

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

## Report for survey week 101 - Final report

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*Report for SPI-M-O and SAGE, 08 March 2022  
Data up to 02 March 2022*

**NOTE: The CoMix study has finished collecting data. This is the final routine CoMix report.**

### Summary

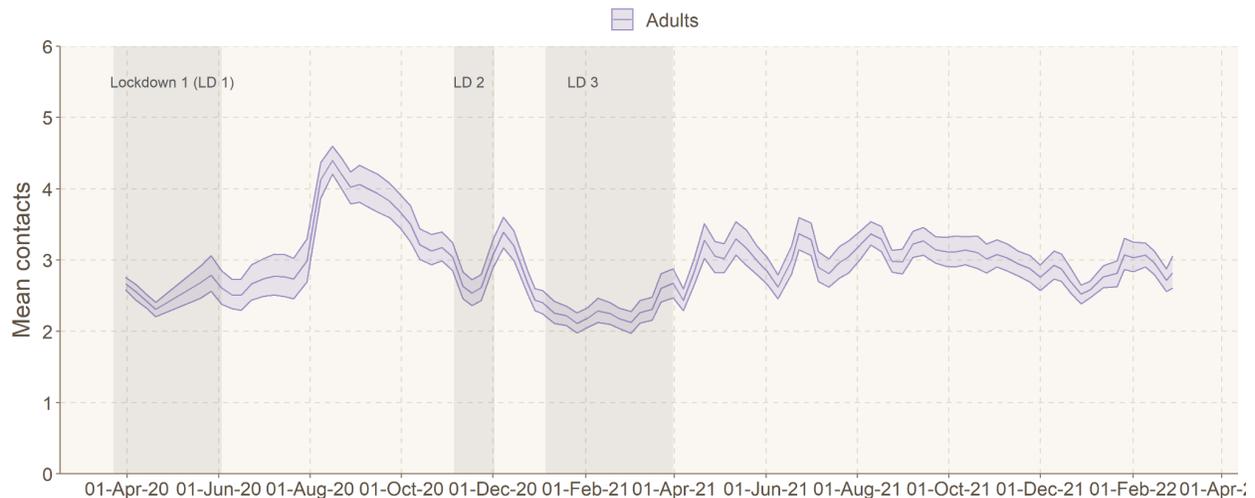
- Reported mean contact rates for adults have been fairly steady in all age groups and parts of the UK over recent weeks.
- Following the half-term break the reported mean level of contacts for children is very similar to that observed during other periods when schools have been open, and is much higher than for adults.
- Significant numbers of individuals reported being in isolation or quarantine. Following a fall during the half-term break, this appears to have increased again for primary school-aged children. Possibly due to testing prior to returning to school.
- The large drop in the use of face-masks in England, that occurred when Plan B restrictions were lifted appears to be continuing. There is no evidence of such a fall in use in Scotland, though there may be some fall in use of masks in Wales.
- Adults who attended their workplace continue to report approximately twice the mean number of contacts than employed adults who did not attend their workplace.

## Main

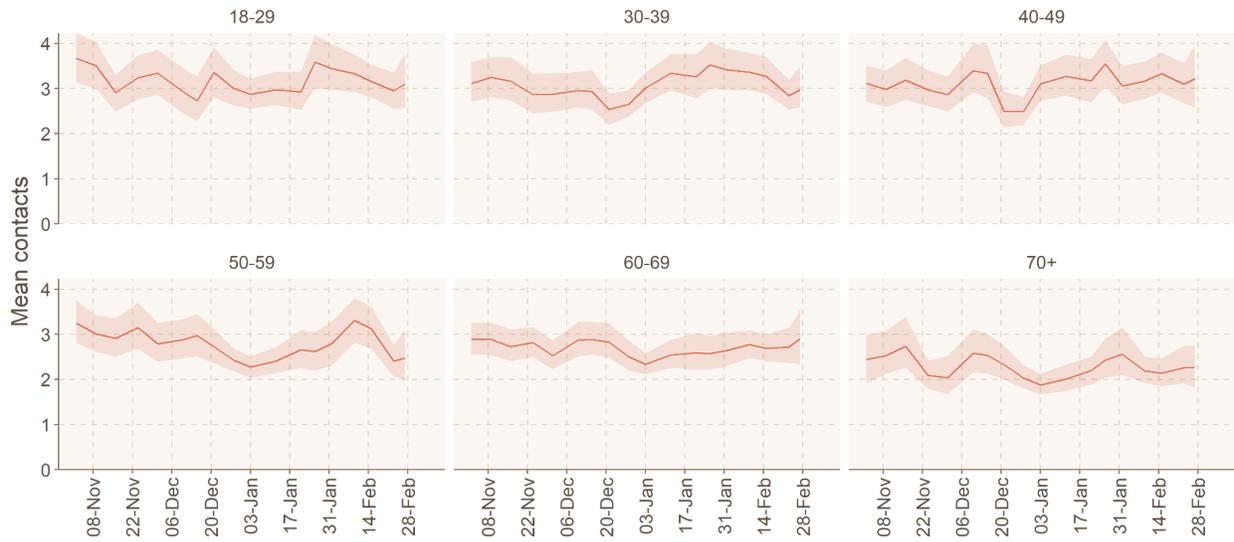
Adult contact rates have remained fairly stable since Christmas. There appears to have been a small reduction in mean reported contacts for adults over the half-term school break, after which rates have returned to previous levels survey weeks (Figures 1-3). Contacts remain quite consistent across the regions of England and different nations of the UK, though trends are difficult to discern for Northern Ireland due to a small sample size (Figure S1). Following the half-term break, recorded contacts for school-aged (and younger) children has recovered to levels typically recorded during school terms (Figure 4). With the re-opening of schools, the percentage of children aged 5 to 11 who are in isolation has increased again to almost 10% (Figure 5). Around 7-8% of older children and adults (<60 years) and around 2% of the elderly (>60 years) report isolating, figures that have remained fairly stable over recent weeks (Figure 5).

