Social contacts in the UK from the CoMix social contact survey
Report for survey week 49

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Report for SPI-M-O and SAGE, 10th March 2021
Data up to 2nd March 2021

Summary

- Mean contacts amongst adults has remained low across all age groups, regions and countries of the UK since the start of the third lockdown. There was no evidence of the lockdown weakening at the time of the survey (end of February to beginning of March).
- Mean contacts for children aged 5 to 17 years old remain low consistent with schools still being closed for most pupils at the time of the survey.
- Mean contacts for children under 4 have remained slightly higher than 5-17 years reflecting the physical attendance at early-year settings.
- Mean contacts are broadly comparable across socio-economic groups during this period.

Main

Mean contacts amongst adults remain low across all age groups since the beginning of the third lockdown on the 5th of January (Figure 1). As previously seen, individuals 70+ report fewer contacts than those 18-69. Changes in work contacts are the main drivers of changes in adult contacts by age group (Figure S1).

Mean contacts amongst children remain low and have been consistent for ages 5-17 (Figure 2). For children under 4, mean contacts fell during the christmas period and returned to levels seen prior to the 21st of December during the new year. Reported mean number of contacts is higher for pre-school than older children. This is consistent with early-year settings remaining open despite the closure of schools (Figure S2).

Mean contacts for adults remain low across the four nations and English regions from the period of late December up to the end of January (Figure 3). The trajectories of all regions are quite similar, with contacts decreasing towards the end of 2020 and then remaining low. There is some slight variation between regions, such as London having lower contacts in late December, though there are lower numbers when reporting contacts by regions, especially for Northern Ireland, Scotland, and Wales.

Mean contacts amongst adults do not appear to vary substantially by socio-economic status during the period end of December up to early March, though individuals in class E (lower level of subsistence) appear to have consistently had fewer contacts during this period and there is some evidence to suggest that Group D record slightly higher rates of contact than others (Figure 4).

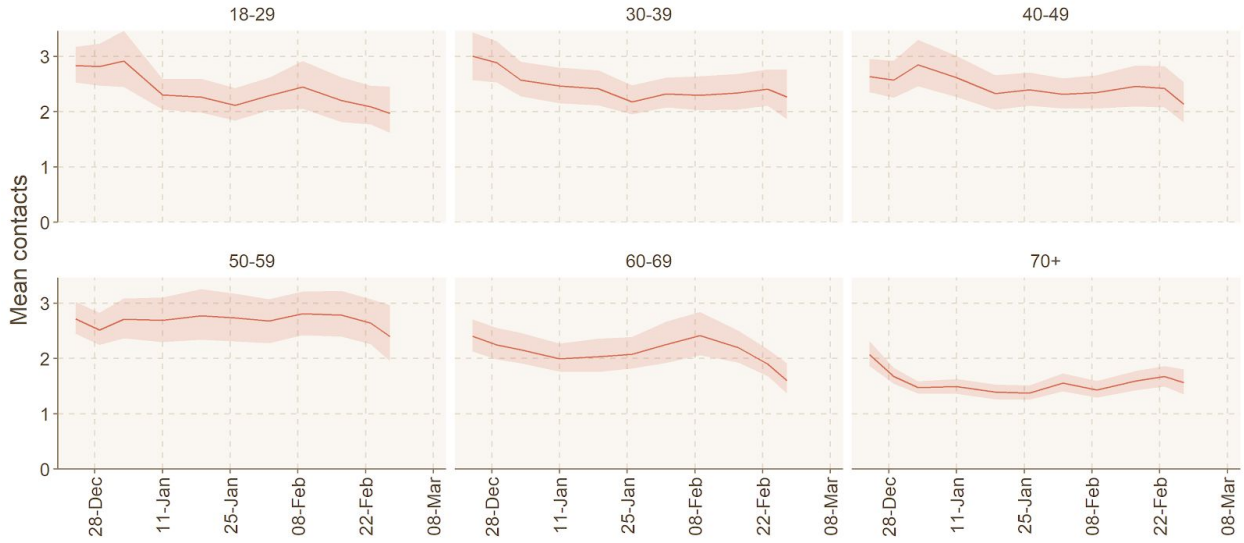

Figure 1: Mean contacts in all settings by age-group for adults over time. Uncertainty calculated using bootstrapping. Contacts truncated to 50 contacts per participant. Observations are smoothed over two weeks to account for panel effects. Date on x axis refers to the midpoint of the survey period.

