Globalmix Mozambique analysis

M. C. Kiti

2023-08-21

Table of contents

[1. Background 4](#_Toc143536398)

[2. Methods 4](#_Toc143536399)

[2.1 Study objectives 4](#_Toc143536400)

[2.2 Study design and site 4](#_Toc143536401)

[2.3 Sample size 4](#_Toc143536402)

[2.4 Data collection tools 5](#_Toc143536403)

[2.5 Data collection procedures 5](#_Toc143536404)

[2.6 Data analysis 5](#_Toc143536405)

[2.6.1 Contact patterns (MCK) 5](#_Toc143536406)

[2.6.2 Contacts patterns and places visited (CL) 6](#_Toc143536407)

[2.6.3 Transmission modeling (SK) 6](#_Toc143536408)

[2.7 Ethical considerations 6](#_Toc143536409)

[3. Results 6](#_Toc143536410)

[3.1 Baseline characteristics of participants 6](#_Toc143536411)

[3.2 Distribution of number of contacts on day 1 and day 2 10](#_Toc143536412)

[3.2.1 Unweighted non-symmetrical contact matrices 19](#_Toc143536413)

[3.2.2 Contact behavior 19](#_Toc143536414)

[3.2.3 Contacts patterns and places visited (CL) 22](#_Toc143536415)

[3.2.4 Transmission modeling (SK) 23](#_Toc143536416)

[4. Discussion 23](#_Toc143536417)

[5. Conclusion 24](#_Toc143536418)

[6. Supplementary Information 24](#_Toc143536419)

[6.1 1. Number of contacts reported over day 1 and 2 24](#_Toc143536420)

[6.2 2. Median (IQR) rural contacts on day 1 and day 2 26](#_Toc143536421)

[6.3 3. Median (IQR) urban contacts on day 1 and day 2 28](#_Toc143536422)

# Background

# 2. Methods

## 2.1 Study objectives

## 2.2 Study design and site

This was a cross-sectional study conducted in Mozambique. Data were collected between April 2020 and April 2021. study will be implemented in one rural and one urban area of Mozambique. The rural area will cover the Manhiça Health and Demographic Surveillance Site (Manhiça HDSS) located in the district of Manhiça, Maputo province, while the urban area will cover the Polana Caniço HDSS located in Maputo City. The Manhiça HDSS is located in about 80 km north of Maputo City, Mozambique’s capital. It was established in 1996 and currently comprises about 201,000 individuals registered as permanent residents distributed in about 45,300 households. The Polana Caniço HDSS was established in 2018 and partly covers the third most populated urban district of KaMaxaquene in Maputo city. The urban HDSS has a population of approximately 92,000 inhabitants.

## 2.3 Sample size

We framed our sample size calculations to detect sufficient precision in the age-group of greatest interest (infants). We powered each age group to have a standard deviation consistent with the precision in the estimate of youngest age group (0-4 years) in the POLYMOD study: standard deviation = 7.65 contacts per day (95% CI 8.2-12.2 contacts per day). We chose to base our sample size calculation on the youngest age group because infants less than six months of age represent the smallest fraction of the overall population size and are traditionally the most difficult population to enroll. We then inflated the sample size by ten percent for each age group to account for participants not completing the surveys. This resulted in a sample size of 63 per age group, 630 per site, and 1260 for in total.

## 2.4 Data collection tools

Data were collected using a paper diary and an electronic diary. We defined a social contact as either 1) Physical, a 2-way face-to-face interaction between two or more individuals standing at arm’s length of each other and involving touch (skin-to-skin or over clothes) or 2) non-physical/ conversation contact, a 2-way face-to-face conversation between two or more individuals standing at arm’s length of each other with no physical barrier between them.

(Describe paper diary) - include in SI

(Describe electronic diary)

## 2.5 Data collection procedures

Field staff will recruit the potential participants that were identified through the quota-based sampling via household visits. After initial contact is made, study staff will obtain written consent (via signature or thumb impression, in case the study participant is unable to read and write) and enroll the participant after providing a detailed explanation of the study. The field staff will explain that participants will have to complete two surveys over two consecutive days (each at the end of a 24-hour period to account for individual variation). Once enrolled, the field staff will randomly assign the participant two consecutive days of the week, using the enumeration code. The participant will be coached on how to complete the survey correctly one or two days before the selected day (please see the attached survey sample). Field staff will also collect information on the employment status, education level, household composition, age, birth order and gender of the participant as well as GPS data on the location of the household.13 After the completion of the two contact diary surveys, field staff will conduct an exit interview where field staff will check questionnaire for completeness and inconsistencies and make sure all required information is included. In addition, we will collect data on predictors of infectious disease transmission including information on food handling, hand-washing and latrine use practices for each participant, ventilation and water source, as well as animal contact by household members.

## 2.6 Data analysis

### 2.6.1 Contact patterns (MCK)

We present overall mean with 95% confidence intervals (CI) and median with inter-quartile range, IQR) contact rates over two days and stratified by day 1 and day 2 of contact diary data collection. To assess the difference in mean number of contacts reported on day 1 compared to 2, we use the paired sample T-test of significance for paired data assuming that there is no difference between the means over the two days (null hypothesis). After observing no difference in the means (and medians using the Wilcoxon rank-sum test for paired data), we present average values for day 1 only.

Contact rates were stratified first by site, then further by age, sex, day of the week (weekday vs weekend), type of contact (conversation only or with touch (physical)), household membership (household member vs non-household member) *COVID-19 infection periods*, and whether the participant reported symptoms of acute respiratory infections (ARI) or acute gastroenteritis (AGE). A full list of symptoms is available in SIx *(link to questionnaire)*

### 2.6.2 Contacts patterns and places visited (CL)

[text]

### 2.6.3 Transmission modeling (SK)

[text]

## 2.7 Ethical considerations

This study was be conducted in accordance with the protocol, current Declaration of Helsinki, current GCP Guidelines and all applicable regulatory requirements in Mozambique, including the relevant national and local regulatory bodies having jurisdiction.The investigators or appropriately delegated site study staff shall be responsible for obtaining written informed consent from each participant prior to any data collection. Individuals equal or older than 18 years of age will provide individual consent. For individuals less than 18 years old, consent will be sought from the head of household and parent/legal guardian who is above the age of 18 years. Children 12-17 years old will also be asked to provide written assent. For individuals who do not have the capacity to provide consent, this will be sought from the head of household or parent/legal guardian. If either is absent during the household visit, the subject without capacity to provide individual consent will be excluded. In accordance with GCP Guidelines, the participant shall write his or her own name and date before signing the document. For illiterate participants and minors, the process shall be in accordance with that outlined by the GCP Guidelines, i.e. the participant will make a mark, preferably a thumbprint, on the consent form and a witness will attest to the informed consent process and participant’s voluntary consent. The original document shall be filed and maintained as part of the Investigator Site records and a copy shall be provided to the participant.

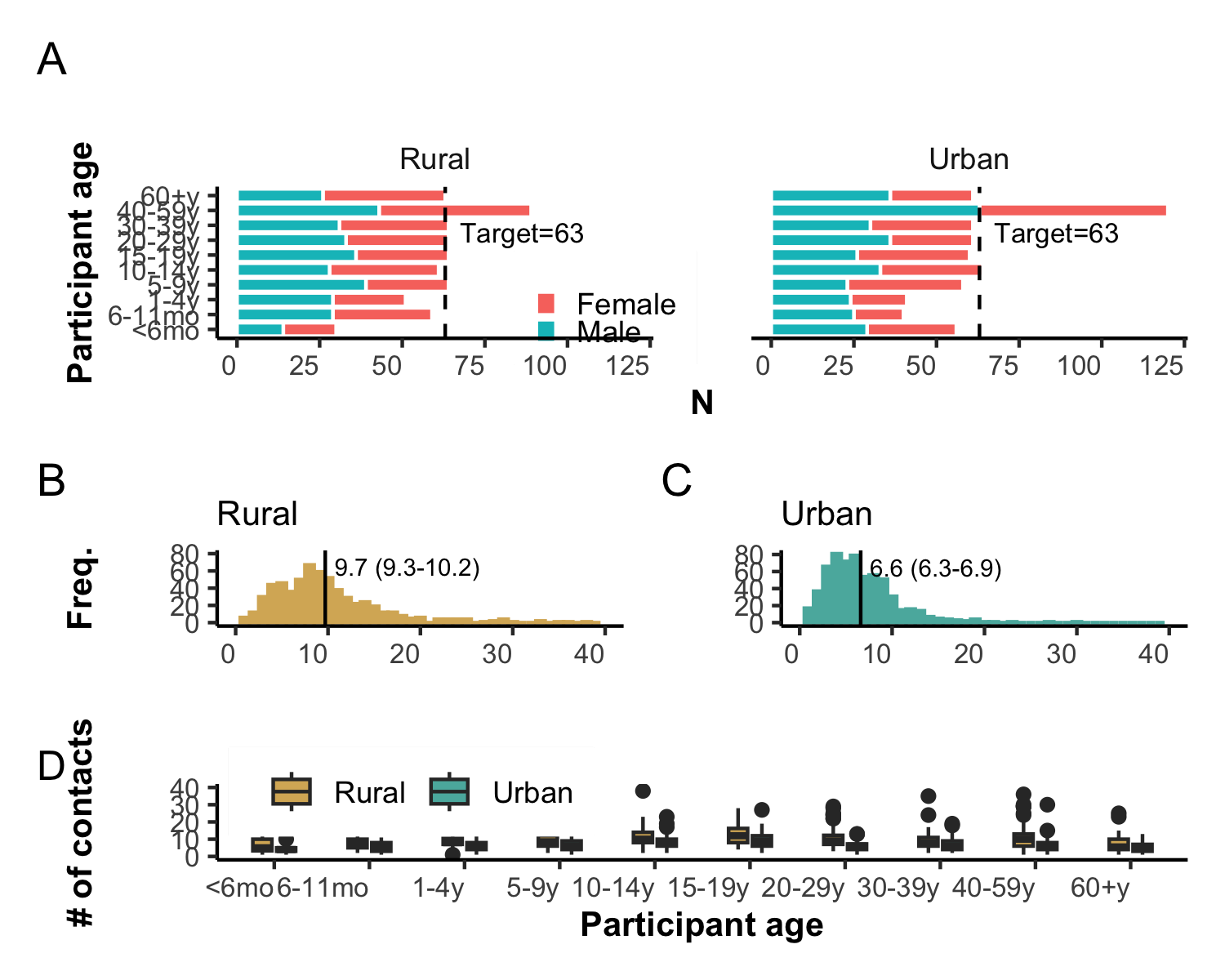
# 3. Results

## 3.1 Baseline characteristics of participants

A total of 1231 individuals participated in the study, with 609 (49% female) and 622 (48% female) participants recruited from the rural and urban sites, respectively. **?@fig-baseline-distributions** (A) shows the age and sex characteristics of the participants in the rural and urban site. By site, there was no major difference in number of participants recruited by age, sex, and school enrollment status. However, we did not attain our target sample size for children aged <5 years in both sites and over-sampled adults aged 40-59 years old.

