Health-protective behaviour, social media usage, and conspiracy belief during the COVID-19 public health emergency

Daniel Allington, Bobby Duffy, Simon Wessely, Nayana Dhavan, James Rubin

Supplementary material

03/06/2020
Table S.1.1: Descriptive statistics by conspiracy beliefs and health-protective behaviours

| Variable | Value | N   | %   | Age (M) | Age (SD) | Female (%) | Male (%) |
|----------|-------|-----|-----|---------|----------|-------------|----------|
| CB.1.1   | Yes   | 230 | 24.24 | 35.62  | 9.26     | 71.74      | 27.83    |
|          | No    | 719 | 75.76 | 36.58  | 10.84    | 67.18      | 32.68    |
| CB.1.2   | Yes   | 49  | 5.16  | 34.90  | 8.73     | 75.51      | 24.49    |
|          | No    | 900 | 94.84 | 36.43  | 10.57    | 67.89      | 31.89    |
| CB.1.3   | Yes   | 93  | 9.80  | 34.61  | 8.60     | 74.19      | 25.81    |
|          | No    | 856 | 90.20 | 36.54  | 10.66    | 67.64      | 32.13    |
| CB.1.Any | Yes   | 273 | 28.77 | 35.02  | 9.05     | 69.60      | 30.04    |
|          | No    | 676 | 71.23 | 36.88  | 10.97    | 67.75      | 32.10    |
| HPB.1.1  | Yes   | 731 | 77.03 | 36.65  | 10.44    | 70.31      | 29.41    |
|          | No    | 218 | 22.97 | 35.33  | 10.59    | 61.47      | 38.53    |
| HPB.1.2  | Yes   | 736 | 77.56 | 36.81  | 10.59    | 69.97      | 29.76    |
|          | No    | 213 | 22.44 | 34.76  | 9.99     | 62.44      | 37.56    |
| HPB.1.3  | Yes   | 756 | 79.66 | 37.06  | 10.61    | 70.50      | 29.23    |
|          | No    | 193 | 20.34 | 33.56  | 9.51     | 59.59      | 40.41    |
| HPB.1.All| Yes   | 587 | 61.85 | 37.27  | 10.54    | 71.89      | 27.77    |
|          | No    | 362 | 38.15 | 34.85  | 10.24    | 62.43      | 37.57    |
Table S.1.2: Descriptive statistics by preference for social media over legacy media

| Variable | Value       | N   | %    | Age (M) | Age (SD) | Female (%) | Male (%) |
|----------|-------------|-----|------|---------|----------|------------|----------|
| IS.1.1   | 1st (Lowest)| 307 | 32.35| 38.63   | 11.17    | 68.40      | 31.60    |
| IS.1.1   | 2nd         | 228 | 24.03| 35.97   | 10.15    | 65.35      | 34.65    |
| IS.1.1   | 3rd         | 226 | 23.81| 35.07   | 10.54    | 70.35      | 29.65    |
| IS.1.1   | 4th         | 143 | 15.07| 34.69   | 8.98     | 72.03      | 26.57    |
| IS.1.1   | 5th (Highest)| 27  | 2.85 | 33.19   | 9.15     | 55.56      | 44.44    |
Table S.1.3: Mean difference in age by aggregate conspiracy beliefs and health-protective behaviours

| Variable   | DF    | t     | Est. | Low   | High  | p     |
|------------|-------|-------|------|-------|-------|-------|
| CB.1.Any   | 604.71| -2.69 | -1.86| -0.50 | -3.22 | 0.007 |
| HPB.1.All  | 781.54| 3.49  | 2.42 | 3.78  | 1.06  | < 0.001|

Welch unequal variances t-test, 95% confidence intervals, no effect = 0.00
Table S.1.4: Odds ratios, female gender vs aggregate conspiracy beliefs and health-protective behaviours

| Variable   | Est. | Low  | High | p    |
|------------|------|------|------|------|
| CB.1.Any   | 1.09 | 0.80 | 1.50 | 0.591|
| HPB.1.All  | 1.54 | 1.15 | 2.05 | 0.003|

Fisher’s exact test, 95% confidence intervals, no effect = 1.00
Table S.1.5: Stochastic dominance of conspiracy beliefs with regard to preference for social media over legacy media

| Conspiracy belief | Source | Est. | Low | High | N1  | N2  | U     | p       |
|-------------------|--------|------|-----|------|-----|-----|-------|---------|
| CB.1.1            | IS.1.1 | 0.58 | 0.54| 0.62 | 226 | 705 | 92319.5| < 0.001 |
| CB.1.2            | IS.1.1 | 0.53 | 0.45| 0.61 | 47  | 884 | 22027.5| 0.470   |
| CB.1.3            | IS.1.1 | 0.54 | 0.47| 0.60 | 92  | 839 | 41399.0| 0.235   |
| CB.1.Any          | IS.1.1 | 0.56 | 0.52| 0.60 | 266 | 665 | 99987.0| 0.001   |

