




Rapid Review: What is known about health care worker intent to leave their occupation in the context of the COVID-19 pandemic?



Prepared by: The National Collaborating Centre for Methods and Tools

Date: November 26, 2021

Suggested Citation:

National Collaborating Centre for Methods and Tools. (2021, November 26). *What is known about health care worker intent to leave their occupation in the context of the COVID-19 pandemic?* <https://www.nccmt.ca/pdfs/res/intent-to-leave>

Please Note: An update of this review may be available. Access the most current version of this review by visiting the National Collaborating Centre for Methods and Tools COVID-19 Rapid Evidence Service at the above link.

© 2021. National Collaborating Centre for Methods and Tools, McMaster University. All rights reserved.

The National Collaborating Centre for Methods and Tools (NCCMT) is hosted by McMaster University and funded by the Public Health Agency of Canada. The views expressed herein do not necessarily represent the views of the Public Health Agency of Canada.

This Rapid Review is for general information purposes only. The information provided in this Rapid Review is provided “as is” and McMaster University makes no warranties, promises and/or representations of any kind, expressed or implied, as to the nature, standard, accuracy, completeness, reliability or otherwise of the information provided in this Rapid Review, nor to the suitability or otherwise of the information to your particular circumstances. McMaster University does not accept any responsibility or liability for the accuracy, content, completeness, legality, reliability or use of the information contained in this Rapid Review.

The authors declare they have no conflicts of interest to report.

Project Contributor: Crystal Kuras, B SC.N, RN, GNC (c)

Executive Summary

Background

Nursing and other health care worker shortages have been reported over many years in Canada and other countries. An additional effect of the coronavirus disease 2019 (COVID-19) pandemic on health care worker shortages has been posited: Media references to “The Great Resignation” or “The Great Reshuffle” suggest that health care may be experiencing or anticipating significant losses to the workforce in the post-COVID-19 period, with related negative impacts on patient care and population health. As one reflection of a shift in health care worker employment, more vacancies in health care worker roles were reported by Statistics Canada in the first quarter of 2021 than in 2020 – 56% more vacancies in registered nursing roles and 94% more vacancies in licensed/registered practical nursing roles (caring for patients with less complex needs and with stable conditions) (Statistics Canada, 2021).

In order to estimate the contribution of COVID-19 to health care worker shortages, intent to leave, as reported during the pandemic, should be compared to intent to leave reported prior to the pandemic. A study of 2018 employment data in Canada reported an actual 7.4% inflow rate and a 6.1 % outflow rate in nursing roles (Canadian Institute for Health Information, 2019).

The evidence base related to intent to leave is explored in this review to support public health decision makers’ response to the pandemic and post-pandemic recovery period. This review seeks to identify, appraise, and summarize emerging research evidence to support evidence-informed decision making.

This rapid review includes evidence available up to October 27, 2021 to answer the question: **What is known about health care worker intent to leave their occupation in the context of the COVID-19 pandemic?**

Key Points

- The evidence base related to health care worker intent to leave their role or profession is limited, with only 18 observational studies and 2 expert opinion sources included in this review. The relationship between intent to leave and actual leaving was not explored in any study, and only 4 studies provided comparison to pre-pandemic levels.
- Across all studies reporting a percentage, 11-42.6% of health care workers employed during the COVID-19 pandemic reported an intent to leave their current role and 2-35% of health care workers reported an intent to leave their profession. The certainty of the evidence is very low (GRADE); findings are very likely to change as new data become available. These findings are corroborated by a registered nurse peer reviewer who expressed concern that increased rates of health care workers leaving roles and/or professions may lead to a cyclical effect, with even more strain on those remaining, resulting in further intent to leave.
- Intent to leave their role or profession was related to workplace variables including: concerns about patient care; high work demands, workplace change, burnout and work stress; being reassigned; lack of preparedness in the workplace, including lack of PPE; COVID-19 infection of self or colleague; concerns about leadership and quality of communication in the workplace; feeling undervalued. The certainty of the evidence is

low (GRADE); findings are likely to change as new data become available. It was noted by the peer reviewer that these concerns have been raised by nurses over many years; the pandemic exacerbated an already stressful and demanding role. Reviewer comments reflect the impact of reassignment to unfamiliar and high demand roles during the pandemic, which may have increased intent to leave. The availability of bonuses for contract work created opportunities for nurses to choose where they worked, which contributed to gaps already present across the system.