The mean household size was 5.5 and 5.7 in the rural and urban areas, respectively. Occupation categories were mainly invariable by site, with majority being students at various levels (30%), children aged <5 years (17%), or unemployed adults (15%). Key differences were observed among business people (rural 1%, urban 11%) and office workers (rural 5%, urban 10%). When asked about regular mask use inside or outside the house, 931 (76%) of participants reported wearing a mask with no difference by site. Additionally, one-fifth (209) of participants reported having >1 ARI symptom and 2% (24) reported at least one AGE symptom. Finally in both sites, almost two-thirds of the participants (701, 57%) were able to read and write. Half (632, 51%) of all participants required assistance from a fieldworker to fill in the diary at the end of the two days and a third of these (239/632) of these were children aged <5 years.

|  |  |
| --- | --- |
| Note | |
| Talk about: - household size, distribution of number of rooms - diary keeping by participant/ shadow - any significant comments regarding challenges experienced during diary keeping? - any changes in behavior reported? - vaccination status? | |
|  | | Site | |
|  | Overall, N = 1,2311 | Rural, N = 6091 | Urban, N = 6221 |
| **Sex** |  |  |  |
| Female | 598 (49%) | 301 (49%) | 297 (48%) |
| Male | 633 (51%) | 308 (51%) | 325 (52%) |
| **Participant age** |  |  |  |
| <6mo | 86 (7%) | 30 (5%) | 56 (9%) |
| 6-11mo | 99 (8%) | 59 (10%) | 40 (6%) |
| 1-4y | 92 (7%) | 51 (8%) | 41 (7%) |
| 5-9y | 122 (10%) | 64 (11%) | 58 (9%) |
| 10-14y | 125 (10%) | 61 (10%) | 64 (10%) |
| 15-19y | 124 (10%) | 64 (11%) | 60 (10%) |
| 20-29y | 125 (10%) | 64 (11%) | 61 (10%) |
| 30-39y | 125 (10%) | 64 (11%) | 61 (10%) |
| 40-59y | 209 (17%) | 89 (15%) | 120 (19%) |
| 60+y | 124 (10%) | 63 (10%) | 61 (10%) |
| **Able to read and write** | 701 (57%) | 293 (48%) | 408 (66%) |
| Unknown | 1 | 1 | 0 |
| **Currently enrolled in school** | 368 (31%) | 173 (29%) | 195 (32%) |
| Unknown | 43 | 22 | 21 |
| **Occupation** |  |  |  |
| Child | 185 (17%) | 89 (17%) | 96 (17%) |
| Unemployed | 162 (15%) | 97 (18%) | 65 (12%) |
| Student | 323 (30%) | 153 (29%) | 170 (30%) |
| Homemaker | 33 (3%) | 9 (2%) | 24 (4%) |
| Casual laboror | 78 (7%) | 22 (4%) | 56 (10%) |
| Farmer | 70 (6%) | 64 (12%) | 6 (1%) |
| Fisherman | 2 (0%) | 2 (0%) | 0 (0%) |
| Business person | 66 (6%) | 7 (1%) | 59 (11%) |
| Office worker | 83 (8%) | 27 (5%) | 56 (10%) |
| Retired | 20 (2%) | 5 (1%) | 15 (3%) |
| Other | 72 (7%) | 58 (11%) | 14 (2%) |
| Unknown | 137 | 76 | 61 |
| **Regular mask use** |  |  |  |
| Yes | 931 (76%) | 433 (71%) | 498 (80%) |
| No | 299 (24%) | 176 (29%) | 123 (20%) |
| No response | 1 (0%) | 0 (0%) | 1 (0%) |
| **Acute gastroenteritis (diarrhea)** | 24 (2%) | 15 (2%) | 9 (1%) |
| **Acute respiratory infection** |  |  |  |
| No symptom | 1,022 (83%) | 506 (83%) | 516 (83%) |
| >1 symptom | 209 (17%) | 103 (17%) | 106 (17%) |
| **Who filled the diary?** |  |  |  |
| By fieldworker | 632 (51%) | 284 (47%) | 348 (56%) |
| Self | 599 (49%) | 325 (53%) | 274 (44%) |
| 1n (%) | | | |



## 3.2 Distribution of number of contacts on day 1 and day 2

We present a summary of median (IQR) of the total number of contacts (including repeat contacts) over two study days. Overall, 19409 contacts were reported with slightly above half (11431, 59%) from the rural site. (SI 1). In each site, 6% of the total contacts were reported with children aged <5 years (7% rural, 6% urban), with 1% of the contacts in each site happening with infants aged <6 months (148 rural, 82 urban). The highest number of contacts were reported with children aged 10-14 yrs (26% rural, 21% urban). Overall, more contacts were reported with women (54%) with no difference between sites.

First, we report the total and mean (and median, see SI 2) number of contacts collected over two days. Overall, the mean number of contacts reported on two days was 15.8 (95% CI 15.3-16.3). We observe a significant difference in the mean number of contacts reported on day 1 (8.2 (95% CI 7.9-8.4) compared to day 2 (7.7276456 (95% CI 7.5-8) (paired t-test p=0.01). Because 20% (3089) of total contacts were newly reported on day 2, from here henceforth we report the number of contacts occurring on day 1. Median values for day 1 and 2 by site are available in the SI *(link to table showing day 1 and day 2 median number of contacts)*.

