

Social contacts in the UK from the CoMix social contact survey

Report for survey week 71

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*Report for SPI-M-O and SAGE, 10 August 2021
Data up to 02 August 2021*

Summary

- Mean reported contacts for adults has remained fairly stable. Older adults (60+ years) are reporting roughly the same level of contacts as they did in summer 2020, though younger adults appear to be reporting fewer contacts than last summer.
- Reported contact rates for children have continued to fall.
- The proportion of participating children isolating has continued to decrease, but remains almost 10%. The fraction of adults self-isolating has also fallen and is currently around 3-4%.
- Wearing face-coverings has clearly fallen since the easing of restrictions in England on July 19th, though overall it remains high. There is some early indication that the fall in use of face coverings may be steeper in younger adults.

Main

Reported mean contacts do not appear to have increased since July 19th. Overall, reported adult contact rates have remained relatively stable since mid-April (Figure 1 & 2). The recent fall in mean reported contacts in the 18-29 age group appears to have reversed (Figure 2). Mean contact rates for older adults (aged 60+) are at about the same levels as were reported last summer (Figure S3). However, contact rates are much lower than was recorded last summer for younger adult age groups - particularly the 18-29 year olds (Figure S3).

Children's contact rates have continued to fall, which is associated with the summer vacation period (Figures 1 and 3). Reported contact rates for children are at a similar level to last summer and at much lower levels than when schools are open (Figure S2).

The proportion of children in isolation or quarantining has decreased considerably in the last few weeks, though it is still close to 10% (Figure 4). The fraction of adults who report having had to self-isolate has remained relatively constant at just less than 5%, and may have fallen slightly over the last week. Individuals who are isolating report fewer contacts than those who are not, particularly amongst children aged 5-17 (Figure 5). However, now that schools are closed (and contact rates have fallen for children) the difference in contact rates between self-isolating and not self-isolating children has narrowed (Figure 5).

Wearing a face-covering has clearly fallen since the easing of restrictions in England on July 19th, though overall levels remain high (Figure 6). Young adults (18-29 year olds) were early adopters of masks during the early phase of the epidemic (Figure 6). The most recent data suggest that the drop in face-covering use may be more rapid in this young adult age group, though care should be exercised when interpreting Figure 6 as the last data point contains only 1 week's worth of data (other data points are averaged over 2 weeks).

