

Appendix 1

Table 1 – Survey Questions

Dear Participant,

My research team and I invite you to participate in our survey exploring the impact of healthcare sector Covid-19 policies, especially mandates, on the healthcare labour force and on patient care in Alberta. The survey will take about 60 minutes to complete. We will ask you about what led you to become vaccinated / remain unvaccinated, the experience of being vaccinated / unvaccinated, the impact of vaccine status on your professional standing, and your views on whether and how Covid-19 vaccination policies on the healthcare labour force may have affected patient care.

Participation in the survey is completely voluntary and you are free to withdraw at any time. Any information you share with us during the surveys will be kept confidential. We will not ask you to provide your name, and when we report our findings, we will remove all identifying information. If you have questions about the research in general or about your role in the study, please feel free to contact me by e-mail: cchaufan@yorku.ca.

Thank you for assisting us in our efforts!

Dr. Claudia Chaufan and her research team.

Online Consent Form

Study Name: What has been the impact of healthcare sector Covid-19 policies on access to care in Canada? A mixed-methods study

Researchers: Claudia Chaufan, Principal Investigator (PI); Natalie Hemsing, Research Assistant (RA) Room #312, Stong College, Keele Campus, York University, Telephone: 416-736-2100 ext. 22134 email: cchaufan@yorku.ca

Purpose of the Research: To explore the drivers of vaccine uptake, the experience of making vaccination decisions, and the impact of vaccination policies among healthcare workers in Alberta.

What You Will Be Asked to Do in the Research: You will be asked to participate in a 60-minute online survey administered through the secure web survey platform Google Forms. Because we are interested in the perspectives of vaccine mandates of healthcare workers from all vaccination statuses, if you decide to participate, we will ask you to indicate your status. Once we send you a link to the survey, once you access the survey link, you will be taken to a secure online web survey. You will provide consent online, so the survey questions will only be accessible after you click yes to the question "Do you consent to participate?" During the survey, we will ask you about your employment status and history, your experience of making vaccination decisions, the impacts of your decisions on your life, and the impacts of vaccination policies in your workplace, including on patient care. You will also be entered into a raffle to receive a \$100 gift card for your participation in this study.

Risks and Discomforts: It is possible that discussing your experience of vaccination may cause psychological/emotional discomfort or anxiety, particularly if you have had a negative experience. You do not need to answer questions that you do not wish to answer or that make you feel uncomfortable. You are also free to stop the survey at any time. By sharing information on your vaccination status, there is also the potential for social risks (including loss of social status or reputation) and data privacy

risks. However, and as described below, we will take all possible steps to protect your confidentiality, including personal medical information on vaccination status.

Benefits of the Research and Benefits to You: There are no direct benefits to you for participating in the study; however, your perspective will contribute to knowledge about the reasons informing vaccination decisions and the impacts of vaccination policies on healthcare workers and patient care.

Voluntary Participation and Withdrawal: Your participation in the study is completely voluntary and you may choose to stop participating at any time. Your decision not to volunteer, to stop participating, or to not answer certain questions will not influence the nature of your relationship with York University or any of its members either now, or in the future. If you stop participating and withdraw without completing the survey, you will still be entered into the raffle. In the event you withdraw from the study, all associated data collected will be immediately destroyed.

Confidentiality: All information you supply during the research will be held in confidence. Your name will not be collected, and identifiers will not appear in any report or publication of the research. The PI will keep a link that identifies you to your coded information, but this link will be kept secure and available only to the principal investigator and selected members of the research team. Any information that can identify you will remain confidential.

The host of the online survey (Google Forms) may automatically collect participant data without their knowledge (e.g., IP addresses.). This information may be provided or made accessible to the researchers, but it will not be used or saved on the researcher's system without participant's consent. Because this project employs e-based collection techniques, data may be subject to access by third parties because of various security legislation now in place in many countries, and therefore the confidentiality and privacy of data cannot be guaranteed during web-based transmission.

All data will be stored in a password protected secure cloud storage server. All electronic files containing personal/ potentially identifiable information will be encrypted. The data will be coded to ensure participant confidentiality. The data will be destroyed 10 years after completion of the research project, by January 2035, by deleting computer files. Confidentiality will be fully protected in accordance with the law.

