Social contacts in the UK from the CoMix social contact survey
Report for survey week 55

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Report for SPI-M-O and SAGE, 21st April 2021
Data up to 14th April 2021

Summary

- Although mean contacts for adults remain low, there has been a gradual rise in reported contacts by adults over recent weeks. The relatively large increase in contacts in the 18-29 year old age group, noted a few weeks ago, seems to have reduced.
- Contacts in children decreased during the Easter school break and appear to be starting to increase again.

Main

Adult contacts have increased slightly over recent weeks (Figure 1). The increase in contacts in the 18-30 age group first noticed a few weeks ago appears to have declined (Figure 2). been sustained, and seems to be attributable to an increase in contacts in all settings, though the largest changes appear to be in education and work (Figure S1). Other adult age groups have reported roughly steady or a gradual increase in contacts over recent weeks (including the 70+ age group) (Figure 2). Most of the increase in adult contacts over recent weeks appears to be associated with an increase in work contacts (for working-aged adults), but there has also been an increase in “other” contacts (mostly social and leisure contacts) across all adult age groups (Figure S1). It is worth stressing that these increases are small, and the level of contacts remains low, compared with pre-pandemic levels [2].

Contacts by children declined during the easter break and have just started to increase again as schools re-open (Figure 3).

The increase in outside contacts, observed across all age groups over the last few weeks seems to have stabilised or even decreased somewhat as the Easter break has come to an end (Figures 4 and 5).

Discerning clear trends in regional contact patterns is difficult due to the smaller sample sizes (Figure 6).

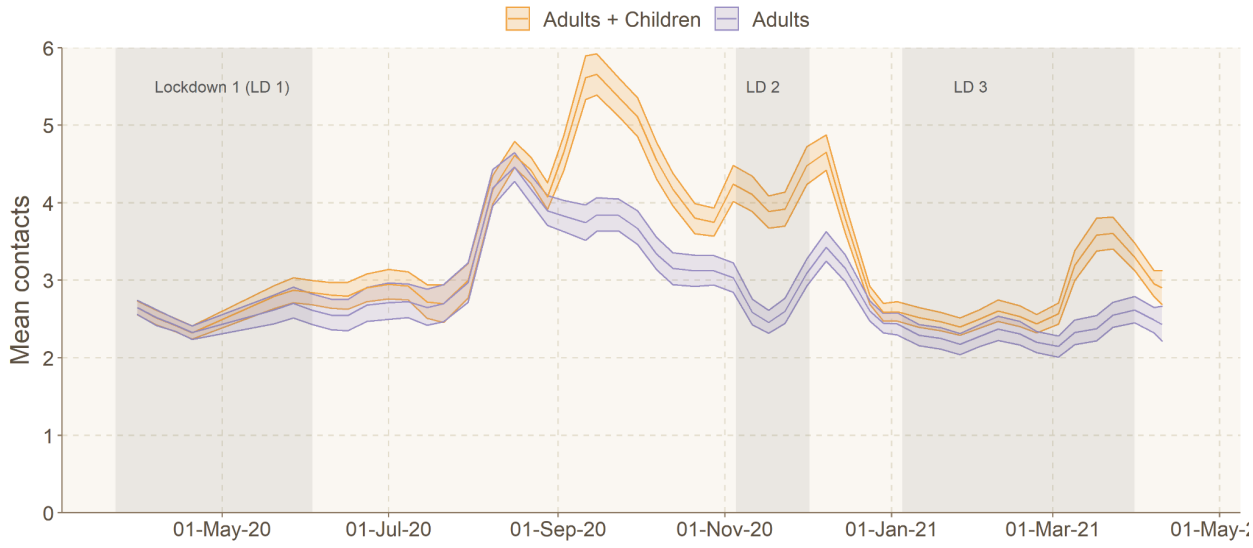

Figure 1: Mean contacts since the 23rd March 2020 for adults and adults and children. Uncertainty calculated using bootstrapping. Contacts truncated to 50 contacts per participant. Observations are smoothed over two weeks to account for panel effects. Date on x axis refers to the midpoint of the survey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

