

# Social contacts in the UK from the CoMix social contact survey

## Report for survey week 76

*Christopher Jarvis, Amy Gimma, Kerry Wong, Kevin Van Zandvoort, James Munday, John Edmunds on behalf of CMMID COVID-19 Working Group, London School of Hygiene and Tropical Medicine.*

*Report for SPI-M-O and SAGE, 14 September 2021  
Data up to 06 September 2021*

### **Summary**

- Mean reported contacts for adults remain low and are similar to those of adults and children combined. The effect of schools opening is not yet captured by the data (up to 6 September).
- Among employed adults whose workplace is open, mean contacts are roughly twice as high for those that attend work compared to those who did not attend work.
- Since January 2021, the mean contacts for those who work from home (WFH) were between 2-4 contacts per person per day and between 6-8 contacts per person per day for those physically attending work.
- During lockdowns, the difference in contacts for those attending and not attending work appears smaller. However, in recent months the number of contacts for those working from home has increased somewhat.
- The proportion of adults wearing facemasks is around 75%, with the drop last week in 18-29 year-olds to 65% lessening when smoothed over two weeks of data.

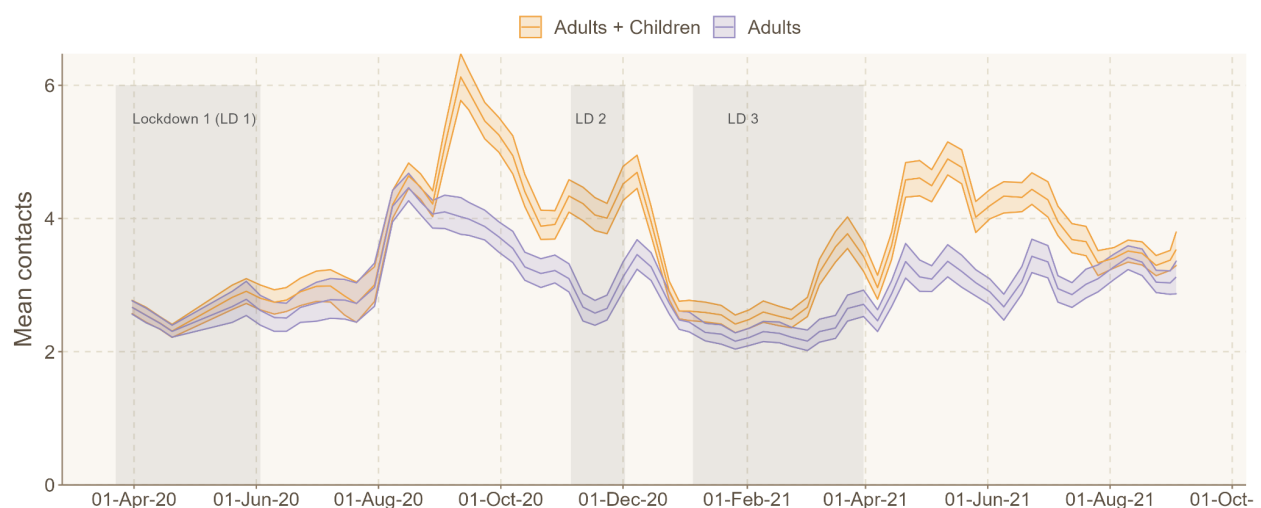
## Main

The mean contacts in adults are slightly lower than a few weeks ago but broadly consistent with the last couple of months (Figure 1). The patterns across age are somewhat similar overall (Figure 2). There appears to be greater variability in 18-29 year olds contacts week on week driven by work contacts, some larger fluctuations in the 30-39 year olds in social contacts (Figure 3). Work contacts for 30-49 appear to have been reducing in the prior months, and contacts for those 60+ appear very stable since June across all settings (Figure 3).

