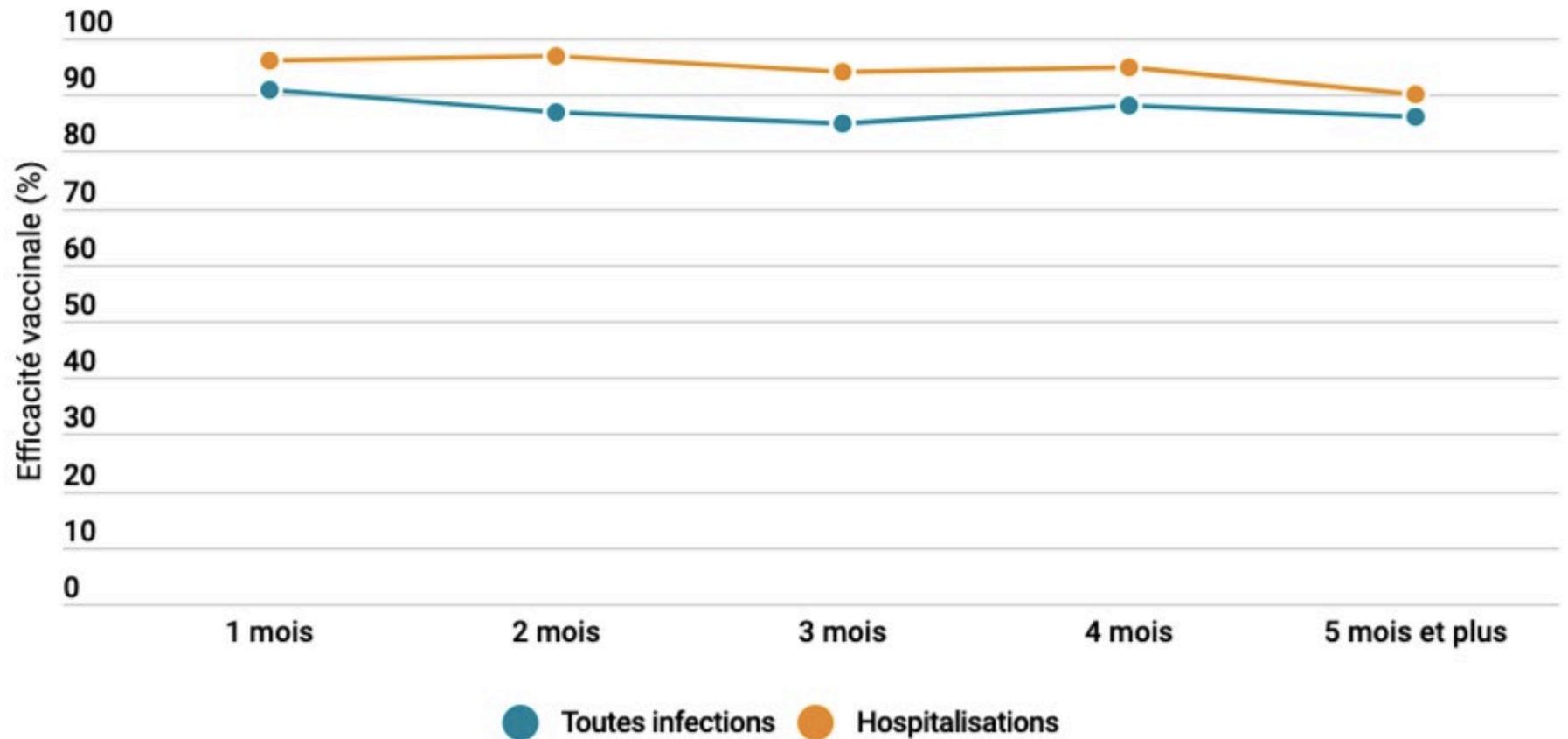


Vaccine effectiveness and duration of protection of Comirnaty, Vaxzevria and Spikevax against mild and severe COVID-19 in the UK

Nick Andrews^{1,2}, Elise Tessier¹, Julia Stowe¹, Charlotte Gower¹, Freja Kirsebom¹, Ruth Simmons¹, Eileen Gallagher¹, Meera Chand^{1,3}, Kevin Brown¹, Shamez N Ladhani^{1,4}, Mary Ramsay^{1,2}, Jamie Lopez Bernal^{1,2,5}

Quebec

Figure 3 - Efficacité vaccinale selon le délai depuis la 2^e dose



Vaccine Effectiveness (VE): 2 Doses | British Columbia (BC), Canada

Vaccines: mRNA (Pfizer Comirnaty & Moderna Spikevax), AstraZeneca Vaxzevria

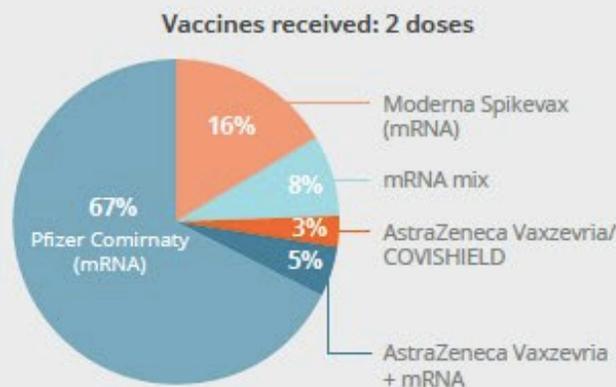
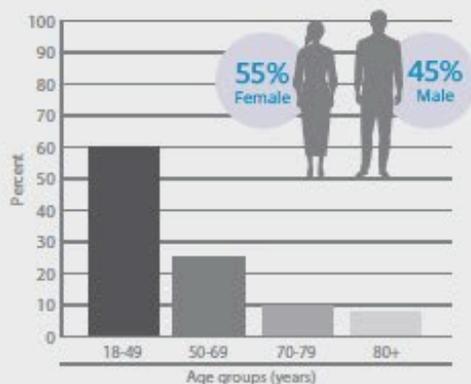
Population: 18+ year olds, excluding long term care residents

Research method: Test-negative design

Study period: May 30 - Sept. 11, 2021, during rise of Delta variant in BC

Sample size: 246,656
Cases: 17,077 **Controls:** 229,579

Participant characteristics

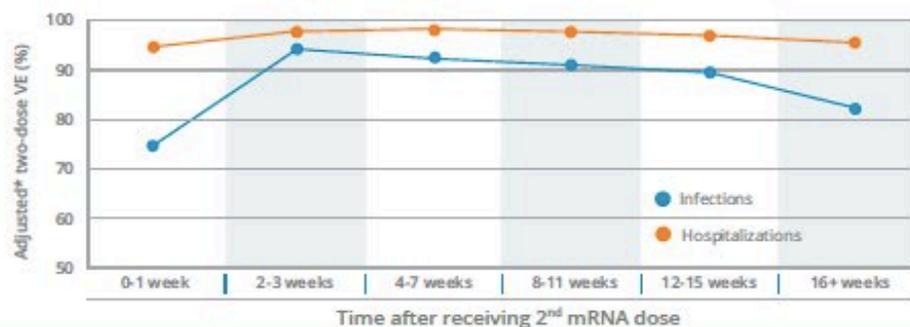


2 doses of any vaccine are highly protective, including against the Delta variant



- Hospitalization risk in vaccinated people reduced by more than 90%
- Infection risk reduced by more than 90% for mRNA recipients and 70% for Vaxzevria
- Mixed doses (mRNA and Vaxzevria) offers protection similar to 2 mRNA doses

Strong protection > 80-90% against infection maintained at least 4 months after the 2nd mRNA dose (monitoring continues, including for AstraZeneca Vaxzevria)



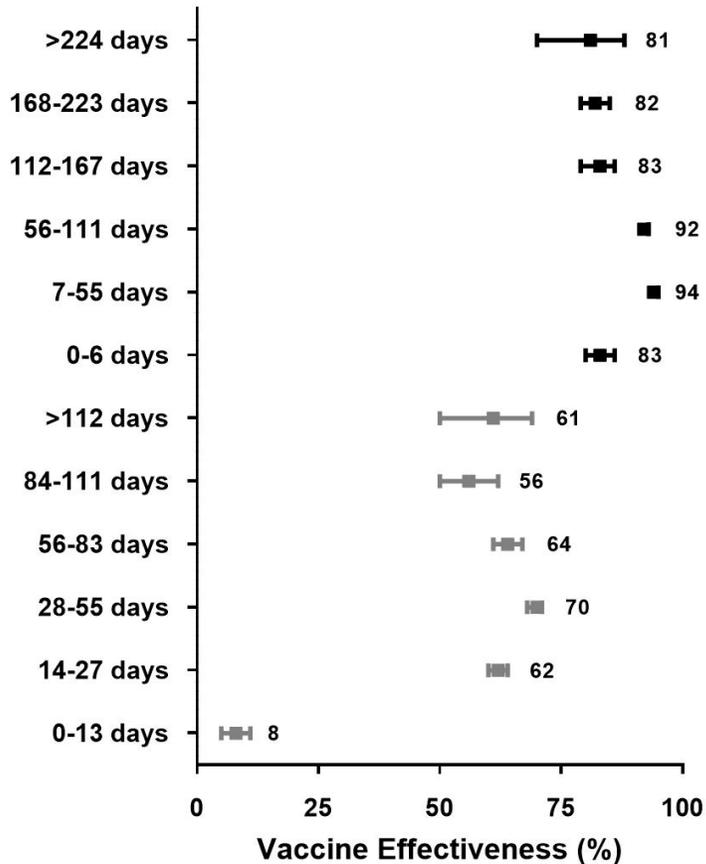
Protection is even stronger when the interval between 1st and 2nd dose is more than 6 weeks