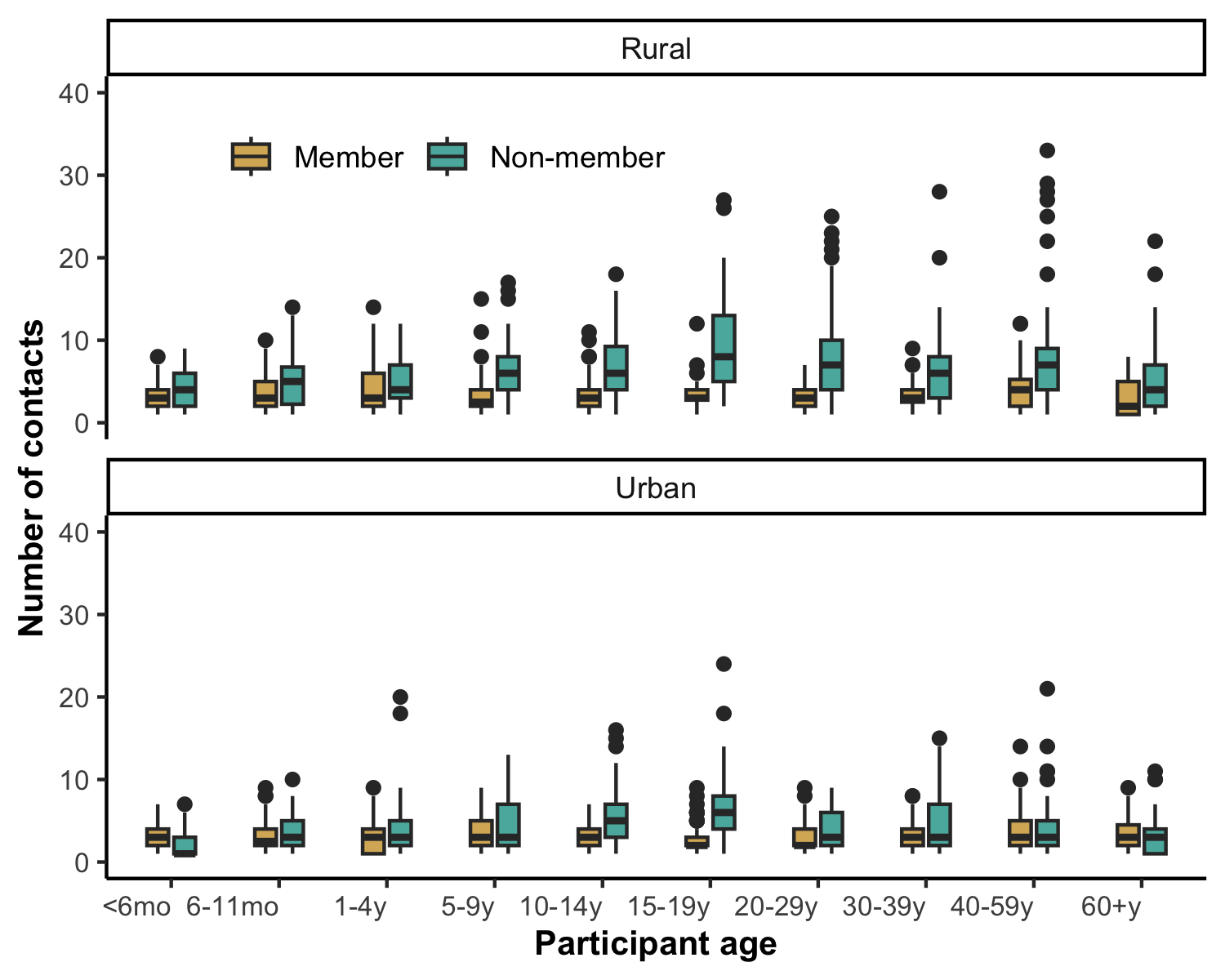
|  |
| --- |
| Note |
| Table available in SI. |
|  | Total (%) | Rural | Urban |
| Sex |  |  |  |
| Female | 4755 (48) | 9 (5-11) | 6 (4-8) |
| Male | 5234 (52) | 9 (6-13) | 6 (4-9) |
| Age |  |  |  |
| <6mo | 427 (4) | 5 (3.25-10) | 4 (3-5) |
| 6-11mo | 697 (7) | 8 (5-10) | 5 (3-8) |
| 1-4y | 722 (7) | 8 (7-10.5) | 6 (4-8) |
| 5-9y | 1041 (10) | 8.5 (6-12) | 6 (4-9) |
| 10-14y | 1193 (12) | 10 (8-14) | 8 (6-10) |
| 15-19y | 1358 (14) | 12 (8-16.25) | 9 (6-12) |
| 20-29y | 1040 (10) | 9 (7-12.25) | 6 (4-7.25) |
| 30-39y | 994 (10) | 8 (6-11) | 6 (4-9) |
| 40-59y | 1752 (18) | 10 (6-13) | 6 (4-8) |
| 60+y | 765 (8) | 5.5 (4-10) | 5 (3-7) |
| Household membership |  |  |  |
| Member | 3879 (39) | 9 (6-12) | 6 (4-9) |
| Non-member | 6110 (61) | 7 (4-9.75) | 4 (3-7) |
| Occupation |  |  |  |
| Child | 1124 (13) | 7 (4-10) | 4 (3-6) |
| Unemployed | 1242 (14) | 7 (5-12) | 6 (4-9) |
| Student | 3077 (35) | 10 (8-14) | 7 (5-10) |
| Homemaker | 225 (3) | 9 (7-9) | 6 (4.75-8) |
| Casual laboror | 537 (6) | 8 (6-11.5) | 5 (4-7) |
| Farmer | 695 (8) | 9 (6-12.5) | 3.5 (3-4) |
| Fisherman | 35 (0) | 17.5 (14.25-20.75) | 6 (4-8) |
| Business person | 434 (5) | 10 (7.5-10.5) | 6 (4-8) |
| Office worker | 650 (7) | 8 (6-10.5) | 4 (3-5.5) |
| Retired | 102 (1) | 5 (4-5) | 9 (8.25-10) |
| Other | 757 (9) | 10 (7-12.75) | 6 (4-8) |
| 11 | NA (NA) | 8 (7-12) | NA |
| Weekday/Weekend |  |  |  |
| Weekday | 7111 (71) | 9 (6-12) | 6 (4-9) |
| Weekend | 2868 (29) | 8 (5-11) | 6 (4-8) |
| 111 | NA (NA) | NA | 12.5 (9.25-15.75) |
| Enrolled in school |  |  |  |
| Yes | 3338 (35) | 9 (7-13) | 7 (5-9) |
| No | 6279 (65) | 8 (5-11) | 6 (4-8) |
| 112 | NA (NA) | 8.5 (8-13.5) | 6 (4-6) |
| Did you touch? |  |  |  |
| Yes1 | 6652 (67) | 9 (6-12) | 6 (4-9) |
| No1 | 3323 (33) | 9 (5-11) | 7 (5-8) |
| I don't remember | 12 (0) | 14 (13-15) | 7 (6.5-7.5) |
| 113 | NA (NA) | 8 (8-8) | NA |
| Contact location |  |  |  |
| Indoors | 891 (9) | 10 (7-10) | 7 (4-9) |
| Outdoors | 4232 (42) | 9 (5-12.25) | 6 (3-8) |
| Both | 4866 (49) | 9 (6-12) | 6 (4-8) |
| Frequency of contact |  |  |  |
| Never met before | 336 (3) | 8.5 (7-10.75) | 5 (1-6) |
| Rarely | 388 (4) | 7 (5-11) | 7 (4.75-9.25) |
| Daily or almost daily | 7627 (76) | 9 (6-12) | 6 (4-9) |
| 1-3 times per week | 1236 (12) | 4 (4-7.5) | 4.5 (3-6.75) |
| Once every 2 weeks | 233 (2) | 1 (1-1) | 6 (4-6) |
| Once per month | 134 (1) | 7 (7-7) | 4.5 (3.75-5.25) |
| Once every 3 months | 32 (0) | 8 (8-8) | NA |
| Do you know the contact? |  |  |  |
| Never met before1 | 289 (7) | 7 (7-7) | 5 (1-6) |
| <1 yr | 664 (16) | 8 (5-11) | 4 (3-6.75) |
| 1-2 yrs | 372 (9) | 8 (6-14) | 6 (4.75-9) |
| 3-5 yrs | 545 (13) | 9 (7-11) | 4 (3-6) |
| 6-10 yrs | 736 (18) | 8 (6-12) | 6 (5-9.25) |
| >10 yrs | 1561 (37) | 9 (7-13) | 7 (4-9) |
| 114 | NA (NA) | 7 (4-10) | 4 (3-7) |
| Contact wearing mask |  |  |  |
| Yes2 | 2139 (21) | 9 (6-13) | 6 (4-8) |
| No2 | 7807 (78) | 9 (6-12) | 6 (4-9) |
| I don't remember1 | 43 (0) | 10 (10-10) | 5 (5-5) |
| ARI symptoms |  |  |  |
| No symptom | 8186 (82) | 9 (6-11.5) | 6 (4-9) |
| >1 symptom | 1803 (18) | 10 (6.5-13) | 6 (4-8) |
| AGE symptoms |  |  |  |
| Yes3 | 204 (2) | 9 (8-13) | 7 (4-8) |
| No3 | 9785 (98) | 9 (6-12) | 6 (4-9) |

**?@fig-baseline-distributions** shows the median (IQR) distribution of the contacts by rural (C) and urban (D) site and the corresponding median contact rates on day 1 only. Corresponding median values are presented in **?@tbl-site-contacts-d1**. The rural mean contact rate (9.7 (9.3-10.2)) was higher than the urban rate (6.6 (95% CI 6.3-6.9) (p=0).

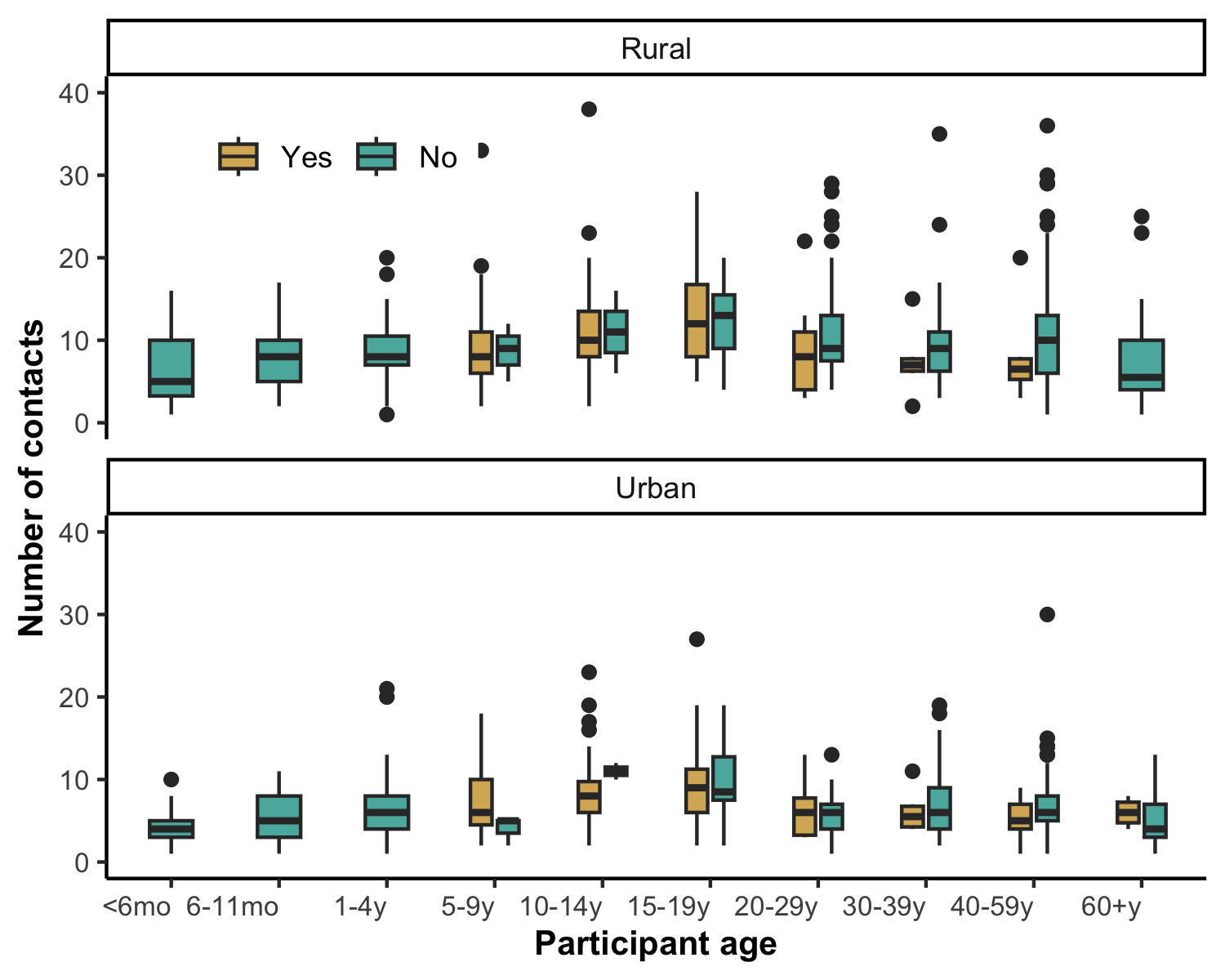
|  |
| --- |
| Note |
| Additional analysis can include: ~1. statistical tests~ ~2. mean number of contacts over both days~ 3. mean number of unique contacts contacts only over both days 4. mean number of unique contacts reported on both day 1 and 2 |

Physical contacts were, on average, higher than conversation only contacts in both rural (6.4581882 vs 5.1032864, p=1.2^{-9}) and urban areas (5.0170358 vs 3.3695015, p=0). Children aged ≤18 years had more physical than conversation contacts in both rural and urban areas and remained invariable for all adults.