Vargha and Delaney's A, 95% confidence intervals, no effect = 0.50
Mann-Whitney-Wilcoxon U test
Table S.1.6: Stochastic dominance of health-protective behaviours with regard to preference for social media over legacy media

| Health-protective behaviour | Source | Est. | Low  | High | N1  | N2  | U       | p     |
|-----------------------------|--------|------|------|------|-----|-----|---------|-------|
| HPB.1.1                     | IS.1.1 | 0.50 | 0.46 | 0.55 | 721 | 210 | 76083.5 | 0.909 |
| HPB.1.2                     | IS.1.1 | 0.52 | 0.48 | 0.56 | 727 | 204 | 76960.5 | 0.392 |
| HPB.1.3                     | IS.1.1 | 0.48 | 0.43 | 0.52 | 747 | 184 | 65797.5 | 0.353 |
| HPB.1.All                   | IS.1.1 | 0.49 | 0.46 | 0.53 | 580 | 351 | 100207.0| 0.680 |

Vargha and Delaney's A, 95% confidence intervals, no effect = 0.50

Mann-Whitney-Wilcoxon U test
| Conspiracy belief | Health-protective behaviour | Est. | Low  | High | p    |
|-------------------|----------------------------|------|------|------|------|
| CB.1.1            | HPB.1.1                    | 0.82 | 0.58 | 1.18 | 0.280|
| CB.1.1            | HPB.1.2                    | 0.70 | 0.49 | 1.00 | 0.046|
| CB.1.1            | HPB.1.3                    | 0.78 | 0.54 | 1.14 | 0.188|
| CB.1.1            | HPB.1.All                  | 0.66 | 0.48 | 0.91 | 0.008|
| CB.1.2            | HPB.1.1                    | 0.49 | 0.26 | 0.96 | 0.023|
| CB.1.2            | HPB.1.2                    | 0.43 | 0.23 | 0.84 | 0.008|
| CB.1.2            | HPB.1.3                    | 0.42 | 0.22 | 0.81 | 0.006|
| CB.1.2            | HPB.1.All                  | 0.37 | 0.19 | 0.69 | < 0.001|
| CB.1.3            | HPB.1.1                    | 0.79 | 0.48 | 1.35 | 0.364|
| CB.1.3            | HPB.1.2                    | 0.34 | 0.21 | 0.54 | < 0.001|
| CB.1.3            | HPB.1.3                    | 0.49 | 0.30 | 0.82 | 0.004|
| CB.1.3            | HPB.1.All                  | 0.47 | 0.30 | 0.74 | < 0.001|
| CB.1.Any          | HPB.1.1                    | 0.60 | 0.43 | 0.84 | 0.002|
| CB.1.Any          | HPB.1.2                    | 0.42 | 0.30 | 0.58 | < 0.001|
| CB.1.Any          | HPB.1.3                    | 0.47 | 0.33 | 0.66 | < 0.001|
| CB.1.Any          | HPB.1.All                  | 0.46 | 0.34 | 0.61 | < 0.001|

Fisher’s exact test, 95% confidence intervals, no effect = 1.00
### Table S.2.1: Descriptive statistics by conspiracy belief and aggregate health-protective behaviours

| Variable | Value | N   | %   | Age (M) | Age (SD) | Female (%) | Male (%) |
|----------|-------|-----|-----|---------|----------|------------|----------|
| CB.2.1   | Yes   | 474 | 24.60 | 41.62   | 16.08    | 47.78      | 52.01    |
|          | No    | 1236| 49.36 | 47.40   | 17.95    | 51.17      | 48.42    |
| HPB.2.1  | Yes   | 2085| 92.61 | 46.05   | 17.63    | 52.42      | 47.19    |
|          | No    | 149 | 6.76  | 38.64   | 16.45    | 36.05      | 62.59    |
| HPB.2.2  | Yes   | 2133| 94.25 | 46.14   | 17.55    | 52.27      | 47.26    |
|          | No    | 98  | 5.05  | 33.51   | 15.30    | 32.29      | 67.71    |
| HPB.2.3  | Yes   | 2081| 92.78 | 46.31   | 17.51    | 52.50      | 47.07    |
|          | No    | 151 | 6.59  | 35.87   | 16.65    | 36.00      | 63.33    |
| HPB.2.4  | Yes   | 2132| 94.46 | 46.27   | 17.53    | 52.37      | 47.16    |
|          | No    | 88  | 4.05  | 30.57   | 13.18    | 26.44      | 73.56    |
| HPB.2.5  | Yes   | 2107| 93.42 | 46.06   | 17.49    | 52.28      | 47.25    |
|          | No    | 115 | 5.31  | 38.82   | 19.00    | 39.47      | 60.53    |
| HPB.2.All| Yes   | 1817| 80.25 | 47.21   | 17.33    | 54.65      | 44.91    |
|          | No    | 400 | 18.35 | 38.35   | 17.28    | 36.68      | 62.81    |
### Table S.2.2: Descriptive statistics by frequency of checking social media for news about COVID-19

| Variable | Value            | N    | %    | Age (M) | Age (SD) | Female (%) | Male (%) |
|----------|------------------|------|------|---------|----------|------------|----------|
| IS.2.1   | 1st (Lowest)     | 598  | 26.13| 55.47   | 15.92    | 43.65      | 56.19    |
| IS.2.1   | 2nd              | 337  | 15.09| 44.79   | 17.92    | 47.18      | 52.23    |
| IS.2.1   | 3rd              | 541  | 24.38| 42.38   | 17.05    | 53.70      | 45.37    |
| IS.2.1   | 4th              | 592  | 25.48| 41.61   | 16.23    | 56.93      | 42.74    |
| IS.2.1   | 5th (Highest)    | 136  | 6.56 | 35.28   | 14.19    | 58.82      | 41.18    |
Table S.2.3: Mean difference in age by conspiracy belief and aggregate health-protective behaviours

| Variable | DF    | t     | Est. | Low | High | p     |
|----------|-------|-------|------|-----|------|-------|
| CB.2.1   | 950.09| -6.44 | -5.78| -4.02| -7.54| < 0.001 |
| HPB.2.All| 589.10|  9.28 |  8.86| 10.74|  6.99| < 0.001 |