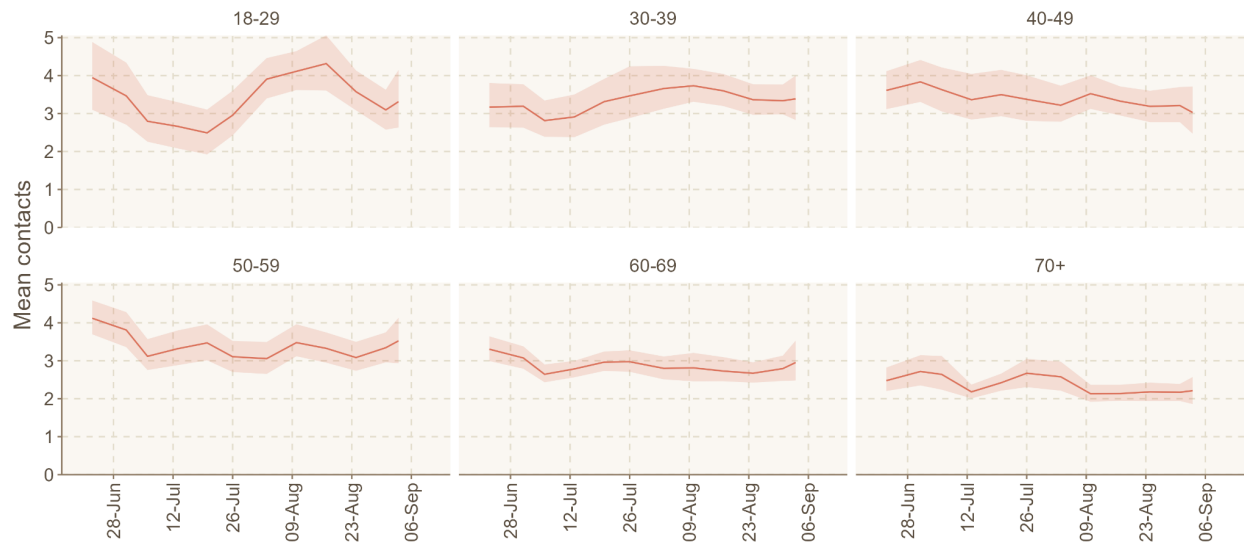
Children's contacts remain low (Figure 4). We anticipate recording the impact of schools opening recently in next week's report. Thus this report should not be used as an indication of the levels of contacts for children when schools are open.

Wearing a face-covering has fallen since the easing of restrictions in England on July 19th. There have been some variations in levels around the 75% mark, with sampling variability affecting estimates based on a single week as opposed to those smoothed over two weeks (Figure 5).

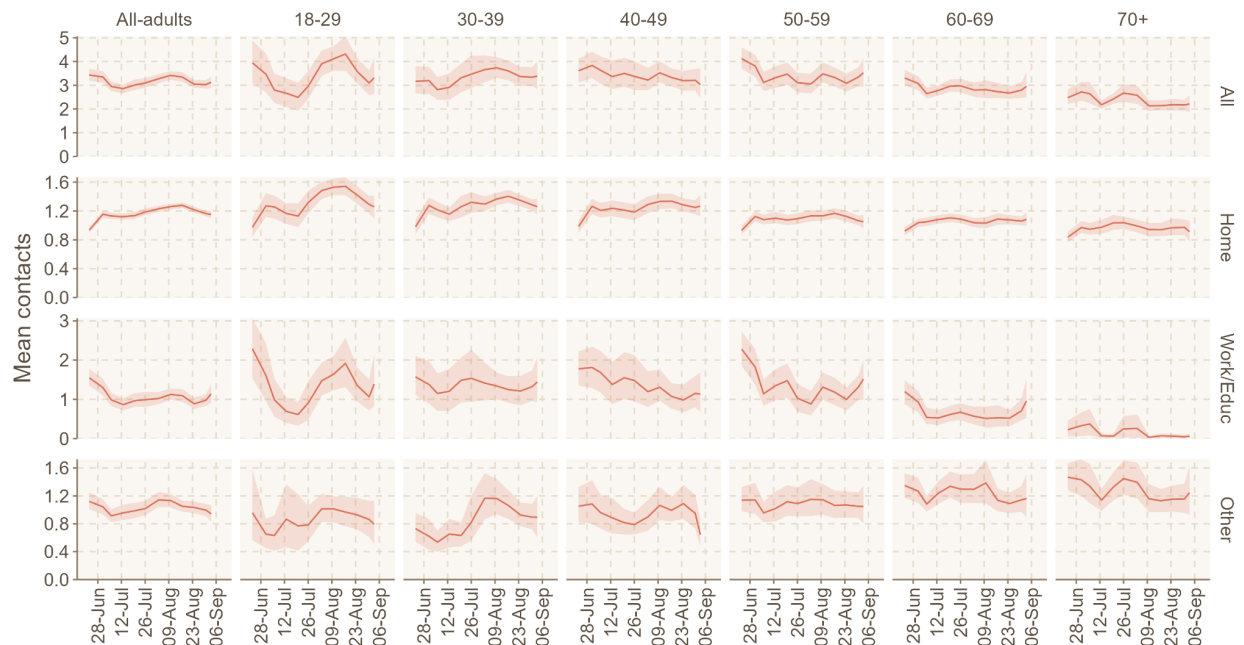
Those who attend work have had consistently higher contacts compared to those who do not, amongst the employed whose work is open. Individuals who attend work have nearly double the number of contacts at around 6-8 compared to 2-4 for those who work from home (WFH) (Figure 6). The gap between the number of contacts for those who WFH and those attending work was closer during lockdowns and grew once restrictions were lifted. Interestingly, the number of contacts for those who are WFH has been increasing a little over the prior months but still remained firmly below the number of contacts for those physically attending work.



