



Public Health
England

Protecting and improving the nation's health

Investigation of high risk exposure settings for COVID-19 in England, 2020

Summary results of three case control studies and meta-analysis

Field Service, Public Health England

Summary points:

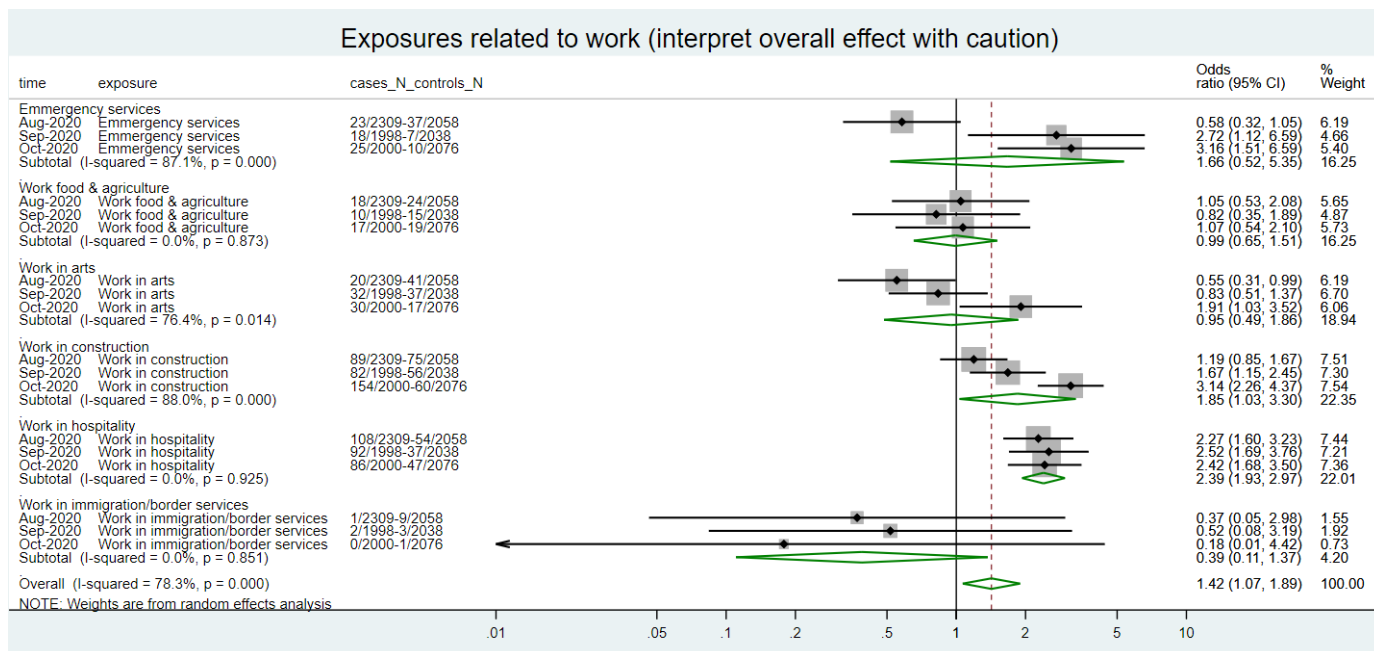
- The data presented does not include cases and controls under the age of 18.
- The meta-analysis presents data adjusted by age and PHE region.
- The three study periods cover a snapshot of the situation when the data was collected (August 2020, September 2020 and October 2020)

Summary of results:

- The analysis showed evidence that working in emergency services is associated with increased odds of illness in the last two study periods.
- A similar pattern was shown by exposures related to construction. This can be explained by the work moving from primarily outdoor working to indoor.
- Working in arts and entertainment showed an increased odd of illness in the last period. However, the number of cases and controls exposed remained small.
- There was strong statistical evidence that working in hospitality was associated with increased odds of illness in all three studies.
- Working in the military was associated with an increased odd of illness although the number of exposed cases and controls is small. It is possible though that leaving in barracks.
- Working in transport was associated with increased odds of illness in the third study, however; the first two studies showed no evidence of an association; hence the overall estimate showed no evidence of a positive association between working in (public) transport and being a COVID-19 case.
- Working in close contact services was overall associated with elevated odds, however the association was weak in the first two waves of the study, yet the overall estimate provided evidence of a stronger association.
- The overall estimates from all three studies provided strong evidence that working in warehouse and construction were associated with higher odds of illness.
- Activities that included the use of any type of transport, either internationally or domestic travelling did not show an association with becoming a case.

