

Social contacts in the UK from the CoMix social contact survey

Report for survey week 73

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*Report for SPI-M-O and SAGE, 24 August 2021
Data up to 17 August 2021*

Summary

- Mean reported contacts for adults have continued to increase steadily over the past several weeks. Though again it is worth noting that the overall contacts are still considerably lower than those seen in August last year and are less than half of pre-pandemic levels.
- The recent rise appears to be more prominent in the 18-29 year olds but this follows a dip in the contact levels and what is observed this week is no higher than the numbers seen in mid-June.
- Reported contact rates for children have stabilised at summer holiday levels and are consistent with those recorded at the same time last year.
- The proportion of children and adults isolating has remained stable with adults just below and children just above 5%.
- The proportion of people wearing face-coverings has fallen since July 19th in all adult age groups, with the 18-29 years falling more quickly initially but all age groups now converging at about 75% compared to 85% previously. Overall mask-wearing remains high.

Main

Reported mean contacts for adults and children are nearly identical to those of adults only at just below 4 contacts per person per day (Figure 1). Contacts in adults only have steadily increased for the last several weeks, mostly driven by 18-29 years level of contacts increasing following a previous dip in numbers (Figure 2). Children's contacts remain low and stable reflecting that schools are still shut (Figure 3).

The proportion of children in isolation or quarantining has stabilised at just above 5% and the proportion of adults has stabilised at just below 5% (Figure 4). Individuals who are isolating report fewer contacts than those who are not, particularly in the 18-29 year old group in recent weeks (Figure 5). Though the difference in mean contacts for all age groups is quite small (Figure 5).

Wearing a face-covering fell since the easing of restrictions in England on July 19th and was stable over the last three weeks, though overall levels remain high (Figure 6). The level of face mask wearing appears to be the same in all of the age groups now at around 75% for those who have at least one contact outside of the house (Figure 6).

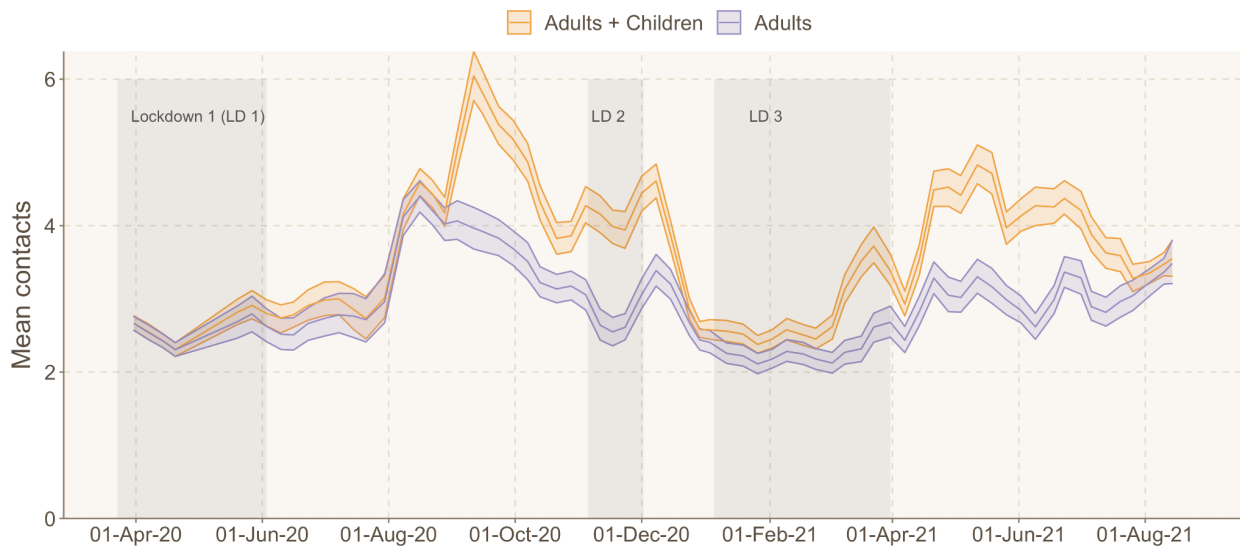


Figure 1: Mean contacts in the UK since the 23rd March 2020 for adults and children (all participants) and adults only (18 year +). Uncertainty calculated using bootstrapping. Contacts truncated to 50 contacts per participant. Observations are smoothed over two weeks to account for panel effects. Date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

