



SPOR Evidence Alliance
Strategy for Patient-Oriented Research

Alliance pour des données probantes de la SRAP
Stratégie de recherche axée sur le patient

Strategy for Patient-Oriented Research

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COVID-END
COVID-19 Evidence Network
to support Decision-making
... in Canada

The socioeconomic impact of post COVID-19 condition: Final report

A rapid scoping review

Date of Literature Search: 10/7/2022

Date of Submission: 1/31/2023

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Suggested citation: Smith N, Donaldson M, Wong G, Conte T, Lakzadeh P, Bunka M, Ceka A, Kim D, Skidmore B, Décary S, Mitton C. COVID-19 living evidence synthesis #11.1: Socioeconomic impact of post COVID-19 condition: Final report. Vancouver, Canada: Centre for Clinical Epidemiology and Evaluation, 31 January 2023.





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Land Acknowledgement(s)

SPOR Evidence Alliance operates from the St. Michael's Hospital, Unity Health Toronto which is located on the traditional land of the Huron-Wendat, the Seneca, and the Mississaugas of the Credit. Today, this meeting place is still the home to many Indigenous people from across Turtle Island.

COVID-END is housed within McMaster University which is located on the traditional territories of the Mississauga and Haudenosaunee nations, and within the lands protected by the "Dish With One Spoon" wampum, an agreement to peaceably share and care for the resources around the Great Lakes.

We are grateful to have the opportunity to work on these lands.

Funding Acknowledgement(s)

To help Canadian decision-makers as they respond to unprecedented challenges related to the COVID-19 pandemic, COVID-END in Canada is preparing evidence syntheses like this one. This living evidence synthesis was commissioned by the Office of the Chief Science Officer, Public Health Agency of Canada, and was funded by the COVID-19 Evidence Network to support Decision-making (COVID-END) through an investment from the Government of Canada through the Canadian Institutes of Health Research (CIHR). The opinions, results, and conclusions are those of the team that prepared the evidence synthesis, and independent of the Government of Canada, CIHR, and the Public Health Agency of Canada. No endorsement by the Government of Canada, Public Health Agency of Canada or CIHR is intended or should be inferred.

Project Contributors

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Third-Party Materials

Not applicable.

General Disclaimer

This report was prepared by authors from the Centre for Clinical Epidemiology and Evaluation, Skidmore Consulting and the University of Sherbrooke on behalf of the SPOR Evidence Alliance and COVID-END. It was developed through the analysis, interpretation and synthesis of scientific research and/or health technology assessments published in peer-reviewed journals, institutional websites and other distribution channels. It also incorporates selected information provided by experts and patient/citizen partners with lived experience on the subject matter. This document may not fully reflect all the scientific evidence available at the time this report was prepared. Other relevant scientific findings may have been reported since completion of this synthesis report.

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Table of Contents

Abbreviations and Definitions	1
EXECUTIVE SUMMARY	2
Introduction	1
Methods	2
Results	4
Discussion	21
Conclusion	23
References	24
Appendix 1. Search Strategies	29

Abbreviations and Definitions

CADTH	Canadian Agency for Drugs and Technologies in Health
DALYs	Disability adjusted life years
HCW	Healthcare workers
ICU	Intensive care unit
ME/ CFS	Myalgic encephalomyelitis / chronic fatigue syndrome
OECD	Organization for Economic Cooperation and Development
PCC	Post COVID-19 condition
PCR	Polymerase Chain Reaction
PHAC	Public Health Agency of Canada
PRESS	Peer Review of Electronic Search Strategies
PTSD	Post traumatic stress disorder
QALYs	Quality adjusted life years
RTW	Return to work
WC	Workers' Compensation
WHO	World Health Organization



EXECUTIVE SUMMARY

Objectives: The objective of this rapid scoping review is to provide evidence to the Public Health Agency of Canada (PHAC) about the socioeconomic impact of post COVID-19 condition (PCC). Specific research questions to address the broader question regarding the socioeconomic impact of post COVID-19 condition are:

1. What is the economic burden of PCC?
2. What is the impact of PCC on return to work?
3. What is the impact of PCC on productivity loss?
4. What are the economic impacts of PCC which might be directly attributable to its mental health symptoms?

Design: Rapid scoping review

Methods: An experienced medical information specialist developed and tested the search strategies through an iterative process in consultation with the review team. We searched Ovid MEDLINE® ALL and Embase. We also searched the core database collection of Web of Science. We added APA PsycInfo (Ebsco platform) to the mental health search. The first strategy was executed on October 1, 2022, and the mental health search was executed on October 7, 2022. A combined search within select grey literature databases was also subsequently conducted. We developed a standardized screening form for title and abstract screening and full-text screening. Studies were summarized descriptively using text and tables as needed. Due to the short timelines, and large volume of studies identified as eligible for inclusion, analysis was restricted by geography. Existing reviews were assessed first, followed by primary studies which addressed outcomes of interest.

Results: Estimates about the proportion of employees who experience substantial absence from work due to PCC vary widely, but is likely in the 17-19% range. In the US, estimates of the total economic burden vary by a factor of approximately ten: from \$50-600B, while one Canadian study indicates increased health care utilization for PCC patients of about 50% relative to a matched cohort of patients without confirmed positive PCR tests for COVID-19. None of the key studies reported the economic impact which might be attributed to mental health conditions in patients with PCC. At this stage there is nothing to report on the impact of PCC on productivity loss.

Conclusion: The economic impact of PCC is substantial and not yet fully quantified. While more time will undoubtedly provide greater confidence in results, our best estimate derived from the existing literature is that slightly less than 20% of patients with PCC continue to be absent from work for a prolonged period of time (i.e., 6-12 months or more). We further observe from the literature that individual ability to work is compromised to some degree as well, regardless of whether it leads to absenteeism, although magnitude is not possible to quantify at this time. Finally, if overall economic burden from the US is extrapolated to Canada based on size of population alone, estimates for Canada would range from \$5-60 billion per annum.

Introduction

Post COVID-19 condition (PCC), also referred to as “long COVID” and “long-haul COVID” among other labels, is the term used to describe a proportion of individuals infected with COVID-19 (technically, SARS-CoV-2; we use the shorthand throughout) who experience long-term symptoms. The terms derive initially in large part from the patient experience;^{1, 2} academic and policy research has begun to address these experiential concerns. Currently, there is no consensus on the definition of PCC. However, the Government of Canada has recently adopted the World Health Organization (WHO) definition of PCC.³

- PCC occurs in individuals with a history of probable or confirmed SARS-CoV-2 infection, usually 3 months from the onset of COVID-19 with symptoms that last for at least 2 months and cannot be explained by an alternative diagnosis.
- Common symptoms include fatigue, shortness of breath, cognitive dysfunction but also others which generally have an impact on everyday functioning.
- Symptoms may be new onset, following initial recovery from an acute COVID-19 episode, or persist from the initial illness.
- Symptoms may also fluctuate or relapse over time.

Symptoms associated with PCC are diverse. The Government of Canada includes the following, currently known, common symptoms⁴: fatigue, memory problems, sleep disturbances, shortness of breath, anxiety and depression, general pain and discomfort, difficulty thinking or concentrating and posttraumatic stress disorder.

On October 17, 2022, Statistics Canada released the report “Long-term symptoms in Canadian adults who tested positive for COVID-19 or suspected an infection, January 2020 to August 2022”.⁵ The results of this report indicate that, 14.8% of Canadian adults (approximately 1.4 million people) who had or thought they had COVID-19 experienced symptoms at least three months after their initial infection.⁵

The purpose of this rapid scoping review is to provide evidence to the Public Health Agency of Canada (PHAC) about the socioeconomic impact of PCC.

Given that the WHO definition is very recent and that it may not yet be widely adopted, for the purposes of this rapid scoping review we applied a broader definition of PCC to encompass studies that describe a population of individuals with persistent symptoms of COVID-19 lasting at least 12 weeks that cannot be explained by any other cause or PCC otherwise defined by the author.

Specific research questions to address the broader question regarding the socioeconomic impact of PCC were:

1. What is the economic burden of PCC?
2. What is the impact of PCC on return to work?
3. What is the impact of PCC on productivity loss?

4. What are the economic impacts of PCC which might be directly attributable to its mental health symptoms?

Search strategies were developed to answer questions 1-4 above. We note that PHAC is also interested in understanding the following questions, though these were not directly addressed by the searches conducted here and so this report can only speak to such questions to the extent that they emerge from the data as collected:

1. What is the impact of PCC on changes in employment?
2. What is the impact of PCC on food security?
3. What is the impact of PCC on housing?

Methods

The methods for this rapid scoping review were informed by the Joanna Briggs Institute¹ guidelines for scoping reviews.

Eligibility Criteria (see Table 1):

Table 1. PICOST

Population	All individuals with PCC defined as persistent symptoms of COVID-19 lasting at least 12 weeks that cannot be explained by any other cause, or as PCC/long COVID as defined by the author.
Intervention	Not applicable
Comparator	Not applicable
Outcome	<ul style="list-style-type: none"> • Economic burden (e.g., costs, resource utilization) • Return to work (e.g., loss of income due to inability to return to work, proportion of individuals returning to work full time/part time/not returning, sick days, long-term disability claims) • Productivity loss (e.g., method to measure productivity (human capital, friction cost, multiplier approach), presenteeism, leaveism, annual wages lost due to PCC) • Economic impact of mental health (e.g., costs) • Outcomes addressing: changes in employment, food security and housing
Study design	<p>Most study designs (e.g., simulation models, observational studies, systematic reviews, qualitative studies, RCTs)</p> <p>Exclusion: commentaries, case study (single patient), studies not in English</p>
Time frame	No restrictions

¹ <https://jbi.global/scoping-review-network/resources>

Literature Search:

An experienced medical information specialist developed and tested the search strategies through an iterative process in consultation with the review team. Another senior information specialist peer reviewed the MEDLINE strategies prior to execution using the PRESS Checklist.⁸

We split the peer-reviewed literature search in two, with one strategy covering return to work, productivity and burden and the other covering mental health. Using the multifile option and deduplication tool available on the OVID platform, we searched Ovid MEDLINE® ALL and Embase. We also searched the core database collection of Web of Science. We added APA PsycInfo (Ebsco platform) to the mental health search. The first strategy was executed on October 1, 2022, and the mental health search was executed on October 7, 2022.

All strategies utilized a combination of controlled vocabulary (e.g., MeSH) and keywords. For the return-to-work topic, this included controlled subject headings such as “COVID-19”, “Return to Work”, “Efficiency”, and such keywords as “long COVID”, “productivity”, and “workability”. Terminology for the mental health topic included subject headings “Mental Health”, “Anxiety Disorders”, and “Depressive Disorder”, and keywords “emotional wellbeing”, “anxiety”, and “depression”. We applied an economic filter to the burden and mental health portions of the search. Vocabulary and syntax were adjusted across the databases. No language or date limits were applied but animal-only records were removed where possible. Results were downloaded and deduplicated using EndNote version 9.3.3 (Clarivate Analytics) and uploaded to Excel.

We undertook a single combined search of the grey literature within various COVID meta-databases, including COVID-END, L-OVE, and the WHO COVID-19 Research Database. We also searched Google Scholar and Google and selected economic sites of CADTH’s Grey Matters.⁹ We hand-searched weekly Table of Content alerts from October 7- 31, 2022 for the following general medical journals: British Medical Journal (BMJ), Canadian Medical Association Journal (CMAJ), Journal of the American Medical Association (JAMA), Lancet and the New England Journal of Medicine (NEJM). Specific details regarding the strategies appear in Appendix 1.

Study Selection:

We developed a standardized screening form for title and abstract screening and full-text screening. The screening form was piloted with 7 reviewers using the first 25 citations. Discrepancies were discussed as a team until consensus was reached about how to interpret all major extraction categories. Citations were equally distributed among team members. Due to time constraints, citations were not extracted in duplicate.

Data Extraction:

We used a standardized form to extract key data, including the following: author, year, country, study design, study population, data collection time frame, population vaccination status, PCC definition, and theme addressed (burden, return to work, productivity, economic impact of mental health, changes in employment, food security, housing).

Risk of Bias Assessment:

We conducted a rapid scoping review and therefore did not undertake a risk of bias assessment.

Data Synthesis:

Included studies were summarized descriptively using text and tables as needed to reflect the research questions. Due to the short timelines, and large volume of studies identified as eligible for inclusion, analysis was restricted initially by geography -- only primary studies from North America, Europe and the Middle East, and Australasia were retained for fuller analysis. These are regions in which welfare systems, health care systems, and the nature of the workforce and employment may be most comparable to the Canadian context, though it does exclude some countries such as Japan which are OECD members and which may have been useful and relevant comparators. Existing reviews were assessed first, followed by primary studies which addressed outcomes of interest in some way. Time limitations largely precluded detailed consideration of studies related to mental health, employment and PCC though in any event none of these proved to address our outcomes of interest.

Patient partner:

One patient partner (an individual with PCC) reviewed the interim report and provided feedback which was incorporated into the final report.

Results

Overview of Studies:

Overall, the two primary searches of the peer-reviewed bibliographic databases identified 1873 citations. The grey literature search identified 1557 citations. Hand-searching identified an additional 2 citations.

Figure 1. PRISMA diagram for library database search

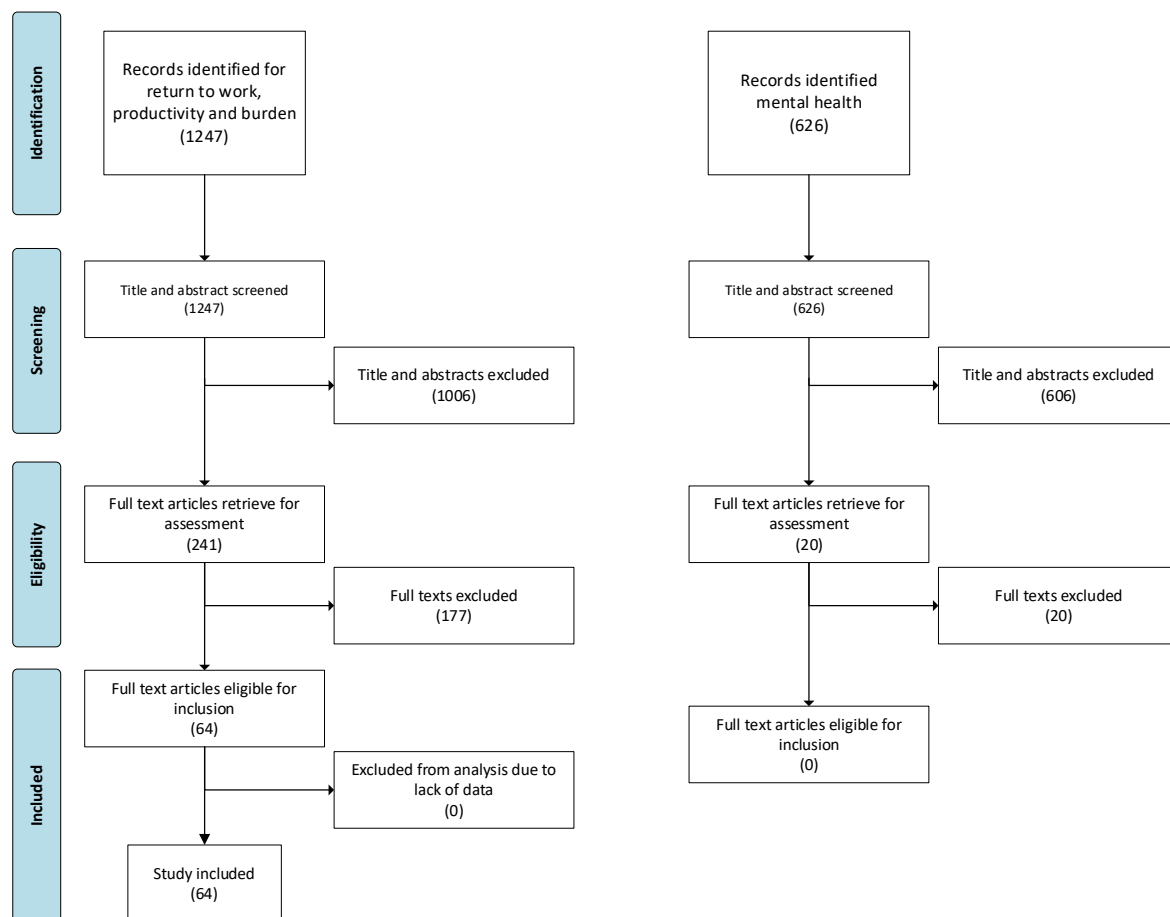
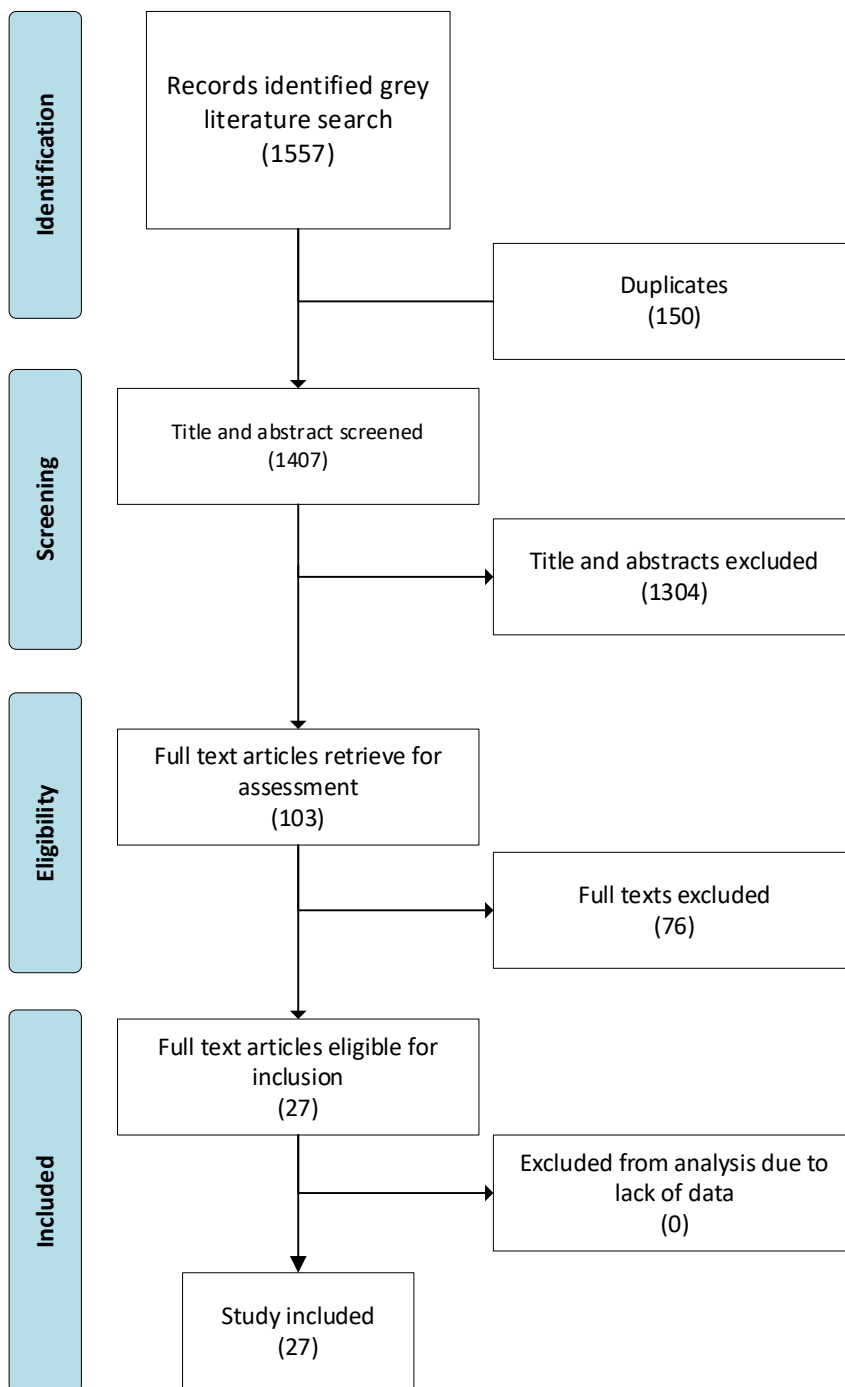


Figure 2. PRISMA diagram for grey literature search.



Overall, 91 papers met the inclusion criteria (62 articles retrieved from the peer-reviewed literature search; 2 from hand-search; and 27 from the grey literature search); see Figures 1 and 2. Twenty-four of the 91 studies (26.4%) were published in 2021, and the remainder in 2022. Studies included 12 reviews, 3 editorials, 8 simulation models or budget impact calculations, and 1 policy brief; the



remaining 67 papers report primary empirical studies. Four of the primary studies were conducted in multiple countries, while the remainder were carried out within a single country only.

77 country-level sets of result are represented. The bulk of these were conducted in European (n=48; 62.3%) and North American (n=17; 22.1%) contexts, with a sprinkling of papers from other countries (See Table 2). The distribution across countries between the peer-reviewed and the grey literature searches was broadly similar (data not shown).

Table 2. Countries in which primary research on PCC was conducted*

North America (17) US Canada	15 2	Asia (7) <i>Japan</i> <i>China</i> <i>India</i> <i>Malaysia</i> <i>Georgia</i> <i>Kazakhstan</i>	2 1 1 1 1 1
South America (2) <i>Brazil</i>	2	Multinational, not fully specified	2
Africa (1) <i>South Africa</i>	1	Review or Editorial—not applicable	15
Europe (48) UK Sweden Germany Switzerland Denmark Belgium Italy Ireland Austria Netherlands Spain France Poland	14 7 6 4 4 2 3 2 1 1 1 2 1	Policy Brief—not applicable	1
Middle East (2) Israel	2		

*As some studies include multiple countries, the total of countries does not equal the total of studies included in the review
Italic = not considered further in this analysis

Given time limits on this review, as well as the strong prospect that countries with dis-similar social welfare systems may not offer lessons readily transferrable to the Canadian context, we excluded countries from Africa, Asia, and South America from further consideration for this review (n=10). We acknowledge that this may have excluded some potentially relevant comparator countries, such as Japan. We chose this approach in preference to other limiters, such as study design (e.g., excluding cross-section or purely qualitative studies) as we felt this would minimize the loss of useful data for addressing the research questions.

As part of iterative review and data extraction, an additional 11 primary studies were removed from the sample (11 primary studies) because they did not contain usable data on the relevant outcomes (largely mental health papers which do not make any direct linkages to employment or economic impacts), or provided only duplicative data (e.g., a study already included within one of the systematic reviews). Thus, the data set for the remaining analyses consists of 70 papers.

The most commonly coded themes in these 70 studies were return to work (n=50) and economic burden (n=28), followed by mental health, impacts including changes in employment, and changes in productivity. Most studies (n=44; 62.8%) addressed multiple themes.

The most common designs employed in primary research were cohort studies, prospective and retrospective; cross-sectional designs (survey research); and studies using primarily qualitative methods. Table 3 provides more detailed information, noting that where studies may have used multiple or mixed methods, they have been categorized by the major or most prominent design employed.

Table 3. Main study design among retained studies

Study Design	Number of studies	Study Size (PCC population, retained through to end, control groups excluded) -range (median)
Small Cohort Study -ambi-directional (1) -prospective (8) -retrospective (5)	14	158 (158) 28-1027 (244) 30-336 (100)
Small Cross-sectional Survey *	11	30-2550 (226)
Reviews -systematic, scoping (6) -descriptive (2) -editorial or opinion (3)	11	--
-large population survey, registry or claims data-based – cohort or cross-sectional (10)*	9**	7466-268,521 (13,153)
Simulation model or budget impact analysis	8	--
Qualitative primarily	6	8-50 (31.5)
Chart review	2	20-428 (31)
Case control study	1	548 (548)
Descriptive summary (policy brief)	1	--
Unclear	1	64 (64)

*one study is reported in 2 papers; only included once here

**for two studies, size is not clearly reported and excluded in calculation

Sample sizes for cohort, cross-sectional, case control and chart reviews tended to be small; out of 29 studies, 9 (31%) had fewer than 100 participants, 12 (41%) had between 100 and 500 participants, and

8 (28%) had more than 500 participants. Qualitative studies, not unexpectedly, were small, with the largest including a total of 50 participants across 5 focus groups.

Some studies began collecting data from almost the very beginning of the pandemic; however, the majority of available reported data was collected through 2020 into mid-2021 (See Figure 3). Since vaccines only began to be available as of December 2020, all data collected before that date is by definition within unvaccinated populations (28 of the 36 studies included in Figure 3). Very little data so far has been published from 2022, which suggests a lag in our knowledge about the evolving situation with respect to PCC. Further maturation of the data collected during periods of widespread vaccination should be considered prior to undertaking comparisons between vaccinated and unvaccinated populations.

Definitions of PCC

In addition to using a variety of terms for PCC, empirical studies operationalized the concept in multiple ways, and quite often poorly. This diversity increases the difficulty of producing meaningful synthesis of the findings (e.g., comparison of outcomes stratified by PCC definition). Explicit time-based definitions as used by the papers in this review are summarized in Table 4 below. Some of the definitions included additional qualifiers, such as ‘symptoms after 3 months which persist for at least two further months’ or ‘persistent symptoms which impact the ability to work’. The time period sometimes begins with receipt of a positive test, but for hospitalized populations the time often is counted from the date of discharge.

Table 4. Explicit time-based definitions of PCC in retained papers

14 days (1)	30 days (3) 4 weeks (9) 1 month (3)	4-6 weeks (1) 6 weeks (1) 10 weeks (1)	12 weeks (3) 3 months (6)	3-6 months (2) 6 months (2) 6-8 months (1) 6-12 months (2) 12 months (1)
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Increasing lengths of time →

Some papers provided explicit definitions, but without reporting a time element, such as ‘patients with a diagnosis of PCC’ or ‘those whose symptoms persisted beyond the length of the usual course of treatment’. For six papers, the definition of PCC appears to be operationalized by the date of data collection or follow-up; for instance, an online survey explicitly targeted at those self-identifying as long COVID survivors reports findings by duration of symptoms (<12 months, 12-<15 months, 15-<18 months, and 18+ months)^{10, 11}. Another study screened patients at 4 months and followed up with those who reported symptoms at that point in time (in effect, a 4-month definition)¹². Finally, 10 of the primary research papers provide no definition of PCC which can be interpreted from the study itself.