- Intent to leave their role or profession was related to demographic variables: intent to leave was higher among those in younger age groups and those closer to retirement, and among those with under 10 vs. more than 10 years of experience. The certainty of the evidence is low (GRADE); findings are likely to change as new data become available. The peer reviewer indicated that mid-career nurses had fewer options to leave the profession compared to early- or late-career nurses, given that it was not realistic to retrain and enter a new area of work, or to retire.
- Three Canadian studies reported that 25-29% of health care workers intend to leave their role and 15.6-22.3% intend to leave their profession during or following the pandemic.
- There is very little evidence comparing pre-pandemic versus pandemic levels of expressed intent to leave. In the absence of these comparisons, it is not possible to draw definitive conclusions about COVID-19-driven increases in health care worker intent to leave. The data from all studies (n=4) that provided a pre-pandemic or early pandemic comparison were consistent in reporting an increase in intent to leave following the pandemic or actual leaving during the pandemic. One study reported on actually leaving the role, which was 3.6% higher in 2020 than pre-pandemic leaving in 2019. Three studies reported on intent to leave the profession, with increases ranging from 7.5 percentage points to 13.1 percentage points when comparing pre-pandemic to during or later stages of the pandemic (11.4% in 2018 vs. 24.5% in 2020 among those aged 55-64; 12.8% in April 2020 vs. 20.3% in Dec 2020; 4.8% left profession in 2020 vs 15.6% indicating intent to leave in 2021 or after the pandemic). The certainty of the evidence is very low (GRADE); findings are very likely to change as new data become available.
- Two studies found that health care workers in underrepresented racial/ethnic groups or non-white ethnic groups were more likely to report an intent to leave their role. Other than these two studies, no other studies included in this review reported on the experiences of health care professionals who live with social and structural inequities, such as Indigenous or racialized populations. Further research is required to ensure representation of these populations for decision making.

Overview of Evidence and Knowledge Gaps

- Little is known about the specific intents of workers in public health, and it is not clear to what extent reported rates of intent to leave among other health care workers can be generalized to public health workers; more research is needed to assess the impact of COVID-19 on this group of workers on intent to leave their role and the profession.
- As a future review topic, the peer reviewer suggested that a pressing question is what can be done to encourage health care workers to stay in the profession, and further indicated that there is a need to address system-level issues such as inadequate staffing levels, burnout, and job dissatisfaction, so that the cycle can be interrupted, leading to increased intent to stay in the profession.

Methods

A description of the development of the National Collaborating Centre for Methods and Tools' Rapid Evidence Service has been published (Neil-Sztramko *et al.*, 2021). The paper provides an overview of the review process with rationale for methodological decisions.

Research Question

What is known about health care worker intent to leave their occupation in the context of the COVID-19 pandemic?

Search

On October 27, 2021, the following databases were searched using key terms: turnover, "intent* to leave", "intent* to stay", resign*, vacan*, ((occupational OR job OR career) AND (satisfaction)), "health care", "healthcare", hospital, "front line", frontline, "public health", nurs*, physician*, doctor*, epidemiologist*, "health person*.

- [MEDLINE](#) database
- [EMBASE](#)
- [ERIC](#)
- [Trip Medical Database](#)
- [CINAHL](#)
- World Health Organization's [Global literature on coronavirus disease](#)
- [COVID-19 Evidence Alerts](#) from McMaster PLUS™
- [COVID-19 Living Overview of the Evidence \(L·OVE\)](#)
- [McMaster Health Forum](#)
- [Prospero Registry of Systematic Reviews](#)
- [MedRxiv preprint server](#)
- NCCMT [COVID-19 Rapid Evidence Reviews](#)
- NCCDH [Equity-informed Responses to COVID-19](#)
- NCCEH [Environmental Health Resources for the COVID-19 Pandemic](#)
- NCCHPP [Public Health Ethics and COVID-19](#)
- NCCID [Disease Debrief](#)
- NCCIH [Updates on COVID-19](#)
- [Institute national d'excellence en santé et en services sociaux \(INESSS\)](#)
- [COVID-19 and Mental Health \(CMH\) Initiative](#)
- Cochrane Rapid Reviews [Question Bank](#)
- [Uncover \(USHER Network for COVID-19 Evidence Reviews\)](#)
- [Institut Nationale de Santé Publique du Québec \(INSPQ\)](#)
- [BC Centre for Disease Control \(BCCDC\)](#)
- [Registered Nurses' Association of Ontario \(RNAO\)](#)
- [Public Health Ontario](#)
- [Public Health Ontario: At a Glance](#)
- [Public Health England](#)
- [Canadian Institute of Health Information \(CIHI\)](#)

A copy of the full search strategy is available in [Appendix 1](#).

Study Selection Criteria

The search results were first screened for recent guidelines and syntheses. When available, findings from syntheses and clinical practice guidelines are presented first, as these take into account the available body of evidence and, therefore, can be applied broadly to populations and settings.

Single studies were included if no syntheses were available, as in this case. English-language, peer-reviewed sources and sources published ahead-of-print before peer review were included. Surveillance sources, grey literature and expert opinion were included as relevant to the question.

Question:

	Inclusion Criteria
Population	Health care workers or health care students in OECD countries
Intervention	COVID-19
Comparisons	Pre-COVID-19 (if available); a comparator was not required for inclusion
Outcomes	Intent to leave role or profession

Data Extraction and Synthesis

Data relevant to the research question, such as study design, setting, location, population characteristics, interventions and outcomes were extracted when reported. We synthesized the results narratively due to the variation in methodology and outcomes for the included studies.