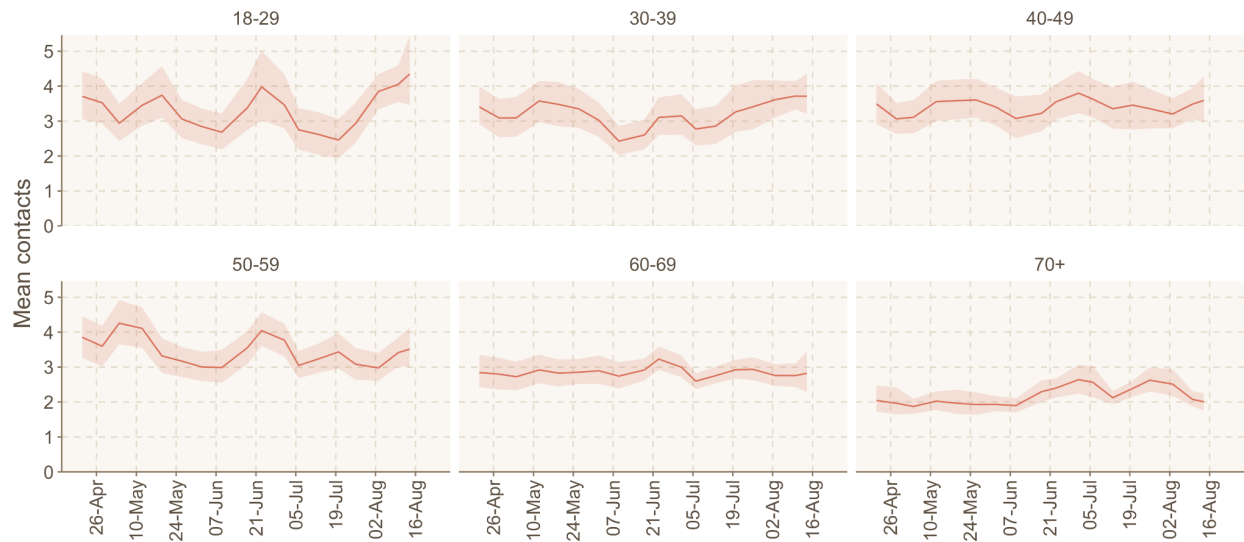


Figure 2: Mean contacts in all settings by age-group for adults over time. Uncertainty calculated using bootstrapping. Contacts truncated to 50 contacts per participant. Observations are smoothed over two weeks to account for panel effects. Date on x axis refers to the midpoint of the survey period.