Welch unequal variances t-test, 95% confidence intervals, no effect = 0.00
Table S.2.4: Odds ratios, female gender vs conspiracy belief and aggregate health-protective behaviours

| Variable | Est. | Low | High | p     |
|----------|------|-----|------|-------|
| CB.2.1   | 0.87 | 0.70| 1.09 | 0.214 |
| HPB.2.All| 2.08 | 1.65| 2.62 | < 0.001|

Fisher’s exact test, 95% confidence intervals, no effect = 1.00
Table S.2.5: Stochastic dominance of conspiracy belief with regard to frequency of checking social media for news about COVID-19

| Conspiracy belief | Source | Est. | Low  | High | N1  | N2  | U   | p   |
|-------------------|--------|------|------|------|-----|-----|-----|-----|
| CB.2.1            | IS.2.1 | 0.6  | 0.57 | 0.63 | 468 | 1221| 343152 | < 0.001 |

Vargha and Delaney's A, 95% confidence intervals, no effect = 0.50
Mann-Whitney-Wilcoxon U test
Table S.2.6: Stochastic dominance of health-protective behaviours with regard to frequency of checking social media for news about COVID-19

| Health-protective behaviour | Source | Est. | Low | High | N1  | N2  | U   | p    |
|-----------------------------|--------|------|-----|------|-----|-----|-----|------|
| HPB.2.1                     | IS.2.1 | 0.55 | 0.50| 0.59 | 2043| 147 | 163542.5 | 0.063|
| HPB.2.2                     | IS.2.1 | 0.49 | 0.44| 0.55 | 2093| 96  | 98417.5  | 0.728|
| HPB.2.3                     | IS.2.1 | 0.43 | 0.38| 0.47 | 2045| 145 | 126702.0 | 0.003|
| HPB.2.4                     | IS.2.1 | 0.44 | 0.37| 0.49 | 2092| 86  | 78185.0  | 0.034|
| HPB.2.5                     | IS.2.1 | 0.45 | 0.40| 0.50 | 2068| 112 | 103782.5 | 0.056|
| HPB.2.All                   | IS.2.1 | 0.49 | 0.46| 0.52 | 1785| 391 | 343412.0 | 0.611|

Vargha and Delaney's A, 95% confidence intervals, no effect = 0.50

Mann-Whitney-Wilcoxon U test
### Table S.2.7: Odds ratios, conspiracy belief vs health-protective behaviours

| Conspiracy belief | Health-protective behaviour | Est. | Low  | High  | p    |
|-------------------|-----------------------------|------|------|-------|------|
| CB.2.1            | HPB.2.1                     | 0.55 | 0.37 | 0.81  | 0.002|
| CB.2.1            | HPB.2.2                     | 0.52 | 0.32 | 0.85  | 0.008|
| CB.2.1            | HPB.2.3                     | 0.51 | 0.34 | 0.76  | < 0.001|
| CB.2.1            | HPB.2.4                     | 0.33 | 0.20 | 0.55  | < 0.001|
| CB.2.1            | HPB.2.5                     | 0.44 | 0.28 | 0.70  | < 0.001|
| CB.2.1            | HPB.2.All                   | 0.50 | 0.39 | 0.66  | < 0.001|

