## Supplementary Materials for

# Searching for an alliance with journalism: a survey to investigate health literacy in Italy 

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## SUPPLEMENTAL METHODS M1 <br> Variables entered in the first step of the backward stepwise selection for the multiple regression models.

All models were adjusted for age and gender as fixed terms.
Concerning the models including both journalists and general population: The first step included: nationality, geographical area, educational level, number of household components, currently worker/non-worker/student, economic situation, personal chronic disease or disability, family member with a chronic disease or disability, family member working in the healthcare field, work/study background (i.e. the categories: health journalists, non-health journalists who had personally written about medicine/health, journalists who had never written about medicine/health, general population).
Concerning the models including only journalists: Having personally written about medicine and having stud-
ied health communication or scientific dissemination through a course or other means were also fixed terms like age and gender. The first step included: nationality, geographical area, educational level, number of household components, currently worker/non-worker/student, economic situation, personal chronic disease or disability, family member with a chronic disease or disability, family member working in the healthcare field, working for a daily newspaper, working for a periodical, working as freelance, working for an online newspaper, primary area of specialization (politics; news report; education; science \& medicine).

Concerning the models including only healthcare workers: The first step included: nationality, geographical area, educational level, number of household components, currently worker/non-worker/student, economic situation, personal chronic disease or disability, family member with a chronic disease or disability, family member working in the healthcare field.

Table S1
Characteristics of the journalists' subsample: overall descriptive analyses and stratified by the health literacy outcomes

|  |  | Journalists$(n=142)$ | SILS: inadequate HL |  |  | METER: low/ marginal HL |  |  | MDIT: nonpassing HL |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | No $(\mathrm{n}=107)$ N \% | Yes $\begin{aligned} & (n=35) \\ & N \% \end{aligned}$ | $p$ | No $\begin{aligned} & (n=21) \\ & N \% \end{aligned}$ | Yes $(n=119)$ N \% | $p$ | $\begin{aligned} & \text { No } \\ & (\mathrm{n}=51) \\ & \mathrm{N} \% \end{aligned}$ | Yes $\begin{aligned} & (n=73) \\ & N \% \end{aligned}$ | $p$ |
| Target groups | Health journalists | 36 (25.4) | 31 (86.1) | 5 (13.9) | 0.222 | 11 (30.6) | 25 (69.4) | 0.007 | 22 (73.3) | 8 (26.7) | <0.001 |
|  | Non-health journalists who had personally written about medicine | 56 (39.4) | 40 (71.4) | 16 (28.6) |  | 7 (12.5) | 49 (87.5) |  | 16 (31.4) | 35 (68.6) |  |
|  | Journalists who had never written about medicine | 50 (35.2) | 36 (72) | 14 (28) |  | 3 (6.3) | 45 (93.8) |  | 13 (30.2) | 30 (69.8) |  |
| Having personally written about medicine | No | 50 (35.2) | 36 (72) | 14 (28) | 0.494 | 3 (6.3) | 45 (93.8) | 0.036 | 13 (30.2) | 30 (69.8) | 0.072 |
|  | Yes | 92 (64.8) | 71 (77.2) | 21 (22.8) |  | 18 (19.6) | 74 (80.4) |  | 38 (46.9) | 43 (53.1) |  |
| Having studied health communication or scientific dissemination through a course or other means | No | 97 (68.3) | 73 (75.3) | 24 (24.7) | 0.969 | 11 (11.6) | 84 (88.4) | 0.100 | 30 (35.3) | 55 (64.7) | 0.051 |
|  | Yes | 45 (31.7) | 34 (75.6) | 11 (24.4) |  | 10 (22.2) | 35 (77.8) |  | 21 (53.8) | 18 (46.2) |  |
| Mean of communication* |  |  |  |  |  |  |  |  |  |  |  |
| Communication agency | No | 133 (93.7) | 101 (75.9) | 32 (24.1) | 0.532 | 20 (15.3) | 111 (84.7) | 0.736 | 50 (43.5) | 65 (56.5) | 0.057 |
|  | Yes | 9 (6.3) | 6 (66.7) | 3 (33.3) |  | 1 (11.1) | 8 (88.9) |  | 1 (11.1) | 8 (88.9) |  |
| Press office (public institution) | No | 127 (89.4) | 95 (74.8) | 32 (25.2) | 0.659 | 18 (14.4) | 107 (85.6) | 0.566 | 47 (42) | 65 (58) | 0.564 |
|  | Yes | 15 (10.6) | 12 (80) | 3 (20) |  | 3 (20) | 12 (80) |  | 4 (33.3) | 8 (66.7) |  |
| Press office (private institution) | No | 130 (91.5) | 97 (74.6) | 33 (25.4) | 0.503 | 19 (14.7) | 110 (85.3) | 0.758 | 49 (43) | 65 (57) | 0.157 |
|  | Yes | 12 (8.5) | 10 (83.3) | 2 (16.7) |  | 2 (18.2) | 9 (81.8) |  | 2 (20) | 8 (80) |  |
| Press agency | No | 137 (96.5) | 105 (76.6) | 32 (23.4) | 0.062 | 21 (15.6) | 114 (84.4) | 0.339 | 50 (42) | 69 (58) | 0.327 |
|  | Yes | 5 (3.5) | 2 (40) | 3 (60) |  | 0 (0) | 5 (100) |  | 1 (20) | 4 (80) |  |