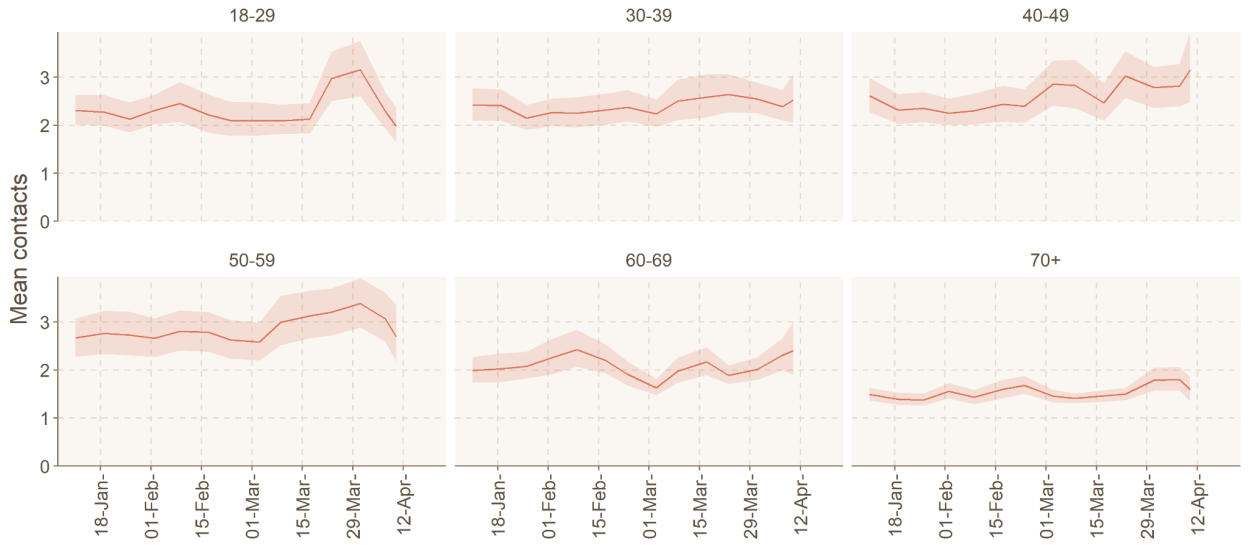

Figure 2: Mean contacts in all settings by age-group for adults over time. Uncertainty calculated using bootstrapping. Contacts truncated to 50 contacts per participant. Observations are smoothed over two weeks to account for panel effects. Date on x axis refers to the midpoint of the survey period.

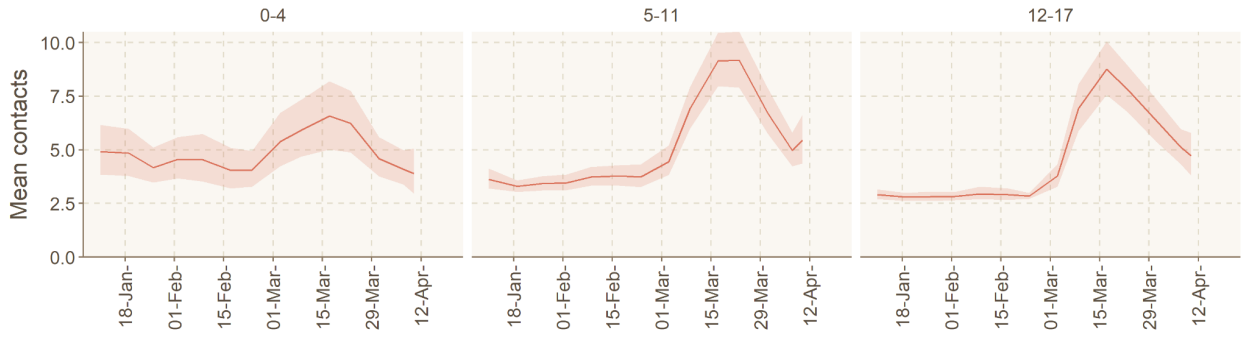

Figure 3: Mean contacts in all settings by age-group for children over time. Uncertainty calculated using bootstrapping. Contacts truncated to 50 contacts per participant. Observations are smoothed over two weeks to account for panel effects. Date on x axis refers to the midpoint of the survey period.