Appraisal of Evidence Quality

We evaluated the quality of included evidence using critical appraisal tools as indicated by the study design below. Quality assessment was completed by one reviewer and verified by a second reviewer. Conflicts were resolved through discussion.

Study Design	Critical Appraisal Tool
Cross-sectional	Joanna Briggs Institute (JBI) Checklist for Analytical Cross Sectional Studies
Expert Opinion	Joanna Briggs Institute (JBI) Checklist for Text and Opinion

Completed quality assessments for each included study are available on request.

The Grading of Recommendations, Assessment, Development and Evaluations ([GRADE](#)) (Schünemann *et al.*, 2013) approach was used to assess the certainty in the findings based on eight key domains.

In the GRADE approach to quality of evidence, **observational studies**, as included in this review, provide **low quality** evidence, and this assessment can be further reduced based on other domains:

- High risk of bias
- Inconsistency in effects
- Indirectness of interventions/outcomes
- Imprecision in effect estimate
- Publication bias

and can be upgraded based on:

- Large effect
- Dose-response relationship
- Accounting for confounding.

The overall certainty in the evidence for each outcome was determined taking into account the characteristics of the available evidence (observational studies, some not peer-reviewed, unaccounted-for potential confounding factors, different tests and testing protocols, lack of valid comparison groups). A judgement of 'overall certainty is very low' means that the findings are very likely to change as more evidence accumulates.

Findings

Summary of Evidence Quality

This document includes 1 in-progress synthesis, 18 single studies and 2 expert opinion sources for a total of 21 publications included in this review. The quality of the evidence included in this review is as follows:

Outcome	Studies included		Overall certainty in evidence (GRADE)
	Study design	n	
Intent to leave role or profession	Observational	18	⊕○○○ Very low*
Variables related to intent to leave role or profession	Observational	18	⊕⊕○○ Low*

*In the GRADE approach to quality of evidence, **observational studies**, as included in this review, provide low quality evidence, and this assessment was further reduced to **very low** based on risk of bias and inconsistency in effects.

Warning

Given the need to make emerging COVID-19 evidence quickly available, many emerging studies have not been peer reviewed. As such, we advise caution when using and interpreting the evidence included in this rapid review. We have provided a summary of overall certainty of the evidence to support the process of decision making. Where possible, make decisions using the highest quality evidence available.

Table 1: In-progress Syntheses

Reference	Anticipated Release Date	Participants	Description of Document
De Winter, P., Boone, A., Godderis, L., Szemik, S., van Oostveen, C., Bouman, J., & de Vries, N. (2021). <i>Identify and analyze the main determinants of job retention for health care workers in EU countries; with extra focus on the changes of these determinants related to COVID 19.</i> PROSPERO CRD42021259007	Feb 1, 2022	Health care workers in Europe	This review intends to identify determinants for health care workers to leave or stay in their jobs, and how the pandemic has impacted these determinants.

Table 2: Single Studies

Reference	Date Released	Study Design	Participants	Time Frame	Work Setting	Related variables	Outcomes	Summary of findings	Quality Rating:
Raso, R., Fitzpatrick, J.J., Masick, K. (2021). Nurses' Intent to Leave their Position and the Profession During the COVID-19 Pandemic . <i>The Journal of Nursing Administration</i> 51(10): 488-494.	Oct 1, 2021	Cross-sectional	n=5088 Registered nurses	Jul–Aug 2020	United States Hospitals	Type of role; age; years of experience	Intent to leave current role Intent to leave profession	<p>Intent to leave role:</p> <ul style="list-style-type: none"> 11% of nurses indicated that they would leave their role; 67.7% indicated they would not leave; 19.6% were undecided Role was significant ($X^2 = 14.0$, $p < .01$) - direct care nurses reported higher intent to leave their role (11.8%) than managers (9.0%) and directors (9.2%) Age was significant ($X^2 = 30.8$, $p < 0.001$) – nurses younger than 39 years (11.8%, $n = 484$) and nurses older than 60 years (13.2%) reported higher intent to leave their role than nurses aged 40 to 59 years (8.6%) Years of experience was significant ($X^2 = 45.4$, $p < 0.001$) – nurses with less than 2 years' experience (14.9%) and nurses with 3 to 10 years' experience (13.0%) reported higher intent to leave their role than nurses with 11 to 24 years (9.1%) and nurses with 25+ years of experience (8.8%) <p>Intent to leave the profession:</p> <ul style="list-style-type: none"> 2% intended to leave the profession; no differences among direct care nurses, nurse managers or directors 8.4% of nurses older than 60 years indicated they intended to leave the profession, while 13.1% were undecided 	Moderate

