Evidence Brief: Employment, Education, and Continuing Care Outcomes Among Individuals Following COVID-19

Supplemental Materials

November 2022

U.S. Department of Veterans Affairs
Veterans Health Administration
Health Services Research & Development Service

Recommended citation: Gustavson AM, Greer N, Wilt TJ, Sowerby K, Ahmed Z, Diem SJ. Evidence Brief: Employment, Education, and Continuing Care Outcomes Among Individuals Following COVID-19. Washington, DC: Evidence Synthesis Program, Health Services Research and Development Service, Office of Research and Development, Department of Veterans Affairs. VA ESP Project #09-009; 2022.

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APPENDIX A: SEARCH STRATEGY

PRIMARY STUDIES

KQ1: Employment

MEDLINE (OVID), EMBASE (OVID), PsycINFO

1	(coronavir* or corona virus* or betacoronavir* or covid19 or covid 19 or covid-19 or nCoV or CoV 2 or CoV2 or sarscov2 or sars-cov-2 or sars 2 or 2019nCoV or 2019-nCoV or 2019 novel coronavirus* or 2019 novel CoV or wuhan virus* or ((wuhan or hubei or huanan) and (severe acute respiratory or pneumonia*))).ti,ab,kw.
2	COVID-19/ or Coronavirus Infections/ or Coronavirus/
3	1 or 2
4	Return to Work/sn, td [Statistics & Numerical Data, Trends]
5	Unemployment/sn, td [Statistics & Numerical Data, Trends]
6	Employment/sn, td [Statistics & Numerical Data, Trends]
7	Job Satisfaction/sn [Statistics & Numerical Data]
8	Workload/sn [Statistics & Numerical Data]
9	Work-Life Balance/sn, td [Statistics & Numerical Data, Trends]
10	Work Schedule Tolerance/
11	4 or 5 or 6 or 7 or 8 or 9 or 10
12	(((return or back or ability or interference) adj2 work) or "work schedule" or "work impairment" or "work duty" or "job loss" or "wage loss" or employment or unemployed or unemployment or occupation or career* or ((job or work) adj2 satisfaction) or "reduce* hours" or "sick time" or "sick leave" or "paid leave" or "paid time off" or (temporar* adj2 disab*)).ti,ab.
13	11 or 12
14	3 and 13
15	limit 14 to (english language and yr="2020 -Current")

ProQuest (EconLit)

S1	(ab(COVID-19) OR ab(coronavir*) OR ab(SARS-CoV-2)) AND la.exact("English") AND pd(2020-2023)
S2	ab(unemploy*) OR ab("return to work") OR ab("ability to work") OR ab("work schedule") OR ab("job loss") OR ab(employment) OR ab(occupation) OR ab(career) OR ab("job satisfaction") OR ab("reduce* hours")

S3	((ab(COVID-19) OR ab(coronavir*) OR ab(SARS-CoV-2)) AND la.exact("English") AND pd(2020-2023)) AND (ab(unemploy*) OR ab("return to work") OR ab("ability to work") OR ab("work schedule") OR ab("job loss") OR ab(employment) OR ab(occupation) OR ab(career) OR ab("job satisfaction") OR ab("reduce* hours"))

KQ2: Education

EMBASE (OVID)

1	(coronavir* or corona virus* or betacoronavir* or covid19 or covid 19 or covid-19 or nCoV or CoV 2 or CoV2 or sarscov2 or sars-cov-2 or sars 2 or 2019nCoV or 2019-nCoV or 2019 novel coronavirus* or 2019 novel CoV or wuhan virus* or ((wuhan or hubei or huanan) and (severe acute respiratory or pneumonia*))).ti,ab,kw.
2	COVID-19/ or Coronavirus Infections/ or Coronavirus/
3	1 or 2
4	vocational education/
5	distance learning/
6	school attendance/
7	university student/
8	return to school/
9	(attendance or dropout* or internship* or (education* adj2 program) or ((leave or return) adj2 school)).ti,ab.
10	4 or 5 or 6 or 7 or 8 or 9
11	3 and 10
12	limit 11 to (english language and yr="2020 -Current")

MEDLINE (OVID)

1.	(coronavir* or corona virus* or betacoronavir* or covid19 or covid 19 or covid-19 or nCoV or CoV 2 or CoV2 or sarscov2 or sars-cov-2 or sars 2 or 2019nCoV or 2019-nCoV or 2019 novel coronavirus* or 2019 novel CoV or wuhan virus* or ((wuhan or hubei or huanan) and (severe acute respiratory or pneumonia*))).ti,ab,kw.
2.	COVID-19/ or Coronavirus Infections/ or Coronavirus/
3.	1 or 2
4.	Vocational Education/sn, td [Statistics & Numerical Data, Trends]
5.	exp Educational Status/td [Trends]
6.	Education, Distance/sn, td [Statistics & Numerical Data, Trends]
7.	exp Education, Professional/sn, td [Statistics & Numerical Data, Trends]
8.	Student Dropouts/sn [Statistics & Numerical Data]
9.	exp Universities/sn, sd, td [Statistics & Numerical Data, Supply & Distribution, Trends]

10.	Return to School/sn [Statistics & Numerical Data]
11.	(attendance or dropout* or internship* or (education* adj2 program) or ((leave or return) adj2 school)).ti,ab.
12.	4 or 5 or 6 or 7 or 8 or 9 or 10 or 11
13.	3 and 12
14.	limit 13 to (english language and yr="2020 -Current")

KQ3: Care Services

MEDLINE (OVID) and EMBASE (OVID)

1	(coronavir* or corona virus* or betacoronavir* or covid19 or covid 19 or covid-19 or nCoV or CoV 2 or CoV2 or sarscov2 or sars-cov-2 or sars 2 or 2019nCoV or 2019-nCoV or 2019 novel coronavirus* or 2019 novel CoV or wuhan virus* or ((wuhan or hubei or huanan) and (severe acute respiratory or pneumonia*))).ti,ab,kw.
2	COVID-19/ or Coronavirus Infections/ or Coronavirus/
3	1 or 2
4	Long-Term Care/sn, sd, td [Statistics & Numerical Data, Supply & Distribution, Trends]
5	exp Residential Facilities/sn, sd, td [Statistics & Numerical Data, Supply & Distribution, Trends]
6	Subacute Care/sn, td [Statistics & Numerical Data, Trends]
7	exp Home Care Services/sn, sd, td [Statistics & Numerical Data, Supply & Distribution, Trends]
8	Hospital to Home Transition/sn [Statistics & Numerical Data]
9	Caregivers/sn, sd, td [Statistics & Numerical Data, Supply & Distribution, Trends]
10	Patient Discharge/sn, td [Statistics & Numerical Data, Trends]
11	Hospitals, Rehabilitation/sn, td [Statistics & Numerical Data, Trends]
12	((discharg* adj (to or disposition)) or caregiver*).ti,ab.
13	(((residential or nursing) adj2 facilit*) or ((nursing or care) adj2 home*)).ti,ab.
14	4 or 5 or 6 or 7 or 8 or 9 or 10 or 11
15	12 or 13
16	14 or 15
17	3 and 16
18	limit 17 to (english language and yr="2020 -Current")

CINAHL

S13	((AB discharge N2 disposition OR AB discharge* N2 to OR AB caregiver OR AB ((residential or nursing) N2 facilit*) OR AB ((nursing or care) N2 home*)) AND (S2 OR S3 OR S4 OR S5 OR S6 OR S7 OR S8 OR S9)) AND (S1 AND S10)

S12	((AB discharge N2 disposition OR AB discharge* N2 to OR AB caregiver OR AB ((residential or nursing) N2 facilit*) OR AB ((nursing or care) N2 home*)) AND (S2 OR S3 OR S4 OR S5 OR S6 OR S7 OR S8 OR S9)) AND (S1 AND S10)
S11	((AB discharge N2 disposition OR AB discharge* N2 to OR AB caregiver OR AB ((residential or nursing) N2 facilit*) OR AB ((nursing or care) N2 home*)) AND (S2 OR S3 OR S4 OR S5 OR S6 OR S7 OR S8 OR S9)) AND (S1 AND S10)
S10	(AB discharge N2 disposition OR AB discharge* N2 to OR AB caregiver OR AB ((residential or nursing) N2 facilit*) OR AB ((nursing or care) N2 home*)) AND (S2 OR S3 OR S4 OR S5 OR S6 OR S7 OR S8 OR S9)
S9	AB discharge N2 disposition OR AB discharge* N2 to OR AB caregiver OR AB ((residential or nursing) N2 facilit*) OR AB ((nursing or care) N2 home*)
S8	(MH "Rehabilitation Centers/SN/TD/UT")
S7	(MH "Patient Discharge/SN/TD")
S6	(MH "Caregivers/SN")
S5	(MH "Home Health Care/SN/TD")
S4	(MH "Subacute Care/SN/TD")
S3	(MH "Residential Facilities/SN/TD")
S2	(MH "Long Term Care") OR (MH "Nursing Home Patients/SN")
S1	AB COVID-19 OR MM COVID-19 OR AB coronavir* OR AB sars-cov-2

APPENDIX B: EXCLUDED STUDIES

Exclude reasons: 1=Ineligible population, 2=Ineligible intervention, 3=Ineligible comparator, 4=Ineligible outcome, 5=Ineligible timing, 6=Ineligible study design, 7=Ineligible publication type, 8=Outdated or ineligible systematic review.

Citation	Exclude Reason
Agarwal, MA, Ziaeian, et al. Cardiovascular Disease in Hospitalized Patients With a Diagnosis of Coronavirus From the Pre-COVID-19 Era in United States: National Analysis From 2016-2017. *Mayo Clin Proc*. 2020. 95:2674-2683	E2
Algamdi, MM. Assessment of Post-COVID-19 Quality of Life Using the Quality of Life Index. *Patient Prefer Adherence*. 2021. 15:2587-2596	E4
Bachar, R, MacKay, et al. Challenges with discharge disposition in older adults with COVID-19: a single-center retrospective study from a rural hospital in Indiana. *Epidemiology*. 2022. 70:S294-S295	E7
Barnes, M, Sax, et al. Challenges of "Return to Work" in an Ongoing Pandemic. *N Engl J Med*. 2020. 383:779-786	E7
Bergquist, SH, Partin, et al. Non-hospitalized Adults with COVID-19 Differ Noticeably from Hospitalized Adults in Their Demographic, Clinical, and Social Characteristics. *SN comprehensive clinical medicine*. 2020. 2:1349-1357	E5
Brinkley, E, Mack, et al. Patients tell all: Using a direct-to-patient community registry to understand patient burden of COVID-19. *Pharmacoepidemiol Drug Saf*. 2021. 30:98	E7
Burki, TK. COVID-19: consequences for higher education. *The Lancet. Oncology*. 2020. 21:758	E7
Carenzo, L, Dalla Corte, et al. Return to Work After Coronavirus Disease 2019 Acute Respiratory Distress Syndrome and Intensive Care Admission: Prospective, Case Series at 6 Months From Hospital Discharge. *Crit Care Med. 2021*. 49:e1157-e1162	E6
Carlsen, EO, Caspersen, et al. Association between work situation and life satisfaction during the COVID-19 pandemic: prospective cohort study in Norway. *BMJ Open*. 2022. 12:e049586	E4
Carrillo-Arnal, I, Martin-Martinez, et al. Understanding the role of frailty on mortality and poor outcomes in geriatric COVID-19 inpatients: A cohort study. *Eur Geriatr Med*. 2021. 12:S135	E7
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Cervellione, K, Shakil, et al. The COVID19 experience: Preliminary results in 1651 patients at two multi-ethnic community hospitals in nyc. Am J Respir Crit Care Med. 2021. 203	E7
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Citation	Exclude Reason
Chaudhry, ZS, Cadet, et al. Return to Work, Demographic Predictors, and Symptomatic Analysis Among Healthcare Workers Presenting for COVID-19 Testing: A Retrospective Cohort From a United States Academic Occupational Medicine Clinic. *Cureus*. 2021. 13:e19944	E5
Chauhan, M, Nzeako, et al. Long-term symptoms after covid-19 compared to a control group. *Am J Gastroenterol*. 2021. 116:S226	E7
Cheng, D, Calderwood, et al. Clinical characteristics and outcomes of adult patients admitted with COVID-19 in East London: a retrospective cohort analysis. *BMJ open respiratory research*. 2021. 8	E5
Clancy, M, Tevalad, et al. AM-PAC "6-clicks" Predicts Discharge Destination for Patients Hospitalized with COVID-19. *Arch Phys Med Rehabil*. 2021. 102:e4-e5	E7
Collier, DA, Assennato, et al. Point of Care Nucleic Acid Testing for SARS-CoV-2 in Hospitalized Patients: A Clinical Validation Trial and Implementation Study. *Cell reports. Medicine*. 2020. 1:100062	E2
Collins, T, Patel, et al. Outcomes in inflammatory arthropathy patients hospitalized for COVID-19. *Ann Rheum Dis*. 2021. 80:228-229	E7
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Dabbagh, A, Seens, et al. What Are Work-Related Predictors of Post-COVID-19 Home and Family Work Roles? A Cross-Sectional Survey. *Journal of occupational and environmental medicine*. 2022. 64:19-25	E2
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Della Giovampaola, M, Tonetti, et al. Neuropsychological outcome of patients with severe Covid-19 infection admitted to ICU. *Intensive Care Medicine Experimental*. 2021. 9	E6
Deschner, M, Parraga, et al. COVID-19 and return-to-work recommendations for people with chronic respiratory diseases. *CMAJ*. 2020. 192:E1021	E7
Dolinay, T, Jun, et al. Mechanical Ventilator Liberation of Patients With COVID-19 in Long-term Acute Care Hospital. *Chest*. 2022.	E6
Duggal, P, Penson, et al. Post-sequelae symptoms and comorbidities after COVID-19. *J Med Virol*. 2022. 94:2060-2066	E4
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Frontera, JA, Lewis, et al. Prevalence and Predictors of Prolonged Cognitive and Psychological Symptoms Following COVID-19 in the United States. *Front Aging Neurosci*. 2021. 13:690383	E6
Gaffney, AW, Himmelstein, et al. Illness-Related Work Absence in Mid-April Was Highest on Record. *JAMA Intern Med*. 2020. 180:1699-1701	E2

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Gangu, K, Shyu, et al. Intubation among emergency department and hospitalized patients with COVID-19: A retrospective analysis of 18,467 patients. *Am J Respir Crit Care Med*. 2021. 203	E7
Gianchandani, S, Addison, et al. Impact of delirium on outcomes in hospitalized patients with SARS-CoV-2 infection. *Neurology*. 2021. 96	E7
Hartsgrove, C, Guevarra-Fernandez, et al. Measuring Discharge Outcomes, Length of Stay, and Functional ADL Score During COVID-19 in Inpatient Rehabilitation Hospitals. *Arch Phys Med Rehabil*. 2021. 102:2291-2299	E4
Harvey-Dunstan, TC, Jenkins, et al. Patient-related outcomes in patients referred to a respiratory clinic with persisting symptoms following non-hospitalised COVID-19. *Chron Respir Dis*. 2022. 19:14799731211069391	E6
He, Q, Du, et al. A Patient Journey Map to Improve the Home Isolation Experience of Persons With Mild COVID-19: Design Research for Service Touchpoints of Artificial Intelligence in eHealth. *JMIR medical informatics*. 2021. 9:e23238	E6
Herrmann, ML, Hahn, et al. COVID-19 in persons aged 70+ in an early affected German district: Risk factors, mortality and post-COVID care needs-A retrospective observational study of hospitalized and non-hospitalized patients. *PLoS One*. 2021. 16:e0253154	E6
Hurlimann, O, Decavel, et al. Return to work after hospitalisation for COVID-19 infection. *Eur J Intern Med*. 2022. 97:110-112	E7
Huyck, KL, McDonough, et al. Return to Work in the Pandemic - Considerations beyond Infection. *PM R*. 2021. 13:1044-1049	E2
Jacob, L, Koyanagi, et al. Prevalence of, and factors associated with, long-term COVID-19 sick leave in working-age patients followed in general practices in Germany. *Int J Infect Dis*. 2021. 109:203-208	E5
Jomo,KS. Some Employment Dimensions of COVID-19 Recessions. *The Indian journal of labour economics: the quarterly journal of the Indian Society of Labour Economics*. 2020. 1-5	E2
Kawohl, W, Nordt, et al. COVID-19, unemployment, and suicide. *The Lancet. Psychiatry*. 2020. 7:389-390	E7
Kelly, L, Schaefer, et al. Discharge outcomes of patients with COVID-19 admitted to the ICU: The virus registry. *Crit Care Med*. 2022. 50:61	E7
Kikkenborg Berg, S, Dam Nielsen, et al. Long COVID symptoms in SARS-CoV-2-positive adolescents and matched controls (LongCOVIDKidsDK): a national, cross-sectional study. *The Lancet*. Child & adolescent health. 2022. 6:240-248	E1
Knights, H, Mayor, et al. Characteristics and outcomes of patients with COVID-19 at a district general hospital in Surrey, UK. *Clin Med*. 2020. 20:e148-e153	E6
Kung, A, Wenger, et al. Long-term functional and social outcomes following intensive care for severe COVID-19. *Crit Care Med*. 2022. 50:51	E7
Lai, R, Tan, et al. Help-Seeking Behavior of Returning to Work in Healthcare Workers and its Influencing Factors During COVID-19 Subsiding. *Journal of occupational and environmental medicine*. 2020. 62:898-903	E2

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Le, TP, Hayek, et al. Characteristics of patients with acute ischemic stroke and covid-19 who required intensive care unit admission versus ward-only: The Mississippi academic center experience. *Stroke*. 2022. 53	E7
Lewis, CW, Baiju, et al. The relationship between demographics and discharge disposition in individuals admitted to acute care with covid-19 infection. *PM and R*. 2021. 13:S33-S34	E7
McPeake, J, Shaw, et al. Long-term outcomes following severe COVID-19 infection: a propensity matched cohort study. *BMJ open respiratory research*. 2021. 8	E6
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Moon, R, Rosenthal, et al. IN1 Treatment Journey of COVID-19 Patients in Hospital Settings. *Value in Health*. 2021. 24:S9-S10	E7
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Nathan, D, Rodgers, et al. Introduction: the Critical Connection Between COVID-19 and Employment. *The Indian journal of labour economics: the quarterly journal of the Indian Society of Labour Economics*. 2020. 1-9	E2
Navarrete, JE, Tong, et al. Epidemiology of COVID-19 Infection in Hospitalized End-Stage Kidney Disease Patients in a Predominantly African-American Population. *Am J Nephrol*. 2021. 52:190-198	E6
Nienhaus, A. Long term effects of COVID-19 in health workers and the assessment of the fatigue syndrome in compensation claims. Occup *Environ Med*. 2021. 78:A160-A161	E7
O'Neil, J, Rusinak, et al. Case management during a pandemic: A single site analysis of discharge disposition and length of stay during a COVID-19 surge. *J Gen Intern Med*. 2021. 36:S89-S90	E7
Parolin, Z. Unemployment and child health during COVID-19 in the USA. The Lancet. Public health. 2020. 5:e521-e522	E7
Pass, B, Vajna, et al. COVID-19 and Proximal Femur Fracture in Older Adults—A Lethal Combination? An Analysis of the Registry for Geriatric Trauma (ATR-DGU). *J Am Med Dir Assoc*. 2022. 23:576-580	E6