Study Results

We report our results below organized around the main themes of interest: 1. return to work and impacts on employment; 2. overall burden and productivity; and 3. mental health related to these socio-economic consequences. In each case we begin with information from Reviews, which would provide the broadest overview on the research questions. This is then supplemented by additional relevant findings from the primary empirical studies. There are few studies containing explicitly Canadian data.

Across all literature searches, we identified 12 studies which we categorized as reviews of some form (see Table 5): seven of these should be considered systematic (including meta-analyses and scoping reviews) while 5 are best described as traditional descriptive literature reviews. For most of these papers, included literature only goes as far as some time in 2021. Not all papers address all of the outcomes which we are addressing in this report.



Table 5. Summary information about the 12 reviews

	Aiyegbusi et al ¹³	Babnik et al ¹⁴	Bardo et al ¹⁵	Chichaya et al ¹⁶	Fazzini et al ¹⁷	Gualano et al ¹⁸
Primary author country	UK	Slovenia	US	UK with African collaborators	UK with Intl collaborators	Italy
Type of review	Systematic Review	Descriptive Review	Qualitative Descriptive	Rapid scoping review	Systematic review with meta-analysis	Systematic review
Publication date	June 2021	Jan 2022	June 2022	July 2022	Aug 2022	Jun 2022
Literature search date limits	Jan 1/2020 to Feb 8/2021	Jul-Oct 2021	Unspecified	Jan 2020- July 2021	Jan 1/2020 to “present”	Up to Dec 2021
#papers included	27	unspecified	unspecified	36	48 (13 studies of Covid-19, the remainder on other ARDS patients dating as far back as 2000)	11 (7 identified in their search and 4 from a previous SR)
Population(s) included	Adults with ongoing symptomatic COVID-19 or Post-COVID Condition (PCC)	All	unspecified	Persons with [pre-existing] disabilities only	ICU patients	Hospitalized only
Themes addressed	RTW, MH	RTW, employment change	RTW	RTW	RTW	RTW, change in employment
	Middleton et al ¹⁹	Nittas et al ²⁰	Rasulo et al ²¹	Brussow & Timmis ²²	Standl & Schnell ²³	Wolf & Erdos ²⁴
Primary author country	UK	Switzerland	Italy	Belgium	Germany	Austria
Type of review	Systematic review with meta-analysis	Umbrella (review of reviews) + primary study synthesis	Descriptive	Descriptive (while officially labeled an Editorial, reads more as a literature review)	Descriptive	Scoping
Publication date	Mar 2022 in preprint	Mar 2022	Jan 2022	June 7, 2021	Apr 5, 2021	2021



Literature search date limits	Up to May 31, 2021	Up to July 9, 2021 for reviews, May 2021 for primary papers	unspecified	unspecified	unspecified	Up to July 31, 2021
#papers included	49	23 reviews and 102 primary studies	Unspecified	unspecified	Unspecified	14
Population(s) included	Hospitalized only	All	COVID ICU survivor with PCC	All	COVID-19 survivors at risk of developing heart failure	Policy recommendations or reviews for treatment pathways of PCC patients
Themes addressed	RTW	Burden, RTW, change in employment	RTW, MH	RTW, change in employment	Burden	RTW

1. Return to work and changes in employment outcomes

Main reviews which address return to work (RTW) outcomes are Gualano, Middleton, Nittas. Other reviews which we identified – Aiyegbusi et al¹³, Rasulo et al (2022)²¹ and Bardo et al (2022),¹⁵ as well as Brussow and Timmis (2021)– report only on studies already encompassed within the above reviews and therefore do not contribute to our analysis. The remaining reviews address various aspects of RTW which are outside the main areas of interest of this project. The main direct outcomes associated with RTW, per Nittas et al (2022)²⁰, are (i) short or long term absence from work (sick days or disability claims); (ii) return to work with reduced hours or other forms of job accommodation; and (iii) permanent employment loss/leaving the workforce. An additional indirect measure of impact is (iv) perceived impairment of ability to perform job duties. Below, we summarize the findings on each of these 4 main outcomes, noting that our main emphasis is on the first outcome, and then include a final (v) section providing some additional observations from the literature. It is important to note that the heterogeneity of outcomes measured, as well as the wide range of results within each category of outcomes, makes it difficult to reach a generalized conclusion.

i. short or long term absence from work (sick days or disability claims)

The reviewed literature suggests that ultimately most individuals with PCC do return to work (e.g., Ham; Norrefolk; Jacobson). Nonetheless, absence from work is an important consequence for many. Nittas et al²⁰ includes data from eight studies where patients report absence from work due to PCC. Among those who had been hospitalized, absence was reported in between 9-40% of cases (4 studies). For non-hospitalized patients, two studies reported absences by 12-38% of study participants, and in mixed samples, absences were reported by 31-70% of participants (2 studies). Note that data across studies

was collected at various follow-up times, between 2 and 7 months. The data from these original studies is extracted in Table 6.

A second substantive systematic review, by Middleton et al (2022)¹⁹, was retrieved as a pre-print. In this case, inclusion was restricted to only studies in which patients had been hospitalized for COVID -19. They found 8 papers which reported proportions of workers returning to work; converting this to on-going absence, these figures ranged from 0% to 79.5%, as well as a paper which calculated the proportion of work time missed; 81.5% at three-month follow up. The data from these original studies is extracted in Table 6.

A third review, that by Gualano et al (2022)¹⁸, includes 11 studies in which return to work is included as an outcome. Two of these studies are from China, and so per the above we exclude them here. Similar to Middleton et al, only studies in which patients had been hospitalized for COVID -19 were included. These studies report the proportion of patients who had returned to their previous employment at the time of follow-up –again, follow up taking place at varying lengths of time. Converting those figures to on-going absence, to be consistent with the paragraphs above, the reported range is from 22.5% to 90%²; median 59.0. The data from these original studies is extracted in Table 6.

Note that the studies included by these 3 reviews overlap to some extent; no study is included more than once in Table 6.

We identified one primary study in the peer-reviewed literature which included Canadian data on return to work. This study from Alberta involved 81 workers, all of whom had had PCC (some had been hospitalized during their acute phase, others not), and who had completed a particular rehabilitation program described by the authors. Follow up period is not clear. Among study participants, “Only a small majority of the sample returned to work (53%)” (Brehon et al, 2022).²⁵ This is in the mid-range of results reported across the review papers.

In addition to the studies on absence from work mentioned above, RTW outcomes for other primary studies are also incorporated into Table 6.

Table 6. Estimates of absence from work due to PCC

Author	Study size (# of COVID-positive patients)	Subject acuity	% Had not RTW at time of data collection	Follow-up date as of
From SRs*				
Carenzo ²⁶ [G, M]	45	ICU	22.2	6 months
Chopra ²⁷ [G, N]	195	Hosp	23.1	2 months
Garrigues ²⁸ [G, M, N]	41 (Hosp) 15(ICU)	Hosp ICU	24.4 53.3	110 days
Hodgson ²⁹ [G]	114	ICU	11.4	

² The 2 Chinese studies both had exceptionally high rates of return (91 and 100%); this may be suggesting of a different social context and might further justify their exclusion from the analysis here.



Author	Study size (# of COVID-positive patients)	Subject acuity	% Had not RTW at time of data collection	Follow-up date as of
Lindah ³⁰ [G]	71	Hosp	12.7	6 months
Monti ³¹ [G]	28	ICU	67.8	2 months
Robinson-Lane ³² [G]	223	Hosp	25.3	2 months
Van Veenenhah ³³ [G]	30	ICU	43.3	6 months
Evans ³⁴ [M]	1077 (641 previously working)	Hosp	17.3	5-12 months
Frontera ³⁵ [M]	196	Hosp	59.0	6 months
Ghosn ³⁶ [M]	1137	Hosp	29.0	6 months
Latronico ³⁷ [M]	90	Hosp	32.0	3 months
Davis ³⁸ [N]	3762	All	22.3	5 months
Halpin ⁴⁰ [N]	68 32	Hosp ICU	30.0 90.0	4-8 weeks
Townsend ⁴¹ [N]	128	All	31.0	6 weeks
Additional Primary Studies				
Brehon ²⁵	81	All	47	NR
Wallin ⁴³	64	ICU	38	6-8 months
Diem ⁴⁴	309	All	62.7	13 months on average
O'Brien ⁴⁵	55	Hosp	33	One year
Yelin ⁴⁶	1027	All	17.8	NR
Harvey-Dunstan ⁴⁷	42	Non-hosp	40 of those without major fatigue symptoms, 77 of those with major fatigue	4 weeks
Blitscheyn & Whitelaw ⁴⁸	20	Non-hosp	[60% of 85%] =51	6-8 months
Jacobson ⁴⁹	7466	All	18 1.2	4 weeks 6 months
Ziauhuddin ⁵⁰	2555	Non-hosp	19.1	NR
Larsson ⁵¹	46	ICU	31.3	12 months
Moskatel	31	All	25.8	NR
Gutierrez-Martinez	87	All	28.6	159 days on average

*[Studies reported in previous systematic reviews; G=Gualano; M=Middleton; N=Nittas, respectively]
 NR=not reported

The four categories in Table 6 are studies of ICU patients only, hospitalized patients only, non-hospitalized patients only, and studies which include all those with Covid-19 regardless of acuity of infection. The ranges are similar across categories. For ICU patients only, the proportion of previously



employed workers who had not returned to work by the study's follow-up period or designated cut-off date ranged from a low of 11.4% to a high of 90%; for hospitalized patients only, the range was 12.7% to 59%, and in mixed or non-hospitalized groups the range was 12% to 62.7%. The median estimate across studies was 40.7%, 27.2% and 28.6%, respectively; this might suggest that return to work is more difficult for those most severely affected, however these results should be interpreted with caution due to the heterogeneity of study designs and duration of follow-up. If we look in particular at the largest studies from Table 6– those with over 1,000 subjects (Jacobson⁴⁹, Ziauhuddin⁵⁰, and Yelin⁴⁶) – there appears to be a greater convergence in estimates: 18%, 19.1%, and 17.8%, respectively.

Other ways in which absence from work is reported includes the proportion of workers with PCC who are on formal sick or disability leaves, or those who report having missed meaningful amounts of time during the period when they suffered their most severe PCC symptoms. For sick leave, various estimates include, in decreasing order of magnitude:

- Norrefolk⁵² (38% sick leave and 13% disability)
- Wahlgren¹² (23% on leave at 4 months)
- Sorenson⁵³ (12% on leave within 4 weeks vs 7.7% of control)
- Jacob⁵⁴ (5.8% on long term disability leave at 4 months)
- Lemhofer⁵⁵ (2% found medically unfit for work by a physician)
- Kisiel⁵⁶ (1.4% on sick leave of 3+ weeks due explicitly to PCC)

A German model-based study estimated a most likely case scenario, given a starting point of 54,000 annual claims, that PCC would lead to an additional 241 disability claims per year, a net increase of 0.5% per year (with best case and worst case parameters of 0.1%, or 52 additional claims, and 8%, or 4061 additional annual cases, respectively)⁷⁴.

In one estimate, as might be expected, the greatest costs are associated with a relatively small number of claims. Thus, Bernicki⁵⁷ finds “1) Ninety-five percent of accepted WC [Workers' Compensation] claims were closed within the study period; [that is January 1, 2020 to November 30, 2021] 2) five percent of claims had 30 days or longer of lost time accounting for 65% of total paid WC costs; 3) medical costs increased 8-fold once paid days lost crossed the threshold of 60 days or greater”.

ii. return to work with reduced hours or other forms of job accommodation

For changes to job responsibilities or accommodations, Nittas et al²⁰ included 2 studies of hospitalized patients, among whom the proportion of those reporting changes to duties ranged from 15-40%. In three studies of patients with more mild initial illness, PCC-related changes to job activities were reported in 8-45% of cases. According to Middleton: “The proportion of participants who had a change in their scope of work or part time work ranged from 2.5% to 32% [4 studies].” Gualano¹⁸ reported across that the proportion of those reporting limitations in job duties or reduced hours ranged from 3.6-13.8% (7 studies).

Ham⁵⁸, in a study of 'long-haulers', found that 29.5% of respondents indicated that they had experienced reduced hours and pay. Scherlinger et al⁵⁹ found 23.3% (n=30) of participating subjects

experienced some financial difficulties due to PCC. Fremsted et al⁶⁰ suggest that “The tight labor market has also made employers more willing to provide accommodations to retain employees, including by granting employee requests for time off, flexible working conditions, and remote work” though they do not cite supporting evidence for this claim. The Alberta study by Brehon et al found that 93% of those who were able to return to work (which was only 53% of the study population) required some form of modified job duties. They conclude that “the availability of modified duties (odds ratio [OR] 3.38, 95% CI 1.26-9.10) and shorter time between infection and admission for rehabilitation (OR 0.99, 95% CI 0.99-1.00) predicted return to work even when controlling for age and gender”. They thus emphasize the role of employers in response, as well as the ability of the health system to ensure adequate rehabilitative services, perhaps unsurprising as the study is written by providers of such services.

iii. permanent employment loss/leaving the workforce

A few studies report some permanent job loss among PCC patients. According to the review by Nittas et al, “two studies reported permanent employment loss in relation to deteriorating health, with one reporting that 11% and the other 13.8% of their previously employed participants were unemployed at 2 months after acute disease” (p. 7). The Gaulano et al¹⁸ review reported that, across 7 included studies, between 11.4% and 67.8% of patients reported being unable to return to employment at all.

The budget impact assessment in the US context, offered by Mirin (2022)⁶⁶, chose a permanent work loss percentage of 22% for their model based upon the survey results reported in Davis³⁸. Among primary studies, Norrefolk et al⁵² report 3% of formerly employed patients were now receiving unemployment benefits; Ziauhuddin et al⁵⁰ cite a similar proportion of 1.9%. Wallin et al⁴³ report that, out of 64 patients, the number of unemployed or retired increased from 16 before COVID to 20 afterward (a 25% jump in this category). For the full sample, transition to unemployed is 1.6% (1 person out of 64) though whether or not this can be directly attributable to PCC is not known for certain.

iv. perceived impairment of ability to perform job duties

Some studies use some version of a formal validated tool, the Work Ability Instrument or WAI (Lunt, Machado, Hasenoehrl)^{11, 61, 62}, to address impairment in the ability to perform job duties; other studies use a variety of other questions to obtain self-report responses. The variability in the way in which such questions are worded may make it difficult to directly compare these estimates with one another. Studies which report this outcome, in descending order of magnitude are as follows:

- Ziauhuddin (75%)
- O’Mahony (68% suggest work has been impacted--38% severely, 30% moderately)
- Vaes et al⁶³ (as cited by Middleton) 59.7% self-reported that their ability to work was impaired, at six-month follow-up
- Norrefolk work impacted (47% suggest work has been impacted--severely, 23% and moderately, 24%)
- Jacobson, as cited in Gualano (31.8% at 4 months, out of n=22)
- Peter⁶⁴ “reduced working capacity” was reported among 10+%



- Peters⁶⁵ subjective work ability demonstrate significantly worse outcomes for people suffering from PCS [post-COVID syndrome] compared with participants without symptoms at the time of the survey
- Havervall⁴², as cited by Brussow and Timmis: 8% of HCW infected with COVID, and with symptoms after 2 months “reported that their long-term symptoms moderately to markedly disrupted their work life” (p.2016)

v. additional observations from the literature

The Fazzini et al (2022)¹⁷ review primarily considers the extent to which COVID-19 patients hospitalized in intensive care differ from other patients suffering from Acute Respiratory Distress Syndrome (ARDS) on a number of outcome measures including some related to return to work. This review included 13 studies which focused upon COVID-19 patients; 4 of these also captured RTW as one of the measured outcomes. Results from all studies are pooled rather than presented individually, however. The main conclusion of relevance here is that, at one year, COVID-19 patients returned to work with the same frequency as those suffering ARDS from other causes, suggesting perhaps that this longer history of data might be useful for proxying the potential costs and burden of PCC.

The review by Babnik et al (2022)¹⁴ focuses upon the RTW process for those suffering with PCC. They build a conceptual model to guide research and practice: Individual patient factors and the roles of employers as organizations are emphasized, rather than public policy. The Chichaya et al (2022)¹⁶ rapid scoping review looks at outcomes within a particular population –the disability community. This review in particular highlights challenges posed by both workplace design and by public policies around the pandemic which had significant negative effects upon this particular disadvantaged population.

The review by Wolf and Erdos looked at treatment pathways for PCC patients, laid out by existing policies or guidelines to date. For the most part these findings are out of scope for our review. However, some points relevant to RTW are made. A key policy question they point out is, “it needs to be considered if long COVID counts as an occupational disease” (p.48). Defining it in this way, or not, has significant ramification. Around guidelines which they found which address such issues, the recommendations are that disability claims should be handled through existing channels for sick leave due to chronic disease, rather than any new structures (p.36). Similarly, they found no specific guidance for RTW processes or procedures; existing approaches appeared to be deemed suitable for adaptation to PCC diagnoses (p. 36). In some contexts, conditions like PCC may allow employees a disability diagnosis which protects them from dismissal, but also can impact longer-term earnings and pension eligibility. As yet, there is no clear guidance on how to address such questions.

2. *Economic burden and productivity outcomes*

Two reviews discuss the overall health system or societal burden which PCC is expected to pose: the systematic review by Nittas et al (2022)²⁰ and the review by Standl and Schnell (2021)²³. Economic burden comprises overall aggregate losses (in wages or income), as well as increased expenditures due to additional health or social services required by those who experience PCC. These can be calculated in the near-term, and/or projected over future uses through economic modeling techniques.

We defined productivity outcomes as such things as presenteeism and burnout; since very little was found specifically on these concepts, we have combined the two outcomes for reporting here.

Most of the burden estimates are reported as (i) individual income lost due to PCC effects on employment (ii) increased use of medical or other health (and social care) services; and (iii) increased morbidity, usually DALYs, QALYs or similar

According to Nittas et al²⁰, a potential significant overall economic burden might be expected: "...many affected individuals face longer periods off work, reduced working hours, and potentially higher risk of unemployment and financial hardship, adding to an overall socio-economic burden. While there is no clear evidence regarding the broader economic implications of PCC, there is evidence that it affects a significant proportion of the formerly healthy working population, which may lead to long term economic consequences as well as healthcare system strains. The long-term economic burden of a substantially large affected population will emerge over time and is expected to have a heavy impact on healthcare utilization costs" (p. 7). However, no data specific to these points is provided by the authors.

i) individual income lost due to PCC effects on employment

A paper by Mirin⁶⁶ lays out, for the US context, the overall estimated burden of PCC in monetary costs, with lost income in the range from \$101 billion to \$430 billion. Their estimations presume that 45% of those with PCC will have to reduce their working hours (assumed from full time to half time), and that 22% will be forced to give up their jobs altogether—numbers based on an international survey conducted by Davis et al (2021)³⁸.

Some of the other sources provide additional US estimates for the lost workplace income component of burden. According to Bach⁶, up to ¼ of working-age Americans (those aged 18 to 65) with long COVID [2-4 million employees] are out of work; "The annual cost of those lost wages alone is around \$170 billion a year (and potentially as high as \$230 billion)". Cutler et al contend that, "If 1 million people are out of the labor force because of long COVID, the lost income would be more than \$50 billion annually"; this would be a somewhat lower estimate than Bach's. More recent calculations, cited by Fremsted et al, are that in total, as of June 2022, approximately 500,000 to 750,000 people may have left the labor force ... due to post-COVID conditions". If this is the most accurate current data, then cost estimates from the other authors might be scaled down to fit with this job loss figure.

ii) total health-system or societal costs related to PCC over the short-, medium-, and/or long-term,

Mirin et al⁶⁶ also lay out, for the US context, economic burden of PCC in increased annual medical costs of between \$43 billion and \$172 billion (p.7). They use existing data on myalgic encephalomyelitis / chronic fatigue syndrome (ME/CFS) to estimate these costs; the paper does not give any breakdown as to what such costs are composed of. Other sources which make the same comparison give additional estimates of this impact. Fremsted et al suggest that, "About 1.5 million Americans had ME/CFS prior to COVID-19, and total ME/CFS prevalence could rise to over 5 million people due to COVID-19 and Long COVID". Cutler et al assert that if treatment of long COVID is similar to treatment of ME (chronic fatigue syndrome), these estimated costs could be about \$9000 per person annually.



Using a similar line of comparative analysis, Standl and Schell limit their consideration to heart failure as one possible PCC condition. They contend that there is “a potentially rather high risk of clinical heart failure emerging in patients post-COVID-19”. “A clinical implication [thereof may be...] the need of monitoring for emerging heart failure in all patients having recovered from COVID-19, even if the acute illness has not been severe.” Their main source of evidence for this claim is a study which found that, “of patients with ischaemic injury pattern [post- COVID infection], 66% (27/41) had no past history of coronary disease”. If correct, this implies an increased health burden, monitoring and treatment of which will certainly involve costs; such costs are not estimated here however.

One study from Ontario, by McNaughton et al (2022)⁶⁷, is included in the peer-reviewed articles which we retrieved. This retrospective cohort study assesses burden in terms of health care resource utilization: specifically, emergency departments, hospitalization, outpatient encounters, home care and long-term care. Outpatient encounters are presumably physician services given the context of discussion, but the paper does not provide an explicit, complete definition. These costs are based on actual data from PCC patients, and the cost components by each of the five types of health care encounter are separately reported. For those with confirmed positive COVID -19 diagnoses “mean days in hospital per-person-year increased 47% and 53%, respectively, 8 weeks or more after infection for test-positive females and males (p. E1373)”, relative to their matched cohort of patients without COVID -19 diagnoses. Both males and females also saw increases in mean days in long term care; home care visits decreased for males but increased for females. The authors contend that most of the added health care use is concentrated in a small proportion of all COVID-19 patients: “a subset of people experience substantial burden of morbidity well after a SARS-CoV-2 infection (p. E1374).”

Combining the annual medical costs (\$43 billion to \$172 billion) and lost income (\$101 billion to \$430 billion) Mirin et al⁶⁶ find the anticipated total economic burden of PCC to be roughly \$140 billion to \$600 billion.

Mirin et al’s total economic impact estimate falls somewhat below the figure given in some of the other included papers, though the precise methods of calculation might explain at least some of the difference. Dunne et al⁷¹ suggest that the financial burden –to the individuals affected only, not system cost --of disabling long COVID may be from \$386B to \$511B; Cutler et al⁷², state that “In an October 2020 analysis, [published in JAMA] we estimated the then-nascent COVID-19 pandemic might result in \$2.6 trillion of cost as a result of long COVID. Unfortunately, our estimate seems very much on target”.

(iii) increased morbidity, usually DALYs, QALYs or similar

Elsewhere in the world, using morbidity-based measures of burden, one study reports that “During the Omicron wave in Australia, 5,300 (95% uncertainty interval [UI] 2,200-8,400) YLDs [Years Lived with Disability] were attributable to long COVID, accounting for 74% of the overall YLDs from COVID-19 infections in this period. The overall DALYs due to COVID-19 in [a] four-month period were 51,000 (95% UI 21,000-80,900), comprising 2.4% of total DALYs. This is comparable to the health loss caused by dementia and drug use disorders” (Howe et al⁶⁸). A US study, Smith et al (2022)⁶⁹, specifies impacts in this way: “For lifelong moderate symptoms, healthy years lost per COVID-19 case ranged from 0.92 (male in his 30s) to 5.71 (girl under 10) and were 3.5 and 3.6 for the oldest females and males.” A UK

estimate by Martin et al⁷⁰, with QALYs as the measure of impact, finds that QALY loss due to "permanent injury" from PCC "ranges from 28,692 at one year, to 286,454 at 10 years".

3. Mental health outcomes

Mental health conditions, such as anxiety, depression and PTSD, are common among patients suffering from PCC. While our literature searches identified a substantial number of papers which address PCC and mental health jointly – it was the second most prominent theme initially coded – very few, if any, of those papers made any clear, direct link between mental health consequences of PCC and job absence or economic measures of burden, the focus of this review. A relevant paper, for instance, would have considered the following chain: A worker contracts PCC, which symptoms lead to a diagnosis of depression; the worker is unemployed due to their illness; the worker requires clinical counselling services, which must be paid for either through workplace benefits or out of pocket. Such analyses would bring forward the mental health dimensions relevant to the questions framed for this review. We did not find any papers structured in this manner. Time considerations precluded any further substantive analysis of this theme.

Brehon et al 2022²⁵, described above in relation to RTW outcomes, is a Canadian cohort study that aimed to describe the outcomes of patients who participated in a COVID rehabilitation program delivered through Alberta Workers Compensation. Mental health status in terms of PHQ-9 and GAD-7 showed improvement after the rehabilitation program, though whether or not this accounts for better RTW outcomes is less clear. Some additional papers in the dataset also describe particular rehabilitation programs which combine physical and psychosocial elements.

Discussion

The information obtained from review of this literature suggests the following important observations:

- Significant heterogeneity in the definition of PCC across the included studies currently precludes the ability to stratify the analysis of socioeconomic outcomes by PCC definition
- The vast majority of the included studies included patients who were infected with COVID prior to widespread vaccination thus limiting the ability to stratify the analysis of socioeconomic outcomes by vaccination status. Very little data so far has been published from 2022, which suggests a lag in our knowledge about the evolving situation with respect to PCC.
- Return to work was the most commonly coded theme among publications identified by our two searches and meeting the inclusion criteria. Several different outcomes are measured, making it difficult to combine findings and reach generalized conclusions; however, it appears that the majority of those affected with PCC do return to work. Estimates about the length of time when people are absent from work due to PCC vary widely, perhaps due to differences in study contexts and populations. Follow-up, most typically at 6-12 months, in the largest studies, suggests prolonged absence from work among 17-19% of workers.
- Those with most severe illness (i.e., who spent time in intensive care) may be less likely to return to work than others within given timeframes. This may apply to other economic outcomes

as well but the information is not consistently incorporated enough to allow such more detailed analysis.