								<ul style="list-style-type: none"> 3.6% of nurses with 25 or more years of experience indicated they intended to leave the profession, while 10.0% were undecided 	
Pförtner, T.K., Pfaff, H., & Hower, K.I. (2021). Will the demands by the covid-19 pandemic increase the intent to quit the profession of long-term care managers? A repeated cross-sectional study in Germany. <i>Journal of Public Health</i> 43(3): e431-434.	Sep 22, 2021	Cross-sectional	n=833 LTC managers	Apr 2020 (survey cycle one, n=532) Dec 2020 - Jan 2021 (survey cycle two, n=301)	Germany LTC	<p>Pandemic-specific demands, such as PPE, concerns about COVID infection among patient or co-workers</p> <p>General workplace demands not specific to pandemic, such as work overload, rules about working hours, concern for patients and families</p>	Intent to leave profession	<p>Intent to leave the profession (considered 'often' or 'very often' since the outbreak of the pandemic) increased significantly ($p = 0.004$) from 12.8% at the beginning of the pandemic to 20.3% nine months later.</p> <p>Pandemic-specific demands (OR = 1.034; 95% CI: 1.011, 2.057; $p = 0.003$) and general demands (not specific to pandemic) (OR = 1.023; 95% CI = 1.001, 1.045, $p = 0.042$) were significantly associated with intention to leave the profession.</p> <p>Age, gender, direct involvement in nursing care, state, total number of patients in care and organizational type were not significantly associated with intent to leave the profession.</p>	Moderate

Sheppard, K.N., Runk, B.G., Maduro, R.S., Fancher, M., Mayo, A.N., Wilmoth, D.D., ... Zimbardo, K.S. (2021). Nursing moral distress and intent to leave employment during the COVID-19 pandemic . <i>Journal of Nursing Care Quality</i> . Epub ahead of print.	Sep 17, 2021	Cross-sectional	n=129 Registered Nurses (RNs)	July 2020 and August 2020,	Virginia, United States Hospital	Moral distress over patient care quality and safety, and work environment	Intent to leave current role	<p>Respondents who considered leaving their current role (38%) had significantly higher ($t = -5.62, p < 0.001$) mean composite scores on moral distress than those who did not consider leaving.</p> <p>RNs who scored above average in moral distress due to perceived issues with patient care quality and safety had 2.9 times greater odds of considering leaving their current role ($p = 0.019$) compared to nurses who scored average or below.</p> <p>RNs who scored above average in moral distress due to perceived issues with work environment had 9.1 times greater odds of considering leaving their current role ($p < 0.001$) compared to nurses who scored average or below.</p>	High
Spetz, J. (2021). Changes in registered nurse employment and education capacity during the COVID-19 pandemic and the risk of future shortages . <i>Health Services Research</i> 56(S2): 47.	Sep 15, 2021	Cross-sectional	n ~ 2000 RNs	Nov 2020	California, United States	Age	Intent to leave profession	Intent to leave nursing or retire within two years among RNs 55-64 years old increased from 11.4% in 2018 to 24.5% in 2020.	Low
Cook, I. (2021, September 15). Who is Driving the Great Resignation? Harvard Business Review.	Sep 15, 2021	Cross-sectional	Health Care Workers	n=9 million employee records from more than 4,000 companies including Health Care Workers	Global companies including health care	Field of work	Leaving role	3.6% more health care employees quit their jobs than in the previous year, Resignation rates were higher among employees who worked in fields that had experienced extreme increases in demand due to the pandemic, likely leading to increased workloads and burnout.	Low

Lavoie-Tremblay, M., Gelinas, C., Aube, T., Tchouaket, E., Tremblay, D., Gagnon, M.P., & Cote, J. (2021). Influence of caring for COVID-19 patients on nurse's turnover, work satisfaction and quality of care . <i>Journal of Nursing Management</i> . Epub ahead of print.	Aug 27, 2021	Cross-sectional	n=1705 Nurses Mean age 41±10.74	Jul 22 – Nov 16, 2021	Quebec, Canada <ul style="list-style-type: none"> • COVID-19 care • Acute care • LTC • Community care • Public health • Rehabilitation 	Preparedness Experience of COVID-19 infection Caring for COVID-19 patients	Intent to leave current role Intent to leave profession	<ul style="list-style-type: none"> • Overall, 29.5% of nurses intend to leave their role, and 22.3% intend to leave the profession. • Staff who felt they were poorly prepared or overwhelmed at work reported higher intent to leave their role and profession than those who felt they were well prepared ($p<0.001$). • Those previously infected with COVID-19 or with a team member with prior infection reported a higher intent to leave their current role than those without self or team member infection ($p<0.01$). • No differences were found for intent to leave the profession in relation to infection (self-infection or team member infection) with COVID-19 or caring for infected patients who died. 	High
Gilles, I., Mabire, C., Perriraz, M., & Peytremann-Bridevaux, I. (2021). Workplace well-being and intent to stay by health care workers reassigned during the first COVID-19 wave: Results of a Swiss survey . <i>International Journal of Environmental Research and Public Health</i> 18(17): 8976.	Aug 26, 2021	Cross-sectional	n=436 Health care workers n=12 (2.8%) Students	First wave of pandemic	Switzerland <ul style="list-style-type: none"> • Hospitals 	Reassignment to frontline	Intent to stay in role	<p>Overall, 71.1% of health care workers who had been reassigned to COVID-19 frontline roles indicated intent to stay in their roles (suggesting 28.9% may not intend to stay).</p> <p>Less intent to stay was predicted by lack of choice in reassignment; $\beta=0.06$ (95% CI=0.01,0.12).</p>	High