The data collected in this research project may be used, in an anonymous and de-identified form, by members of the research team in subsequent research investigations exploring similar lines of inquiry. Such projects will still undergo ethics review by the HPRC, our institutional REB. Any secondary use of anonymized data by the research team will be treated with the same degree of confidentiality and anonymity as in the original research project.

Questions About the Research? If you have questions about the research in general or about your role in the study, please feel free to contact Prof. Claudia Chaufan by e-mail (cchaufan@yorku.ca) or her research assistant, Ms. Natalie Hemsing (nhemsing@yorku.ca). This research has received ethics review and approval by the Human Participants Review Sub-Committee, York University's Ethics Review Board and conforms to the standards of the Canada Tri-Council Research Ethics guidelines. If you have any questions about this process, or about your rights as a participant in the study, please contact the Director, Office of Research Ethics, Kaneff Tower, York University (e-mail ore@yorku.ca).

Legal Rights and Signatures: I consent to participate in: What has been the impact of healthcare sector Covid-19 policies on access to care in Canada? A mixed methods study, conducted by Dr Claudia Chauhan. I have understood the nature of this project and wish to participate. I am not waiving any of my legal rights by providing my consent. Clicking “yes” below indicates my consent to participate.

Screening Questions

Do you consent to participate?

- Yes
- No

Do you currently, or did you previously, work in healthcare in the province of Alberta?

- Yes
- No

Demographics

1. What is your age group?

- 18 to 24
- 25 to 34
- 35 to 44
- 45 to 54
- 55 to 64
- 65 or older

2. What is your gender identity?

- Woman
- Man
- Transgender woman
- Transgender man
- Non-binary
- Prefer not to answer
- Other

3. What is your country of birth?

Blank (fill in answer)

4. What is your ethnic or cultural background¹?

Check all that apply.

- Indigenous
- Caucasian or White
- Chinese
- South Asian (Indian, Pakistani, Sri Lankan, etc.)
- Black

¹ Government of Canada, S. C. (2022, March 30). *Visible Minority and Population Group Reference Guide, Census of Population, 2021*. <https://www12.statcan.gc.ca/census-recensement/2021/ref/98-500/006/98-500-x2021006-eng.cfm>

- Filipino
- Latin American
- Southeast Asian (Cambodian, Indonesian, Laotian, Vietnamese, etc.)
- Arab (Saudi, Egyptian, etc.)
- West Asian (Afghan, Iranian, etc.)
- Japanese
- Korean
- Other

5. What is your domestic status?

- Single
- Married or living with partner
- Widow (er)
- Other

6. What are your caretaking responsibilities?

Check all that apply.

- Only Children/ Stepchildren
- Only Parents / Elderly relatives
- Both Children / Stepchildren and Parents / Elderly Relatives
- None
- Other

7. What is your educational level?

Check all that apply.

- Doctor of Medicine (MD)
- Bachelor of Science in Nursing (BScN)
- Master of Science in Nursing (MScN) or Master of Nursing (MN)
- Registered Nurse (RN) or Licensed Practical Nurse (LPN) or Registered Practical Nurse (RPN) diploma
- Nursing Assistant diploma
- Nurse Practitioner (NP) graduate diploma
- Paramedical or Emergency Medical Technician (EMT) program
- Bachelor of Sciences Physician Assistant (BScPA)
- Master of Physician Assistant Studies (MPAS)
- Doctor of Dental Medicine/ Surgery (DDM, DDS)
- Bachelor or advanced degree, Health Administration/ Systems Management (e.g., BHAD)
- Bachelor of Health Sciences (BHSc)
- Master of Health Sciences (MHSc)
- Master of Public Health (MPH)
- PhD (any field)
- Registered Massage Therapy (RMT) diploma
- Bachelor of Health Science in Occupational Therapy
- Master of Science in Occupational Therapy (MScOT)
- Bachelor of Science in Midwifery
- Bachelor of Health Science in Midwifery
- Master of Science in Midwifery
- Other Midwifery degree
- Master of Science in Physical Therapy (MScPT)

- Dental Hygiene diploma
- Bachelor of Science in Nutrition or Food Sciences/ Dietetics
- Medical Radiation Technologist Diploma
- Bachelor or Doctor of Pharmacy
- Doctor of Optometry (OD)
- Doctor of Chiropractic Degree (DC)
- Doctor of Veterinary Medicine
- Doctor of Naturopathy degree
- Traditional Chinese Medicine (TCM) diploma
- Acupuncture diploma
- Phytotherapy (herbal medicine) diploma
- Homeopathy
- Other

8. How would you describe your socioeconomic status (consider total household income and other non-employment sources of income)?