Citation	Exclude Reason
Patel, G, Dadey, et al. Clinical characteristics, mortality and short Term follow up of patients admitted with Covid-19 in a north east london nhs trust: A retrospective analysis. *Thorax*. 2021. 76:A5	E7
Patel, N, Steinberg, et al. Description and Functional Outcomes of a Novel Interdisciplinary Rehabilitation Program for Hospitalized Patients With COVID-19. *American journal of physical medicine & rehabilitation*. 2021. 100:1124-1132	E2
Patel, R, Stebbins, et al. Morbidity and mortality from neurodegenerative patients hospitalized with COVID-19 in the Chicagoland area. *Movement Disorder*. 2021. 36:S77	E7
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Praschan, N, Josephy-Hernandez, et al. Implications of COVID-19 sequelae for health-care personnel. *The Lancet. Respiratory medicine*. 2021. 9:230-231	E7
Qureshi, AI, Baskett, et al. Acute Ischemic Stroke and COVID-19: An Analysis of 27 676 Patients. *Stroke*. 2021. 52(3):905-912	E6
Rienks, R, Holdsworth, et al. Cardiopulmonary assessment prior to returning to high-hazard occupations post symptomatic COVID-19 infection: A position statement of the Aviation and Occupational Cardiology Task Force of the European Association of Preventive Cardiology. *Eur J Prev Cardiol*. 2022.	E7
Robinson-Lane, SG, Sutton, et al. Race, Ethnicity, and 60-Day Outcomes After Hospitalization With COVID-19. *J Am Med Dir Assoc*. 2021. 22:2245-2250	E5
Ruane, C, Thepmankorn, et al. Encephalopathy after SARS-CoV-2 Infection: A Cerner Real-World COVID-19 De-identified Dataset Analysis. *Neurology*. 2021. 96	E7
Rueda-Garrido, JC, Vicente-Herrero, et al. Return to work guidelines for the COVID-19 pandemic. *Occup Med (Lond)*. 2020. 70:300-305	E7
Ruge, M, Gill, et al. In-hospital predictors of 60-day readmission in COVID-19 patients. *Eur Heart J*. 2021. 42:1904	E7
Schiavi, M, Fugazzaro, et al. "Like before, but not exactly": the Qualy-REACT qualitative inquiry into the lived experience of long COVID. *BMC Public Health*. 2022. 22:599	E6
Shaw, WS, Main, et al. Opening the Workplace After COVID-19: What Lessons Can be Learned from Return-to-Work Research? *J Occup Rehabil*. 2020. 30:299-302	E7
Shechter, A, Abdalla, et al. COVID-19 related worries and sleep disturbances in patients previously hospitalized with COVID-19 illness. Sleep. 2021. 44:A93	E7
Shenoy, ES, West, et al. Healthcare worker infection with SARS-CoV-2 and test-based return to work. *Infect Control Hosp Epidemiol*. 2020. 41:1464-1466	E7

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Shinde, V, Master, et al. Post COVID Syndrome in patients with COVID -19: A Cross-Sectional study. *Saf Health Work*. 2022. 13:S121	E7
Slade, DH, Sinha, et al. Return to work during coronavirus disease 2019 (COVID-19): Temperature screening is no panacea. *Infect Control Hosp Epidemiol*. 2021. 42:1166-1167	E7
Stahl, C, MacEachen, et al. Universal Basic Income as a Policy Response to COVID-19 and Precarious Employment: Potential Impacts on Rehabilitation and Return-to-Work. *J Occup Rehabil*. 2021. 31:3-6	E7
Steinberg, C, Patel, et al. The Covid Recovery Unit (CRU): An Interdisciplinary Model for Rehabilitation on Acute Care. *Arch Phys Med Rehabil*. 2021. 102:e17	E7
Struble-Fitzsimmons, Danielle, Feld-Glazman, et al. A Retrospective Quality Improvement Study to Describe Operational Management Strategies in an Inpatient Rehabilitation Facility During the COVID-19 Pandemic. *Arch Phys Med Rehabil*. 2021. 102:2482-2488	E6
Strum, E, Casagrande, et al. Healthcare workers benefit from second dose of COVID-19 mRNA vaccine: Effects of partial and full vaccination on sick leave duration and symptoms. *Public health in practice (Oxford, England)*. 2022. 3:100247	E5
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Thepmankorn, P, Heshmati, et al. Neurological manifestations of SARS-CoV-2 infection in type 2 Diabetes. *Neurology*. 2021. 96	E7
Tilchin, C, Dayton, et al. Socioeconomic Factors Associated With an Intention to Work While Sick From COVID-19. *Journal of occupational and environmental medicine*. 2021. 63:363-368	E5
Tucci, V, Saary, et al. Persistent and Emergent Clinical Sequelae of Mild COVID-19. *Aerospace medicine and human performance*. 2021. 92:962-969	E7
Valbuena Valecillos, AD, Gober, et al. Discharge to post-acute rehabilitation settings following hospitalization for COVID-19: A single-center retrospective study. *PM and R*. 2021. 13:S194-S195	E7
Van Der Meulen, I, Onrust, et al. Physical, social and psychological functioning in COVID-19 ICU survivors and their family members 12 months after ICU discharge. *Intensive Care Medicine Experimental*. 2021. 9:#pages#	E7
Verma, M, Stepanova, et al. Predictors & Mortality Among >=65 Infected with COVID-19. Epidemiology. 2022. 70:S200-S201	E7
Wang, J, Lee, et al. What is the best timing for health care workers infected with COVID-19 to return to work?. *Am J Infect Control*. 2020. 48:1128-1129	E7

Citation	Exclude Reason
Ye, S, Hiura, et al. Hospital Readmissions After Implementation of a Discharge Care Program for Patients with COVID-19 Illness. *J Gen Intern Med*. 2021. 36:722-729	E4
Zhang, JC, Findlater, et al. Return to work for healthcare workers with confirmed COVID-19 infection. *Occup Med (Lond)*. 2020. 70:345-346	E7

Notes. E7 includes no PDF available (*k* = 3).

APPENDIX C: EVIDENCE TABLES

CHARACTERISTICS OF INCLUDED PRIMARY STUDIES

Table 1. KQ1 and KQ2: Employment and Education Studies

Author, Year Country Study Design Funding	Inclusion/Exclusion Criteria (Include Setting Where Study Participants Are Identified)	Baseline Demographic Data	% Hospitalized Enrollment Period Time of Outcome Assessment Post COVID Method of Outcome Assessment Post COVID
Davis, 2021[1] Multi (USA 41%; UK 35%; France 4%, Canada 4%, Spain 3%, Other 12%) Case series Funding: none (foundation support for survey hosting and publication fees)	Inclusion: Invited via email, social media, and online patient support groups; age ≥18 years COVID-19 or suspected COVID-19 with symptoms for >1 week Note: Of 3,762 respondents, 1020 (27%) reported positive test (RT-PCR/antigen or antibody), 1819 (48%) did not report test results, 923 (25%) reported negative test Exclusion: Incomplete survey; no illness onset date or date before 12/2019; ≤28 days of symptoms; duplicate participants; illness onset after 5/2020	N=3,762 respondents (total number who accessed survey unknown; 68% of those who started survey completed it) Age (years): 18-29: 7%; 30-39: 24%; 40-49: 31%; 50-59: 25%; 60-69: 10%; ≥70: 3% Gender (% male): 19% Race/ethnicity: White: 85%; all other race/ethnicity groups <5% Residential environment: Urban: 41%; suburban: 42%, rural: 17% Job classification: Healthcare worker: 18% Socioeconomic status: Middle income bracket and higher (estimated from figure) USA 75%; Canada 70%; UK 55%; other countries 40%	Hospitalized: 8% Visited ER or urgent care: 35% Non-hospitalized and no ER or urgent care visit: 57% Study enrollment period: pre January 2021 (9/6/2020–11/25/2020) Time of outcome assessment: At least 4 months post onset (*ie,* symptom onset between 12/2019 and 5/2020) Method of assessment: online survey
Evans, 2021[2] (PHOSP-COVID study) Case series UK (England, Northern Ireland,	Inclusion: Age ≥18 years; discharged from 1 of 53 NHS hospitals after admission for confirmed or clinician-diagnosed COVID-19; consented to attend 2 follow-up research visits within 1 year of discharge Exclusion: Confirmed diagnosis of pathogen unrelated to this study;	N=1077 COVID-19 Age (years, mean): 58 Gender (% male): 64% Race: White 69%; South Asian 16%; Black 9%; Other 7% Residential environment: NR Job classification: Healthcare worker: 21%	100% hospitalized (inclusion criteria) Study enrollment period: pre January 2021 (Discharged 3/5/2020–11/30/2020)

Author, Year **Country** **Study Design** **Funding**	**Inclusion/Exclusion Criteria (Include Setting Where Study Participants Are Identified)**	**Baseline Demographic Data**	**% Hospitalized** **Enrollment Period** **Time of Outcome Assessment Post COVID** **Method of Outcome Assessment Post COVID**
Scotland, and Wales) Funding: government	attended an accident and emergency department but were not admitted; had another life-limiting illness (life expectancy <6 months) NOTE: PCR-positive for COVID-19: 894 (89.5%)	Socioeconomic status: IMD Level 1 (most deprived) 20%; Level 2 23%; Level 3 19%; Level 4 19%; Level 5 (least deprived) 19%	Time of outcome assessment: 5.9 months (median) (range 2–7 months post-discharge) Method of assessment: research visit, clinical records, and survey questionnaires
Faghy, 2022[3] Case series Multi (UK 81%, Europe 7%, USA 6%) Funding: none	Inclusion: Consented and completed web-based survey between September 2020 and May 2021 Exclusion: None reported	N=381 Age (years, mean): 42 Gender (% male): 17% Race/ethnicity: NR Residential environment: NR Job classification: 84% employed Of those employed: Frontline 26%, keyworker 29%, work from home 26%, office 9%, high contact (eg, retail) 8% Socioeconomic status: NR	2% hospitalized Study enrollment period: pre and post January 2021 (9/2020–5/2021) Time of outcome assessment: 208 days (mean) after acute infection Method of assessment: online survey distributed via social media (with targeted audiences in public and private COVID-19 groups/pages)

Author, Year Country Study Design Funding	Inclusion/Exclusion Criteria (Include Setting Where Study Participants Are Identified)	Baseline Demographic Data	% Hospitalized Enrollment Period Time of Outcome Assessment Post COVID Method of Outcome Assessment Post COVID
Frontera, 2021[4] (J Neurol Sci) USA Case series Funding: government	Inclusion: Age ≥18 years; hospital admission (4 hospitals in New York City area); RT-PCR positive SARS-CoV-2; survival to discharge Exclusion: Negative or missing RT-PCR test; evaluation in outpatient or ER setting only Note: screened for neurological disorders per protocol; patients prospectively excluded due to "no new neurological disorder" were eligible for control group	N=196 COVID-19 with neurological complications (neuro); N=186 propensity matched controls (survivors from N=606 identified) Age (median): 68 neuro; 69 control Gender (% male): 65% (both groups) Race: White: 44% neuro, 41% control Black: 11% neuro, 14% control Asian: 10% neuro, 4% control Residential environment: NR Job classification: NR Socioeconomic status: NR	100% hospitalized (inclusion criteria); ICU: 35% neuro, 29% control Study enrollment period: pre January 2021 (Hospitalized 3/10/2020-5/20/2020) Time of outcome assessment: 6 months from onset of neurological symptoms (neuro) or onset of COVID-19 symptoms (control) Method of assessment: telephone interview with patient/surrogate
Ghosn, 2021[5] France Case series (French COVID cohort) Funding: research consortium and government	Inclusion: Hospitalized patients with confirmed COVID-19 (RT-PCR) Exclusion: None reported Note: Planned physician visits at 3 and 6 months after admission	N=1137 Age (year, median): 61 Gender (% male): 63% Race/ethnicity: Caucasian 75%, African 10%, Arab 8%, Other 6% Residential environment: NR Job classification: NR Socioeconomic status: NR	100% hospitalized Study enrollment period: pre-January 2021 (1/24/2020–4/10/2020) Time of outcome assessment: median 177 days post discharge (6 month visit) Method of assessment: in-person visit (method of assessing "work" not reported)

Author, Year **Country** **Study Design** **Funding**	**Inclusion/Exclusion Criteria (Include Setting Where Study Participants Are Identified)**	**Baseline Demographic Data**	**% Hospitalized** **Enrollment Period** **Time of Outcome Assessment Post COVID** **Method of Outcome Assessment Post COVID**
Hawlader, 2021[6] Bangladesh Case series Funding: none	Inclusion: Diagnosed and confirmed (RT-PCR) COVID-19 from June to November 2020 and subsequently recovered Exclusion: Currently being treated for COVID-19, age <18 years, pregnant women, critically ill Note: Targeted to collect data from 400 patients in each of 8 divisions of Bangladesh; expected 60% non-response based on pilot work so >3200 were contacted; patients were randomly selected from lists of COVID-19 positive patients	N=3244 Age: <26 years 13%; 26-30 years 20%; 31–35 years 17%; 36–40 years 15%; 41–45 years 10%; 46+ years 25% Gender (% male): 71% Race/ethnicity: NR Residential environment: rural 13%; urban 73%; semi-urban 14% Job classification: Healthcare worker: 10% Socioeconomic status: NR	26% hospitalized; remainder home isolation Study enrollment period: pre-January 2021 (6/2020–11/2020) (Interview November 2020–January 2021) Time of outcome assessment: 171 days (median) Method of assessment: questionnaire via interview (telephone)
Heightman, 2021[7] UK Case series Funding: university for research fellows	Inclusion: All patients assessed at University College London Hospitals' post-COVID-19 service between April 20, 2020 and April 25, 2021; SARS-CoV-2 infection defined by laboratory confirmation or strong clinical suspicion; referred from hospitals (post-admission), primary care (with suspected long COVID [≥6 weeks post-infection]), and EDs (persistent symptoms 4–6 weeks after attendance) Exclusion: Did not attend/cancelled appointments	N=1325 (overall); (n=547 hospitalized, 566 non-hospitalized) Age (years, median): 50 (overall); 58 (hospitalized); 45 (non-hospitalized) Gender (% male): 44% (overall); 57% (hospitalized); 32% (non-hospitalized) Race/ethnicity: Ethnic minority: 42% (overall), 53% (hospitalized); 31% (non-hospitalized) White: 49% (overall); 39% (hospitalized); 59% (non-hospitalized) Unknown/not stated: 9% (overall); 8% (hospitalized) 10% (non-hospitalized) Residential environment: NR Job classification: NR	41% hospitalized 547/1325); 43% non-hospitalized (remaining seen in ED) Study enrollment period: pre and post January 2021 (4/20/20–4/25/21) Time of outcome assessment (median, from symptom onset): 108 days (overall); 69 days (hospitalized); 194 days (non-hospitalized) Method of assessment: in-person at post-COVID-19 assessment clinic

Author, Year **Country** **Study Design** **Funding**	**Inclusion/Exclusion Criteria (Include Setting Where Study Participants Are Identified)**	**Baseline Demographic Data**	**% Hospitalized** **Enrollment Period** **Time of Outcome Assessment Post COVID** **Method of Outcome Assessment Post COVID**
		Socioeconomic status: IMD* decile (median); 4 (overall); 4 (hospitalized); 5 (non-hospitalized) *Derived from postal code; 1-10 scale where higher value=less likely to live in an area of social deprivation	
Hodgson, 2021[8] (COVID recovery) Australia Case series Funding: government	Inclusion: Age ≥18; positive laboratory PCR for SARS-CoV-2 admitted to an Australian ICU for >24 hours Exclusion: declined to participate; unable to communicate via a translation service or in English; living overseas; or still in hospital at 6 months Note: Registry captured >95% of all ICU COVID-19 admissions in Australia; patients from 30 sites	N=115 responders Age (years, median): 58 Gender (% male): 57% Race/ethnicity: NR Residential environment: NR Job classification: Healthcare worker: 13% Socioeconomic status: NR	100% hospitalized and admitted to ICU (inclusion criteria) Study enrollment period: pre January 2021 (3/5/2020–10/4/2020) Time of outcome assessment: 6 months after ICU admission Method of assessment: telephone interview; trained outcome assessors (overall response rate 54% [115/212] eligible patients after exclusion criteria)
Huang, 2022[9] China Case series Funding: government, foundation, industry	Inclusion: Survived hospitalization (1 site) with laboratory confirmed COVID-19; discharged between 1/7/2020 and 5/9/2020 Exclusion: Died prior to follow-up visits; living in nursing or welfare home; unable to complete follow-up visit due to psychotic disorder or dementia; unable to move freely due	N=1192 Age (years, median): 57 Gender (% male): 54% Race/ethnicity: NR Residential environment: NR Job classification: NR Socioeconomic status: NR	100% hospitalized (4% ICU) Study enrollment period: pre January 2021 (discharged 1/7/2020–5/9/2020) Time of outcome assessment: 6 months (median 185 days), 12 months (median 349 days), and 2 years (median 685 days) after symptoms onset

Author, Year Country Study Design Funding	Inclusion/Exclusion Criteria (Include Setting Where Study Participants Are Identified)	Baseline Demographic Data	% Hospitalized Enrollment Period Time of Outcome Assessment Post COVID Method of Outcome Assessment Post COVID
	to concomitant osteoarthropathy or immobility Note: Study included a control group (age ≥20 years; community dwelling without SARS-CoV-2 infection) but did not obtain employment outcomes data for the control group		Method of assessment: in-person interview at outpatient clinic (telephone survey available at 2 year visit)
Jacobsen, 2021[10] Denmark Retrospective cohort (nationwide Danish registries) Funding: none	Inclusion: All COVID-19 PCR-positive patients between 1/1/2020 and 5/30/2020 (included at time of first positive COVID-19 PCR test) Exclusion: Age <19 or >64 years; not available to the workforce (*eg*, early retirement); death or emigration within 30 days of inclusion time Note: Control group of influenza patients admitted between 2/1/2019 and 5/30/2020	N=7466 (6590 non-hospitalized; 876 hospitalized) Age (years): 42 (non-hosp), 46 (hosp) Gender (% male): 37% (non-hosp); 56% (hosp) Race/ethnicity: NR Residential environment: NR Job classification: NR Socioeconomic status: NR	12% hospitalized (3% of those to ICU) Study enrollment period: pre-January 2021 (1/1/2020 and 5/30/2020) Time of outcome assessment: 6 months Method of assessment: registry data
Jacobson, 2021[11] USA Case series Funding: university, government	Inclusion: PCR-confirmed COVID-19 infection; hospitalized and non-hospitalized patients; most were enrolled in 2 long-term follow-up studies following treatment trials during acute phase Exclusion: None reported	N=118 (22 hospitalized, 96 non-hospitalized) Age (years, mean): hospitalized 51; Non-hospitalized 42 (P=.02) Gender (% male): hospitalized 66%; non-hospitalized 51% (P=.29) Race/ethnicity: (P=.04 overall) Latinx: hospitalized 55%; non-hospitalized 50%; White: hospitalized 14%; non-hospitalized 42%; Asian: hospitalized 32%; non-hospitalized 5%; other: <1%	19% Hospitalized Study enrollment period: pre-January 2021 (Follow-up completed in November 2020) Time of outcome assessment: 119 days (median) post-diagnosis