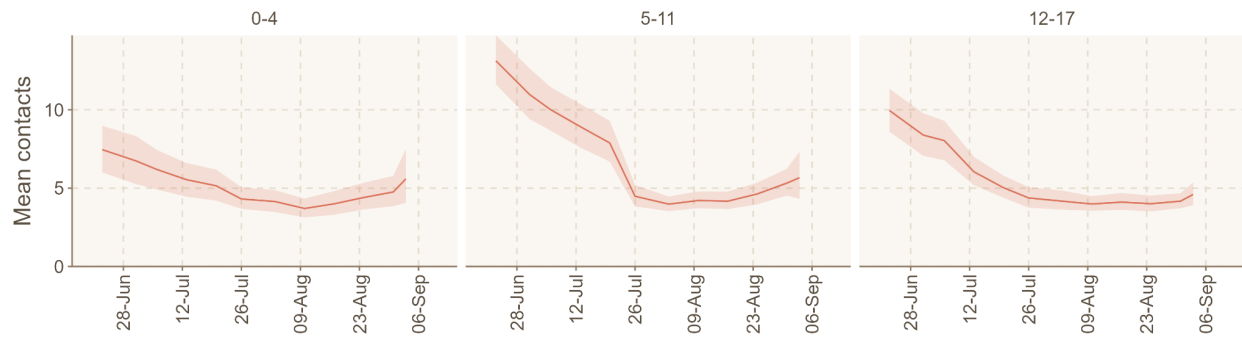
**Figure 1: Mean contacts in the UK since the 23rd March 2020 for adults and children (all participants) and adults only (18 year +).** Uncertainty calculated using bootstrapping. Contacts truncated to 50 contacts per participant. Observations are smoothed over two weeks to account for panel effects. Date on x axis refers to the midpoint of the survey period.



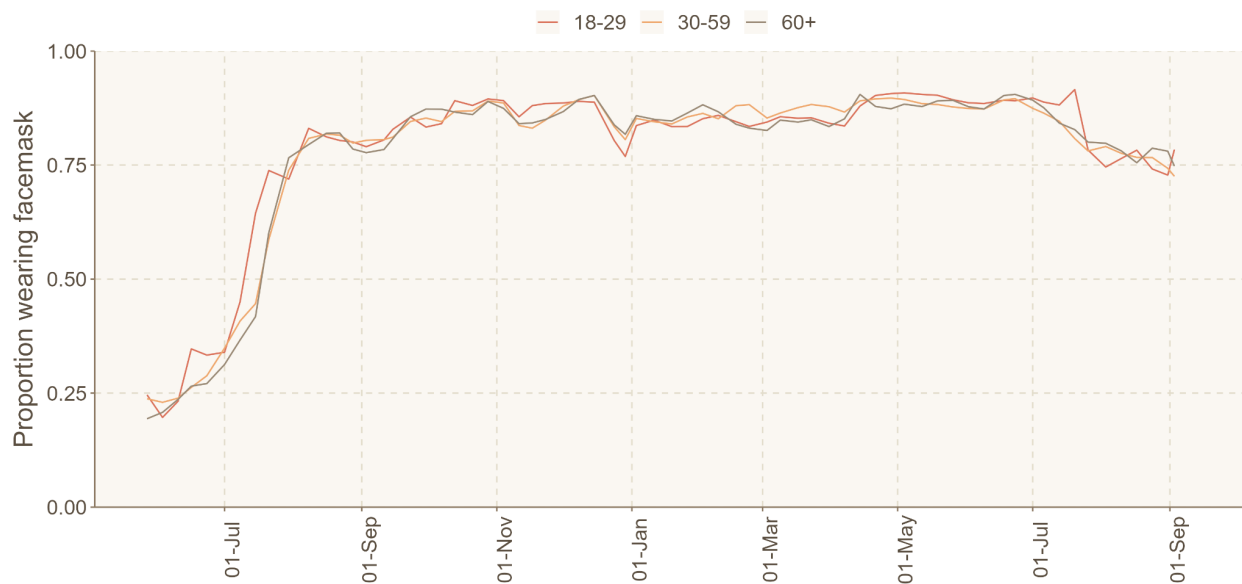
**Figure 2: Mean contacts in all settings by age-group for adults over time.** Uncertainty calculated using bootstrapping. Contacts truncated to 50 contacts per participant. Observations are smoothed over two weeks to account for panel effects. Date on x axis refers to the midpoint of the survey period.