- Job changes or accommodations seem to be required, at least in the short-term, for an additional 25% of PCC patients. Estimates of job loss, early retirement or longer-term disability attributable to PCC appear in relatively small-sized studies to be in the 1-3% range.
- Fairly large numbers of patients report – in a variety of differently worded measures – that their ability to work has been compromised in some way, but the impacts of this have not typically been quantified to date. There is some mention in a handful of RTW papers that employment impacts were leading some patients into financial fears or difficulties but the specific nature of these is not explored. More qualitative work in this area might be of value.
- No studies reported health care worker specific outcomes with respect to intent to leave the profession, loss in productivity or absenteeism. One study, Havervall⁴² (as cited by Brussow and Timmis) reported that 8% of health care workers infected with COVID-19 exhibiting symptoms after 2 months “reported that their long-term symptoms moderately to markedly disrupted their work life” (p.2016)
- Less information is presently available in the literature related to overall burden and macro-economic impacts such as productivity. Clearly, additional health system resources (primary care, specialist care, rehabilitation, etc.) are being used by PCC patients but few attempts have been made to put a dollar figure on this. The one Canadian estimate available suggests that, those who have had COVID-19 utilize approximately 50% more resources than matched controls.
- Most economic analyses come from the US; estimates of the numbers of workers affected by PCC vary by a factor of 10, from the low end of approximately 500,000 to the high end of 4,000,000. Similarly, quantification of the costs to those workers ranges from \$50-600 billion. We may imagine adjusting for population and assuming all else is equal, that equivalent Canadian estimates would be 1/10 of these.
- Too few studies use health burden measures such as DALY or QALY to draw any meaningful inferences at this time.
- In the larger literature there are many papers which address both return to work and mental health; few however connect mental health outcomes directly to the larger economic outcomes of interest in this project. Time constraints prohibit a full assessment at present, but this is a subject for further review and update. Outcomes related to poverty, housing affordability and food security were not identified within the included literature. These were secondary interests of the research and not terms directly incorporated within the literature search, so some relevant findings may have been missed; however, we would expect that if these were important areas of study they would have been reflected by the literature which was retrieved. Whether missed by this review or absent overall in the literature, these topics would be worthy of further explicit investigation.
- Only two Canadian studies were identified in the peer-reviewed literature, each using data from a single province (Alberta and Ontario). The included literature in this review is largely European in origin. These developed nations generally have welfare state policies in healthcare and in labour market supports which should make them comparable to Canada for analysis purposes; however, the overall absence of Canada-specific studies would suggest that caution should be employed with any decision to extrapolate these findings and their implications.

- Experience with other diseases was commonly referenced among the articles assessed in this interim report. For instance, Fazzini et al¹² explicitly study patients with Acute Respiratory Distress Syndrome. ME/CFS statistics inform the works by Bardo¹⁰, Mirin¹⁸, and Brehan¹⁷ as well as other work cited therein. Other examples include post-viral fatigue syndrome, or PVFS (Babnik⁹), POTS, or postural orthostatic tachycardia syndrome (Bardo¹⁰), and Post-Intensive Care Syndrome, or PICS (Rasulo¹⁶; Chichaya¹¹). A question for future work is whether or not it is helpful to proxy the effects of PCC in this way, or if the data on PCC itself is emerging quickly enough that it can be the primary source for projections going forward.
- Papers generally concur in their call for comprehensive, holistic, collaborative and interdisciplinary rehab and supports for those with PCC (per Bardo¹⁰, Middleton¹⁴, Nittas¹⁵ for example). Yet despite the importance of rehabilitation, there is very limited literature which uses data from or addresses the roles of the Workers' Compensation system [a point raised by our patient partner].
- Much of the literature still relies upon studies of the most severely affected COVID-19 patients, those hospitalized or treated in the ICU (e.g., Gualano¹³, Rasulo¹⁶, Middleton¹⁴, Fazzini¹²). Less clear at this point is how the much larger number of those with milder illness will be affected. Stratification of risk related to PCC and who is most impacted is key for modeling-related activity to estimate healthcare burden and societal economic costs which may be anticipated from PCC.
- Our analysis has not been able to probe – within the articles containing our outcomes of interest -- into determinants or factors which are related to experiencing PCC and experiencing it severely, or the specific combinations of physical and mental health symptoms which keep people from returning to their previous employment. These are additional important topics which several of the papers in the review begin to broach and will be important in understanding the way in which PCC is manifesting itself across affected patient populations.

Conclusion

In conclusion, the economic impact of PCC is substantial and not yet fully quantified. While more time will undoubtedly provide greater confidence in results, our best estimate derived from the existing literature is that just less than 20% of patients with PCC continue to be absent from work for a prolonged period of time (i.e., 6 months). In addition, we observe from the literature that individual ability to work is compromised, although magnitude is not possible to quantify at this time. Finally, the overall economic burden is large and may perhaps be very large -- in the US, estimates range over an approximately 10-fold amount, from \$50-600 billion per annum in current currency value terms.

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SPOR Evidence Alliance

Strategy for Patient-Oriented Research

Alliance pour des données probantes de la SRAP

Stratégie de recherche axée sur le patient

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COVID-END

COVID-19 Evidence Network
to support Decision-making
... in Canada

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Appendix 1. Search Strategies

Long Covid – Return to Work/Burden

Final Strategies

2022 Oct 1

Ovid Multifile

Database: Embase <1974 to 2022 September 30>, Ovid MEDLINE(R) ALL <1946 to September 30, 2022>

Search Strategy:

-
- 1 (long adj (COVID or COVID-19 or COVID19 or coronavirus* or corona virus* or 2019-nCoV or 19nCoV or 2019nCoV or nCoV or n-CoV or "CoV 2" or CoV2 or SARS-CoV-2 or SARS-CoV2 or SARSCoV-2 or SARSCoV2 or SARS2 or SARS-2 or severe acute respiratory syndrome coronavirus 2 or 2019-novel CoV or Sars-coronavirus2 or Sars-coronavirus-2 or SARS-like coronavirus* or novel coronavirus* or novel corona virus* or novel CoV or OC43 or NL63 or 229E or HKU1 or HCoV* or Sars-coronavirus*)).tw,kw,kf. (4062)
 - 2 ((longterm or long-term) adj (COVID or COVID-19 or COVID19 or coronavirus* or corona virus* or 2019-nCoV or 19nCoV or 2019nCoV or nCoV or n-CoV or "CoV 2" or CoV2 or SARS-CoV-2 or SARS-CoV2 or SARSCoV-2 or SARSCoV2 or SARS2 or SARS-2 or severe acute respiratory syndrome coronavirus 2 or 2019-novel CoV or Sars-coronavirus2 or Sars-coronavirus-2 or SARS-like coronavirus* or novel coronavirus* or novel corona virus* or novel CoV or OC43 or NL63 or 229E or HKU1 or HCoV* or Sars-coronavirus*)).tw,kw,kf. (312)
 - 3 ((postacute or post-acute) adj (COVID or COVID-19 or COVID19 or coronavirus* or corona virus* or 2019-nCoV or 19nCoV or 2019nCoV or nCoV or n-CoV or "CoV 2" or CoV2 or SARS-CoV-2 or SARS-CoV2 or SARSCoV-2 or SARSCoV2 or SARS2 or SARS-2 or severe acute respiratory syndrome coronavirus 2 or 2019-novel CoV or Sars-coronavirus2 or Sars-coronavirus-2 or SARS-like coronavirus* or novel coronavirus* or novel corona virus* or novel CoV or OC43 or NL63 or 229E or HKU1 or HCoV* or Sars-coronavirus*)).tw,kw,kf. (897)
 - 4 (chronic* adj2 (COVID or COVID-19 or COVID19 or coronavirus* or corona virus* or 2019-nCoV or 19nCoV or 2019nCoV or nCoV or n-CoV or "CoV 2" or CoV2 or SARS-CoV-2 or SARS-CoV2 or SARSCoV-2 or SARSCoV2 or SARS2 or SARS-2 or severe acute respiratory syndrome coronavirus 2 or 2019-novel CoV or Sars-coronavirus2 or Sars-coronavirus-2 or SARS-like coronavirus* or novel coronavirus* or novel corona virus* or novel CoV or OC43 or NL63 or 229E or HKU1 or HCoV* or Sars-coronavirus*)).tw,kw,kf. (2775)
 - 5 (persist* adj2 (COVID or COVID-19 or COVID19 or coronavirus* or corona virus* or 2019-nCoV or 19nCoV or 2019nCoV or nCoV or n-CoV or "CoV 2" or CoV2 or SARS-CoV-2 or SARS-CoV2 or SARSCoV-2 or SARSCoV2 or SARS2 or SARS-2 or severe acute respiratory syndrome coronavirus 2 or 2019-novel CoV or Sars-coronavirus2 or Sars-coronavirus-2 or SARS-like coronavirus* or novel coronavirus* or novel corona virus* or novel CoV or OC43 or NL63 or 229E or HKU1 or HCoV* or Sars-coronavirus*)).ti,kw,kf. (887)
 - 6 COVID-19/ and Syndrome/ (281)
 - 7 SARS-CoV-2/ and Syndrome/ (180)
 - 8 or/1-7 [LONG COVID - PT 1] (8432)
 - 9 COVID-19/ (302177)
 - 10 SARS-CoV-2/ (173843)
 - 11 Coronavirus/ (14744)



- 12 Betacoronavirus/ (39761)
- 13 Coronavirus Infections/ (55829)
- 14 (COVID-19 or COVID19).tw,kw,kf. (547069)
- 15 ((coronavirus* or corona virus*) and (hubei or wuhan or beijing or shanghai)).tw,kw,kf. (13194)
- 16 (wuhan adj5 virus*).tw,kw,kf. (770)
- 17 (2019-nCoV or 19nCoV or 2019nCoV).tw,kw,kf. (4236)
- 18 (nCoV or n-CoV or "CoV 2" or CoV2).tw,kw,kf. (214119)
- 19 (SARS-CoV-2 or SARS-CoV2 or SARSCoV-2 or SARSCoV2 or SARS2 or SARS-2 or severe acute respiratory syndrome coronavirus 2).tw,kw,kf. (217595)
- 20 (2019-novel CoV or Sars-coronavirus2 or Sars-coronavirus-2 or SARS-like coronavirus* or ((novel or new or nouveau) adj2 (CoV or nCoV or covid or coronavirus* or corona virus or Pandemi*2)) or (coronavirus* and pneumonia)).tw,kw,kf. (55377)
- 21 (novel coronavirus* or novel corona virus* or novel CoV).tw,kw,kf. (25615)
- 22 ((coronavirus* or corona virus*) adj2 "2019").tw,kw,kf. (108477)
- 23 ((coronavirus* or corona virus*) adj2 "19").tw,kw,kf. (16672)
- 24 (coronavirus 2 or corona virus 2).tw,kw,kf. (60156)
- 25 (OC43 or NL63 or 229E or HKU1 or HCoV* or Sars-coronavirus*).tw,kw,kf. (9535)
- 26 COVID-19.rx,px,ox. or severe acute respiratory syndrome coronavirus 2.os. (17795)
- 27 (coronavirus* or corona virus* or COVID).ti. (459168)
- 28 or/9-27 [COVID-19] (651579)
- 29 (post adj (COVID or COVID-19 or COVID19 or coronavirus* or corona virus* or 2019-nCoV or 19nCoV or 2019nCoV or nCoV or n-CoV or "CoV 2" or CoV2 or SARS-CoV-2 or SARS-CoV2 or SARSCoV-2 or SARSCoV2 or SARS2 or SARS-2 or severe acute respiratory syndrome coronavirus 2 or 2019-novel CoV or Sars-coronavirus2 or Sars-coronavirus-2 or SARS-like coronavirus* or novel coronavirus* or novel corona virus* or novel CoV or OC43 or NL63 or 229E or HKU1 or HCoV* or Sars-coronavirus*) adj3 (comorbid* or "co morbid*" or condition* or convalescen* or disease* or disorder* or illness* or multimorbid* or "multi morbid*" or sickness* or symptom* or syndrome* or sign or signs or prognos* or recuperat* or survivor* or survival* or risk*)).tw,kw,kf. (2856)
- 30 (after adj (COVID or COVID-19 or COVID19 or coronavirus* or corona virus* or 2019-nCoV or 19nCoV or 2019nCoV or nCoV or n-CoV or "CoV 2" or CoV2 or SARS-CoV-2 or SARS-CoV2 or SARSCoV-2 or SARSCoV2 or SARS2 or SARS-2 or severe acute respiratory syndrome coronavirus 2 or 2019-novel CoV or Sars-coronavirus2 or Sars-coronavirus-2 or SARS-like coronavirus* or novel coronavirus* or novel corona virus* or novel CoV or OC43 or NL63 or 229E or HKU1 or HCoV* or Sars-coronavirus*) adj3 (comorbid* or "co morbid*" or condition* or convalescen* or disease* or disorder* or illness* or multimorbid* or "multi morbid*" or sickness* or symptom* or syndrome* or sign or signs or prognos* or recuperat* or survivor* or survival* or risk*)).tw,kw,kf. (1719)
- 31 (following adj (COVID or COVID-19 or COVID19 or coronavirus* or corona virus* or 2019-nCoV or 19nCoV or 2019nCoV or nCoV or n-CoV or "CoV 2" or CoV2 or SARS-CoV-2 or SARS-CoV2 or SARSCoV-2 or SARSCoV2 or SARS2 or SARS-2 or severe acute respiratory syndrome coronavirus 2 or 2019-novel CoV or Sars-coronavirus2 or Sars-coronavirus-2 or SARS-like coronavirus* or novel coronavirus* or novel corona virus* or novel CoV or OC43 or NL63 or 229E or HKU1 or HCoV* or Sars-coronavirus*) adj3 (comorbid* or "co morbid*" or condition* or convalescen* or disease* or disorder* or illness* or multimorbid* or "multi morbid*" or sickness* or symptom* or syndrome* or sign or signs or prognos* or recuperat* or survivor* or survival* or risk*)).tw,kw,kf. (844)
- 32 ((chronic* or continuous* or continual* or continuing* or delay* or endur* or extend* or fluctuat* or gradual* or lasting* or legacy* or lengthy* or linger* or long* or "medium* term*" or mediumterm* or multisystem* or "multi system*" or ongoing* or permanent* or persist* or prolong* or protract* or relaps* or remission* or remit* or residual* or slow* or subacute* or "sub acute*") adj3 recover*).tw,kw,kf. (86606)



- 33 ((after discharg* or following discharg* or postacute* or "post acute*" or postdischarg* or "post discharge" or "post discharging" or posthospital* or post-hospital* or postinfect* or "post infection" or "post infective*" or postviral* or "post viral*" or postvirus* or "post virus*" or postcritical or post-critical or postintensive or post-intensive or post-ICU adj3 recover*).tw,kw,kf. (1664)
- 34 ((chronic* or continuous* or continual* or continuing* or delay* or endure* or extend* or fluctuat* or gradual* or lasting* or legacy* or lengthy* or linger* or long* or "medium* term*" or mediumterm* or multisystem* or "multi system*" or ongoing or permanent* or persist* or prolong* or protract* or relaps* or remission* or remit* or residual* or slow* or subacute* or "sub acute*") adj3 (complication? or consequence? or convalescen* or disabilit* or feature* or illness* or prognos* or sequela* or sign or signs or suffering? or symptom* or recuperat*).tw,kw,kf. (655955)
- 35 ((after discharg* or following discharg* or postacute* or "post acute*" or postdischarg* or "post discharge" or "post discharging" or posthospital* or post-hospital* or postinfect* or "post infection" or "post infective*" or postviral* or "post viral*" or postvirus* or "post virus*" or postcritical or post-critical or postintensive or post-intensive or post-ICU adj3 (complication? or consequence? or convalescen* or disabilit* or feature* or illness* or prognos* or sequela* or sign or signs or suffering? or symptom* or recuperat*).tw,kw,kf. (6450)
- 36 (nonrecover* or "non recover*" or "not recover*").tw,kw,kf. (17960)
- 37 ("long* haul*" or longhaul* or "long* tail*" or longtail* or longduration* or "long duration*" or longlast* or "long last*" or longstanding* or "long standing*" or "medium* term*" or mediumterm*).tw,kw,kf. (287327)
- 38 or/29-37 [LONG-TERM ILLNESS, PROTRACTED RECOVERY, ETC.] (1028464)
- 39 28 and 38 [LONG COVID - PT 2] (22839)
- 40 Long Term Adverse Effects/ (216681)
- 41 28 and 40 [LONG COVID - PT 3] (2648)
- 42 8 or 39 or 41 [LONG COVID] (30107)
- 43 exp Animals/ not Humans/ (16530254)
- 44 42 not 43 [ANIMAL-ONLY REMOVED] (29840)
- 45 Employment/ (122688)
- 46 Return to Work/ (12147)
- 47 ((assum* or reenter* or re-enter* or reentry or re-entry or restart* or resum* or return* or start*) adj3 (employ* or job or jobs or work*).tw,kw,kf. (52843)
- 48 back-to-work.tw,kw,kf. (2166)
- 49 (employabilit* or workabilit*).tw,kw,kf. (4124)
- 50 ((able or abilit* or capabl* or incapabl* or capacit* or incapacit* or disable* or disabilit* or inabilit* or unable* or limit*) adj5 (employ* or job or jobs or work*).tw,kw,kf. (158954)
- 51 Sick Leave/ (13621)
- 52 ((disabilt* or sick* or ill or illness* or unwell or "not well") adj5 (days or leave or "time off" or absenc* or absent* or presenc* or present)).tw,kw,kf. (59591)
- 53 ((shortterm or short-term or longterm or long-term) adj3 (disabl* or disabilit*).tw,kw,kf. (14002)
- 54 Absenteeism/ (28755)
- 55 Presenteeism/ (2595)
- 56 (absentee* or presentee* or leaveism or leavism).tw,kw,kf. (19965)
- 57 (work? adj3 ("while on holiday*" or while holiday* or during holiday* or "while on leave" or during leave? or "while on vacation*" or during vacation* or while vacationing*).tw,kw,kf. (18)
- 58 Occupational Medicine/ (35699)
- 59 ((industrial* or occupational*) adj medicine).tw,kw,kf. (17057)
- 60 Efficiency/ (61573)
- 61 ((efficien* or productiv*) adj3 (declin* or decreas* or diminish* or less* or lose or losing or loss or losses or low or lower* or reduc*).tw,kw,kf. (213064)



- 62 or/45-61 [FUNCTIONALITY/WORK/PRODUCTIVITY] (700225)
- 63 44 and 62 [LONG COVID - FUNCTIONALITY/WORK/PRODUCTIVITY] (1086)
- 64 "Global Burden of Disease"/ (6460)
- 65 Caregiver Burden/ (10180)
- 66 ((accept* or anxiet* or anxious* or concern\$2 or dissatisf* or experienc* or fear* or perceiv* or percepti* or perspective? or "point-of-view" or "points-of-view" or satisf* or uncertain* or unsatisf* or valuation* or value? or valuing or view or views or viewpoint* or worrie? or worry*) adj3 (carer\$2 or caregiver* or care-giver*)).tw,kw,kf. (35752)
- 67 "Cost of Illness"/ (51734)
- 68 ((disabilt* or sick* or ill or illness* or unwell or "not well") adj5 (cost or costs or costly or costing or economic* or expenditure? or expens* or financ*)).tw,kw,kf. (20451)
- 69 Financial Stress/ (2112)
- 70 ((econom* or financ*) adj3 (challeng* or difficult* or distress* or hardship* or pressur* or problem* or strain*)).tw,kw,kf. (47149)
- 71 burden*.tw,kw,kf. (739939)
- 72 (restrict* or constrain* or limit*).ti,kw,kf. (430546)
- 73 or/64-72 [BURDEN] (1276198)
- 74 44 and 73 [LONG COVID - BURDEN] (2055)
- 75 Economics/ (271360)
- 76 exp "Costs and Cost Analysis"/ (646857)
- 77 Economics, Nursing/ (36818)
- 78 Economics, Medical/ (42952)
- 79 Economics, Pharmaceutical/ (11981)
- 80 exp Economics, Hospital/ (1003475)
- 81 Economics, Dental/ (36636)
- 82 exp "Fees and Charges"/ (73910)
- 83 exp Budgets/ (46241)
- 84 budget*.ti,ab,kf. (79701)
- 85 (economic* or cost or costs or costly or costing or price or prices or pricing or pharmaco-economic* or pharmaco-economic* or expenditure or expenditures or expense or expenses or financial or finance or finances or financed or socioeconomic* or socio-economic*).ti,kf. (651499)
- 86 (economic* or cost or costs or costly or costing or price or prices or pricing or pharmaco-economic* or pharmaco-economic* or expenditure or expenditures or expense or expenses or financial or finance or finances or financed or socioeconomic* or socio-economic*).ab. /freq=2 (928910)
- 87 (cost* adj2 (effective* or utilit* or benefit* or minimi* or analy* or outcome or outcomes)).ab,kf. (470472)
- 88 (value adj2 (money or monetary)).ti,ab,kf. (6742)
- 89 exp models, economic/ (19390)
- 90 economic model*.ab,kf. (9839)
- 91 markov chains/ (24790)
- 92 markov.ti,ab,kf. (63118)
- 93 monte carlo method/ (79121)
- 94 monte carlo.ti,ab,kf. (116883)
- 95 exp Decision Theory/ (14775)
- 96 (decision* adj2 (tree* or analy* or model*)).ti,ab,kf. (79618)
- 97 or/75-96 [ECONOMIC EVALUATIONS & MODELS - CADTH FILTER] (2593829)
- 98 74 and 97 [LONG COVID - BURDEN - ECONOMICS] (318)



- 99 63 or 98 [LONG COVID - FUNCTIONALITY/WORK/PRODUCTIVITY OR LONG COVID - BURDEN - ECONOMICS] (1365)
- 100 99 use medall [MEDLINE RECORDS] (511)
- 101 long COVID/ (2294)
- 102 (long adj (COVID or COVID-19 or COVID19 or coronavirus* or corona virus* or 2019-nCoV or 19nCoV or 2019nCoV or nCoV or n-CoV or "CoV 2" or CoV2 or SARS-CoV-2 or SARS-CoV2 or SARSCoV-2 or SARSCoV2 or SARS2 or SARS-2 or severe acute respiratory syndrome coronavirus 2 or 2019-novel CoV or Sars-coronavirus2 or Sars-coronavirus-2 or SARS-like coronavirus* or novel coronavirus* or novel corona virus* or novel CoV or OC43 or NL63 or 229E or HKU1 or HCoV* or Sars-coronavirus*)).tw,kw,kf. (4062)
- 103 ((longterm or long-term) adj (COVID or COVID-19 or COVID19 or coronavirus* or corona virus* or 2019-nCoV or 19nCoV or 2019nCoV or nCoV or n-CoV or "CoV 2" or CoV2 or SARS-CoV-2 or SARS-CoV2 or SARSCoV-2 or SARSCoV2 or SARS2 or SARS-2 or severe acute respiratory syndrome coronavirus 2 or 2019-novel CoV or Sars-coronavirus2 or Sars-coronavirus-2 or SARS-like coronavirus* or novel coronavirus* or novel corona virus* or novel CoV or OC43 or NL63 or 229E or HKU1 or HCoV* or Sars-coronavirus*)).tw,kw,kf. (312)
- 104 ((postacute or post-acute) adj (COVID or COVID-19 or COVID19 or coronavirus* or corona virus* or 2019-nCoV or 19nCoV or 2019nCoV or nCoV or n-CoV or "CoV 2" or CoV2 or SARS-CoV-2 or SARS-CoV2 or SARSCoV-2 or SARSCoV2 or SARS2 or SARS-2 or severe acute respiratory syndrome coronavirus 2 or 2019-novel CoV or Sars-coronavirus2 or Sars-coronavirus-2 or SARS-like coronavirus* or novel coronavirus* or novel corona virus* or novel CoV or OC43 or NL63 or 229E or HKU1 or HCoV* or Sars-coronavirus*)).tw,kw,kf. (897)
- 105 (chronic* adj2 (COVID or COVID-19 or COVID19 or coronavirus* or corona virus* or 2019-nCoV or 19nCoV or 2019nCoV or nCoV or n-CoV or "CoV 2" or CoV2 or SARS-CoV-2 or SARS-CoV2 or SARSCoV-2 or SARSCoV2 or SARS2 or SARS-2 or severe acute respiratory syndrome coronavirus 2 or 2019-novel CoV or Sars-coronavirus2 or Sars-coronavirus-2 or SARS-like coronavirus* or novel coronavirus* or novel corona virus* or novel CoV or OC43 or NL63 or 229E or HKU1 or HCoV* or Sars-coronavirus*)).tw,kw,kf. (2775)
- 106 (persist* adj2 (COVID or COVID-19 or COVID19 or coronavirus* or corona virus* or 2019-nCoV or 19nCoV or 2019nCoV or nCoV or n-CoV or "CoV 2" or CoV2 or SARS-CoV-2 or SARS-CoV2 or SARSCoV-2 or SARSCoV2 or SARS2 or SARS-2 or severe acute respiratory syndrome coronavirus 2 or 2019-novel CoV or Sars-coronavirus2 or Sars-coronavirus-2 or SARS-like coronavirus* or novel coronavirus* or novel corona virus* or novel CoV or OC43 or NL63 or 229E or HKU1 or HCoV* or Sars-coronavirus*)).ti,kw,kf. (887)
- 107 or/101-106 [LONG COVID - PT 1] (8939)
- 108 coronavirus disease 2019/ (450469)
- 109 severe acute respiratory syndrome coronavirus 2/ (213129)
- 110 Coronavirinae/ (6230)
- 111 Betacoronavirus/ (39761)
- 112 coronavirus infection/ (56717)
- 113 (COVID-19 or COVID19).tw,kw,kf. (547069)
- 114 ((coronavirus* or corona virus*) and (hubei or wuhan or beijing or shanghai)).tw,kw,kf. (13194)
- 115 (wuhan adj5 virus*).tw,kw,kf. (770)
- 116 (2019-nCoV or 19nCoV or 2019nCoV).tw,kw,kf. (4236)
- 117 (nCoV or n-CoV or "CoV 2" or CoV2).tw,kw,kf. (214119)
- 118 (SARS-CoV-2 or SARS-CoV2 or SARSCoV-2 or SARSCoV2 or SARS2 or SARS-2 or severe acute respiratory syndrome coronavirus 2).tw,kw,kf. (217595)