Author, Year Country Study Design Funding	Inclusion/Exclusion Criteria (Include Setting Where Study Participants Are Identified)	Baseline Demographic Data	% Hospitalized Enrollment Period Time of Outcome Assessment Post COVID Method of Outcome Assessment Post COVID
		Residential environment: NR Job classification: NR Socioeconomic status: NR	Method of assessment: in-person visit including medical history, physical exam, Work Productivity and Impairment (WPAI) questionnaire
Latronico, 2022[12] Italy Case series Funding: foundation (non-profit)	Inclusion: Age ≥18; critically ill; confirmed SARS-CoV-2 infection; discharged alive from University Hospital; February 23, 2020 to June 30, 2020 Exclusion: None reported Note: identified all ICU patients; 137 discharged alive; 114 (83%) were evaluated at least once	N=114 (assessed at follow-up) Age (years, median): 60 Gender (% male): 77 Race/ethnicity: NR Residential environment: NR Job classification: NR Socioeconomic status: NR	100% hospitalized and admitted to ICU Study enrollment period: pre January 2021 (Discharged 2/23/20–6/30/20) Time of outcome assessment: 3, 6, and 12 months post-discharge (n=43 evaluated at all time points) Method of assessment: in-person at follow-up clinic
Lemhofer 2021[13] Germany Case series Funding: none	Inclusion: A selection of positively tested SARS-CoV-2 infected persons (identified by 2 public health departments) and patients previously in direct care of first author (living outside the 2 public health districts) Exclusion: <18 years of age; residents of dementia homes	N=365 Age (years, mean): 50 Gender (% male): 41% Race/ethnicity: NR Residential environment: NR Job classification: NR Socioeconomic status: NR	Non-hospitalized Study enrollment period: pre January 2021 (Patients identified by 7/18/2020) Time of outcome assessment: >3 months post-infection (for 94% of participants) Method of assessment: survey (mailed) developed for the study; no reminder letter sent

Author, Year **Country** **Study Design** **Funding**	**Inclusion/Exclusion Criteria (Include Setting Where Study Participants Are Identified)**	**Baseline Demographic Data**	**% Hospitalized** **Enrollment Period** **Time of Outcome Assessment Post COVID** **Method of Outcome Assessment Post COVID**
			Response rate: 422/1027 (41%); additional 57 surveys excluded due to missing data, age, undeliverable, etc
Lunt, 2022[14] UK Case series Funding: not reported	Inclusion: UK workers who had tested positive or suspected they had had COVID-19 Exclusion: None reported Note: recruited via weekly social media posts including COVID-19 support groups; survey also disseminated via career-focused networks	N=145 Age (years, mean): 45 Gender (% male): 8% Race/ethnicity: NR Residential environment: NR Job classification: Key/essential worker: 70% *Private/public sector* Private: 60%; public 24%; other/non-profit: 12% *Industry sector* Human health/social work: 50% education: 15% professional/scientific/technical: 10% Socioeconomic status: NR	12% hospitalized Study enrollment period: post January 2021 (Mid-December 2020–mid-February 2/2021) Time of outcome assessment: >6 months post-COVID: 60%; 1–6 months post-COVID: 27% (remaining 14% <1 months) Method of assessment: online survey
Millet, 2022[15] USA Case series Funding: none	Inclusion: Age ≥18; confirmed positive COVID-19 test (PCR); diagnosed in March and April 2020 within a health network Exclusion: Did not speak English; cognitive impairment, pregnant	N=170 Age (years, mean): 52 Gender (% male): 49 Race/ethnicity: Hispanic 47%, African American 27%, Caucasian 18%, Asian, 8% Residential environment: NR Job classification: NR Socioeconomic status: NR:	52% hospitalized Study enrollment period: pre-January 2021 (Positive test March-April 2020) Time of outcome assessment: 1 year Method of assessment: telephone survey

Author, Year **Country** **Study Design** **Funding**	**Inclusion/Exclusion Criteria (Include Setting Where Study Participants Are Identified)**	**Baseline Demographic Data**	**% Hospitalized** **Enrollment Period** **Time of Outcome Assessment Post COVID** **Method of Outcome Assessment Post COVID**
Moy, 2022[16] (pre-print) Malaysia Case series Funding: government	Inclusion: COVID-19 survivors (no. further information provided) Exclusion: None reported NOTE: Questionnaire distributed via social media, COVID-19 support group web pages, news media	N=732 Age (years. mean): 40 Gender (% male): 41 Race/ethnicity: NR Residential environment: NR Job classification: NR Socioeconomic status: NR	26% hospitalized Study enrollment period: post January 2021 (7/2021–9/2021) Time of outcome assessment (mean): 27 weeks post-diagnosis Method of assessment: online questionnaire
Nagata, 2022[17] (CORoNaWork - Collaborative Online Research on the Novel-coronavirus and Work) Japan Prospective cohort Funding: foundation, university	Inclusion: Age 20-65 years, currently working (at time of baseline survey December 22-25, 2020), recruited from group of randomly selected patients who were registered with an Internet survey company; follow-up survey (February 18-19, 2021) was distributed to those with valid responses to the baseline survey Exclusion: Healthcare professionals and caregivers were not invited; excluded invalid responses (response time <6 min, body weight <30 kg, height <140 cm, inconsistent answers to similar questions, incorrect answers to questions intended to identify fraudulent responses)	N=154 with self-report of COVID-19; N=19,646 with self-report of no COVID-19 Age (years, mean): 44 (COVID), 48 (no COVID) Gender (% male): 55% (COVID), 56% (no COVID) Race/ethnicity: NR Residential environment: NR Job classification: *Top 3 occupations (COVID group):* General 57%, manager 12%, public employee, faculty member, non-profit organization 12% *Top 3 occupations (no COVID group):* General 46%, temporary or contract 11%, manager 10% *Top 3 industries:* Other: 32% COVID, 46% no COVID Manufacturing: 27% COVID, 17% no COVID	% hospitalized NR Study enrollment period: pre-January 2021 (enrolled individuals diagnosed prior to December 2020) Time of outcome assessment: at least 2 months post-diagnosis and estimated most respondents were 2 to 4 months post-diagnosis Method of assessment: online survey

Author, Year Country Study Design Funding	Inclusion/Exclusion Criteria (Include Setting Where Study Participants Are Identified)	Baseline Demographic Data	% Hospitalized Enrollment Period Time of Outcome Assessment Post COVID Method of Outcome Assessment Post COVID
		Medical and welfare: 12% COVID, 15% no COVID Socioeconomic status: NR	
Nanwani-Nanwani, 2022[18] Spain Case series Funding: none	Inclusion: Age ≥18; admitted to ICU due to severe SARS-CoV-2 infection requiring invasive mechanical ventilation; discharged alive Exclusion: Severe psychiatric conditions; cognitive deficits; functional dependency; resident of a different geographical area and unwilling to travel to assessment sites Note: Individuals were identified from 3 hospitals with ICU follow-up consultation facilities	N=186 Age (years, mean): 59 Gender (% male): 68% Race/ethnicity: Latin American 30%; Others 70% Residential environment: NR Job classification: NR Socioeconomic status: NR	100% hospitalized and admitted to ICU with mechanical ventilation Study enrollment period: pre and post January 2021 (2/27/20 to 5/10/21) Time of outcome assessment: 3 months Method of assessment: in-person clinic

Author, Year Country Study Design Funding	Inclusion/Exclusion Criteria (Include Setting Where Study Participants Are Identified)	Baseline Demographic Data	% Hospitalized Enrollment Period Time of Outcome Assessment Post COVID Method of Outcome Assessment Post COVID
Neville, 2022[19] USA Case series Funding: none	Inclusion: Age ≥18 years; admitted to the ICU for laboratory-confirmed COVID-19 at 2 hospital academic health systems in Southern California Exclusion: Transferred to another acute care hospital; incidentally tested positive but were admitted to the ICU for reasons unrelated to COVID diagnosis	N=132 patients (completed survey) Age (years, median): 59 Gender (% male): 55% Race: Non-Hispanic White 18%; Hispanic 59%; Black 7%; Asian 8%; Other 8% Residential environment: NR Job classification: NR Socioeconomic status: Social Vulnerability Index* (median, IQR)) 0.7 (0.3-0.8) *Higher score=more social vulnerability in the area meaning area may need more resources to thrive)	100% hospitalized and admitted to ICU (inclusion criteria) Study enrollment period: pre January 2021 3/21/2020-12/31/2020 Time of outcome assessment: 182 days (median) post-discharge Method of assessment: Mailed survey reminder card and calls for completion with option to complete survey by phone Response rate: 64%
Norrefalk, 2021[20] Sweden Case series Funding: government	Inclusion: COVID-19 infection supported by anamnesis and/or positive tests (RT-PCR) and/or positive immunoglobulin response; age 18–70 years; significantly reduced level (≥50%) of functioning and activity/participation in daily life compared with before infection; persistent symptom duration ≥12 weeks after acute infection; comorbidities in satisfactory management; able to use the internet for questionnaires and participation in a rehabilitation program Exclusion: Unclear onset of symptoms; abuse of alcohol or	N=100 Age (years, mean): 45 Gender (% male): 18% Race/ethnicity: NR Residential environment: NR Job classification: NR Socioeconomic status: NR	"Few hospitalized"; none admitted to ICU Study enrollment period: unclear; at least 54 infected during first pandemic wave Time of outcome assessment: 47 weeks (mean duration of symptoms) Method of assessment: online survey; Functional Compass COVID-19

Author, Year Country Study Design Funding	Inclusion/Exclusion Criteria (Include Setting Where Study Participants Are Identified)	Baseline Demographic Data	% Hospitalized Enrollment Period Time of Outcome Assessment Post COVID Method of Outcome Assessment Post COVID
	psychotropic substances; diagnosis of a psychological or somatic condition requiring or possibly requiring treatment; ongoing treatment that may interfere with rehabilitation Note: Recruited via Facebook sites and stakeholders' organizations for post-COVID syndrome in Sweden		
Peters, 2022[21] Germany Case series Funding: none	Inclusion: All employees in health and social services insured by an accident insurance company for non-governmental health and welfare institutions; suspected job-related COVID-19 infection confirmed by RT-PCR and/or symptoms; COVID-19 reported before December 31, 20202 Exclusion: Absence of SARS-CoV-2 infection; limited literacy skills; lack of German language skills	N=2053 Demographics for N=1930 (1406 with symptoms >3 months [PCS], 524 with no symptoms); additional 123 not included in Work Ability Index assessment Age (years. median): 52 (PCS), 47 (no symptoms) Gender (% male): 15% (PCS), 27% (no symptoms) Race/ethnicity: NR Residential environment: NR Job classification (n=2053): Nursing staff 60%; Medical staff 10%, Therapeutic staff 6%, Housekeeping 6%, Social Service 4%, Administrative staff 4%, Other 10% (Overall: 49% full time, 46% part time, 5% Other) Socioeconomic status: NR	7% hospitalized (9% PCS group, 3% no symptoms group) Study enrollment period: pre January 2021 Time of outcome assessment: at least 3 months Method of assessment: questionnaire (by mail); Work Ability Index (subjective rating of work capacity; 0=very poor, 10=very good)

Author, Year Country Study Design Funding	Inclusion/Exclusion Criteria (Include Setting Where Study Participants Are Identified)	Baseline Demographic Data	% Hospitalized Enrollment Period Time of Outcome Assessment Post COVID Method of Outcome Assessment Post COVID
Schandl, 2021[22] Sweden Case series Funding: departmental funding only	Inclusion: Survivors of severe COVID-19 infection (positive PCR and treated in ICU for respiratory failure with invasive ventilation, high-flow treatment with oxygen, or non-invasive ventilation); 3/25/2020 to 8/13/2020 Exclusion: Admitted to ICU for reasons other than respiratory failure	N=113 Age (years, mean): 58 Gender (% male): 76% Race/ethnicity: NR Residential environment: NR Job classification: NR Socioeconomic status: NR	100% hospitalized and admitted to ICU (inclusion criteria) Study enrollment period: pre January 2021 (3/25/2020 to 8/13/2020) Time of outcome assessment: 5 months (median) after ICU discharge Method of assessment: in-person visit; self-report of current and former work ability for persons <65 years and working full time before onset of COVID-19
Sørensen, 2022[23] Denmark Prospective cohort Funding: none specifically for this work (government funding for advisory tasks)	Inclusion: Invited to participate based on RT-PCR test results in national COVID-19 surveillance system; tested positive 9/1/2020-4/2/2021; had an e-Boks account; controls randomly selected from negative test results (2:3 ratio positive to negative) Exclusion: COVID test >12 months prior to survey date; controls who reported having been found seropositive	N=152,880 (61,002 COVID positive; N=91,878 COVID negative Age (years, median): 49 (positive), 53 (negative) Gender (% male): 41% (positive); 37% (negative) Race/ethnicity: NR Residential environment: NR Job classification: NR Socioeconomic status: NR	4% hospitalized Study enrollment period: pre and post January 2021 (positive test 9/1/2020-4/2/2021; data collected 8/1/2021-12/11/2021) Time of outcome assessment: initial assessments at 6, 9, or 12 months after test date (note: 15% completed at 6 months, 70% at 9 months, and 16% at 12 months) Method of assessment: online questionnaire distributed via national e-Boks system

Author, Year Country Study Design Funding	**Inclusion/Exclusion Criteria (Include Setting Where Study Participants Are Identified)**	**Baseline Demographic Data**	**% Hospitalized Enrollment Period Time of Outcome Assessment Post COVID Method of Outcome Assessment Post COVID**
Tabacof, 2022[24] USA Case series Funding: foundation	Inclusion: Attending PACS clinic March 2020-March 2021 and completing survey; confirmed or probable previous COVID-19 infection and diagnosis of PACS (symptoms >12 weeks since initial symptom onset) Exclusion: None Note: convenience sample	N=156 (87 confirmed; 69 presumed) Age (years, median): 44 Gender (% male): 31% Race/ethnicity: White 76%, Asian 5%, Black or African American 4%, Other 11% (Note: 7% Hispanic or Latinx) Residential environment: NR Job classification: NR Socioeconomic status: NR	11% hospitalized Study enrollment period: pre and post January 2021 (March 2020-March 2021) Time of outcome assessment: 351 days (median) Method of assessment: in clinic, author-developed questionnaire for employment
Trades Union Congress (TUC), 2021[25] UK Case series (online report) Funding: NR	Inclusion: Responded to survey promoted on social media and through affiliated unions and long COVID support groups Exclusion: None reported	N=3,557 (3,296 self-reported having long COVID) Age (years): NR Gender (% male): NR Race/ethnicity: NR Residential environment: NR Job classification: Key workers 79% including 28% health and social work 34% education Socioeconomic status: NR	Hospitalization NR Study enrollment period: post January 2021 (4/3/2021-5/27/2021) Time of outcome assessment: 35% reported having symptoms of Long COVID between 3 and 6 months; 29% reported symptoms for ≥12 months Method of assessment: online Survey
Vaes, 2021[26] The Netherlands Case series	Inclusion: Members (age ≥18 years) of 2 Long COVID Facebook groups or an online COVID-19 panel who completed a prior survey approximately 3 months after onset of COVID-related symptoms and consented to be approached for future research approximately 3 months	N=239 with confirmed diagnosis N=766 with suspected COVID-19 Age (years, median): 50 (confirmed), 47 (suspected) Gender (% male): 17% (confirmed), 15% (suspected) Race/ethnicity: NR	26% of confirmed cases hospitalized Study enrollment period: pre January 2021 (Diagnosis was prior to mid-May 2020)

Author, Year Country Study Design Funding	Inclusion/Exclusion Criteria (Include Setting Where Study Participants Are Identified)	Baseline Demographic Data	% Hospitalized Enrollment Period Time of Outcome Assessment Post COVID Method of Outcome Assessment Post COVID
Funding: foundation support for authors	later; confirmed diagnosis (RT-PCR and/or CT scan) or suspected COVID Exclusion: Initially excluded if symptoms <21 days, symptoms before 1/1/2020, admitted to ICU, no gender available, or incomplete questionnaire; excluded for 2nd survey analysis if no consent or no response	Residential environment: NR Job classification: NR Socioeconomic status: NR	Time of outcome assessment (mean): 10 and 22 weeks (confirmed cases); 12 and 24 weeks (suspected cases) from diagnosis (*ie,* approximately 3 and 6 months) Method of assessment: online survey
Vanichkachorn, 2021[27] USA Case series Funding: none	Inclusion: Participating in COVID Activity Rehabilitation Program; age ≥18 years; laboratory confirmed SARS-CoV-2 infection Exclusion: Experienced complete symptomatic recovery from acute SARS-CoV-2 infection <4 weeks from start of symptoms or positive PCR test; no PCR or antibody test result in medical record	N=100 (first 100 participating in program) Age (years, mean): 45 Gender (% male): 32% Race/ethnicity: NR Residential environment: NR Job classification: NR Socioeconomic status: NR	25% hospitalized Study enrollment period: pre January 2021 (6/1/2020-12/31/2020) Time of outcome assessment: 93 days (mean) Method of assessment: in-person interview

Author, Year Country Study Design Funding	Inclusion/Exclusion Criteria (Include Setting Where Study Participants Are Identified)	Baseline Demographic Data	% Hospitalized Enrollment Period Time of Outcome Assessment Post COVID Method of Outcome Assessment Post COVID
Wahlgren, 2021[28] (Linköping COVID-19 Study) Sweden Case series Funding: government	Inclusion: Positive PCR for SARS-CoV-2 admitted to hospital for COVID-19 3/1/2020-5/31/2020; reported concerning residual symptoms and limitations in activity and participation at the 4 month screening Exclusion: Fatalities, coincidental cases, and cases with premorbid conditions precluding assessment of COVID-19-attributable sequels Note: Screened via telephone interview to identify persisting rehabilitation needs; 158/185 (85%) attended the clinical assessment	N=158 Age (years, mean): 57 Gender (% male): 61% Race/ethnicity: Swedish 65%; Other Europe 12%; Middle East/North Africa 19%; Other/Unknown 4% Residential environment: NR Job classification: NR Socioeconomic status: NR	100% hospitalized (65% moderate; 35% severe) Study enrollment period: pre January 2021 (3/1/2020-5/31/2020) Time of outcome assessment: 142 days (median) post-discharge Method of assessment: in-person and data from medical records
Westerlind, 2021[29] Sweden Case series Funding: government, university	Inclusion: Receiving sickness benefits due to COVID-19; registered in 1) Swedish Social Insurance Agency, 2) Swedish National Board of Health and Welfare and 3) Statistics Sweden Exclusion: None reported	N=11,955; hospitalized n=2960 (25%); not hospitalized n=8995 (75%) Age (years, mean): hospitalized 52; not hospitalized 47 Gender (% male): hospitalized 64%; not hospitalized 33% Race/ethnicity: NR Residential environment: NR Job classification: NR Socioeconomic status: NR	25% hospitalized Study enrollment period: pre January 2021 (3/1/2020-8/31/2020) Time of outcome assessment: 1-4 months Method of assessment: data from national registries

Notes. [a] WHO Class 3-4=no continuous supplemental O_2 needed; Class 5=continuous supplemental O_2 only; Class 6=continuous positive airway pressure ventilation, bi-level positive airway pressure, or high-flow nasal oxygen; Class 7-9=invasive mechanical ventilation or extracorporeal membrane oxygenation.
Abbreviations. CKD=chronic kidney disease; COPD=chronic obstructive pulmonary disease; ED/ER=Emergency Department/Room; HTN=hypertension; ICU=intensive care unit; IMD=Index of Multiple Deprivation (geographical measure of social deprivation using postcode); NR=not reported; PACS=post-acute

COVID-19 syndrome; PCS=post-COVID-19 syndrome; PHOSP-COVID=post-hospitalization COVID-19 study; RT-PCR=reverse transcriptase-polymerase chain reaction; UK=United Kingdom; USA=United States; NHS=National Health Service; WHO=World Health Organization.