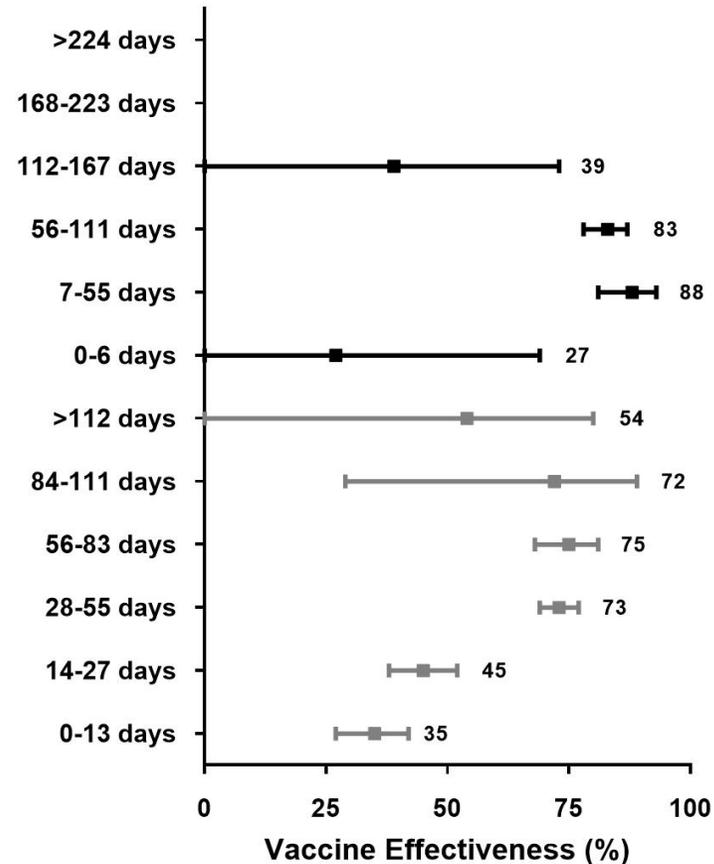
*Adjusted for: age group, gender, epidemiological week (22 - 36) and health regions

≥16 yrs, symptomatic infection, any lineage

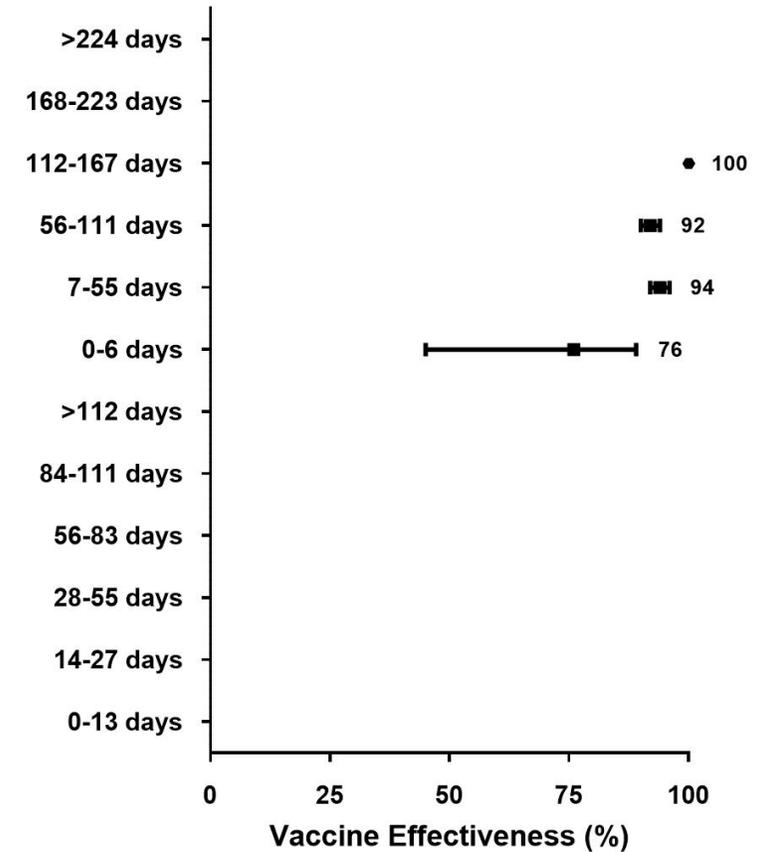
mRNA (Pfizer/Moderna)



AstraZeneca/COVISHIELD



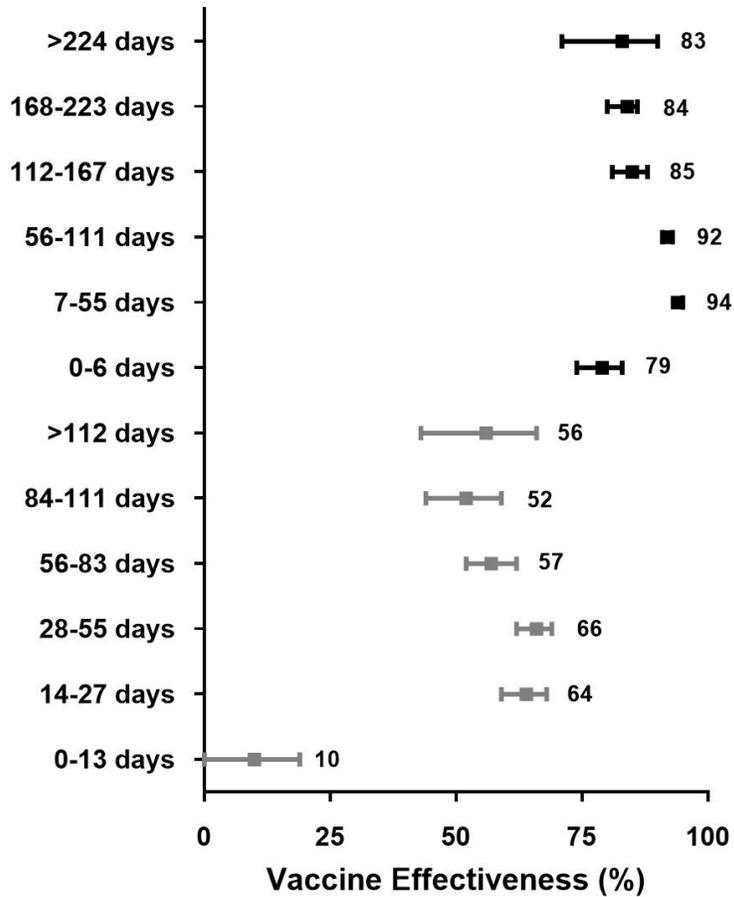
Mixed schedule (AZ+mRNA)



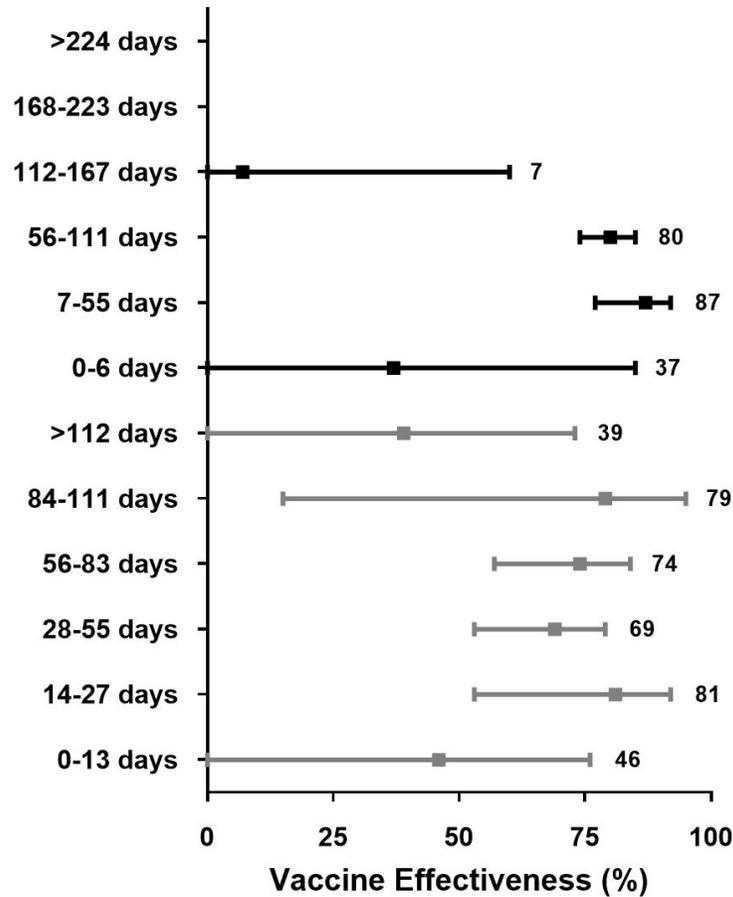
— Received only 1 dose — Received 2 doses