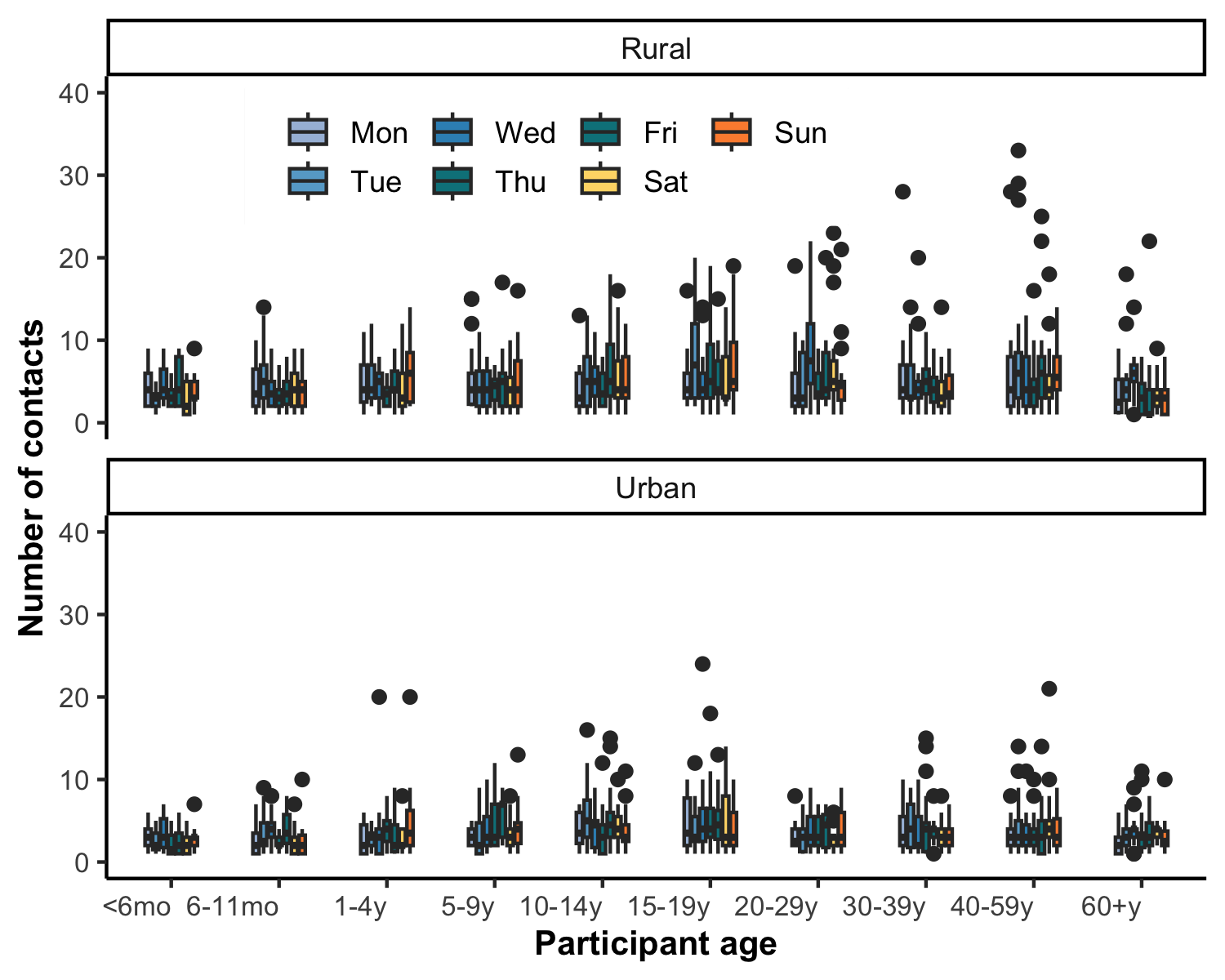
#### 3.2.0.1 by household membership



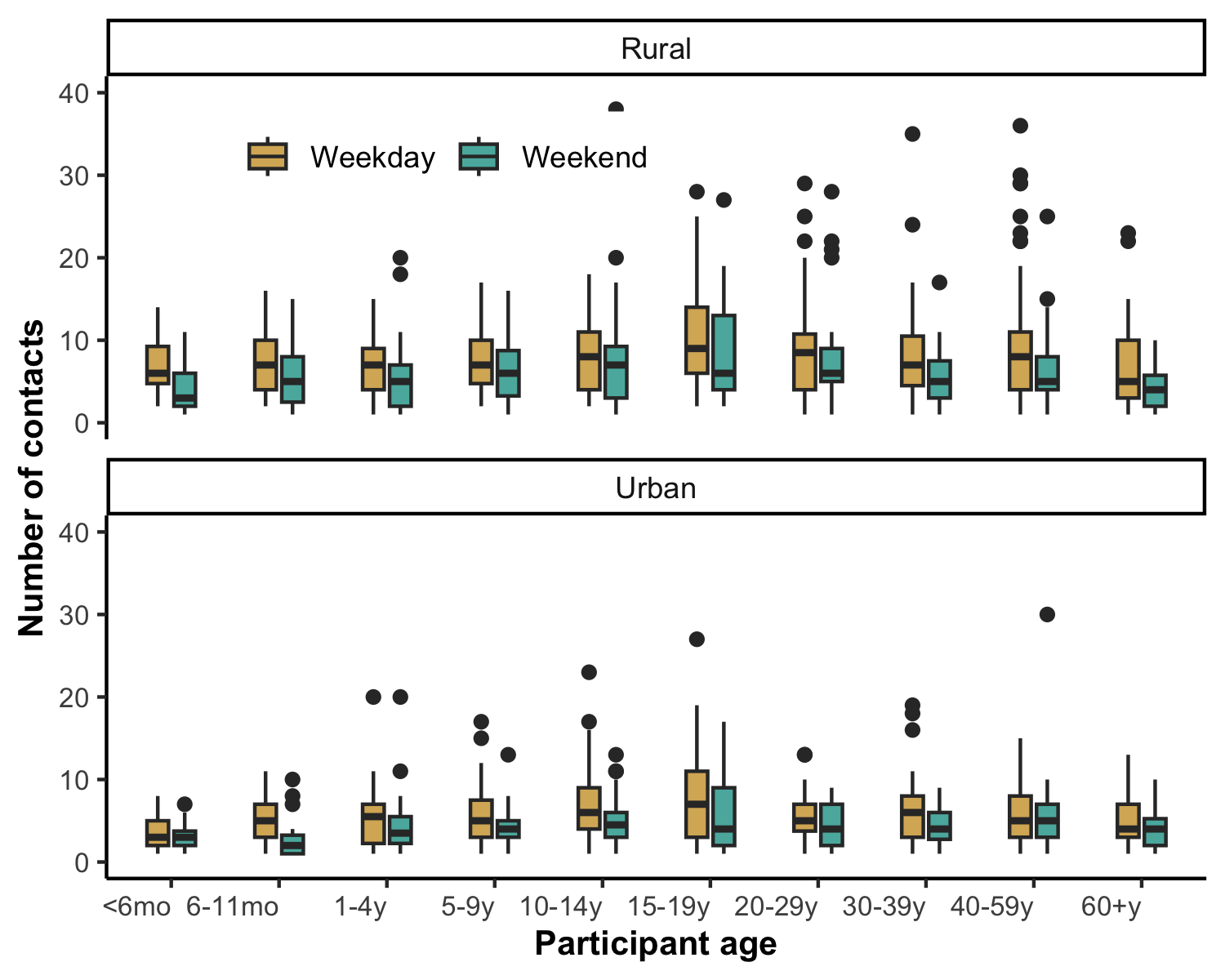
#### 3.2.0.2 by current school enrollment