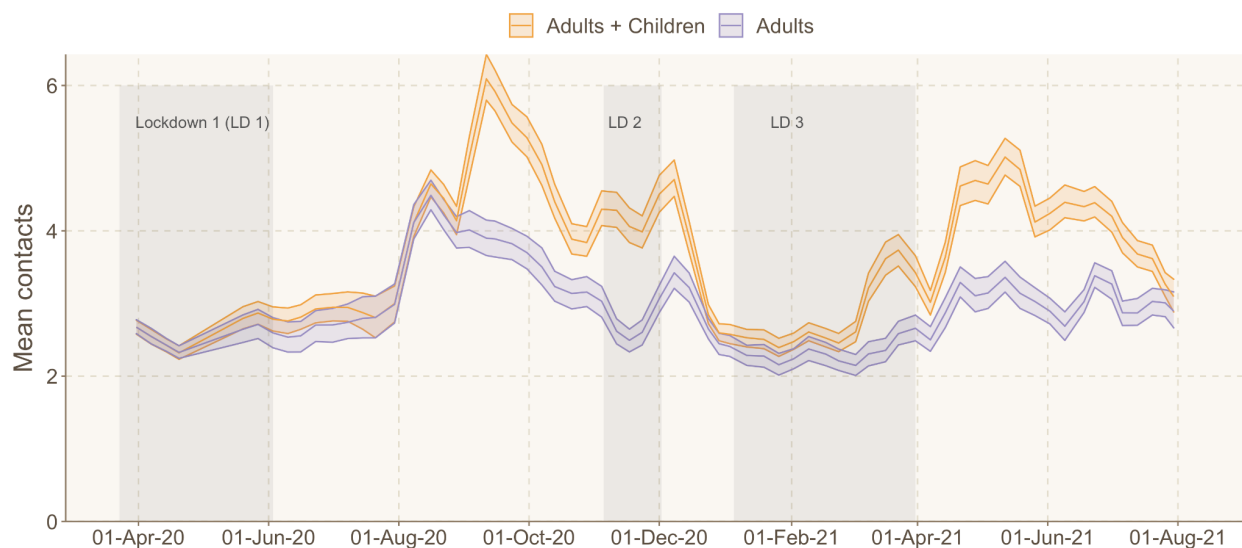


Figure 1: Mean contacts in the UK since the 23rd March 2020 for adults and children (all participants) and adults only (18 year +). Uncertainty calculated using bootstrapping. Contacts truncated to 50 contacts per participant. Observations are smoothed over two weeks to account for panel effects. Date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

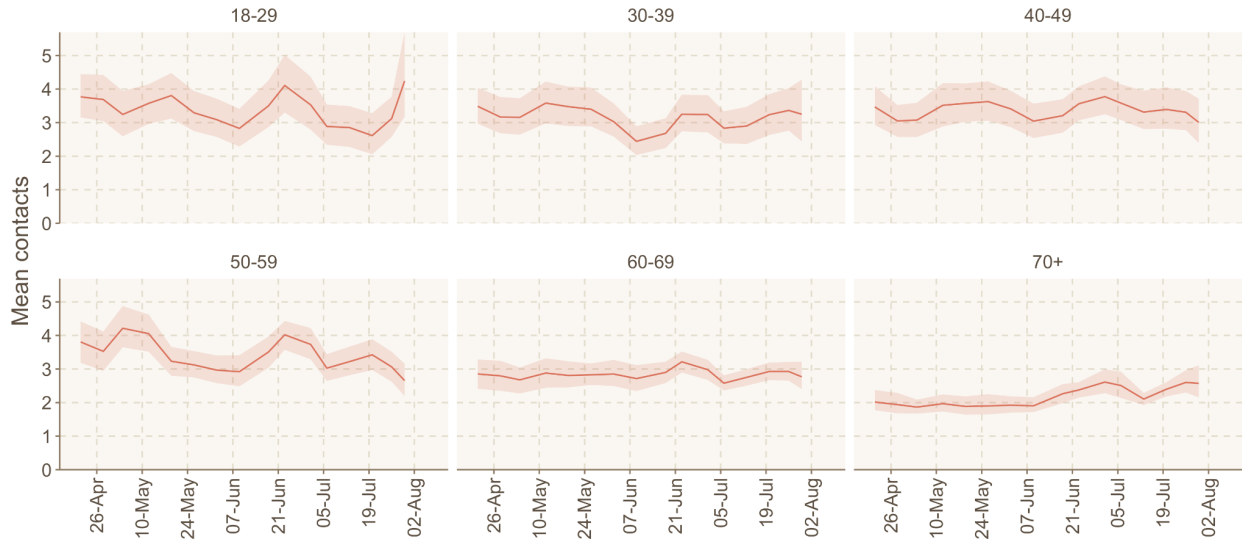


Figure 2: Mean contacts in all settings by age-group for adults over time. Uncertainty calculated using bootstrapping. Contacts truncated to 50 contacts per participant. Observations are smoothed over two weeks to account for panel effects. Date on x axis refers to the midpoint of the survey period.