Fisher’s exact test, 95% confidence intervals, no effect = 1.00
| Variable  | Value | N   | %  | Age (M) | Age (SD) | Female (%) | Male (%) |
|-----------|-------|-----|----|---------|----------|------------|----------|
| CB.3.1    | Yes   | 642 | 30.14 | 43.83 | 15.99 | 50.70 | 48.99 |
|           | No    | 974 | 40.60 | 42.83 | 16.24 | 47.28 | 52.31 |
| CB.3.2    | Yes   | 174 | 8.13  | 31.47 | 12.68 | 47.13 | 52.87 |
|           | No    | 1820 | 78.75 | 45.52 | 15.85 | 49.23 | 50.28 |
| CB.3.3    | Yes   | 155 | 7.32  | 31.92 | 12.70 | 44.16 | 55.19 |
|           | No    | 1887 | 81.92 | 45.27 | 15.95 | 49.63 | 49.95 |
| CB.3.4    | Yes   | 287 | 13.74 | 37.78 | 14.80 | 49.30 | 50.70 |
|           | No    | 1594 | 68.87 | 45.31 | 16.03 | 48.81 | 50.75 |
| CB.3.5    | Yes   | 271 | 12.67 | 35.70 | 14.48 | 48.70 | 50.93 |
|           | No    | 1627 | 69.82 | 45.76 | 15.92 | 49.05 | 50.52 |
| CB.3.Any  | Yes   | 887 | 41.47 | 41.45 | 16.23 | 49.89 | 49.89 |
|           | No    | 749  | 30.42 | 44.91 | 15.96 | 46.39 | 53.07 |
| HPB.3.1   | Yes   | 2021 | 89.84 | 44.34 | 16.15 | 51.24 | 48.36 |
|           | No    | 192  | 8.29  | 41.03 | 15.21 | 37.17 | 62.30 |
| HPB.3.2   | Yes   | 2095 | 92.31 | 44.56 | 15.96 | 51.17 | 48.40 |
|           | No    | 106  | 5.03  | 35.34 | 15.51 | 30.19 | 69.81 |
| HPB.3.3   | Yes   | 2081 | 91.86 | 44.86 | 15.98 | 51.01 | 48.56 |
|           | No    | 131  | 6.16  | 32.21 | 12.60 | 37.40 | 62.60 |
| HPB.3.4   | Yes   | 1882 | 83.19 | 45.01 | 15.71 | 52.18 | 47.39 |
|           | No    | 323  | 14.36 | 39.49 | 17.18 | 39.94 | 59.75 |
| HPB.3.All | Yes   | 1615 | 71.29 | 45.49 | 15.70 | 53.81 | 45.69 |
|           | No    | 564  | 25.08 | 39.93 | 16.49 | 39.08 | 60.75 |
Table S.3.2: Descriptive statistics by reported level of knowledge about COVID-19 from each source

| Variable | Value                  | N  | %    | Age (M) | Age (SD) | Female (%) | Male (%) |
|----------|------------------------|----|------|---------|----------|------------|----------|
| IS.3.1   | 1st (Lowest)           | 120| 5.36 | 41.89   | 16.36    | 52.50      | 47.50    |
| IS.3.1   | 2nd                    | 263| 11.13| 39.71   | 15.48    | 48.67      | 50.57    |
| IS.3.1   | 3rd                    | 1010| 45.32| 43.84   | 16.16    | 52.28      | 47.22    |
| IS.3.1   | 4th (Highest)          | 839| 37.10| 45.79   | 15.92    | 47.19      | 52.57    |
| IS.3.2   | 1st (Lowest)           | 449| 20.82| 47.22   | 14.87    | 46.99      | 52.56    |
| IS.3.2   | 2nd                    | 485| 21.41| 44.72   | 15.19    | 48.55      | 50.62    |
| IS.3.2   | 3rd                    | 900| 40.43| 43.24   | 16.73    | 53.01      | 46.77    |
| IS.3.2   | 4th (Highest)          | 382| 15.53| 41.17   | 16.28    | 47.24      | 52.49    |
| IS.3.3   | 1st (Lowest)           | 1319| 64.55| 48.47   | 14.87    | 52.47      | 47.08    |
| IS.3.3   | 2nd                    | 437| 19.11| 40.58   | 15.90    | 48.17      | 51.61    |
| IS.3.3   | 3rd                    | 294| 12.89| 34.46   | 14.20    | 44.56      | 55.10    |
| IS.3.3   | 4th (Highest)          | 139| 6.54 | 29.84   | 11.47    | 37.68      | 61.59    |
| IS.3.4   | 1st (Lowest)           | 1014| 44.83| 48.92   | 15.54    | 44.52      | 55.08    |
| IS.3.4   | 2nd                    | 685| 29.82| 42.26   | 15.68    | 54.47      | 45.10    |
| IS.3.4   | 3rd                    | 388| 17.47| 37.46   | 14.26    | 56.19      | 43.30    |
| IS.3.4   | 4th (Highest)          | 130| 6.12 | 32.68   | 11.96    | 46.51      | 53.49    |
| IS.3.5   | 1st (Lowest)           | 1457| 64.55| 47.67   | 15.57    | 49.21      | 50.52    |
| IS.3.5   | 2nd                    | 431| 19.00| 39.40   | 14.87    | 54.88      | 44.65    |
| IS.3.5   | 3rd                    | 212| 9.36 | 32.63   | 12.67    | 45.50      | 53.55    |
| IS.3.5   | 4th (Highest)          | 87 | 4.04 | 30.32   | 11.02    | 40.23      | 58.62    |
| IS.3.6   | 1st (Lowest)           | 1350| 60.49| 48.32   | 15.29    | 50.00      | 49.70    |
| IS.3.6   | 2nd                    | 418| 17.45| 39.35   | 15.22    | 51.32      | 47.96    |
| IS.3.6   | 3rd                    | 278| 12.36| 34.83   | 13.70    | 48.74      | 50.54    |
| IS.3.6   | 4th (Highest)          | 116| 5.27 | 30.27   | 11.38    | 34.48      | 65.52    |
| IS.3.7   | 1st (Lowest)           | 316| 13.33| 49.62   | 14.85    | 37.03      | 62.03    |
| IS.3.7   | 2nd                    | 908| 40.36| 46.79   | 15.43    | 51.05      | 48.51    |
| IS.3.7   | 3rd                    | 810| 36.17| 40.99   | 16.09    | 53.84      | 46.16    |
| IS.3.7   | 4th (Highest)          | 196| 8.93 | 34.43   | 14.25    | 48.47      | 50.51    |
Table S.3.3: Mean difference in age by aggregate conspiracy beliefs and health-protective behaviours

| Variable   | DF  | t    | Est. | Low | High | p      |
|------------|-----|------|------|-----|------|--------|
| CB.3.Any   | 1597.01 | -4.33 | -3.45 | -1.89 | -5.02 | < 0.001 |
| HPB.3.All  | 943.24 | 6.98  | 5.56 | 7.12 | 3.99 | < 0.001 |