≥16 years, symptomatic infection, Delta

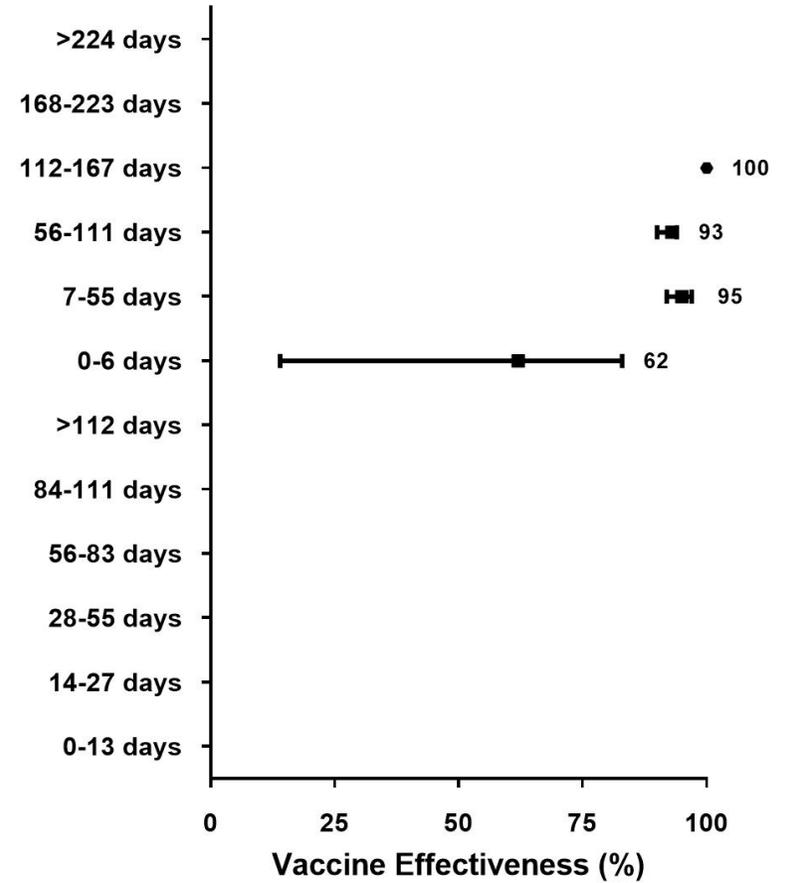
mRNA (Pfizer/Moderna)



AstraZeneca/COVISHIELD



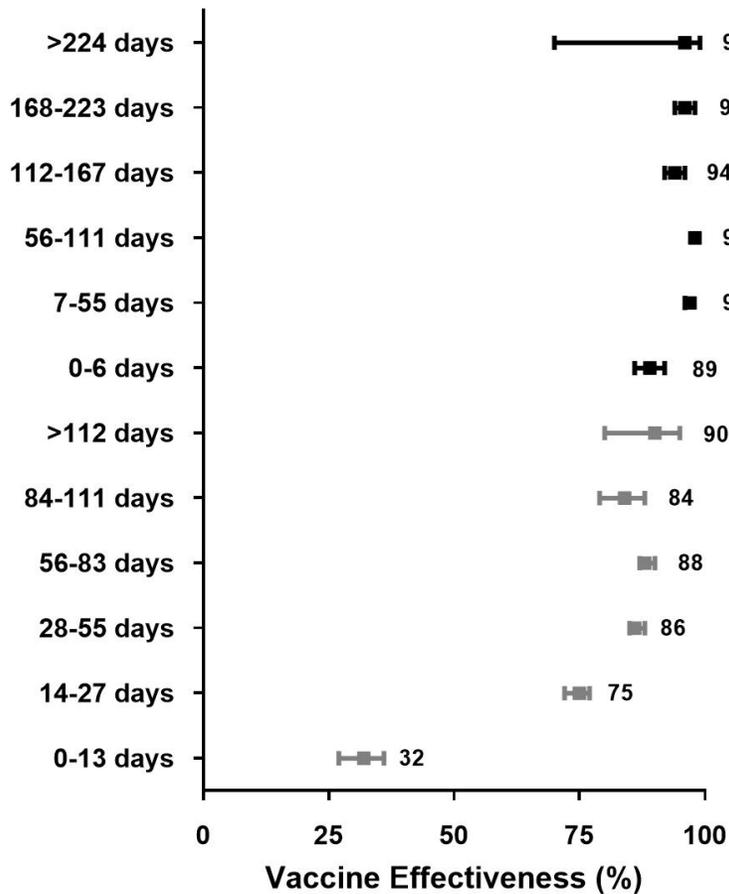
Mixed schedule (AZ+mRNA)



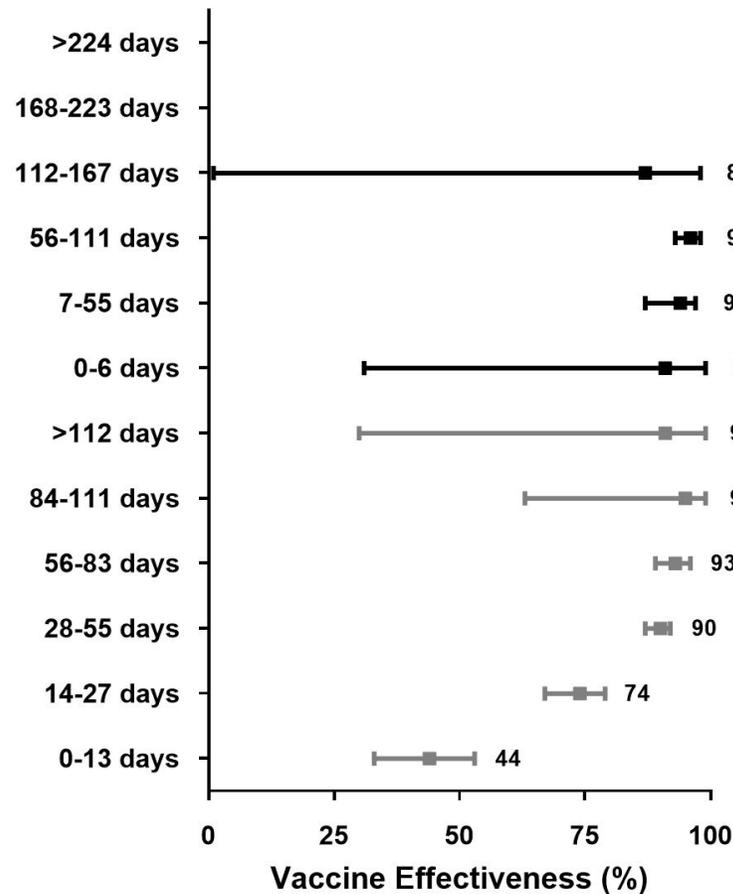
— Received only 1 dose — Received 2 doses

≥16 years, severe outcomes, any lineage

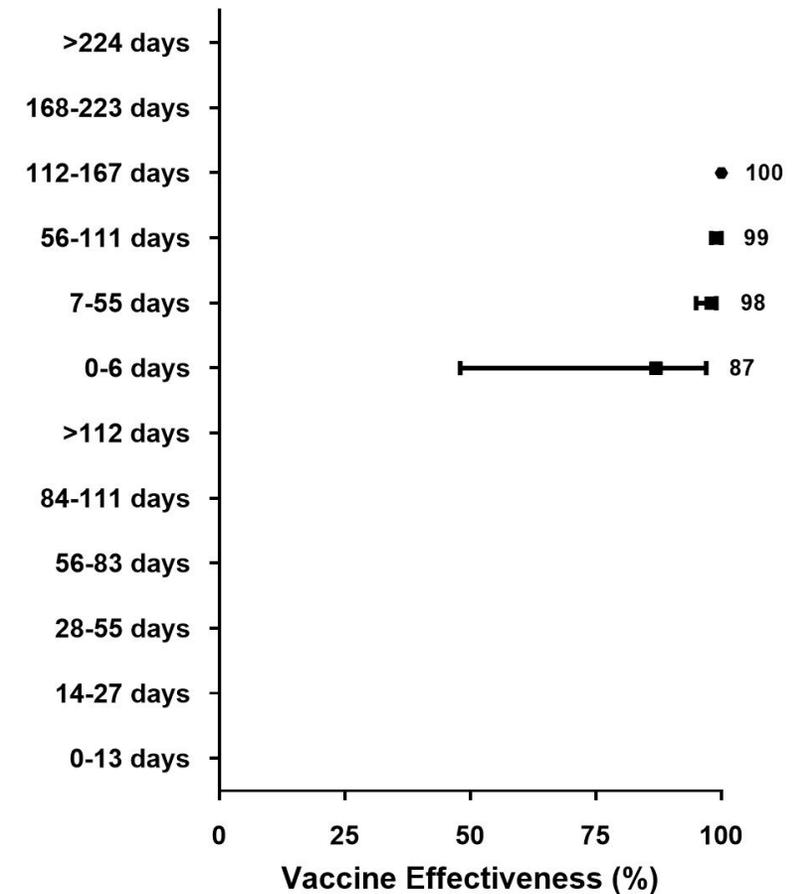
mRNA (Pfizer/Moderna)