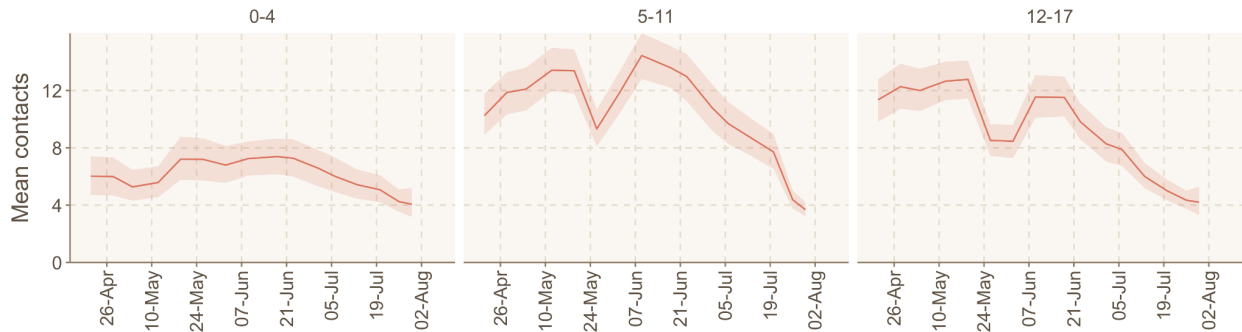


Figure 3: Mean contacts in all settings by age-group for children over time. Uncertainty calculated using bootstrapping. Contacts truncated to 50 contacts per participant. Observations are smoothed over two weeks to account for panel effects. Date on x axis refers to the midpoint of the survey period.

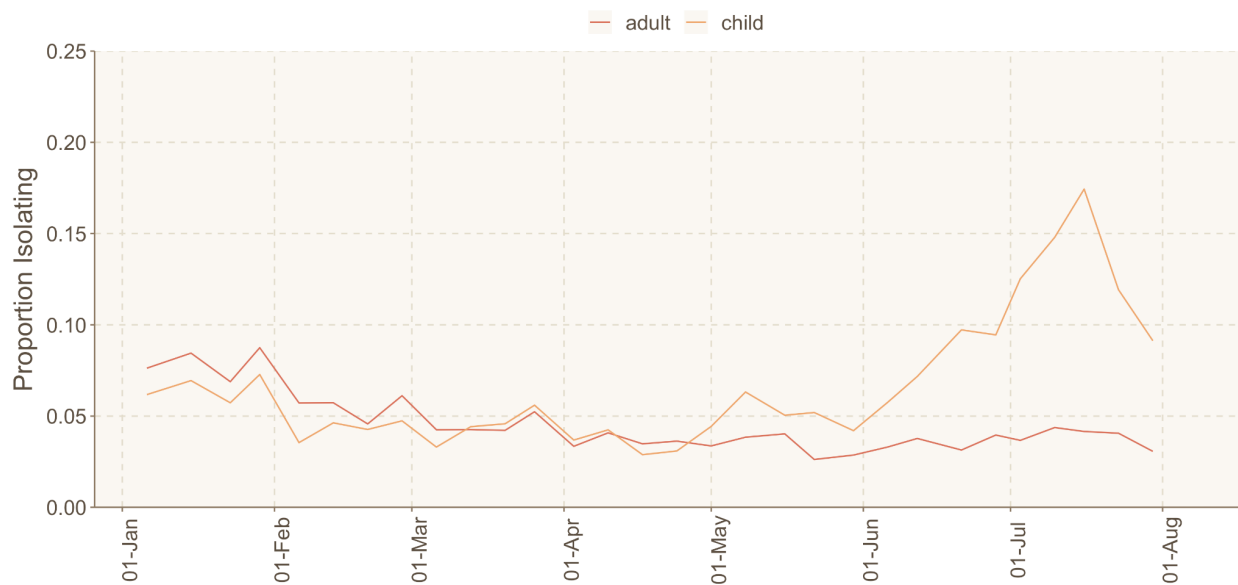


Figure 4: Proportion of sample isolating by adults and children over time in England since Jan 2021.