<p>Cimarolli, V.R., Bryant, N.S., Falzarano, F., & Stone, R. (2021). Job resignation in nursing homes during the COVID-19 pandemic: The role of quality of employer communication. <i>Journal of Applied Gerontology</i>. Epub ahead of print.</p>	<p>Aug 25, 2021</p>	<p>Cross-sectional</p>	<p>n=1864 Health care workers in nursing homes</p>	<p>May – Nov, 2020</p>	<p>NHS, England</p> <ul style="list-style-type: none"> LTC 	<p>Employer communication; workplace preparedness</p>	<p>Job resignation</p>	<p>During the reporting period, 15% health care workers resigned. Compared to those still employed, those who resigned were:</p> <ul style="list-style-type: none"> Employed for a shorter time (± 1 year vs. 2+ yrs.) Nursing assistants vs. registered nurses (51% vs. 44%) <p>Specific work challenges associated with job resignation include:</p> <ul style="list-style-type: none"> Perceived quality of communication regarding how to care for residents ($p=0.02$) Perceived quality of communication regarding how to protect self and loved ones ($p=0.02$) Perceived level of workplace preparedness ($p=0.01$) 	<p>Moderate</p>
<p>Yücel, İ. (2021). Transformational Leadership and Turnover Intentions: The Mediating Role of Employee Performance during the COVID-19 Pandemic. <i>Administrative Sciences</i> 11(3): 81.</p>	<p>Aug 11, 2021</p>	<p>Cross-sectional</p>	<p>n=478 Health care workers</p>	<p>Not reported</p>	<p>Turkey</p> <ul style="list-style-type: none"> Hospitals 	<p>Transformational leadership</p>	<p>Intent to leave role</p>	<p>Transformational leadership ($r=-0.568$, $p=0.01$) and better employee performance ($r=-0.457$, $p=0.01$) were related to lower intent to leave the role.</p>	<p>Moderate</p>

<p>Ohue, T., Togo, E., Ohue, Y., & Mitoku, K. (2021). Mental health of nurses involved with COVID-19 patients in Japan, intention to resign, and influencing factors. <i>Medicine 100</i>(31): e26828.</p>	<p>Aug 6, 2021</p>	<p>Cross-sectional</p>	<p>n=56 Nurses</p>	<p>Peak COVID period (Aug 5 – Sep 5, 2020) Subsequent period (Sep 6 – Oct 26, 2020)</p>	<p>Japan • Hospitals</p>	<p>Mental health • PTSD • Depression • Anxiety • Burnout (cynicism, exhaustion, professional efficacy)</p>	<p>Intent to change position Intent to leave profession</p>	<p>Intent to change position was associated with cynicism ($\beta=0.42$), $p<0.01$ Intent to leave profession was associated with cynicism ($\beta=0.37$) and negatively with professional efficacy ($\beta=-0.31$), both $p>0.01$ Mean intent to change position was higher during the peak COVID period than in the subsequent period (3.16 vs. 2.33), $p<0.05$ Mean intent to leave the profession was higher during the peak COVID period than in the subsequent period (3.20 vs. 2.08), $p<0.01$</p>	<p>Moderate</p>
<p>Cole, A., Ali, H., Ahmed, A., Hamasha, M., & Jordan, S. (2021). Identifying patterns of turnover intention among Alabama frontline nurses in hospital settings during the COVID-19 pandemic. <i>Journal of Multidisciplinary Healthcare 14</i>: 1783-1794.</p>	<p>Jul 9, 2021</p>	<p>Cross-sectional</p>	<p>n=111 Nurses working with COVID patients</p>	<p>May 19 - June 12 2020</p>	<p>Alabama, United States Hospitals</p>	<p>Stress and anxiety</p>	<p>Intent to leave current role</p>	<p>Among nurses working with patients infected with COVID-19, the following were found to be positively related to a higher intent to leave the role: • Perceived anxiety and stress related to their patients' acuity ($r = 0.257$, $p=0.004$) • Personal health fears ($r=0.507$, $p <0.001$) • Re-assignment ($r = 0.239$, $p = 0.01$) • Shortages in personal protective equipment ($r = 0.412$, $p < 0.001$) • Lack of psychological support ($r = 0.316$, $p = 0.001$)</p>	<p>Moderate</p>