Welch unequal variances t-test, 95% confidence intervals, no effect = 0.00
Table S.3.4: Odds ratios, female gender vs conspiracy beliefs and health-protective behaviours

| Variable | Est. | Low | High | p     |
|----------|------|-----|------|-------|
| CB.3.Any | 1.15 | 0.94| 1.40 | 0.164 |
| HPB.3.All| 1.82 | 1.49| 2.22 | <0.001|

Fisher’s exact test, 95% confidence intervals, no effect = 1.00
Table S.3.5: Stochastic dominance of conspiracy beliefs with regard to reported level of knowledge about COVID-19 from each legacy media source

| Conspiracy belief | Source   | Est. | Low | High | N1   | N2   | U    | p    |
|-------------------|----------|------|-----|------|------|------|------|------|
| CB.3.1            | IS.3.1   | 0.48 | 0.45| 0.51 | 637  | 971  | 297664.0 | 0.168 |
| CB.3.1            | IS.3.2   | 0.47 | 0.44| 0.50 | 630  | 963  | 285355.5 | 0.036 |
| CB.3.1            | IS.3.LM  | 0.47 | 0.44| 0.50 | 640  | 973  | 293353.0 | 0.044 |
| CB.3.2            | IS.3.1   | 0.38 | 0.34| 0.42 | 172  | 1813 | 119522.0 | < 0.001 |
| CB.3.2            | IS.3.2   | 0.51 | 0.47| 0.56 | 172  | 1798 | 158357.0 | 0.583 |
| CB.3.2            | IS.3.LM  | 0.44 | 0.40| 0.49 | 174  | 1816 | 139995.5 | 0.011 |
| CB.3.3            | IS.3.1   | 0.41 | 0.36| 0.46 | 155  | 1875 | 120015.5 | < 0.001 |
| CB.3.3            | IS.3.2   | 0.53 | 0.49| 0.58 | 153  | 1861 | 151688.5 | 0.157 |
| CB.3.3            | IS.3.LM  | 0.47 | 0.42| 0.52 | 155  | 1883 | 137405.0 | 0.214 |
| CB.3.4            | IS.3.1   | 0.40 | 0.36| 0.43 | 284  | 1588 | 178641.0 | < 0.001 |
| CB.3.4            | IS.3.2   | 0.48 | 0.44| 0.52 | 283  | 1576 | 213014.5 | 0.207 |
| CB.3.4            | IS.3.LM  | 0.43 | 0.39| 0.47 | 286  | 1591 | 193856.5 | < 0.001 |
| CB.3.5            | IS.3.1   | 0.43 | 0.40| 0.46 | 269  | 1618 | 188200.0 | < 0.001 |
| CB.3.5            | IS.3.2   | 0.50 | 0.46| 0.54 | 266  | 1606 | 212866.5 | 0.025 |
| CB.3.5            | IS.3.LM  | 0.47 | 0.43| 0.51 | 271  | 1623 | 206596.0 | 0.101 |
| CB.3.Any          | IS.3.1   | 0.44 | 0.41| 0.46 | 881  | 746  | 287775.0 | < 0.001 |
| CB.3.Any          | IS.3.2   | 0.47 | 0.45| 0.50 | 868  | 747  | 307658.0 | 0.063 |
| CB.3.Any          | IS.3.LM  | 0.45 | 0.42| 0.48 | 884  | 748  | 296848.5 | < 0.001 |

Vargha and Delaney's A, 95% confidence intervals, no effect = 0.50
Mann-Whitney-Wilcoxon U test
**Table S.3.6: Stochastic dominance of conspiracy beliefs with regard to reported level of knowledge about COVID-19 from each social media source**