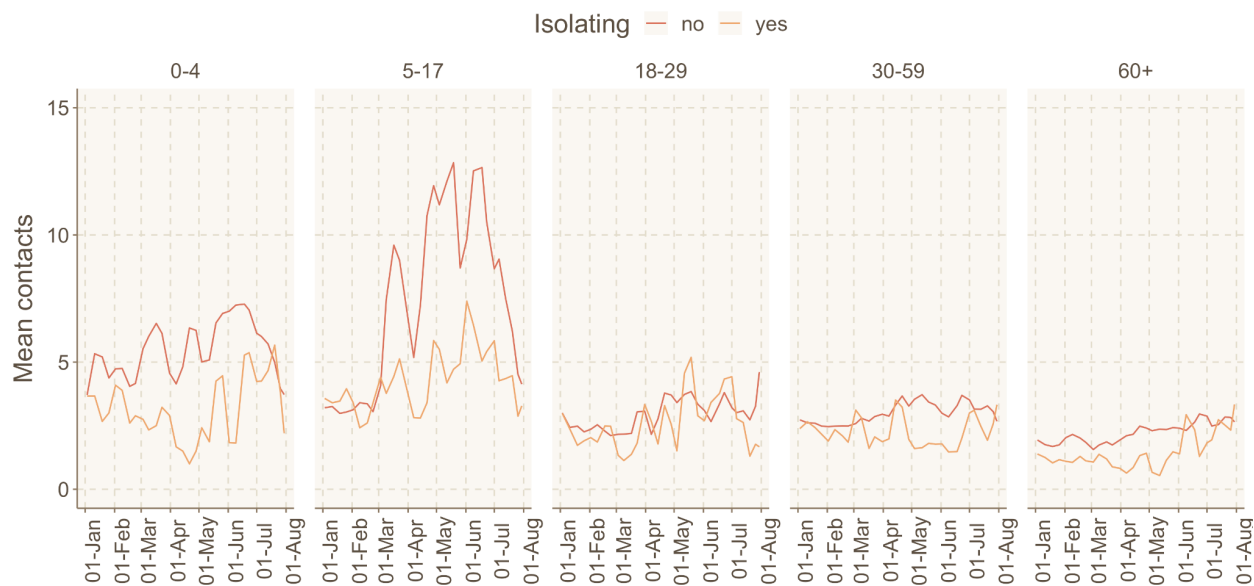


Figure 5: Mean contacts in all settings in England by age and whether participant is in isolation. Contacts truncated to 50 contacts per participant. Observations are smoothed over two weeks to account for panel effects. Date on x axis refers to the midpoint of the survey period.