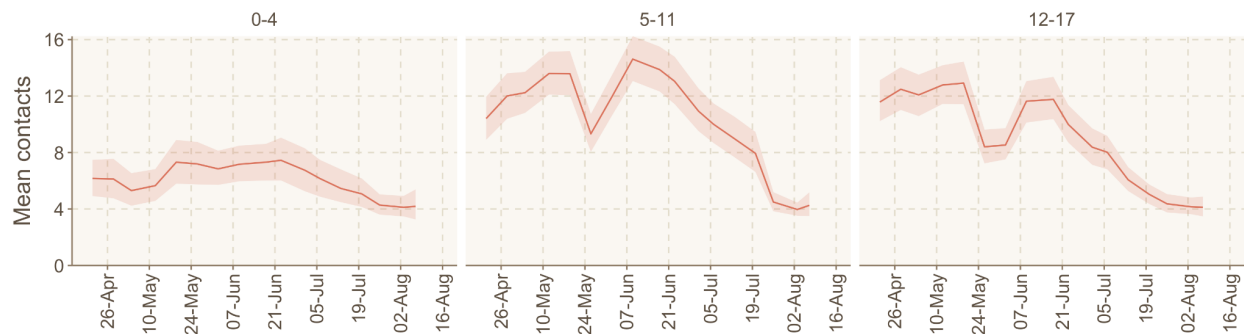


Figure 3: Mean contacts in all settings by age-group for children over time. Uncertainty calculated using bootstrapping. Contacts truncated to 50 contacts per participant. Observations are smoothed over two weeks to account for panel effects. Date on x axis refers to the midpoint of the survey period.

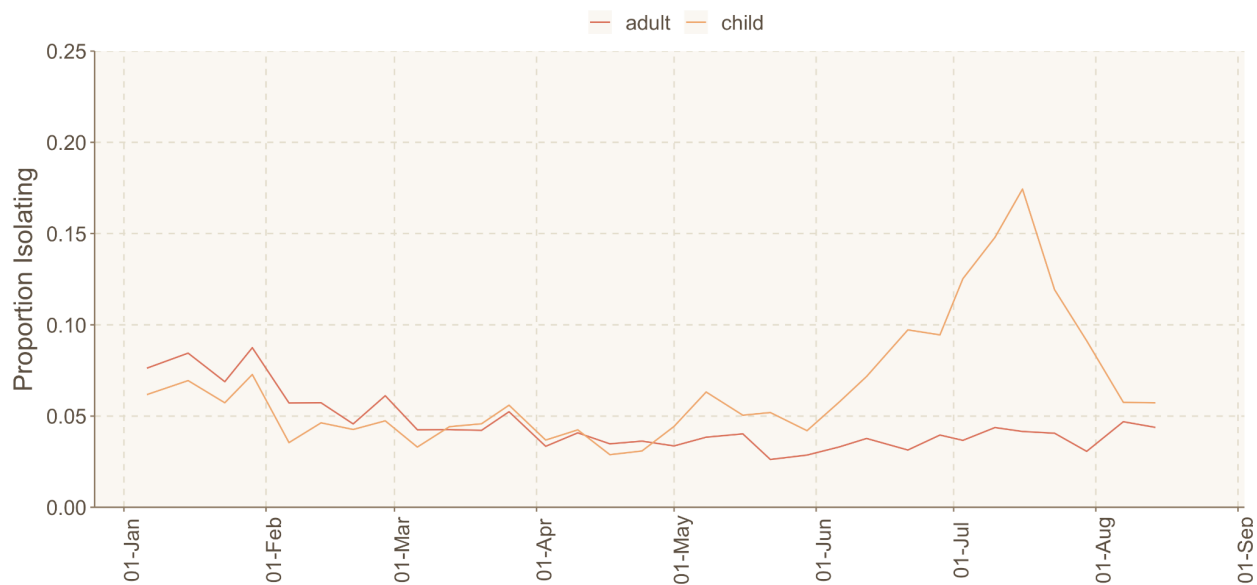


Figure 4: Proportion of sample isolating by adults and children over time in England since Jan 2021.