Table S1
Continued

|  |  | Journalists$(\mathrm{n}=142)$ | SILS: inadequate HL |  |  | METER: low/marginal HL |  |  | MDIT: non-passing HL |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | $\begin{gathered} \text { No } \\ (\mathrm{n}=107) \\ \mathrm{N} \% \end{gathered}$ | $\begin{gathered} \text { Yes } \\ (\mathrm{n}=35) \\ \mathrm{N} \% \end{gathered}$ | p | $\begin{gathered} \text { No } \\ (\mathrm{n}=21) \\ \mathrm{N} \% \end{gathered}$ | Yes <br> ( $\mathrm{n}=$ <br> 119) <br> N \% | $p$ | $\begin{gathered} \text { No } \\ (\mathrm{n}=51) \\ \mathrm{N} \% \end{gathered}$ | $\begin{gathered} \text { Yes } \\ (\mathrm{n}=73) \\ \mathrm{N} \% \end{gathered}$ | p |
| Radio channel | No | 131 (92.3) | 98 (74.8) | 33 (25.2) | 0.604 | 21 (16.3) | 108 (83.7) | 0.147 | 48 (42.1) | 66 (57.9) | 0.456 |
|  | Yes | 11 (7.7) | 9 (81.8) | 2 (18.2) |  | 0 (0) | 11 (100) |  | 3 (30) | 7 (70) |  |
| Service | No | 139 (97.9) | 105 (75.5) | 34 (24.5) | 0.724 | 20 (14.6) | 117 (85.4) | 0.369 | 51 (42.1) | 70 (57.9) | 0.143 |
|  | Yes | 3 (2.1) | 2 (66.7) | 1 (33.3) |  | 1 (33.3) | 2 (66.7) |  | 0 (0) | 3 (100) |  |
| Online magazine | No | 114 (80.3) | 85 (74.6) | 29 (25.4) | 0.659 | 13 (11.5) | 100 (88.5) | 0.018 | 43 (42.6) | 58 (57.4) | 0.493 |
|  | Yes | 28 (19.7) | 22 (78.6) | 6 (21.4) |  | 8 (29.6) | 19 (70.4) |  | 8 (34.8) | 15 (65.2) |  |
| Television channel | No | 129 (90.8) | 98 (76) | 31 (24) | 0.591 | 20 (15.7) | 107 (84.3) | 0.438 | 46 (41.1) | 66 (58.9) | 0.968 |
|  | Yes | 13 (9.2) | 9 (69.2) | 4 (30.8) |  | 1 (7.7) | 12 (92.3) |  | 5 (41.7) | 7 (58.3) |  |
| Daily newspaper | No | 87 (61.3) | 63 (72.4) | 24 (27.6) | 0.307 | 12 (14) | 74 (86) | 0.662 | 25 (32.5) | 52 (67.5) | 0.012 |
|  | Yes | 55 (38.7) | 44 (80) | 11 (20) |  | 9 (16.7) | 45 (83.3) |  | 26 (55.3) | 21 (44.7) |  |
| Periodical newspaper | No | 114 (80.3) | 85 (74.6) | 29 (25.4) | 0.659 | 14 (12.4) | 99 (87.6) | 0.077 | 39 (39) | 61 (61) | 0.325 |
|  | Yes | 28 (19.7) | 22 (78.6) | 6 (21.4) |  | 7 (25.9) | 20 (74.1) |  | 12 (50) | 12 (50) |  |
| Freelance | No | 113 (79.6) | 83 (73.5) | 30 (26.5) | 0.300 | 14 (12.5) | 98 (87.5) | 0.098 | 40 (40.4) | 59 (59.6) | 0.744 |
|  | Yes | 29 (20.4) | 24 (82.8) | 5 (17.2) |  | 7 (25) | 21 (75) |  | 11 (44) | 14 (56) |  |
| Other | No | 137 (96.5) | 103 (75.2) | 34 (24.8) | 0.806 | 20 (14.8) | 115 (85.2) | 0.750 | 49 (40.8) | 71 (59.2) | 0.714 |
|  | Yes | 5 (3.5) | 4 (80) | 1 (20) |  | 1 (20) | 4 (80) |  | 2 (50) | 2 (50) |  |
| Area of specialization* |  |  |  |  |  |  |  |  |  |  |  |
| Politics | No | 91 (64.1) | 70 (76.9) | 21 (23.1) | 0.562 | 10 (11.2) | 79 (88.8) | 0.099 | 34 (42) | 47 (58) | 0.793 |