<p>Magnavita, N., Soave, P.M., & Antonelli, M. (2021). Prolonged stress causes depression in frontline workers facing the COVID-19 pandemic-A repeated cross-sectional study in a COVID-19 hub-hospital in Central Italy. <i>International Journal of Environmental Research and Public Health</i> 18(14): 7316.</p>	<p>Jul 8, 2021</p>	<p>Cross-sectional</p>	<p>n=105 Physicians n=47 Nurses</p>	<p>Dec 2020</p>	<p>Rome, Italy Hospitals</p>	<p>Occupational stress (effort/reward imbalance), sleep quality, anxiety, depression, burnout, job satisfaction, happiness</p>	<p>Intent to leave current role Intent to leave hospital</p>	<p>Intent to leave their role was expressed by 42.6% of workers. Intent to leave the hospital was significantly predicted by demands in the workplace, (OR = 1.413, 95% CI = 1.077, 1.852, p = 0.012), while reward, such as receiving respect in the workplace, was a strong protective factor (OR = 0.792, 95% CI = 0.699, 0.896, p < 0 .001).</p>	<p>Moderate</p>
<p>Sklar, M., Ehrhart, M.G., & Aarons, G.A. (2021). COVID-related work changes, burnout, and turnover intentions in mental health providers: A moderated mediation analysis. <i>Psychiatric rehabilitation journal</i> 44(3): 219-228.</p>	<p>May 17, 2021</p>	<p>Cross-sectional</p>	<p>n=93 Mental health workers</p>	<p>Mar 2020 (survey 1) Apr - May 2020 (survey 2) Jun 2020 (survey 3)</p>	<p>Midwestern state in the United States Community mental health centers</p>	<p>Burnout</p>	<p>Intent to leave current role</p>	<p>Work changes had a significant indirect effect on turnover intents through burnout ($\beta = 0.140$, 95% CI = 0.072, 0.217). This indirect effect varied as a function of job resources, organizational trust and perceived organizational support. Providers experiencing more work changes in terms of their tasks, settings, and teams were more likely to report higher levels of burnout and were subsequently more likely to be considering leaving their current role 6 – 8 weeks later.</p>	<p>Moderate</p>
<p>McNamara, D. (2021). Pandemic fallout: 1 in 5 clinicians considered quitting. <i>Chest Physician</i> 16(5): 18-20.</p>	<p>May 1, 2021</p>	<p>Cross-sectional</p>	<p>n=5052 Faculty, staff, and trainees at an academic health care system Mean age 39±11.5</p>	<p>Aug 5 – Aug 20, 2020</p>	<p>Utah, United States</p>	<p>Age, marital status, racial identity; type of work; gender; dependent child(ren)</p>	<p>Intent to leave workforce</p>	<p>Overall, 21% reported an intent to leave the workforce. Those intending to leave were more likely to be younger ($\beta=-0.01$; 95% CI=-0.014, -0.008), married ($\beta=0.17$; 95% CI=0.089, 0.240), member of an underrepresented racial/ethnic group ($\beta=0.11$; 95% CI=0.012, 0.218) and working in a clinical setting ($\beta=0.27$; 95% CI=0.012, 0.218). Intention to leave the workforce was associated with female gender and having dependent child(ren) ($\beta=0.30$; 95% CI=0.147, 0.447)</p>	<p>Moderate</p>

The Registered Nurses' Association of Ontario (RNAO). (2021, March 31). Work and wellbeing survey results.	Mar 31, 2021	Cross-sectional	n=2102 Registered nurses, nurse practitioners, nursing students	Jan 29 – Feb 22, 2021	Ontario, Canada	Age Stress	Intent to leave profession	15.6% indicated potential departure within one year or post-pandemic, compared to an overall rate of 4.8% in 2020. The largest losses are expected in the 26-35 age range, 4 times the rate for this age group in 2020 (13.1% vs. 3%).	Moderate
								Probability of leaving increases as stress levels increase (3.7% for very low stress vs. 17.4% for very high stress).	
								Highest intents to leave the profession ("very likely") are seen in small hospitals (12.9%), community care (12.2%), large hospitals (12.0%), public health (11.5%), and teaching hospitals (10.8% and Long-term care (9.6%).	
Launder, M. (2021). Practices face losing nursing staff after Covid-19, says Nursing in Practice survey. <i>Nursing in Practice</i> (119): 4.	Mar 5, 2021	Cross-sectional	n=184 Nurses	Feb 2021	NHS, England	Workloads Feeling valued	Intent to leave	35% of nurses reported that they were considering leaving the profession, related to increased workloads and feeling under-valued and left out of important decision making.	Low