#### 3.2.0.3 by day of the week

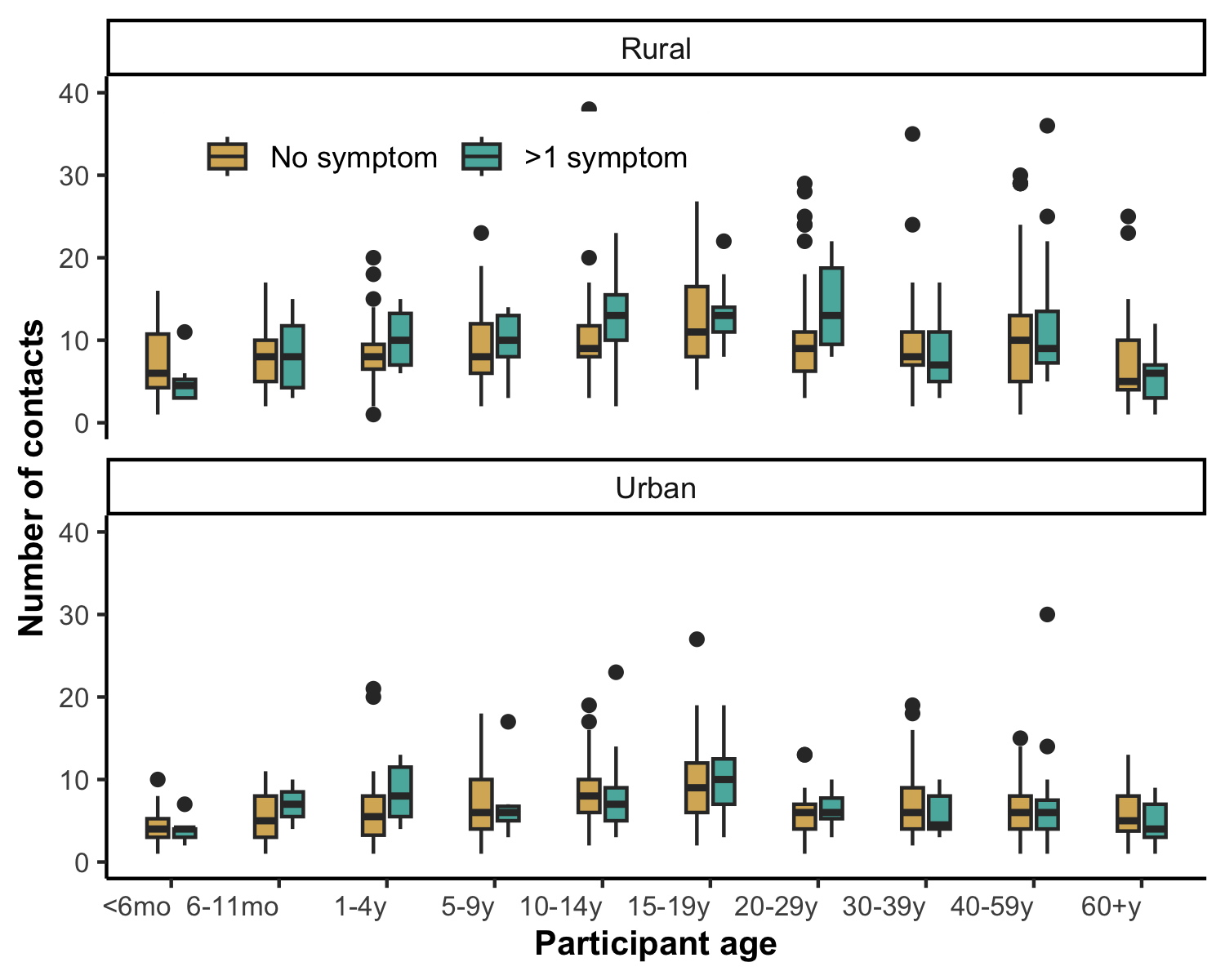


#### 3.2.0.4 by weekday/ weekend

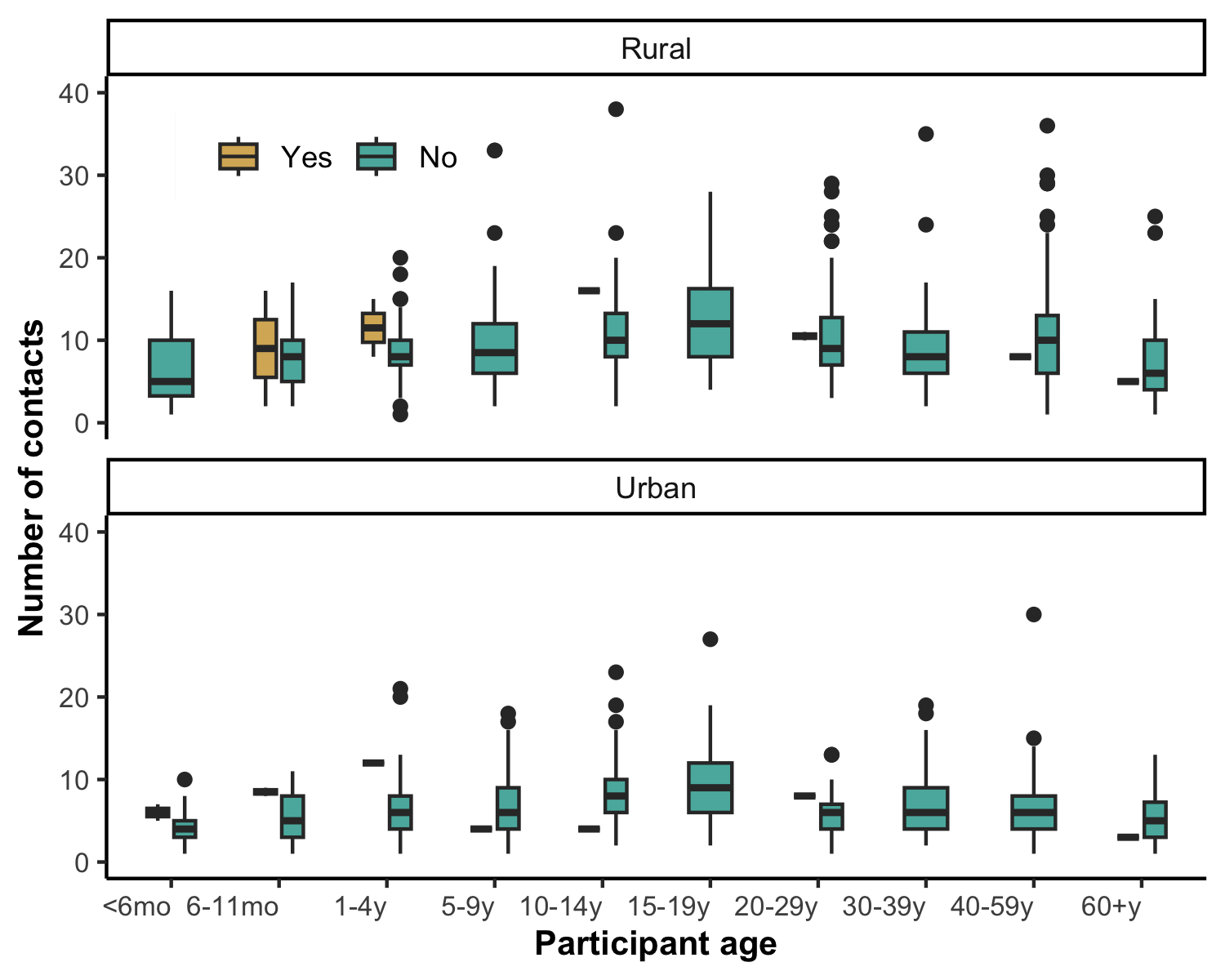


#### 3.2.0.5 by week of the year

#### 3.2.0.6 by ARI infection status



#### 3.2.0.7 by AGE infection status

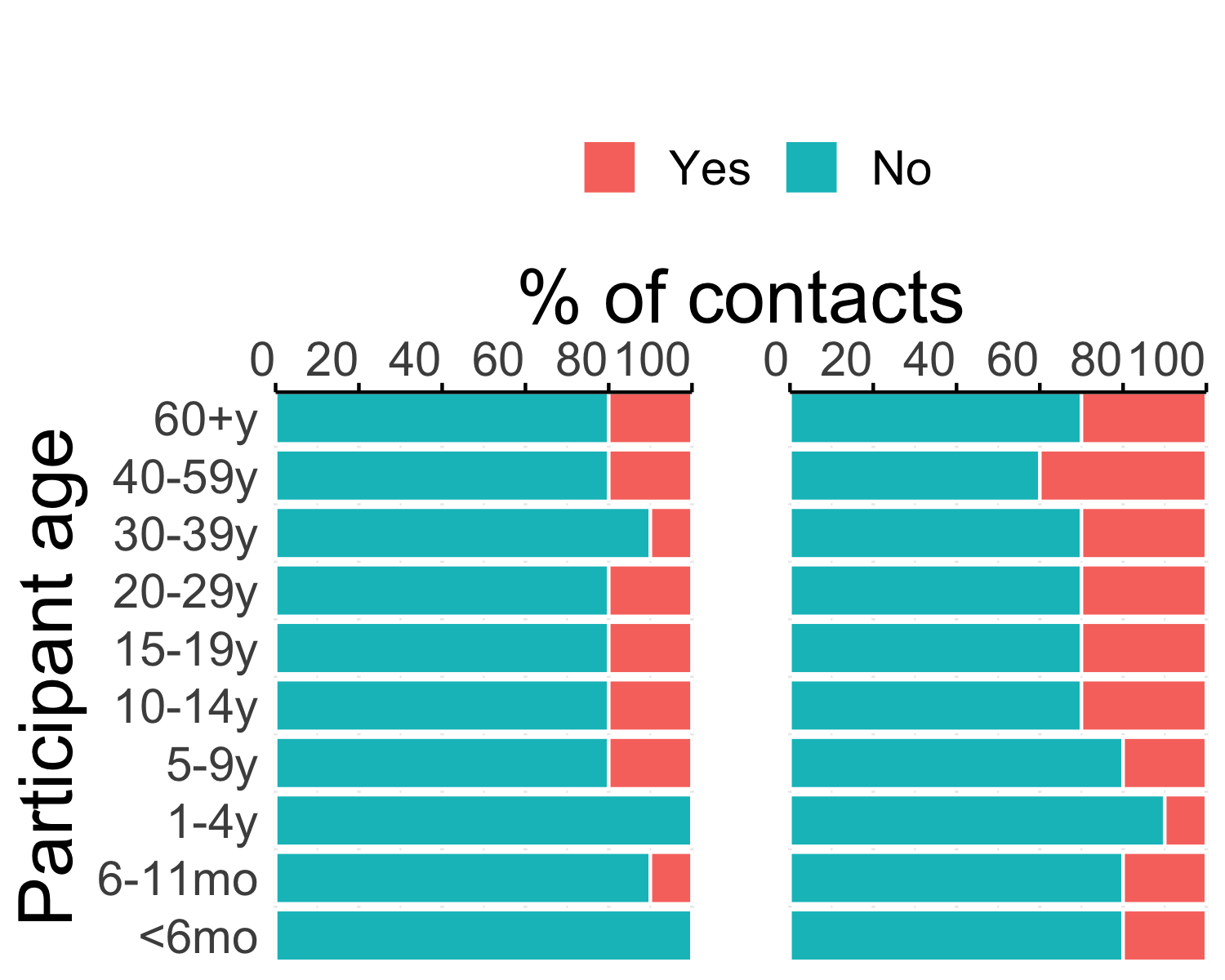


