

Table S1. Effect estimates and evidence for Transport sector

Outcome	Study	Subgroups	Wave 1 Jan 2020 to Nov 2020	Wave 2 Dec 2020 to May 2021	Wave 3 June 2021 to Nov 2021	Wave 4 Dec 2021 onwards
SARS-CoV-2 infection	Airoldi 2021 (Italy)	Transportation		NA	NA	NA
	Ballering 2021 (Netherlands)		NA	NA	NA	NA
	Beale 2023 (UK)	Transport and mobile machine	1.1(0.7 to 1.5)		1.0(0.7 to 1.5)	0.8(0.6 to 1.1)
	Biarnes- Martinez		NA	NA	NA	NA
	Bonde 2023 (Denmark)	Bus and tram drivers Transport conductors	1.5(1.3 to 1.6) 1.5(1.2 to 1.9)			
	Green 2023 (UK)	Transport (incl. storage, logistic)	1.2(1.0 to 1.4)		NA	NA
	Magnusson 2021 (Norway)	Transport conductor	0.6 (0.2 to 2.2)	1.8 (1.2 to 2.8)	NA	NA
		Travel steward	0.8 (0.3 to 1.8)	1.6 (1.2 to 2.3)		
		Bus or tram driver	2.0 (1.7 to 2.5)	1.4 (1.2 to 1.5)		
		Taxi driver	1.2 (1.0 to 1.4)	1.2 (1.1 to 1.3)		
Reuter 2022 (Germany)		NA	NA	NA	NA	
Rhodes 2022 (UK)	Transport	1.3(1.2 to 1.5)		1.0(0.9 to 1.1)	1.0(1.0 to 1.1)	
Verbeeck 2021 (Belgium)	Transport and storage		NA	NA	NA	
Hospitalisation with COVID-19	Bonde (2022) (Denmark)#	Heavy Truck and Lorry Drivers Bus and Tram Drivers Car, Taxi and Van Drivers Locomotive Engine Drivers Travel Attendants and Travel Stewards	0.84 (0.52 to 1.36) 2.46 (1.79 to 3.40) 1.6 (0.94 to 2.70) 1.23 (0.58 to 2.61) 0.63 (0.15 to 2.58)			
	Mutambudzi (2020) (England)	Transport workers	1.43 (0.78 to 2.63)	NA	NA	NA
COVID-19 mortality	Billingsley 2022 (Sweden)	Taxi/bus	1.41(0.8 to 2.5)	NA	NA	NA
	Cherrie 2022 (UK)	Taxi and cab drivers and chauffeurs	2.4(1.0 to 3.0)	3.1(2.6 to 3.8)	1.7(1.3 to 2.3)	1.0(0.6 to 1.8)
		Bus and coach drivers	1.8(1.4 to 2.5)	2.4(1.9 to 3.1)	1.4(0.9 to 2.3)	1.5(0.9 to 2.7)
	Matz 2023 (UK)		NA	NA	NA	NA
Nafilyan 2021 (UK)	Taxi and cab drivers and chauffeurs - Male Taxi and cab drivers and chauffeurs -Female Bus and coach drivers - Male Bus and coach drivers - Female	1.4(1.1 to 1.7) 2.5(1.0 to 5.9) 1.1(0.9 to 1.5) 1.7(0.7 to 4.1)	NA	NA	NA	

Key: deep red = evidence of highly elevated risks, red= evidence of moderately elevated risks, green= evidence of reduced risks, blue= unclear whether risks are reduced or increased, yellow=varies by subgroup