- Very low-income
- Low-income
- Middle-income
- High middle-income
- High-income
- Prefer not to answer

Employment

9. What is your current employment status?

- Unemployed
- Self-employed
- Employed part-time
- Employed full-time
- Contractor
- Casual
- Travel Nurse
- Other

10. Please select the Alberta health region(s) you work / worked in²:

Check all that apply (find citation)

- South Zone: Code 4831
- Calgary Zone: Code 4832
- Central Zone: Code 4833
- Edmonton Zone: Code 4834
- North Zone: Code 4835

11. What is your profession / area of occupation?

Check all that apply

- Academic appointment/ University affiliation

² Statistics Canada. (2023). *Health regions: Boundaries and correspondence with census geography map 11 Alberta health regions, 2022*. <https://www150.statcan.gc.ca/n1/pub/82-402-x/2023001/rm-cr/rm-cr11-eng.htm>

- In clinical practice
- Not in clinical practice
- Health profession student
- Health professional in training (e.g., resident)
- Specialist physician
- General practitioner/ Family physician
- Registered nurse/ Registered psychiatric nurse
- Licensed practical nurse
- Nursing coordinator/ Supervisor
- Nurse's aide/ Orderly/ Patient services associate (e.g., health care aide, long-term care aide, nursing assistant)
- Personal Support Worker (PSW)
- Social Worker
- Allied primary health practitioner (e.g., nurse practitioner, midwife, physician assistant)
- Paramedical occupation (e.g., EMT, ambulance attendant, advanced care paramedic)
- Audiologist/ Speech-language pathologist
- Physiotherapist or Physiotherapist Assistant (PTA)
- Occupational therapist or Occupational therapy Assistant
- Medical technologist/ Technician (e.g., medical laboratory technologist, respiratory therapist)
- Dentist
- Dental care - technical occupation (e.g., dental hygienist, denturist)
- Dental assistant
- Veterinarian
- Optometrist
- Chiropractor
- Pharmacist
- Dietician/ Nutritionist
- Massage therapist
- Natural healing practitioner (e.g., acupuncturist, traditional Chinese medicine (TCM) practitioner)
- Other

12. How many years of education / training do you have (include pre- and post- secondary)?

- 0-4 years
- 5-9 years
- 10+ years

13. How many years of experience do you have in your most recent career?

- 0-5 years
- 6-10 years
- 11-15 years
- 16-20 years
- 21-25 years
- 26-30 years
- 31-35 years
- 36-39 years
- 40+ years

Covid-19 experiences

14. Did you ever test positive for SARS-Cov2? (PCR or rapid antigen test or serological test for SARS-CoV-2 antibodies)

- I never tested positive, and I never experienced symptoms
- I never tested positive, but I experienced symptoms
- I tested positive but I did not experience symptoms
- I tested positive and I experienced symptoms
- Other

15. What has been the relationship between experiencing Covid-19 symptoms and your vaccination status?

Check all that apply

I never experienced Covid-19 symptoms and I am vaccinated

I never experienced Covid-19 symptoms and I am not vaccinated

I never experienced Covid-19 symptoms but tested positive for Covid-19 (PCR or rapid antigen test or serological test for SARS-CoV-2 antibodies) and I am vaccinated

I never experienced Covid-19 symptoms but tested positive for Covid-19 (PCR or rapid antigen test or serological test for SARS-CoV-2 antibodies) and I am not vaccinated

I experienced Covid-19 (symptoms or testing) before the 1st dose

I experienced Covid-19 (symptoms or testing) after the 1st dose

I experienced Covid-19 (symptoms or testing) after the 2nd dose

I experienced Covid-19 (symptoms or testing) after the 3rd or later dose

I experienced Covid-19 (symptoms or testing) and was not vaccinated

Informed Consent

16. Employer (or professional college or public health authority if self-employed) provided written information about the vaccines

Check all that apply

- Yes, I was provided a package insert from the vaccine manufacturer(s)
- Yes, I was provided information from public health agencies or equivalent
- No, they never provided me written information about the vaccines
- Other

17. If you received written information from your employer (or professional college or public health authority if self-employed) did it enable you to make an informed decision about vaccination?