Working related exposures

Figure 1a: Meta-analysis with random effects of COVID-19 exposures related to work places for the three study periods independently and combined by exposure group, England, August-October 2020



Working in emergency services: includes fire brigade, ambulance and police.

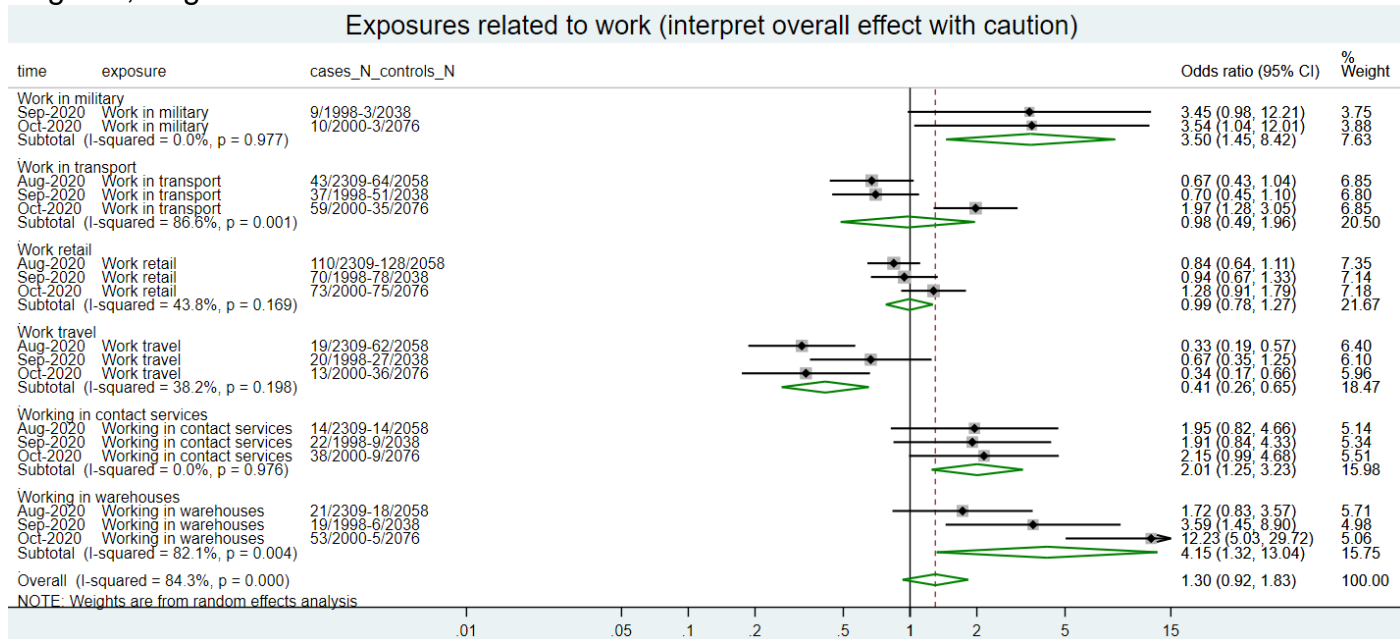
Work food and agriculture:

Working in arts, or recreation – music, theatre, gyms, cinema, or leisure/sports centres.

Work in construction: includes, labour, office work and manufacturing – textiles, electronics, etc.