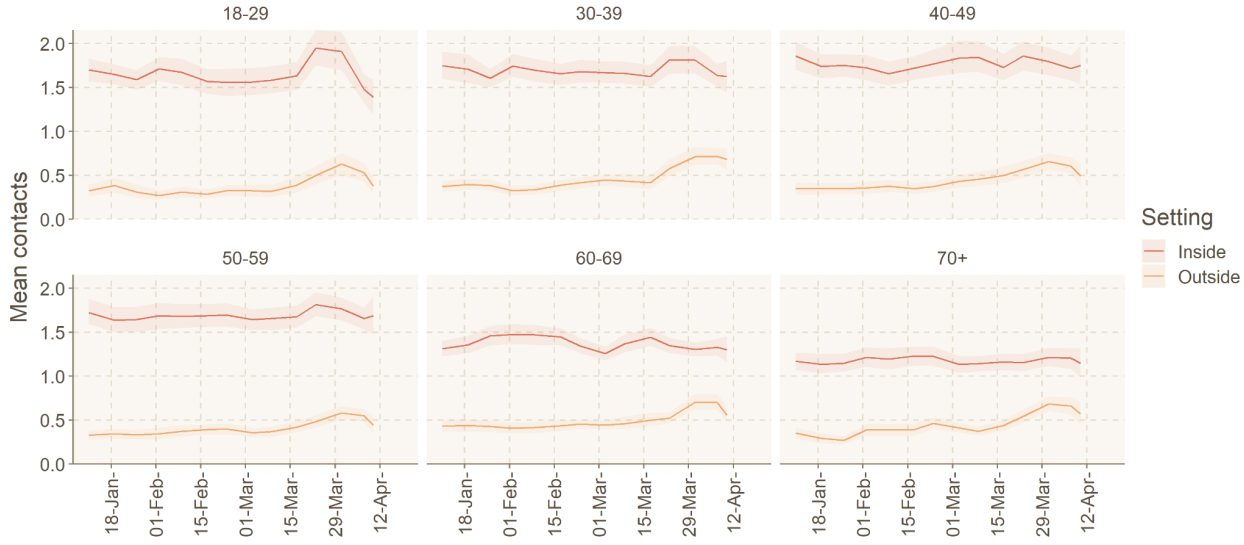

Figure 4: Mean contacts indoors versus outdoors in all settings by age-groups for adults over time Uncertainty calculated using bootstrapped. Contacts truncated to 50 contacts per participant. Observations are smoothed over two weeks to account for panel effects. Date on x axis refers to the midpoint of the survey period. (Note information on a contact being inside or outside is only available for individually reported contacts, is not present for all contacts, and a contact can be selected as inside and outside.

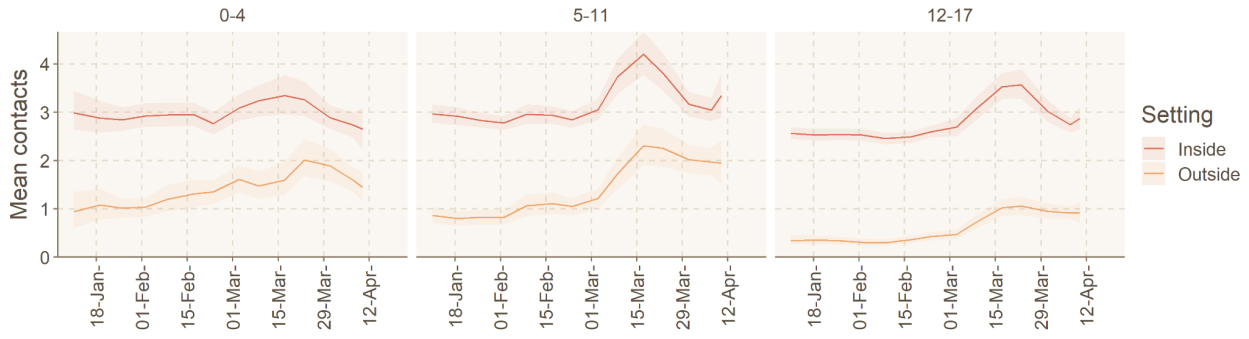

Figure 5: Mean contacts indoors versus outdoors in all settings by age-groups for children over time Uncertainty calculated using bootstrapped. Contacts truncated to 50 contacts per participant. Observations are smoothed over two weeks to account for panel effects. Date on x axis refers to the midpoint of the survey period. (Note information on a contact being inside or outside is only available for individually reported contacts, is not present for all contacts, and a contact can be selected as inside and outside.