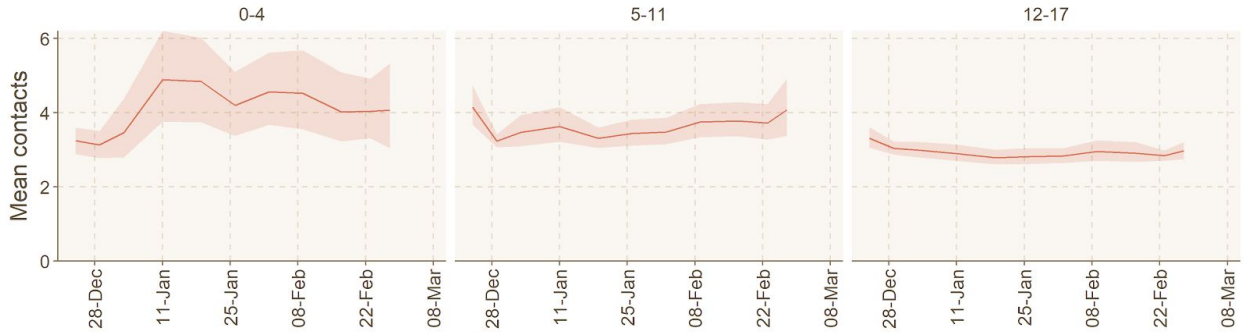

Figure 2: Mean contacts in all settings by age-group for children over time. Uncertainty calculated using bootstrapping. Contacts truncated to 50 contacts per participant. Observations are smoothed over two weeks to account for panel effects. Educ = educational setting. Date on x axis refers to the midpoint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

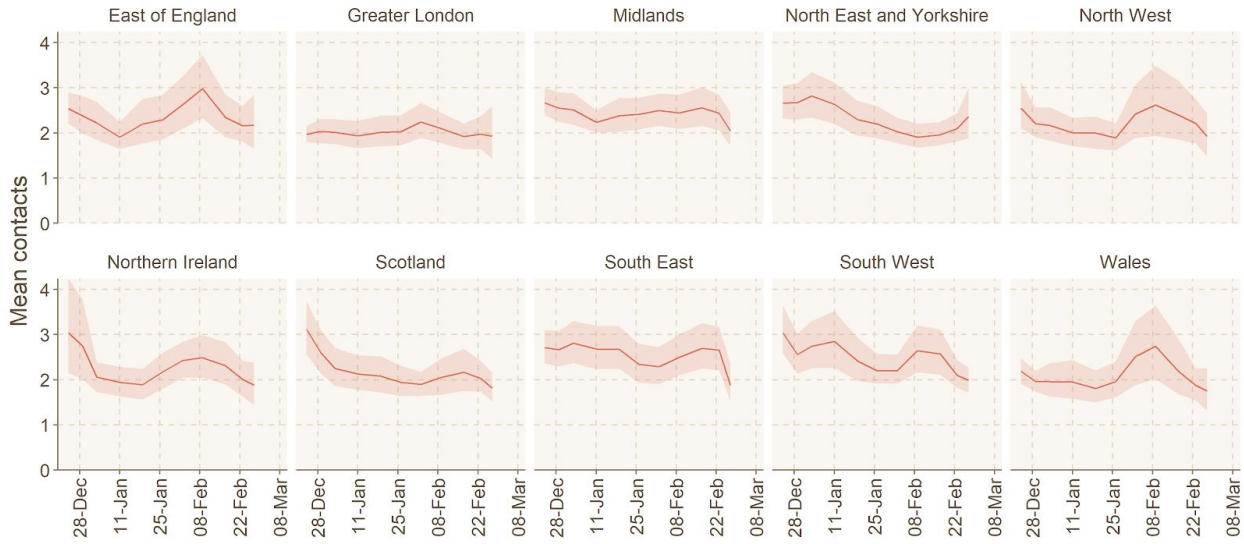

Figure 3: Mean contacts in all settings in adults for UK nations and English regions over time. Uncertainty calculated using Bootstrapped accounting. Contacts truncated to 50 contacts per participant. Observations are smoothed over two weeks to account for panel effects. Date on x axis refers to the midpoint of the survey period.