AstraZeneca/COVISHIELD



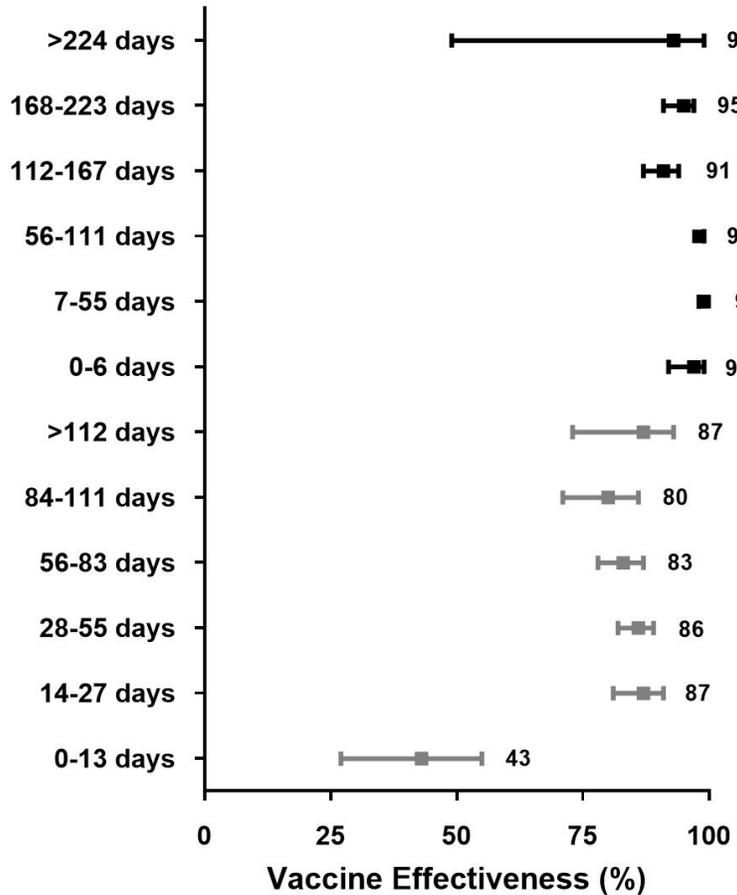
Mixed schedule (AZ+mRNA)



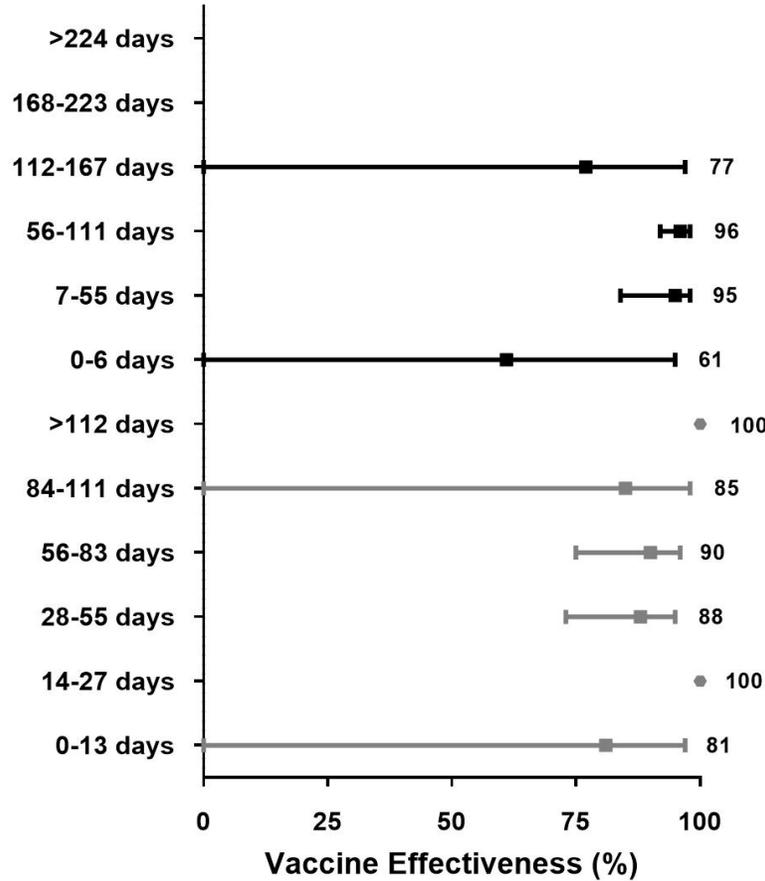
— Received only 1 dose — Received 2 doses

≥16 years, severe outcomes, Delta

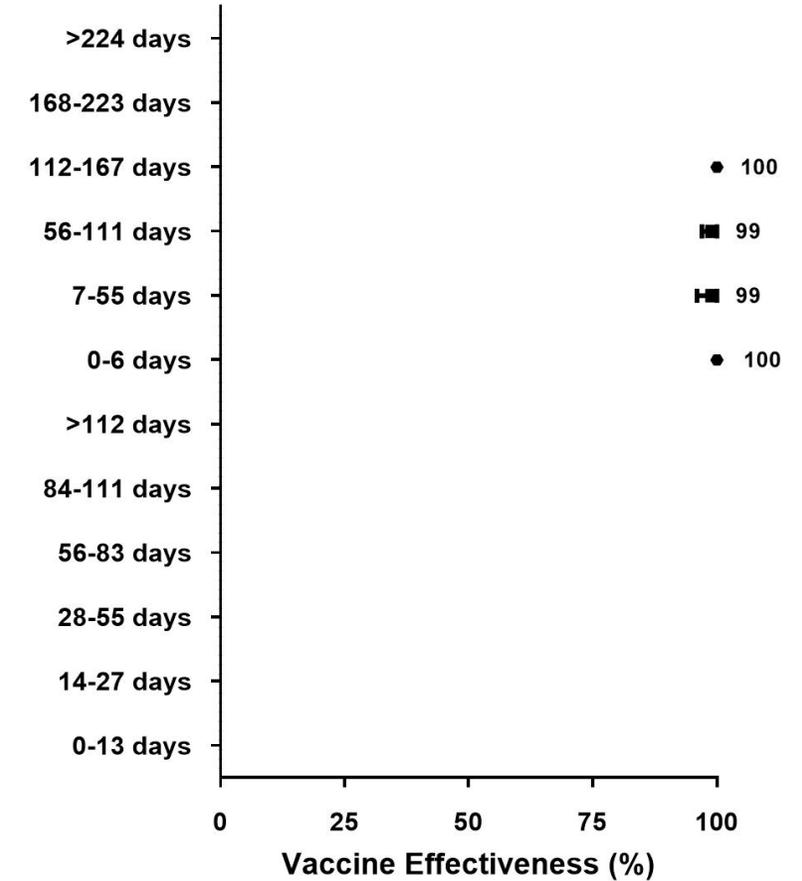
mRNA (Pfizer/Moderna)