Table 2. KQ3: Care Services Studies

Author, Year **Country** **Study Design** **Funding**	**Inclusion/Exclusion Criteria (Include Setting Where Study Participants Are Identified)**	**Baseline Demographic Data**	**COVID-19 Severity** **Enrollment Period** **Time of Outcome Assessment Post COVID** **Method of Outcome Assessment Post COVID**
Cohort – Special Population			
Hägg, 2020[30] Sweden Prospective cohort Funding: foundation	Inclusion: Patients admitted to geriatric care. with 232 (92.3%) confirmed (ICD-10 code U07.1) and 18 (7.2%) suspected COVID-19 (ICD-10 code U07.2). Exclusion: NR Setting: hospital Note: COVID-19 diagnosis was clinically confirmed by positive reverse transcription PCR test or, if negative, by other methods.	With COVID-19: N=250 (n=191 survivors) Age (years), mean ± SD: 81.0 ± 8.56 Gender (% male): 48% Race/ethnicity: NR Residential environment: NR Job classification: NR Place of residence: NR Comorbidities CVD: 8% Without COVID-19: N=717 (n=688 survivors) Age (years), mean ± SD: 82.8 ± 8.77 Gender (% male): 41% Race/ethnicity: NR Residential environment: NR Job classification: NR Place of residence: NR comorbidities CVD: 7%	COVID-19 severity: 100% hospitalized Study enrollment period: 3/1/2020-6/11/2020 Time of outcome assessment: Followed up for ≤28 days Method of assessment: administrative database

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Cohort – General Population			
Neville, 2022[19] USA (California) Prospective cohort Funding: foundation	Inclusion: ≥18 years old, admitted to the ICU for laboratory-confirmed COVID-19 Exclusion: Patients transferred to another acute care hospital and those who incidentally tested positive but were admitted to the ICU for unrelated reasons Setting: Hospital ICU Note: n=275 patients were admitted to the ICU, n=205 were discharged (n=70 died inpatient), n=132 completed at least 1 survey	N=132 Age (years), median (IQR): 59.1 (47.5-68.8) Gender (% male): 54.5% Race/ethnicity: 18.2% Non-Hispanic White; 59.1% Hispanic; 22.7% Other Residential environment: NR Job classification: 52.3% had paying job before illness Point of origin: 82.6% ER; 17.4% outside hospital transfer Comorbidities: N/A	COVID-19 severity: 100% admitted to ICU Study enrollment period: 3/21/2020-12/31/2020 Time of outcome assessment: 6 months post-hospital discharge Method of assessment: mailed survey Note: For the analyses reported, used the survey completed closest to 6 months after discharge
Vaes, 2021[26] Netherlands Case series Funding: foundation	Inclusion: Members (age ≥18 years) of 2 Long COVID Facebook groups or an online COVID-19 panel who completed a prior survey approximately 3 months after onset of COVID-related symptoms and consented to be approached for future research approximately 3 months later; confirmed diagnosis (RT-PCR and/or CT scan) or suspected COVID Exclusion: Initially excluded if symptoms <21 days, symptoms before 1/1/2020, admitted to ICU, no gender available, or incomplete	With confirmed COVID-19: N=239 Age (years), median (IQR): 50.0 (39.0-56.0) Gender (% male): 17.2% Race/ethnicity: NR Residential environment: NR Job classification: 87.9% reported having a job prior to infection Place of residence: NR Comorbidities: N/A With suspected COVID-19: N=766	COVID-19 severity: 26% hospitalized (confirmed cases) Study enrollment period: unclear Time of outcome assessment: approximately 3 and 6 months post-onset of COVID-19 symptoms Method of assessment: online survey

Author, Year Country Study Design Funding	Inclusion/Exclusion Criteria (Include Setting Where Study Participants Are Identified)	Baseline Demographic Data	COVID-19 Severity Enrollment Period Time of Outcome Assessment Post COVID Method of Outcome Assessment Post COVID
	questionnaire; excluded for 2nd survey analysis if no consent or no response Setting: Community	Age (years), median (IQR): 48.0 (40.0-54.0) Gender (% male): Suspected COVID-19: 14.9% Race/ethnicity: NR Residential environment: NR Job classification: NR Place of residence: NR Comorbidities: N/A	
Case Series – Special Population			
Changal, 2021[31] USA Case series Funding: none	Inclusion: Adult (> 18 years) patients who were hospitalized with the diagnosis of COVID-19, had serum troponin levels measured Exclusion: Patients with type 1, 3, 4, and 5 myocardial infarctions. Setting: hospital Note: Real-time RT-PCR (cobas SARS-CoV-2 Test) was used to establish COVID-19 diagnosis.	N=268 (n=227 discharged) Age (years), mean ± SD: 62 ± 17 Gender (% male): 52% Race/ethnicity: 64% Caucasian; 30% African American; 6% Other Residential environment: NR Job classification: NR Place of residence: NR Comorbidities: N/A	COVID-19 severity: 100% hospitalized Study enrollment period: 1/1/2020-5/1/2020 Time of outcome assessment: hospital discharge Method of assessment: administrative database
Claflin, 2021[32] US (Michigan) Case series Funding: None	Inclusion: Laboratory confirmed COVID-19 test during hospitalization Exclusion: <18 years of age, never diagnosed with COVID-19 during hospital admission	N=296 total (n=247 survivors) COVID-19 only: n=184 Age (years), mean ± SD: 60.21 ± 14.56 Gender (% male): 56.3% Race/ethnicity: 41.9% White, 42.8% African American, 10.2% Other, 5.1% Unknown	COVID-19 severity: 100% hospitalized Study enrollment period: 3/4/2020-5/1/2020 Time of outcome assessment: immediately post-hospital discharge

Author, Year Country Study Design Funding	Inclusion/Exclusion Criteria (Include Setting Where Study Participants Are Identified)	Baseline Demographic Data	COVID-19 Severity Enrollment Period Time of Outcome Assessment Post COVID Method of Outcome Assessment Post COVID
	Setting: single tertiary care hospital in Detroit metro area Note: Neuro-COVID was classified based on documented neurologic sequelae during COVID-19 hospitalization including delirium, encephalopathy, and altered mental status	Residential environment: NR Job classification: NR Point of origin: Transfer from outside hospital: 14.9% Comorbidities: N/A Neuro-COVID: n=63 Age (years), mean ± SD: 66.11 ± 15.99 Gender (% male): 61.7% Race/ethnicity: 46.9% White, 45.7% African American, 1.2% Other, 6.2% Unknown Residential environment: NR Job classification: NR Point of origin: Transfer from outside hospital: 30.9% Comorbidities: N/A	Method of assessment: administrative data
Frontera, 2021[33] USA Prospective cohort study Funding: none	Inclusion: Age ≥18 years, hospital admission, and RT-PCR–positive SARSCoV-2 infection Exclusion: SARS-CoV-2RT-PCR negative test or no test performed, or evaluation in an outpatient or emergency department setting only (without hospital admission), readmissions (only initial hospital admission included) Setting: hospital database	With neurologic disorder: N=606 (n=382 discharged) Age (years), median (IQR): 71 (60-80) Gender (% male): 66% Race/ethnicity: 63% White, 16% Black, 11% Asian, 10% Other Residential environment: NR Job classification: NR Place of residence: NR Comorbidities: N/A Without neurologic disorder: N=3,885 (n=3107 discharged)	COVID-19 severity: 100% hospitalized (all) 40% admitted to ICU (with neurologic disorder) 19% admitted to ICU (without neurologic disorder) Study enrollment period: 3/10/2020-5/20/2020 Time of outcome assessment: hospital discharge

Author, Year Country Study Design Funding	Inclusion/Exclusion Criteria (Include Setting Where Study Participants Are Identified)	Baseline Demographic Data	COVID-19 Severity Enrollment Period Time of Outcome Assessment Post COVID Method of Outcome Assessment Post COVID
	Note: Patients with COVID-19 with neurologic diagnoses were compared to SARS-CoV-2 RT-PCR–positive patients (aged ≥18 years) without neurologic diagnoses as evaluated by a neurologist	Age (years), median (IQR): 63 (50-75) Gender (% male): 57% Race/ethnicity: 45% White, 16% Black, 6% Asian, 33% Other Residential environment: NR Job classification: NR Place of residence: NR Comorbidities Dementia: 4%	Method of assessment: administrative database
Case Series – General Population			
Alser, 2021[34] USA (Massachusetts) Case series Funding: none	Inclusion: patients admitted to ICU at Massachusetts General Hospital with COVID-19 Exclusion: NR Setting: Single academic hospital (Massachusetts General Hospital) Note: RT-PCR confirmed COVID-19	N=235 (n=177 survivors) Age (years), mean ± SD: 55.2 ± 14.7 Gender (% male): 61.6% Race/ethnicity: 51.6% Hispanic, 48.4% Non-Hispanic Residential environment: NR Job classification: NR Point of origin: 68.4% home, 11.9% hospital transfer (ED or ward), 4.5% long-term rehabilitation facility, 6.8% urgent care, 8.5% other Comorbidities: COPD: 4% OSA: 5.6% CAD: 6.8% Arrhythmia: 4.5% Stroke: 2.3% CHF: 3.4%	COVID-19 severity: 100% hospitalized in the ICU Study enrollment period: 3/14/2020-4/28/2020 Time of outcome assessment: immediately post hospital discharge and follow-up median 92.0 days (range 81-117 days) Method of assessment: administrative data

Author, Year **Country** **Study Design** **Funding**	**Inclusion/Exclusion Criteria (Include Setting Where Study Participants Are Identified)**	**Baseline Demographic Data**	**COVID-19 Severity** **Enrollment Period** **Time of Outcome Assessment Post COVID** **Method of Outcome Assessment Post COVID**
		Valvular heart disease: 2.3% Chronic liver disease: 2.8% Metastatic cancer: 1.1% HIV: 0.6% Rheumatologic disease: 5.6%	
Changal, 2021[35] USA (Ohio) Retrospective case series Funding: none	Inclusion: All patients who were hospitalized with the diagnosis of COVID-19 infection Exclusion: patients <18 years old and those with incomplete data Setting: 2 hospitals in Toledo, Ohio	N=280 total (n=238 survivors) Age (years), mean ± SD: 62 ± 17 Gender (% male): 52% Race/ethnicity: 65% Caucasian; 29% African American; 6% Other Residential environment: NR Job classification: NR Place of residence: NR Comorbidities: N/A	COVID-19 severity: 100% hospitalized 33% admitted to ICU Study enrollment period: 1/1/2020-5/1/2020 Time of outcome assessment: hospital discharge Method of assessment: administrative database
De Havenon, 2020[36] USA Retrospective, matched cohort Funding: foundation, support for authors	Inclusion: data from 568 participating US hospitals, hospitalized patients with laboratory confirmed testing of COVID-19 (ICD code U07.1) AND diagnosis code for IS (ICD-10 I63 and H34.1) Exclusion: elective hospital admissions and patient on hospice prior to admission Setting: hospital	IS-COVID: N=2,086 (n=1,379 discharged) Age (years), n (%): <18: <10 18-50: 242 (11.6) 51-64: 608 (29.2) 65-74: 604 (29.0) 75-79: 229 (11.0) 80+: 400 (19.2) Gender (% male): 58.0% Race/ethnicity: 33.7% White, 32.1% Black, 18.5% Hispanic, 15.8% Other	COVID-19 severity: 100% hospitalized Study enrollment period: 4/1/2020-7/31/2020 (discharge dates) Time of outcome assessment: immediate post-hospital discharge Method of assessment: administrative data

Author, Year Country Study Design Funding	Inclusion/Exclusion Criteria (Include Setting Where Study Participants Are Identified)	Baseline Demographic Data	COVID-19 Severity Enrollment Period Time of Outcome Assessment Post COVID Method of Outcome Assessment Post COVID
	Notes: Included matched cohort of patients with IS from 2019 who also had a principal discharge diagnosis of pneumonia (J09-99) AND a pre-COVID-19 cohort of all patients with IS as the primary discharge diagnosis (I63 and H34.1) in 2019	Residential environment: NR Job classification: NR Place of residence: NR Comorbidities: N/A IS controls without COVID-19: N=166,586 (n=155,721 survivors) Age (years), n (%): <18: 643 (0.4) 18-50: 18,926 (11.4) 51-64: 42,904 (25.8) 65-74: 41,248 (24.8) 75-79: 19,616 (11.8) 80+: 43,249 (26.0) Gender (% male): 51.0% Race/ethnicity: 62.1% White, 21.7% Black, 7.4% Hispanic, 8.8% Other Residential environment: NR Job classification: NR Place of residence: NR Comorbidities: N/A	

Author, Year **Country** **Study Design** **Funding**	**Inclusion/Exclusion Criteria (Include Setting Where Study Participants Are Identified)**	**Baseline Demographic Data**	**COVID-19 Severity** **Enrollment Period** **Time of Outcome Assessment Post COVID** **Method of Outcome Assessment Post COVID**
Domecq, 2021[37] Multi (US 85%) Case series Funding: foundation	Inclusion: Hospitalized adults (≥18 years old) with laboratory-confirmed COVID-19 with reverse PCR assay who did and did not require various types and combinations of organ support (mechanical ventilation, renal replacement therapy, vasopressors, and extracorporeal membrane oxygenation). Exclusion: Patients <18 years old, with no recorded discharge status, and participants that did not have research authorization to access medical records Setting: hospitals in 16 countries (85% in the US) Note: Sample stratified according to age and type of organ support therapies.	N=20,608 (n=16,702 survivors) Age group (years): 18-44: 3,986/20608 45-59: 5,300/20608 60-74: 6,491/20608 75+: 4,831/20608 Gender (% male): 54.3% (1.2% NR) Race/ethnicity: 50.4% White; 25.9% African American; 23.0% Other, 0.6% NR Residential environment: NR Job classification: NR Place of residence: NR Comorbidities: N/A	COVID-19 severity: 100% hospitalized 42.4% admitted to ICU Study enrollment period: 2/15/2020-11/30/2020 Time of outcome assessment: hospital discharge or death Method of assessment: administrative database

Author, Year **Country** **Study Design** **Funding**	**Inclusion/Exclusion Criteria (Include Setting Where Study Participants Are Identified)**	**Baseline Demographic Data**	**COVID-19 Severity** **Enrollment Period** **Time of Outcome Assessment Post COVID** **Method of Outcome Assessment Post COVID**
Erben, 2021[38] USA Case series Funding: foundation	Inclusion: Identified all patients who had tested positive for SARS-CoV-2 using PCR or serology testing and those patients who had been transferred from other facilities to the Mayo Clinic with the COVID-19 diagnosis. From this cohort, the patients who had required hospitalization for SARS-CoV-2 infection were included. Exclusion: NR Setting: primary clinic and hospital Note: Prospectively collected, retrospectively analyzed. Cohort stratified by DVT and PE (yes/no), but current outcomes are reported combined.	N=915 (n=820 discharged) Age (years), median (IQR): 62 (50.0-73.0) Gender (% male): 56.8% Race/ethnicity: NR Residential environment: NR Job classification: NR Place of residence: NR Comorbidities: History of DVT/PE: 4.6%	COVID-19 severity: 100% hospitalized 30.4% admitted to ICU Study enrollment period: 3/11/2020-9/4/2020 Time of outcome assessment: hospital discharge, until 9/4/2020 Method of assessment: administrative database
Fernandes, 2021[39] USA Retrospective case series Funding: government	Inclusion: Patients who tested positive for SARS-CoV-2 infection and aged ≥18 years. Required a physician discharge summary and available known ground-truth discharge disposition. Exclusion: NR Setting: hospital database	N=1,737 (n=1,494 discharged) Age (years), median ± SD: 61.0 ± 18.2 Gender (% male): 54.6% Race/ethnicity: 44.6% White, 16.4% Black or African American, 10.7% Other, 28.3% Unknown Residential environment: NR Job classification: NR Place of residence: NR Comorbidities: N/A	COVID-19 severity: 100% hospitalized Study enrollment period: 3/10/2020-6/30/2020 Time of outcome assessment: hospital discharge Method of assessment: administrative database

Author, Year Country Study Design Funding	**Inclusion/Exclusion Criteria (Include Setting Where Study Participants Are Identified)**	**Baseline Demographic Data**	**COVID-19 Severity Enrollment Period Time of Outcome Assessment Post COVID Method of Outcome Assessment Post COVID**
Gavin, 2022[40] USA Case series Funding: none	Inclusion: ≥18 years old, admitted to the hospital and isolated for COVID-19 Exclusion: Patients who tested positive via laboratory testing prior to a procedure, patients without clinical symptoms/signs/imaging consistent with COVID-19, died while inpatient, discharged to hospice or long-term acute care hospitals or another hospital, discharged against medical advice, had a hospital length of stay less than 1 day Setting: 2 urban, academic hospitals in the Midwest Note: positive PCR testing results	N=612 total (n=550 without PAR, n=62 with PAR) Age (years), mean: 56.1 (without PAR), 60.4 (with PAR) Gender (% male): 47.8% (without PAR), 48.3% (with PAR) Race/ethnicity: NR Residential environment: NR Job classification: NR Place of residence: NR Comorbidities: NR	COVID-19 severity: 100% hospitalized Study enrollment period: March to November 2020 Time of outcome assessment: immediately post hospital discharge Method of assessment: administrative data
Hodgson, 2021[8] Australia Case series Funding: government	Inclusion: Age ≥18; positive laboratory PCR for SARS-CoV-2 admitted to an Australian ICU for >24 hours Exclusion: Declined to participate; unable to communicate via a translation service or in English; living overseas; or still in hospital at 6 months Setting: 30 hospitals	N=115 Responders Age (years, median): 58 Gender (% male): 57% Race/ethnicity: NR Residential environment: NR Job classification: 13% healthcare worker Place of residence: NR Comorbidities: CPD: 4.6% CKD: 4.6%	COVID-19 severity: 100% ICU Study enrollment period: pre January 2021 (3/5/2020-10/4/2020) Time of outcome assessment: 6 months after ICU admission Method of assessment: telephone interview; trained outcome assessors