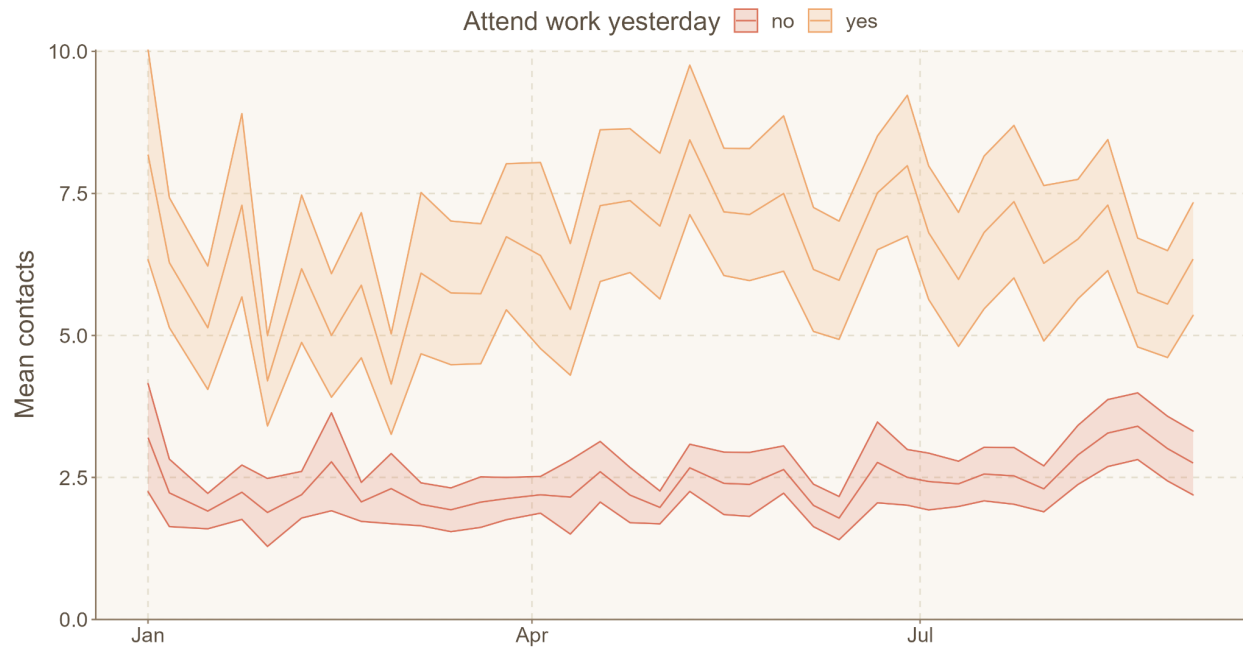
**Figure 3: Mean contacts by settings and by age-group over time.** Uncertainty calculated using bootstrapping. Contacts truncated to 50 contacts per participant. Observations are smoothed over two weeks to account for panel effects. Date on x axis refers to the midpoint of the survey period.



**Figure 4: Mean contacts in all settings by age-group for children over time.** Uncertainty calculated using bootstrapping. Contacts truncated to 50 contacts per participant. Observations are smoothed over two weeks to account for panel effects. Date on x axis refers to the midpoint of the survey period.



**Figure 5: Proportion of adults wearing a face mask over time (with at least one contact outside of the home).** Observations are smoothed over two weeks to account for panel effects with all dates representing two rounds of data collection except for the final week, which only contains the latest survey round. Date on x axis refers to the midpoint of the survey period.



**Figure 6: Mean contacts in the UK since Jan 2021 for individuals attending or not attending work on the day of the survey for people that are employed and their work is open.** 95% Uncertainty interval calculated assuming a standard normal mean of two times the standard error of the mean. Contacts truncated to 50 contacts per participant. Observations are smoothed over two weeks to account for panel effects. Date on x axis refers to the midpoint of the survey period.

## Methods

CoMix is a behavioural survey, launched on 24<sup>th</sup> of March 2020. The sample is broadly representative of the UK adult population. Participant's are invited to respond to the survey once every two weeks. We collect weekly data by running two alternating panels. Parents complete the survey on behalf of children (17 years old or younger). Participants record direct, face-to-face contacts made on the previous day, specifying certain characteristics for each contact including the age and sex of the contact, whether contact was physical (skin-to-skin contact), and where contact occurred (e.g. at home, work, while undertaking leisure activities, etc). Further details have been published elsewhere [1]. The contact survey is based on the POLYMOD contact survey [2].