<p>Moore, K.S., Hemmer, C.R., Taylor, J.M., & Malcom, A.R. (2021). Nursing Professionals' Stress Level During Coronavirus Disease 2019: A Looming Workforce Issue. <i>The Journal for Nurse Practitioners</i> 17(6): 702-706.</p>	<p>Feb 23, 2021</p>	<p>Cross-sectional</p>	<p>n=433 Nurses and nurse practitioners</p>	<p>May – Sep 2020</p>	<p>Missouri and Georgia, United States Outpatient setting and hospitals</p>	<p>Stress levels Perceived helplessness towards stress Hyperarousal Perceived self-efficacy (degree to which respondents believe they are able to withstand their stress)</p>	<p>Intent to leave current role Intent to leave the profession</p>	<p>16.25% (n=65) of participants indicated a moderate risk of leaving the profession and 42.25% (n=169) indicated a risk of leaving their current role in 2 years. Problematic stress tended to increase the chances of respondents leaving their role or the profession within the next 2 years. Participants also consistently indicated that their stress varied by the extent to which their employer addressed PPE resources and concerns.</p> <p>The authors found significant associations between:</p> <ul style="list-style-type: none"> • Perceived helplessness and risk of leaving their employer in 2 years ($r_s = .353$, $t(398) = 7.527$, $p < 0.01$) and leaving the profession ($r_s = .234$, $t(398) = 4.791$, $p < 0.01$) • Hyperarousal and the risk of leaving their employer in 2 years ($r_s = .307$, $t(398) = 6.435$, $p < .01$) and leaving the profession ($r_s = .250$, $t(398) = 5.151$, $p < 0.01$) • Perceived self-efficacy and the risk of leaving their current employer within 2 years ($r_s = -.286$, $t(398) = -5.954$, $p < 0.01$) and the profession ($r_s = -.132$, $t(398) = -2.657$, $p = 0.008$) 	<p>Moderate</p>
---	---------------------	------------------------	---	-----------------------	--	--	---	--	-----------------

<p>Margolis, R.D., Strupp, K.M., Beacham, A.O., Yaster, M., Austin, T.M., Macrae, A.W., ... Janosy, N.R. (2021). The effects of COVID-19 on pediatric anesthesiologists: A survey of the members of the Society for Pediatric Anesthesia. <i>Anesthesia and Analgesia</i>. Epub ahead of print.</p>	<p>Jan 12, 2021</p>	<p>Cross-sectional</p>	<p>n=561 Health Care Workers (Members of the Society for Pediatric Anesthesia)</p>	<p>Jun 27, 2020 – Jul 10, 2020</p>	<p>United States and elsewhere (not specified) Hospitals Ambulatory surgery center</p>	<p>Age Ethnic identity</p>	<p>Intent to retire Intent to leave the profession</p>	<p>Changes in retirement plans were reported in both directions: 14.2% of respondents stated that they would retire earlier and 11.9% stated that they were planning to retire later as a result of the pandemic. Those with more years in practice (>10 years vs. ≤ 10 years) were more likely to report COVID-19 related changes in retirement plans (odds ratio (OR = 2.63, 95% CI = 1.64, 4.30, $p < 0.001$), which continued after multivariable adjustment (adjusted odds ratio=2.78, 95% CI=1.73, 4.55, $p < 0.001$).</p> <p>21.7% of respondents indicated that COVID-19 will likely lead to alterations in their future occupational plans, including a change in clinical responsibilities; 10.6% indicated that COVID-19 would likely reduce their time working; 1.2% indicated COVID-19 would likely lead to leaving the profession.</p> <p>Non-white ethnic identity was associated with higher odds of a future job change due to COVID-19 (OR=2.05, 95% CI = 1.28, 3.29, $p = 0.003$) than was male gender. Change in home responsibilities from COVID-19 was also strongly associated with future occupational change (adjusted odds ratio = 1.83, 95% CI = 1.19, 2.83, $p = 0.006$).</p>	<p>Moderate</p>
---	---------------------	------------------------	---	------------------------------------	--	-------------------------------------	---	--	-----------------

Table 3: Expert Opinion

Reference	Date Released	Participants	Time Frame	Work Setting	Related variables	Outcomes	Summary of findings	Quality Rating:
Tilo, S. (2021, August 25). Around 12,500 health-care workers in British Columbia mull resignation: union. Human Resources Director.	Aug 25, 2021	n=NR Hospital union employees	Jun 2021	British Columbia, Canada	Burnout, anxiety and fatigue	Intent to leave role	Approximately 12,500/50,000 (25%) health care workers are considering leaving their position within the next two years due to adverse effects of increased workload. Increased workload is a consequence of policies that limited health care workers to a single facility to limit the spread of COVID-19.	Low
COVID-19 intensifies the national nursing shortage. The Washington Nurse.	May 21, 2021	N=NR Nurses	NR	United States	Existing nursing shortage	Intent to leave profession	30% health care workers have considered leaving the profession. Many states with high rates of COVID-19 are recruiting out-of-state nurses through high bonuses and hazard pay, exacerbating existing shortages and additionally burdening staff with increased workload in states from which nurses are being recruited. It is estimated that 500,000 registered nurses will retire by 2022; there is a need for 1.1M new nurses to avoid a nursing shortage.	High