Table S2. Effect estimates and evidence for Food production and retail sector

Outcome	Study	Subgroups	Wave 1 Jan 2020 to Nov 2020	Wave 2 Dec 2020 to May 2021	Wave 3 June 2021 to Nov 2021	Wave 4 Dec 2021 onwards
	Airoldi 2021 (Italy)	Food industry		NA	NA	NA
		Food industry (meat)				
	Ballering 2021 (Netherlands)		NA	NA	NA	NA
	Beale 2023 (UK)	Food preparation and hospitality workers	1.82 (1.2 to 2.8)		1.0(0.6 to 1.9)	0.7(0.3 to 1.3)
	Biarnes-Martinez 2022 (Spain)		NA	NA	NA	NA
	Bonde 2023 (Denmark)	Waiters Food service counter attendants Bartenders Restaurant managers Hotel managers Food and related products machine operators	1.5(1.4 to 1.6) 1.3(1.1 to 1.5) 1.6(1.3 to 1.9) 1.3(1.0 to 1.7) 1.5(1.0 to 2.2) 2.0(1.8 to 2.2)			
	Green 2023 (UK)	Food production, agriculture, farming Hospitality (hotel, restaurant)	0.9(0.7 to 1.2) 1.3(1.1 to 1.5)		NA	NA
	Magnusson 2021 (Norway)	Bartender Waiter Food counter attendant	0.9 (0.6 to 1.3) 0.8 (0.7 to 0.9) 0.9 (0.7 to 1.2)	2.0 (1.8 to 2.2) 1.5 (1.4 to 1.6) 1.4 (1.3 to 1.5)	NA	NA
	Reuter 2022 (Germany)	Selling goods and foodstuffs	1.5(0.5 to 6.5)	NA	NA	NA
	Rhodes 2022 (UK)	Food	1.1(1.0 to 1.3)		0.9(0.8 to 1.0)	1.0(1.0 to 1.1)
Verbeeck 2021 (Belgium)	Food and beverage service		NA	NA	NA	
Hospitalisation with COVID-19	Bonde (2022) (Denmark)	Cooks Waiters and Bartenders Kitchen Helpers Fast Food Preparers	0.5 (0.2 to 1.0) 0.7 (0.3 to 1.3) 0.9 (0.5 to 1.6) 0.4 (0.1 to 1.5)			
	Mutambudzi (2020) (England)	Food workers	0.8 (0.4 to 1.8)	NA	NA	NA
COVID-19 mortality	Billingsley 2022 (Sweden)	Meat packers	No deaths	NA	NA	NA
	Cherrie 2022 (UK)	Food production	1.3(1.0 to 1.8)	1.2(0.9 to 1.4)	1.2(0.7 to 1.6)	1.0(0.5 to 1.5)
		Food retail and distribution	1.2(1.1 to 1.5)	1.5(1.3 to 1.6)	1.1(0.9 to 1.3)	1.1(0.7 to 1.4)
	Matz 2023 (UK)		NA	NA	NA	NA
Nafilyan 2021 (UK)	Food production – Male Food production – Female Food retail and distribution – Male Food retail and distribution - Female	1.2(0.9 to 1.5) 1.2(0.8 to 1.8) 1.1(1.0 to 1.3) 1.0(0.9 to 1.2)	NA	NA	NA	

Key: deep red = evidence of highly elevated risks, red= evidence of moderately elevated risks, green= evidence of reduced risks, blue= unclear whether risks are reduced or increased, yellow=varies by subgroup

Table S3. Newcastle-Ottawa Scale for quality assessment of selected cohort studies for the scoping review.

Study	Selection				Comparability	Outcome		
	1. Representativeness of the exposed cohort	2. Selection of the non-exposed cohort	3. Ascertainment of exposure	4. Demonstration that outcome of interest was not present at start of study	1. Comparability of cohorts on the basis of the design or analysis	1. Assessment of outcome	2. Was the follow-up long enough for outcomes to occur?	3. Adequacy of follow-up cohorts
Airoldi 2021	-	*	-	*	-	*	*	*
Balling 2021	*	*	-	*		*	*	*
Beale 2023	-	*	-	*	**	-	*	*
Biarnes-Martinez 2022	-	-	-	*	-	*	*	*
Billingsley 2022	*	*	-	*	**	-	*	*
Bonde 2022	*	*	*	*	**	*	*	*
Bonde 2023	*	*	*	*	**	*	*	*
Cherrie 2022	*	*	-	*	*	*	*	*
Green 2023	*	*	-	*	**	*	*	*
Matz 2023	*	*	-	*	*	*	*	*
Magnusson 2021	*	*	*	*	**	*	*	*
Mutambuzi 2020	-	*	-	*	**	*	*	*
Nafilyan 2021	*	*	-	*	**	*	*	*
Nwaru 2022	*	*	-	*	**	*	*	*
Reuter 2022	*	*	-	*	**	*	*	*
Rhodes 2022	*	*	-	*	**	*	*	*
Verbeek 2021	*	*	*	*	-	*	*	*