The fall in the reported use of face-coverings in English adults appears to be continuing (Figure 6). Facemask restrictions remain in Scotland and Wales and usage has remained higher in both these countries, though may be falling in Wales (Figure 6). The drop in facemask use in England has been seen in all adult ages, with those age 60+ falling the least and younger adults (18-29 years old) falling the most (Figure 7).

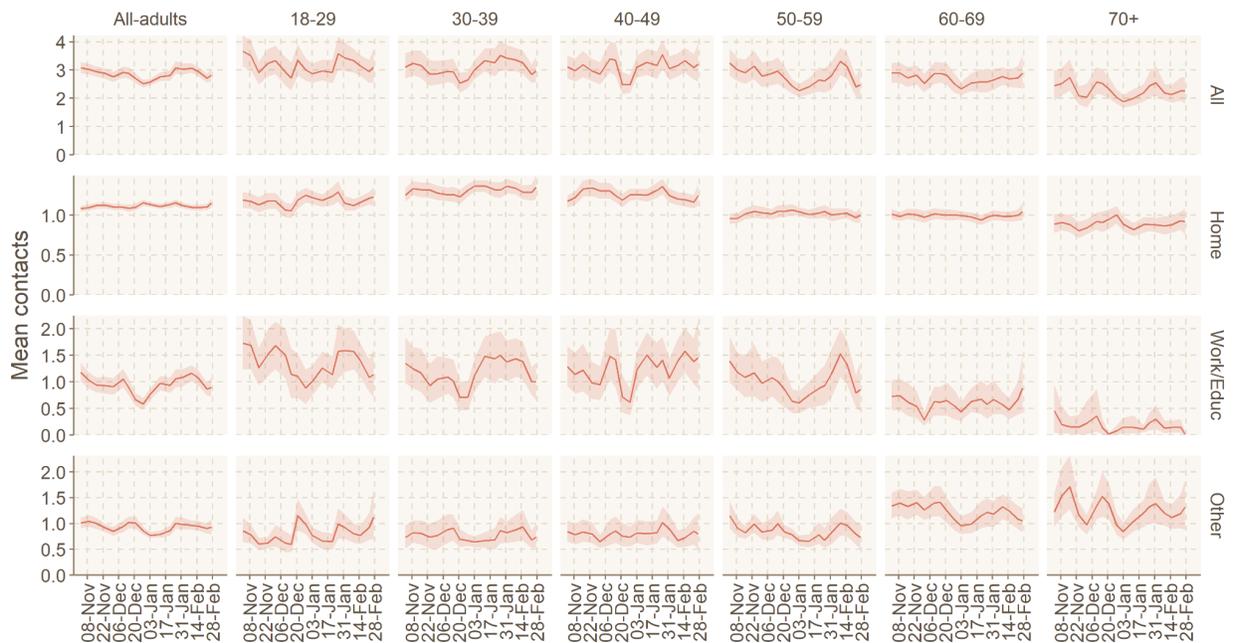
Those who attended work over the last year have reported consistently higher contacts compared to those whose work is open, but they did not attend (Figure 8).



**Figure 1: Mean contacts in the UK since the 23rd March 2020 for adults.** 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.