References

- Canadian Institutes for Health Information. (2019). [*Nursing in Canada, 2018: A lens on supply and workforce.*](#)
- Cimarolli, V.R., Bryant, N.S., Falzarano, F., & Stone, R. (2021). [*Job resignation in nursing homes during the COVID-19 pandemic: The role of quality of employer communication.*](#) *Journal of Applied Gerontology*. Epub ahead of print.
- Cole, A., Ali, H., Ahmed, A., Hamasha, M., & Jordan, S. (2021). [*Identifying patterns of turnover intention among Alabama frontline nurses in hospital settings during the COVID-19 pandemic.*](#) *Journal of Multidisciplinary Healthcare* 14: 1783-1794.
- Cook, I. (2021, September 15). [*Who is Driving the Great Resignation?*](#) Harvard Business Review.
- [*COVID-19 intensifies the national nursing shortage.*](#) The Washington Nurse.
- De Winter, P., Boone, A., Godderis, L., Szemik, S., van Oostveen, C., Bouman, J., & de Vries, N. (2021). [*Identify and analyze the main determinants of job retention for health care workers in EU countries; with extra focus on the changes of these determinants related to COVID 19.*](#) PROSPERO CRD42021259007
- Gilles, I., Mabire, C., Perriraz, M., & Peytremann-Bridevaux, I. (2021). [*Workplace well-being and intent to stay by health care workers reassigned during the first COVID-19 wave: Results of a Swiss survey.*](#) *International Journal of Environmental Research and Public Health* 18(17): 8976.
- Lauder, M. (2021). [*Practices face losing nursing staff after Covid-19, says Nursing in Practice survey.*](#) *Nursing in Practice* (119): 4.
- Lavoie-Tremblay, M., Gelinas, C., Aube, T., Tchouaket, E., Tremblay, D., Gagnon, M.P., & Cote, J. (2021). [*Influence of caring for COVID-19 patients on nurse's turnover, work satisfaction and quality of care.*](#) *Journal of Nursing Management*. Epub ahead of print.
- Magnavita, N., Soave, P.M., & Antonelli, M. (2021). [*Prolonged stress causes depression in frontline workers facing the COVID-19 pandemic-A repeated cross-sectional study in a COVID-19 hub-hospital in Central Italy.*](#) *International Journal of Environmental Research and Public Health* 18(14): 7316.
- Margolis, R.D., Strupp, K.M., Beacham, A.O., Yaster, M., Austin, T.M., Macrae, A.W., ... Janosy, N.R. (2021). [*The effects of COVID-19 on pediatric anesthesiologists: A survey of the members of the Society for Pediatric Anesthesia.*](#) *Anesthesia and Analgesia*. Epub ahead of print.
- McNamara, D. (2021). [*Pandemic fallout: 1 in 5 clinicians considered quitting.*](#) *Chest Physician* 16(5): 18-20.
- Moore, K.S., Hemmer, C.R., Taylor, J.M., & Malcom, A.R. (2021). [*Nursing Professionals' Stress Level During Coronavirus Disease 2019: A Looming Workforce Issue.*](#) *The Journal for Nurse Practitioners* 17(6): 702-706.

- Neil-Sztramko, S.E., Belita, E., Traynor, R.L., Clark, E., Hagerman, L., & Dobbins, M. (2021). [Methods to support evidence-informed decision-making in the midst of COVID-19: creation and evolution of a rapid review service from the National Collaborating Centre for Methods and Tools](#). *BMC Medical Research Methodology* 21(231).
- Ohue, T., Togo, E., Ohue, Y., & Mitoku, K. (2021). [Mental health of nurses involved with COVID-19 patients in Japan, intention to resign, and influencing factors](#). *Medicine* 100(31): e26828.
- Pförtner, T.K., Pfaff, H., & Hower, K.I. (2021). [Will the demands by the covid-19 pandemic increase the intent to quit the profession of long-term care managers? A repeated cross-sectional study in Germany](#). *Journal of Public Health* 43(3): e431-434.
- Raso, R., Fitzpatrick, J.J., Masick, K. (2021). [Nurses' Intent to Leave their Position and the Profession During the COVID-19 Pandemic](#). *The Journal of Nursing Administration* 51(10): 488-494.
- The Registered Nurses' Association of Ontario (RNAO). (2021, March 31). [Work and wellbeing survey results](#).
- Schünemann, H., Brożek, J., Guyatt, G., & Oxman, A. (2013). [Handbook for grading the quality of evidence and the strength of recommendations using the GRADE approach](#).
- Sheppard, K.N., Runk, B.G., Maduro, R.S., Fancher, M., Mayo, A.N., Wilmoth, D.D., ... Zimbro, K.S. (2021). [Nursing moral distress and intent to leave employment during the COVID-19 pandemic](#). *Journal of Nursing Care Quality*. Epub ahead of print.
- Sklar, M., Ehrhart, M.G., & Aarons, G.A. (2021). [COVID-related work changes, burnout, and turnover intentions in mental health providers: A moderated mediation analysis](#). *Psychiatric rehabilitation journal* 44(3): 219-228.
- Spetz, J. (2021). [Changes in registered nurse employment and education capacity during the COVID-19 pandemic and the risk of future shortages](#). *Health Services Research* 56(S2): 47.
- Statistics Canada. (2021, June 22). [Job vacancies, first quarter 2021](#).
- Tilo, S. (2021, August 25). [Around 12,500 health-care workers in British Columbia mull resignation: union](#). Human Resources Director.
- Yücel, İ. (2021). [Transformational Leadership and Turnover Intentions: The Mediating Role of Employee Performance during the COVID-19 Pandemic](#). *Administrative Sciences* 11(3): 81.