#### 3.2.0.8 by employment

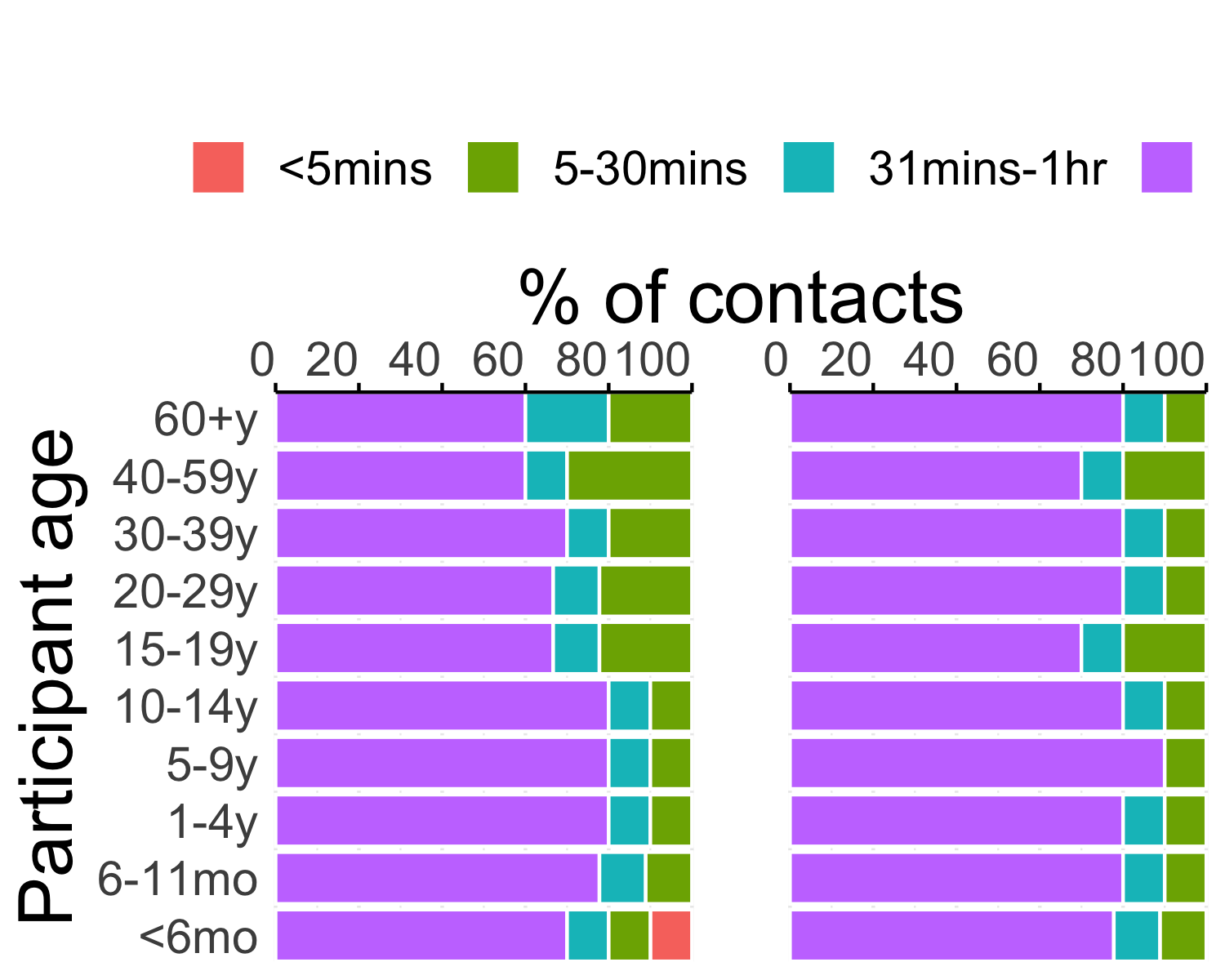
### 3.2.1 Unweighted non-symmetrical contact matrices

### 3.2.2 Contact behavior

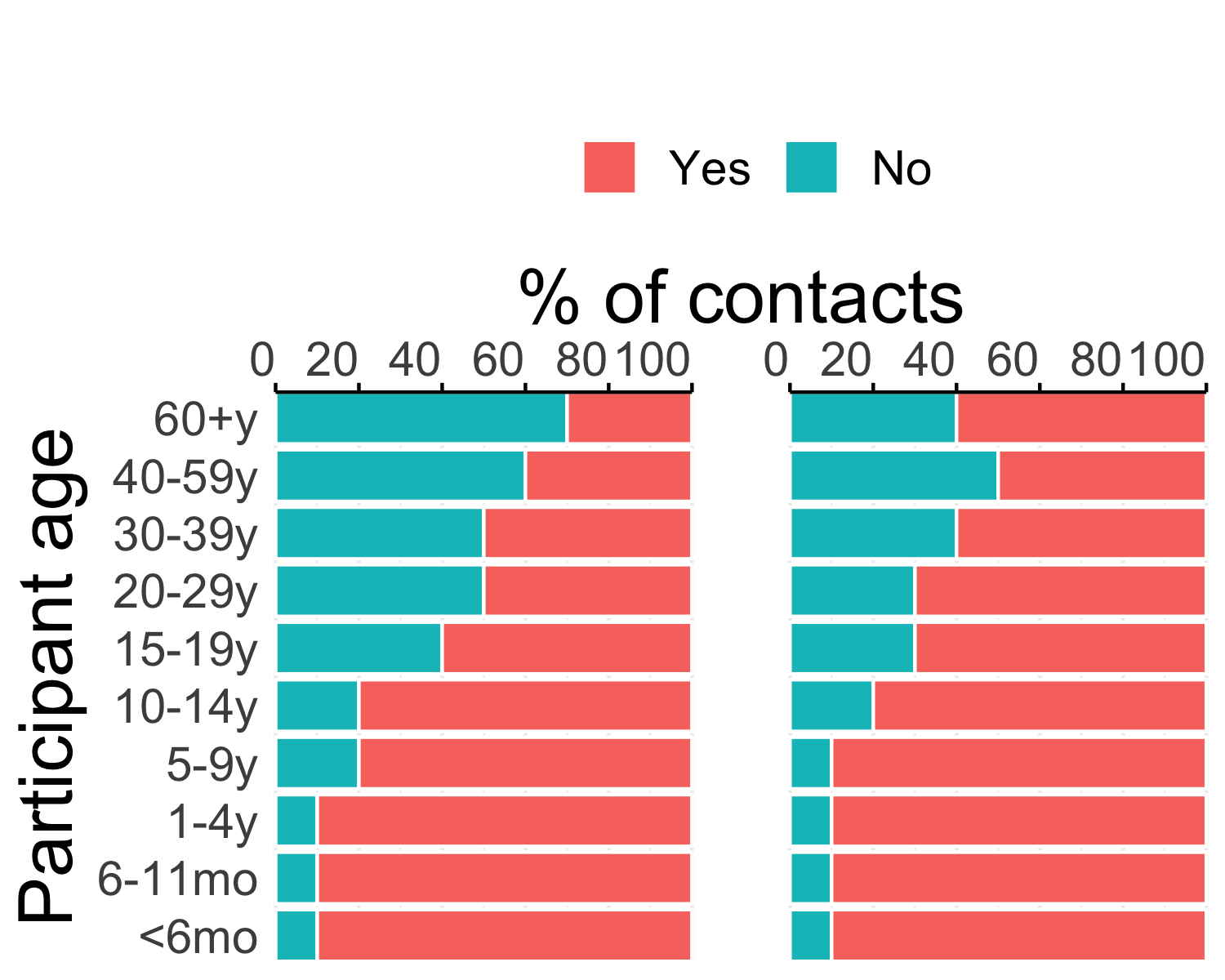
**?@fig-mask-wearing** shows results of the question “Was the contact wearing a mask?”