AstraZeneca/COVISHIELD

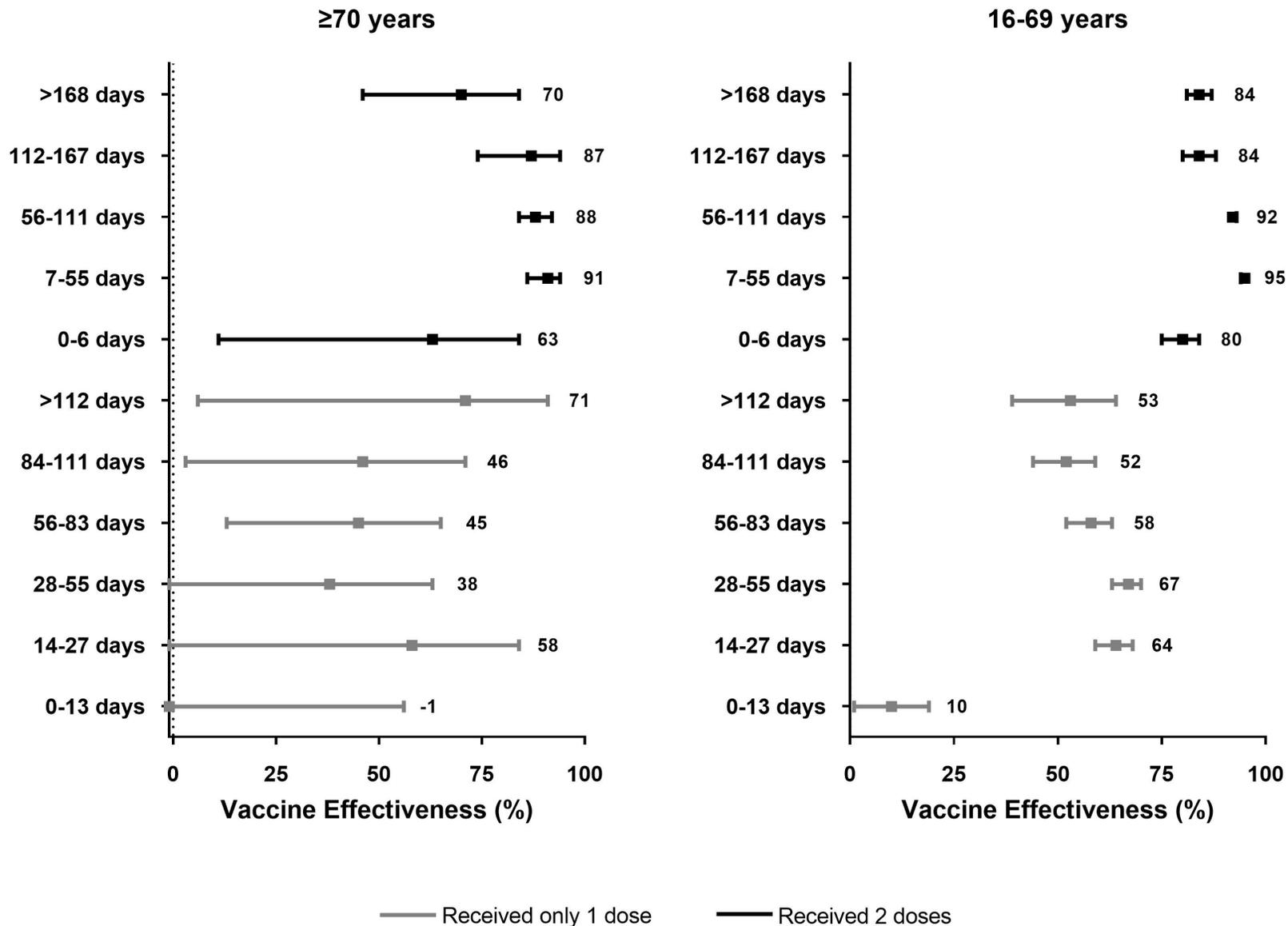


Mixed schedule (AZ+mRNA)