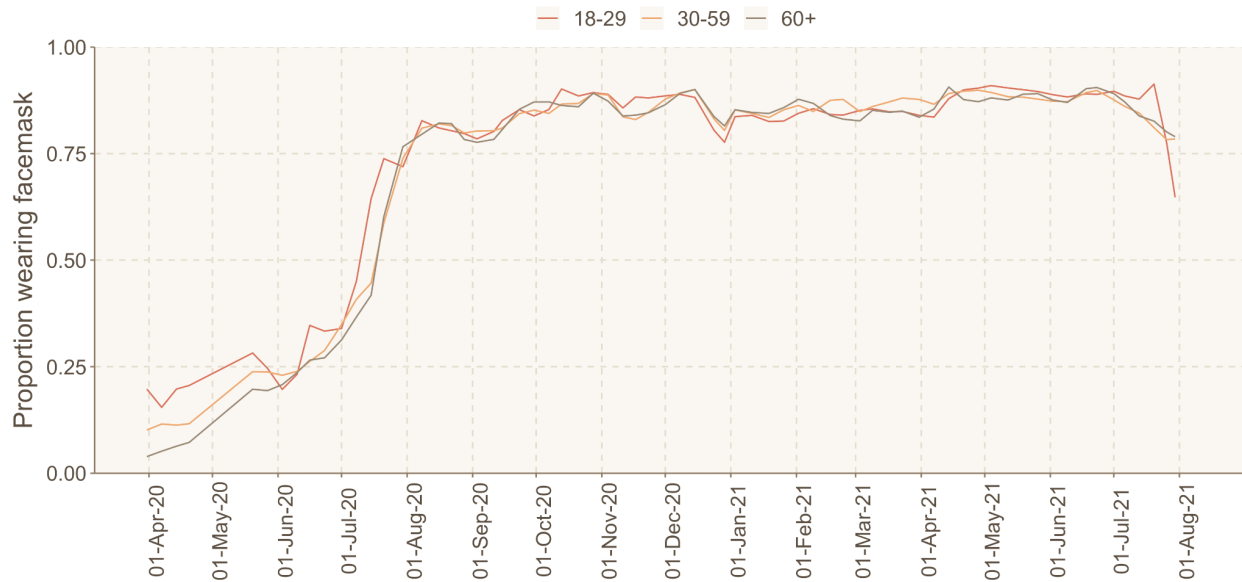


Figure 6: Proportion of adults wearing a face mask over time (with at least one contact outside of the home). Observations are smoothed over two weeks to account for panel effects with all dates representing two rounds of data collection except for the final week, which only contains the latest survey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

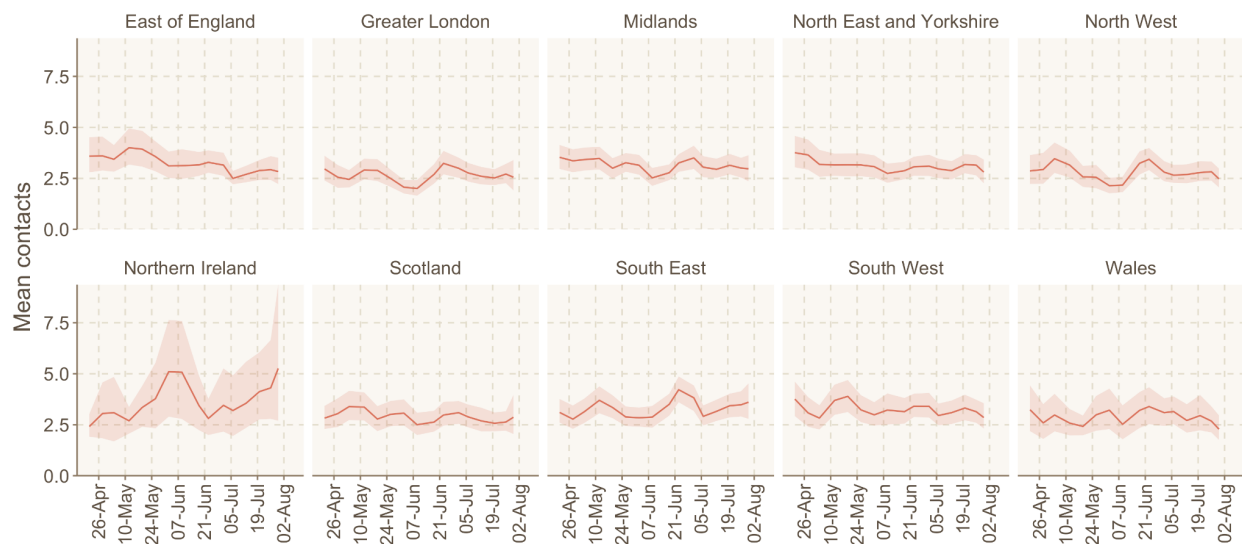


Figure S1: Mean contacts in all settings in adults for UK nations and English regions over time. Uncertainty calculated using bootstrapping. Contacts truncated to 50 contacts per participant. Observations are smoothed over two weeks to account for panel effects. Date on x axis refers to the midpoint 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 - 02 August 2021
6. Lockdown 2 easing	03 Dec 2020 - 19 Dec 2020		