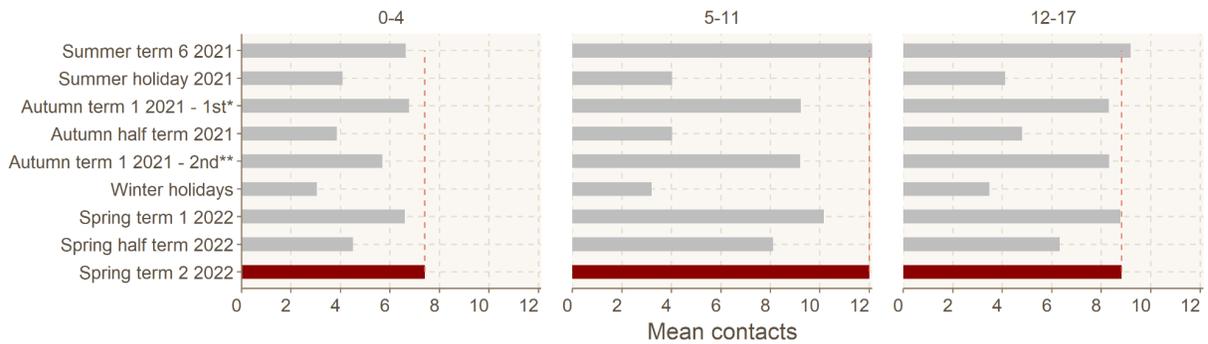


**Figure 2: Mean contacts in all settings by age-group for adults over time.** Uncertainty calculated using bootstrapping. Contacts truncated to 50 contacts per participant. Observations are smoothed over two weeks to account for panel effects. Date on x axis refers to the midpoint of the survey period.

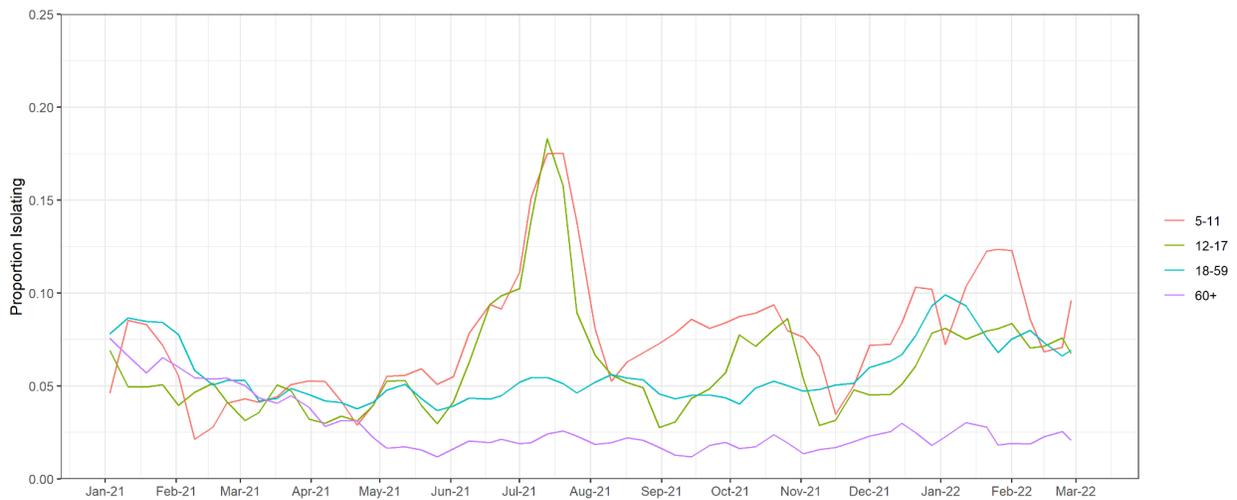


**Figure 3: Mean contacts by settings and by age-group over time.** Uncertainty calculated using bootstrapping. Contacts truncated to 50 contacts per participant. Observations are

