Planned Uptake of Bivalent COVID-19 Vaccines in Canadian Healthcare and Education Personnel, December 2022

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Objectives

To determine:

- Planned / actual uptake of bivalent formulations of COVID-19 vaccines
- Reasons for / against being vaccinated
- Opinions about bivalent vaccines' safety and effectiveness
- Opinions about public health and workplace measures to prevent the spread of COVID-19

in participants of the *Canadian COVID-19 Cohort Study of healthcare workers* and the *(Ontario) COVID-19 Cohort Study of teachers and education workers*

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Background

- Pandemic “fatigue” is being reported around the world
- Public masking and other prevention measures have been dropped
- Testing for COVID-19 has been drastically reduced
  - Yet, over 3,000 cases per week are being reported in Canada (June, 2023)

- Previous vaccines are less effective against the Omicron variant
- Bivalent vaccines have been approved for use to combat the spread of SARS-CoV-2 variants

Methods: Eligibility

Factor	Healthcare workers	Education workers
Enrolment start (staggered)	Ontario: June 2020 Alberta: January 2021 Nova Scotia: February 2021 Quebec: June 2021	Ontario: February 2021
Age	18-75	18-74
Hours work/week	>20 hrs/week ≥8 hrs/week with ill (MD/NP)	≥8 hrs/week
Employment	Any position at participating hospital and plan to be employed for ≥3 months	Any position at public, Catholic or independent school in Ontario and plan to be employed for ≥3 months

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Methods: Questionnaires

- Baseline (and annual updates) of potential exposures
- Vaccinations against COVID-19
- Respiratory illnesses (any)
- Biweekly
- One-time
  - Intent to vaccinate (Feb to June 2021)
  - Plans to receive bivalent vaccine (Dec 2022)

Methods

- Eligible: Adults participating in either study
- December 2-31, 2022
- Fully online
- Notice sent in regular biweekly reminder emails
- Questionnaire-specific email: December 12th

Results: Demographics

Factor	Healthcare workers	Education workers
Participation (of those eligible)	863 (62.9)	1453 (67.1)
Female	746 (87.3)	1249 (86.3)
Age, median (IQR)	43.0 (34.4, 52.8)	46.9 (41.2, 52.6)*
Non-Caucasian	165 (19.1)	118 (8.1)*
Household size, median	2 (1, 3)	3 (1, 3)*
Doctorate education	123 (14.3)	22 (1.5)*
COVID-19 vaccines, median (to Dec)	4 (3, 4)	4 (3, 4)
Planned uptake of bivalent vaccine		
-Already received, yes, or very likely	683 (79.1)	1104 (76.0)
- Not sure	67 (7.8)	148 (10.2)
- Not likely, or no, definitely not	113 (13.1)	200 (13.8)

* Significantly different for healthcare vs education workers

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Results: Opinions about vaccines & mandates

Opinion	Yes/very likely to be vaccinated	Not likely /definitely not being vaccinated
COVID-19 vaccines are safe Strongly agree	1138 (63.9)	27 (8.8)*
COVID-19 vaccines are effective Strongly agree	995 (55.9)	22 (7.1)*
Public health recommendations: too lax Healthcare workers Teachers/education workers	322 (47.2) 660 (60.5)	25 (13.9)* 98 (29.3)*
More careful than public health recommendations Healthcare workers Teachers/education workers	474 (69.4) 755 (69.3)	70 (38.9)* 123 (36.8)*
Workplace recommendations: too lax Healthcare workers Teachers/education workers	51 (7.5) 709 (65.3)	3 (1.7)* 118 (35.6)*
More careful than workplace recommendations Healthcare workers Teachers/education workers	368 (54.3) 815 (75.2)	66 (37.7)* 145 (44.1)*

*Significantly different for likely to be vs not likely to be vaccinated

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Results: Those more likely to plan bivalent vaccination

-Teachers more likely than nurses & non-nursing healthcare providers but similar to physicians & administrative staff

-Had more doses of COVID-19 vaccines previously

-Strongly agree that COVID-19 vaccines are safe

-Agree/strongly agree that COVID-19 vaccines are effective

-Received an influenza vaccine in 2020-2021

-More careful than public health recommendations

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Results: Comparison of opinions stated in Jan-June 2021

Opinion	Yes/very likely to be vaccinated with bivalent	Not likely/definitely not being vaccinated with bivalent
Very worried about getting COVID-19	346 (33.0)	33 (19.5)*
Very worried about becoming seriously ill if infected with COVID-19	137 (13.3)	12 (7.2)*
Very worried about household member becoming seriously ill if infection with COVID-19	462 (44.0)	48 (28.4)*

*Significantly different for likely to be vs not likely to be vaccinated

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Conclusions

- 77% of respondents planned to receive bivalent booster(s)
- Plans to be vaccinated were associated with:
    -number of previous vaccinations
    -opinions about COVID-19 vaccine safety and effectiveness
    -level of concern about becoming infected with SARS-CoV-2
- 40% of healthcare & 50% of education workers thought public health measures to prevent the spread of COVID-19 were too lax
- Most Canadian healthcare workers were satisfied with workplace measures
- The majority of Ontario-based education workers were not satisfied & were taking extra precautions to prevent the spread of the virus

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Thank you!

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