- 119 (2019-novel CoV or Sars-coronavirus2 or Sars-coronavirus-2 or SARS-like coronavirus* or ((novel or new or nouveau) adj2 (CoV or nCoV or covid or coronavirus* or corona virus or Pandemi*2)) or (coronavirus* and pneumonia)).tw,kw,kf. (55377)
- 120 (novel coronavirus* or novel corona virus* or novel CoV).tw,kw,kf. (25615)
- 121 ((coronavirus* or corona virus*) adj2 "2019").tw,kw,kf. (108477)
- 122 ((coronavirus* or corona virus*) adj2 "19").tw,kw,kf. (16672)
- 123 (coronavirus 2 or corona virus 2).tw,kw,kf. (60156)
- 124 (OC43 or NL63 or 229E or HKU1 or HCoV* or Sars-coronavirus*).tw,kw,kf. (9535)
- 125 (coronavirus* or corona virus* or COVID).ti. (459168)
- 126 or/108-125 [COVID-19] (662827)
- 127 (post adj (COVID or COVID-19 or COVID19 or coronavirus* or corona virus* or 2019-nCoV or 19nCoV or 2019nCoV or nCoV or n-CoV or "CoV 2" or CoV2 or SARS-CoV-2 or SARS-CoV2 or SARSCoV-2 or SARSCoV2 or SARS2 or SARS-2 or severe acute respiratory syndrome coronavirus 2 or 2019-novel CoV or Sars-coronavirus2 or Sars-coronavirus-2 or SARS-like coronavirus* or novel coronavirus* or novel corona virus* or novel CoV or OC43 or NL63 or 229E or HKU1 or HCoV* or Sars-coronavirus*) adj3 (comorbid* or "co morbid*" or condition* or convalescen* or disease* or disorder* or illness* or multimorbid* or "multi morbid*" or sickness* or symptom* or syndrome* or sign or signs or prognos* or recuperat* or survivor* or survival* or risk*)).tw,kw,kf. (2856)
- 128 (after adj (COVID or COVID-19 or COVID19 or coronavirus* or corona virus* or 2019-nCoV or 19nCoV or 2019nCoV or nCoV or n-CoV or "CoV 2" or CoV2 or SARS-CoV-2 or SARS-CoV2 or SARSCoV-2 or SARSCoV2 or SARS2 or SARS-2 or severe acute respiratory syndrome coronavirus 2 or 2019-novel CoV or Sars-coronavirus2 or Sars-coronavirus-2 or SARS-like coronavirus* or novel coronavirus* or novel corona virus* or novel CoV or OC43 or NL63 or 229E or HKU1 or HCoV* or Sars-coronavirus*) adj3 (comorbid* or "co morbid*" or condition* or convalescen* or disease* or disorder* or illness* or multimorbid* or "multi morbid*" or sickness* or symptom* or syndrome* or sign or signs or prognos* or recuperat* or survivor* or survival* or risk*)).tw,kw,kf. (1719)
- 129 (following adj (COVID or COVID-19 or COVID19 or coronavirus* or corona virus* or 2019-nCoV or 19nCoV or 2019nCoV or nCoV or n-CoV or "CoV 2" or CoV2 or SARS-CoV-2 or SARS-CoV2 or SARSCoV-2 or SARSCoV2 or SARS2 or SARS-2 or severe acute respiratory syndrome coronavirus 2 or 2019-novel CoV or Sars-coronavirus2 or Sars-coronavirus-2 or SARS-like coronavirus* or novel coronavirus* or novel corona virus* or novel CoV or OC43 or NL63 or 229E or HKU1 or HCoV* or Sars-coronavirus*) adj3 (comorbid* or "co morbid*" or condition* or convalescen* or disease* or disorder* or illness* or multimorbid* or "multi morbid*" or sickness* or symptom* or syndrome* or sign or signs or prognos* or recuperat* or survivor* or survival* or risk*)).tw,kw,kf. (844)
- 130 ((chronic* or continuous* or continual* or continuing* or delay* or endur* or extend* or fluctuat* or gradual* or lasting* or legacy* or lengthy* or linger* or long* or "medium* term*" or mediumterm* or multisystem* or "multi system*" or ongoing* or permanent* or persist* or prolong* or protract* or relaps* or remission* or remit* or residual* or slow* or subacute* or "sub acute*") adj3 recover*).tw,kw,kf. (86606)
- 131 ((after discharg* or following discharg* or postacute* or "post acute*" or postdischarg* or "post discharge" or "post discharging" or posthospital* or post-hospital* or postinfect* or "post infection" or "post infective*" or postviral* or "post viral*" or postvirus* or "post virus*" or postcritical or post-critical or postintensive or post-intensive or post-ICU) adj3 recover*).tw,kw,kf. (1664)
- 132 ((chronic* or continuous* or continual* or continuing* or delay* or endur* or extend* or fluctuat* or gradual* or lasting* or legacy* or lengthy* or linger* or long* or "medium* term*" or mediumterm* or multisystem* or "multi system*" or ongoing* or permanent* or persist* or prolong* or protract* or relaps* or remission* or remit* or residual* or slow* or subacute* or "sub acute*") adj3 (complication? or consequence? or convalescen* or disabilit* or feature* or illness* or prognos* or sequela* or sign or signs or suffering? or symptom* or recuperat*)).tw,kw,kf. (655955)



- 133 ((after discharg* or following discharg* or postacute* or "post acute*" or postdischarg* or "post discharge" or "post discharging" or posthospital* or post-hospital* or postinfect* or "post infection" or "post infective*" or postviral* or "post viral*" or postvirus* or "post virus*" or postcritical or post-critical or postintensive or post-intensive or post-ICU) adj3 (complication? or consequence? or convalescen* or disabilit* or feature* or illness* or prognos* or sequela* or sign or signs or suffering? or symptom* or recuperat*)).tw,kw,kf. (6450)
- 134 (nonrecover* or "non recover*" or "not recover*").tw,kw,kf. (17960)
- 135 ("long* haul*" or longhaul* or "long* tail*" or longtail* or longduration* or "long duration*" or longlast* or "long last*" or longstanding* or "long standing*" or "medium* term*" or mediumterm*).tw,kw,kf. (287327)
- 136 or/127-135 [LONG-TERM ILLNESS, PROTRACTED RECOVERY, ETC.] (1028464)
- 137 126 and 136 [LONG COVID - PT 2] (22943)
- 138 107 or 137 [LONG COVID] (27881)
- 139 (exp animal/ or exp animal experimentation/ or exp animal model/ or exp animal experiment/ or nonhuman/ or exp vertebrate/) not (exp human/ or exp human experimentation/ or exp human experiment/) (12059643)
- 140 138 not 139 [ANIMAL-ONLY REMOVED] (27548)
- 141 exp employment/ (214057)
- 142 return to work/ (12147)
- 143 work resumption/ (3569)
- 144 ((assum* or reenter* or re-enter* or reentry or re-entry or restart* or resum* or return* or start*) adj3 (employ* or job or jobs or work*)).tw,kw,kf. (52843)
- 145 back-to-work.tw,kw,kf. (2166)
- 146 employability/ (1775)
- 147 work capacity/ (13371)
- 148 (employabilit* or workabilit*).tw,kw,kf. (4124)
- 149 ((able or abilit* or capabl* or incapabl* or capacit* or incapacit* or disable* or disabilit* or inabilit* or unable* or limit*) adj5 (employ* or job or jobs or work*)).tw,kw,kf. (158954)
- 150 medical leave/ (8105)
- 151 ((disabilt* or sick* or ill or illness* or unwell or "not well") adj5 (days or leave or "time off" or absenc* or absent* or presenc* or present)).tw,kw,kf. (59591)
- 152 ((shortterm or short-term or longterm or long-term) adj3 (disabl* or disabilit*)).tw,kw,kf. (14002)
- 153 absenteeism/ (28755)
- 154 presenteeism/ (2595)
- 155 (absentee* or presentee* or leaveism or leavism).tw,kw,kf. (19965)
- 156 (work? adj3 ("while on holiday*" or while holiday* or during holiday* or "while on leave" or during leave? or "while on vacation*" or during vacation* or while vacationing*)).tw,kw,kf. (18)
- 157 occupational medicine/ (35699)
- 158 ((industrial* or occupational*) adj medicine).tw,kw,kf. (17057)
- 159 productivity/ (61573)
- 160 ((efficien* or productiv*) adj3 (declin* or decreas* or diminish* or less* or lose or losing or loss or losses or low or lower* or reduc*)).tw,kw,kf. (213064)
- 161 or/141-160 [FUNCTIONALITY/WORK/PRODUCTIVITY] (784567)
- 162 140 and 161 [LONG COVID - FUNCTIONALITY/WORK/PRODUCTIVITY] (1197)
- 163 global disease burden/ (6565)
- 164 disease burden/ (68100)
- 165 caregiver burden/ (10180)
- 166 ((accept* or anxiet* or anxious* or concern\$2 or dissatisf* or experienc* or fear* or perceiv* or percepti* or perspective? or "point-of-view" or "points-of-view" or satisf* or uncertain* or unsatisf* or



valuation* or value? or valuing or view or views or viewpoint* or worrie? or worry*) adj3 (carer\$2 or caregiver* or care-giver*).tw,kw,kf. (35752)
 167 "cost of illness"/ (51734)
 168 ((disabilt* or sick* or ill or illness* or unwell or "not well") adj5 (cost or costs or costly or costing or economic* or expenditure? or expens* or financ*).tw,kw,kf. (20451)
 169 exp financial stress/ (3389)
 170 ((econom* or financ*) adj3 (challeng* or difficult* or distress* or hardship* or pressur* or problem* or strain*).tw,kw,kf. (47149)
 171 burden*.tw,kw,kf. (739939)
 172 (restrict* or constrain* or limit*).ti,kw,kf. (430546)
 173 or/163-172 [BURDEN] (1287059)
 174 140 and 173 [LONG COVID - BURDEN] (2068)
 175 economics/ (271360)
 176 cost/ (112199)
 177 exp health economics/ (2624542)
 178 budget/ (43840)
 179 budget*.ti,ab,kf. (79701)
 180 (economic* or cost or costs or costly or costing or price or prices or pricing or pharmaco-economic* or pharmaco-economic* or expenditure or expenditures or expense or expenses or financial or finance or finances or financed or socioeconomic* or socio-economic*).ti,kf. (651499)
 181 (economic* or cost or costs or costly or costing or price or prices or pricing or pharmaco-economic* or pharmaco-economic* or expenditure or expenditures or expense or expenses or financial or finance or finances or financed or socioeconomic* or socio-economic*).ab. /freq=2 (928910)
 182 (cost* adj2 (effective* or utilit* or benefit* or minimi* or analy* or outcome or outcomes)).ab,kf. (470472)
 183 (value adj2 (money or monetary)).ti,ab,kf. (6742)
 184 statistical model/ (270163)
 185 economic model*.ab,kf. (9839)
 186 probability/ (193167)
 187 markov.ti,ab,kf. (63118)
 188 monte carlo method/ (79121)
 189 monte carlo.ti,ab,kf. (116883)
 190 decision theory/ (2770)
 191 decision tree/ (30566)
 192 (decision* adj2 (tree* or analy* or model*).ti,ab,kf. (79618)
 193 or/175-192 [ECONOMIC EVALUATIONS & MODELS - CADTH FILTER] (4215212)
 194 174 and 193 [LONG COVID - BURDEN - ECONOMICS] (384)
 195 162 or 194 [LONG COVID - FUNCTIONALITY/WORK/PRODUCTIVITY OR LONG COVID - BURDEN - ECONOMICS] (1511)
 196 195 use oemezd [EMBASE RECORDS] (938)
 197 100 or 196 [BOTH DATABASES] (1449)
 198 remove duplicates from 197 (1051)
 199 198 use medall [MEDLINE UNIQUE RECORDS] (499)
 200 198 use oemezd [EMBASE UNIQUE RECORDS] (552)

Web of Science



Database: Web of Science Core Collection

Entitlements:

- WOS.SSCI: 1956 to 2022
- WOS.AHCI: 1975 to 2022
- WOS.ISTP: 1990 to 2022
- WOS.ESCI: 2017 to 2022
- WOS.SCI: 1900 to 2022
- WOS.ISSHP: 1990 to 2022

Searches:

1: long NEAR/0 (COVID or "COVID-19" or COVID19 or coronavirus* or "corona virus" or "corona viruses" or "2019-nCoV" or 19nCoV or 2019nCoV or nCoV or "n-CoV" or "CoV 2" or CoV2 or "SARS-CoV-2" or "SARS-CoV2" or "SARSCoV-2" or SARSCoV2 or SARS2 or "SARS-2" or "severe acute respiratory syndrome coronavirus 2" or "2019-novel CoV" or "SARS-coronavirus2" or "SARS-coronavirus-2" or "SARS-like coronavirus" or "SARS-like coronaviruses" or "novel coronavirus" or "novel coronaviruses" or "novel corona virus" or "novel corona viruses" or "novel CoV" or OC43 or NL63 or 229E or HKU1 or HCoV* or "SARS-coronavirus" or "SARS-coronaviruses") (Topic) OR longterm NEAR/0 (COVID or "COVID-19" or COVID19 or coronavirus* or "corona virus" or "corona viruses" or "2019-nCoV" or 19nCoV or 2019nCoV or nCoV or "n-CoV" or "CoV 2" or CoV2 or "SARS-CoV-2" or "SARS-CoV2" or "SARSCoV-2" or SARSCoV2 or SARS2 or "SARS-2" or "severe acute respiratory syndrome coronavirus 2" or "2019-novel CoV" or "SARS-coronavirus2" or "SARS-coronavirus-2" or "SARS-like coronavirus" or "SARS-like coronaviruses" or "novel coronavirus" or "novel coronaviruses" or "novel corona virus" or "novel corona viruses" or "novel CoV" or OC43 or NL63 or 229E or HKU1 or HCoV* or "SARS-coronavirus" or "SARS-coronaviruses") (Topic) OR "long-term" NEAR/0 (COVID or "COVID-19" or COVID19 or coronavirus* or "corona virus" or "corona viruses" or "2019-nCoV" or 19nCoV or 2019nCoV or nCoV or "n-CoV" or "CoV 2" or CoV2 or "SARS-CoV-2" or "SARS-CoV2" or "SARSCoV-2" or SARSCoV2 or SARS2 or "SARS-2" or "severe acute respiratory syndrome coronavirus 2" or "2019-novel CoV" or "SARS-coronavirus2" or "SARS-coronavirus-2" or "SARS-like coronavirus" or "SARS-like coronaviruses" or "novel coronavirus" or "novel coronaviruses" or "novel corona virus" or "novel corona viruses" or "novel CoV" or OC43 or NL63 or 229E or HKU1 or HCoV* or "SARS-coronavirus" or "SARS-coronaviruses") (Topic) OR postacute NEAR/0 (COVID or "COVID-19" or COVID19 or coronavirus* or "corona virus" or "corona viruses" or "2019-nCoV" or 19nCoV or 2019nCoV or nCoV or "n-CoV" or "CoV 2" or CoV2 or "SARS-CoV-2" or "SARS-CoV2" or "SARSCoV-2" or SARSCoV2 or SARS2 or "SARS-2" or "severe acute respiratory syndrome coronavirus 2" or "2019-novel CoV" or "SARS-coronavirus2" or "SARS-coronavirus-2" or "SARS-like coronavirus" or "SARS-like coronaviruses" or "novel coronavirus" or "novel coronaviruses" or "novel corona virus" or "novel corona viruses" or "novel CoV" or OC43 or NL63 or 229E or HKU1 or HCoV* or "SARS-coronavirus" or "SARS-coronaviruses") (Topic) OR "post-acute" NEAR/0 (COVID or "COVID-19" or COVID19 or coronavirus* or "corona virus" or "corona viruses" or "2019-nCoV" or 19nCoV or 2019nCoV or nCoV or "n-CoV" or "CoV 2" or CoV2 or "SARS-CoV-2" or "SARS-CoV2" or "SARSCoV-2" or SARSCoV2 or SARS2 or "SARS-2" or "severe acute respiratory syndrome coronavirus 2" or "2019-novel CoV" or "SARS-coronavirus2" or "SARS-coronavirus-2" or "SARS-like coronavirus" or "SARS-like coronaviruses" or "novel coronavirus" or "novel coronaviruses" or "novel corona virus" or "novel corona viruses" or "novel CoV" or OC43 or NL63 or 229E or HKU1 or HCoV* or "SARS-coronavirus" or "SARS-coronaviruses") (Topic) OR chronic* NEAR/0 (COVID or "COVID-19" or COVID19 or coronavirus* or "corona virus" or "corona viruses" or "2019-nCoV" or 19nCoV or



2019nCoV or nCoV or "n-CoV" or "CoV 2" or CoV2 or "SARS-CoV-2" or "SARS-CoV2" or "SARSCoV-2" or SARSCoV2 or SARS2 or "SARS-2" or "severe acute respiratory syndrome coronavirus 2" or "2019-novel CoV" or "SARS-coronavirus2" or "SARS-coronavirus-2" or "SARS-like coronavirus" or "SARS-like coronaviruses" or "novel coronavirus" or "novel coronaviruses" or "novel corona virus" or "novel corona viruses" or "novel CoV" or OC43 or NL63 or 229E or HKU1 or HCoV* or "SARS-coronavirus" or "SARS-coronaviruses") (Topic) OR persist* NEAR/0 (COVID or "COVID-19" or COVID19 or coronavirus* or "corona virus" or "corona viruses" or "2019-nCoV" or 19nCoV or 2019nCoV or nCoV or "n-CoV" or "CoV 2" or CoV2 or "SARS-CoV-2" or "SARS-CoV2" or "SARSCoV-2" or SARSCoV2 or SARS2 or "SARS-2" or "severe acute respiratory syndrome coronavirus 2" or "2019-novel CoV" or "SARS-coronavirus2" or "SARS-coronavirus-2" or "SARS-like coronavirus" or "SARS-like coronaviruses" or "novel coronavirus" or "novel coronaviruses" or "novel corona virus" or "novel corona viruses" or "novel CoV" or OC43 or NL63 or 229E or HKU1 or HCoV* or "SARS-coronavirus" or "SARS-coronaviruses") (Topic) Results: 2660

2: COVID or "COVID-19" or COVID19 or coronavirus* or "corona virus" or "corona viruses" or "2019-nCoV" or 19nCoV or 2019nCoV or nCoV or "n-CoV" or "CoV 2" or CoV2 or "SARS-CoV-2" or "SARS-CoV2" or "SARSCoV-2" or SARSCoV2 or SARS2 or "SARS-2" or "severe acute respiratory syndrome coronavirus 2" or "2019-novel CoV" or "SARS-coronavirus2" or "SARS-coronavirus-2" or "SARS-like coronavirus" or "SARS-like coronaviruses" or "novel coronavirus" or "novel coronaviruses" or "novel corona virus" or "novel corona viruses" or "novel CoV" or OC43 or NL63 or 229E or HKU1 or HCoV* or "SARS-coronavirus" or "SARS-coronaviruses" (Topic) OR (coronavirus* or "corona virus" or "corona viruses") and (hubei or wuhan or beijing or shanghai) (Topic) OR wuhan NEAR/5 virus* (Topic) OR coronavirus* and pneumonia (Topic) OR (novel or new or nouveau) NEAR/2 (CoV or nCoV or covid or coronavirus* or "corona virus" or "Pandemic 2") (Topic) OR (coronavirus* or "corona virus" or "corona viruses") NEAR/2 "2019" (Topic) OR (coronavirus* or "corona virus" or "corona viruses") NEAR/2 "19" (Topic) OR coronavirus* or "corona virus" or "corona viruses" or COVID (Title) Results: 374228

3: ("post-COVID" or "post-COVID-19" or "post-COVID19" or "post-coronavirus" or "post-coronaviruses" or "post-corona virus" or "post-corona viruses" or "post-2019-nCoV" or "post-19nCoV" or "post-2019nCoV" or "post-nCoV" or "post-n-CoV" or "post-CoV 2" or "post-CoV2" or "post-SARS-CoV-2" or "post-SARS-CoV2" or "post-SARSCoV-2" or "post-SARSCoV2" or "post-SARS2" or "post-SARS-2" or "post-severe acute respiratory syndrome coronavirus 2" or "post-2019-novel CoV" or "post-SARS-coronavirus2" or "post-SARS-coronavirus-2" or "post-SARS-like coronavirus" or "post-SARS-like coronaviruses" or "post-novel coronavirus" or "post-novel coronaviruses" or "post-novel corona virus" or "post-novel corona viruses" or "post-novel CoV" or "post-OC43" or "post-NL63" or "post-229E" or "post-HKU1" or "post-HCoV" or "post-SARS-coronavirus" or "post-SARS-coronaviruses") NEAR/3 (comorbid* or "co-morbid" or "co-morbidity" or "co-morbidities" or condition* or convalescen* or disease* or disorder* or illness* or multimorbid* or "multi-morbid" or "multi-morbidity" or "multi-morbidities" or sickness* or symptom* or syndrome* or sign or signs or prognos* or recuperat* or survivor* or survival* or risk*) (Topic) Results: 1395

4: ("after COVID" or "after COVID-19" or "after COVID19" or "after coronavirus" or "after coronaviruses" or "after corona virus" or "after corona viruses" or "after 2019-nCoV" or "after 19nCoV" or "after 2019nCoV" or "after nCoV" or "after n-CoV" or "after CoV 2" or "after CoV2" or "after SARS-CoV-2" or "after SARS-CoV2" or "after SARSCoV-2" or "after SARSCoV2" or "after SARS2" or "after SARS-2" or "after severe acute respiratory syndrome coronavirus 2" or "after 2019-novel CoV" or "after SARS-coronavirus2" or "after SARS-coronavirus-2" or "after SARS-like coronavirus" or "after SARS-like coronaviruses" or "after novel coronavirus" or "after novel coronaviruses" or "after novel corona virus" or "after novel corona viruses" or "after novel CoV" or "after OC43" or "after NL63" or "after 229E" or



"after HKU1" or "after HCoV" or "after SARS-coronavirus" or "after SARS-coronaviruses") NEAR/3 (comorbid* or "co-morbid" or "co-morbidity" or "co-morbidities" or condition* or convalescen* or disease* or disorder* or illness* or multimorbid* or "multi-morbid" or "multi-morbidity" or "multi-morbidities" or sickness* or symptom* or syndrome* or sign or signs or prognos* or recuperat* or survivor* or survival* or risk*) (Topic)
 Results: 1185

5: ("following COVID" or "following COVID-19" or "following COVID19" or "following coronavirus" or "following coronaviruses" or "following corona virus" or "following corona viruses" or "following 2019-nCoV" or "following 19nCoV" or "following 2019nCoV" or "following nCoV" or "following n-CoV" or "following CoV 2" or "following CoV2" or "following SARS-CoV-2" or "following SARS-CoV2" or "following SARSCoV-2" or "following SARSCoV2" or "following SARS2" or "following SARS-2" or "following severe acute respiratory syndrome coronavirus 2" or "following 2019-novel CoV" or "following SARS-coronavirus2" or "following SARS-coronavirus-2" or "following SARS-like coronavirus" or "following SARS-like coronaviruses" or "following novel coronavirus" or "following novel coronaviruses" or "following novel corona virus" or "following novel corona viruses" or "following novel CoV" or "following OC43" or "following NL63" or "following 229E" or "following HKU1" or "following HCoV" or "following SARS-coronavirus" or "following SARS-coronaviruses") NEAR/3 (comorbid* or "co-morbid" or "co-morbidity" or "co-morbidities" or condition* or convalescen* or disease* or disorder* or illness* or multimorbid* or "multi-morbid" or "multi-morbidity" or "multi-morbidities" or sickness* or symptom* or syndrome* or sign or signs or prognos* or recuperat* or survivor* or survival* or risk*) (Topic)
 Results: 597

6: (chronic* or continuous* or continual* or continuing* or delay* or endur* or extend* or fluctuat* or gradual* or lasting* or legacy* or lengthy* or linger* or long* or "medium* term*" or mediumterm* or multisystem* or "multi system" or ongoing* or permanent* or persist* or prolong* or protract* or relaps* or remission* or remit* or residual* or slow* or subacute* or "sub acute*") NEAR/3 recover* (Topic)
 Results: 53793

7: ("after discharge" or "after discharging" or "following discharge" or "following discharging" or postacute* or "post acute*" or postdischarge or postdischarging or "post discharge" or "post discharging" or posthospital* or "post-hospital" or "post-hospitalisation" or "post-hospitalization" or postinfect* or "post infection" or "post infective" or postviral* or "post viral" or postvirus* or "post virus" or postcritical or "post-critical" or postintensive or "post-intensive" or "post-ICU") NEAR/3 recover* (Topic)
 Results: 814

8: (chronic* or continuous* or continual* or continuing* or delay* or endur* or extend* or fluctuat* or gradual* or lasting* or legacy* or lengthy* or linger* or long* or "medium term" or mediumterm* or multisystem* or "multi-system" or ongoing or permanent* or persist* or prolong* or protract* or relaps* or remission* or remit* or residual* or slow* or subacute* or "sub acute") NEAR/3 (complication* or consequence* or convalescen* or disabilit* or feature* or illness* or prognos* or sequela* or sign or signs or suffering* or symptom* or recuperat*) (Topic)
 Results: 316066

9: ("after discharge" or "after discharging" or "following discharge" or "following discharging" or postacute* or "post acute*" or postdischarge or postdischarging or "post discharge" or "post discharging" or posthospital* or "post-hospital" or "post-hospitalisation" or "post-hospitalization" or postinfect* or "post infection" or "post infective" or postviral* or "post viral" or postvirus* or "post virus" or postcritical or "post-critical" or postintensive or "post-intensive" or "post-ICU") NEAR/3 (complication* or consequence* or convalescen* or disabilit* or feature* or illness* or prognos* or sequela* or sign or



signs or suffering* or symptom* or recuperat*) (Topic)
 Results: 2807

10: nonrecover* or (non NEAR/0 recover*) or "not recover" or "not recovered" or "not recovering"
 (Topic) Results: 9896

11: "long haul" or "long hauler" or "long haulers" or longhaul* or (long NEAR/0 tail*) or longtail* or
 longduration* or "long duration" or "long durations" or longlast* or (long NEAR/0 last*) or longstanding*
 or "long standing" or "medium term*" or mediumterm* (Topic)
 Results: 192710

12: #11 OR #10 OR #9 OR #8 OR #7 OR #6 OR #5 OR #4 OR #3 Results: 563267

13: #12 AND #2 Results: 11927

14: #13 OR #1 Results: 13204

15: ((assum* or reenter* or "re-enter" or "re-enters" or "re-entered" or "re-entering" or reentry or "re-
 entry" or restart* or resum* or return* or start*) NEAR/3 (employ* or job or jobs or work*)) (Topic) OR
 "back-to-work" or employabilit* or workabilit* (Topic) OR ((able or abilit* or capabl* or incapabl* or
 capacit* or incapacit* or disable* or disabilit* or inabilit* or unable* or limit*) NEAR/5 (employ* or job or
 jobs or work*)) (Topic) Results: 238800