|  | Yes | 51 (35.9) | 37 (72.5) | 14 (27.5) |  | 11 (21.6) | 40 (78.4) |  | 17 (39.5) | 26 (60.5) |  |
| News report | No | 96 (67.6) | 75 (78.1) | 21 (21.9) | 0.268 | 15 (16) | 79 (84) | 0.650 | 35 (41.2) | 50 (58.8) | 0.987 |
|  | Yes | 46 (32.4) | 32 (69.6) | 14 (30.4) |  | 6 (13) | 40 (87) |  | 16 (41) | 23 (59) |  |
| Arts | No | 106 (74.6) | 82 (77.4) | 24 (22.6) | 0.341 | 10 (9.5) | 95 (90.5) | 0.002 | 40 (43.5) | 52 (56.5) | 0.367 |
|  | Yes | 36 (25.4) | 25 (69.4) | 11 (30.6) |  | 11 (31.4) | 24 (68.6) |  | 11 (34.4) | 21 (65.6) |  |
| Education | No | 102 (71.8) | 80 (78.4) | 22 (21.6) | 0.174 | 13 (12.9) | 88 (87.1) | 0.256 | 37 (40.2) | 55 (59.8) | 0.726 |
|  | Yes | 40 (28.2) | 27 (67.5) | 13 (32.5) |  | 8 (20.5) | 31 (79.5) |  | 14 (43.8) | 18 (56.3) |  |
| Sports and motor sports | No | 110 (77.5) | 85 (77.3) | 25 (22.7) | 0.325 | 18 (16.7) | 90 (83.3) | 0.310 | 50 (53.2) | 44 (46.8) | <0.001 |
|  | Yes | 32 (22.5) | 22 (68.8) | 10 (31.3) |  | 3 (9.4) | 29 (90.6) |  | 1 (3.3) | 29 (96.7) |  |
| Agriculture | No | 119 (83.8) | 89 (74.8) | 30 (25.2) | 0.724 | 16 (13.7) | 101 (86.3) | 0.322 | 40 (38.1) | 65 (61.9) | 0.107 |
|  | Yes | 23 (16.2) | 18 (78.3) | 5 (21.7) |  | 5 (21.7) | 18 (78.3) |  | 11 (57.9) | 8 (42.1) |  |
| Business/Finance | No | 119 (83.8) | 90 (75.6) | 29 (24.4) | 0.861 | 16 (13.7) | 101 (86.3) | 0.322 | 40 (37.7) | 66 (62.3) | 0.062 |
|  | Yes | 23 (16.2) | 17 (73.9) | 6 (26.1) |  | 5 (21.7) | 18 (78.3) |  | 11 (61.1) | 7 (38.9) |  |
| Science and medicine | No | 105 (73.9) | 75 (71.4) | 30 (28.6) | 0.068 | 10 (9.7) | 93 (90.3) | 0.003 | 29 (31.2) | 64 (68.8) | <0.001 |
|  | Yes | 37 (26.1) | 32 (86.5) | 5 (13.5) |  | 11 (29.7) | 26 (70.3) |  | 22 (71) | 9 (29) |  |
| Technology/ Computer science | No | 111 (78.2) | 83 (74.8) | 28 (25.2) | 0.763 | 14 (12.7) | 96 (87.3) | 0.149 | 35 (35.7) | 63 (64.3) | 0.017 |
|  | Yes | 31 (21.8) | 24 (77.4) | 7 (22.6) |  | 7 (23.3) | 23 (76.7) |  | 16 (61.5) | 10 (38.5) |  |
| Entertainment | No | 116 (81.7) | 89 (76.7) | 27 (23.3) | 0.423 | 19 (16.4) | 97 (83.6) | 0.315 | 47 (45.6) | 56 (54.4) | 0.024 |
|  | Yes | 26 (18.3) | 18 (69.2) | 8 (30.8) |  | 2 (8.3) | 22 (91.7) |  | 4 (19) | 17 (81) |  |
| Kitchen/fashion/ travel | No | 127 (89.4) | 98 (77.2) | 29 (22.8) | 0.145 | 19 (15.1) | 107 (84.9) | 0.937 | 49 (43.4) | 64 (56.6) | 0.105 |
|  | Yes | 15 (10.6) | 9 (60) | 6 (40) |  | 2 (14.3) | 12 (85.7) |  | 2 (18.2) | 9 (81.8) |  |
| Other | No | 135 (95.1) | 101 (74.8) | 34 (25.2) | 0.514 | 20 (15) | 113 (85) | 0.957 | 49 (41.5) | 69 (58.5) | 0.691 |
|  | Yes | 7 (4.9) | 6 (85.7) | 1 (14.3) |  | 1 (14.3) | 6 (85.7) |  | 2 (33.3) | 4 (66.7) |  |