| Conspiracy belief | Source   | Est. | Low  | High | N1  | N2  | U    | p    |
|-------------------|----------|------|------|------|-----|-----|------|------|
| CB.3.1            | IS.3.3   | 0.57 | 0.55 | 0.60 | 624 | 952 | 339616.5 | < 0.001 |
| CB.3.1            | IS.3.4   | 0.58 | 0.55 | 0.61 | 627 | 968 | 351191.5 | < 0.001 |
| CB.3.1            | IS.3.5   | 0.55 | 0.53 | 0.58 | 622 | 955 | 328170.5 | < 0.001 |
| CB.3.1            | IS.3.6   | 0.50 | 0.48 | 0.53 | 615 | 946 | 292173.0 | 0.867 |
| CB.3.1            | IS.3.SM  | 0.57 | 0.54 | 0.60 | 637 | 971 | 351915.5 | < 0.001 |
| CB.3.2            | IS.3.3   | 0.78 | 0.75 | 0.82 | 171 | 1778 | 238632.0 | < 0.001 |
| CB.3.2            | IS.3.4   | 0.73 | 0.69 | 0.77 | 172 | 1794 | 225575.5 | < 0.001 |
| CB.3.2            | IS.3.5   | 0.71 | 0.67 | 0.76 | 167 | 1772 | 211339.0 | < 0.001 |
| CB.3.2            | IS.3.6   | 0.80 | 0.76 | 0.83 | 174 | 1809 | 250419.0 | < 0.001 |
| CB.3.2            | IS.3.SM  | 0.76 | 0.72 | 0.80 | 154 | 1842 | 216909.0 | < 0.001 |
| CB.3.3            | IS.3.3   | 0.71 | 0.67 | 0.76 | 152 | 1862 | 188807.5 | < 0.001 |
| CB.3.3            | IS.3.4   | 0.70 | 0.65 | 0.74 | 147 | 1842 | 187934.0 | < 0.001 |
| CB.3.3            | IS.3.5   | 0.69 | 0.65 | 0.74 | 149 | 1821 | 187934.0 | < 0.001 |
| CB.3.3            | IS.3.SM  | 0.78 | 0.74 | 0.82 | 155 | 1877 | 227154.0 | < 0.001 |
| CB.3.4            | IS.3.3   | 0.67 | 0.64 | 0.71 | 280 | 1560 | 293997.5 | < 0.001 |
| CB.3.4            | IS.3.4   | 0.65 | 0.61 | 0.68 | 284 | 1575 | 288996.0 | < 0.001 |
| CB.3.4            | IS.3.5   | 0.60 | 0.57 | 0.64 | 279 | 1563 | 261993.0 | < 0.001 |
| CB.3.4            | IS.3.6   | 0.61 | 0.57 | 0.64 | 273 | 1551 | 257730.5 | < 0.001 |
| CB.3.4            | IS.3.SM  | 0.68 | 0.65 | 0.72 | 286 | 1587 | 310710.5 | < 0.001 |
| CB.3.5            | IS.3.3   | 0.73 | 0.70 | 0.76 | 265 | 1589 | 308240.0 | < 0.001 |
| CB.3.5            | IS.3.4   | 0.67 | 0.64 | 0.71 | 268 | 1608 | 289251.5 | < 0.001 |
| CB.3.5            | IS.3.5   | 0.67 | 0.64 | 0.70 | 263 | 1589 | 279273.5 | < 0.001 |
| CB.3.5            | IS.3.6   | 0.64 | 0.60 | 0.68 | 261 | 1578 | 264327.0 | < 0.001 |
| CB.3.5            | IS.3.SM  | 0.74 | 0.71 | 0.78 | 271 | 1617 | 326231.0 | < 0.001 |
| CB.3.Any          | IS.3.3   | 0.65 | 0.62 | 0.67 | 862 | 738 | 410893.0 | < 0.001 |
| CB.3.Any          | IS.3.4   | 0.62 | 0.60 | 0.65 | 869 | 745 | 404703.5 | < 0.001 |
| CB.3.Any          | IS.3.5   | 0.60 | 0.58 | 0.62 | 858 | 742 | 383238.0 | < 0.001 |
| CB.3.Any          | IS.3.6   | 0.55 | 0.52 | 0.57 | 845 | 739 | 341633.0 | < 0.001 |
| CB.3.Any          | IS.3.SM  | 0.64 | 0.62 | 0.67 | 882 | 748 | 424640.0 | < 0.001 |

Vargha and Delaney's A, 95% confidence intervals, no effect = 0.50

Mann-Whitney-Wilcoxon U test
| Conspiracy belief | Source  | Est. | Low | High | N1   | N2   | U    | p    |
|-------------------|---------|------|-----|------|------|------|------|------|
| CB.3.1            | IS.3.7  | 0.57 | 0.54| 0.59 | 637  | 971  | 350959.5 | < 0.001 |
| CB.3.2            | IS.3.7  | 0.66 | 0.61| 0.70 | 173  | 1807 | 204669.0 | < 0.001 |
| CB.3.3            | IS.3.7  | 0.65 | 0.60| 0.69 | 154  | 1874 | 187489.0 | < 0.001 |
| CB.3.4            | IS.3.7  | 0.59 | 0.56| 0.63 | 285  | 1586 | 268396.0 | < 0.001 |
| CB.3.5            | IS.3.7  | 0.65 | 0.62| 0.68 | 268  | 1618 | 282090.0 | < 0.001 |
| CB.3.Any          | IS.3.7  | 0.60 | 0.57| 0.63 | 878  | 749  | 397473.5 | < 0.001 |

Vargha and Delaney's A, 95% confidence intervals, no effect = 0.50

Mann-Whitney-Wilcoxon U test
Table S.3.8: Stochastic dominance of health-protective behaviours with regard to reported level of knowledge about COVID-19 from each legacy media source