16: ((disabilt* or sick* or ill or illness* or unwell or "not well") NEAR/5 (days or leave or "time off" or
 absenc* or absent* or presenc* or present)) (Topic) OR ((shortterm or short-term or longterm or long-
 term) NEAR/3 (disabl* or disabilit*)) (Topic) OR absentee* or presentee* or leaveism or leavism
 (Topic) Results: 54665

17: TS=((disabilt* or sick* or ill or illness* or unwell or "not well") NEAR/5 (days or leave or "time off" or
 absenc* or absent* or presenc* or present)) OR TS=((shortterm or short-term or longterm or long-term)
 NEAR/3 (disabl* or disabilit*)) Results: 45455

18: (work* NEAR/3 ("while on holiday" or "while on holidays" or "while holidaying" or "during holiday" or
 "during holidays" or "while on leave" or "during leave" or "during leaves" or "while on vacation" or "while
 on vacations" or "during vacation" or "during vacations" or "while vacationing")) (Topic) OR (industrial*
 or occupational*) NEAR/0 medicine (Topic) Results: 4315

19: (efficien* or productiv*) NEAR/3 (declin* or decreas* or diminish* or less* or lose or losing or loss or
 losses or low or lower* or reduc*) (Topic) Results: 350891

20: #19 OR #18 OR #17 OR #16 OR #15 Results: 637859

21: #20 AND #14 Results: 482

22: (accept* or anxiet* or anxious* or concern or concerns or concerned or dissatisf* or experienc* or
 fear* or perceiv* or percepti* or perspective or perspectives or "point-of-view" or "points-of-view" or
 satisf* or uncertain* or unsatisf* or valuation* or value or valued or values or valuing or view or views or
 viewpoint* or worried or worries or worry*) NEAR/3 (carer or carers or caregiver* or "care-giver" or
 "care-givers") (Topic) OR (disabilt* or sick* or ill or illness* or unwell or "not well") NEAR/5 (cost or



costs or costly or costing or economic* or expenditure* or expens* or financ*) (Topic) OR (econom* or financ*) NEAR/3 (challeng* or difficult* or distress* or hardship* or pressur* or problem* or strain*) (Topic) OR burden* (Title) OR burden* (Abstract) OR burden* (Author Keywords) OR restrict* or constrain* or limit* (Title) OR restrict* or constrain* or limit* (Author Keywords)

Results: 1144874

23: economic* or cost or costs or costly or costing or price or prices or pricing or pharmaco-economic* or pharmaco-economic* or expenditure or expenditures or expense or expenses or financial or finance or finances or financed or socioeconomic* or socio-economic* (Title) OR economic* or cost or costs or costly or costing or price or prices or pricing or pharmaco-economic* or pharmaco-economic* or expenditure or expenditures or expense or expenses or financial or finance or finances or financed or socioeconomic* or socio-economic* (Author Keywords) OR economic* or cost or costs or costly or costing or price or prices or pricing or pharmaco-economic* or pharmaco-economic* or expenditure or expenditures or expense or expenses or financial or finance or finances or financed or socioeconomic* or socio-economic* (Keyword Plus ®)

Results: 1412874

24: cost* NEAR/2 (effective* or utilit* or benefit* or minimi* or analy* or outcome or outcomes) (Topic) OR value NEAR/2 (money or monetary) (Topic) OR economic NEAR/0 model* (Topic) OR markov or "monte carlo" (Topic) OR decision* NEAR/2 (tree* or analy* or model*) (Topic)

Results: 1061342

25: #23 OR #24

Results: 2246994

26: #22 AND #25

Results: 118599

27: #14 AND #26

Results: 76

28: #27 OR #21

Results: 553

Long Covid – Mental Health – Socioeconomics

Final Searches

2022 Oct 7

Ovid Multifile

Database: Embase <1974 to 2022 October 06>, Ovid MEDLINE(R) ALL <1946 to October 06, 2022>

Search Strategy:

 1 (long adj (COVID or COVID-19 or COVID19 or coronavirus* or corona virus* or 2019-nCoV or 19nCoV or 2019nCoV or nCoV or n-CoV or "CoV 2" or CoV2 or SARS-CoV-2 or SARS-CoV2 or SARSCoV-2 or SARSCoV2 or SARS2 or SARS-2 or severe acute respiratory syndrome coronavirus 2 or 2019-novel CoV or Sars-coronavirus2 or Sars-coronavirus-2 or SARS-like coronavirus* or novel



- coronavirus* or novel corona virus* or novel CoV or OC43 or NL63 or 229E or HKU1 or HCoV* or Sars-coronavirus*).tw,kw,kf. (4106)
- 2 ((longterm or long-term) adj (COVID or COVID-19 or COVID19 or coronavirus* or corona virus* or 2019-nCoV or 19nCoV or 2019nCoV or nCoV or n-CoV or "CoV 2" or CoV2 or SARS-CoV-2 or SARS-CoV2 or SARSCoV-2 or SARSCoV2 or SARS2 or SARS-2 or severe acute respiratory syndrome coronavirus 2 or 2019-novel CoV or Sars-coronavirus2 or Sars-coronavirus-2 or SARS-like coronavirus* or novel coronavirus* or novel corona virus* or novel CoV or OC43 or NL63 or 229E or HKU1 or HCoV* or Sars-coronavirus*).tw,kw,kf. (314)
- 3 ((postacute or post-acute) adj (COVID or COVID-19 or COVID19 or coronavirus* or corona virus* or 2019-nCoV or 19nCoV or 2019nCoV or nCoV or n-CoV or "CoV 2" or CoV2 or SARS-CoV-2 or SARS-CoV2 or SARSCoV-2 or SARSCoV2 or SARS2 or SARS-2 or severe acute respiratory syndrome coronavirus 2 or 2019-novel CoV or Sars-coronavirus2 or Sars-coronavirus-2 or SARS-like coronavirus* or novel coronavirus* or novel corona virus* or novel CoV or OC43 or NL63 or 229E or HKU1 or HCoV* or Sars-coronavirus*).tw,kw,kf. (909)
- 4 (chronic* adj2 (COVID or COVID-19 or COVID19 or coronavirus* or corona virus* or 2019-nCoV or 19nCoV or 2019nCoV or nCoV or n-CoV or "CoV 2" or CoV2 or SARS-CoV-2 or SARS-CoV2 or SARSCoV-2 or SARSCoV2 or SARS2 or SARS-2 or severe acute respiratory syndrome coronavirus 2 or 2019-novel CoV or Sars-coronavirus2 or Sars-coronavirus-2 or SARS-like coronavirus* or novel coronavirus* or novel corona virus* or novel CoV or OC43 or NL63 or 229E or HKU1 or HCoV* or Sars-coronavirus*).tw,kw,kf. (2782)
- 5 (persist* adj2 (COVID or COVID-19 or COVID19 or coronavirus* or corona virus* or 2019-nCoV or 19nCoV or 2019nCoV or nCoV or n-CoV or "CoV 2" or CoV2 or SARS-CoV-2 or SARS-CoV2 or SARSCoV-2 or SARSCoV2 or SARS2 or SARS-2 or severe acute respiratory syndrome coronavirus 2 or 2019-novel CoV or Sars-coronavirus2 or Sars-coronavirus-2 or SARS-like coronavirus* or novel coronavirus* or novel corona virus* or novel CoV or OC43 or NL63 or 229E or HKU1 or HCoV* or Sars-coronavirus*).ti,kw,kf. (898)
- 6 COVID-19/ and Syndrome/ (282)
- 7 SARS-CoV-2/ and Syndrome/ (180)
- 8 or/1-7 [LONG COVID - PT 1] (8498)
- 9 COVID-19/ (304638)
- 10 SARS-CoV-2/ (174549)
- 11 Coronavirus/ (14763)
- 12 Betacoronavirus/ (39766)
- 13 Coronavirus Infections/ (55834)
- 14 (COVID-19 or COVID19).tw,kw,kf. (549895)
- 15 ((coronavirus* or corona virus*) and (hubei or wuhan or beijing or shanghai)).tw,kw,kf. (13207)
- 16 (wuhan adj5 virus*).tw,kw,kf. (770)
- 17 (2019-nCoV or 19nCoV or 2019nCoV).tw,kw,kf. (4240)
- 18 (nCoV or n-CoV or "CoV 2" or CoV2).tw,kw,kf. (215113)
- 19 (SARS-CoV-2 or SARS-CoV2 or SARSCoV-2 or SARSCoV2 or SARS2 or SARS-2 or severe acute respiratory syndrome coronavirus 2).tw,kw,kf. (218603)
- 20 (2019-novel CoV or Sars-coronavirus2 or Sars-coronavirus-2 or SARS-like coronavirus* or ((novel or new or nouveau) adj2 (CoV or nCoV or covid or coronavirus* or corona virus or Pandemi*2)) or (coronavirus* and pneumonia)).tw,kw,kf. (55559)
- 21 (novel coronavirus* or novel corona virus* or novel CoV).tw,kw,kf. (25667)
- 22 ((coronavirus* or corona virus*) adj2 "2019").tw,kw,kf. (109067)
- 23 ((coronavirus* or corona virus*) adj2 "19").tw,kw,kf. (16723)
- 24 (coronavirus 2 or corona virus 2).tw,kw,kf. (60443)
- 25 (OC43 or NL63 or 229E or HKU1 or HCoV* or Sars-coronavirus*).tw,kw,kf. (9565)



- 26 COVID-19.rx,px,ox. or severe acute respiratory syndrome coronavirus 2.os. (17877)
- 27 (coronavirus* or corona virus* or COVID).ti. (461310)
- 28 or/9-27 [COVID-19] (654676)
- 29 (post adj (COVID or COVID-19 or COVID19 or coronavirus* or corona virus* or 2019-nCoV or 19nCoV or 2019nCoV or nCoV or n-CoV or "CoV 2" or CoV2 or SARS-CoV-2 or SARS-CoV2 or SARSCoV-2 or SARSCoV2 or SARS2 or SARS-2 or severe acute respiratory syndrome coronavirus 2 or 2019-novel CoV or Sars-coronavirus2 or Sars-coronavirus-2 or SARS-like coronavirus* or novel coronavirus* or novel corona virus* or novel CoV or OC43 or NL63 or 229E or HKU1 or HCoV* or Sars-coronavirus*) adj3 (comorbid* or "co morbid*" or condition* or convalescen* or disease* or disorder* or illness* or multimorbid* or "multi morbid*" or sickness* or symptom* or syndrome* or sign or signs or prognos* or recuperat* or survivor* or survival* or risk*)).tw,kw,kf. (2901)
- 30 (after adj (COVID or COVID-19 or COVID19 or coronavirus* or corona virus* or 2019-nCoV or 19nCoV or 2019nCoV or nCoV or n-CoV or "CoV 2" or CoV2 or SARS-CoV-2 or SARS-CoV2 or SARSCoV-2 or SARSCoV2 or SARS2 or SARS-2 or severe acute respiratory syndrome coronavirus 2 or 2019-novel CoV or Sars-coronavirus2 or Sars-coronavirus-2 or SARS-like coronavirus* or novel coronavirus* or novel corona virus* or novel CoV or OC43 or NL63 or 229E or HKU1 or HCoV* or Sars-coronavirus*) adj3 (comorbid* or "co morbid*" or condition* or convalescen* or disease* or disorder* or illness* or multimorbid* or "multi morbid*" or sickness* or symptom* or syndrome* or sign or signs or prognos* or recuperat* or survivor* or survival* or risk*)).tw,kw,kf. (1735)
- 31 (following adj (COVID or COVID-19 or COVID19 or coronavirus* or corona virus* or 2019-nCoV or 19nCoV or 2019nCoV or nCoV or n-CoV or "CoV 2" or CoV2 or SARS-CoV-2 or SARS-CoV2 or SARSCoV-2 or SARSCoV2 or SARS2 or SARS-2 or severe acute respiratory syndrome coronavirus 2 or 2019-novel CoV or Sars-coronavirus2 or Sars-coronavirus-2 or SARS-like coronavirus* or novel coronavirus* or novel corona virus* or novel CoV or OC43 or NL63 or 229E or HKU1 or HCoV* or Sars-coronavirus*) adj3 (comorbid* or "co morbid*" or condition* or convalescen* or disease* or disorder* or illness* or multimorbid* or "multi morbid*" or sickness* or symptom* or syndrome* or sign or signs or prognos* or recuperat* or survivor* or survival* or risk*)).tw,kw,kf. (857)
- 32 ((chronic* or continuous* or continual* or continuing* or delay* or endur* or extend* or fluctuat* or gradual* or lasting* or legacy* or lengthy* or linger* or long* or "medium* term*" or mediumterm* or multisystem* or "multi system*" or ongoing* or permanent* or persist* or prolong* or protract* or relaps* or remission* or remit* or residual* or slow* or subacute* or "sub acute*") adj3 recover*).tw,kw,kf. (86650)
- 33 ((after discharg* or following discharg* or postacute* or "post acute*" or postdischarg* or "post discharge" or "post discharging" or posthospital* or post-hospital* or postinfect* or "post infection" or "post infective*" or postviral* or "post viral*" or postvirus* or "post virus*" or postcritical or post-critical or postintensive or post-intensive or post-ICU) adj3 recover*).tw,kw,kf. (1670)
- 34 ((chronic* or continuous* or continual* or continuing* or delay* or endur* or extend* or fluctuat* or gradual* or lasting* or legacy* or lengthy* or linger* or long* or "medium* term*" or mediumterm* or multisystem* or "multi system*" or ongoing or permanent* or persist* or prolong* or protract* or relaps* or remission* or remit* or residual* or slow* or subacute* or "sub acute*") adj3 (complication? or consequence? or convalescen* or disabilit* or feature* or illness* or prognos* or sequela* or sign or signs or suffering? or symptom* or recuperat*)).tw,kw,kf. (656549)
- 35 ((after discharg* or following discharg* or postacute* or "post acute*" or postdischarg* or "post discharge" or "post discharging" or posthospital* or post-hospital* or postinfect* or "post infection" or "post infective*" or postviral* or "post viral*" or postvirus* or "post virus*" or postcritical or post-critical or postintensive or post-intensive or post-ICU) adj3 (complication? or consequence? or convalescen* or disabilit* or feature* or illness* or prognos* or sequela* or sign or signs or suffering? or symptom* or recuperat*)).tw,kw,kf. (6477)
- 36 (nonrecover* or "non recover*" or "not recover*").tw,kw,kf. (17972)



- 37 ("long* haul*" or longhaul* or "long* tail*" or longtail* or longduration* or "long duration*" or longlast* or "long last*" or longstanding* or "long standing*" or "medium* term*" or mediumterm*).tw,kw,kf. (287522)
- 38 or/29-37 [LONG-TERM ILLNESS, PROTRACTED RECOVERY, ETC.] (1029348)
- 39 28 and 38 [LONG COVID - PT 2] (23041)
- 40 Long Term Adverse Effects/ (217256)
- 41 28 and 40 [LONG COVID - PT 3] (2728)
- 42 8 or 39 or 41 [LONG COVID] (30407)
- 43 exp Animals/ not Humans/ (16533695)
- 44 42 not 43 [ANIMAL-ONLY REMOVED] (30138)
- 45 Mental Health/ (238665)
- 46 Mental Disorders/ (280834)
- 47 ((mental or mentally) adj3 (health* or hygiene or ill or illness* or well or wellbeing or well-being or wellness)).tw,kw,kf. (551519)
- 48 ((emotional* or psychological* or psychosocial* or psycho-social* or social*) adj3 (health* or hygiene or ill or illness* or well or wellbeing or well-being or wellness)).tw,kw,kf. (318294)
- 49 ((mental or mentally) adj3 (distress* or disorder* or disfunction* or dysfunction* or stress*)).tw,kw,kf. (165929)
- 50 ((emotional* or psychological* or psychosocial* or psycho-social* or social*) adj3 (distress* or disorder* or disfunction* or dysfunction* or stress*)).tw,kw,kf. (238643)
- 51 exp Anxiety Disorders/ (381194)
- 52 exp Anxiety/ (367819)
- 53 (anxiety or anxieties or anxious*).tw,kw,kf. (613870)
- 54 GAD.tw,kw,kf. (29754)
- 55 (hypervigilan* or hyper-vigilan* or nervous*).tw,kw,kf. (787996)
- 56 ((incessan* or obsessive* or persistan* or intense*) adj3 fear*).tw,kw,kf. (1309)
- 57 (agoraphobi* or claustrophobi* or homophobi* or neophobi* or xenophobi* or agora-phobi* or claustro-phobi* or homo-phobi* or neo-phobi* or xeno-phobi*).tw,kw,kf. (17213)
- 58 (neurocirculatory asthenia* or cardiac neuros#s or effort syndrome* or hyperkinetic heart syndrome*).tw,kw,kf. (1025)
- 59 (neurotic disorder* or neuros#s or psychoneuros#s or psycho-neuros#s).tw,kw,kf. (19956)
- 60 (obsessive-compulsive or anankastic personalit* or compulsive personalit* or obsessive personalit* or hoarding or psychastheni*).tw,kw,kf. (51248)
- 61 (panic disorder* or (panic adj2 attack*)).tw,kw,kf. (28081)
- 62 (phobia or phobias or phobic).tw,kw,kf. (29856)
- 63 (catastroph#ation? or catastroph#e* or catastroph#ing).tw,kw,kf. (11479)
- 64 exp Depressive Disorder/ (685788)
- 65 depress*.tw,kw,kf. (1259588)
- 66 dysthym*.tw,kw,kf. (7613)
- 67 (feel* blue or blues).tw,kw,kf. (4336)
- 68 melanchol*.tw,kw,kf. (7168)
- 69 (MDD and mental).tw,kw,kf. (6067)
- 70 exp Suicide/ (133640)
- 71 (suicid* or parasuicid* or para-suicid*).tw,kw,kf. (207579)
- 72 exp Substance-Related Disorders/ (566708)
- 73 ((drug? or drug-related) adj3 (abus* or addict* or dependen* or disorder? or habituat* or misuse* or mis-use* or misusing or mis-using)).tw,kw,kf. (161336)
- 74 "drug use".tw,kw,kf. (125837)



- 75 ((substance* or substance-related) adj3 (abus* or addict* or dependen* or disorder? or habituat* or misuse* or mis-use* or misusing or mis-using)).tw,kw,kf. (135533)
- 76 "substance use".tw,kw,kf. (106578)
- 77 alcoholi*.tw,kw,kf. (238536)
- 78 ((alcohol* or ethanol*) adj2 (abus* or addict* or dependen* or disorder? or habituat* or misuse* or mis-use* or misusing or mis-using)).tw,kw,kf. (137205)
- 79 ("alcohol use" or "ethanol use").tw,kw,kf. (107635)
- 80 (bing* adj2 drink*).tw,kw,kf. (16197)
- 81 ((chronic* or excessive* or intemperate* or uncontrolled or unrestrained) adj3 (drink* or drunk* or intoxicat*)).tw,kw,kf. (13212)
- 82 or/45-81 [MENTAL HEALTH] (4583094)
- 83 44 and 82 [LONG-COVID - MENTAL HEALTH] (6628)
- 84 Economics/ (271375)
- 85 exp "Costs and Cost Analysis"/ (646989)
- 86 Economics, Nursing/ (36835)
- 87 Economics, Medical/ (42972)
- 88 Economics, Pharmaceutical/ (11984)
- 89 exp Economics, Hospital/ (1004027)
- 90 Economics, Dental/ (36653)
- 91 exp "Fees and Charges"/ (73937)
- 92 exp Budgets/ (46273)
- 93 budget*.ti,ab,kf. (79739)
- 94 (economic* or cost or costs or costly or costing or price or prices or pricing or pharmaco-economic* or pharmaco-economic* or expenditure or expenditures or expense or expenses or financial or finance or finances or financed).ti,kf. (595925)
- 95 (economic* or cost or costs or costly or costing or price or prices or pricing or pharmaco-economic* or pharmaco-economic* or expenditure or expenditures or expense or expenses or financial or finance or finances or financed).ab. /freq=2 (853595)
- 96 (cost* adj2 (effective* or utilit* or benefit* or minimi* or analy* or outcome or outcomes)).ab,kf. (470850)
- 97 (value adj2 (money or monetary)).ti,ab,kf. (6753)
- 98 exp models, economic/ (19397)
- 99 economic model*.ab,kf. (9847)
- 100 markov chains/ (24816)
- 101 markov.ti,ab,kf. (63193)
- 102 monte carlo method/ (79157)
- 103 monte carlo.ti,ab,kf. (116955)
- 104 exp Decision Theory/ (14775)
- 105 (decision* adj2 (tree* or analy* or model*)).ti,ab,kf. (79786)
- 106 or/84-105 [ECONOMIC EVALUATIONS & MODELS - CADTH FILTER] (2504724)
- 107 83 and 106 [LONG COVID - MENTAL HEALTH - ECONOMICS] (366)
- 108 107 use medall [MEDLINE RECORDS] (119)
- 109 long COVID/ (2328)
- 110 (long adj (COVID or COVID-19 or COVID19 or coronavirus* or corona virus* or 2019-nCoV or 19nCoV or 2019nCoV or nCoV or n-CoV or "CoV 2" or CoV2 or SARS-CoV-2 or SARS-CoV2 or SARSCoV-2 or SARSCoV2 or SARS2 or SARS-2 or severe acute respiratory syndrome coronavirus 2 or 2019-novel CoV or Sars-coronavirus2 or Sars-coronavirus-2 or SARS-like coronavirus* or novel coronavirus* or novel corona virus* or novel CoV or OC43 or NL63 or 229E or HKU1 or HCoV* or Sars-coronavirus*)).tw,kw,kf. (4106)



- 111 ((longterm or long-term) adj (COVID or COVID-19 or COVID19 or coronavirus* or corona virus* or 2019-nCoV or 19nCoV or 2019nCoV or nCoV or n-CoV or "CoV 2" or CoV2 or SARS-CoV-2 or SARS-CoV2 or SARSCoV-2 or SARSCoV2 or SARS2 or SARS-2 or severe acute respiratory syndrome coronavirus 2 or 2019-novel CoV or Sars-coronavirus2 or Sars-coronavirus-2 or SARS-like coronavirus* or novel coronavirus* or novel corona virus* or novel CoV or OC43 or NL63 or 229E or HKU1 or HCoV* or Sars-coronavirus*)).tw,kw,kf. (314)
- 112 ((postacute or post-acute) adj (COVID or COVID-19 or COVID19 or coronavirus* or corona virus* or 2019-nCoV or 19nCoV or 2019nCoV or nCoV or n-CoV or "CoV 2" or CoV2 or SARS-CoV-2 or SARS-CoV2 or SARSCoV-2 or SARSCoV2 or SARS2 or SARS-2 or severe acute respiratory syndrome coronavirus 2 or 2019-novel CoV or Sars-coronavirus2 or Sars-coronavirus-2 or SARS-like coronavirus* or novel coronavirus* or novel corona virus* or novel CoV or OC43 or NL63 or 229E or HKU1 or HCoV* or Sars-coronavirus*)).tw,kw,kf. (909)
- 113 (chronic* adj2 (COVID or COVID-19 or COVID19 or coronavirus* or corona virus* or 2019-nCoV or 19nCoV or 2019nCoV or nCoV or n-CoV or "CoV 2" or CoV2 or SARS-CoV-2 or SARS-CoV2 or SARSCoV-2 or SARSCoV2 or SARS2 or SARS-2 or severe acute respiratory syndrome coronavirus 2 or 2019-novel CoV or Sars-coronavirus2 or Sars-coronavirus-2 or SARS-like coronavirus* or novel coronavirus* or novel corona virus* or novel CoV or OC43 or NL63 or 229E or HKU1 or HCoV* or Sars-coronavirus*)).tw,kw,kf. (2782)
- 114 (persist* adj2 (COVID or COVID-19 or COVID19 or coronavirus* or corona virus* or 2019-nCoV or 19nCoV or 2019nCoV or nCoV or n-CoV or "CoV 2" or CoV2 or SARS-CoV-2 or SARS-CoV2 or SARSCoV-2 or SARSCoV2 or SARS2 or SARS-2 or severe acute respiratory syndrome coronavirus 2 or 2019-novel CoV or Sars-coronavirus2 or Sars-coronavirus-2 or SARS-like coronavirus* or novel coronavirus* or novel corona virus* or novel CoV or OC43 or NL63 or 229E or HKU1 or HCoV* or Sars-coronavirus*)).ti,kw,kf. (898)
- 115 or/109-114 [LONG COVID - PT 1] (9010)
- 116 coronavirus disease 2019/ (452930)
- 117 severe acute respiratory syndrome coronavirus 2/ (213835)
- 118 Coronavirinae/ (6247)
- 119 Betacoronavirus/ (39766)
- 120 coronavirus infection/ (56722)
- 121 (COVID-19 or COVID19).tw,kw,kf. (549895)
- 122 ((coronavirus* or corona virus*) and (hubei or wuhan or beijing or shanghai)).tw,kw,kf. (13207)
- 123 (wuhan adj5 virus*).tw,kw,kf. (770)
- 124 (2019-nCoV or 19nCoV or 2019nCoV).tw,kw,kf. (4240)
- 125 (nCoV or n-CoV or "CoV 2" or CoV2).tw,kw,kf. (215113)
- 126 (SARS-CoV-2 or SARS-CoV2 or SARSCoV-2 or SARSCoV2 or SARS2 or SARS-2 or severe acute respiratory syndrome coronavirus 2).tw,kw,kf. (218603)
- 127 (2019-novel CoV or Sars-coronavirus2 or Sars-coronavirus-2 or SARS-like coronavirus* or ((novel or new or nouveau) adj2 (CoV or nCoV or covid or coronavirus* or corona virus or Pandemi*2)) or (coronavirus* and pneumonia)).tw,kw,kf. (55559)
- 128 (novel coronavirus* or novel corona virus* or novel CoV).tw,kw,kf. (25667)
- 129 ((coronavirus* or corona virus*) adj2 "2019").tw,kw,kf. (109067)
- 130 ((coronavirus* or corona virus*) adj2 "19").tw,kw,kf. (16723)
- 131 (coronavirus 2 or corona virus 2).tw,kw,kf. (60443)
- 132 (OC43 or NL63 or 229E or HKU1 or HCoV* or Sars-coronavirus*).tw,kw,kf. (9565)
- 133 (coronavirus* or corona virus* or COVID).ti. (461310)
- 134 or/116-133 [COVID-19] (665924)
- 135 (post adj (COVID or COVID-19 or COVID19 or coronavirus* or corona virus* or 2019-nCoV or 19nCoV or 2019nCoV or nCoV or n-CoV or "CoV 2" or CoV2 or SARS-CoV-2 or SARS-CoV2 or