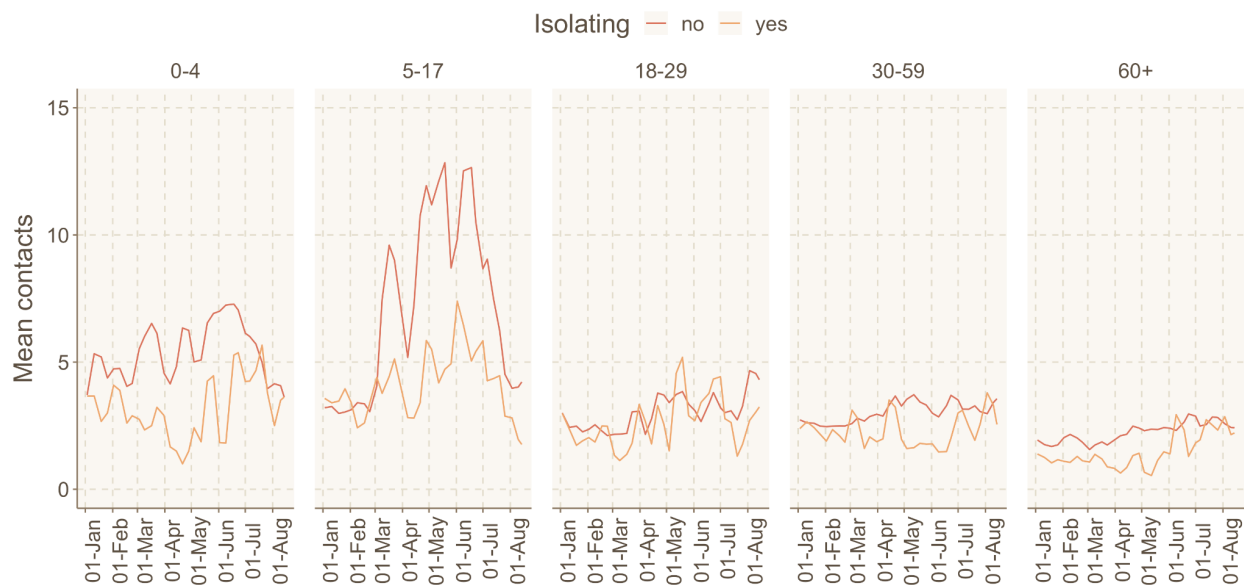


Figure 5: Mean contacts in all settings in England by age and whether participant is in isolation. Contacts truncated to 50 contacts per participant. Observations are smoothed over two weeks to account for panel effects. Date on x axis refers to the midpoint of the survey period.

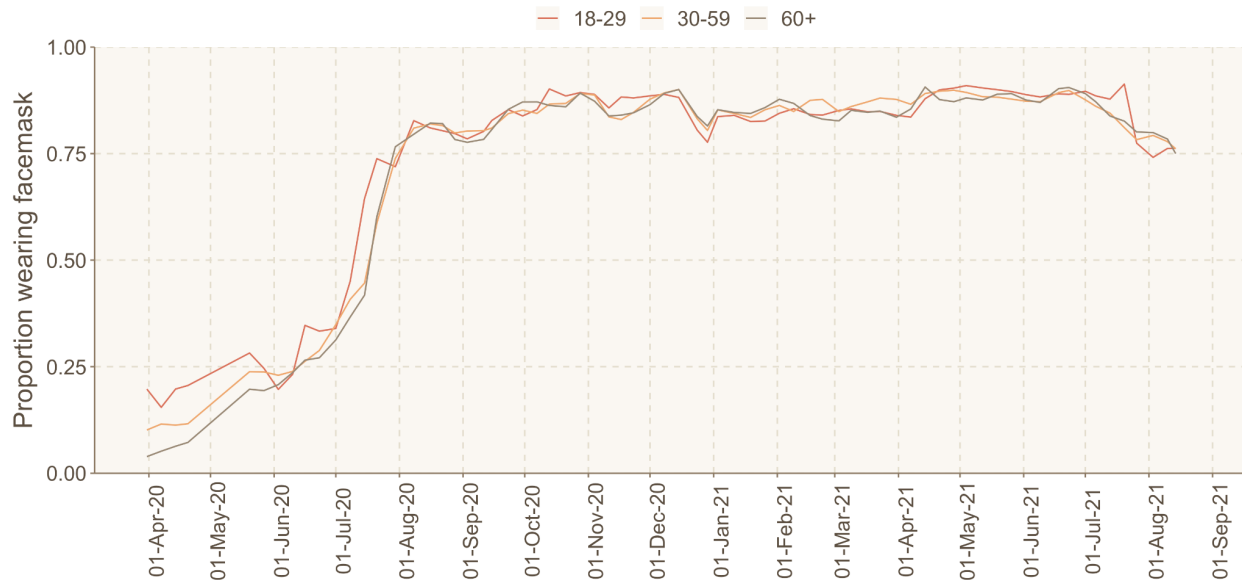


Figure 6: Proportion of adults wearing a face mask over time (with at least one contact outside of the home). Observations are smoothed over two weeks to account for panel effects with all dates representing two rounds of data collection except for the final week, which only contains the latest survey round. Date on x axis refers to the midpoint of the survey period.