**?@fig-contact-duration** shows results of the question “What was the duration of the contact?”

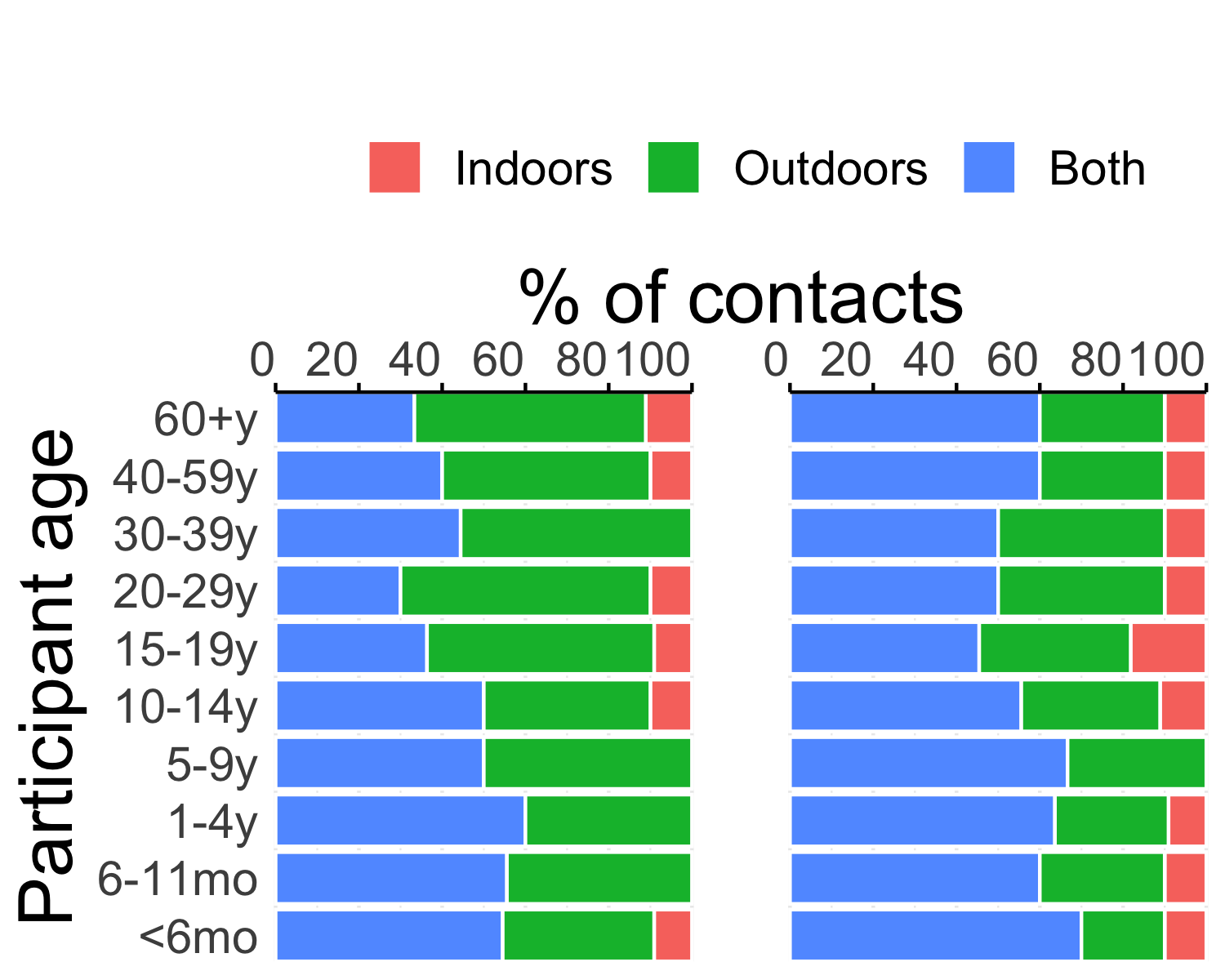


**?@fig-contact-type** shows results of the question “Did you touch the contact?”



### 3.2.3 Contacts patterns and places visited (CL)

**?@fig-contact-location** shows results of the question “Did the contact occur indoors or outdoors?”



### 3.2.4 Transmission modeling (SK)

[text]

# 4. Discussion

In some age groups (<5 yrs and 40-59 yrs) we recruited participants more than the target (n=63).

# 5. Conclusion

# 6. Supplementary Information

## 6.1 1. Number of contacts reported over day 1 and 2

|  | Overall, N = 19,4091 | Rural, N = 11,4311 | Urban, N = 7,9781 |
| --- | --- | --- | --- |
| **rec\_id** | 1,128 (543, 1,862) | 932 (460, 1,451) | 1,907 (653, 2,114) |
| **Contact age** |  |  |  |
| <6mo | 187 (1%) | 129 (1%) | 58 (1%) |
| 6-11mo | 253 (1%) | 170 (1%) | 83 (1%) |
| 1-4y | 882 (5%) | 556 (5%) | 326 (4%) |
| 5-9y | 1,797 (9%) | 1,213 (11%) | 584 (7%) |
| 10-14y | 4,858 (25%) | 3,065 (27%) | 1,793 (22%) |
| 15-19y | 2,619 (13%) | 1,530 (13%) | 1,089 (14%) |
| 20-29y | 2,258 (12%) | 1,018 (9%) | 1,240 (16%) |
| 30-39y | 2,678 (14%) | 1,397 (12%) | 1,281 (16%) |
| 40-59y | 2,883 (15%) | 1,729 (15%) | 1,154 (14%) |
| 60+y | 994 (5%) | 624 (5%) | 370 (5%) |
| **Contact sex** |  |  |  |
| Female | 10,631 (55%) | 6,374 (56%) | 4,257 (53%) |
| Male | 8,740 (45%) | 5,035 (44%) | 3,705 (47%) |
| Unknown | 38 | 22 | 16 |
| **Was the mask wearing a contact?** |  |  |  |
| No mask was worn during the encounter | 15,235 (78%) | 9,445 (83%) | 5,790 (73%) |
| Yes, for the entire encounter | 2,287 (12%) | 1,182 (10%) | 1,105 (14%) |
| Yes, during parts of encounter | 1,812 (9%) | 748 (7%) | 1,064 (13%) |
| I don't remember | 74 (0%) | 56 (0%) | 18 (0%) |
| Unknown | 1 | 0 | 1 |
| **How long have you known this contact?** |  |  |  |
| Never met before | 598 (7%) | 326 (8%) | 272 (7%) |
| <1 yr | 1,317 (16%) | 730 (17%) | 587 (15%) |
| 1-2 yrs | 724 (9%) | 422 (10%) | 302 (8%) |
| 3-5 yrs | 1,091 (13%) | 732 (17%) | 359 (9%) |
| 6-10 yrs | 1,468 (18%) | 769 (18%) | 699 (18%) |
| >10 yrs | 3,078 (37%) | 1,303 (30%) | 1,775 (44%) |
| Unknown | 11,133 | 7,149 | 3,984 |
| **Is this a member of your household?** |  |  |  |
| Member | 7,681 (40%) | 3,959 (35%) | 3,722 (47%) |
| Non-member | 11,728 (60%) | 7,472 (65%) | 4,256 (53%) |
| **How long did the contact last?** |  |  |  |
| <5 mins | 417 (2%) | 237 (2%) | 180 (2%) |
| 5-15 mins | 1,565 (8%) | 1,144 (10%) | 421 (5%) |
| 16-30 mins | 1,373 (7%) | 897 (8%) | 476 (6%) |
| 31 mins-1 hr | 1,960 (10%) | 1,304 (11%) | 656 (8%) |
| 1-4 hrs | 4,557 (23%) | 2,517 (22%) | 2,040 (26%) |
| >4 hrs | 9,533 (49%) | 5,329 (47%) | 4,204 (53%) |
| Unknown | 4 | 3 | 1 |
| **How many times do you have a contact with this person?** |  |  |  |
| Never met before | 675 (3%) | 399 (3%) | 276 (3%) |
| Rarely | 746 (4%) | 446 (4%) | 300 (4%) |
| Daily or almost daily | 14,890 (77%) | 8,631 (76%) | 6,259 (78%) |
| 1-3 times per week | 2,331 (12%) | 1,410 (12%) | 921 (12%) |
| Once every 2 weeks | 463 (2%) | 317 (3%) | 146 (2%) |
| Once per month | 237 (1%) | 180 (2%) | 57 (1%) |
| Once every 3 months | 64 (0%) | 46 (0%) | 18 (0%) |
| Unknown | 3 | 2 | 1 |
| **Where did the contact occur?** |  |  |  |
| Indoors | 1,659 (9%) | 733 (6%) | 926 (12%) |
| Outdoors | 8,067 (42%) | 5,631 (49%) | 2,436 (31%) |
| Both | 9,682 (50%) | 5,066 (44%) | 4,616 (58%) |
| Unknown | 1 | 1 | 0 |
| 1Median (IQR); n (%) | | | |