SARSCoV-2 or SARSCoV2 or SARS2 or SARS-2 or severe acute respiratory syndrome coronavirus 2 or 2019-novel CoV or Sars-coronavirus2 or Sars-coronavirus-2 or SARS-like coronavirus* or novel coronavirus* or novel corona virus* or novel CoV or OC43 or NL63 or 229E or HKU1 or HCoV* or Sars-coronavirus*) adj3 (comorbid* or "co morbid*" or condition* or convalescen* or disease* or disorder* or illness* or multimorbid* or "multi morbid*" or sickness* or symptom* or syndrome* or sign or signs or prognos* or recuperat* or survivor* or survival* or risk*).tw,kw,kf. (2901)

136 (after adj (COVID or COVID-19 or COVID19 or coronavirus* or corona virus* or 2019-nCoV or 19nCoV or 2019nCoV or nCoV or n-CoV or "CoV 2" or CoV2 or SARS-CoV-2 or SARS-CoV2 or SARSCoV-2 or SARSCoV2 or SARS2 or SARS-2 or severe acute respiratory syndrome coronavirus 2 or 2019-novel CoV or Sars-coronavirus2 or Sars-coronavirus-2 or SARS-like coronavirus* or novel coronavirus* or novel corona virus* or novel CoV or OC43 or NL63 or 229E or HKU1 or HCoV* or Sars-coronavirus*) adj3 (comorbid* or "co morbid*" or condition* or convalescen* or disease* or disorder* or illness* or multimorbid* or "multi morbid*" or sickness* or symptom* or syndrome* or sign or signs or prognos* or recuperat* or survivor* or survival* or risk*).tw,kw,kf. (1735)

137 (following adj (COVID or COVID-19 or COVID19 or coronavirus* or corona virus* or 2019-nCoV or 19nCoV or 2019nCoV or nCoV or n-CoV or "CoV 2" or CoV2 or SARS-CoV-2 or SARS-CoV2 or SARSCoV-2 or SARSCoV2 or SARS2 or SARS-2 or severe acute respiratory syndrome coronavirus 2 or 2019-novel CoV or Sars-coronavirus2 or Sars-coronavirus-2 or SARS-like coronavirus* or novel coronavirus* or novel corona virus* or novel CoV or OC43 or NL63 or 229E or HKU1 or HCoV* or Sars-coronavirus*) adj3 (comorbid* or "co morbid*" or condition* or convalescen* or disease* or disorder* or illness* or multimorbid* or "multi morbid*" or sickness* or symptom* or syndrome* or sign or signs or prognos* or recuperat* or survivor* or survival* or risk*).tw,kw,kf. (857)

138 ((chronic* or continuous* or continual* or continuing* or delay* or endur* or extend* or fluctuat* or gradual* or lasting* or legacy* or lengthy* or linger* or long* or "medium* term*" or mediumterm* or multisystem* or "multi system*" or ongoing* or permanent* or persist* or prolong* or protract* or relaps* or remission* or remit* or residual* or slow* or subacute* or "sub acute*") adj3 recover*).tw,kw,kf. (86650)

139 ((after discharg* or following discharg* or postacute* or "post acute*" or postdischarg* or "post discharge" or "post discharging" or posthospital* or post-hospital* or postinfect* or "post infection" or "post infective*" or postviral* or "post viral*" or postvirus* or "post virus*" or postcritical or post-critical or postintensive or post-intensive or post-ICU) adj3 recover*).tw,kw,kf. (1670)

140 ((chronic* or continuous* or continual* or continuing* or delay* or endur* or extend* or fluctuat* or gradual* or lasting* or legacy* or lengthy* or linger* or long* or "medium* term*" or mediumterm* or multisystem* or "multi system*" or ongoing or permanent* or persist* or prolong* or protract* or relaps* or remission* or remit* or residual* or slow* or subacute* or "sub acute*") adj3 (complication? or consequence? or convalescen* or disabilit* or feature* or illness* or prognos* or sequela* or sign or signs or suffering? or symptom* or recuperat*).tw,kw,kf. (656549)

141 ((after discharg* or following discharg* or postacute* or "post acute*" or postdischarg* or "post discharge" or "post discharging" or posthospital* or post-hospital* or postinfect* or "post infection" or "post infective*" or postviral* or "post viral*" or postvirus* or "post virus*" or postcritical or post-critical or postintensive or post-intensive or post-ICU) adj3 (complication? or consequence? or convalescen* or disabilit* or feature* or illness* or prognos* or sequela* or sign or signs or suffering? or symptom* or recuperat*).tw,kw,kf. (6477)

142 (nonrecover* or "non recover*" or "not recover*).tw,kw,kf. (17972)

143 ("long* haul*" or longhaul* or "long* tail*" or longtail* or longduration* or "long duration*" or longlast* or "long last*" or longstanding* or "long standing*" or "medium* term*" or mediumterm*).tw,kw,kf. (287522)

144 or/135-143 [LONG-TERM ILLNESS, PROTRACTED RECOVERY, ETC.] (1029348)

145 134 and 144 [LONG COVID - PT 2] (23145)



- 146 115 or 145 [LONG COVID] (28108)
 147 (exp animal/ or exp animal experimentation/ or exp animal model/ or exp animal experiment/ or nonhuman/ or exp vertebrate/) not (exp human/ or exp human experimentation/ or exp human experiment/) (12064616)
 148 146 not 147 [ANIMAL-ONLY REMOVED] (27771)
 149 exp mental health/ (264198)
 150 mental disease/ (255526)
 151 ((mental or mentally) adj3 (health* or hygiene or ill or illness* or well or wellbeing or well-being or wellness)).tw,kw,kf. (551519)
 152 ((emotional* or psychological* or psychosocial* or psycho-social* or social*) adj3 (health* or hygiene or ill or illness* or well or wellbeing or well-being or wellness)).tw,kw,kf. (318294)
 153 ((mental or mentally) adj3 (distress* or disorder* or disfunction* or dysfunction* or stress*)).tw,kw,kf. (165929)
 154 ((emotional* or psychological* or psychosocial* or psycho-social* or social*) adj3 (distress* or disorder* or disfunction* or dysfunction* or stress*)).tw,kw,kf. (238643)
 155 exp anxiety disorder/ (381194)
 156 exp anxiety/ (367819)
 157 (anxiety or anxieties or anxious*).tw,kw,kf. (613870)
 158 GAD.tw,kw,kf. (29754)
 159 (hypervigilan* or hyper-vigilan* or nervous*).tw,kw,kf. (787996)
 160 ((incessan* or obsessive* or persistan* or intense*) adj3 fear*).tw,kw,kf. (1309)
 161 (agoraphobi* or claustrophobi* or homophobi* or neophobi* or xenophobi* or agora-phobi* or claustro-phobi* or homo-phobi* or neo-phobi* or xeno-phobi*).tw,kw,kf. (17213)
 162 (neurocirculatory asthenia* or cardiac neuros#s or effort syndrome* or hyperkinetic heart syndrome*).tw,kw,kf. (1025)
 163 (neurotic disorder* or neuros#s or psychoneuros#s or psycho-neuros#s).tw,kw,kf. (19956)
 164 (obsessive-compulsive or anankastic personalit* or compulsive personalit* or obsessive personalit* or hoarding or psychastheni*).tw,kw,kf. (51248)
 165 (panic disorder* or (panic adj2 attack*)).tw,kw,kf. (28081)
 166 (phobia or phobias or phobic).tw,kw,kf. (29856)
 167 (catastroph#ation? or catastroph#e* or catastroph#ing).tw,kw,kf. (11479)
 168 exp depression/ (710741)
 169 depress*.tw,kw,kf. (1259588)
 170 dysthym*.tw,kw,kf. (7613)
 171 (feel* blue or blues).tw,kw,kf. (4336)
 172 melanchol*.tw,kw,kf. (7168)
 173 (MDD and mental).tw,kw,kf. (6067)
 174 exp Suicide/ (133640)
 175 (suicid* or parasuicid* or para-suicid*).tw,kw,kf. (207579)
 176 exp Substance-Related Disorders/ (566708)
 177 ((drug? or drug-related) adj3 (abus* or addict* or dependen* or disorder? or habituat* or misuse* or mis-use* or misusing or mis-using)).tw,kw,kf. (161336)
 178 "drug use".tw,kw,kf. (125837)
 179 ((substance* or substance-related) adj3 (abus* or addict* or dependen* or disorder? or habituat* or misuse* or mis-use* or misusing or mis-using)).tw,kw,kf. (135533)
 180 "substance use".tw,kw,kf. (106578)
 181 alcoholi*.tw,kw,kf. (238536)
 182 ((alcohol* or ethanol*) adj2 (abus* or addict* or dependen* or disorder? or habituat* or misuse* or mis-use* or misusing or mis-using)).tw,kw,kf. (137205)



183 ("alcohol use" or "ethanol use").tw,kw,kf. (107635)
 184 (bing* adj2 drink*).tw,kw,kf. (16197)
 185 ((chronic* or excessive* or intemperate* or uncontrolled or unrestrained) adj3 (drink* or drunk* or intoxicat*)).tw,kw,kf. (13212)
 186 or/149-185 [MENTAL HEALTH] (4566210)
 187 148 and 186 [LONG-COVID - MENTAL HEALTH] (6426)
 188 economics/ (271375)
 189 cost/ (112199)
 190 exp health economics/ (2625142)
 191 budget/ (43872)
 192 budget*.ti,ab,kf. (79739)
 193 (economic* or cost or costs or costly or costing or price or prices or pricing or pharmaco-economic* or pharmaco-economic* or expenditure or expenditures or expense or expenses or financial or finance or finances or financed).ti,kf. (595925)
 194 (economic* or cost or costs or costly or costing or price or prices or pricing or pharmaco-economic* or pharmaco-economic* or expenditure or expenditures or expense or expenses or financial or finance or finances or financed).ab. /freq=2 (853595)
 195 (cost* adj2 (effective* or utilit* or benefit* or minimi* or analy* or outcome or outcomes)).ab,kf. (470850)
 196 (value adj2 (money or monetary)).ti,ab,kf. (6753)
 197 statistical model/ (270155)
 198 economic model*.ab,kf. (9847)
 199 probability/ (193560)
 200 markov.ti,ab,kf. (63193)
 201 monte carlo method/ (79157)
 202 monte carlo.ti,ab,kf. (116955)
 203 decision theory/ (2769)
 204 decision tree/ (30609)
 205 (decision* adj2 (tree* or analy* or model*)).ti,ab,kf. (79786)
 206 or/188-205 [ECONOMIC EVALUATIONS & MODELS - CADTH FILTER] (4132931)
 207 187 and 206 [LONG COVID - MENTAL HEALTH - ECONOMICS] (461)
 208 207 use oemzd [EMBASE RECORDS] (265)
 209 108 or 208 [BOTH DATABASES] (384)
 210 remove duplicates from 209 (306) [TOTAL UNIQUE RECORDS]
 211 210 use medall [MEDLINE UNIQUE RECORDS] (118)
 212 210 use oemzd [EMBASE UNIQUE RECORDS] (188)

APA PsycInfo

#	Query	Limiters/Expanders	Last Run Via	Results
S92	S74 AND S91	Search modes - Boolean/Phrase	Interface - EBSCOhost Research Databases Search Screen - Advanced	26



			Search Database - APA PsycInfo	
S91	S75 OR S76 OR S77 OR S78 OR S79 OR S80 OR S81 OR S82 OR S83 OR S84 OR S85 OR S86 OR S87 OR S88 OR S89 OR S90	Search modes - Boolean/Phrase	Interface - EBSCOhost Research Databases Search Screen - Advanced Search Database - APA PsycInfo	144,956
S90	TI (decision* N2 (tree* or analy* or model*)) OR AB (decision* N2 (tree* or analy* or model*)) OR KW (decision* N2 (tree* or analy* or model*))	Search modes - Boolean/Phrase	Interface - EBSCOhost Research Databases Search Screen - Advanced Search Database - APA PsycInfo	14,488
S89	DE "Decision Theory" OR DE "Prospect Theory"	Search modes - Boolean/Phrase	Interface - EBSCOhost Research Databases Search Screen - Advanced Search Database - APA PsycInfo	1,903
S88	TI "monte carlo" OR AB "monte carlo" OR KW "monte carlo"	Search modes - Boolean/Phrase	Interface - EBSCOhost Research Databases Search Screen - Advanced Search Database - APA PsycInfo	5,334
S87	TI markov OR AB markov OR KW markov	Search modes - Boolean/Phrase	Interface - EBSCOhost Research	4,560



			Databases Search Screen - Advanced Search Database - APA PsycInfo	
S86	DE "Markov Chains"	Search modes - Boolean/Phrase	Interface - EBSCOhost Research Databases Search Screen - Advanced Search Database - APA PsycInfo	2,388
S85	TI economic W0 model* OR AB economic W0 model* OR KW economic W0 model*	Search modes - Boolean/Phrase	Interface - EBSCOhost Research Databases Search Screen - Advanced Search Database - APA PsycInfo	1,200
S84	TI (value adj2 (money or monetary)) OR AB (value adj2 (money or monetary)) OR KW (value adj2 (money or monetary))	Search modes - Boolean/Phrase	Interface - EBSCOhost Research Databases Search Screen - Advanced Search Database - APA PsycInfo	0
S83	TI (cost* N2 (effective* or utilit* or benefit* or minimi* or analy* or outcome or outcomes)) OR AB (cost* N2 (effective* or utilit* or benefit* or minimi* or analy* or outcome or outcomes)) OR KW (cost* N2 (effective* or utilit* or benefit* or minimi* or analy* or outcome or outcomes))	Search modes - Boolean/Phrase	Interface - EBSCOhost Research Databases Search Screen - Advanced Search	32,143



			Database - APA PsycInfo	
S82	TI (economic* or cost or costs or costly or costing or price or prices or pricing or pharmaco-economic* or pharmaco-economic* or expenditure or expenditures or expense or expenses or financial or finance or finances or financed) OR KW (economic* or cost or costs or costly or costing or price or prices or pricing or pharmaco-economic* or pharmaco-economic* or expenditure or expenditures or expense or expenses or financial or finance or finances or financed)	Search modes - Boolean/Phrase	Interface - EBSCOhost Research Databases Search Screen - Advanced Search Database - APA PsycInfo	83,429
S81	TI budget* OR AB budget*	Search modes - Boolean/Phrase	Interface - EBSCOhost Research Databases Search Screen - Advanced Search Database - APA PsycInfo	9,668
S80	DE "Budgets"	Search modes - Boolean/Phrase	Interface - EBSCOhost Research Databases Search Screen - Advanced Search Database - APA PsycInfo	1,582
S79	DE "Professional Fees" OR DE "Fee for Service"	Search modes - Boolean/Phrase	Interface - EBSCOhost Research Databases Search Screen - Advanced Search Database - APA PsycInfo	939
S78	DE "Health Care Economics"	Search modes - Boolean/Phrase	Interface - EBSCOhost Research	1,128



			Databases Search Screen - Advanced Search Database - APA PsycInfo	
S77	DE "Pharmacoeconomics"	Search modes - Boolean/Phrase	Interface - EBSCOhost Research Databases Search Screen - Advanced Search Database - APA PsycInfo	283
S76	DE "Costs and Cost Analysis"	Search modes - Boolean/Phrase	Interface - EBSCOhost Research Databases Search Screen - Advanced Search Database - APA PsycInfo	19,882
S75	DE "Economics"	Search modes - Boolean/Phrase	Interface - EBSCOhost Research Databases Search Screen - Advanced Search Database - APA PsycInfo	27,325
S74	S34 AND S73	Search modes - Boolean/Phrase	Interface - EBSCOhost Research Databases Search Screen - Advanced Search	935



			Database - APA PsycInfo	
S73	S35 OR S36 OR S37 OR S38 OR S39 OR S40 OR S41 OR S42 OR S43 OR S44 OR S45 OR S46 OR S47 OR S48 OR S49 OR S50 OR S51 OR S52 OR S53 OR S54 OR S55 OR S56 OR S57 OR S58 OR S59 OR S60 OR S61 OR S62 OR S63 OR S64 OR S65 OR S66 OR S67 OR S68 OR S69 OR S70 OR S71 OR S72	Search modes - Boolean/Phrase	Interface - EBSCOhost Research Databases Search Screen - Advanced Search Database - APA PsycInfo	1,163,415
S72	TI ((chronic* or excessive* or intemperate* or uncontrolled or unrestrained) N3 (drink* or drunk* or intoxicat*)) OR AB ((chronic* or excessive* or intemperate* or uncontrolled or unrestrained) N3 (drink* or drunk* or intoxicat*))	Search modes - Boolean/Phrase	Interface - EBSCOhost Research Databases Search Screen - Advanced Search Database - APA PsycInfo	2,455
S71	TI binge* N2 drink* OR AB binge* N2 drink*	Search modes - Boolean/Phrase	Interface - EBSCOhost Research Databases Search Screen - Advanced Search Database - APA PsycInfo	5,258
S70	TI ("alcohol use" or "ethanol use") OR AB ("alcohol use" or "ethanol use")	Search modes - Boolean/Phrase	Interface - EBSCOhost Research Databases Search Screen - Advanced Search Database - APA PsycInfo	33,627
S69	TI ((alcohol* or ethanol*) N2 (abus* or addict* or dependen* or disorder# or habituat* or misuse* or mis-use* or misusing or mis-using)) OR AB ((alcohol* or ethanol*) N2 (abus* or	Search modes - Boolean/Phrase	Interface - EBSCOhost Research Databases	45,341

	addict* or dependen* or disorder# or habituat* or misuse* or mis-use* or misusing or mis-using))		Search Screen - Advanced Search Database - APA PsycInfo	
S68	TI alcoholi* OR AB alcoholi*	Search modes - Boolean/Phrase	Interface - EBSCOhost Research Databases Search Screen - Advanced Search Database - APA PsycInfo	35,132
S67	TI "substance use" OR AB "substance use"	Search modes - Boolean/Phrase	Interface - EBSCOhost Research Databases Search Screen - Advanced Search Database - APA PsycInfo	46,315
S66	TI ((substance* or "substance-related") N3 (abus* or addict* or dependen* or disorder# or habituat* or misuse* or mis-use* or misusing or mis-using)) OR AB ((substance* or "substance-related") N3 (abus* or addict* or dependen* or disorder# or habituat* or misuse* or mis-use* or misusing or mis-using))	Search modes - Boolean/Phrase	Interface - EBSCOhost Research Databases Search Screen - Advanced Search Database - APA PsycInfo	60,981
S65	TI "drug use" OR AB "drug use"	Search modes - Boolean/Phrase	Interface - EBSCOhost Research Databases Search Screen - Advanced Search Database - APA PsycInfo	33,815



S64	TI ((drug# or "drug-related") N3 (abus* or addict* or dependen* or disorder# or habituat* or misuse* or mis-use* or misusing or mis-using)) OR AB ((drug# or "drug-related") N3 (abus* or addict* or dependen* or disorder# or habituat* or misuse* or mis-use* or misusing or mis-using)))	Search modes - Boolean/Phrase	Interface - EBSCOhost Research Databases Search Screen - Advanced Search Database - APA PsycInfo	42,022
S63	DE "Substance Related and Addictive Disorders" OR DE "Nonsubstance Related Addictions" OR DE "Substance Use Disorder"	Search modes - Boolean/Phrase	Interface - EBSCOhost Research Databases Search Screen - Advanced Search Database - APA PsycInfo	10,786
S62	TI (suicid* or parasuicid* or para-suicid*) OR AB (suicid* or parasuicid* or para-suicid*)	Search modes - Boolean/Phrase	Interface - EBSCOhost Research Databases Search Screen - Advanced Search Database - APA PsycInfo	72,800
S61	DE "Suicide" OR DE "Military Suicide" OR DE "Youth Suicide"	Search modes - Boolean/Phrase	Interface - EBSCOhost Research Databases Search Screen - Advanced Search Database - APA PsycInfo	35,792
S60	TI (MDD and mental) OR AB (MDD and mental)	Search modes - Boolean/Phrase	Interface - EBSCOhost Research Databases Search Screen -	1,942



			Advanced Search Database - APA PsycInfo	
S59	TI melanchol* OR AB melanchol*	Search modes - Boolean/Phrase	Interface - EBSCOhost Research Databases Search Screen - Advanced Search Database - APA PsycInfo	4,818
S58	TI (feel* W0 blue) or blues) OR AB (feel* W0 blue) or blues)	Search modes - Boolean/Phrase	Interface - EBSCOhost Research Databases Search Screen - Advanced Search Database - APA PsycInfo	11,391
S57	TI dysthym* OR AB dysthym*	Search modes - Boolean/Phrase	Interface - EBSCOhost Research Databases Search Screen - Advanced Search Database - APA PsycInfo	3,829
S56	TI depress* OR AB depress*	Search modes - Boolean/Phrase	Interface - EBSCOhost Research Databases Search Screen - Advanced Search Database - APA PsycInfo	338,025
S55	DE "Major Depression" OR DE "Anaclitic Depression" OR DE "Dysthymic Disorder" OR	Search modes - Boolean/Phrase	Interface - EBSCOhost	151,809

	DE "Endogenous Depression" OR DE "Late Life Depression" OR DE "Postpartum Depression" OR DE "Reactive Depression" OR DE "Recurrent Depression" OR DE "Treatment Resistant Depression"		Research Databases Search Screen - Advanced Search Database - APA PsycInfo	
S54	DE "Depression (Emotion)"	Search modes - Boolean/Phrase	Interface - EBSCOhost Research Databases Search Screen - Advanced Search Database - APA PsycInfo	26,704
S53	TI (catastrophi?ation# or catastrophi?e* or catastrophi?ing) OR AB (catastrophi?ation# or catastrophi?e* or catastrophi?ing)	Search modes - Boolean/Phrase	Interface - EBSCOhost Research Databases Search Screen - Advanced Search Database - APA PsycInfo	2,837
S52	TI (phobia or phobias or phobic) OR AB (phobia or phobias or phobic)	Search modes - Boolean/Phrase	Interface - EBSCOhost Research Databases Search Screen - Advanced Search Database - APA PsycInfo	16,138
S51	TI ("panic disorder" or "panic disorders" or (panic N2 attack*)) OR AB ("panic disorder" or "panic disorders" or (panic N2 attack*))	Search modes - Boolean/Phrase	Interface - EBSCOhost Research Databases Search Screen - Advanced Search	13,072

			Database - APA PsycInfo	
S50	TI (obsessive-compulsive or anankastic personalit* or compulsive personalit* or obsessive personalit* or hoarding or psychastheni*) OR AB (obsessive-compulsive or anankastic personalit* or compulsive personalit* or obsessive personalit* or hoarding or psychastheni*)	Search modes - Boolean/Phrase	Interface - EBSCOhost Research Databases Search Screen - Advanced Search Database - APA PsycInfo	24,195
S49	TI (neurotic disorder* or neuros?s or psychoneuros?s or psycho-neuros?s) OR AB (neurotic disorder* or neuros?s or psychoneuros?s or psycho-neuros?s)	Search modes - Boolean/Phrase	Interface - EBSCOhost Research Databases Search Screen - Advanced Search Database - APA PsycInfo	14,879
S48	TI (neurocirculatory asthenia* or cardiac neuros?s or effort syndrome* or hyperkinetic heart syndrome*) OR AB (neurocirculatory asthenia* or cardiac neuros?s or effort syndrome* or hyperkinetic heart syndrome*)	Search modes - Boolean/Phrase	Interface - EBSCOhost Research Databases Search Screen - Advanced Search Database - APA PsycInfo	171
S47	TI (agoraphobi* or claustrophobi* or homophobi* or neophobi* or xenophobi* or agora-phobi* or claustro-phobi* or homo-phobi* or neo-phobi* or xeno-phobi*) OR AB (agoraphobi* or claustrophobi* or homophobi* or neophobi* or xenophobi* or agora-phobi* or claustro-phobi* or homo-phobi* or neo-phobi* or xeno-phobi*)	Search modes - Boolean/Phrase	Interface - EBSCOhost Research Databases Search Screen - Advanced Search Database - APA PsycInfo	11,827
S46	TI ((incessan* or obsessive* or persistan* or intense*) N3 fear*) OR AB ((incessan* or obsessive* or persistan* or intense*) N3 fear*)	Search modes - Boolean/Phrase	Interface - EBSCOhost Research Databases	850



			Search Screen - Advanced Search Database - APA PsycInfo	
S45	TI (hypervigilan* or hyper-vigilan* or nervous*) OR AB (hypervigilan* or hyper-vigilan* or nervous*)	Search modes - Boolean/Phrase	Interface - EBSCOhost Research Databases Search Screen - Advanced Search Database - APA PsycInfo	61,392
S44	TI GAD OR AB GAD	Search modes - Boolean/Phrase	Interface - EBSCOhost Research Databases Search Screen - Advanced Search Database - APA PsycInfo	4,385
S43	TI (anxiety or anxieties or anxious*) OR AB (anxiety or anxieties or anxious*)	Search modes - Boolean/Phrase	Interface - EBSCOhost Research Databases Search Screen - Advanced Search Database - APA PsycInfo	231,918
S42	DE "Anxiety" OR DE "Anxiety Sensitivity" OR DE "Climate Anxiety" OR DE "Computer Anxiety" OR DE "Death Anxiety" OR DE "Health Anxiety" OR DE "Mathematics Anxiety" OR DE "Performance Anxiety" OR DE "Social Anxiety" OR DE "Speech Anxiety" OR DE "Test Anxiety" OR DE "Travel Anxiety"	Search modes - Boolean/Phrase	Interface - EBSCOhost Research Databases Search Screen - Advanced Search Database - APA PsycInfo	103,750