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 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

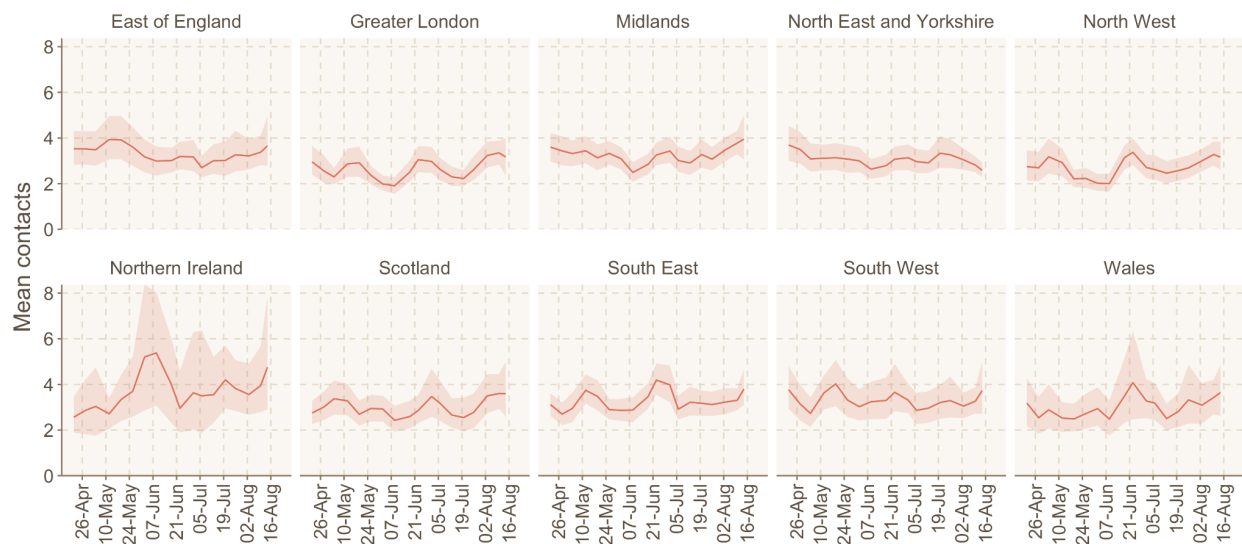


Figure S1: Mean contacts in all settings in adults for UK nations and English regions over time. Uncertainty calculated using bootstrapping. Contacts truncated to 50 contacts per participant. Observations are smoothed over two weeks to account for panel effects. Date on x axis refers to the midpoint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

Table S1. Time periods based on different level of lockdowns and restrictions in England over the previous year

Period	Date	Period	Date
1. Lockdown 1 (LD 1)	24 Mar 2020 - 03 Jun 2020	7. Lockdown 3	05 Jan 2021 - 07 Mar 2021
2. Lockdown 1 easing	04 Jun 2020 - 29 Jul 2020	8. Lockdown 3 + schools	08 Mar 2021 - 31 Mar 2021
3. Relaxed restrictions	30 Jul 2020 - 03 Sep 2020	9. Step 2 + schools	16 Apr 2021 - 16 May 2021
4. School reopening	04 Sep 2020 - 24 Oct 2020	10. Step 3 + schools	30 June 2021 - 19 July 2021
5. Lockdown 2	05 Nov 2020 - 02 Dec 2020	11. Step 4	19 July 2021 - 17 August 2021
6. Lockdown 2 easing	03 Dec 2020 - 19 Dec 2020		