Work in hospitality – working in restaurants, food and drink outlets, lodging etc

Figure 1b: Meta-analysis with random effects of COVID-19 exposures related to work places for the three study periods, independently and combined by exposure group, England, August-October 2020



Working in military – including the Navy, Army and Air Force

Work in transport refers to working in public transport (e.g. underground, trains or buses)

Work in retail: fashion, food, newsagent, health and beauty, home, sports and leisure, supermarket and technology

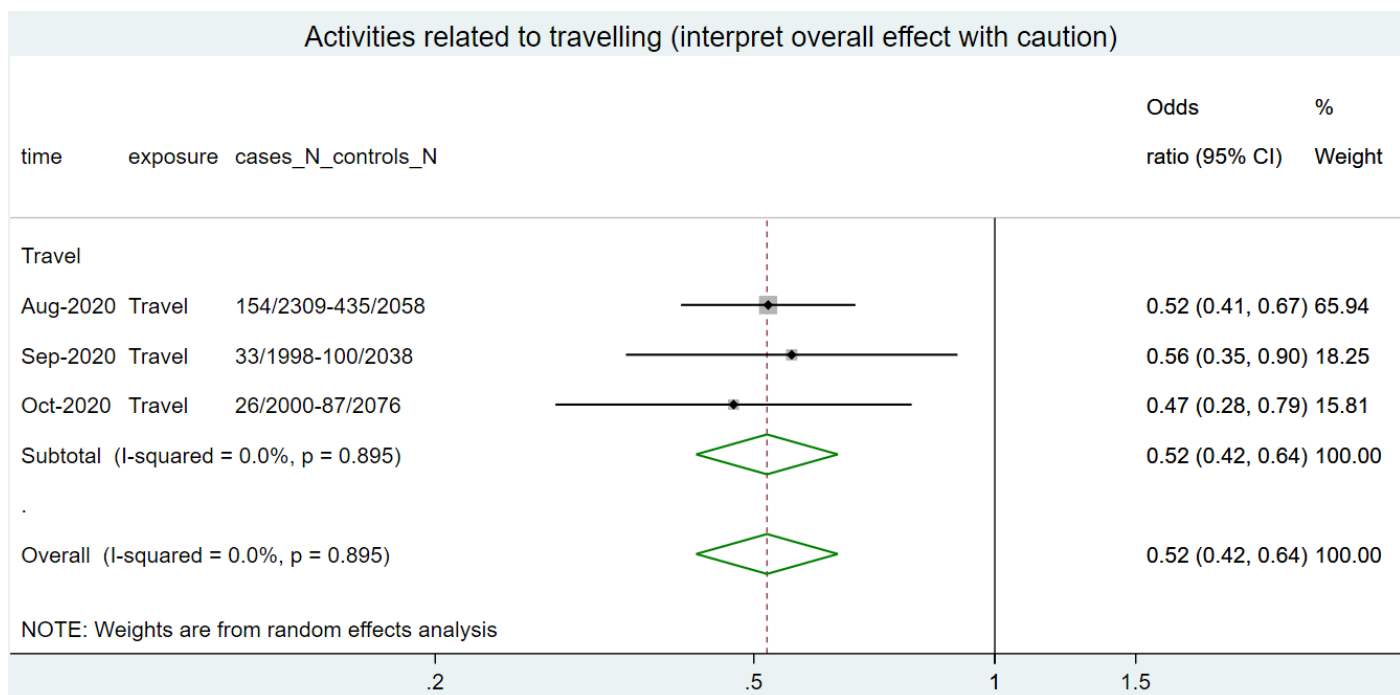
Work travel: includes work related travel; attending conferences, door-to-door sales, visiting clients.

Working in close contact services – barbers, hairdressers, nail salons, tattoo studios and tanning salons, and

Working in warehouse settings – warehouse, haulage, distribution etc

Leisure activities related to travelling

Figure 2: Meta-analysis with random effects of COVID-19 exposures related to travelling in the three study periods, independently and combined, England, August-October 2020



Travel - any international and domestic travel including trains and flights