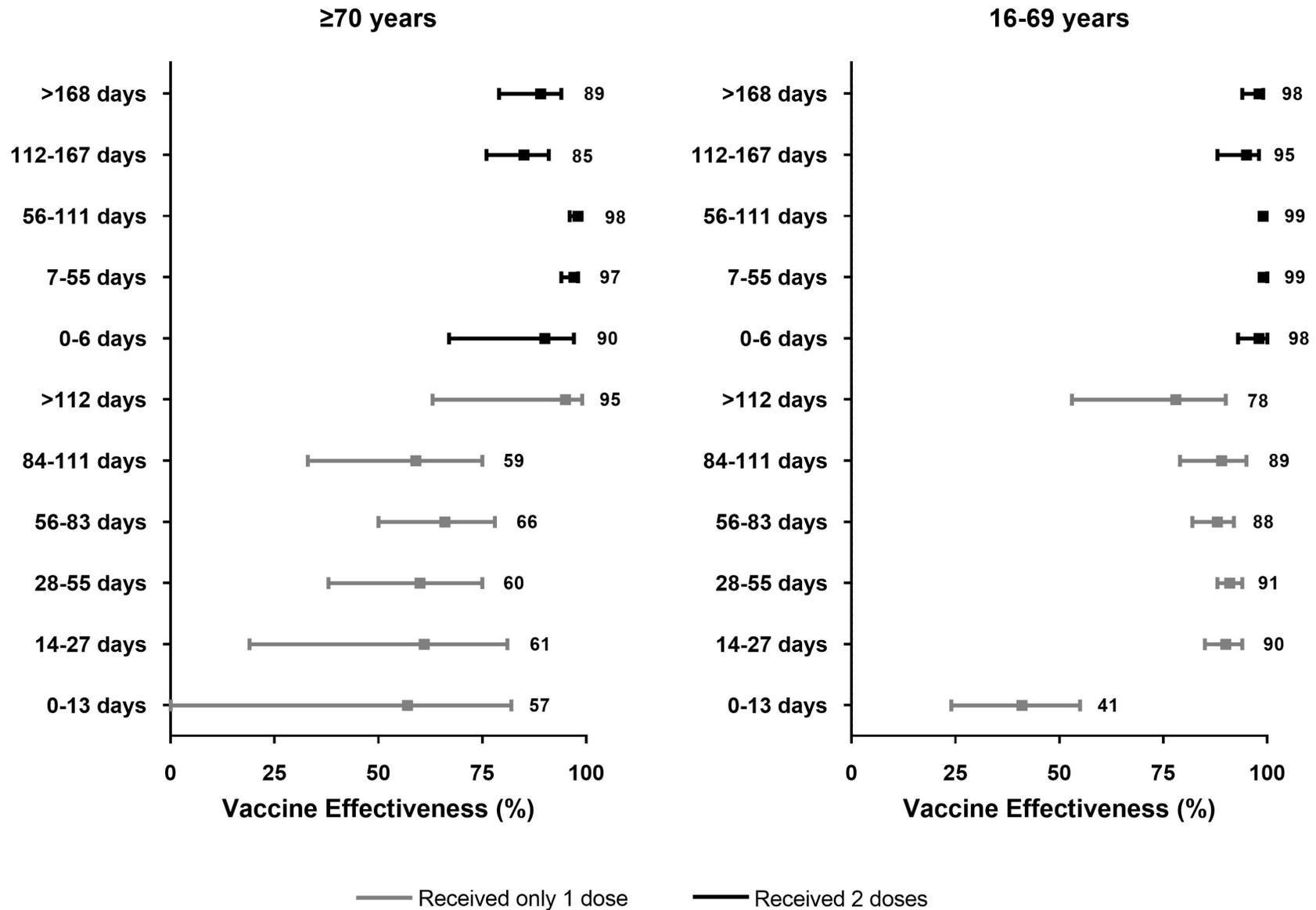


— Received only 1 dose — Received 2 doses

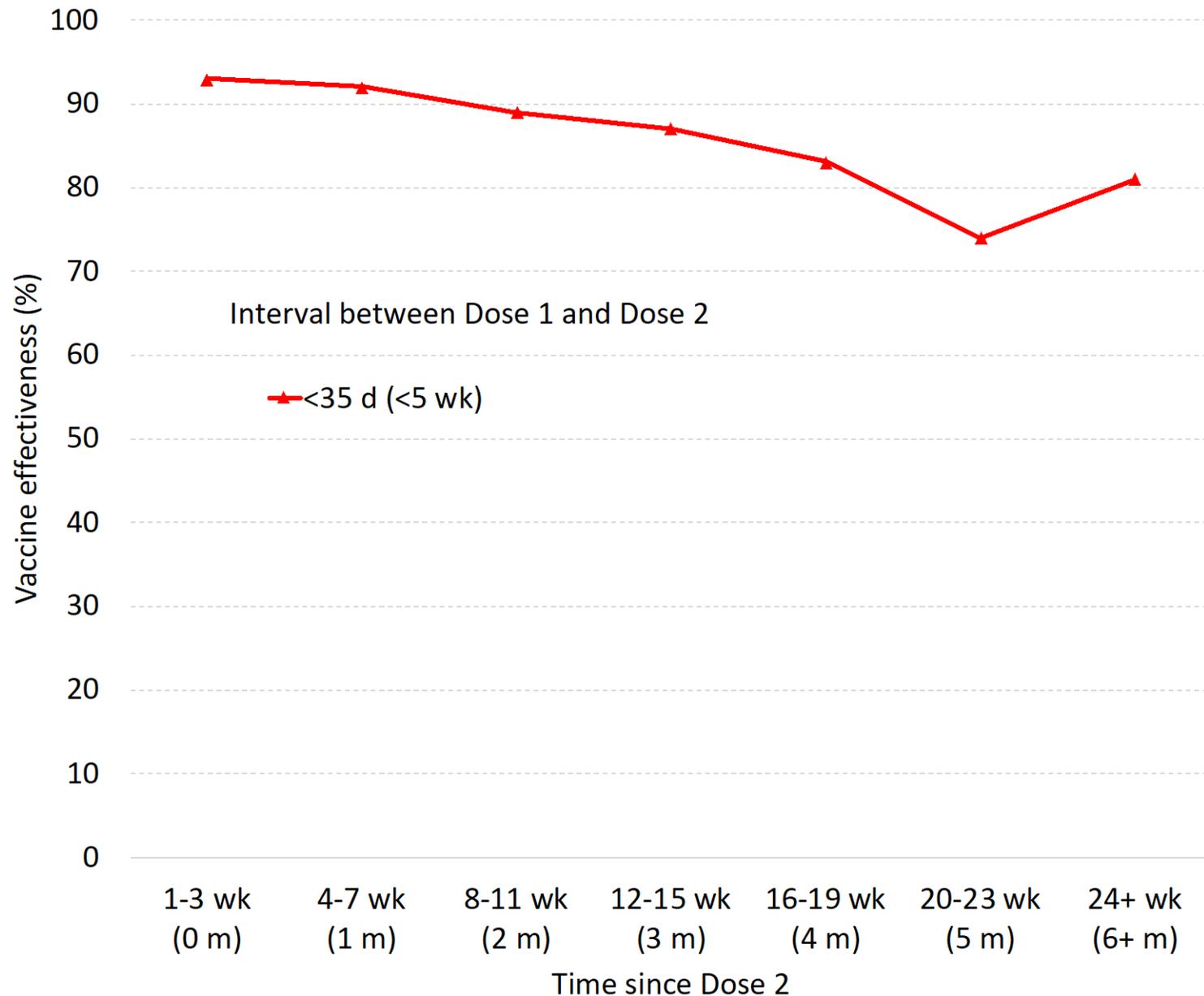
mRNA, symptomatic infection, Delta



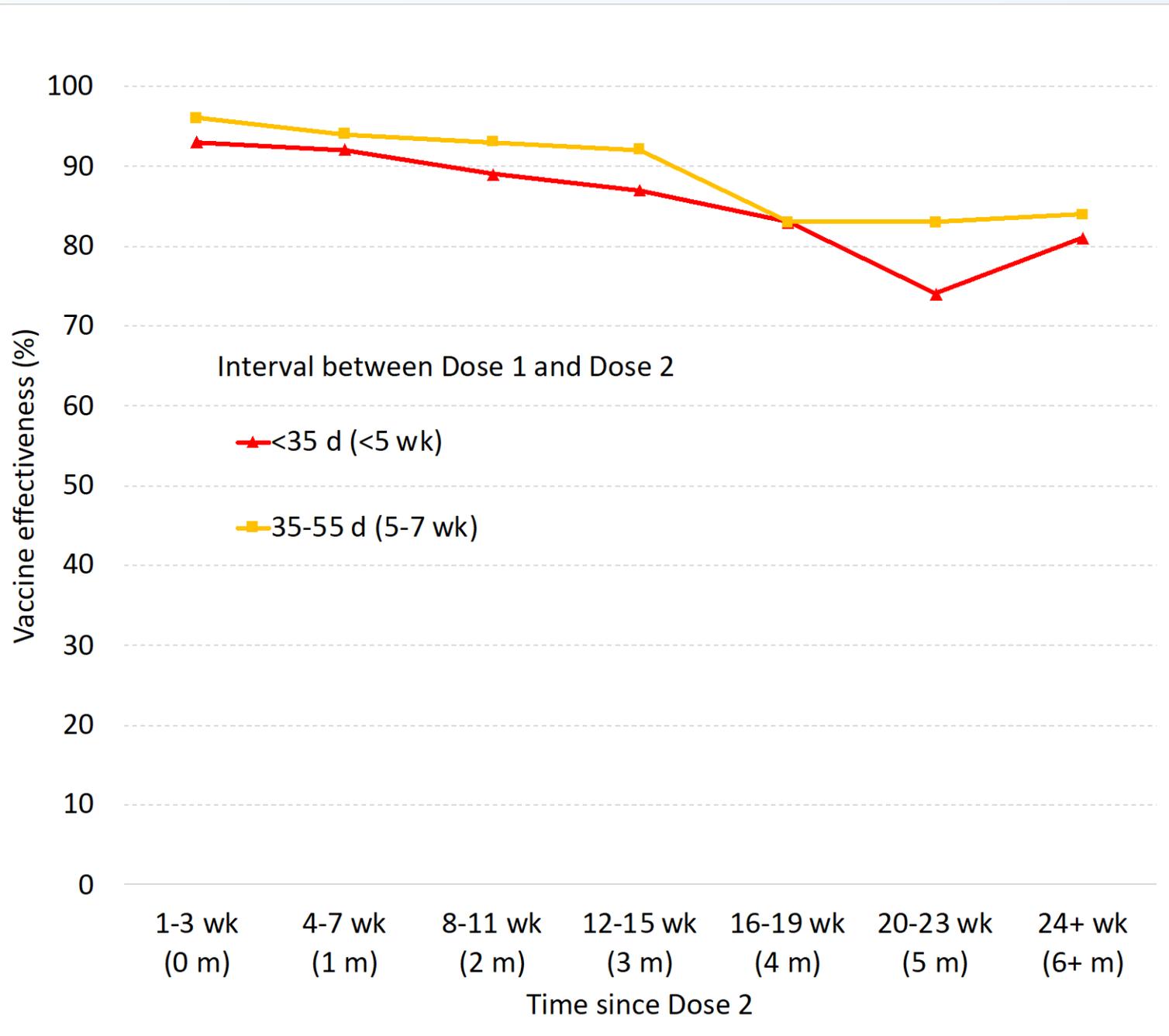
mRNA, severe outcomes, Delta



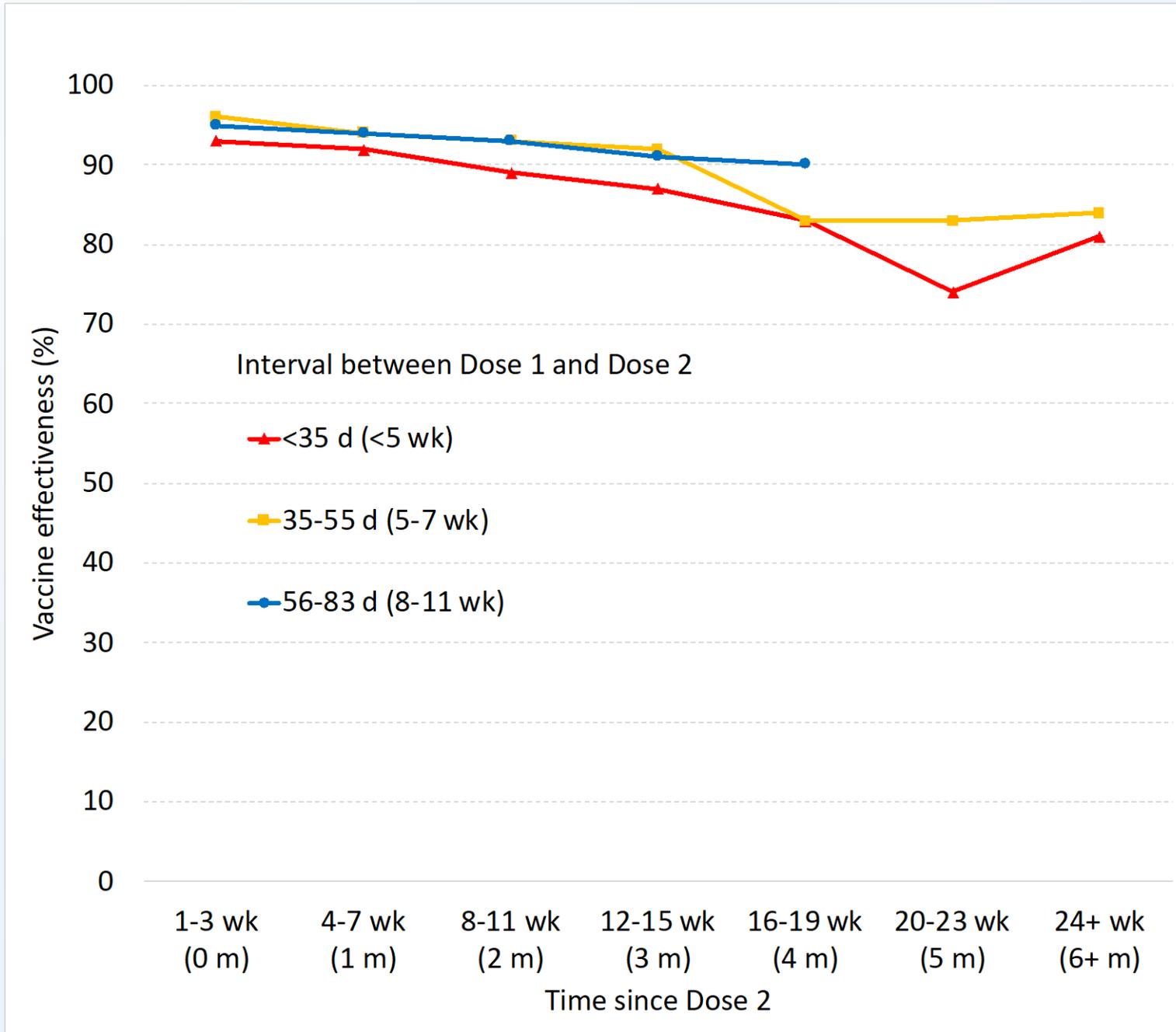
Impact of dosing interval and time since Dose 2 on VE, ≥ 16 years, mRNA, symptomatic infection, any lineage