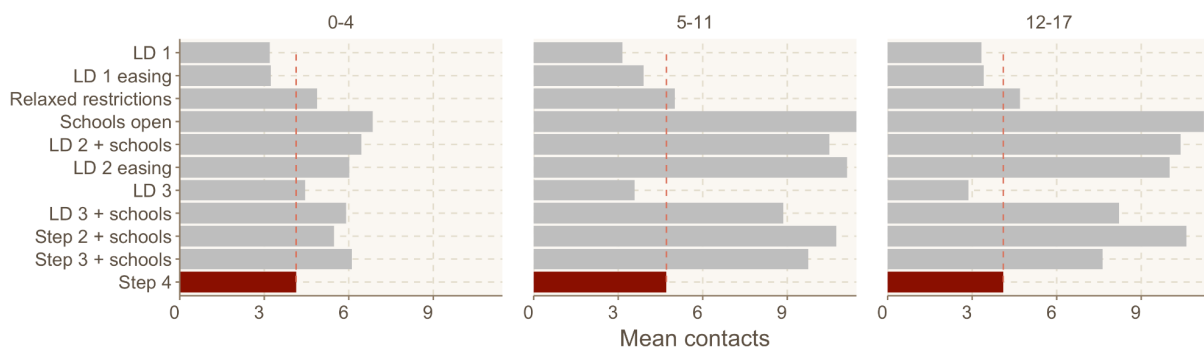


Figure S2: Comparison of mean contacts from the 19 July to 17 August to ten previous time periods of different restrictions by age for children. Current period highlighted in red with dashed line for easier comparison to previous periods.

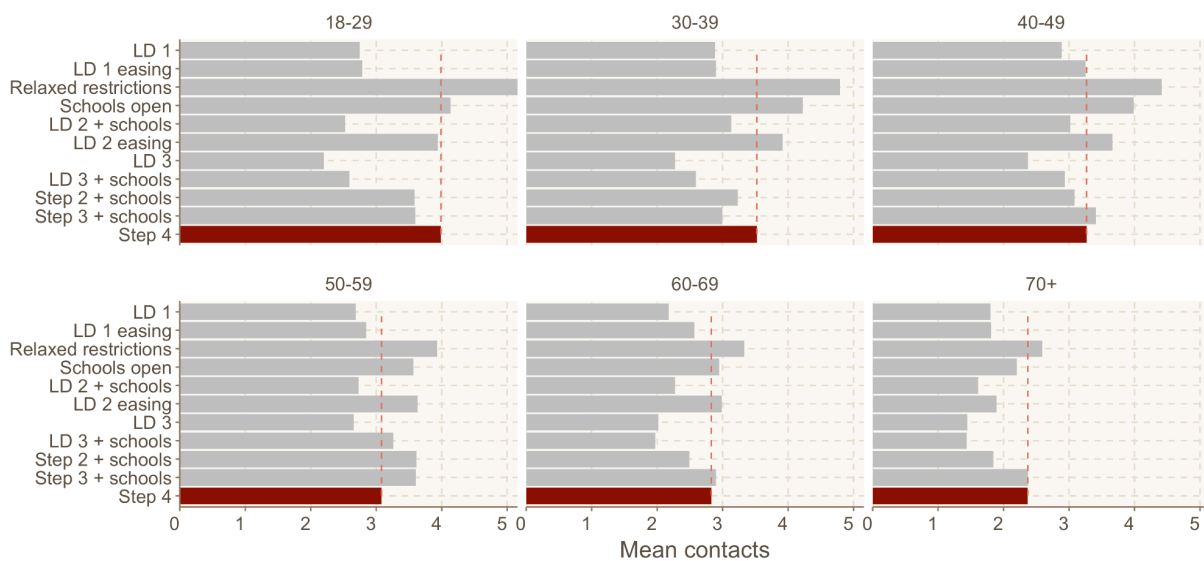


Figure S3: Comparison of mean contacts from the 19 July to 17 August to ten previous time periods of different restrictions by age for adults. Current period highlighted in red with dashed line for easier comparison to previous periods.