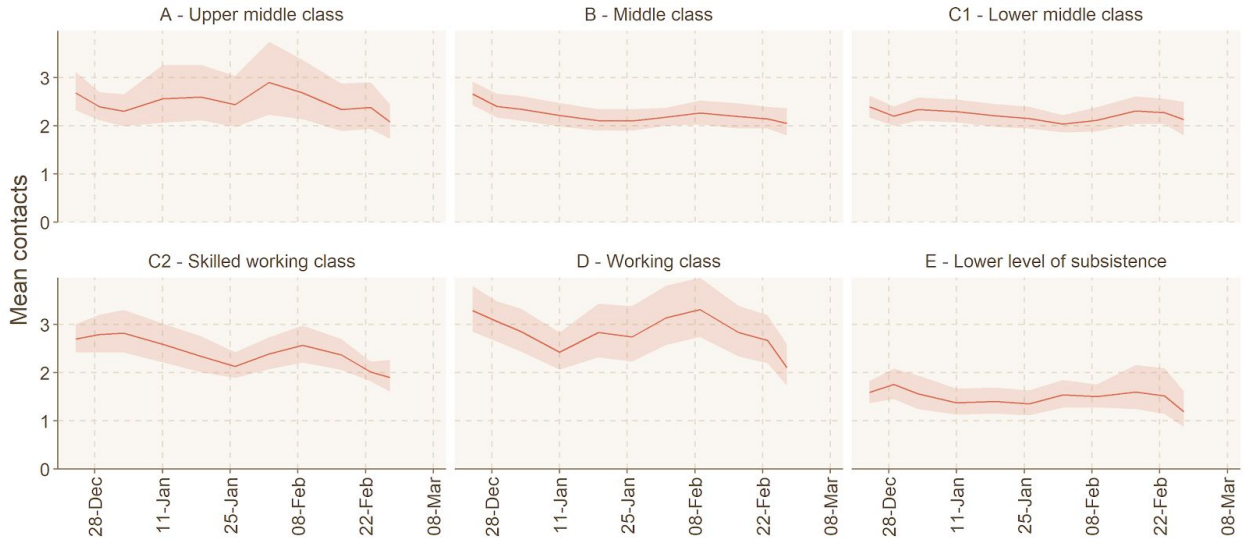

Figure 4: Mean contacts in all settings in adults by socio-economic status in the UK. Uncertainty calculated using Bootstrapped accounting. Contacts truncated to 50 contacts per participant. Observations are smoothed over two weeks to account for panel effects. Date on x axis refers to the midpoint of the survey period.

Methods

CoMix is a behavioural survey, launched on 24th 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 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.

Note that graphs present data smoothed over two weeks where mean contacts are aligned to the middle time point of each survey round and therefore include data up to one week before and after date stated in graphs.

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.