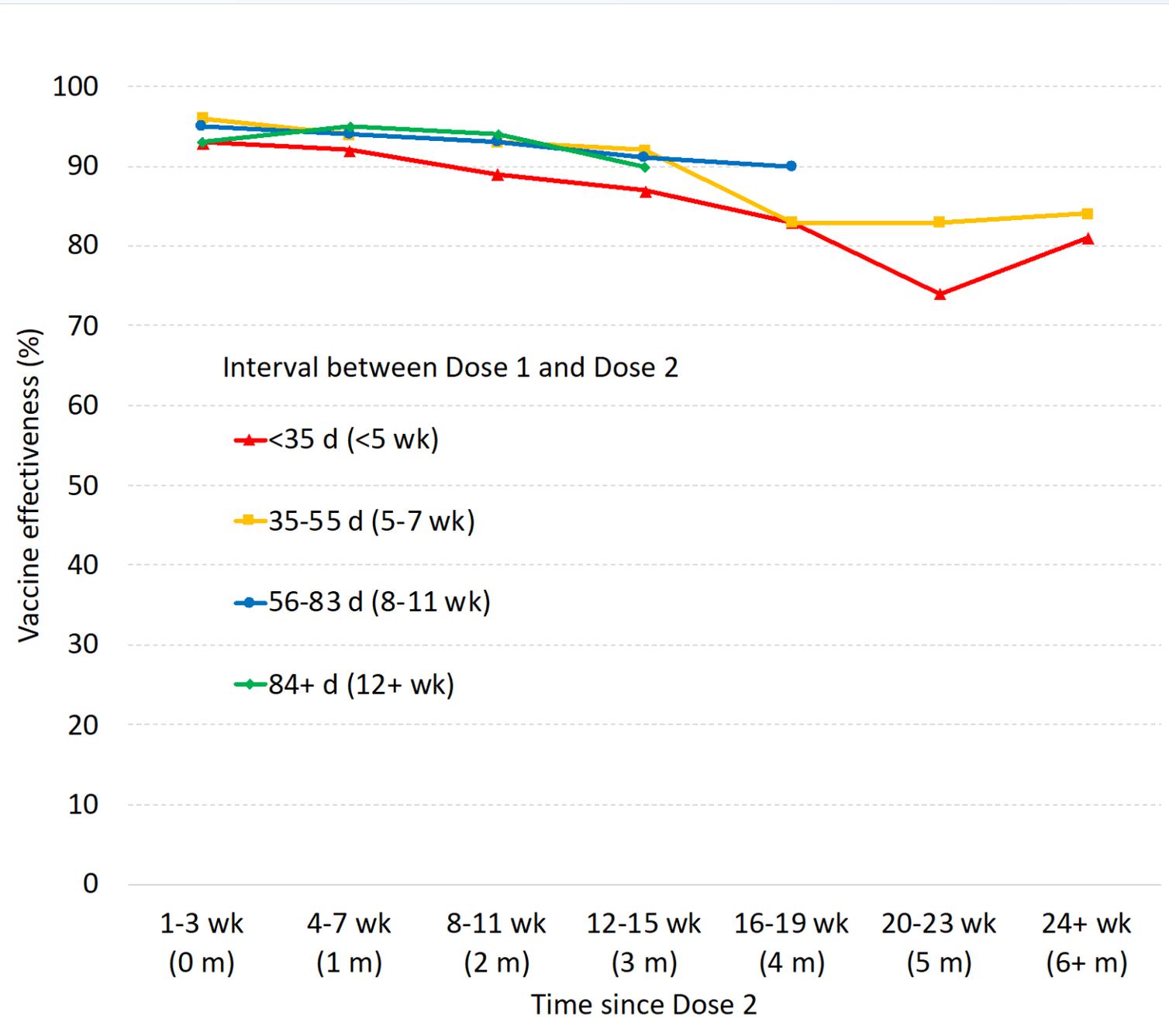
Impact of dosing interval and time since Dose 2 on VE, ≥ 16 years, mRNA, symptomatic infection, any lineage



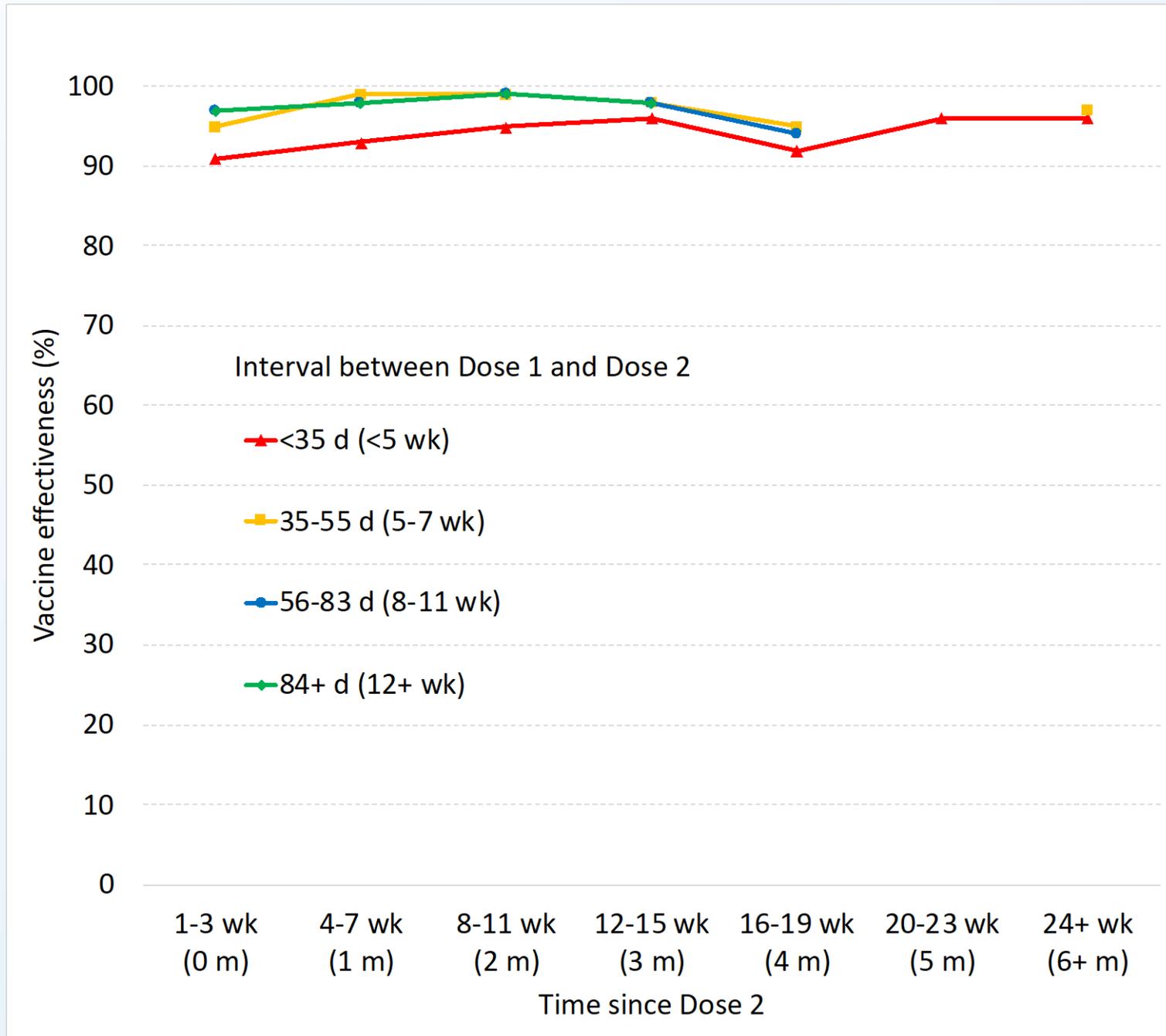
Impact of dosing interval and time since Dose 2 on VE, ≥ 16 years, mRNA, symptomatic infection, any lineage



Impact of dosing interval and time since Dose 2 on VE, ≥ 16 years, mRNA, symptomatic infection, any lineage



Impact of dosing interval and time since Dose 2 on VE, ≥ 16 years, mRNA, severe outcomes, any lineage



Summary

- Most studies show minimal waning of protection against severe outcomes
- Some studies show some waning of vaccine protection against infection – extent of waning varies by study
- Ontario data suggest very high VE for mRNA vaccines even ≥ 32 weeks after dose 2, with only slight waning (10%) against infection (maybe more for older adults) but not against severe outcomes
- Boosters don't appear to be needed for the general population at this time

COVID-19 vaccine third dose recommendations

To achieve better protection (vs boosting a response that has waned)

- **Vulnerable elderly in high-risk congregate settings**

- Long-term care
- High-risk retirement homes
- Elder care lodges

- **Moderately to severely immunocompromised**

- Active treatment for solid tumour or hematologic malignancies
- Solid-organ transplant and immunosuppressive therapy
- Chimeric antigen receptor (CAR)-T-cell therapy or hematopoietic stem cell transplant
- Moderate to severe primary immunodeficiency (e.g., DiGeorge syndrome, Wiskott-Aldrich syndrome)
- Stage 3 or advanced untreated HIV infection | acquired immunodeficiency syndrome
- Active treatment immunosuppressive therapies
 - anti-B cell therapies² (monoclonal antibodies targeting CD19, CD20 and CD22)
 - high-dose systemic corticosteroids (refer to the CIG for suggested definition of high dose steroids)
 - alkylating agents, antimetabolites, or tumor-necrosis factor (TNF) inhibitors and other biologic agents that are significantly immunosuppressive

MOH guidance, Sept. 14, 2021: [COVID-19 Vaccine Third Dose Recommendations](#)

NACI guidance, Sept. 10, 2021: [Additional dose of COVID-19 vaccine in immunocompromised individuals following 1- or 2-dose primary series](#)

Immunosuppressant medications eligible for third doses

Table 1: List of Immunosuppressant Medications for Third Doses

*This list may not be comprehensive; health care providers may identify patients on other medications that are significantly immunosuppressive. Prescriptions/ medication bottles for the below immunosuppressant medications can be presented for third doses as needed. If an individual presents a prescription of a medication that is not listed in Table 1, they should be directed to their health care provider to receive a referral form/letter for a third dose of the COVID-19 vaccine.

