

## Exploring the relationship between job characteristics and infection: Application of a COVID-19 job exposure matrix to SARS-CoV-2 infection data in the United Kingdom<sup>1</sup>

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1. *Supplementary Material*
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**Table S1. Odds ratios (95% CIs) by level of exposure for Domains 1-4 of the Job Exposure Matrix for two cohorts (CIS and Virus Watch).** Models adjusted for age quintile, sex, ethnicity, IMD, region, household size, urban vs rural area, and presence of health conditions. N = 244,470 and N=16,479 for CIS and Virus Watch cohorts respectively. See table 1 for domain descriptions.

	Domain 1 (Number)		Domain 2 (Nature)		Domain 3 (Surfaces)		Domain 4 (Location)	
	CIS	Virus Watch	CIS	Virus Watch	CIS	Virus Watch	CIS	Virus Watch
No Risk	1	1	1	1	1	1	1	1
Low Risk	1.07 (1.02- 1.12)	0.99 (0.88- 1.11)	1.10 (1.06- 1.15)	1.13 (1.02- 1.25)	1.13 (1.08- 1.19)	1.19 (1.07- 1.32)	1.14 (1.04- 1.24)	1.08 (0.84- 1.37)
Elevated Risk	1.11 (1.07- 1.16)	1.22 (1.11- 1.35)	1.17 (1.13. 1.22)	1.17 (1.07- 1.27)	1.08 (1.03- 1.14)	1.17 (1.04- 1.30)	1.20 (1.12- 1.27)	1.03 (0.87- 1.22)

	Domain 1 (Number)		Domain 2 (Nature)		Domain 3 (Surfaces)		Domain 4 (Location)	
	CIS	Virus Watch	CIS	Virus Watch	CIS	Virus Watch	CIS	Virus Watch
High Risk	1.19 (1.14- 1.24)	1.24 (1.12- 1.37)	0.97 (0.90- 1.04)	1.48 (1.26- 1.72)	1.15 (1.11- 1.20)	1.26 (1.15- 1.38)	1.12 (1.08- 1.16)	1.19 (1.10- 1.29)
Missing	1.18 (1.14- 1.23)	0.89 (0.70- 1.11)	1.18 (1.14- 1.23)	0.89 (0.71- 1.12)	1.17 (1.13- 1.22)	0.90 (0.72- 1.13)	1.18 (1.14- 1.23)	0.89 (0.70- 1.11)

	Domain 5 (Distancing)		Domain 6 (Face covering)		Domain 7 (Insecurity)		Domain 8 (Migrants)	
	CIS	Virus Watch	CIS	Virus Watch	CIS	Virus Watch	CIS	Virus Watch
No Risk	1	1	1	1	1	1.10 (0.35-2.86)	1	1
Low Risk	1.06 (1.02-1.10)	1.04 (0.95-1.14)	1.07 (1.02-1.12)	1.29 (1.16-1.44)	0.83 (0.55-1.26)	1	0.98 (0.95-1.01)	1.00 (0.93-1.07)
Elevated Risk	1.15 (1.11-1.21)	1.22 (1.11-1.35)	1.15 (1.11-1.20)	1.12 (1.03-1.22)	0.80 (0.53-1.21)	1.07 (0.99-1.15)	1.09 (0.99-1.19)	1.56 (1.23-1.96)
High Risk	1.28 (1.22-1.35)	1.54 (1.36-1.74)	1.05 (0.90-1.23)	1.47 (1.11-1.93)	1.00 (0.63-1.58)	1.38 (0.76-2.40)	1.42 (1.19-1.69)	0.93 (0.52-1.59)
Missing	1.18 (1.14-1.23)	0.89 (0.70-1.11)	1.18 (1.14-1.23)	0.89 (0.70-1.11)	0.89 (0.59-1.35)	0.83 (0.66-1.03)	1.08 (1.05-1.12)	0.81 (0.64-1.01)

**Table S2. Spearman’s rank correlation matrix for 8 domains of the JEM, using first available JEM code.**

N=176 713 participants with available SOC in the CIS. See table 1 for domain descriptions.

	Number	Nature	Surfaces	Location	Distancing	Face-covering	Insecurity	Migrant
Number	1							
Nature	0.8412	1						
Surfaces	0.8273	0.9026	1					
Location	0.8116	0.8397	0.7992	1				
Distancing	0.8251	0.8359	0.7967	0.7821	1			
Face-covering	0.6681	0.6304	0.5483	0.7725	0.6533	1		
Insecurity	0.3025	0.2946	0.314	0.2698	0.3467	0.1579	1	
Migrants	0.0555	0.0219	0.0252	0.0025	0.0492	0.0086	0.2042	1

**Figure S1.** Odds ratios for COVID-19 by level of exposure for 6 domains of the Job Exposure Matrix from Virus Watch, adjusted for participants' vaccination status in addition to adjustment provided in main analyses. As above, please see Table 1 for explanation of abbreviations and domain descriptions. Domains relating to insecurity and migrant workers not displayed here due to imprecision.