Author, Year **Country** **Study Design** **Funding**	**Inclusion/Exclusion Criteria (Include Setting Where Study Participants Are Identified)**	**Baseline Demographic Data**	**COVID-19 Severity** **Enrollment Period** **Time of Outcome Assessment Post COVID** **Method of Outcome Assessment Post COVID**
	Note: Registry captured >95% of all ICU COVID-19 admissions in Australia; patients from 30 sites		(overall response rate 54% [115/212] eligible patients after exclusion criteria)
Huang, 2022[9] China Case series Funding: government	Inclusion: All patients with laboratory confirmed COVID-19 discharged from Jin Yin-tan Hospital Exclusion: Patients were excluded if they died after discharge; were living in a nursing or welfare home; had psychotic disorder, dementia, or osteoarthropathy; or were immobile. Setting: single hospital	N=1192 Age (years), median (IQR): 57.0 (48.0-65.0) Gender (% male): 54% Race/ethnicity: NR Residential environment: NR Job classification: NR Place of residence: NR Comorbidities CKD: 4% Chronic heart diseases: 9%	COVID-19 severity: 100% hospitalized 4% admitted to ICU Scale 3 (not requiring supplemental oxygen): 24.7% Scale 4 (requiring supplemental oxygen): 67.6% Scale 5-6 (requiring high-flow nasal cannula, non-invasive mechanical ventilation, or invasive mechanical ventilation): 7.6% Study enrollment period: 1/7/2020-5/29/2020 Time of outcome assessment: 6 months, 12 months, and 2 years post-symptom onset Method of assessment: in-person questionnaire as outpatient
Lavery, 2020[41] USA Retrospective case series	Inclusion: COVID-19 hospital admission Exclusion: NR Setting: hospital database	N=126,137 admitted (n=106,543 discharged) Age group (years), n (%): 18-39: 16,699 (13.2) 40-49: 14,490 (11.5) 50-64: 35,451 (28.1) 65-74: 25,419 (20.2)	COVID-19 severity: 100% hospitalized 15% admitted to ICU 13% required invasive mechanical ventilation 4% required noninvasive ventilation

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Funding: NR		74-84: 19,864 (15.7) ≥85: 13,044 (10.3) Gender (% male): 52.0% Race/ethnicity: 23.2% Black, non-Hispanic; 21.3% Hispanic, 39.0% White, 13.2% Other Residential environment: NR Job classification: NR Point of origin: 81%: non-healthcare setting 18%: another hospital, clinic, or SNF Comorbidities: N/A	Study enrollment period: March-July 2020 Time of outcome assessment: hospital discharge Method of assessment: administrative database
Loerinc, 2021[42] USA Retrospective case series Funding: none	Inclusion: Confirmed infection with SARS-CoV-2 by PCR testing or ICD-10 code for COVID-19 and discharged from the hospital between 3/26/2020-4/21/2020 Exclusion: (1) patients who died during their index hospital stay, (2) patients admitted for unrelated reasons and incidentally tested (at provider discretion) for COVID-19, (3) patients discharged to home for end-of-life care with no additional post-discharge needs, and (4) patients who were transferred from Emory to an outside facility for continued hospitalization. Setting: hospital database	N=310 Age (years), median (range): 58 (23-99) Gender (% male): 49.0% Race/ethnicity: 69.0% African American; 18.4% White; 12.6% Other Residential environment: NR Job classification: NR Place of residence: NR Comorbidities Coronary artery disease: 8.1% Cerebral vascular disease: 6.1% COPD: 5.2%	COVID-19 severity: 100% hospitalized 21.6% admitted to ICU Study enrollment period: 3/26/2020-4/21/2020 (discharge dates) Time of outcome assessment: hospital discharge and post-discharge (undefined) Method of assessment: administrative database

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McCarthy, 2020[43] USA Case series Funding: foundation	Inclusion: Patients hospitalized with confirmed SARS-CoV-2 infection Exclusion: Health care workers with personal connections to the investigators (1 patient) Setting: 3 hospitals in Boston, MA	N=247 (n=213 survivors) Age (years), median (IQR): 61 (50-76) Gender (% male): 57.9% Race/ethnicity: 51.4% White; 30.4% Hispanic; 9.7% Black; 3.7% Asian; 4.9% NR Residential environment: NR Job classification: 9.3% Hospitality; 1.2% Public safety; 4% HCW; 36% Retired; 2% Public transportation; 8.5% Unemployed; 21.5% Other; 17.4% NR Place of residence: NR Comorbidities COPD: 8.9%	COVID-19 severity: 100% hospitalized 42% admitted to ICU Study enrollment period: 3/7/2020-3/30/2020 Time of outcome assessment: hospital discharge Method of assessment: administrative database
Moon, 2022[44] USA Case series Funding: foundation	Inclusion: ≥18 years old, principal or secondary discharge diagnosis of COVID-19 (ICD-10 code U07.1) Exclusion: NR Setting: 909 hospitals in the United States	N=1,454,780 total Inpatients: n=481,216 Age (years), mean ± SD (IQR): 64.4 ± 17.5 (53.0-77.0) Gender (% male): 51.7% Race/ethnicity: 63.7% White, 17.7% Black, 18.6% Other/unknown;16.9% Hispanic/Latino, 66.6% Not Hispanic/Latino, 16.5% Unknown Residential environment: 87.9% Urban, 12.1% Rural Job classification: NR Point of origin: 3.6% transferred from SNF/ICF/RF/LTCF	COVID-19 severity: approximately 1/3 were hospitalized at the index visit, 22.5% of inpatients admitted to ICU Study enrollment period: discharge between 4/1/2020-2/28/2021 Time of outcome assessment: 30 days from index visit Method of assessment: administrative data

Author, Year Country Study Design Funding	Inclusion/Exclusion Criteria (Include Setting Where Study Participants Are Identified)	Baseline Demographic Data	COVID-19 Severity Enrollment Period Time of Outcome Assessment Post COVID Method of Outcome Assessment Post COVID
		Comorbidities: N/A Outpatients: n=973,564 Age (years), mean ± SD (IQR): 48.8 ± 18.5 (33.0-63.0) Gender (% male): 44.1% Race/ethnicity: 63.7% White, 16.5% Black, 19.8% Other/unknown; 19.8% Hispanic/Latino, 63.9% Not Hispanic/Latino, 16.3% Unknown Residential environment: 79.9% Urban, 20.1% Rural Job classification: NR Point of origin: Outpatients: 0.5% of patients transferred from SNF/ ICF/RF/LTCF Comorbidities Dementia: 1.4%	

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Nimgaonkar, 2021[45] USA Retrospective case series Funding: university	Inclusion: Patients admitted within 14 days of placement on the health system's COVID-19 positive registry and with primary diagnosis ICD-10 codes consistent with COVID-19 Exclusion: NR Setting: Hospital database Note: Patients were identified using a dataset of all patients with an order for any COVID-19 test and chest imaging completed within the health system.	N=1,174 Age (years), median (IQR): 62 (49-74) Gender (% male): 51.8% Race/ethnicity: 54.9% Black; 36.4% White; 10.6% Hispanic; 8.7% Other Residential environment: Urban healthcare system Job classification: NR Place of residence: NR Comorbidities: N/A	COVID-19 severity: 100% hospitalized Study enrollment period: 3/1/2020-8/21/2020 Time of outcome assessment: hospital discharge Method of assessment: administrative database
Pagali, 2021[46] USA Cross-sectional Funding: NR	Inclusion: All ages were included in this study. Hospitalizations within 30 days following a COVID-19 diagnosis or COVID-19 diagnosis within 14 days of an ongoing hospitalization were included as COVID-19-related hospitalizations for this study. Exclusion: patients without research authorization in their medical record Setting: all Mayo Clinic sites	N=4351 Age (years): mean +/- SD; 63 +/- 19 Gender (% male): 55% Race/ethnicity: 78% Caucasian, 22% Other Residential environment: NR Job classification: NR Place of residence: NR Comorbidities: N/A	COVID-19 severity: 100% hospitalized, 18% in the ICU **WHO criteria:** Mild: 1000 (23%) Moderate: 1548 (36%) Severe: 734 (17%) Critical: 1069 (25%) Study enrollment period: 3/1/2020-12/31/2020 Time of outcome assessment: hospital discharge and 30 days post hospital discharge Method of assessment: administrative data

Author, Year **Country** **Study Design** **Funding**	**Inclusion/Exclusion Criteria (Include Setting Where Study Participants Are Identified)**	**Baseline Demographic Data**	**COVID-19 Severity** **Enrollment Period** **Time of Outcome Assessment Post COVID** **Method of Outcome Assessment Post COVID**
Qureshi, 2021[47] USA Cross-sectional Funding: government, foundation	Inclusion: 1) Patient had a minimum of 1 emergency department or inpatient encounter with a diagnosis code that could be associated with COVID-19 exposure or infection; or 2) patient had a minimum of 1 emergency department or inpatient encounter with a positive laboratory test for COVID-19. Exclusion: NR Setting: 62 health care facilities Note: Only analyzed on patients with prior medical history from the past 5 years available (comprised 76% of the total cohort). Sample stratified by racial and/or ethnic groups.	N=49,277 total (n=43,978 discharged) Age group (years), n (%): <35: 9,534 (19.3) 35-54: 11,346 (23.0) 55-70: 14,033 (28.5) >70: 14,364 (29.1) Gender (% male): 45.8% Race/ethnicity: 38.3% White; 20.3% African American; 39.3% Hispanic; 2.0% Asian or Pacific Islander Residential environment: NR Job classification: NR Place of residence: NR Comorbidities: N/A	COVID-19 severity: Study enrollment period: 12/1/2019-11/13/2020 Time of outcome assessment: hospital discharge Method of assessment: administrative database
Roberts, 2021[48] USA Retrospective case series Funding: NR	Inclusion: Age ≥18 years old who were confirmed as a patient with new-onset COVID-19 and discharged from hospital Exclusion: Death before discharge Setting: 2 hospitals within a single health care system in the Los Angeles area; 1 hospital was an academic medical center and the other a community hospital	N=230 total *n=165 discharged home* *n=65 discharged institution* Age (years), mean ± SD: *Home*: 56.75 ± 6.12 *Institution*: 75.77 ± 14.65 Gender (% male): *Home*: 38.8% *Institution*: 49.2% Race/ethnicity: *Home*: 12.1% White; 17.6% Black; 24.4% non-Hispanic; 70.3% Hispanic	COVID-19 severity: 100% hospitalized 23.0% admitted to ICU (discharged home) 38.5% admitted to ICU (discharged institution) Study enrollment period: 1/1/2020-4/30/2020 Time of outcome assessment: hospital discharge

Author, Year **Country** **Study Design** **Funding**	**Inclusion/Exclusion Criteria (Include Setting Where Study Participants Are Identified)**	**Baseline Demographic Data**	**COVID-19 Severity** **Enrollment Period** **Time of Outcome Assessment Post COVID** **Method of Outcome Assessment Post COVID**
	Note: Objective of study was to examine functional limitations in relation to discharge destination, so demographic and clinical characteristics were stratified as such.	*Institution*: 26.2% White; 12.3% Black; 15.4% non-Hispanic; 61.5% Hispanic Residential environment: NR Job classification: NR Place of residence: 19.5% admitted from assisted living or SNF 80.5% admitted from home Comorbidities: N/A	Method of assessment: administrative database
Saad, 2022[49] USA (Illinois) Case series Funding: support for authors	Inclusion: admitted for respiratory failure caused by SARS-CoV-2 pneumonia and required prolonged mechanical ventilation (≥4 days plus tracheotomy) Exclusion: NR Setting: 2 long-term acute care hospitals in the Chicago, IL area	N=158 (n=141 survivors) Age (years), median (IQR): 60.0 (53.0-70.0) Gender (% male): 65.2% Race/ethnicity: Hispanic (46.8%), Black (22.8%), White non-Hispanic (24.7%), Other (5.7%) Residential environment: 59.5% resided in low-income areas Job classification: NR Place of residence: NR Comorbidities: Malignancy (6.3%), Hemodialysis (3.0%)	**COVID-19 severity:** 100% hospitalized and transferred to a long-term acute care hospital (LTACH) for weaning from prolonged ventilation **Study enrollment period:** 4/1/2020-3/31/2021 **Time of outcome assessment:** immediately post LTACH discharge, last follow-up date 6/1/2021 **Method of assessment:** administrative data
Taupin, 2021[50] USA Retrospective case series	Inclusion: Adults aged ≥18 years who had an index admission with COVID-19 and were discharged alive. Exclusion: Hospitalizations resulting in discharge to inpatient hospice, those in which the patient left the hospital against medical advice, or cases in	N=576 Age (years), median (IQR): 63 (50-74) Gender (% male): 48.1% Race/ethnicity: 32.6% Black; 19.6% Hispanic/Latino; 39.0% White, non-Hispanic; 8.8% Other Residential environment: NR	COVID-19 severity: 100% hospitalized 37.7% admitted to ICU Study enrollment period: 3/21/2020-6/29/2020

Author, Year **Country** **Study Design** **Funding**	**Inclusion/Exclusion Criteria (Include Setting Where Study Participants Are Identified)**	**Baseline Demographic Data**	**COVID-19 Severity** **Enrollment Period** **Time of Outcome Assessment Post COVID** **Method of Outcome Assessment Post COVID**
Funding: NR	which key clinical data were unavailable Setting: single hospital Note: Index admission was defined by an initial positive SARS-CoV-2 molecular assay during or up to 14 days prior to the admission. Patients hospitalized under *observation* or *inpatient* status were included as admissions.	Job Classification: NR Place of residence: NR Comorbidities: N/A	Time of outcome assessment: hospital discharge Method of assessment: administrative database

Abbreviations. CKD=chronic kidney disease; COPD=chronic obstructive pulmonary disease; CPD=chronic pulmonary disease; CVD=cardiovascular disease; DVT=deep vein thrombosis; ER=Emergency Room; HCW=healthcare worker; HTN=hypertension; ICU=intensive care unit; PAR=potentially avoidable readmission; PCR= polymerase chain reaction; PE=pulmonary embolism; NHS=National Health Service; NIH= National Institutes of Health; NR=not reported; RT-PCR=reverse transcriptase-polymerase chain reaction; SARS-CoV-2=severe acute respiratory syndrome coronavirus 2; SNF=skilled nursing facility; UK=United Kingdom; US=United States.

OUTCOME DATA OF INCLUDED PRIMARY STUDIES

Table 3. KQ1 and KQ2: Employment and Education Studies

Author, Year Country Method of Assessment	% Hospitalized	Time of Assessment	Outcome Data
Davis, 2021[1] Multi Online survey	8% hospitalized 35% visited ER or urgent care 57% non-hospitalized and no ER or urgent care	4 to 11 months post-onset Limited to those working before COVID-19	**Working as many hours as prior to becoming ill** Unrecovered: 27.3% (95%CI 25.3%, 29.4%) Recovered: 49.3% (95%CI 40.8%, 57.9%) (Statistically significant difference) **Working reduced hours*** Unrecovered: 45.6% (95%CI 43.2%, 48.0%) (Not statistically significant compared to recovered – estimated at 39% from Figure 12d in text) Overall: 45.2% (95%CI 42.9%, 47.2%) **Not working as a direct result of illness** (sick leave, disability leave, fired, quit, unable to find job that would accommodate them)* Unrecovered: 23.3% (95%CI 21.3%, 25.4%) (Statistically significant difference compared to recovered – estimated at 8% from Figure 12d in text) Overall: 22.3% (95%CI 20.5%, 24.3%) *Remaining unrecovered were retired, volunteers, or did not provide enough information to determine working status
Evans, 2021[2] UK Research visit, clinical records, and survey questionnaires	100% hospitalized	5.9 months post-discharge (median)	Limited to respondents who worked full-time or part-time before becoming ill (total n=641) **No longer working after COVID-19*** WHO class 3-4[a]: 15/133 (11%) WHO class 5: 24/203 (12%) WHO class 6: 20/109 (18%) WHO class 7-9: 54/196 (28%) Total: 113/641 (18%) P values NR

Author, Year Country Method of Assessment	% Hospitalized	Time of Assessment	Outcome Data
			Occupation change due to health after COVID-19** WHO class 3-4[a]: 19/133 (14%) WHO class 5: 19/203 (9%) WHO class 6: 18/109 (17%) WHO class 7-9: 68/196 (35%) Total: 124/641 (19%) P values NR * Participants were classified as no longer working post-hospitalization for COVID-19 if they answered “different from before” when asked “What is your main occupation/working status today?” and then answered “Unable to work due to chronic illness/Medically retired” ** Participants were classified as experiencing an occupation change due to health if they answered “different from before” when asked “What is your main occupation/working status today?” and then answered “Poor health/Sick leave” when asked “If different, why did your occupation/working status change?”
Faghy, 2022[3] Multi Online survey	2% hospitalized	208 days (mean)	**COVID-19 symptoms affecting work (n/N not reported)** **Moderate work activities** Not at all: 17% Some of the time: 35% A lot of the time: 48% **Vigorous work activities** Not at all: 20% Some of the time: 25% A lot of the time: 54% **Diligence of task completion** No: 22% Sometimes: 19% Yes: 60%

Author, Year Country Method of Assessment	% Hospitalized	Time of Assessment	Outcome Data
Frontera, 2021[33] (J Neurol Sci) USA Telephone interview with patient/surrogate	100% hospitalized	6 months post symptom onset	Employed pre-morbidly and resumed work either in person or remotely, even if change of employer Total: 53% (81/154) Neuro group (n=74): 41% (30/74) Control group (n=80): 64% (51/80) P=.004
Ghosn, 2021[5] France Physician visit	100% hospitalized	Median 177 days after discharge	"Back to work" at 6 month visit: 304/429 (71%) Not back to work at 6 month visit: 125/429 (29%) (Described as "if applicable" and "those who initially had a professional occupation"; missing data for n=221)
Hawlader, 2021[6] Bangladesh Telephone interview	26% hospitalized	Median 171 days from confirmation of COVID-19	Employment status at time of interview Unemployed: 122/3244 (4%) Employed: 1714/3244 (53%) Other: 1408/3244 (43%)
Heightman, 2021[7] UK In-person at post-COVID-19 clinic	41% hospitalized	Median 108 days from symptom onset (overall); 194 days for non-hospitalized	Work patterns at first assessment **Non-hospitalized (n=566)** *First assessment at 3-6 months (n=183)* Employed pre-COVID: 167/183 (91%) Working full time: 70/167 (42%) Working part time: 56/167 (34%) Not working: 41/167 (25%) *First assessment at 6-9 months (n=128)* Employed pre-COVID: 118/128 (92%) Working full time: 54/118 (46%) Working part time: 34/118 (29%) Not working: 30/118 (25%)