- Yes
- No
- I did not receive written information

Please note your level of agreement with the following statements related to your decision making on Covid-19 vaccines: Scale from Strongly disagree, Disagree, Neutral, Agree, Strongly agree, N.A

18. I felt entirely free to choose whether or not to get vaccinated

19. I felt coerced to get vaccinated (if not vaccinated, choose N/A)

20. I had safety concerns with the Covid-19 vaccines

21. I had personal medical concerns with the Covid-19 vaccines (e.g., I have an autoimmune disorder)

22. I had religious concerns with the Covid-19 vaccines

23. I am happy with my choice to get vaccinated (if you did not get vaccinated choose N/A)
24. I am happy with my choice to NOT get vaccinated (if you got vaccinated choose NA)
25. I felt comfortable expressing safety concerns about the Covid-19 vaccines with my employer
26. I did my own research to determine the safety and efficacy of the Covid-19 vaccines

Vaccination decision-making

27. What is your Covid-19 vaccination status?

- Unvaccinated Skip to section 11 (Accommodations & equity considerations)
- Partially vaccinated (i.e., partial primary series)
- Fully vaccinated (complete primary series)
- Boosted once
- Boosted twice or more

Decision to become vaccinated

28. What was your primary reason for getting vaccinated?

- To protect myself from severe outcomes (e.g., severe disease, hospitalization, death)
- To protect my loved ones from severe outcomes (e.g., severe disease, hospitalization, death)
- To protect the larger community from severe outcomes (e.g., severe disease, hospitalization, death)
- It was mandated at work
- It was mandated at school/ university
- It was mandated at social venues (e.g., restaurants)
- It was mandated for travel (e.g., visiting family or vacations)
- It was mandated to visit vulnerable loved ones (e.g., grandparent in nursing home)
- It was mandated at place of worship (e.g., church, temple, mosque)
- I did it to avoid rejection from friends/ family members/ members of the community
- Other

29. Choose up to three main reasons for getting vaccinated

Check all that apply

- To protect myself from severe outcomes (e.g., severe disease, hospitalization, death)
- To protect my loved ones from severe outcomes (e.g., severe disease, hospitalization, death)
- To protect the larger community from severe outcomes (e.g., severe disease, hospitalization, death)
- It was mandated at work
- It was mandated at school/ university
- It was mandated at social venues (e.g., restaurants)
- It was mandated for travel (e.g., visiting family or vacations)
- It was mandated to visit vulnerable loved ones (e.g., grandparent in nursing home)
- It was mandated at place of worship (e.g., church, temple, mosque)
- I did it to avoid rejection from friends/ family members/ members of the community
- Other

30. If you took the vaccine, you recommended it to

Check all that apply

- Family members / relatives
- Friends and acquaintances

- People I did not know
- I did not recommend it
- Other
- Prefer not to answer

Vaccine side effects

31. What was your post-vaccination experience?

Check all that apply

- N/A (no reactions ever)
- Mild reaction after 1st dose
- Mild reaction after 2nd dose
- Mild reaction after 3rd or later dose
- Moderate reaction after 1st dose
- Moderate reaction after 2nd dose
- Moderate reaction after 3rd or later dose
- Severe reaction after 1st dose
- Severe reaction after 2nd dose
- Severe reaction after 3rd or later dose
- Life-threatening after 1st dose
- Life-threatening after 2nd dose
- Life-threatening after 3rd or later dose
- Other

32. Did you communicate your adverse reaction to your GP/ family doctor or other medical personnel?

- N/A (no adverse reaction)
- No, I did not communicate my reaction to GP / other medical personnel
- Yes, I communicated my reaction to GP / other medical personnel, and they filed a report
- Yes, I communicated my reaction to GP / other medical personnel, but they did not file a report
- Yes, I communicated my reaction to GP / other medical personnel, and I do not know if they filed a report
- Other