| Health-protective behaviour | Source | Est. | Low | High | N1  | N2  | U       | p       |
|-----------------------------|--------|------|-----|------|-----|-----|---------|---------|
| HPB.3.1                     | IS.3.1 | 0.56 | 0.52| 0.60 | 2003| 191 | 214456.0| 0.003   |
| HPB.3.1                     | IS.3.2 | 0.53 | 0.48| 0.57 | 1989| 190 | 199097.5| 0.199   |
| HPB.3.1                     | IS.3.LM| 0.56 | 0.52| 0.61 | 2013| 192 | 217455.0| 0.003   |
| HPB.3.2                     | IS.3.1 | 0.57 | 0.52| 0.63 | 2078| 106 | 126518.0| 0.005   |
| HPB.3.2                     | IS.3.2 | 0.55 | 0.50| 0.60 | 2064| 105 | 119878.5| 0.054   |
| HPB.3.2                     | IS.3.LM| 0.58 | 0.53| 0.63 | 2088| 106 | 128376.0| 0.004   |
| HPB.3.3                     | IS.3.1 | 0.54 | 0.48| 0.58 | 2063| 131 | 144472.0| 0.150   |
| HPB.3.3                     | IS.3.2 | 0.43 | 0.38| 0.48 | 2052| 126 | 111949.5| 0.008   |
| HPB.3.3                     | IS.3.LM| 0.47 | 0.42| 0.52 | 2074| 131 | 127384.0| 0.220   |
| HPB.3.4                     | IS.3.1 | 0.52 | 0.49| 0.55 | 1867| 320 | 311276.0| 0.192   |
| HPB.3.4                     | IS.3.2 | 0.48 | 0.45| 0.52 | 1855| 317 | 284334.0| 0.325   |
| HPB.3.4                     | IS.3.LM| 0.50 | 0.47| 0.54 | 1876| 322 | 303966.5| 0.851   |
| HPB.3.All                   | IS.3.1 | 0.54 | 0.51| 0.56 | 1601| 561 | 481068.5| 0.006   |
| HPB.3.All                   | IS.3.2 | 0.51 | 0.48| 0.54 | 1594| 553 | 447648.5| 0.564   |
| HPB.3.All                   | IS.3.LM| 0.53 | 0.50| 0.56 | 1610| 563 | 478174.0| 0.046   |

Vargha and Delaney's A, 95% confidence intervals, no effect = 0.50

Mann-Whitney-Wilcoxon U test
Table S.3.9: Stochastic dominance of health-protective behaviours with regard to reported level of knowledge about COVID-19 from each social media source

| Health-protective behaviour | Source | Est. | Low  | High  | N1  | N2  | U     | p    |
|----------------------------|--------|------|------|-------|-----|-----|-------|------|
| HPB.3.1                    | IS.3.3 | 0.44 | 0.40 | 0.48  | 1964| 188 | 163126.0 | 0.003|
| HPB.3.1                    | IS.3.4 | 0.46 | 0.42 | 0.50  | 1991| 189 | 173571.5 | 0.059|
| HPB.3.1                    | IS.3.5 | 0.46 | 0.42 | 0.50  | 1962| 187 | 169577.0 | 0.040|
| HPB.3.1                    | IS.3.6 | 0.47 | 0.43 | 0.50  | 1938| 186 | 168174.0 | 0.080|
| HPB.3.1                    | IS.3.SM| 0.44 | 0.40 | 0.49  | 2006| 192 | 170801.0 | 0.008|
| HPB.3.2                    | IS.3.3 | 0.36 | 0.31 | 0.41  | 2037| 105 | 77366.0  | <0.001|
| HPB.3.2                    | IS.3.4 | 0.40 | 0.34 | 0.45  | 2065| 104 | 84862.0  | <0.001|
| HPB.3.2                    | IS.3.5 | 0.36 | 0.31 | 0.41  | 2035| 104 | 76251.0  | <0.001|
| HPB.3.2                    | IS.3.SM| 0.34 | 0.28 | 0.40  | 2081| 106 | 75160.5  | <0.001|
| HPB.3.3                    | IS.3.3 | 0.25 | 0.21 | 0.30  | 2025| 127 | 64990.5  | <0.001|
| HPB.3.3                    | IS.3.4 | 0.29 | 0.24 | 0.33  | 2050| 129 | 76471.0  | <0.001|
| HPB.3.3                    | IS.3.5 | 0.23 | 0.19 | 0.28  | 2024| 125 | 58259.0  | <0.001|
| HPB.3.3                    | IS.3.6 | 0.26 | 0.22 | 0.31  | 2002| 124 | 65744.0  | <0.001|
| HPB.3.3                    | IS.3.SM| 0.20 | 0.16 | 0.24  | 2067| 131 | 53855.0  | <0.001|
| HPB.3.4                    | IS.3.3 | 0.38 | 0.35 | 0.42  | 1829| 316 | 222449.0 | <0.001|
| HPB.3.4                    | IS.3.4 | 0.40 | 0.37 | 0.44  | 1854| 320 | 238209.0 | <0.001|
| HPB.3.4                    | IS.3.5 | 0.38 | 0.35 | 0.42  | 1832| 311 | 219485.0 | <0.001|
| HPB.3.4                    | IS.3.6 | 0.41 | 0.38 | 0.44  | 1806| 313 | 233592.0 | <0.001|
| HPB.3.4                    | IS.3.SM| 0.37 | 0.34 | 0.40  | 1869| 322 | 222309.0 | <0.001|
| HPB.3.All                  | IS.3.3 | 0.39 | 0.37 | 0.42  | 1570| 550 | 338736.5 | <0.001|
| HPB.3.All                  | IS.3.4 | 0.41 | 0.38 | 0.44  | 1591| 557 | 363152.5 | <0.001|
| HPB.3.All                  | IS.3.5 | 0.40 | 0.38 | 0.42  | 1573| 546 | 342731.0 | <0.001|
| HPB.3.All                  | IS.3.6 | 0.42 | 0.40 | 0.45  | 1550| 543 | 356630.5 | <0.001|
| HPB.3.All                  | IS.3.SM| 0.38 | 0.35 | 0.41  | 1603| 563 | 342191.5 | <0.001|