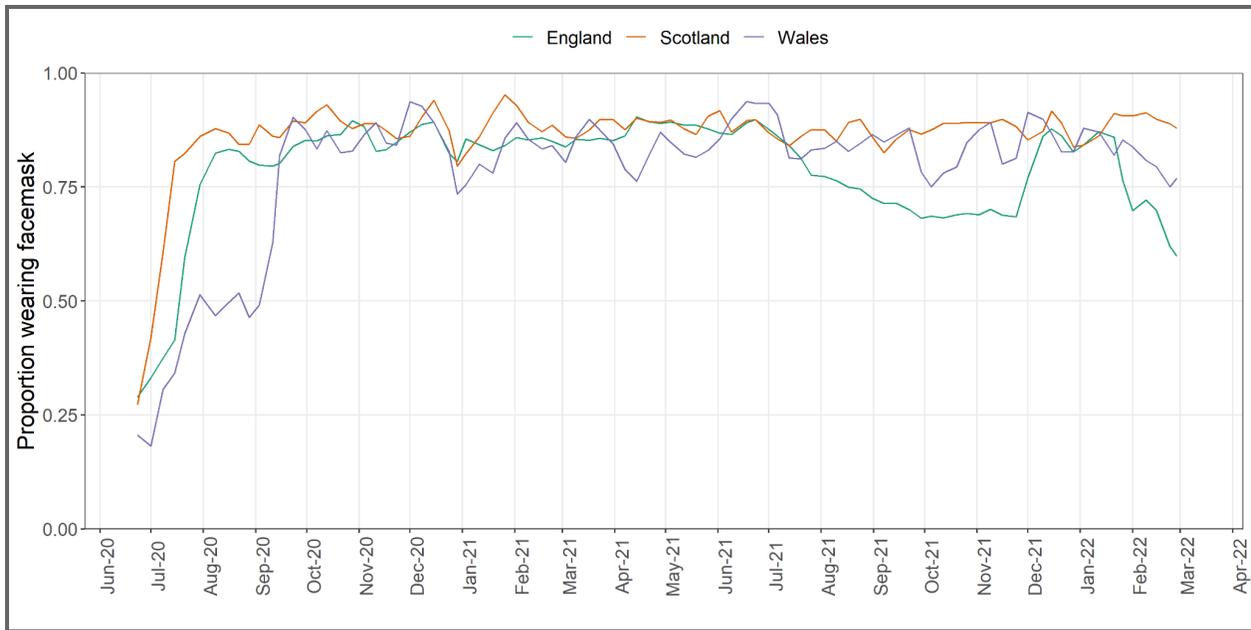
smoothed over two weeks to account for panel effects. Date on x axis refers to the midpoint of the survey period.



**Figure 4: Comparison of mean contacts from the autumn half term to previous school term and holidays periods by age for children.** Current period highlighted in red with dashed line for easier comparison to previous periods. \* Autumn term 1 2021 - 1st half Includes data from 1st September to 28th September 2021 inclusive. \*\* Autumn term 1 2021 - 2nd half includes data from 3 November to 21 December 2021 inclusive. Spring term 1 includes data from 6th January 2022 to 16th of February 2022 inclusive.



**Figure 5: Proportion of adults or children in isolation or quarantine by age-group.** Observations are smoothed over two weeks to account for panel effects apart from the most recent week of data. Date on x axis refers to the midpoint of the survey period and may be affected by panel effects.

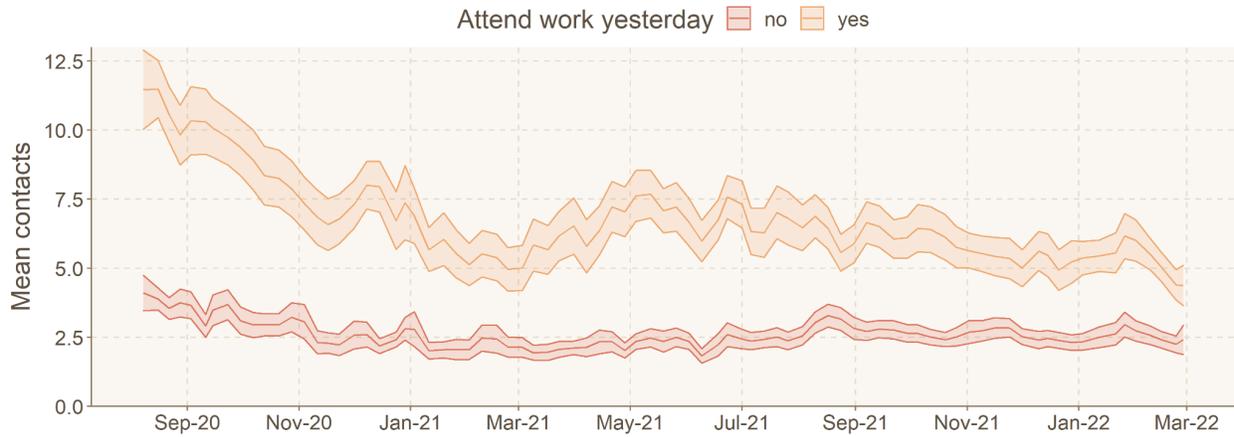


**Figure 6: Proportion of adults wearing a face mask over time by country (with at least one contact outside of the home).** Observations are smoothed over two weeks to account for panel effects apart from the most recent week of data. Date on x axis refers to midpoint of the survey period.



**Figure 7: Proportion of adults wearing a face mask over time in England by age-group (Solid line = with at least one contact outside of the home, dotted line = all participants).** Date on x axis refers to midpoint of the survey period.

### A: All contacts



**Figure 8: Mean contacts in the UK since August 2020 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. The final observation includes data for the most recent survey wave only.

## **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. Participants 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.
3. Coronavirus (COVID-19) Latest Insights - Office for National Statistics. 2022. Office for National Statistics. <https://www.ons.gov.uk>

## Additional graphs and tables



**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.