Author, Year Country Method of Assessment	% Hospitalized	Time of Assessment	Outcome Data
			First assessment at 9-12 months (n=143) Employed pre-COVID: 124/143 (87%) Working full time: 49/124 (40%) Working part time: 37/124 (30%) Not working: 38/124 (31%) **Hospitalized (n=547)** *First assessment at 3-6 months (n=151)* Employed pre-COVID: 95/151 (63%) Working full time: 42/95 (44%) Working part time: 19/95 (20%) Not working: 34/95 (36%)
Hodgson, 2021[8] Australia Telephone interview with trained assessors	100% hospitalized and admitted to ICU (inclusion criteria)	6 months from COVID-19 critical illness	Unemployed (unable to return to work) due to health reasons: Baseline: NR 6 months: 13/114 (11%) Financial distress (scale of 1-10 with 1 being lowest level of financial distress): Baseline: 1 (IQR 1-4) 6 months: 1 (IQR 1-5) Median difference: 0.00 (95%CI -1.07, 1.07); P=.999
Huang, 2022[9] China In-person interview	100% hospitalized	6 months median 185 days), 12 months (median 349 days), and 2 years (median 685 days) after symptoms onset	**Work status before COVID-19** (P=.08 across levels of COVID-19 severity) Retired: 647/1187 (55%) Full-time or part-time job: 494/1187 (42%) Jobless: 42/1187 (4%) Home maker: 4/1187 (<1%) **Work Status after COVID-19** (P=NR across levels of COVID-19 severity) 12 months: Returned to original work* 401/455 (88%); Returned to pre-COVID level of work 306/401 (76%) 2 years: Returned to original work* 438/494 (89%); Returned to pre-COVID level of work 383/438 (87%)

Author, Year Country Method of Assessment	% Hospitalized	Time of Assessment	Outcome Data
			Not returned to pre-COVID level of work: 95/401 (24%); 55/438 (13%) Not returned to original work: 54/455 (12%); 56/494 (11%) Due to decreased physical function: 18/455 (4%); 21/494 (4%) Unwilling to return to original work: 10/455 (2%); 10/494 (2%) Unemployment: 12/455 (3%); 14/494 (3%) Others: 14/455 (3%); 11/494 (2%) *Only includes those with full- or part-time job before COVID-19
Jacobsen, 2021[10] Denmark Registry data	12% hospitalized (3% of those in ICU)	6 months	Note: Study enrolled patients ages 18-64 who were available to the workforce. At baseline: Working: Not Hospitalized (n=6590) 5658/6590 (86%); Hospitalized (n=876) 756/876 (86%) Benefits classified as work: 693/6950 (11%); 68/876 (8%) Available to work: 239/6590 (4%); 52/876 (6%) Return to work (n=7466 hospitalized and not hospitalized) Within 4 weeks of first positive test: 6119/7466 (82%) Within 6 months: 7344/7466 (98%) Note: 109/7466 (2%) did not return to work within 6 months and were receiving sick leave benefit. At 6 months: Did not return to work (receiving sick leave benefits): Not Hospitalized COVID-19 (n=6590) 51/6590 (<1%); Hospitalized COVID-19 (n=876) 58/876 (7%); Hospitalized Influenza (n=466) 11/416 (3%)

Author, Year Country Method of Assessment	% Hospitalized	Time of Assessment	Outcome Data			
			Returned to work	6536/6590 (99%)	809/876 (92%) Note: ~72% had returned within 4 weeks	402/416 (97%) NOTE: ~92% had returned within 4 weeks
			Died, emigrated, or early retirement	5/6590 (<1%)	9/876 (1%)	NR
			Note: Patients' work capability (*ie,* full time vs part time) at the time of return to work was not available. Relative risks for return to work within 3 months: COVID-19 positive and admission vs no admission: 0.95 (95% CI 0.94, 0.96) COVID-19 positive and ICU admission vs no admission: 0.54 (95% CI 0.35, 0.72) COVID-19 positive and ICU admission vs non-ICU admission: 0.57 (95% CI 0.37, 0.76) COVID-19 positive and admission vs influenza admission: 0.94 (95% CI 0.92, 0.96) Increased age and female sex were also risk factors for reduced change of return to work. Relative risks for sick leave above 4 weeks: COVID-19 positive and admission vs no admission: 1.74 (95%CI 1.54, 1.94) COVID-19 positive and ICU admission vs no admission: 4.01 (95%CI 2.86,5.16) COVID-19 positive and ICU admission vs non-ICU admission: 2.30 (95%CI 1.61, 2.99) COVID-19 positive and admission vs influenza admission: 2.84 (95%CI 1.90, 3.79) Increased age and female sex were also risk factors for increased likelihood of sick leave.		

Author, Year Country Method of Assessment	% Hospitalized	Time of Assessment	Outcome Data
Jacobson, 2021[11] USA In-person visit	12% hospitalized	119 days (median)	**Currently employed:** Total 80/117 (67%); Hospitalized 16/22 (73%); Non-hospitalized 64/95 (67%) (P=.63) **Missed work due to health:** Total 9/78 (12%); Hospitalized 2/15 (13%); Non-hospitalized 7/63 (11%) **Any work impairment due to health*:** Total 28/72 (39%); Hospitalized 7/12 (58%); Non-hospitalized 21/60 (35%) *Any response >0 on the Work Productivity and Impairment (WPAI)
Latronico, 2022[12] Italy In-person clinic	100% hospitalized and admitted to ICU	3, 6, and 12 months post-discharge (n=43 completed all assessments)	**Return to work (unclear how many were working pre-COVID)** *Full employment* 3 months: 63/98 (64%) 6 months: 49/77 (64%) 12 months: 44/51 (86%) *Reduced effectiveness at work* 3 months: 2/98 (2%) 6 months: 5/77 (7%) 12 months: 0/51 (0%) **No return to work (reason not provided)** 3 months: 30/98 (31%) 6 months: 22/77 (29%) 12 months: 7/51 (14%)
Lemhofer 2021[13] Germany Mailed survey	Non-hospitalized	>3 months post-infection	Data from 291 participants aged 18–64 In remunerative employment: 255/291 (88%) Seeking a job: 5/291 (2%) Did not have remunerative employment or received pension payments: 21/291 (7.2%) 2.4% of those who had a job had been classified by the doctors being unfit for work (according to German social regulations).
Lunt, 2022[14] UK	12% hospitalized	>6 months: 65%; 1-6 months (19%)	**Returned to work:** Fully: 21/88 (24%) Partially: 23/88 (26%) Not yet: 38/88 (43%)

Author, Year Country Method of Assessment	% Hospitalized	Time of Assessment	Outcome Data
Online survey			Not anticipated: 5/88 (6%) Did not stop working: 1/88 (1%)' **Workability (1=very good; 5=poor):** Physical workability: 3.75 (mean) Psychological workability: 3.56 (mean)
Millet, 2022[15] USA Telephone survey	52% hospitalized	1 year	**Lost job within 1 year following COVID-19 diagnosis** Total: 54/168 respondents (32%) (2/170 (1%) did not respond) African American: 16/44 (36%) (2/46 (4%) did not respond); OR vs Caucasian 4.47 (95%CI 1.27, 15.75); P=.02 Caucasian: 4/31 (13%) Hispanic: 31/79 (39%); OR vs Caucasian 4.46 (95%CI 1.39, 14.31); P=.01 Asian: 3/14 (21%); OR vs Caucasian 2.01 (95%CI 0.37, 10.95); P=.42 **Experiencing financial distress due to COVID-19 illness at 1 year following diagnosis:** Total: 55/170 (32%) African American: 17/46 (37%) Caucasian: 4/31 (13%) Hispanic: 31/79 (39%) Asian: 3/14 (21%)
Moy, 2022[16] (Pre-print) Malaysia Online questionnaire	26% hospitalized, 26% COVID-19 center	27 weeks (mean) post-diagnosis	Outcomes for those working (n=550) Affected work performance: 194/550 (35%) Measures taken: Quit: 6/194 (3%) Reduced work hours: 142/194 (73%) Took leave from work: 46/194 (24%)
Nagata, 2022[17] Japan (CORoNaWork -	NR	At least 2 months prior to survey (estimated most were 2 to	From February 2021 follow-up survey: Unemployment because of negative reasons* COVID group: 8/154 (5%) No COVID group: 443/19646 (2%)

Author, Year Country Method of Assessment	% Hospitalized	Time of Assessment	Outcome Data
Collaborative Online Research on the Novel-coronavirus and Work) Online survey		4 months post-diagnosis)	ORadj=2.40 (95%CI 1.15, 5.01); P=.02 Unemployment regardless of the reason COVID group: 19/154 (12%) No COVID group: 700/19646 (4%) ORadj=3.79 (95%CI 2.28, 6.28); P<.001 *Authors "intended negative reasons to mean that people were unemployed because they did not want to be but were forced into an environment where they had to be."
Nanwani-Nanwani, 2022[18] Spain In-person clinic	100% hospitalized and admitted to ICU with mechanical ventilation	3 months	Returned to work: 32/101 (32%) On sick leave: 69/101 (68%) Remained unemployed: 7/180 (4%) Were retired prior to hospital admission: 57/180 (32%) Housekeepers prior to and following COVID: 15/180 (8%)
Neville, 2022[19] USA Mailed survey	100% hospitalized and admitted to ICU	182 days (median) post-discharge from ICU	Limited to respondents who worked before becoming ill (n=68) Returned to work if worked at baseline: 40/68 (59%) Employed at prior level if returned to work: 32/68 (47%) or 32/40 (80%) Time before returning to work (median, weeks [IQR]): 6.0 (3.5-13.0)

Author, Year Country Method of Assessment	% Hospitalized	Time of Assessment	Outcome Data
Norrefalk, 2021[20] Sweden Online survey	"Few hospitalized"	47 weeks (mean duration of symptoms)	Working full or part time: 56/100 (56%) (Functional Compass COVID-19) Employed: 81/100 (81%) (difference unclear; may include those receiving disability or sick leave benefits) Studying: 6/100 (6%) Full or part time sick leave benefits: 38/100 (38%) Remunerative employment (*ie*, financially rewarding) impaired: 87/91 (96%) Total impairment: 21/91 (23%) Severe impairment: 22/91 (24%)
Peters, 2022[21] Germany Mailed survey	7% hospitalized (9% of PCS group, 3% of no symptoms group)	At least 3 months	Not returned to work: 107/2053 (5%) (NOTE: includes 83 with symptoms ≤3 months post-acute) Work Ability Index (subjective rating of work capacity; 0=very poor, 10=very good; n=1930 with Index ratings) Time | No Symptoms (n=524); mean (SD) | PCS (n=1406) | p value Before COVID-19 | 9.3 (1.3) | 9.3 (1.2) | 0.8 At time of survey | 8.9 (1.7) | 6.8 (2.2) | <.001
Schandl 2021[22] Sweden In-person, self-report of work ability	100% hospitalized and admitted to ICU	5 months (median)	Data from those <65 years (n=74) Full time work before onset of COVID-19: 46/74 (62%) Returned to full time work at follow-up: 23/46 (50%) High-flow nasal oxygen or noninvasive ventilation: 9/19 (47%) Invasive ventilation: 14/27 (52%) P=NS
Sørensen, 2022[23] Denmark Online questionnaire	4% hospitalized	6, 9, or 12 months post diagnosis (data pooled)	Employment status at time of assessment (overall p<.0001) COVID Positive | COVID Negative Employed full time | 33,516/61,002 (55%) | 47,717/91,878 (52%) Employed part time | 5,457/61,002 (9%) | 9,956/91,878 (11%)

Author, Year Country Method of Assessment	% Hospitalized	Time of Assessment	Outcome Data			
			Pensioner or early retiree	8,874/61,002 (15%)	17,281/91,878 (19%)	
			Student	5,833/61,002 (10%)	6,596/91,878 (7%)	
			Unemployed or seeking job	939/61,002 (1.5%)	1,205/91,878 (1.3%)	
			Long-term sick leave	446/61,002 (0.7%)	791/91,878 (0.9%)	
			Sick leave taken between 4 weeks post-diagnosis and time of assessment*			
				COVID Positive	COVID Negative	Risk Difference
			Any sick leave	12.0%	7.7%	4.32% (95%CI 4.00%, 4.64%)
			Full-time sick leave	9.4%	6.5%	3.20% (95%CI 2.88%, 3.47%)
			Part-time sick leave	4.2%	1.7%	2.43% (95%CI 2.25%, 2.62%)
			*Some reported both full- and part-time sick leave			
Tabacof, 2022[24] USA In-person clinic with questionnaire	11% hospitalized	Median 351 days post-onset	134/156 (86%) responded to employment questions **Full-time work:** Pre-COVID: 102/134 (76%) Post-COVID: 55/134 (41%); Returned to work: 55/102 (54%) **Additional outcomes estimated from Figure 4** Part-time work: Pre-COVID 7%, Post-COVID 14% Full-time carer: Pre-COVID 1%; Post-COVID 1% Unemployed: Pre-COVID 4%; Post-COVID 11% Unable to work due to illness: Pre-COVID 1%; Post-COVID 19% Student: Pre-COVID 5%; Post-COVID 4% Retired: Pre-COVID 5%; Post-COVID 7% Medically retired: Pre-COVID 0%; Post-COVID 1%			

Author, Year Country Method of Assessment	% Hospitalized	Time of Assessment	Outcome Data
Trades Union Congress (TUC), 2021[25] UK Online survey	NR	NR	**Returned to work** Normal hours: 57% Reduced hours: 16% Paid sick leave: 20% Unpaid sick leave: 3% Job loss, redundancy, retirement: 5% (forced to take early retirement, forced to resign to protect their health, forced to leave their job for other long COVID related reasons, singled out for redundancy)
Vaes, 2021[26] The Netherlands Online survey	26% of confirmed cases hospitalized	Approximately 3 and 6 months after diagnosis	88% reported having a job before infection Work Productivity and Activity Impairment questionnaire (higher percentages indicate greater impairment and compromised productivity) **Confirmed COVID-19** Outcome — 3 months — 6 months — P value (6 vs 3 months) Percentage of work time missed in previous week due to ill health — 73% — 52% — P<.05 Percentage of impairment while working — 66% — 60% — P<.05 Work productivity loss — 89% — 79% — P<.05 Overall work impairment — 71% — 60% — P<.05 NOTE: results did not differ significantly between hospitalized (n=62) and non-hospitalized (n=177) patients **Suspected COVID-19** Outcome — 3 months — 6 months — P value

Author, Year Country Method of Assessment	% Hospitalized	Time of Assessment	Outcome Data			
			Percentage of work time missed din previous week due to ill health	61%	48%	P<.05 6 months vs 3 months
			Percentage of impairment while working	65%	57%	P<.05 6 months vs 3 months
			Work productivity loss	82%	74%	P<.05 6 months vs 3 months
			Overall work impairment	73%	62%	P<.05 6 months vs 3 months
Vanichkachorn, 2021[27] USA In-person interview	25% hospitalized	93 days (mean)	Prior to infection: 91/100 (91%) employed At time of assessment: 63/91 (69%) returned to some form of employment Unrestricted work duty: 29/63 (46%)			
Wahlgren, 2021[28] Sweden In-person and medical records	100% hospitalized (65% moderate disease, 35% severe disease)	142 days (median) post-discharge	**Occupation prior to COVID-19** Working or studying: 90/155 (58%) Pensioner: 52/155 (34%) Unemployed: 7/155 (5%) Sick leave (full or partial): 6/155 (4%) **Occupation after COVID-19** Working or studying: 64/155 (41%); return to work: 64/90 (71%) Pensioner: 54/155 (35%) including 2/90 (2%) employed pre-COVID Unemployed: 10/155 (7%) including 3/90 (3%) employed pre COVID Sick leave (full or partial): 27/155 (17%) including 21/90 (23%) employed pre-COVID			
Westerlind, 2021[29] Sweden	25% hospitalized	1-4 months	**Sick leave prior to COVID-19** *Sick leave ≥28 days* Hospitalized: 357/2960 (12%) Not hospitalized: 1561/8995 (17%)			

Author, Year Country Method of Assessment	% Hospitalized	Time of Assessment	Outcome Data
Government registries			*Sick leave ≥6 times* Hospitalized: 5/2960 (0.2%) Not hospitalized: 21/8995 (0.2%) **Sick leave due to COVID** Duration (days; median): 35 Sick leave ≥1 month: 7903/11955 (66%) Sick leave at least 12 weeks (*ie,* Long COVID): 1592/11955 (13%) Note: Participants on sick leave for Long COVID were significantly older, predominantly men, spent more time on sick leave prior to COVID-19, and were more likely to have been hospitalized for COVID-19 (all P<.001). Employment status: **Employment:** Hospitalized 93%, Not hospitalized 97% **Self-employment:** Hospitalized 3.5%, Not hospitalized 2.0% **Unemployment:** Hospitalized 3.3%, Not hospitalized 1.2%

Notes. [a] WHO Class 3-4=no continuous supplemental O_2 needed; Class 5=continuous supplemental O_2 only; Class 6=continuous positive airway pressure ventilation, bi-level positive airway pressure, or high-flow nasal oxygen; Class 7-9=invasive mechanical ventilation or extracorporeal membrane oxygenation.
Abbreviations. ER=Emergency Room; ICU=intensive care unit; NS=not statistically significant; PCS=post-COVID-19 syndrome.

