**Supplementary materials**

Supplementary Table S1. Pandemic parameters and health responses across different waves.

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | Pandemic wave | N | Mean | SD | F | *P* |
| Percentage of older people in confirmed infections (t-1) | 1 | 75 | .259 | 0.365 | 18.783 | <.001 |
|  | 2 | 113 | .075 | 0.148 |  |  |
|  | 3 | 139 | .205 | 0.157 |  |  |
|  | 4 | 39 | .313 | 0.070 |  |  |
|  | Total | 366 | .187 | 0.224 |  |  |
| Confirmed infections (t-1) | 1 | 75 | 1.893 | 2.328 | 105.865 | <.001 |
|  | 2 | 113 | 9.973 | 15.229 |  |  |
|  | 3 | 139 | 30.878 | 36.990 |  |  |
|  | 4 | 39 | 82.513 | 17.478 |  |  |
|  | Total | 366 | 23.986 | 34.155 |  |  |
| Rt (t-1) | 1 | 75 | .659 | 0.622 | 4.738 | 0.003 |
|  | 2 | 113 | 1.146 | 1.278 |  |  |
|  | 3 | 139 | 1.062 | 0.768 |  |  |
|  | 4 | 39 | .989 | 0.331 |  |  |
|  | Total | 366 | .998 | 0.920 |  |  |
| COVID-19 deaths (t-1) | 1 | 75 | .053 | 0.226 | 24.864 | <.001 |
|  | 2 | 113 | .027 | 0.161 |  |  |
|  | 3 | 139 | .727 | 1.191 |  |  |
|  | 4 | 39 | 1.000 | 1.235 |  |  |
|  | Total | 366 | .402 | 0.927 |  |  |
| Containment and Health Index (t-1) | 1 | 75 | 37.389 | 19.245 | 102.666 | <.001 |
|  | 2 | 113 | 55.035 | 6.766 |  |  |
|  | 3 | 139 | 61.604 | 7.263 |  |  |
|  | 4 | 39 | 66.726 | 4.968 |  |  |
|  | Total | 366 | 55.160 | 14.375 |  |  |

Supplementary Table S2. News theme structure identified by EFA.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | | | | |
|  | Component | | | |
| 1 | 2 | 3 | 4 |
| Being unhygienic |  |  |  | .890 |
| Not following containment policies |  |  |  | .929 |
| Burden on the medical system |  |  |  |  |
| At risk of infection | .712 |  |  |  |
| Severity of illness | .679 |  |  |  |
| Higher death rate | .563 |  |  |  |
| Suspected infections | .786 |  |  |  |
| Group infections | .804 |  |  |  |
| Unknown source of infection | .786 |  |  |  |
| Maintaining physical health |  |  | .861 |  |
| Maintaining mental health |  |  | .828 |  |
| Help with daily living |  |  | .758 |  |
| Free groceries |  | .804 |  |  |
| Free masks |  | .940 |  |  |
| Priority resources for older people |  | .904 |  |  |
| Kaiser-Meyer-Olkin Measure of Sampling Adequacy | .734 |  |  |  |
| Bartlett's Test of Sphericity |  |  |  |  |
| Approx. Chi-Square | 2336.631 |  |  |  |
| df | 105 |  |  |  |
| Sig. | .000 |  |  |  |
| Extraction Method: Principal Component Analysis.  Rotation Method: Varimax with Kaiser Normalization. | | | | |
| a. Rotation converged in 5 iterations. | | | | |

Supplementary Table S3. CFA results of the news theme structure from EFA (N = 366)

|  |  |  |  |
| --- | --- | --- | --- |
|  |  |  |  |
|  | Standardized parameter estimate | Standard error | *P*-value |
| **Component 1** |  |  |  |
| At risk of infection | .617 |  |  |
| Severity of illness | .581 | .132 | .000 |
| Higher death rate | .469 | .156 | .000 |
| Suspected infections | .723 | .203 |  |
| Group infections | .814 | .262 | .000 |
| Unknown source of infection | .774 | .232 | .000 |
| **Component 2** |  |  |  |
| Free groceries | .663 |  |  |
| Free masks | .996 | .448 | .000 |
| Priority resources for older people | .856 | .310 | .000 |
| **Component 3** |  |  |  |
| Maintaining physical health | .783 |  |  |
| Maintaining mental health | .772 | .185 | .000 |
| Help with daily living | .703 | .217 | .000 |
| **Component 4** |  |  |  |
| Being unhygienic | 1.093 |  |  |
| Not following containment policies | .654 | .244 | .005 |
| Goodness-of-fit |  |  |  |
| χ2 (df=71) | 157.453 | *P*-value | .000 |
| Comparative Fit Index (CFI) | .891 | RMSEA | .058 |
| Tucker-Lewis Index (TLI) | .860 | SRMR | .070 |
|  |  |  |  |

Supplementary Table S4. Sensitivity analysis using Poisson regressions. Controlled for differences across news outlets.

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | Blaming older people | | Vulnerability of older people | | COVID risk to society | | Helping older people | | Resources available | |
|  | β (SE) | *P* value | β (SE) | *P* value | β (SE) | *P* value | β (SE) | *P* value | β (SE) | *P* value |
| Percentage of older people in confirmed infections (t-1) | .642 (.700) | .013 | .048 (.264) | .145 | .076 (.282) | .004 | -.179 (.431) | .015 | .001 (.190) | .960 |
| Confirmed infections (t-1) | .808 (.004) | <.001 | -.030 (.002) | .402 | .010 (.002) | .657 | -.232 (.003) | .005 | -.121 (.004) | .029 |
| Rt (t-1) | -.129 (.205) | .676 | -.031 (.077) | .432 | .081 (.074) | .005 | -.161 (.114) | .044 | -.039 (.091) | .258 |
| COVID-19 deaths (t-1) | -.395 (.139) | .064 | -.007 (.054) | .812 | .032 (.044) | .063 | .043 (.080) | .443 | .045 (.095) | .218 |
| Containment and Health Index (t-1) | -.320 (.016) | .399 | .021 (.006) | .634 | -.035 (.006) | .316 | .128 (.007) | .113 | .110 (.004) | <.001 |
| Pandemic wave (ref. = wave 1) |  |  |  |  |  |  |  |  |  |  |
| Wave 2 | .877 (.639) | .071 | .142 (.214) | .009 | .006 (.280) | .918 | .300 (.265) | .001 | -.163 (.169) | <.001 |
| Wave 3 | 1.29 (.659) | .014 | .319 (.212) | <.001 | .337 (.222) | <.001 | .368 (.282) | <.001 | -.501 (.293) | <.001 |
| Wave 4 | .348 (.842) | .416 | .070 (.328) | .211 | .184 (.296) | <.001 | .282 (.426) | .005 | -.115 (.401) | .025 |
| Log Likelihood | -157.88 |  | -463.71 |  | -450.89 |  | -359.66 |  | -381.94 |  |
| Deviance | 221.55 |  | 504.77 |  | 512.08 |  | 466.11 |  | 462.88 |  |
| AIC | 343.76 |  | 955.41 |  | 929.78 |  | 747.33 |  | 791.87 |  |