Table S4. Methods of exposure measurement and outcome measurement

	Method of ascertaining occupation exposure group	Method of ascertaining outcome
Airoldi 2021	Occupational sector classified by local expert from company details	Antibody test from worker screening programme
Ballering 2021	Self reported	Self-reported positive PCR test or a self-reported clinical diagnosis of COVID-19 by a physician based on participants' symptoms
Beale 2023	4-digit SOC codes generated from self reported job title used to generate bespoke groups.	Self-reported PCR or lateral flow test with study-specific antibody tests for a sub-sample.
Biarnes-Martinez 2022	Occupation from previous sick leave report in primary care database (excluded if no previous sick-leave).	Positive PCR recorded in database of diagnoses
Billingsley 2022	3-digit SSYK codes used to generate bespoke groups	Death associated with COVID-19 on death register
Bonde 2022	4-digit DISCO code used to generate one-digit and two-digit divisions, from national register	Positive PCR-test at accredited laboratory. Testing offered free of charge to all residents regardless of symptoms from Aug 2020 onwards.
Bonde 2023	4-digit DISCO code used to generate bespoke groups	Hospital admission of ≥ 12 hours in combination with a positive PCR test up to 14 days prior to admission.
Cherrie 2022	4-digit SOC codes from death certificate used to generate bespoke groups	COVID-19 mentioned on death certificate
Green 2023	ONS 15 sector codes	Positive PCR test via a study specific monthly test
Matz 2023	4-digit SOC codes from death certificate used to generate bespoke groups	Death by any cause from ONS death registry
Magnusson 2021	7-digit STYRK-98 code used to generate bespoke groups	Positive PCR test or diagnosis of confirmed COVID-19 or hospitalisation for COVID-19 in medical records
Mutambudzi 2020	4-digit SOC codes generated from self reported job title used to generate bespoke groups	Positive test result for SARS-CoV-2 in a hospital setting or death with a primary or contributory cause reported as COVID-19
Nafilyan 2021	4-digit SOC codes from death certificate/census used to generate bespoke groups	COVID-19 mentioned on death certificate
Nwaru 2022	3-digit SSYK codes used to generate bespoke groups	Positive PCR recorded on database of notifiable diseases or primary care records or cause of death register or intensive care register
Reuter 2022	5-digit German Classification of occupations generated from self-reported job title used to generate bespoke groups.	Self-reported positive test result
Rhodes 2022	4-digit SOC codes generated from self reported job title used to generate major categories and bespoke groups. ONS 15 sector codes also used.	Positive PCR test via a study specific monthly test
Verbeeck 2021	NACE-BEL codes from employee database (level 1, 2 or 3 groups depending on number of employees)	Confirmed cases on a national register

SOC=Standard Occupational Classification. ONS=Office of National Statistics. DISCO=Danish International Standard Classification of Occupations. SSYK=Swedish Standard Occupational Classification.

Table S5 Inclusion/exclusion criteria

Inclusion criteria	Exclusion criteria
General population cohort	Data on single work sector only
Outcome of SARS-CoV-2 infection, hospitalisation due to COVID-19 or COVID-19 mortality	Exposure based on Job Exposure Matrix categories only
Published in a peer-reviewed journal	Studies using only long COVID as an outcome
Reporting data comparing outcomes in two or more sector groups to a reference category (general population or low-risk group)	
Population based in Europe	

Figure S1: Flow chart of study inclusion