S41	DE "Anxiety Disorders"	Search modes - Boolean/Phrase	Interface - EBSCOhost Research Databases Search Screen - Advanced Search Database - APA PsycInfo	34,305
S40	TI (emotional* or psychological* or psychosocial* or psycho-social* or social*) N3 (distress* or disorder* or disfunction* or dysfunction* or stress*)) OR AB ((emotional* or psychological* or psychosocial* or psycho-social* or social*) N3 (distress* or disorder* or disfunction* or dysfunction* or stress*))	Search modes - Boolean/Phrase	Interface - EBSCOhost Research Databases Search Screen - Advanced Search Database - APA PsycInfo	102,614
S39	TI (mental or mentally) N3 (distress* or disorder* or disfunction* or dysfunction* or stress*)) OR AB ((mental or mentally) N3 (distress* or disorder* or disfunction* or dysfunction* or stress*))	Search modes - Boolean/Phrase	Interface - EBSCOhost Research Databases Search Screen - Advanced Search Database - APA PsycInfo	76,105
S38	TI (emotional* or psychological* or psychosocial* or psycho-social* or social*) N3 (health* or hygiene or ill or illness* or well or wellbeing or well-being or wellness)) OR AB ((emotional* or psychological* or psychosocial* or psycho-social* or social*) N3 (health* or hygiene or ill or illness* or well or wellbeing or well-being or wellness))	Search modes - Boolean/Phrase	Interface - EBSCOhost Research Databases Search Screen - Advanced Search Database - APA PsycInfo	130,156
S37	TI (mental or mentally) N3 (health* or hygiene or ill or illness* or well or wellbeing or well-being or wellness)) OR AB ((mental or mentally) N3 (health* or hygiene or ill or illness* or well or wellbeing or well-being or wellness))	Search modes - Boolean/Phrase	Interface - EBSCOhost Research Databases Search Screen -	261,442



			Advanced Search Database - APA PsycInfo	
S36	DE "Mental Disorders"	Search modes - Boolean/Phrase	Interface - EBSCOhost Research Databases Search Screen - Advanced Search Database - APA PsycInfo	141,111
S35	DE "Mental Health"	Search modes - Boolean/Phrase	Interface - EBSCOhost Research Databases Search Screen - Advanced Search Database - APA PsycInfo	90,512
S34	S6 OR S33	Search modes - Boolean/Phrase	Interface - EBSCOhost Research Databases Search Screen - Advanced Search Database - APA PsycInfo	1,664
S33	S22 AND S32	Search modes - Boolean/Phrase	Interface - EBSCOhost Research Databases Search Screen - Advanced Search Database - APA PsycInfo	1,586
S32	S23 OR S24 OR S25 OR S26 OR S27 OR S28 OR S29 OR S30 OR S31	Search modes - Boolean/Phrase	Interface - EBSCOhost	180,015



			Research Databases Search Screen - Advanced Search Database - APA PsycInfo	
S31	TI ((long* W0 haul*) or longhaul* or (long* W0 tail*) or longtail* or longduration* or (long W0 duration*) or longlast* or (long W0 last*) or longstanding* or (long W0 standing*) or (medium* W0 term*) or mediumterm*) OR AB ((long* W0 haul*) or longhaul* or (long* W0 tail*) or longtail* or longduration* or (long W0 duration*) or longlast* or (long W0 last*) or longstanding* or (long W0 standing*) or (medium* W0 term*) or mediumterm*)	Search modes - Boolean/Phrase	Interface - EBSCOhost Research Databases Search Screen - Advanced Search Database - APA PsycInfo	27,415
S30	TI (nonrecover* or (non W0 recover*) or ("not" W0 recover*)) OR AB (nonrecover* or (non W0 recover*) or ("not" W0 recover*))	Search modes - Boolean/Phrase	Interface - EBSCOhost Research Databases Search Screen - Advanced Search Database - APA PsycInfo	91,550
S29	TI (((after W0 discharg*) or (following W0 discharg*) or postacute* or "post acute" or postdischarg* or "post discharge" or "post discharging" or posthospital* or (post W0 hospital*) or postinfect* or "post infection" or "post infective" or postviral* or (post W0 viral*) or postvirus* or (post W0 virus*) or postcritical or post-critical or postintensive or (post W0 intensive) or "post-ICU") N3 (complication* or consequence* or convalescen* or disabilit* or feature* or illness* or prognos* or sequela* or sign or signs or suffering* or symptom* or recuperat*)) OR AB (((after W0 discharg*) or (following W0 discharg*) or postacute* or "post acute" or postdischarg* or "post discharge" or "post discharging" or posthospital* or (post W0 hospital*) or postinfect* or "post infection" or "post infective" or postviral* or (post W0 viral*) or postvirus* or (post W0 virus*) or postcritical	Search modes - Boolean/Phrase	Interface - EBSCOhost Research Databases Search Screen - Advanced Search Database - APA PsycInfo	420



	or post-critical or postintensive or (post W0 intensive) or "post-ICU") N3 (complication* or consequence* or convalescen* or disabilit* or feature* or illness* or prognos* or sequela* or sign or signs or suffering* or symptom* or recuperat*)			
S28	TI ((chronic* or continuous* or continual* or continuing* or delay* or endur* or extend* or fluctuat* or gradual* or lasting* or legacy* or lengthy* or linger* or long* or "medium term" or "medium terms" or mediumterm* or multisystem* or (multi W0 system*) or ongoing* or permanent* or persist* or prolong* or protract* or relaps* or remission* or remit* or residual* or slow* or subacute* or (sub W0 acute*)) N3 (complication* or consequence* or convalescen* or disabilit* or feature* or illness* or prognos* or sequela* or sign or signs or suffering* or symptom* or recuperat*)) OR AB ((chronic* or continuous* or continual* or continuing* or delay* or endur* or extend* or fluctuat* or gradual* or lasting* or legacy* or lengthy* or linger* or long* or "medium term" or "medium terms" or mediumterm* or multisystem* or (multi W0 system*) or ongoing* or permanent* or persist* or prolong* or protract* or relaps* or remission* or remit* or residual* or slow* or subacute* or (sub W0 acute*)) N3 (complication* or consequence* or convalescen* or disabilit* or feature* or illness* or prognos* or sequela* or sign or signs or suffering* or symptom* or recuperat*))	Search modes - Boolean/Phrase	Interface - EBSCOhost Research Databases Search Screen - Advanced Search Database - APA PsycInfo	68,262
S27	TI (((after W0 discharg*) or (following W0 discharg*) or postacute* or "post acute" or postdischarg* or "post discharge" or "post discharging" or posthospital* or (post W0 hospital*) or postinfect* or "post infection" or "post infective" or postviral* or (post W0 viral*) or postvirus* or (post W0 virus*) or postcritical or post-critical or postintensive or (post W0 intensive) or "post-ICU") N3 recover*) OR AB (((after W0 discharg*) or (following W0 discharg*) or postacute* or "post acute" or postdischarg* or "post discharge" or "post discharging" or posthospital* or (post W0 hospital*) or postinfect* or "post infection" or "post infective" or postviral* or (post W0 viral*)	Search modes - Boolean/Phrase	Interface - EBSCOhost Research Databases Search Screen - Advanced Search Database - APA PsycInfo	171



	or postvirus* or (post W0 virus*) or postcritical or post-critical or postintensive or (post W0 intensive) or "post-ICU") N3 recover*)			
S26	TI (((chronic* or continuous* or continual* or continuing* or delay* or endur* or extend* or fluctuat* or gradual* or lasting* or legacy* or lengthy* or linger* or long* or "medium term" or "medium terms" or mediumterm* or multisystem* or (multi W0 system*) or ongoing* or permanent* or persist* or prolong* or protract* or relaps* or remission* or remit* or residual* or slow* or subacute* or (sub W0 acute*)) N3 recover*)) OR AB (((chronic* or continuous* or continual* or continuing* or delay* or endur* or extend* or fluctuat* or gradual* or lasting* or legacy* or lengthy* or linger* or long* or "medium term" or "medium terms" or mediumterm* or multisystem* or (multi W0 system*) or ongoing* or permanent* or persist* or prolong* or protract* or relaps* or remission* or remit* or residual* or slow* or subacute* or (sub W0 acute*)) N3 recover*))	Search modes - Boolean/Phrase	Interface - EBSCOhost Research Databases Search Screen - Advanced Search Database - APA PsycInfo	8,231
S25	TI ((following N0 (COVID or "COVID-19" or COVID19 or coronavirus* or "corona virus" or "corona viruses" or "2019-nCoV" or 19nCoV or 2019nCoV or nCoV or "n-CoV" or "CoV 2" or CoV2 or "SARS-CoV-2" or "SARS-CoV2" or "SARSCoV-2" or SARSCoV2 or SARS2 or "SARS-2" or "severe acute respiratory syndrome coronavirus 2" or "2019-novel CoV" or "Sars-coronavirus2" or "Sars-coronavirus-2" or "SARS-like coronavirus" or "SARS-like coronaviruses" or "novel coronavirus" or "novel coronaviruses" or "novel corona virus" "novel corona viruses" or "novel CoV" or OC43 or NL63 or 229E or HKU1 or HCoV* or "Sars-coronavirus" or "sars-coronaviruses") N3 (comorbid* or (co W0 morbid*) or condition* or convalescen* or disease* or disorder* or illness* or multimorbid* or (multi W0 morbid*) or sickness* or symptom* or syndrome* or sign or signs or prognos* or recuperat* or survivor* or survival* or risk*)) OR AB ((following N0 (COVID or "COVID-19" or COVID19 or coronavirus* or "corona virus" or "corona viruses" or "2019-nCoV" or 19nCoV or 2019nCoV or nCoV or "n-CoV" or "CoV 2" or	Search modes - Boolean/Phrase	Interface - EBSCOhost Research Databases Search Screen - Advanced Search Database - APA PsycInfo	21



	<p>CoV2 or "SARS-CoV-2" or "SARS-CoV2" or "SARSCoV-2" or SARSCoV2 or SARS2 or "SARS-2" or "severe acute respiratory syndrome coronavirus 2" or "2019-novel CoV" or "Sars-coronavirus2" or "Sars-coronavirus-2" or "SARS-like coronavirus" or "SARS-like coronaviruses" or "novel coronavirus" or "novel coronaviruses" or "novel corona virus" "novel corona viruses" or "novel CoV" or OC43 or NL63 or 229E or HKU1 or HCoV* or "Sars-coronavirus" or "sars-coronaviruses") N3 (comorbid* or (co W0 morbid*) or condition* or convalescen* or disease* or disorder* or illness* or multimorbid* or (multi W0 morbid*) or sickness* or symptom* or syndrome* or sign or signs or prognos* or recuperat* or survivor* or survival* or risk*))</p>			
S24	<p>TI ((after N0 (COVID or "COVID-19" or COVID19 or coronavirus* or "corona virus" or "corona viruses" or "2019-nCoV" or 19nCoV or 2019nCoV or nCoV or "n-CoV" or "CoV 2" or CoV2 or "SARS-CoV-2" or "SARS-CoV2" or "SARSCoV-2" or SARSCoV2 or SARS2 or "SARS-2" or "severe acute respiratory syndrome coronavirus 2" or "2019-novel CoV" or "Sars-coronavirus2" or "Sars-coronavirus-2" or "SARS-like coronavirus" or "SARS-like coronaviruses" or "novel coronavirus" or "novel coronaviruses" or "novel corona virus" "novel corona viruses" or "novel CoV" or OC43 or NL63 or 229E or HKU1 or HCoV* or "Sars-coronavirus" or "sars-coronaviruses") N3 (comorbid* or (co W0 morbid*) or condition* or convalescen* or disease* or disorder* or illness* or multimorbid* or (multi W0 morbid*) or sickness* or symptom* or syndrome* or sign or signs or prognos* or recuperat* or survivor* or survival* or risk*)) OR AB ((after N0 (COVID or "COVID-19" or COVID19 or coronavirus* or "corona virus" or "corona viruses" or "2019-nCoV" or 19nCoV or 2019nCoV or nCoV or "n-CoV" or "CoV 2" or CoV2 or "SARS-CoV-2" or "SARS-CoV2" or "SARSCoV-2" or SARSCoV2 or SARS2 or "SARS-2" or "severe acute respiratory syndrome coronavirus 2" or "2019-novel CoV" or "Sars-coronavirus2" or "Sars-coronavirus-2" or "SARS-like coronavirus" or "SARS-like coronaviruses" or "novel</p>	Search modes - Boolean/Phrase	Interface - EBSCOhost Research Databases Search Screen - Advanced Search Database - APA PsycInfo	40



	coronavirus" or "novel coronaviruses" or "novel corona virus" "novel corona viruses" or "novel CoV" or OC43 or NL63 or 229E or HKU1 or HCoV* or "Sars-coronavirus" or "sars-coronaviruses") N3 (comorbid* or (co W0 morbid*) or condition* or convalescen* or disease* or disorder* or illness* or multimorbid* or (multi W0 morbid*) or sickness* or symptom* or syndrome* or sign or signs or prognos* or recuperat* or survivor* or survival* or risk*))			
S23	TI ((post N0 (COVID or "COVID-19" or COVID19 or coronavirus* or "corona virus" or "corona viruses" or "2019-nCoV" or 19nCoV or 2019nCoV or nCoV or "n-CoV" or "CoV 2" or CoV2 or "SARS-CoV-2" or "SARS-CoV2" or "SARSCoV-2" or SARSCoV2 or SARS2 or "SARS-2" or "severe acute respiratory syndrome coronavirus 2" or "2019-novel CoV" or "Sars-coronavirus2" or "Sars-coronavirus-2" or "SARS-like coronavirus" or "SARS-like coronaviruses" or "novel coronavirus" or "novel coronaviruses" or "novel corona virus" "novel corona viruses" or "novel CoV" or OC43 or NL63 or 229E or HKU1 or HCoV* or "Sars-coronavirus" or "sars-coronaviruses") N3 (comorbid* or (co W0 morbid*) or condition* or convalescen* or disease* or disorder* or illness* or multimorbid* or (multi W0 morbid*) or sickness* or symptom* or syndrome* or sign or signs or prognos* or recuperat* or survivor* or survival* or risk*)) OR AB ((post N0 (COVID or "COVID-19" or COVID19 or coronavirus* or "corona virus" or "corona viruses" or "2019-nCoV" or 19nCoV or 2019nCoV or nCoV or "n-CoV" or "CoV 2" or CoV2 or "SARS-CoV-2" or "SARS-CoV2" or "SARSCoV-2" or SARSCoV2 or SARS2 or "SARS-2" or "severe acute respiratory syndrome coronavirus 2" or "2019-novel CoV" or "Sars-coronavirus2" or "Sars-coronavirus-2" or "SARS-like coronavirus" or "SARS-like coronaviruses" or "novel coronavirus" or "novel coronaviruses" or "novel corona virus" "novel corona viruses" or "novel CoV" or OC43 or NL63 or 229E or HKU1 or HCoV* or "Sars-coronavirus" or "sars-coronaviruses") N3 (comorbid* or (co W0 morbid*) or condition* or convalescen* or disease* or disorder* or illness* or multimorbid*	Search modes - Boolean/Phrase	Interface - EBSCOhost Research Databases Search Screen - Advanced Search Database - APA PsycInfo	24



	or (multi W0 morbid*) or sickness* or symptom* or syndrome* or sign or signs or prognos* or recuperat* or survivor* or survival* or risk*)			
S22	S7 OR S8 OR S9 OR S10 OR S11 OR S12 OR S13 OR S14 OR S15 OR S16 OR S17 OR S18 OR S19 OR S20 OR S21	Search modes - Boolean/Phrase	Interface - EBSCOhost Research Databases Search Screen - Advanced Search Database - APA PsycInfo	23,397
S21	TI coronavirus* or (corona W0 virus*) or COVID	Search modes - Boolean/Phrase	Interface - EBSCOhost Research Databases Search Screen - Advanced Search Database - APA PsycInfo	16,733
S20	TI (OC43 or NL63 or 229E or HKU1 or HCoV* or (Sars W0 coronavirus*)) OR AB (OC43 or NL63 or 229E or HKU1 or HCoV* or (Sars W0 coronavirus*))	Search modes - Boolean/Phrase	Interface - EBSCOhost Research Databases Search Screen - Advanced Search Database - APA PsycInfo	23
S19	TI ("coronavirus 2" or "corona virus 2") OR AB ("coronavirus 2" or "corona virus 2")	Search modes - Boolean/Phrase	Interface - EBSCOhost Research Databases Search Screen - Advanced Search Database - APA PsycInfo	313
S18	TI ((coronavirus* or (corona W0 virus*)) N2 "19")) OR AB ((coronavirus* or (corona W0 virus*)) N2 "19"))	Search modes - Boolean/Phrase	Interface - EBSCOhost Research	57



			Databases Search Screen - Advanced Search Database - APA PsycInfo	
S17	TI ((coronavirus* or (corona W0 virus*)) N2 "2019")) OR AB ((coronavirus* or (corona W0 virus*)) N2 "2019"))	Search modes - Boolean/Phrase	Interface - EBSCOhost Research Databases Search Screen - Advanced Search Database - APA PsycInfo	2,183
S16	TI ((novel W0 coronavirus*) or ("novel corona" W0 virus*) or "novel CoV") OR AB ((novel W0 coronavirus*) or ("novel corona" W0 virus*) or "novel CoV")	Search modes - Boolean/Phrase	Interface - EBSCOhost Research Databases Search Screen - Advanced Search Database - APA PsycInfo	726
S15	TI ("2019-novel CoV" or "Sars-coronavirus2" or "Sars-coronavirus-2" or "SARS-like coronavirus" or "SARS-like coronaviruses" or ((novel or new or nouveau) N2 (CoV or nCoV or covid or coronavirus* or "corona virus" or "Pandemic 2")) or (coronavirus* and pneumonia)) OR AB ("2019-novel CoV" or "Sars-coronavirus2" or "Sars-coronavirus-2" or "SARS-like coronavirus" or "SARS-like coronaviruses" or ((novel or new or nouveau) N2 (CoV or nCoV or covid or coronavirus* or "corona virus" or "Pandemic 2")) or (coronavirus* and pneumonia))	Search modes - Boolean/Phrase	Interface - EBSCOhost Research Databases Search Screen - Advanced Search Database - APA PsycInfo	1,196
S14	TI ("SARS-CoV-2" or "SARS-CoV2" or "SARSCoV-2" or SARSCoV2 or SARS2 or "SARS-2" or "severe acute respiratory syndrome coronavirus 2") OR AB ("SARS-CoV-2" or "SARS-CoV2" or "SARSCoV-2" or	Search modes - Boolean/Phrase	Interface - EBSCOhost Research Databases Search Screen -	1,411

	SARSCoV2 or SARS2 or "SARS-2" or "severe acute respiratory syndrome coronavirus 2")		Advanced Search Database - APA PsycInfo	
S13	TI (nCoV or "n-CoV" or "CoV 2" or CoV2) OR AB (nCoV or "n-CoV" or "CoV 2" or CoV2)	Search modes - Boolean/Phrase	Interface - EBSCOhost Research Databases Search Screen - Advanced Search Database - APA PsycInfo	28
S12	TI ("2019-nCoV" or 19nCoV or 2019nCoV) OR AB ("2019-nCoV" or 19nCoV or 2019nCoV)	Search modes - Boolean/Phrase	Interface - EBSCOhost Research Databases Search Screen - Advanced Search Database - APA PsycInfo	1,412
S11	TI wuhan N5 virus* OR AB wuhan N5 virus*	Search modes - Boolean/Phrase	Interface - EBSCOhost Research Databases Search Screen - Advanced Search Database - APA PsycInfo	18
S10	TI ((coronavirus* or "corona virus" or "corona viruses") and (hubei or wuhan or beijing or shanghai)) OR AB ((coronavirus* or "corona virus" or "corona viruses") and (hubei or wuhan or beijing or shanghai))	Search modes - Boolean/Phrase	Interface - EBSCOhost Research Databases Search Screen - Advanced Search Database - APA PsycInfo	245
S9	TI ("COVID-19" or COVID19) OR AB ("COVID-19" or COVID19)	Search modes - Boolean/Phrase	Interface - EBSCOhost	22,295

			Research Databases Search Screen - Advanced Search Database - APA PsycInfo	
S8	DE "Coronavirus"	Search modes - Boolean/Phrase	Interface - EBSCOhost Research Databases Search Screen - Advanced Search Database - APA PsycInfo	4,838
S7	DE "COVID-19"	Search modes - Boolean/Phrase	Interface - EBSCOhost Research Databases Search Screen - Advanced Search Database - APA PsycInfo	14,473
S6	S1 OR S2 OR S3 OR S4 OR S5	Search modes - Boolean/Phrase	Interface - EBSCOhost Research Databases Search Screen - Advanced Search Database - APA PsycInfo	163
S5	TI (persist* N2 (COVID or "COVID-19" or COVID19 or coronavirus* or "corona virus" or "corona viruses" or "2019-nCoV" or 19nCoV or 2019nCoV or nCoV or "n-CoV" or "CoV 2" or CoV2 or "SARS-CoV-2" or "SARS-CoV2" or "SARSCoV-2" or SARSCoV2 or SARS2 or "SARS-2" or "severe acute respiratory syndrome coronavirus 2" or "2019-novel CoV"	Search modes - Boolean/Phrase	Interface - EBSCOhost Research Databases Search Screen - Advanced Search	45



	<p>or "Sars-coronavirus2" or "Sars-coronavirus-2" or "SARS-like coronavirus" or "SARS-like coronaviruses" or "novel coronavirus" or "novel coronaviruses" or "novel corona virus" "novel corona viruses" or "novel CoV" or OC43 or NL63 or 229E or HKU1 or HCoV* or "Sars-coronavirus" or "sars-coronaviruses") OR AB (persist* N2 (COVID or "COVID-19" or COVID19 or coronavirus* or "corona virus" or "corona viruses" or "2019-nCoV" or 19nCoV or 2019nCoV or nCoV or "n-CoV" or "CoV 2" or CoV2 or "SARS-CoV-2" or "SARS-CoV2" or "SARSCoV-2" or SARSCoV2 or SARS2 or "SARS-2" or "severe acute respiratory syndrome coronavirus 2" or "2019-novel CoV" or "Sars-coronavirus2" or "Sars-coronavirus-2" or "SARS-like coronavirus" or "SARS-like coronaviruses" or "novel coronavirus" or "novel coronaviruses" or "novel corona virus" "novel corona viruses" or "novel CoV" or OC43 or NL63 or 229E or HKU1 or HCoV* or "Sars-coronavirus" or "sars-coronaviruses"))</p>		<p>Database - APA PsycInfo</p>	
<p>S4</p>	<p>TI (chronic* N2 (COVID or "COVID-19" or COVID19 or coronavirus* or "corona virus" or "corona viruses" or "2019-nCoV" or 19nCoV or 2019nCoV or nCoV or "n-CoV" or "CoV 2" or CoV2 or "SARS-CoV-2" or "SARS-CoV2" or "SARSCoV-2" or SARSCoV2 or SARS2 or "SARS-2" or "severe acute respiratory syndrome coronavirus 2" or "2019-novel CoV" or "Sars-coronavirus2" or "Sars-coronavirus-2" or "SARS-like coronavirus" or "SARS-like coronaviruses" or "novel coronavirus" or "novel coronaviruses" or "novel corona virus" "novel corona viruses" or "novel CoV" or OC43 or NL63 or 229E or HKU1 or HCoV* or "Sars-coronavirus" or "sars-coronaviruses")) OR AB (chronic* N2 (COVID or "COVID-19" or COVID19 or coronavirus* or "corona virus" or "corona viruses" or "2019-nCoV" or 19nCoV or 2019nCoV or nCoV or "n-CoV" or "CoV 2" or CoV2 or "SARS-CoV-2" or "SARS-CoV2" or "SARSCoV-2" or SARSCoV2 or SARS2 or "SARS-2" or "severe acute respiratory syndrome coronavirus 2" or "2019-novel CoV" or "Sars-coronavirus2" or "Sars-coronavirus-2" or "SARS-like coronavirus" or "SARS-like coronaviruses" or "novel coronavirus" or "novel coronaviruses" or "novel corona virus" or "novel corona viruses" or "novel CoV" or OC43 or NL63 or 229E or HKU1 or HCoV* or "Sars-coronavirus" or "sars-coronaviruses"))</p>	<p>Search modes - Boolean/Phrase</p>	<p>Interface - EBSCOhost Research Databases Search Screen - Advanced Search Database - APA PsycInfo</p>	<p>51</p>



	coronaviruses" or "novel corona virus" "novel corona viruses" or "novel CoV" or OC43 or NL63 or 229E or HKU1 or HCoV* or "Sars-coronavirus" or "sars-coronaviruses"))			
S3	TI ((postacute or "post-acute") N0 (COVID or "COVID-19" or COVID19 or coronavirus* or "corona virus" or "corona viruses" or "2019-nCoV" or 19nCoV or 2019nCoV or nCoV or "n-CoV" or "CoV 2" or CoV2 or "SARS-CoV-2" or "SARS-CoV2" or "SARSCoV-2" or SARSCoV2 or SARS2 or "SARS-2" or "severe acute respiratory syndrome coronavirus 2" or "2019-novel CoV" or "Sars-coronavirus2" or "Sars-coronavirus-2" or "SARS-like coronavirus" or "SARS-like coronaviruses" or "novel coronavirus" or "novel coronaviruses" or "novel corona virus" "novel corona viruses" or "novel CoV" or OC43 or NL63 or 229E or HKU1 or HCoV* or "Sars-coronavirus" or "sars-coronaviruses")) OR AB ((postacute or "post-acute") N0 (COVID or "COVID-19" or COVID19 or coronavirus* or "corona virus" or "corona viruses" or "2019-nCoV" or 19nCoV or 2019nCoV or nCoV or "n-CoV" or "CoV 2" or CoV2 or "SARS-CoV-2" or "SARS-CoV2" or "SARSCoV-2" or SARSCoV2 or SARS2 or "SARS-2" or "severe acute respiratory syndrome coronavirus 2" or "2019-novel CoV" or "Sars-coronavirus2" or "Sars-coronavirus-2" or "SARS-like coronavirus" or "SARS-like coronaviruses" or "novel coronavirus" or "novel coronaviruses" or "novel corona virus" "novel corona viruses" or "novel CoV" or OC43 or NL63 or 229E or HKU1 or HCoV* or "Sars-coronavirus" or "sars-coronaviruses"))	Search modes - Boolean/Phrase	Interface - EBSCOhost Research Databases Search Screen - Advanced Search Database - APA PsycInfo	11
S2	TI ((longterm or "long-term") N0 (COVID or "COVID-19" or COVID19 or coronavirus* or "corona virus" or "corona viruses" or "2019-nCoV" or 19nCoV or 2019nCoV or nCoV or "n-CoV" or "CoV 2" or CoV2 or "SARS-CoV-2" or "SARS-CoV2" or "SARSCoV-2" or SARSCoV2 or SARS2 or "SARS-2" or "severe acute respiratory syndrome coronavirus 2" or "2019-novel CoV" or "Sars-coronavirus2" or "Sars-coronavirus-2" or "SARS-like coronavirus" or "SARS-like coronaviruses" or "novel coronavirus" or "novel coronaviruses" or "novel corona virus" "novel corona viruses" or "novel CoV" or OC43 or NL63 or 229E or HKU1 or HCoV* or "Sars-coronavirus" or "sars-coronaviruses"))	Search modes - Boolean/Phrase	Interface - EBSCOhost Research Databases Search Screen - Advanced Search Database - APA PsycInfo	7



	corona virus" "novel corona viruses" or "novel CoV" or OC43 or NL63 or 229E or HKU1 or HCoV* or "Sars-coronavirus" or "sars-coronaviruses") OR AB ((longterm or "long-term") N0 (COVID or "COVID-19" or COVID19 or coronavirus* or "corona virus" or "corona viruses" or "2019-nCoV" or 19nCoV or 2019nCoV or nCoV or "n-CoV" or "CoV 2" or CoV2 or "SARS-CoV-2" or "SARS-CoV2" or "SARSCoV-2" or SARSCoV2 or SARS2 or "SARS-2" or "severe acute respiratory syndrome coronavirus 2" or "2019-novel CoV" or "Sars-coronavirus2" or "Sars-coronavirus-2" or "SARS-like coronavirus" or "SARS-like coronaviruses" or "novel coronavirus" or "novel coronaviruses" or "novel corona virus" "novel corona viruses" or "novel CoV" or OC43 or NL63 or 229E or HKU1 or HCoV* or "Sars-coronavirus" or "sars-coronaviruses"))			
S1	TI (long N0 (COVID or "COVID-19" or COVID19 or coronavirus* or "corona virus" or "corona viruses" or "2019-nCoV" or 19nCoV or 2019nCoV or nCoV or "n-CoV" or "CoV 2" or CoV2 or "SARS-CoV-2" or "SARS-CoV2" or "SARSCoV-2" or SARSCoV2 or SARS2 or "SARS-2" or "severe acute respiratory syndrome coronavirus 2" or "2019-novel CoV" or "Sars-coronavirus2" or "Sars-coronavirus-2" or "SARS-like coronavirus" or "SARS-like coronaviruses" or "novel coronavirus" or "novel coronaviruses" or "novel corona virus" "novel corona viruses" or "novel CoV" or OC43 or NL63 or 229E or HKU1 or HCoV* or "Sars-coronavirus" or "sars-coronaviruses")) OR AB (long N0 (COVID or "COVID-19" or COVID19 or coronavirus* or "corona virus" or "corona viruses" or "2019-nCoV" or 19nCoV or 2019nCoV or nCoV or "n-CoV" or "CoV 2" or CoV2 or "SARS-CoV-2" or "SARS-CoV2" or "SARSCoV-2" or SARSCoV2 or SARS2 or "SARS-2" or "severe acute respiratory syndrome coronavirus 2" or "2019-novel CoV" or "Sars-coronavirus2" or "Sars-coronavirus-2" or "SARS-like coronavirus" or "SARS-like coronaviruses" or "novel coronavirus" or "novel coronaviruses" or "novel corona virus" "novel corona viruses" or "novel CoV" or OC43 or	Search modes - Boolean/Phrase	Interface - EBSCOhost Research Databases Search Screen - Advanced Search Database - APA PsycInfo	61