Table 4. KQ3: Care Services Studies

Author, Year Country Method of Assessment	COVID-19 Severity	Time of Assessment	Outcome Data
Continuing Care			
Hodgson, 2021[8] Australia Telephone interview	100% hospitalized (100% ICU)	6 months after ICU admission	**Continued care (n, %):** Did not seek further outpatient multidisciplinary support: 56/122 (46.7) Attended physical therapy: 40/122 (32.8) Accessed psychology: 9/122 (7.5%) Saw a dietician: 4/122 (3.3%)
Loerinc, 2021[42] US Administrative database	100% hospitalized 21.6% admitted to ICU	Hospital discharge and post-discharge (undefined)	**Home health (n, %):** *N=310* Any home service: 75 (24.2) PT/OT: 42 (13.5) Nursing: 16 (5.2) Home oxygen therapy: 41 (13.2) **Recommended follow-up appointments (n, %):** *N=310* Primary care appointment: 258 (83.2) PCP identified at discharge: 217 (70.0) Specialist appointment[a]: 90 (29.0) **Caregiver needs (n, %):** *N=310* Caregiver identified: 162 (52.3) High-risk caregiver identified: 3 (0.9)
Neville, 2022[19] USA Mailed survey	100% admitted to ICU	6 months post-discharge from ICU	**Caregiver needs (n, %):** *N=132* Currently needs a caregiver*: 33 (25) **Current living situation (n, %):** *N=132*

Author, Year Country Method of Assessment	COVID-19 Severity	Time of Assessment	Outcome Data		
			Home: 123 (93.8) Assisted living: 1 (0.8) SNF: 4 (3.1) Other**: 3 (2.2) *12 patients had a caregiver before COVID-19 admission **1 patient was living at memory care center and 2 were living with relatives		
Vaes, 2021[26] Netherlands Online survey	26% hospitalized (confirmed cases)	3 (T1) and 6 (T2) months post-onset of COVID-19 symptoms T0: symptom onset *p<0.05 vs. before COVID-19 #p<0.05 vs. T1		**Confirmed COVID-19** *N=239*	**Suspected COVID-19** *N=766*
			Received care (%):		
			Physiotherapy		
			Between T0 and T1	31.8	24.3
			Between T1 and T2	61.9#	57.2*
			Rehabilitation		
			Between T0 and T1	4.2	1.3
			Between T1 and T2	11.7#	4.4*
			Need for help with personal care (%):		
			From partner		
			Before COVID-19	5.0	4.8
			Between T0 and T1	46.0*	37.7*
			Between T1 and T2	21.3*,#	18.4*,#
			From family		
			Before COVID-19	1.7	1.2
			Between T0 and T1	17.2*	12.1*
			Between T1 and T2	7.1*,#	4.2*,#

Author, Year Country Method of Assessment	COVID-19 Severity	Time of Assessment	Outcome Data
Huang, 2022[9] China In-person questionnaire as outpatient	100% hospitalized 4% admitted to ICU Scale 3: 24.7% Scale 4: 67.6% Scale 5-6: 7.6%	1 and 2 years post-symptom onset Note: Only have data for 1 and 2 years. 6 months is N/A	**Healthcare use (n, %):**

	Total *N=1192*		**Scale 3** *N=295*		**Scale 4** *N=806*		**Scale 5-6** *N=91*	
	1 yr	**2 yr**	**1 yr**	**2 yr**	**1 yr**	**2 yr**	**1 yr**	**2 yr**
Outpatient clinic visit	215 (18)	226 (19)	54 (19)	56 (19)	149 (19)	150 (19)	12 (13)	20 (22)
Hospitalization	152 (13)	159 (13)	38 (13)	45 (15)	100 (13)	95 (12)	14 (16)	19 (21)
ER visit	12 (1)	7 (1)	3 (1)	2 (1)	8 (1)	5 (1)	1 (1)	0 (0)

Discharge Disposition (n, %)			
Alser, 2021[34] USA Administrative data	100% hospitalized in ICU	Immediately post hospital discharge and median 92.0 days (range 81-117 days)	*N=175* Home or home health care: 58 (33.1) Rehabilitation or SNF: 108 (61.7) Short-term general hospital: 7 (4.0)
Changal, 2021[35] USA (Ohio) Administrative database	100% hospitalized (all) 33% admitted to ICU (total)	Hospital discharge	*N=238* Home: 174 (73) SNF: 60 (25)

Author, Year Country Method of Assessment	COVID-19 Severity	Time of Assessment	Outcome Data
Changal, 2021[31] USA Administrative database	100% hospitalized	Hospital discharge	*N=227* Home: 165 (75) SNF: 59 (26) Patients with myocardial injury demonstrated a lower likelihood of discharge to home (35% vs. 69%, *P* 0.001) and a higher likelihood of death (33% vs. 10%, *P* 0.001). Odds of having myocardial injury were higher with discharge to skilled nursing facility (OR 2.94, 95% CI 1.41–6.10).
Claflin, 2021[32] USA Administrative data	100% hospitalized	Immediately post hospital discharge	**COVID-19 only** *N=184* / **Neuro-COVID** *N=81* / *P*-value Home: 163 (89) / 25 (40) / <0.0001 SAR/SNF: 19 (10) / 21 (33) / <0.0001 Acute inpatient rehabilitation: 2 (1) / 7 (11) / P=0.180 LTACH: 0 (0) / 5 (8) / P=0.062 Hospice: 0 (0) / 5 (8) / P=0.062
de Havenon, 2020[36] USA Administrative database	100% hospitalized, ischemic stroke and COVID-19 diagnosis	Immediately post hospital discharge	A smaller proportion of patients with ischemic stroke and COVID-19 had a favorable discharge (defined as discharge to home or acute rehabilitation): 33.9% vs 66.4%, p<0.001 Compared to patients with ischemic stroke and pneumonia, patients with ischemic stroke and COVID-19 had odds of 0.63 (95% CI, 0.54-0.73) for favorable discharge

Author, Year **Country** **Method of Assessment**	**COVID-19 Severity**	**Time of Assessment**	**Outcome Data**					
Domecq, 2021[37]	100% hospitalized	Hospital discharge		**Total** *N=20,608*	**18-44 years** *n=3,986*	**45-59 years** *n=5,300*	**60-74 years** *n=6,491*	**75+ years** *N=4,831*
Multi	42.4% admitted to ICU		Home	10,264 (49.8)	2,733 (68.6)	3,204 (60.5)	2,973 (45.8)	1,354 (28)
			SNF	835 (4.1)	67 (1.7)	145 (2.7)	336 (5.2)	287 (5.9)
Administrative database			Assisted living	1,197 (5.8)	62 (1.6)	198 (3.7)	451 (6.9)	486 (10.1)
			Other	1,156 (5.6)	160 (4)	287 (5.4)	368 (5.7)	341 (7.1)
			NR	3,250 (15.8)	781 (19.6)	884 (16.7)	880 (13.6)	705 (14.6)
Erben, 2021[38]	100% hospitalized	Hospital discharge, until 9/4/2020	*N=820* Home: 707 (86) Rehabilitation facility: 111 (14)					
USA	30.4% admitted to ICU							
Administrative database								
Fernandes, 2021[39]	100% hospitalized	Hospital discharge	*N=1494* Home: 1052 (70) Inpatient rehabilitation: 146 (10) SNF: 296 (20)					
USA								
Administrative database								
Frontera, 2021[33]	100% hospitalized	Hospital discharge			**With neurologic disorder** *n=382*	**Without neurologic disorder** *n=3107*	*P-value*	
USA	40% admitted to ICU (with neurologic disorder), 19% admitted to ICU (without neurologic disorder)		Home:		201 (53)	2548 (82)	<0.001	
Administrative database			LTACH:		14 (4)	28 (1)	<0.001	
			Nursing home:		122 (32)	357 (11)	<0.001	
			Acute inpatient rehabilitation:		32 (8)	89 (3)	<0.001	
			SAR:		4 (1)	3 (0.1)	0.001	

Author, Year Country Method of Assessment	COVID-19 Severity	Time of Assessment	Outcome Data			
Gavin, 2022[40] USA Administrative data	100% hospitalized	Immediately post and 30 days post-hospital discharge		**Without PAR** *N=550*	**With PAR** *N=62*	*P*-value
			Home	406 (73.8)	41 (66.1)	P=0.19
			Acute or subacute rehabilitation	91 (16.5)	19 (30.6)	P=0.006
			Hospital at home	53 (9.6)	2 (3.2)	P=0.09
Hägg, 2020[30] Sweden Administrative database	100% hospitalized	Followed up for ≤28 days		**With COVID-19** *N=191*	**Without COVID-19** *N=688*	*P-value*
			Home	110 (58)	423 (61)	<0.001
			Survival analysis for discharged to home in patients with COVID-19 (N=250) *Multivariate model, adjusting for age and sex* HR (95% CI): Age: 0.97 (0.94-0.99), p<0.05 Male sex: 0.90 (0.60-1.34), p≥0.05			
Lavery, 2020[41] USA Administrative database	100% hospitalized 15% admitted to an ICU	Hospital discharge	*N=106,543* Home or self-care: 64,475 (60) SNF: 16,339 (15) Home health organization: 12,223 (10) Hospice: 3,807 (4) Ongoing care: 4,404 (4) Other: 5,295 (5)			
Loerinc, 2021[42] USA Administrative database	100% hospitalized 21.6% admitted to ICU	Hospital discharge and post-discharge (undefined)	*N=310* Home: 281 (90.6) SNF: 25 (8.1) DPH facility: 4 (1.3) Placement issues: 9 (2.9) Unstable housing: 5 (1.6) AMA: 1 (0.3)			

Author, Year Country Method of Assessment	COVID-19 Severity	Time of Assessment	Outcome Data
McCarthy, 2020[43] USA Case series	100% hospitalized 42% admitted to ICU	Hospital discharge	*N=213* Home: 143 (67.1) Post-acute care facility: 70 (32.9)

Author, Year Country Method of Assessment	COVID-19 Severity	Time of Assessment		Inpatient *N=414,510*	Outpatient *N=971,122*
Moon, 2022[44] USA Administrative data	1/3 hospitalized at index visit, 22.5% ICU	30 days from index visit	Home	213,227 (51)	764,445 (79)
			Home health	55,871 (13)	3,851 (0.4)
			Transfer to SNF/ICF/RF/LTCF	72,765 (18)	7,514 (1)
			Transfer to another acute care facility	1,674 (0.4)	1,998 (0.2)
			Hospice	15,106 (4)	510 (0.1)
			Other	55,867 (13)	192,804 (20)

Author, Year Country Method of Assessment	COVID-19 Severity	Time of Assessment		Total *N=1,174*	Black patients *n=645*	All other patients *n=529*	*P-value*
Nimgaonkar, 2021[45] USA Administrative database	100% hospitalized	Hospital discharge and 30 days post-discharge	Home (without services)	523 (44.5)	271 (42.0)	252 (47.6)	<0.001
			Home health care	352 (30.0)	230 (35.7)	122 (23.1)	
			SNF/acute rehab	241 (20.5)	114 (17.7)	127 (24.0)	
			Other	58 (4.9)	30 (4.7)	28 (5.3)	

Author, Year Country Method of Assessment	COVID-19 Severity	Time of Assessment	Outcome Data
Pagali, 2021[46] USA Administrative database	100% hospitalized 18% in the ICU Mild: 1000 (23%) Moderate: 1548 (36%) Severe: 734 (17%) Critical: 1069 (25%)	Hospital discharge and 30 days post hospital discharge	Adjusted for age, sex, Charlson comorbidity score, and COVID-19 severity, patients with delirium were at higher risk a higher risk of all-cause mortality 30-days following hospital discharge (OR 4.54, 95% CI 3.25, 6.38; p < .001), a significantly higher likelihood of readmission to the hospital (OR 1.48, 95% CI 1.17, 1.85; p < 0.001), and a higher rate of discharge to skilled nursing facility (OR 4.07, 95% CI 3.30, − 5.02; p < 0.001).

Qureshi, 2021[47] USA Administrative database	100% hospitalized	Hospital discharge * "Non-routine" includes short-term hospitals, intermediate care, and SNF		**White** *N=18,888*	**African American** *N=10,025*	**Hispanic** *N=19,366*	**Asian or PI** *N=998*
			Routine (home)	10,055 (53.2)	6,108 (60.9)	13,495 (69.7)	638 (63.9)
			P-value	*Comparator*	*<0.001*	*<0.001*	*<0.001*
			Non-routine*	6,665 (39.9)	2,837 (28.3)	3,941 (20.4)	239 (23.9)
			P-value	*Comparator*	*<0.001*	*<0.001*	*<0.001*

Author, Year **Country** **Method of Assessment**	**COVID-19 Severity**	**Time of Assessment**	**Outcome Data**
Roberts, 2021[48] USA Administrative database	100% hospitalized 23.0% admitted to ICU (discharged home) 38.5% admitted to ICU (discharged institution)	Hospital discharge * "Institution" includes inpatient rehabilitation facility, SNF, long-term care hospital, or discharge to another acute care facility	*N=230* Home: 165 (71.7) Institution*: 65 (28.3)
Saad, 2022[49] USA Administrative Data	100% hospitalized and transferred to a LTACH for weaning from prolonged ventilation	Immediately post LTACH discharge with the last follow-up date June 1, 2021	*N=141* Home: 30 (19.0) Rehabilitation facility: 73 (46.2) Acute care hospital: 27 (17.1) Nursing home: 11 (7.0)
Taupin, 2021[50] US Administrative database	100% hospitalized 37.7% admitted to ICU	Hospital discharge	*N=576* Extended care facility: 250 (43.4) Home: 209 (36.3) Home with services: 117 (20.3)

Notes. [a] Specialists: cardiology, nephrology, urology, pulmonology, rheumatology, oncology, endocrinology, infectious disease, gastroenterology, psychiatry, surgery, neurology, palliative care.
Abbreviations. AMA=against medical advice; CI=confidence interval; COVID-19=coronavirus disease 2019; DPH=Department of Public Health; HR=hazard ratio; ICF=intermediate care facility; ICU=intensive care unit; LTACH=long-term acute care hospital; LTCF=long-term care facility; NR=not reported; OT=occupational therapy; PCP=primary care provider; PT=physical therapy; RF= rehabilitation facility; SAR=subacute rehabilitation; SNF=skilled nursing facility; US=United States.

QUALITY ASSESSMENT OF INCLUDED PRIMARY STUDIES

Table 5. Cohort Studies: Newcastle-Ottawa Quality Assessment Scale

Author, Year	Selection				Comparability	Outcome			Total	Quality Rating
	1	2	3	4	1	1	2	3		
Prospective										
Frontera, 2021[4]	*	*	*	*		*		*	6/9	Moderate
Hägg, 2020[30]	*	*	*		*	*		*	6/9	Moderate
Nagata, 2022[17]	*	*		*	*			*	5/9	Moderate
Sørensen, 2022[23]	*	*	*	*	*		*		6/9	High
Retrospective										
De Havenon, 2020[36]	*	*	*		**	*			6/9	Moderate
Jacobsen, 2022[10]	*		*	*		*	*	*	6/9	Moderate

Newcastle-Ottawa Quality Assessment Scale for Cohort Studies[51]

Note: A study can be awarded a maximum of 1 star for each numbered item within the Selection and Outcome categories. A maximum of 2 stars can be given for Comparability

Selection

1) Representativeness of the exposed cohort
   a) truly representative of the average _____ (describe) in the community ✵
   b) somewhat representative of the average _____ in the community ✵
   c) selected group of users eg nurses, volunteers
   d) no description of the derivation of the cohort

2) Selection of the non exposed cohort
   a) drawn from the same community as the exposed cohort ✵
   b) drawn from a different source
   c) no description of the derivation of the non exposed cohort

3) Ascertainment of exposure
   a) secure record (eg surgical records) ✵
   b) structured interview ✵

c) written self report
d) no description

4) Demonstration that outcome of interest was not present at start of study
a) yes ✸
b) no

Comparability

1) Comparability of cohorts on the basis of the design or analysis
a) study controls for _____ (select the most important factor) ✸
b) study controls for any additional factor ✸ (This criteria could be modified to indicate specific control for a second important factor.)

Outcome

1) Assessment of outcome
a) independent blind assessment ✸
b) record linkage ✸
c) self report
d) no description

2) Was follow-up long enough for outcomes to occur
a) yes (select an adequate follow up period for outcome of interest) ✸
b) no

3) Adequacy of follow up of cohorts
a) complete follow up - all subjects accounted for ✸
b) subjects lost to follow up unlikely to introduce bias - small number lost - > ____ % (select an adequate %) follow up, or description provided of those lost) ✸
c) follow up rate < ____% (select an adequate %) and no description of those lost
d) no statement

Table 6. Case Series: Modified JBI Critical Appraisal

Author, Year	Clear Inclusion Criteria	Condition Measured in Standard, Reliable Way	Valid Methods for Identification of the Condition	Consecutive Inclusion of Participants	Complete Inclusion of Participants	Clear Reporting of Demographics	Outcomes or Follow-up Results Clearly Reported	Clear Reporting of Site(s)/ Clinic(s) Demographic Information	Appropriate Statistical Analysis
Alser, 2021[34]	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	N/A
Changal, 2021[35]	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	N/A
Changal, 2021[31]	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	N/A
Claflin, 2021[32]	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Davis, 2021[1]	Yes- respondents consented to criteria	Yes - same for all; reliability unknown	No – self report	No - open online survey	Yes – after exclusion criteria applied	Yes	Unclear - survey question not provided	N/A	Proxy response rate; n/N not provided
Domecq, 2021[37]	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	N/A
Erben, 2021[38]	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	N/A
Evans, 2021[2]	Yes	Mix of confirmed and clinician diagnosed	Unclear – 95% with RT-PCR test	No – only those who consented to research visits	Yes – after exclusion criteria applied	Yes	Study-specific question – not provided	53 sites; Index of Multiple Deprivation reported	Yes
Faghy, 2022[3]	No – open survey	Yes - same for all; reliability unknown	No – self report	No – open online survey	Unclear	Yes	Unclear – survey questions not provided	N/A	n/N not provided; response rate unknown
Fernandes, 2021[39]	Yes	Yes	Yes	Yes	Unclear	Yes	Yes	Yes	N/A
Frontera, 2021[33]	Yes	Yes - same for all	Yes – RT-PCR	Yes	15-20% refused to participate	Yes	Study-specific question	4 sites; little additional information	Yes
Gavin, 2022[40]	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

Author, Year	Clear Inclusion Criteria	Condition Measured in Standard, Reliable Way	Valid Methods for Identifica-tion of the Condition	Consecutive Inclusion of Participants	Complete Inclusion of Participants	Clear Reporting of Demo-graphics	Outcomes or Follow-up Results Clearly Reported	Clear Reporting of Site(s)/ Clinic(s) Demographic Information	Appropriate Statistical Analysis
Ghosn, 2021[5]	Yes	Yes - same for all	Yes – viro-logically confirmed	Unclear	Missing 'work' data for 19%	Yes	Unclear – "work" question not provided	Unclear – single site?	Yes
Hawlader, 2021[6]	Yes	Yes - same for all	Yes – RT-PCR	Unclear	Randomly selected sample; approx. 1% of COVID positives	Yes	Unclear – "occupation" question not provided	N/A – participants identified from government records	29% of those contacted declined to participate
Heightman, 2021[7]	Yes	Mix of confirmed and strong clinical suspicion	Unclear; 36% with clinical suspicion	Unclear how patients were identified from hospital and non-hospital settings	13% did not attend follow-up per schedule	Yes	Unclear – "employmen t" question not provided; first assessment ranged from 0 to 12+ months post-acute illness	Post-COVID clinic for health system; Index of Multiple Deprivation reported;	Yes
Hodgson, 2021[8]	Yes	Yes - same for all	RT-PCR	Unclear	Registry captured 95% of ICU admissions	Yes	25% unable to contact for follow-up; work status question not provided	30 ICUs; little additional information	Yes
Huang, 2022[9]	Yes	Yes	Yes – Labora-tory confirmed	Yes	Yes	Yes	Yes	Yes	N/A