## 6.2 2. Median (IQR) rural contacts on day 1 and day 2

|  | Total (%) | Day 1 | Day 2 |
| --- | --- | --- | --- |
| Sex |  |  |  |
| Female | 5515 (48) | 9 (5-11) | 8 (5-12) |
| Male | 5916 (52) | 9 (6-13) | 8 (6-12) |
| Age |  |  |  |
| <6mo | 378 (3) | 5 (3.25-10) | 5.5 (3.25-7) |
| 6-11mo | 952 (8) | 8 (5-10) | 8 (5-9) |
| 1-4y | 914 (8) | 8 (7-10.5) | 8 (6-12) |
| 5-9y | 1268 (11) | 8.5 (6-12) | 9 (6-13) |
| 10-14y | 1266 (11) | 10 (8-14) | 10 (7-12) |
| 15-19y | 1532 (13) | 12 (8-16.25) | 11 (7-14) |
| 20-29y | 1292 (11) | 9 (7-12.25) | 9 (6-12) |
| 30-39y | 1193 (10) | 8 (6-11) | 8 (6-12) |
| 40-59y | 1804 (16) | 10 (6-13) | 8 (6-11) |
| 60+y | 832 (7) | 5.5 (4-10) | 6 (3-9) |
| Household membership |  |  |  |
| Member | 3959 (35) | 9 (6-12) | 8 (6-12) |
| Non-member | 7472 (65) | 7 (4-9.75) | 6.5 (4-10) |
| Occupation |  |  |  |
| Child | 1330 (13) | 7 (4-10) | 7 (4-9) |
| Unemployed | 1564 (16) | 7 (5-12) | 7 (4.5-10) |
| Student | 3290 (33) | 10 (8-14) | 9 (7-13) |
| Homemaker | 137 (1) | 9 (7-9) | 6 (5-10) |
| Casual laboror | 398 (4) | 8 (6-11.5) | 8 (6-10.75) |
| Farmer | 1231 (12) | 9 (6-12.5) | 7 (6-10) |
| Fisherman | 73 (1) | 17.5 (14.25-20.75) | 19 (14.5-23.5) |
| Business person | 146 (1) | 10 (7.5-10.5) | 12 (7-14.5) |
| Office worker | 524 (5) | 8 (6-10.5) | 8 (5-11) |
| Retired | 58 (1) | 5 (4-5) | 7 (4-8) |
| Other | 1226 (12) | 10 (7-12.75) | 9 (7-12.75) |
| 11 | NA (NA) | 8 (7-12) | 8.5 (6-13) |
| Weekday/Weekend |  |  |  |
| Weekday | 8055 (70) | 9 (6-12) | 8 (6-12) |
| Weekend | 3376 (30) | 8 (5-11) | 8 (5-11) |
| Enrolled in school |  |  |  |
| Yes | 3603 (33) | 9 (7-13) | 9 (6-13) |
| No | 7335 (67) | 8 (5-11) | 8 (5-10) |
| 111 | NA (NA) | 8.5 (8-13.5) | 10 (6.25-14) |
| Did you touch? |  |  |  |
| Yes1 | 7175 (63) | 9 (6-12) | 8 (6-12) |
| No1 | 4242 (37) | 9 (5-11) | 7.5 (5-11) |
| I don't remember | 12 (0) | 14 (13-15) | 5 (5-5) |
| 112 | NA (NA) | 8 (8-8) | NA |
| Contact location |  |  |  |
| Indoors | 733 (6) | 10 (7-10) | 10 (7.5-16) |
| Outdoors | 5631 (49) | 9 (5-12.25) | 7 (5-11) |
| Both | 5066 (44) | 9 (6-12) | 8 (6-12) |
| Frequency of contact |  |  |  |
| Never met before | 399 (3) | 8.5 (7-10.75) | 5.5 (4.75-7) |
| Rarely | 446 (4) | 7 (5-11) | 5 (4-10) |
| Daily or almost daily | 8631 (76) | 9 (6-12) | 8 (6-12) |
| 1-3 times per week | 1410 (12) | 4 (4-7.5) | 10 (7-12) |
| Once every 2 weeks | 317 (3) | 1 (1-1) | 7 (7-7) |
| Once per month | 180 (2) | 7 (7-7) | 7.5 (6.75-8.25) |
| Once every 3 months | 46 (0) | 8 (8-8) | 2.5 (2.25-2.75) |
| Do you know the contact? |  |  |  |
| Never met before1 | 326 (8) | 7 (7-7) | 5 (4-10) |
| <1 yr | 730 (17) | 8 (5-11) | 7 (5-9) |
| 1-2 yrs | 422 (10) | 8 (6-14) | 9 (6-15) |
| 3-5 yrs | 732 (17) | 9 (7-11) | 8 (6.5-10) |
| 6-10 yrs | 769 (18) | 8 (6-12) | 8 (5-12) |
| >10 yrs | 1303 (30) | 9 (7-13) | 9 (6-12) |
| 113 | NA (NA) | 7 (4-10) | 7 (4-10) |
| Contact wearing mask |  |  |  |
| Yes2 | 1930 (17) | 9 (6-13) | 8 (5-13) |
| No2 | 9445 (83) | 9 (6-12) | 8 (6-12) |
| I don't remember1 | 56 (0) | 10 (10-10) | 7.5 (6.25-8.75) |
| ARI symptoms |  |  |  |
| No symptom | 9333 (82) | 9 (6-11.5) | 8 (5-11) |
| >1 symptom | 2098 (18) | 10 (6.5-13) | 9 (6-13.5) |
| AGE symptoms |  |  |  |
| Yes3 | 311 (3) | 9 (8-13) | 9 (8-16) |
| No3 | 11120 (97) | 9 (6-12) | 8 (5.5-12) |

## 6.3 3. Median (IQR) urban contacts on day 1 and day 2

|  | Total (%) | Day 1 | Day 2 |
| --- | --- | --- | --- |
| Sex |  |  |  |
| Female | 3736 (47) | 6 (4-8) | 6 (4-8) |
| Male | 4242 (53) | 6 (4-9) | 6 (4-8) |
| Age |  |  |  |
| <6mo | 455 (6) | 4 (3-5) | 3.5 (3-5) |
| 6-11mo | 429 (5) | 5 (3-8) | 5 (3-6.5) |
| 1-4y | 502 (6) | 6 (4-8) | 5 (3-8) |
| 5-9y | 779 (10) | 6 (4-9) | 6 (4-8.75) |
| 10-14y | 1055 (13) | 8 (6-10) | 7.5 (5.75-9) |
| 15-19y | 1042 (13) | 9 (6-12) | 8 (5-10) |
| 20-29y | 743 (9) | 6 (4-7.25) | 6 (4.75-8) |
| 30-39y | 805 (10) | 6 (4-9) | 6 (5-8) |
| 40-59y | 1497 (19) | 6 (4-8) | 5 (4-7) |
| 60+y | 671 (8) | 5 (3-7) | 5 (3-8) |
| Household membership |  |  |  |
| Member | 3722 (47) | 6 (4-9) | 6 (4-8) |
| Non-member | 4256 (53) | 4 (3-7) | 4 (3-7) |
| Occupation |  |  |  |
| Child | 884 (12) | 4 (3-6) | 4 (3-6) |
| Unemployed | 833 (12) | 6 (4-9) | 6 (3-9) |
| Student | 2649 (37) | 7 (5-10) | 7 (5-9) |
| Homemaker | 305 (4) | 6 (4.75-8) | 6 (5-7.25) |
| Casual laboror | 660 (9) | 5 (4-7) | 5 (4-7.25) |
| Farmer | 52 (1) | 3.5 (3-4) | 3.5 (1.5-8.5) |
| Fisherman | 0 (0) | 6 (4-8) | 6 (4-8) |
| Business person | 727 (10) | 6 (4-8) | 6 (4-8) |
| Office worker | 737 (10) | 4 (3-5.5) | 5 (2.5-6) |
| Retired | 150 (2) | 9 (8.25-10) | 9 (6-10) |
| Other | 229 (3) | 6 (4-8) | 5 (3-8) |
| Weekday/Weekend |  |  |  |
| Weekday | 5834 (73) | 6 (4-9) | 6 (4-9) |
| Weekend | 2115 (27) | 6 (4-8) | 6 (4-8) |
| 11 | NA (NA) | 12.5 (9.25-15.75) | 9.5 (7.25-11.75) |
| Enrolled in school |  |  |  |
| Yes | 2926 (38) | 7 (5-9) | 7 (5-9) |
| No | 4791 (62) | 6 (4-8) | 5 (3-8) |
| 111 | NA (NA) | 6 (4-6) | 5 (3-9) |
| Did you touch? |  |  |  |
| Yes1 | 5761 (72) | 6 (4-9) | 6 (4-8) |
| No1 | 2198 (28) | 7 (5-8) | 6 (4.75-9) |
| I don't remember | 18 (0) | 7 (6.5-7.5) | 3 (2.5-3.5) |
| Contact location |  |  |  |
| Indoors | 926 (12) | 7 (4-9) | 6 (4-8) |
| Outdoors | 2436 (31) | 6 (3-8) | 4 (3-8.75) |
| Both | 4616 (58) | 6 (4-8) | 6 (4-8) |
| Frequency of contact |  |  |  |
| Never met before | 276 (3) | 5 (1-6) | 7 (5-8) |
| Rarely | 300 (4) | 7 (4.75-9.25) | 4 (4-7.5) |
| Daily or almost daily | 6259 (78) | 6 (4-9) | 6 (4-8) |
| 1-3 times per week | 921 (12) | 4.5 (3-6.75) | 4 (4-7.75) |
| Once every 2 weeks | 146 (2) | 6 (4-6) | 6 (6-8) |
| Once per month | 57 (1) | 4.5 (3.75-5.25) | 4.5 (3.75-5.25) |
| Once every 3 months | 18 (0) | NA | 3 (3-3) |
| Do you know the contact? |  |  |  |
| Never met before1 | 272 (7) | 5 (1-6) | 5 (5-7) |
| <1 yr | 587 (15) | 4 (3-6.75) | 4 (3-6) |
| 1-2 yrs | 302 (8) | 6 (4.75-9) | 6 (4-9) |
| 3-5 yrs | 359 (9) | 4 (3-6) | 5 (3-8) |
| 6-10 yrs | 699 (18) | 6 (5-9.25) | 6 (4-8) |
| >10 yrs | 1775 (44) | 7 (4-9) | 6 (5-9) |
| 112 | NA (NA) | 4 (3-7) | 4 (2.25-7) |
| Contact wearing mask |  |  |  |
| Yes2 | 2169 (27) | 6 (4-8) | 5 (4-7) |
| No2 | 5790 (73) | 6 (4-9) | 6 (4-9) |
| I don't remember1 | 19 (0) | 5 (5-5) | 8 (7.5-8.5) |
| ARI symptoms |  |  |  |
| No symptom | 6542 (82) | 6 (4-9) | 6 (4-8) |
| >1 symptom | 1436 (18) | 6 (4-8) | 6 (4-8) |
| AGE symptoms |  |  |  |
| Yes3 | 119 (1) | 7 (4-8) | 6 (5-7) |
| No3 | 7859 (99) | 6 (4-9) | 6 (4-8) |