33. Did you experience an adverse reaction after a Covid-19 vaccine and still were required to take additional doses?

- Yes
- No
- Prefer not to answer

Accommodations & equity considerations

34. Did your employer or regulatory authorities offer alternatives to vaccination?

- Yes, testing on site paid for by employer
- Yes, test off site at your cost
- Yes, remote work
- Yes, educational training
- Yes, proof of natural immunity
- No, they did not offer any alternatives to vaccination

35. Did you request an exemption from vaccination?

- N/A (e.g., my employer did not request mandatory vaccination and I did not need an exemption)
- No, I was not interested in requesting an exemption
- Yes, and I received an exemption
- Yes, but I did not receive an exemption
- No, I did not request an exemption (e.g., because I was intimidated; because those who did were rejected)
- Other

36. If you applied for an exemption, what category did you apply for?

Check all that apply

- N/A (did not apply for exemption)
- Medical
- Religious
- Conscientious
- Other

Personal impact of vaccination policies

Please note your level of agreement with the following statements: Scale from Strongly disagree, Disagree, Neutral, Agree, Strongly agree, N.A

- 37. I am no longer interested in remaining employed in the healthcare industry
- 38. My income is less than it was prior to the introduction of vaccination policies / mandates
- 39. I have suffered chronic physical ailments due to employer vaccination requirements
- 40. I have suffered physical disability due to employer vaccination requirements
- 41. I have suffered anxiety and / or depression due to employer vaccination requirements
- 42. I have experienced suicidal thoughts due to employer vaccination requirements
- 43. I have sought help from a counsellor due to situations arising from vaccination requirements
- 44. My personal relationships (spouses, friends) suffered due to situations arising from vaccination requirements
- 45. I feel I have been unfairly treated by my employer regarding vaccination requirements.

Self-rated health changes

46. In general, would you say your physical health is poor, fair, good, very good or excellent?

- Excellent
- Very good
- Good
- Fair
- Poor
- Prefer not to answer
- Other

47. How would you have rated your physical health before the Covid-19 crisis?

- Same
- Higher
- Lower

- I don't know
- Prefer not to answer
- Other

48. In general, would you say your mental health is poor, fair, good, very good or excellent?

- Excellent
- Very good
- Good
- Fair
- Poor
- Prefer not to answer
- Other

49. How would you have rated your mental health before the Covid-19 crisis?

- Same
- Higher
- Lower
- I don't know
- Prefer not to answer
- Other

Vaccination requirements and employment status

50. Were you subjected to disciplinary measures *other* than layoffs (e.g., accusations of “professional misconduct”; exclusion from pension plan; withdrawal of professional license) due to expressing some form of resistance to vaccination requirements?

- Yes
- No
- Prefer not to answer
- Other

51. Were you terminated or laid off due to your decision to not receive the Covid-19 vaccine (first or subsequent doses)?

- Yes
- No Skip to section 16 (Impacts on patient care)
- Prefer not to answer

52. Were you rehired in Alberta after being terminated in another province (e.g., BC) for refusing to accept mandated vaccination entirely or in part?

- Yes
- No
- Prefer not to answer
- Other

Impacts of job termination

53. Were you offered any alternative in lieu of termination?

- Yes, but alternative was unaffordable (e.g., testing at my own expense)
- Yes, but alternative was too cumbersome (e.g., testing every day)

- No, I was not offered any alternative to vaccination
- Other

54. Were you entitled to unemployment insurance?

- Yes
- No
- Prefer not to answer

55. Have you tried to return to work by claiming natural immunity?

- Yes
- No
- Other

56. Did you find another job in your field?

- Yes
- No
- Prefer not to answer

57. Have you retrained for a new career outside of the scope of healthcare?

- Yes
- No
- Prefer not to answer

58. Does your employer still require mandated vaccination as a condition of employment?

- Yes
- No
- I don't know.
- Prefer not to answer

Please note your level of agreement with the following statements: Scale: Strongly disagree, Disagree, Neutral, Agree, Strongly agree, N/A