Author, Year	Clear Inclusion Criteria	Condition Measured in Standard, Reliable Way	Valid Methods for Identification of the Condition	Consecutive Inclusion of Participants	Complete Inclusion of Participants	Clear Reporting of Demographics	Outcomes or Follow-up Results Clearly Reported	Clear Reporting of Site(s)/ Clinic(s) Demographic Information	Appropriate Statistical Analysis
Jacobson, 2021[11]	Little information provided	Yes, same for all	RT-PCR	No – invited participants	Unclear	Yes	WPAI questionnaire	Single site; little information provided	Yes
Latronico, 2022[12]	Little inclusion/ exclusion information	Yes, same for all	Unclear ("confirmed")	Yes	Yes – all eligible survivors during study period		Work-related questions provided; 38% at 3 mo, 44% at 6 mo, and 63% at 12 mo lost or unwilling to follow-up	Single site; little information provided	Yes
Lavery, 2020[41]	No	Yes	Yes	Yes	Yes	Yes	Yes	No	N/A
Lemhofer, 2021[13]	No – "selection" from public health records and patients cared for by author	Unclear – testing not reported	"Positively tested"	No – "selection"	Response rate 41%	Little information	Study-specific questions (not provided)	2 Bavarian communities	Yes
Loerinc, 2021[42]	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	N/A
Lunt, 2022[14]	Open survey	Yes - same for all; reliability unknown	No – positive test or suspected COVID	No – open online survey	Unclear	Yes	WAI2	N/A	Yes

Author, Year	Clear Inclusion Criteria	Condition Measured in Standard, Reliable Way	Valid Methods for Identification of the Condition	Consecutive Inclusion of Participants	Complete Inclusion of Participants	Clear Reporting of Demographics	Outcomes or Follow-up Results Clearly Reported	Clear Reporting of Site(s)/ Clinic(s) Demographic Information	Appropriate Statistical Analysis
Millet, 2022[15]	Yes	Yes – same for all	RT-PCR	Unclear	Yes – all meeting inclusion criteria were contacted	Little information	34% response rate	Single site; community information provided	Yes
Moon, 2022[44]	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	N/A
Moy, 2022[16]	No – open survey	Yes - same for all; reliability unknown	No – self report	No – open online survey	Unclear	Yes	Unclear – survey questions not provided	N/A	Yes
Nanwani-Nanwani, 2022[18]	Yes	Unclear	Unclear – "admitted due to SARS-CoV-2"	Unclear	Unclear	Yes	Data from 56% of survivors; work-related questions unclear	3 sites; little information provided	Yes
Neville, 2022[19]	Yes	Yes; same for all	"Laboratory-confirmed"	Yes	Yes	Yes	Study-specific questions	2-hospital health system; Social Vulnerability Index reported	Yes
Nimgaonkar, 2021[45]	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Norrefalk, 2021[20]	Yes for survey participation	Same for all; reliability unknown	Self-report	Yes	Excluded if missing data	Yes	No – unclear reporting	Limited to Sweden	Yes

Author, Year	Clear Inclusion Criteria	Condition Measured in Standard, Reliable Way	Valid Methods for Identification of the Condition	Consecutive Inclusion of Participants	Complete Inclusion of Participants	Clear Reporting of Demographics	Outcomes or Follow-up Results Clearly Reported	Clear Reporting of Site(s)/ Clinic(s) Demographic Information	Appropriate Statistical Analysis
Peters, 2022[21]	Yes	Yes; same for all	Self-report of RT-PCR confirmation	Unclear	Included all with insurance report	Yes	Work Ability Index questionnaire; outcomes for 45% of eligible cases	Little information provided	Yes
Qureshi, 2021[47]	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Roberts, 2021[48]	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Saad, 2022[49]	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	N/A
Schandl, 2021[22]	Yes	Yes; same for all	RT-PCR	Yes	Yes	Yes	40% did not complete follow-up	2 ICUs of single site; little information	Yes
Tabacof, 2022[24]	No exclusion criteria	56% with confirmed COVID-19	Confirmed or probable infection	No – convenience sample	48% response rate	Yes	Study-specific employment question	Single clinic; little information provided	Yes
Taupin, 2021[50]	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	N/A
Trades Union Congress (TUC) 2021[25]	No – open survey	Same for all; reliability unknown	No – self-report	No - open online survey	Unclear	No	Unclear – survey questions not provided	N/A	Response rate and n/N not provided
Vaes, 2021[26]	No – open survey	24% with confirmed diagnosis	No – self report	No – open online survey	No	Little information	WPAI; 90% completed 1st survey; 47% completed 2nd survey (65% of	N/A	Yes

Author, Year	Clear Inclusion Criteria	Condition Measured in Standard, Reliable Way	Valid Methods for Identification of the Condition	Consecutive Inclusion of Participants	Complete Inclusion of Participants	Clear Reporting of Demographics	Outcomes or Follow-up Results Clearly Reported	Clear Reporting of Site(s)/ Clinic(s) Demographic Information	Appropriate Statistical Analysis
							those who consented to 2nd survey)		
Vanichkachorn, 2021[27]	Yes	95% with positive test	RT-PCR or clinically diagnosed	Yes	Yes	Yes	Data from patient-reported history	Single site; no community information provided	Yes
Wahlgren, 2022[28]	Little information provided	Yes; same for all	RT-PCR	Unclear	Unclear – only those who reported "concerning residual symptoms and limitations"	Yes	Little information on work-related questions	3 hospital; no community information provided	Yes
Westerlind, 2021[29]	Little information other than included in registry for sickness benefits	Reliability unknown	Unclear – ICD-10 codes for COVID ("virus detected", "virus un-detected", "unspec-ified diagno-sis")	Unclear	Unclear	Yes – including income and education	Yes	Registry; no community information	Yes

Abbreviations. ICU=intensive care unit; N/A=not applicable; RT-PCR=reverse-transcriptrase-polymerase-chain-reaction; WAI2=Work Ability Index 2 scale; WPAI=Work Productivity and Impairment (WPAI) questionnaire.

JBI Critical Appraisal Checklist for Case Series[52]

	Yes	No	Unclear	Not applicable
• Were there clear criteria for inclusion in the case series?	☐	☐	☐	☐
• Was the condition measured in a standard, reliable way for all participants included in the case series?	☐	☐	☐	☐
• Were valid methods used for identification of the condition for all participants included in the case series?	☐	☐	☐	☐
• Did the case series have consecutive inclusion of participants?	☐	☐	☐	☐
• Did the case series have complete inclusion of participants?	☐	☐	☐	☐
• Was there clear reporting of the demographics of the participants in the study?	☐	☐	☐	☐
• Were the outcomes or follow up results of cases clearly reported?	☐	☐	☐	☐
• Was there clear reporting of the presenting site(s)/clinic(s) demographic information?	☐	☐	☐	☐
• Was statistical analysis appropriate?	☐	☐	☐	☐

APPENDIX D: PEER REVIEW DISPOSITION

Question Text	Reviewer Number	Comment	Author Response
Are the objectives, scope, and methods for this review clearly described?	1	Yes	Thank you.
	2	Yes	
	3	Yes	
	4	Yes	
	5	Yes	
Is there any indication of bias in our synthesis of the evidence?	1	No	Thank you.
	2	No	
	3	No	
	4	No	
	5	No	
Are you aware of any published or unpublished studies that we may have overlooked?	1	No	Thank you.
	2	No	
	3	No	
	4	No	
	5	No	
Additional suggestions or comments can be provided below. If applicable, please indicate the page and line numbers from the draft report.	1	The report is generally well organized and complete. I have a few suggestions for greater clarity: 1) I would separate out studies in Table based on the proportion of hospitalized patients and in the discussion would separately describe findings from ICU, hospitalized, and general COVID+ population, as this effect is so strong. Some summary of the range of estimates among the general population of COVID infected patients (most outpatients) would be useful as those numbers seem relatively low (in the low single digits). 2) I would separately discuss those few studies that had a control group to discuss the	Thank you. 1) We revised KQ1 Table 1 and the text about studies of patients recruited broadly to report results for ICU, hospitalized, and non-hospitalized. In the Key Findings we provided ranges. 2) We highlight studies with a control group in the text.

Question Text	Reviewer Number	Comment	Author Response
		incremental effect of COVID over other illnesses. 3) The education outcomes studies don't seem to offer any useful information if they aren't tracking individuals when were students at time of infection. Simply reporting student status in the general population based on COVID + vs - is uninformative or even misleading since students were more likely to get infected. 4) A number of the employment studies don't distinguish the effects of getting COVID vs, the effects of the pandemic on employment. I would make clearer that only a limited number of studies specifically assessed whether patients were unemployed due to symptoms of COVID.	3) We agree and have modified our statement about education outcomes to indicate that there is insufficient evidence. 4) On the Employment section tables, we feature columns on “Return to Work if Working Pre-COVID-19” and “Unable to Work Due to Illness”. All of the patients in the studies had COVID-19 (except for the few studies with COVID-negative controls). We agree that separating pandemic era effects is difficult.
	2	The authors note that they include several studies in which COVID was self-identified by the participants themselves (some likely social media-base). The clustering of these studies into one reporting category, along with the up-front mention of limitations seems appropriate. Although I did not review each study individually, as a class they often contain other biases worthy of note. For example, actual covid status can’t be verified, constituting a fundamental threat to validity. Self-selection bias not only includes the severity-inclusion bias the reviewers mention, but likely unmeasured attitudinal and/or political variability associated with self-identifying as having had COVD or COVID-related consequences (at least in the US). These limitations could be more clearly articulated.	We added Limitations to the Key Findings section and modified the Limitations section in the Discussion.
		Question, the authors do not note associations between continuing care needs and any	Limited data suggested ICU survivors were more likely to be discharged to a SNF and less likely to be

Question Text	Reviewer Number	Comment	Author Response
		disease characteristics (e.g., severity) such as they do with employment in the “Key Findings” section (i.e., Key Question 3 Continuing Care). Some studies examined for the category of continuing care included mixes of hospitalized vs. non-hospitalized and ICU vs. non-icu. Did the authors simply feel there was not enough info to make a statement? The third sentence of the discussion seems to suggest the authors did find this, or alternately combines employment and care need outcomes in the sentence in a way that could be more clear.	discharged home than non ICU survivors, but ranges for these outcomes varied widely, precluding estimates of rates of discharge home, discharge to SNF, or other continuing care needs for these patients. Two studies were limited to ICU survivors – one reported that 93% were discharged home and only 3% were discharged to a SNF; however, a third of the patients were missing discharge status. The other study reported that only 33% were discharged home, with 62% discharged to a SNF. Other studies reported outcomes for a mix of ICU and non-ICU hospitalized patients (percentage of ICU patients in these studies ranged from 15-42%). These studies reported that 56-91% of patients were discharged home (with or without home health care; 3-43% were reported discharged to SNF or equivalent. Other studies reported outcomes for hospitalized patients but did not report the percentage cared for in an ICU: these studies reported that 69-89% of patients were discharged home (with or without home health care), while 10-26% were discharged to a SNF or equivalent. We have added some language to the Key Findings and Discussion sections highlighting these findings.
		The authors are quite conscientious about highlighting the fact that the landscape surrounding COVID has evolved very rapidly and thus many results have limited current applicability because of changing circumstances. Do the authors feel like they would be on firm footing to suggest which, if any, of their observations are more likely to be enduring”?	We added a Future Research section. There are wide variations in populations, outcomes and assessment methods, etc. in the existing literature so definitive conclusions are difficult.

Question Text	Reviewer Number	Comment	Author Response
	3	1. Page 29 (KQ2:Education) - the team appeared to find very scant evidence to inform COVID's impact on post-secondary education outcomes - what is reported lacks any pre-post comparison in student enrollment. Some comment on the paucity of studies addressing the question whether patients with COVID19 had worse educational outcomes might be useful to acknowledge the lack of evidence. 2. Page 41 (Key findings, key question 1 - employment) to me, the evidence did seem to suggest a high prevalence of disruption of employment (high % of patients had not yet returned to work 6 or 12 months out, in both observational and patient-reported studies), but a lack of evidence supporting whether this translated to permanent job loss. Did the evidence not reach a sufficient threshold of quality and strength to reach this conclusion? 3. If at all possible, it would be useful to highlight any studies that were generated from the Veteran population, particularly since there is such a range in results.	1. We modified this section to indicate there is insufficient evidence for education outcomes. 2. The degree of disruption to employment varied significantly across studies, making conclusions difficult. We felt comfortable concluding that hospitalized patients are more likely to have adverse employment outcomes than non-hospitalized patients but were not comfortable with providing a numerical estimate of the degree of job loss associated with COVID-19 infection. Follow-up periods were generally 6 months so permanent job loss is also uncertain. 3. There were no studies from the VHA or studies that identified and reported results for a Veteran population.
	4	Congratulations on performing this very thorough evidence synthesis. My comments are mostly on messaging and presentation of the results. 1. The Key Findings state that the “results have limited applicability to current COVID-19 infection”. I would perhaps rephrase that, as it makes it sound that one should dismiss this report altogether. Specifically, the argument that most patients enrolled in the studies were infected before Delta and Omicron is only partly relevant, because those patients are still around today and still potentially experiencing the	Thank you. We revised the Discussion section to reflect this point. We believe we have addressed this point in the Limitation section. In the first year of the pandemic, the time period these studies focused on, public health recommendations and social norms may

Question Text	Reviewer Number	Comment	Author Response
		manifestations of long-COVID, including effects on employment etc. Also, I am not sure I understand how changes in "social and public health recommendations and behavioral norms" would affect the long-term impact of COVID-19 infection on employment, education or care needs. Can you pls explain?	have resulted in barriers to employment and education that were not directly related to an individual's SARS-CoV-2 infection; these barriers may have included concern for personal safety, requirements for masking and social distancing, and closures of businesses. Similarly, these factors may have also influenced discharge disposition for some patients. As public health recommendations and social norms have become less restrictive, the impact of these factors likely has lessened. Most studies did not report reasons for unemployment, educational enrollment status, and discharge disposition; as a result, we were often unable to attribute outcomes of interest to sequelae of infection vs. other impacts of the pandemic. We have revised this sentence to improve clarity and elaborated on this limitation in the Discussion.
		2. On pages 4-8 the long list of sub-groups/effect-modifiers appears to be repeated verbatim 3 times for each of the three key questions. If it is really identical, perhaps list only once, and specify that it applies to all three questions?	We condensed the sub-groups/effect-modifiers list.
		3. I was not aware of the AI function (Distiller AI) for reviewing the title and abstract: that was cool!	Thank you – it saves some time!
		4. Table 1. In the first column can you pls state for each study whether the number enrolled consists of COVID positive patients or break down the number enrolled by COVID positive and uninfected controls .	We added this to Table 1.
		5. Is there a way to group together studies in Table 1 and Table 5 in meaningful ways? Was there any rationale for the order in which the studies are presented in these Tables?	We did not feel it was appropriate to groups the studies in Tables 1 and 5. Table 1 focused on outcomes 3 or more months post-acute infection while Table 5 focused on primarily discharge disposition. Many of the tables have been reorganized (*eg,* ICU studies first).

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		6. Why is the first column showing different information in Tables 1-4 than in Table 5?	We try to present the most relevant basic study characteristics data for each Key Question in the tables included in the text. There is more standardized reporting in the Supplemental Tables.
		7. The findings of KQ1 and KQ3 are presented in a very long section each with multiple paragraphs, that are difficult for the reader to follow. Would you consider sub-sections or sub-headings for each of the main paragraphs of these sections?	We added subheadings for clarity.
		8. For Key Findings in KQ1 and KQ3 on page 41, it is reported that results "varied widely" but no range is given to give the reader a sense of the magnitude of the problem.	We added ranges for these outcomes in the Key Findings and Discussion sections, with relevant caveats.
	5	This is an exceptionally well written review with a clear focus on detail. This reviewer appreciates the authors' conservative interpretation of the results, noting the difficulty with generalizability between samples included in the review and current populations. However, given the limited ability to make general outcome statements it may be helpful to highlight consistent "trends" or lower level signals in the data. For instance, in the few studies that explored the impact of race and ethnicity, non-Caucasian identity seemed to be consistently related to different outcomes (more likely to be d/c home, more financial distress, and increased likelihood of losing their job). Although it is listed in your limitations/future directions, it may be appropriate to highlight this as a potential trend	Thank you. We note the following in the text and Discussion. Only one study (Millet) reported employment outcomes by race/ethnicity. This single institution study in New Jersey reported results of a phone survey performed one year after study participants had COVID-19 in March and April of 2020. They reported results from 170 patients they contacted but did not report the number of patients who they were unable to contact or provide any other information about participant selection. They reported that nearly 40% of Hispanic patients (total n=79) and 37% of African American patients (total n=46) contacted reported they had lost their job due to their COVID-19 illness, compared to 13% of White patients (total n=31). Given the many limitations of this study (small sample size, lack of

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		with a specific need for additional research.	information about participant selection, long time lag for follow-up, single institution), we were not comfortable drawing any conclusions based on this study. We have added language to the discussion highlighting the need for more research in this area.
			Only one study (Nimgaonkar) reported post-hospitalization care needs by race/ethnicity. That study, conducted in a five hospital health system in the US, evaluated 1,174 patients admitted with COVID-19 between March and August 2020. 17.7% of Black patients were discharged to a SNF/acute rehab vs. 24.0% of other patients (primarily White). 42.0% of Black patients vs. 47.6% of other patients were discharged home without home health services, while 35.7% of Black patients were sent home with home health care compared to 23.1% of other patients. We did not feel we could draw conclusions from these data but again have highlighted the need for more research in this area in the Discussion.
		There are summary sections (e.g., pg 41 line 39-40) which indicate that outcomes vary based on illness severity. It is unclear how the authors are operationalizing this though is likely related to hospitalization. It may be helpful to be more descriptive with this, especially, as the authors acknowledge, there are significant cohort effects. For instance, someone who was hospitalized early on in the pandemic may not have been considered for hospitalization later in the pandemic (or the reverse).	The reviewer is correct – we have operationalized severity based on hospitalization vs outpatient care; when provided, we have also used ICU hospitalization status to indicate more severe illness as compared to non-ICU hospitalization status. Studies did not report sufficient detail to allow other severity classification. We have edited the manuscript to make this more clear.
		The authors refer to "Long COVID" throughout the manuscript. An additional limitation that	Our focus was on the “burden” of COVID-19 so we required that study enrollees had COVID-19 but not necessarily Long COVID or PASC. We agree that

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		may be helpful to include is that not only are symptoms not well defined post-COVID, the sequalae of symptoms have several definitions (e.g., WHO and CDC difference in duration) with several different names (Post COVID condition, Long COVID, PASC), which can further complicate synthesis of data. Minor edits: pg 20 , line 45: spell out one? and there needs to be a space to separate from the next word pg 31 line 39-40 and pg 38 32-33 are the same sentence/provide the same data. Does it need to be repeated in both places? pg 42, line 35 spell out one pg 43, line 51, delete (ref)	different definitions make synthesis of results difficult. Using “1” is ESP style We removed the duplicate text. See above (ref) has been deleted

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