Table S2
Health literacy of journalists and general population compared with journalists whose primary area of specialization is medicine: simple regressions with poor health literacy as outcome (according to SILS, METER, and MDIT)

|  | SILS |  |  | METER |  |  | MDIT |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | OR | 95\% CI | $p$ | OR | 95\% CI | p | OR | 95\% CI | $p$ |
| Health journalists | Ref. |  |  | Ref. |  |  | Ref. |  |  |
| Non-health journalists who had personally written about medicine | 2.48 | 0.82-7.51 | 0.108 | 3.08 | 1.06-8.92 | 0.038 | 6.02 | 2.21-16.39 | <0.001 |
| Journalists who had never written about medicine | 2.41 | 0.78-7.45 | 0.126 | 6.60 | 1.68-25.9 | 0.007 | 6.35 | 2.25-17.93 | <0.001 |
| General population | 1.50 | 0.56-3.99 | 0.419 | 1.55 | 0.73-3.28 | 0.257 | 4.61 | 1.98-10.7 | <0.001 |

## Table S3

Multiple regression models in the healthcare subsample with poor health literacy as outcome (according to SILS, METER, and MDIT)

|  | adjOR | $\begin{gathered} \text { SILS } \\ 95 \% \text { CI } \end{gathered}$ | p | adjOR | METER 95\% CI | $p$ | adjOR | MDIT 95\% CI | $p$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age | 0.92 | 0.87-0.97 | 0.004 | 0.96 | 0.94-0.98 | <0.001 | 1.00 | 0.98-1.02 | 0.904 |
| Female | 0.99 | 0.17-5.81 | 0.994 | 1.24 | 0.56-2.77 | 0.599 | 0.77 | 0.34-1.73 | 0.526 |
| Northern Italy | Ref. |  |  | Ref. |  |  |  |  |  |
| Central Italy | <0.001 | - | 0.999 | 0.29 | 0.03-2.47 | 0.259 |  |  |  |
| Southern Italy | <0.001 | - | 0.999 | 1.18 | 0.28-5.01 | 0.818 |  |  |  |
| Bachelor or Master's degree | Ref. |  |  | Ref. |  |  | Ref. |  |  |
| High school or lower | 8.29 | 0.84-82.33 | 0.071 | 2.29 | 0.66-7.93 | 0.191 | 3.86 | 0.98-15.24 | 0.054 |
| Postgraduates degree | 1.87 | 0.24-14.49 | 0.549 | 2.28 | 0.86-6.04 | 0.098 | 2.05 | 0.81-5.17 | 0.129 |
| Worker | Ref. |  |  | Ref. |  |  | Ref. |  |  |
| Non-worker | $<0.001$ | - | 0.999 | 3.41 | 0.51-22.64 | 0.205 | 1.37 | 0.12-15.59 | 0.801 |
| Student | <0.001 | - | 0.998 | 0.19 | 0.04-0.88 | 0.034 | 0.28 | 0.07-1.13 | 0.075 |
| Family member with a chronic disease or disability | 0.62 | 0.1-3.79 | 0.601 |  |  |  |  |  |  |
| Insufficient/poor perceived economic status |  |  |  | 2.23 | 0.99-5.03 | 0.052 | 2.75 | 1.16-6.56 | 0.022 |
| Family member working in the healthcare field |  |  |  |  |  |  | 0.47 | 0.21-1.08 | 0.074 |

Figures are expressed as adjusted Odds Ratios (adjOR) and 95\% Confidence Interval (CI).

