Supplementary Information

Spatiotemporal heterogeneity of social contact patterns related to infectious diseases in the Guangdong Province, China

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S1 Fig. Percentage of physical or non-physical contacts by duration, frequency, and location in Foshan (Panel: A, D, and G), Guangzhou (Panel: B, E, and H) and Zhuhai (Panel: C, F, and I) of Guangdong China. Abbreviations: hr, hours; min, minutes
Figure S2.

S2 Fig. Percentage of contact duration according to frequency in Foshan (A), Guangzhou (B) and Zhuhai (C) of Guangdong China. Abbreviations: hr, hours; min, minutes
Figure S3. Non-symmetrized contact intensity matrices of all contacts and physical contacts across the entire year, summer and winter.
**Supplementary Table S1.** Comparison of age structure between census data (2015) and samples of Guangdong Province.

| Age | Sample N | %    | Census N | %    | Ratio C/S |
|-----|----------|------|----------|------|-----------|
| 0-  | 301      | 5.17%| 5624736  | 5.39%| 1.043     |
| 5-  | 310      | 5.33%| 5167116  | 4.95%| 0.929     |
| 10- | 246      | 4.23%| 6812178  | 6.53%| 1.544     |
| 15- | 205      | 3.52%| 9989559  | 9.58%| 2.720     |
| 20- | 682      | 11.72%|22896757 | 21.95%|1.873     |
| 30- | 1,002    | 17.22%|18468133 | 17.70%|1.028     |
| 40- | 979      | 16.83%|15911579 | 15.25%|0.906     |
| 50- | 822      | 14.13%|9298010  | 8.91%| 0.631     |
| 60- | 756      | 12.99%|5234040  | 5.02%| 0.386     |
| 70- | 515      | 8.85%| 4918351  | 4.71%| 0.533     |
| All | 5818     | 100% | 104320459| 100% | 1.000     |
Supplementary Text S1. Study questionnaire.

Survey ID: □□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□́
We do ask you to include every contact you had, but if you were unable to include every single contact (for instance, because you work in a shop till and have a large number of contacts in a day), please could you indicate this?
☐ I included every person I had contact with. ☐ I did not include every person I had contact with.
If you did not include every person you had contact with, approximately how many people you left out did you have:
Physical contact with: ______  No physical contact with: ______

Instructions:

1. A contact is defined as: ① EITHER a two-way conversation with three or more words in the physical presence of another person; ② OR physical skin-to-skin contact (for example a handshake, hug, kiss or contact sports).

2. The order in which you write down your contact persons is not important.

3. Contacts made exclusively by telephone or mobile phone should NOT be recorded.

4. If you contact the same person several times in the course of the day, only record him/her once, and record the total time you spent with that person over the entire day. So each person you meet during the day and have contact with should only have one line in the diary: one person, one line.

5. If you don’t know the exact age, give an estimate of the age range (e.g. 40-45) and try to make it as narrow as possible.

6. Questionares for young children should be responded by a parent or guardian on their behalf.