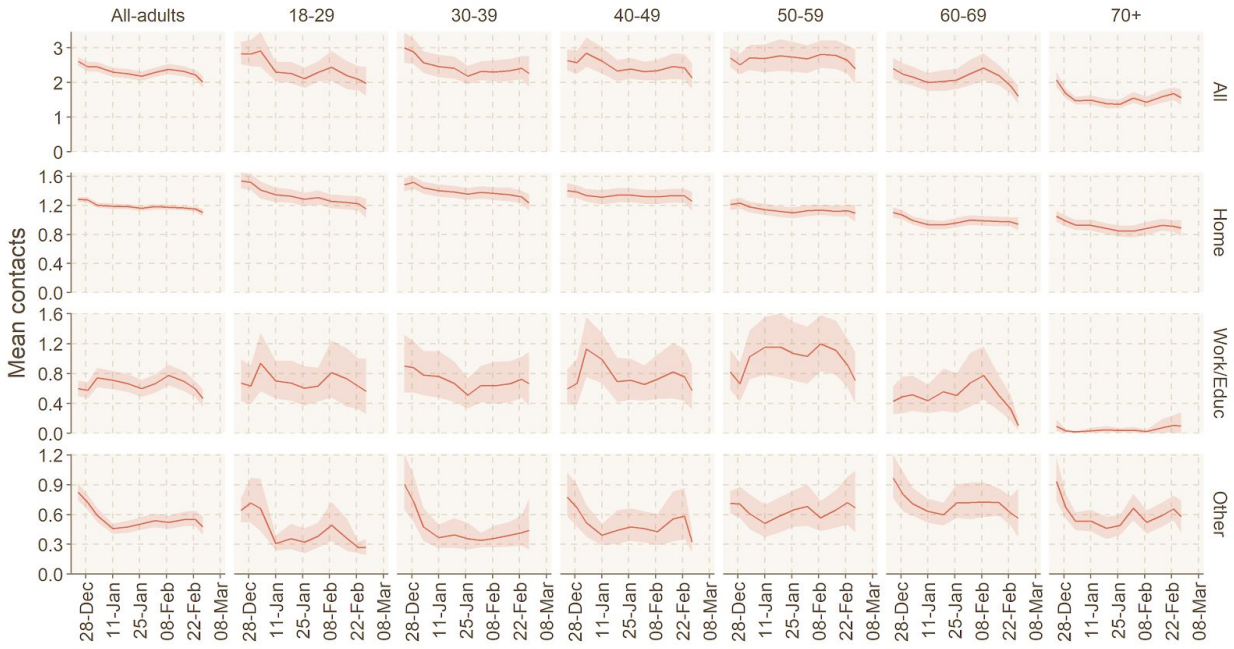

Figure S1: Setting-specific mean contacts by age-group for adults over time. Uncertainty calculated using bootstrapping. Contacts truncated to 50 contacts per participant. Observations are smoothed over two weeks to account for panel effects. Educ = educational setting. Date on x axis refers to the midpoint of the survey period.

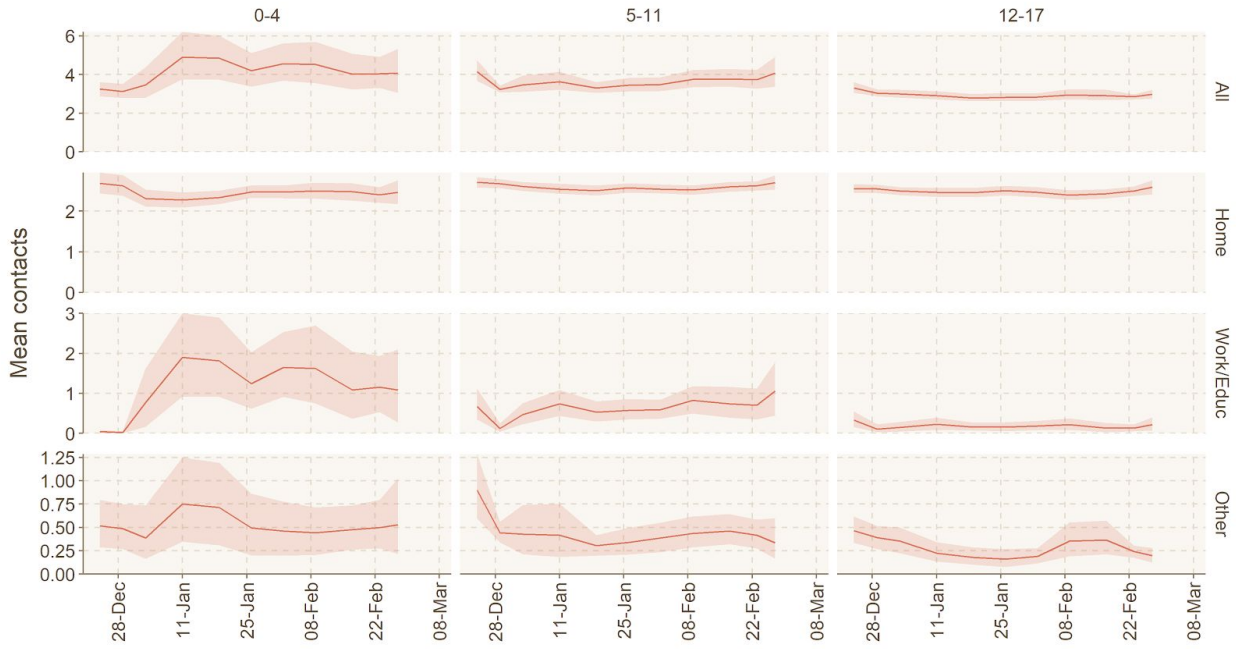

Figure S2: Setting-specific mean contacts by age-group for children over time.
Uncertainty calculated using bootstrapping. Contacts truncated to 50 contacts per participant. Observations are smoothed over two weeks to account for panel effects. Educ = educational setting. Date on x axis refers to the midpoint of the survey period.