We calculated the mean contacts using 1000 bootstrap samples. Bootstrap samples were calculated at the participant level, then all observations for those participants are included in a sample to respect the correlation structure of the data. We collect data in two panels which

alternate weekly, therefore we calculated the mean smoothed over the 2 week intervals to give a larger number of participants per estimate and account for panel effects. We used a post-stratification method to assign weights, based on the World Population Prospect population estimates for the UK by age and gender, when calculating the mean number of contacts. We calculated the mean number of contacts in the settings home, work and school (including all educational establishments, including childcare, nurseries and universities and colleges), and “other” (mostly leisure and social contacts, but includes shopping). We look at the mean contacts by age, country, and region of England. The mean number of contacts is influenced by a few individuals who report very high numbers of contacts (often in a work context). The means shown here are calculated based on truncating the maximum number of contacts recorded at 50 per individual per day. We compared the mean reported contacts for the most recent data of the survey to the mean contacts reported during ten time periods over the previous year which represent different levels of restrictions.

Participants were asked whether they were in isolation or quarantine on the day they reported contacts. They were also asked whether they wore a facemask on the day of reported contacts, we filtered to participants who had at least one contact outside of the home. We calculated the proportion who said yes for both these categories over those who responded.

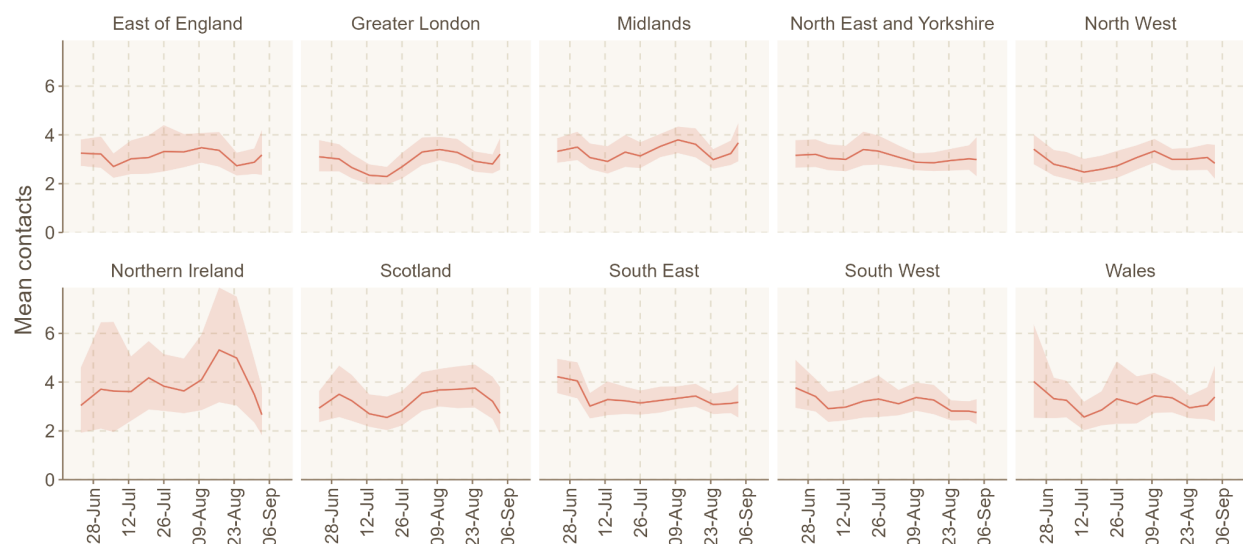
### **Funding**

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## References

1. Jarvis CI, Van Zandvoort K, Gimma A, Prem K, CMMID COVID-19 working group, Klepac P, et al. Quantifying the impact of physical distance measures on the transmission of COVID-19 in the UK. BMC Med. 2020;18: 124.
2. Mossong J, Hens N, Jit M, Beutels P, Auranen K, Mikolajczyk R, et al. Social contacts and mixing patterns relevant to the spread of infectious diseases. PLoS Med. 2008;5: e74.

## Additional graphs



**Figure S1: Mean contacts in all settings in adults for UK nations and English regions over time.** Uncertainty calculated using bootstrapping. Contacts truncated to 50 contacts per participant. Observations are smoothed over two weeks to account for panel effects. Date on x axis refers to the midpoint of the survey period.