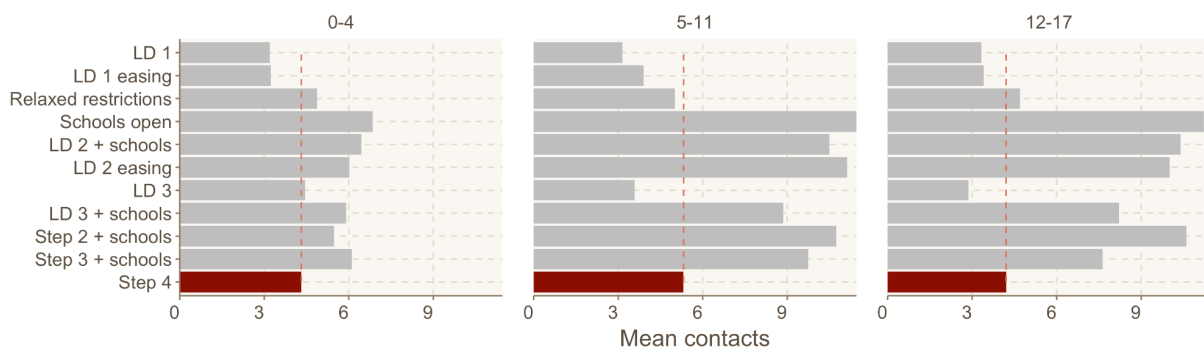


Figure S2: Comparison of mean weekday contacts from the 19 July to 2 August to ten previous time periods of different restrictions by age for children. Current period highlighted in red with dashed line for easier comparison to previous periods.

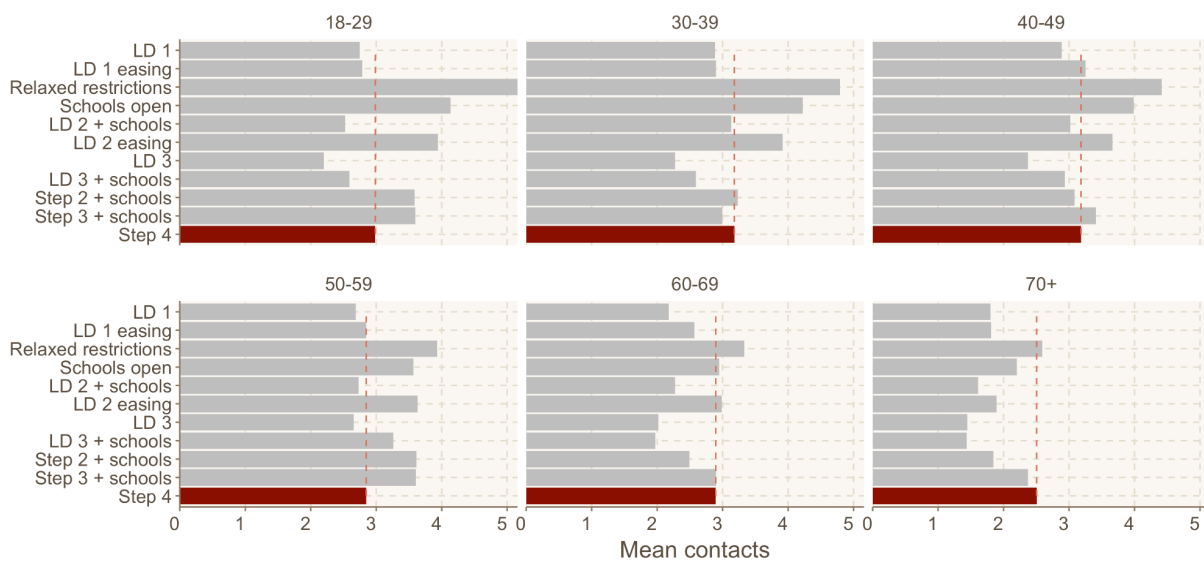


Figure S3: Comparison of mean weekday contacts from the 19 July to 2 August to ten previous time periods of different restrictions by age for adults. Current period highlighted in red with dashed line for easier comparison to previous periods.