59. Losing my job had a negative impact on my physical health

60. Losing my job had a negative impact on my mental health

61. Losing my job significantly reduced my income

62. Upon losing my job I have needed access to financial supports or community services (e.g., food banks)

63. I would return to my previous role if possible/ if mandates were dropped

Impact on patient care

64. Did you ever work with Covid-19 positive or suspected patients' pre-vaccine mandate?

- Yes
- No
- Not sure
- prefer not to answer
- Other

Please note your level of agreement with the following statements related to patient care: Scale: Strongly disagree, Disagree, Neutral, Agree, Strongly agree, N/A

65. I observed concerning patient care or procedural changes coinciding with the onset of the Covid-19 crises

66. I observed concerning patient care changes after the introduction of the Covid-19 vaccines

67. I observed differential treatment of patients based on their vaccine status

68. I observed an increase in patient harms associated with the Covid-19 vaccines

69. I felt free to express any concerns I had about patient care or potential vaccine harms with my employer

70. If I expressed concerns about patient care or potential vaccine harms, these concerns were documented and acted upon by my employer

71. From the perspective of a potential patient, I am confident that the current healthcare system will provide adequate and quality care while respecting my personal preferences and values

72. I experienced conflict among colleagues at work after the introduction of vaccines and/or vaccination policies

73. I experienced conflict between employees and management at work after the introduction of vaccines and/or vaccination policies

74. I intend to leave or change my current job due to my experiences during the Covid-19 crises

75. I intend to leave my occupation/ the healthcare sector / industry due to my experiences with the Covid-19 policy

76. I was accused of undermining Covid-19 public health response / patient care due to my views / decisions about vaccination

77. I was disciplined for undermining Covid-19 public health response / patient care due to my views / decisions about vaccination

78. I was coerced into recommending / administering Covid-19 vaccines against my best clinical judgment (e.g., patient may experience an adverse event, or has experienced an adverse event post vaccination, Covid-19 or other; patient too young/old to benefit from vaccination, patient experienced Covid-19 and likely has strong natural immunity)

79. I know of health workers who have taken early retirement due to Covid-19 policies

80. I know of health workers who have been laid off due to failure to comply with vaccination policies

81. I know of health workers who have resigned because they did not wish to take the vaccine

82. I know of students in the health professions who were deregistered due to non-compliance with vaccination policies

83. I was encouraged to report adverse events post-vaccination if I observed them

- Yes
- No

84. I was trained to report adverse events post-vaccination if I observed them

- Yes
- No

85. I was asked, encouraged, or coerced to minimize vaccine hesitancy by:

Check all that apply

- Not providing exemptions when requested by patients
- Not prescribing off label prescriptions
- Telling patients that the vaccines were safe and effective

- Encouraging patients to trust health officials and sources
- Dismissing non-officially approved information as ‘misinformation’
- I was not asked to do any of these things
- Other
- Prefer not to answer

86. Administering Covid-19 vaccines was part of my job responsibilities

- Yes
- No (Skip to further comments & feedback)

87. I personally administered Covid-19 vaccines

- Yes
- No (Skip to further comments & feedback)

For healthcare workers who administered Covid-19 vaccines

88. Upon administering Covid-19 vaccines I felt

Check all that apply

- Accepting; it was part of my responsibility
- Energized; I was part of the solution for a serious public health problem
- Uneasy; I did not know what might happen to vaccine recipients
- Other
- Prefer not to answer

89. I received compensation for administering Covid-19 vaccines

- Yes
- No
- Other

Please note your level of agreement with the following statements related to administering Covid-19 vaccines: Scale: Strongly disagree, Disagree, Neutral, Agree, Strongly agree, N/A

90. The compensation I received for administering Covid-19 vaccines was greater than I would otherwise receive for comparable practices

91. I am aware that Covid-19 vaccines can cause serious or life-threatening injuries, including death

92. I felt coerced to administer Covid-19 vaccines at any point during the vaccination campaign

Further comments & feedback

93. Are there any other issues that we should be asking you or you would like to share to help us to better understand the impact of the policy of mandated vaccination on healthcare workers and on patient care? If so, please elaborate.

94. Are you interested in participating in a follow up hour-long online interview on this topic?

If yes, you will be asked to provide your email and may be contacted by a member of our research team

- Yes, I consent to being contacted in the future for an invitation to a follow up interview
- No, I do not consent to being contacted in the future for an invitation to a follow up interview