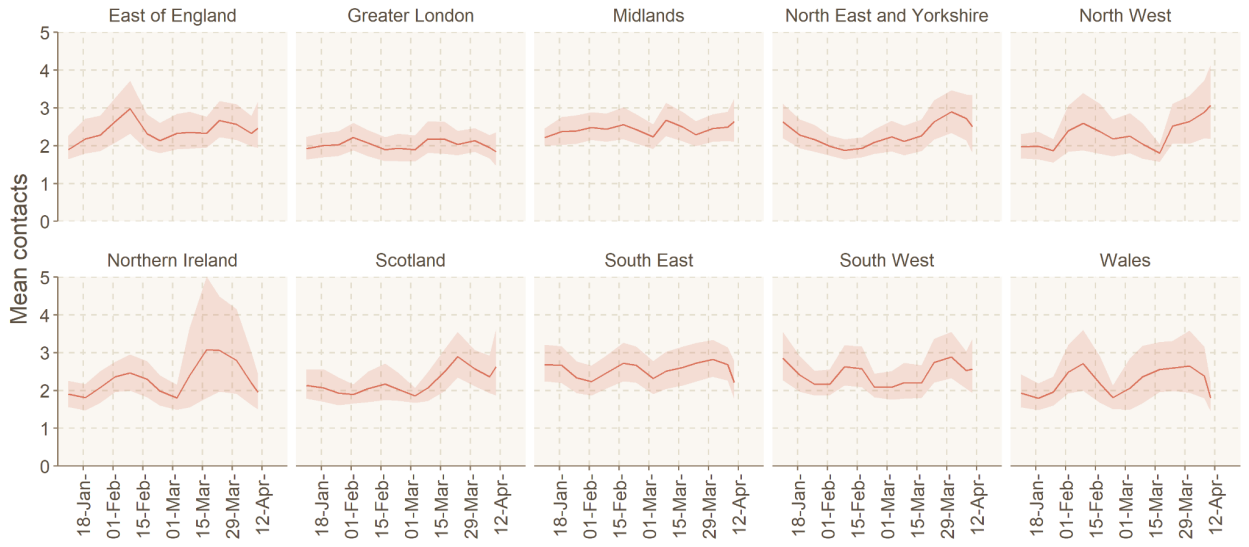

Figure 6: Mean contacts in all settings in adults for UK nations and English regions over time. Uncertainty calculated using bootstrapped. Contacts truncated to 50 contacts per participant. Observations are smoothed over two weeks to account for panel effects. Date on x axis refers to the midpoint of 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.

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.

Appendix

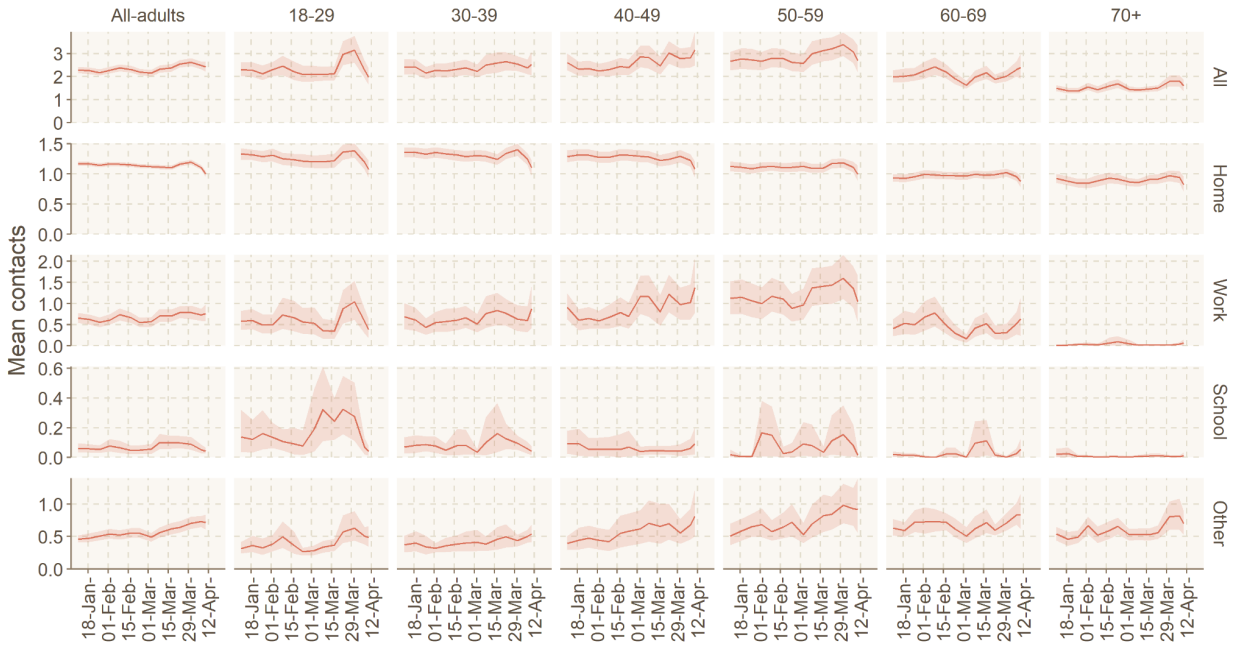

Figure S1: Setting-specific mean contacts by age-group for adults over time. Uncertainty calculated using bootstrapping. Contacts truncated to 50 contacts per participant. Observations are smoothed over two weeks to account for panel effects. Educ = educational setting. Date on x axis refers to the midpoint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