Class	Generic Name(s)	Brand Name(s)
Steroids (>20 mg per day of prednisone or equivalent for at least 2 weeks) ³	<ul style="list-style-type: none"> prednisone 	
	<ul style="list-style-type: none"> dexamethasone 	<ul style="list-style-type: none"> Decadron
	<ul style="list-style-type: none"> methylprednisolone 	<ul style="list-style-type: none"> DepoMedrol SoluMedrol Medrol

https://www.health.gov.on.ca/en/pro/programs/publichealth/coronavirus/docs/vaccine/COVID-19_vaccine_third_dose_recommendations.pdf

Class	Generic Name(s)	Brand Name(s)
Antimetabolites	<ul style="list-style-type: none"> cyclophosphamide 	<ul style="list-style-type: none"> Procytox
	<ul style="list-style-type: none"> leflunomide 	<ul style="list-style-type: none"> Arava
	<ul style="list-style-type: none"> methotrexate 	<ul style="list-style-type: none"> Trexall Metoject Otrexup Rasuvo Rheumatrex
	<ul style="list-style-type: none"> azathioprine 	<ul style="list-style-type: none"> Imuran
	<ul style="list-style-type: none"> 6- mercaptopurine (6-MP) 	<ul style="list-style-type: none"> Purinethol
	<ul style="list-style-type: none"> mycophenolic acid 	<ul style="list-style-type: none"> Myfortic
	<ul style="list-style-type: none"> mycophenolate mofetil 	<ul style="list-style-type: none"> Cellcept
Calcineurin inhibitors/mTOR kinase inhibitor	<ul style="list-style-type: none"> tacrolimus 	<ul style="list-style-type: none"> Prograf Advagraf Envarsus PA
	<ul style="list-style-type: none"> cyclosporine 	<ul style="list-style-type: none"> Neoral Gengraf Sandimmune
	<ul style="list-style-type: none"> sirolimus 	<ul style="list-style-type: none"> Rapamune
JAK (Janus kinase) inhibitors	<ul style="list-style-type: none"> baricitinib 	<ul style="list-style-type: none"> Olumiant
	<ul style="list-style-type: none"> tofacitinib 	<ul style="list-style-type: none"> Xeljanz
	<ul style="list-style-type: none"> upadacitinib 	<ul style="list-style-type: none"> Rinvoq
Anti-TNF (tumor necrosis factor)	<ul style="list-style-type: none"> adalimumab 	<ul style="list-style-type: none"> Humira Amgevita Hadlima Hulio Hyrimoz Idacio
	<ul style="list-style-type: none"> golimumab 	<ul style="list-style-type: none"> Simponi
	<ul style="list-style-type: none"> certolizumab pegol 	<ul style="list-style-type: none"> Cimzia
	<ul style="list-style-type: none"> etanercept 	<ul style="list-style-type: none"> Enbrel Brenzys Erelzi

Immunosuppressant medications eligible for third doses

Immunosuppressant medication list - updated September 22, 2021

Developed by: Pharmacists at the St. Michael's Academic Family Health Team, Department of Family and Community Medicine (Brenda Chang, Doret Cheng, Jon Hunchuck & Sharan Lail)

NOT AN EXHAUSTIVE LIST

Please note: This is NOT an exhaustive list, and was compiled as a quick reference for providers at our Family Practice. Information may evolve as the ministry of health updates their guidelines: https://health.gov.on.ca/en/pro/programs/publichealth/coronavirus/docs/vaccine/COVID-19_vaccine_third_dose_recommendations.pdf

Anti-B cell therapies (monoclonal antibodies targeting CD19, CD20 and CD22)	High-dose systemic corticosteroids	Alkylating agents	Antimetabolites	Tumor-necrosis factor (TNF) inhibitors	Biologic agents that are significantly immunosuppressive	Treatment for solid tumors	Chimeric antigen receptor (CAR)-T-cell
Anti-CD19 blinatumomab (Blincyto)	prednisone equivalent of ≥ 2 mg/kg/day or 20 mg/day if weight > 10 kg, for ≥ 14 days	bendamustine busulfan	6-mercaptopurine azathioprine	adalimumab (Humira, Amgevita, Hadlima, Hulio, Hyrimoz, Idacio) certolizumab (Cimzia) etanercept (Enbrel, Brenzys, Erelzi)	Interferon products: interferon alpha-2b (Intron A)	https://www.cancer.ca/en/drugformulary/drugs	
Anti-CD20 rituximab (Rituxin, Riabni, Truxima) ocrelizumab (Ocrevus) obinutuzumab (Gazyva) ofatumumab (Kesimpta)		carboplatin chlorambucil	capecitabine cytarabine	golimumab (Simpori) infliximab (Remicade, Avsola, Inflectra, Remsima, Renflenxis) ustekinumab (Stelara)	interferon beta-1a (Avonex, Rebif) interferon beta-1b (Betaseron, Extavia)		
Anti-CD22 epratuzumab inotuzumab-ozogamicin (Besponsa)		cisplatin cyclophosphamide dacarbazine ifosfamide lomustine melphalan oxaliplatin temozolomide thiotepa	fludarabine fluorouracil gemcitabine hydroxyurea methotrexate pemetrexed		peg-interferon beta-1b (Plegridy) peg-interferon alfa-2a (Pegasys)		
Anti-B cell belimumab (Benlysta)			Immunomodulators: leflunomide teriflunomide (Aubagio)		IL-1 inhibitors anakinra (Kineret)		
			cyclosporine mycophenolate sirolimus tacrolimus		IL-6 inhibitors sarilumab (Kevzara) tocilizumab (Actemra)		
					IL-23 inhibitors guselkumab (Tremfya) risankizumab (Skyrizi)		
					Anti-IL-17A ixekizumab (Taltz) secukinumab (Cosentyx)		
					Monoclonal Ab (VEGF Inhibitors): bevacizumab (Avastin, Mvasi)		
					Selective Adhesion Molecule Inhibitor:		

Developed by: Brenda Chang, Doret Cheng, Jon Hunchuck & Sharan Lail, Pharmacists at the St. Michael's Academic Family Health Team

https://docs.google.com/spreadsheets/d/1L9Ko0Xc6_VRyzKO6pneGbuu-OUR2NaQUBkjPI6-LAOA/edit?usp=sharing

Medical exemptions to COVID-19 vaccination

Four reasons for medical exemptions

- 1. Pre-existing condition** — allergist, immunologist or specialist must confirm individual is unable to receive any COVID-19 vaccine).
 - Medical exemption if severe allergy or anaphylactic reaction to a previous dose or any vaccine component
 - Medical exemption if myocarditis *before* starting mRNA vaccine series (age 12 to 17)
- 2. Contraindications to AZ/COVISHIELD vaccine** — history of capillary leak syndrome, cerebral venous sinus thrombosis with thrombocytopenia, heparin-induced thrombocytopenia, or major venous and/or arterial thrombosis with thrombocytopenia following any vaccine
 - ❑ Complete vaccine series with mRNA vaccine
 - Medical exemption if individual has medical exemption to receiving mRNA vaccine

Medical exemptions to COVID-19 vaccination (cont'd)

3. Adverse events following COVID-19 immunization

- Severe allergic reaction or anaphylaxis following a COVID-19 vaccine.
 - Exemption if allergist/immunologist determines unable to receive any COVID-19 vaccine
- TTS/VITT4 following AstraZeneca/COVISHIELD COVID19 vaccine
 - Exemption if medical exemption to completing series with mRNA vaccine
- Myocarditis or pericarditis following a mRNA COVID-19 vaccine
 - Exemption if diagnosed after medical evaluation (discuss immunization/re-immunization options with specialist if uncertain diagnosis)
- Serious adverse event following COVID-19 immunization
 - Exemption if medically evaluated, risk-benefit of immunization options discussed with relevant specialist AND determined unable to receive any COVID-19 vaccine

4. Receiving monoclonal antibody therapy OR convalescent plasma therapy for the treatment or prevention of COVID-19

- Time-limited exemption while receiving therapy

MOH guidance, Sept. 14,2021: [Medical Exemptions to COVID-19 vaccination](#)



SickKids_TheHospital

@SickKidsNews



Do you have questions about your child getting the [#COVID19Vaccine](#)? We've launched a COVID-19 Vaccine Consult Service to help answer those questions.

Make an appointment to speak to a SickKids clinician through a confidential phone consult: [sickkids.ca/vaccineconsult](https://www.sickkids.ca/vaccineconsult)



Talk to a knowledgeable SickKids clinician to get your questions answered about the COVID-19 vaccine for children and youth.

Visit www.sickkids.ca/vaccineconsult to book a confidential phone appointment.



<https://www.sickkids.ca/en/care-services/support-services/covid-19-vaccine-consult/>

Want to know more about
the COVID-19 vaccine?

Our doctors are
ready to talk with
you and answer
your questions.

Book a one-to-one phone
conversation with one of
our doctors so that you can
make an informed decision:

 shn.ca/VaxFacts

 416-438-2911 ext. 5738



Questions?

Webinar recording and curated Q&A will be posted soon

<https://www.dfcu.utoronto.ca/covid-19-community-practice/past-sessions>

Our next Community of Practice: **Friday, October 22, 2021**

Contact us: ocfpcme@ocfp.on.ca

Visit: <https://www.ontariofamilyphysicians.ca/tools-resources/covid-19-resources>

This one-credit-per-hour Group Learning program has been certified by the College of Family Physicians of Canada and the Ontario Chapter for up to 1 Mainpro+®credits.

The COVID-19 Community of Practice for Ontario Family Physician includes a series of planned webinars. Each session is worth 1 Mainpro+®credits, for up to a total of 26 credits.

Post session survey will be emailed to you. Mainpro+ credits will be entered for you with the information you provided during registration.