NL63 or 229E or HKU1 or HCoV* or "Sars-coronavirus" or "sars-coronaviruses"))			
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Web of Science

Web of Science Search Strategy (v0.1)

Database: Web of Science Core Collection

Entitlements:

- WOS.SSCI: 1956 to 2022
- WOS.AHCI: 1975 to 2022
- WOS.ISTP: 1990 to 2022
- WOS.ESCI: 2017 to 2022
- WOS.SCI: 1900 to 2022
- WOS.ISSHP: 1990 to 2022

Searches:

1: : long NEAR/0 (COVID or "COVID-19" or COVID19 or coronavirus* or "corona virus" or "corona viruses" or "2019-nCoV" or 19nCoV or 2019nCoV or nCoV or "n-CoV" or "CoV 2" or CoV2 or "SARS-CoV-2" or "SARS-CoV2" or "SARSCoV-2" or SARSCoV2 or SARS2 or "SARS-2" or "severe acute respiratory syndrome coronavirus 2" or "2019-novel CoV" or "SARS-coronavirus2" or "SARS-coronavirus-2" or "SARS-like coronavirus" or "SARS-like coronaviruses" or "novel coronavirus" or "novel coronaviruses" or "novel corona virus" or "novel corona viruses" or "novel CoV" or OC43 or NL63 or 229E or HKU1 or HCoV* or "SARS-coronavirus" or "SARS-coronaviruses") (Topic) OR longterm NEAR/0 (COVID or "COVID-19" or COVID19 or coronavirus* or "corona virus" or "corona viruses" or "2019-nCoV" or 19nCoV or 2019nCoV or nCoV or "n-CoV" or "CoV 2" or CoV2 or "SARS-CoV-2" or "SARS-CoV2" or "SARSCoV-2" or SARSCoV2 or SARS2 or "SARS-2" or "severe acute respiratory syndrome coronavirus 2" or "2019-novel CoV" or "SARS-coronavirus2" or "SARS-coronavirus-2" or "SARS-like coronavirus" or "SARS-like coronaviruses" or "novel coronavirus" or "novel coronaviruses" or "novel corona virus" or "novel corona viruses" or "novel CoV" or OC43 or NL63 or 229E or HKU1 or HCoV* or "SARS-coronavirus" or "SARS-coronaviruses") (Topic) OR "long-term" NEAR/0 (COVID or "COVID-19" or COVID19 or coronavirus* or "corona virus" or "corona viruses" or "2019-nCoV" or 19nCoV or 2019nCoV or nCoV or "n-CoV" or "CoV 2" or CoV2 or "SARS-CoV-2" or "SARS-CoV2" or "SARSCoV-2" or SARSCoV2 or SARS2 or "SARS-2" or "severe acute respiratory syndrome coronavirus 2" or "2019-novel CoV" or "SARS-coronavirus2" or "SARS-coronavirus-2" or "SARS-like coronavirus" or "SARS-like coronaviruses" or "novel coronavirus" or "novel coronaviruses" or "novel corona virus" or "novel corona viruses" or "novel CoV" or OC43 or NL63 or 229E or HKU1 or HCoV* or "SARS-coronavirus" or "SARS-coronaviruses") (Topic) OR postacute NEAR/0 (COVID or "COVID-19" or COVID19 or coronavirus* or "corona virus" or "corona viruses" or "2019-nCoV" or 19nCoV or 2019nCoV or nCoV or "n-CoV" or "CoV 2" or CoV2 or "SARS-CoV-2" or "SARS-CoV2" or "SARSCoV-2" or SARSCoV2 or SARS2 or "SARS-2" or "severe acute respiratory syndrome coronavirus 2" or "2019-novel CoV" or "SARS-coronavirus2" or "SARS-coronavirus-2" or "SARS-like coronavirus" or "SARS-like coronaviruses" or "novel coronavirus" or "novel coronaviruses" or "novel corona virus" or "novel corona viruses" or "novel CoV" or OC43 or NL63 or 229E or HKU1 or HCoV* or

The socioeconomic impact of post COVID-19 condition: Final report



"SARS-coronavirus" or "SARS-coronaviruses") (Topic) OR "post-acute" NEAR/0 (COVID or "COVID-19" or COVID19 or coronavirus* or "corona virus" or "corona viruses" or "2019-nCoV" or 19nCoV or 2019nCoV or nCoV or "n-CoV" or "CoV 2" or CoV2 or "SARS-CoV-2" or "SARS-CoV2" or "SARSCoV-2" or SARSCoV2 or SARS2 or "SARS-2" or "severe acute respiratory syndrome coronavirus 2" or "2019-novel CoV" or "SARS-coronavirus2" or "SARS-coronavirus-2" or "SARS-like coronavirus" or "SARS-like coronaviruses" or "novel coronavirus" or "novel coronaviruses" or "novel corona virus" or "novel corona viruses" or "novel CoV" or OC43 or NL63 or 229E or HKU1 or HCoV* or "SARS-coronavirus" or "SARS-coronaviruses") (Topic) OR chronic* NEAR/0 (COVID or "COVID-19" or COVID19 or coronavirus* or "corona virus" or "corona viruses" or "2019-nCoV" or 19nCoV or 2019nCoV or nCoV or "n-CoV" or "CoV 2" or CoV2 or "SARS-CoV-2" or "SARS-CoV2" or "SARSCoV-2" or SARSCoV2 or SARS2 or "SARS-2" or "severe acute respiratory syndrome coronavirus 2" or "2019-novel CoV" or "SARS-coronavirus2" or "SARS-coronavirus-2" or "SARS-like coronavirus" or "SARS-like coronaviruses" or "novel coronavirus" or "novel coronaviruses" or "novel corona virus" or "novel corona viruses" or "novel CoV" or OC43 or NL63 or 229E or HKU1 or HCoV* or "SARS-coronavirus" or "SARS-coronaviruses") (Topic) OR persist* NEAR/0 (COVID or "COVID-19" or COVID19 or coronavirus* or "corona virus" or "corona viruses" or "2019-nCoV" or 19nCoV or 2019nCoV or nCoV or "n-CoV" or "CoV 2" or CoV2 or "SARS-CoV-2" or "SARS-CoV2" or "SARSCoV-2" or SARSCoV2 or SARS2 or "SARS-2" or "severe acute respiratory syndrome coronavirus 2" or "2019-novel CoV" or "SARS-coronavirus2" or "SARS-coronavirus-2" or "SARS-like coronavirus" or "SARS-like coronaviruses" or "novel coronavirus" or "novel coronaviruses" or "novel corona virus" or "novel corona viruses" or "novel CoV" or OC43 or NL63 or 229E or HKU1 or HCoV* or "SARS-coronavirus" or "SARS-coronaviruses") (Topic)

Results: 2693

2: COVID or "COVID-19" or COVID19 or coronavirus* or "corona virus" or "corona viruses" or "2019-nCoV" or 19nCoV or 2019nCoV or nCoV or "n-CoV" or "CoV 2" or CoV2 or "SARS-CoV-2" or "SARS-CoV2" or "SARSCoV-2" or SARSCoV2 or SARS2 or "SARS-2" or "severe acute respiratory syndrome coronavirus 2" or "2019-novel CoV" or "SARS-coronavirus2" or "SARS-coronavirus-2" or "SARS-like coronavirus" or "SARS-like coronaviruses" or "novel coronavirus" or "novel coronaviruses" or "novel corona virus" or "novel corona viruses" or "novel CoV" or OC43 or NL63 or 229E or HKU1 or HCoV* or "SARS-coronavirus" or "SARS-coronaviruses") (Topic) OR (coronavirus* or "corona virus" or "corona viruses") and (hubei or wuhan or beijing or shanghai) (Topic) OR wuhan NEAR/5 virus* (Topic) OR coronavirus* and pneumonia (Topic) OR (novel or new or nouveau) NEAR/2 (CoV or nCoV or covid or coronavirus* or "corona virus" or "Pandemic 2") (Topic) OR (coronavirus* or "corona virus" or "corona viruses") NEAR/2 "2019" (Topic) OR (coronavirus* or "corona virus" or "corona viruses") NEAR/2 "19" (Topic)

Results: 376603

3: coronavirus* or "corona virus" or "corona viruses" or COVID (Title)

Results: 266088

4: ("post-COVID" or "post-COVID-19" or "post-COVID19" or "post-coronavirus" or "post-coronaviruses" or "post-corona virus" or "post-corona viruses" or "post-2019-nCoV" or "post-19nCoV" or "post-2019nCoV" or "post-nCoV" or "post-n-CoV" or "post-CoV 2" or "post-CoV2" or "post-SARS-CoV-2" or "post-SARS-CoV2" or "post-SARSCoV-2" or "post-SARSCoV2" or "post-SARS2" or "post-SARS-2" or "post-severe acute respiratory syndrome coronavirus 2" or "post-2019-novel CoV" or "post-SARS-coronavirus2" or "post-SARS-coronavirus-2" or "post-SARS-like coronavirus" or "post-SARS-like coronaviruses" or "post-novel coronavirus" or "post-novel coronaviruses" or "post-novel corona virus" or "post-novel corona viruses" or "post-novel CoV" or "post-OC43" or "post-NL63" or "post-229E" or "post-HKU1" or "post-HCoV" or "post-SARS-coronavirus" or "post-SARS-coronaviruses") NEAR/3 (comorbid* or "co-morbid" or "co-morbidity" or "co-morbidities" or condition* or convalescen* or disease* or



disorder* or illness* or multimorbid* or "multi-morbid" or "multi-morbidity" or "multi-morbidities" or sickness* or symptom* or syndrome* or sign or signs or prognos* or recuperat* or survivor* or survival* or risk*) (Topic)
 Results: 1414

5: ("after COVID" or "after COVID-19" or "after COVID19" or "after coronavirus" or "after coronaviruses" or "after corona virus" or "after corona viruses" or "after 2019-nCoV" or "after 19nCoV" or "after 2019nCoV" or "after nCoV" or "after n-CoV" or "after CoV 2" or "after CoV2" or "after SARS-CoV-2" or "after SARS-CoV2" or "after SARSCoV-2" or "after SARSCoV2" or "after SARS2" or "after SARS-2" or "after severe acute respiratory syndrome coronavirus 2" or "after 2019-novel CoV" or "after SARS-coronavirus2" or "after SARS-coronavirus-2" or "after SARS-like coronavirus" or "after SARS-like coronaviruses" or "after novel coronavirus" or "after novel coronaviruses" or "after novel corona virus" or "after novel corona viruses" or "after novel CoV" or "after OC43" or "after NL63" or "after 229E" or "after HKU1" or "after HCoV" or "after SARS-coronavirus" or "after SARS-coronaviruses") NEAR/3 (comorbid* or "co-morbid" or "co-morbidity" or "co-morbidities" or condition* or convalescen* or disease* or disorder* or illness* or multimorbid* or "multi-morbid" or "multi-morbidity" or "multi-morbidities" or sickness* or symptom* or syndrome* or sign or signs or prognos* or recuperat* or survivor* or survival* or risk*) (Topic)
 Results: 1191

6: ("following COVID" or "following COVID-19" or "following COVID19" or "following coronavirus" or "following coronaviruses" or "following corona virus" or "following corona viruses" or "following 2019-nCoV" or "following 19nCoV" or "following 2019nCoV" or "following nCoV" or "following n-CoV" or "following CoV 2" or "following CoV2" or "following SARS-CoV-2" or "following SARS-CoV2" or "following SARSCoV-2" or "following SARSCoV2" or "following SARS2" or "following SARS-2" or "following severe acute respiratory syndrome coronavirus 2" or "following 2019-novel CoV" or "following SARS-coronavirus2" or "following SARS-coronavirus-2" or "following SARS-like coronavirus" or "following SARS-like coronaviruses" or "following novel coronavirus" or "following novel coronaviruses" or "following novel corona virus" or "following novel corona viruses" or "following novel CoV" or "following OC43" or "following NL63" or "following 229E" or "following HKU1" or "following HCoV" or "following SARS-coronavirus" or "following SARS-coronaviruses") NEAR/3 (comorbid* or "co-morbid" or "co-morbidity" or "co-morbidities" or condition* or convalescen* or disease* or disorder* or illness* or multimorbid* or "multi-morbid" or "multi-morbidity" or "multi-morbidities" or sickness* or symptom* or syndrome* or sign or signs or prognos* or recuperat* or survivor* or survival* or risk*) (Topic)
 Results: 602

7: (chronic* or continuous* or continual* or continuing* or delay* or endur* or extend* or fluctuat* or gradual* or lasting* or legacy* or lengthy* or linger* or long* or "medium* term*" or mediumterm* or multisystem* or "multi system" or ongoing* or permanent* or persist* or prolong* or protract* or relaps* or remission* or remit* or residual* or slow* or subacute* or "sub acute*") NEAR/3 recover* (Topic)
 Results: 53850

8: ("after discharge" or "after discharging" or "following discharge" or "following discharging" or postacute* or "post acute*" or postdischarge or postdischarging or "post discharge" or "post discharging" or posthospital* or "post-hospital" or "post-hospitalisation" or "post-hospitalization" or postinfect* or "post infection" or "post infective" or postviral* or "post viral" or postvirus* or "post virus" or postcritical or "post-critical" or postintensive or "post-intensive" or "post-ICU") NEAR/3 recover* (Topic)
 Results: 814

9: (chronic* or continuous* or continual* or continuing* or delay* or endur* or extend* or fluctuat* or gradual* or lasting* or legacy* or lengthy* or linger* or long* or "medium term" or mediumterm* or



multisystem* or "multi-system" or ongoing or permanent* or persist* or prolong* or protract* or relaps* or remission* or remit* or residual* or slow* or subacute* or "sub acute") NEAR/3 (complication* or consequence* or convalescen* or disabilit* or feature* or illness* or prognos* or sequela* or sign or signs or suffering* or symptom* or recuperat*) (Topic) Results: 316388

10: ("after discharge" or "after discharging" or "following discharge" or "following discharging" or postacute* or "post acute*" or postdischarge or postdischarging or "post discharge" or "post discharging" or posthospital* or "post-hospital" or "post-hospitalisation" or "post-hospitalization" or postinfect* or "post infection" or "post infective" or postviral* or "post viral" or postvirus* or "post virus" or postcritical or "post-critical" or postintensive or "post-intensive" or "post-ICU") NEAR/3 (complication* or consequence* or convalescen* or disabilit* or feature* or illness* or prognos* or sequela* or sign or signs or suffering* or symptom* or recuperat*) (Topic) Results: 2819

11: nonrecover* or (non NEAR/0 recover*) or "not recover" or "not recovered" or "not recovering" (Topic) Results: 9914

12: "long haul" or "long hauler" or "long haulers" or longhaul* or (long NEAR/0 tail*) or longtail* or longduration* or "long duration" or "long durations" or longlast* or (long NEAR/0 last*) or longstanding* or "long standing" or "medium term*" or mediumterm* (Topic) Results: 192931

13: #3 OR #2 Results: 376603

14: #12 OR #11 OR #10 OR #9 OR #8 OR #7 OR #6 OR #5 OR #4 Results: 563899

15: #14 AND #13 Results: 12019

16: #15 OR #1 Results: 13314

17: TS=((mental or mentally) NEAR/3 (health* or hygiene or ill or illness* or well or wellbeing or well-being or wellness)) Results: 345678

18: (emotional* or psychological* or psychosocial* or psycho-social* or social*) NEAR/3 (health* or hygiene or ill or illness* or well or wellbeing or "well-being" or wellness) (Topic) OR (mental or mentally) NEAR/3 (distress* or disorder* or disfunction* or dysfunction* or stress*) (Topic) OR (emotional* or psychological* or psychosocial* or psycho-social* or social*) NEAR/3 (distress* or disorder* or disfunction* or dysfunction* or stress*) (Topic) Results: 402970

19: anxiety or anxieties or anxious* (Topic) OR GAD (Topic) OR hypervigilan* or hyper-vigilan* or nervous* (Topic) OR (incessan* or obsessive* or persistan* or intense*) NEAR/3 fear* (Topic) OR agoraphobi* or claustrophobi* or homophobi* or neophobi* or xenophobi* or agora-phobi* or claustrophobi* or homo-phobi* or neo-phobi* or xeno-phobi* (Topic) Results: 808666

20: neurocirculatory asthenia* or cardiac neurosis or cardiac neuroses or effort syndrome* or hyperkinetic heart syndrome* (Topic) OR neurotic disorder* or neurosis or psychoneurosis or psychoneurosis or neuroses or psychoneuroses or psycho-neuroses (Topic) OR obsessive-compulsive or anankastic personalit* or compulsive personalit* or obsessive personalit* or hoarding or psychastheni*



(Topic) OR "panic disorder" or "panic disorders" or (panic NEAR/2 attack*) (Topic) OR phobia or phobias or phobic (Topic) Results: 90555

21: catastrophisation* or catastrophise* or catastrophising or catastrophization* or catastrophize* or catastrophizing (Topic) OR depress* (Topic) OR dysthym* (Topic) OR (feel* NEAR/0 blue) or blues (Topic) OR melanchol* (Topic) OR MDD and mental (Topic) Results: 1144830

22: suicid* or parasuicid* or para-suicid* (Topic) OR (drug or drugs or "drug-related") NEAR/3 (abus* or addict* or dependen* or disorder* or habituat* or misuse* or mis-use* or misusing or mis-using) (Topic) OR "drug use" (Topic) OR (substance* or "substance-related") NEAR/3 (abus* or addict* or dependen* or disorder* or habituat* or misuse* or mis-use* or misusing or mis-using) (Topic) OR "substance use" (Topic) Results: 332838

23: alcoholi* (Topic) OR (alcohol* or ethanol*) NEAR/2 (abus* or addict* or dependen* or disorder* or habituat* or misuse* or mis-use* or misusing or mis-using) (Topic) OR "alcohol use" or "ethanol use" (Topic) OR binge* NEAR/2 drink* (Topic) OR (chronic* or excessive* or intemperate* or uncontrolled or unrestrained) NEAR/3 (drink* or drunk* or intoxicat*) (Topic) Results: 216423

24: #23 OR #22 OR #21 OR #20 OR #19 OR #18 OR #17 Results: 2622193

25: #24 AND #16 Results: 2748

26: economic* or cost or costs or costly or costing or price or prices or pricing or pharmacoeconomic* or pharmaco-economic* or expenditure or expenditures or expense or expenses or financial or finance or finances or financed or socioeconomic* or socio-economic* (Topic) OR economic* or cost or costs or costly or costing or price or prices or pricing or pharmacoeconomic* or pharmaco-economic* or expenditure or expenditures or expense or expenses or financial or finance or finances or financed or socioeconomic* or socio-economic* (Author Keywords) OR economic* or cost or costs or costly or costing or price or prices or pricing or pharmacoeconomic* or pharmaco-economic* or expenditure or expenditures or expense or expenses or financial or finance or finances or financed or socioeconomic* or socio-economic* (Keyword Plus ®) Results: 3955562

27: cost* NEAR/2 (effective* or utilit* or benefit* or minimi* or analy* or outcome or outcomes) (Topic) OR value NEAR/2 (money or monetary) (Topic) OR economic NEAR/0 model* (Topic) OR markov or "monte carlo" (Topic) OR decision* NEAR/2 (tree* or analy* or model*) (Topic) Results: 1062526

28: #27 OR #26 Results: 4451948

29: #28 AND #25 Results: 405

Long Covid
 Grey Literature Strategies
 2022 Oct 11-12



2022 Oct 11

COVID-END

<https://www.mcmasterforum.org/networks/covid-end/resources-to-support-decision-makers/inventory-of-evidence-syntheses>

Direct search (all synthesis):

“long covid” (17 results – nothing relevant); “post covid” (20 results – nothing relevant); “longterm covid” – no results; “long-term covid” (2 results – nothing relevant); “postacute covid” – no results; “post-acute covid” (8 results – nothing relevant); “chronic covid” – no results

Living Overviews of Evidence (L.OVE) Platform

<https://iloveevidence.com>

"long covid" or "post covid" or "longterm covid" or "long-term covid" or "postacute covid" or "post-acute covid" or "chronic covid" or "long haul" or "long hauler" or "long haulers" or longhaul or longhauler or longhaulers

AND

economic or economics or economical or budget or budgets or budgetary or cost or costs or costly or costing or price or prices or pricing or pharmacoeconomic or pharmacoeconomics or pharmaco-economic or pharmaco-economics or expenditure or expenditures or expense or expenses or financial or finance or finances or financed or socioeconomic or socioeconomics or socio-economic or socio-economics

2 results

"long covid" or "post covid" or "longterm covid" or "long-term covid" or "postacute covid" or "post-acute covid" or "chronic covid" or "long haul" or "long hauler" or "long haulers" or longhaul or longhauler or longhaulers

AND

employment or "return to work" or "resume work" or "reenter work" or "re-enter work" or "back to work" or employability or workability or sick leave or disability or absentee or absenteeism or presentee or presenteeism or leaveism or leavism

2 results (same as above – did not download)

"long covid" or "post covid" or "longterm covid" or "long-term covid" or "postacute covid" or "post-acute covid" or "chronic covid" or "long haul" or "long hauler" or "long haulers" or longhaul or longhauler or longhaulers

AND

efficiency or efficiencies or efficient or productive or productively or productivity or productivities

2 results (same as above – did not download)

WHO Global Literature on COVID-19

<https://search.bvsalud.org/global-literature-on-novel-coronavirus-2019-ncov/>

"long covid" or "post covid" or "longterm covid" or "long-term covid" or "postacute covid" or "post-acute covid" or "chronic covid" or "long haul" or "long hauler" or "long haulers" or longhaul or longhauler or longhaulers

Filtered by “Evaluation Study” or “Health Economic Evaluation”

The socioeconomic impact of post COVID-19 condition: Final report

611 records

Advanced search:

("long covid" or "post covid" or "longterm covid" or "long-term covid" or "postacute covid" or "post-acute covid" or "chronic covid" or "long haul" or "long hauler" or "long haulers" or longhaul or longhauler or longhaulers)

AND

(employment or "return to work" or "resume work" or "reenter work" or "re-enter work" or "back to work" or employability or workability or sick leave or disability or absentee or absenteeism or presentee or presenteeism or leaveism or leavism)

672 records

("long covid" or "post covid" or "longterm covid" or "long-term covid" or "postacute covid" or "post-acute covid" or "chronic covid" or "long haul" or "long hauler" or "long haulers" or longhaul or longhauler or longhaulers)

AND

(efficiency or efficiencies or efficient or productive or productively or productivity or productivities)

AND

(employee or employees or function or functions or functioning or functional or functionality or functionalities or functionally or job or jobs or work or worker or workers or working or life or living or ability or abilities or capability or capabilities or capacity or capacities)

370 records

2022 Oct 12

Google Scholar

"long covid"|"post covid"|"longterm covid"|"long-term covid"|"postacute covid"|"post-acute covid"|"chronic covid"+economic|economics|economical| socioeconomic|socioeconomics|"socio-economics"

17,800 results – reviewed first 200 – 16 records downloaded

"long covid"|"post covid"|"longterm covid"|"long-term covid"|"postacute covid"|"post-acute covid"|"chronic covid"+financial|financially|finance|finances|financed|

18,400 results – reviewed first 200 – 10 records downloaded

Google

"long covid" burden

570,000 results – reviewed first 200 – 4 records downloaded

"long covid" economics

3,620,000 results – reviewed first 200 – 19 records downloaded

See also CADTH Grey Matters (selected economic sites) – 7 records