Vargha and Delaney's A, 95% confidence intervals, no effect = 0.50

Mann-Whitney-Wilcoxon U test
Table S.3.10: Stochastic dominance of health-protective behaviours with regard to reported level of knowledge about COVID-19 from ‘friends and family’

| Health-protective behaviour | Source | Est. | Low  | High  | N1   | N2   | U    | p     |
|-----------------------------|--------|------|------|-------|------|------|------|-------|
| HPB.3.1                     | IS.3.7 | 0.50 | 0.46 | 0.55  | 2001 | 190  | 191122.0 | 0.896 |
| HPB.3.2                     | IS.3.7 | 0.44 | 0.38 | 0.50  | 2076 | 105  | 96429.0  | 0.034 |
| HPB.3.3                     | IS.3.7 | 0.33 | 0.29 | 0.39  | 2062 | 130  | 89579.0  | < 0.001 |
| HPB.3.4                     | IS.3.7 | 0.40 | 0.37 | 0.43  | 1863 | 321  | 240145.0 | < 0.001 |
| HPB.3.All                   | IS.3.7 | 0.44 | 0.41 | 0.46  | 1601 | 560  | 393182.5 | < 0.001 |

Vargha and Delaney’s A, 95% confidence intervals, no effect = 0.50

Mann-Whitney-Wilcoxon U test
| Conspiracy belief | Health-protective behaviour | Est. | Low  | High  | p      |
|-------------------|-----------------------------|------|------|-------|--------|
| CB.3.1            | HPB.3.1                     | 0.73 | 0.52 | 1.03  | 0.060  |
| CB.3.1            | HPB.3.2                     | 0.72 | 0.46 | 1.14  | 0.144  |
| CB.3.1            | HPB.3.3                     | 0.61 | 0.40 | 0.93  | 0.018  |
| CB.3.1            | HPB.3.4                     | 0.59 | 0.44 | 0.77  | <0.001 |
| CB.3.1            | HPB.3.All                   | 0.63 | 0.50 | 0.79  | <0.001 |
| CB.3.2            | HPB.3.1                     | 0.41 | 0.26 | 0.65  | <0.001 |
| CB.3.2            | HPB.3.2                     | 0.25 | 0.14 | 0.44  | <0.001 |
| CB.3.2            | HPB.3.3                     | 0.10 | 0.07 | 0.16  | <0.001 |
| CB.3.2            | HPB.3.4                     | 0.27 | 0.19 | 0.39  | <0.001 |
| CB.3.3            | HPB.3.All                   | 0.21 | 0.15 | 0.30  | <0.001 |
| CB.3.3            | HPB.3.1                     | 0.28 | 0.18 | 0.44  | <0.001 |
| CB.3.3            | HPB.3.2                     | 0.12 | 0.07 | 0.19  | <0.001 |
| CB.3.3            | HPB.3.3                     | 0.06 | 0.04 | 0.10  | <0.001 |
| CB.3.3            | HPB.3.4                     | 0.20 | 0.14 | 0.30  | <0.001 |
| CB.3.3            | HPB.3.All                   | 0.12 | 0.08 | 0.18  | <0.001 |
| CB.3.4            | HPB.3.1                     | 0.39 | 0.27 | 0.57  | <0.001 |
| CB.3.4            | HPB.3.2                     | 0.18 | 0.11 | 0.28  | <0.001 |
| CB.3.4            | HPB.3.3                     | 0.18 | 0.12 | 0.28  | <0.001 |
| CB.3.4            | HPB.3.4                     | 0.33 | 0.24 | 0.45  | <0.001 |
| CB.3.4            | HPB.3.All                   | 0.21 | 0.16 | 0.28  | <0.001 |
| CB.3.5            | HPB.3.1                     | 0.37 | 0.25 | 0.55  | <0.001 |
| CB.3.5            | HPB.3.2                     | 0.24 | 0.15 | 0.39  | <0.001 |
| CB.3.5            | HPB.3.3                     | 0.17 | 0.11 | 0.26  | <0.001 |
| CB.3.5            | HPB.3.4                     | 0.35 | 0.26 | 0.48  | <0.001 |
| CB.3.5            | HPB.3.All                   | 0.26 | 0.20 | 0.34  | <0.001 |
| CB.3.Any          | HPB.3.1                     | 0.45 | 0.31 | 0.64  | <0.001 |
| CB.3.Any          | HPB.3.2                     | 0.23 | 0.12 | 0.41  | <0.001 |
| CB.3.Any          | HPB.3.3                     | 0.18 | 0.10 | 0.30  | <0.001 |
| CB.3.Any          | HPB.3.4                     | 0.44 | 0.32 | 0.58  | <0.001 |
| CB.3.Any          | HPB.3.All                   | 0.37 | 0.29 | 0.47  | <0.001 |

Fisher's exact test, 95% confidence intervals, no effect = 1.00