hand hygiene behaviours – impact of handwashing campaign

17th March 2020

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Recommendations

* Washing hands thoroughly and regularly “more often than usual” has risen dramatically in the last couple of weeks, in line with the release of the Government handwashing campaign (see figure 1).
* Perceived effectiveness and confidence that people can carry out the behaviour is high (see figure 2 and 3) – likely leading to ceiling effects. These are associated with increasing handwashing behaviour
* Worry and perceived risk of coronavirus are also strongly associated with increased handwashing.
* Government campaigns are having an effect on increased handwashing, and are far reaching (wave 7 data [9-11 March] indicate that 92% have seen advice on how to protect oneself and others from coronavirus; 85% have seen the “catch it, bin it, kill it” campaign; 98% have seen advice on handwashing).
* Satisfaction with the Government response and credibility of the Government are also associated but with negligible effects; focusing on these messages are unlikely to increase handwashing substantially.
* Campaigns should focus on the effectiveness of handwashing and confidence in handwashing capabilities.

Handwashing behaviour.

* Having seen advice on handwashing was the factor associated with the greatest likelihood of increased handwashing, followed by being “very” or “extremely” worried about coronavirus.
* Increased perceived risk (to oneself and people in the UK), greater perceived severity, and increased likelihood of catching coronavirus were associated with handwashing “more than usual”.
* Amount heard about coronavirus, and having seen government campaigns (advice on how to protect oneself and others; the “catch it, bin it, kill it” campaign; and advice on handwashing) were associated with increased handwashing.
  + Those who named GOV.UK (58% vs 43%), TV news (53% vs 47%) and newspapers in print (55% vs 45%) as key information sources were more likely to be washing their hands thoroughly and regularly more than usual.
  + Those who named an NHS GP practice, clinic or hospital as a key information source were less likely to be washing their hands thoroughly and regularly more than usual (42% of those naming this source as a key information source, vs 59% of those who did not name this source as key).
* Perceived effectiveness and confidence that you could carry out the behaviour (self-efficacy) were associated with increased handwashing
* Satisfaction with the government and credibility of the government were also associated with increased handwashing, but the effect size was very small (very small increase in handwashing behaviour with increased satisfaction/credibility).
* Socioeconomic status (most deprived quartile compared to least deprived quartile) was associated with decreased handwashing “more than usual”. Male gender and being of black or minority ethnicity was associated with increased handwashing “more than usual”. Other associations with increased hand washing (having a dependent child, having a household member with a chronic illness) were driven through worry.

Figure 1. Percentage of people who have washed their hands with soap and water thoroughly and regularly, in the past seven days

* Significant increase in those washing their hands thoroughly and regularly “more than usual” between week 4 and 5; 5 and 6; 6 and 7 (new campaign released at start of week 6).

Perceived effectiveness of hand washing.

Figure 2. Percentage of people who agree that washing their hands thoroughly and regularly with soap and water is an effective way to prevent the spread of coronavirus

* Significant increase in perceived effectiveness between wave 4 and 5.
* No other differences, likely due to a ceiling effect.

Confidence that you can carry out the behaviour (self-efficacy).

Figure 3. Percentage of people who agree that they could wash their hands thoroughly and regularly with soap and water if they wanted

* Significant increase in confidence those who think they could wash their hands between wave 4 and 5; and 6 and 7.
* No other differences, likely due to a ceiling effect.

Methods

* We examined associations with: washing your hands regularly and thoroughly “more than usual”.

Table showing associations between using a source as a key source of information and washing your hands regularly and thoroughly “more than usual”.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Factor |  | Washing hands thoroughly and regularly | | |
| Not done, done same amount as usual, n (%) | More than usual, n (%) | p |
| Official helplines (e.g. NHS 111) | No | 981 (50.3) | 969 (49.7) | .92 |
| Yes | 26 (51.0) | 25 (49.0) |  |
| An NHS website (e.g. NHS.UK) | No | 874 (50.5) | 865 (49.5) | .66 |
| Yes | 133 (49.1) | 138 (50.9) |  |
| GOV.UK or another Government website | No | 913 (51.3) | 867 (48.7) | .01\* |
| Yes | 94 (42.5) | 127 (57.5) |  |
| TV news (national or regional) | No | 374 (56.2) | 292 (43.8) | <.001\* |
| Yes | 633 (47.4) | 702 (52.6) |  |
| Newspapers (national, regional or local; in print) | No | 840 (51.6) | 789 (48.4) | .02\* |
| Yes | 167 (44.9) | 205 (55.1) |  |
| Online news websites (e.g. Guardian, Daily Mail) | No | 765 (50.9) | 738 (49.1) | .37 |
| Yes | 242 (48.6) | 256 (51.4) |  |
| Social media sites (e.g. Facebook, Twitter, Instagram) | No | 737 (49.9) | 739 (50.1) | .56 |
| Yes | 270 (51.4) | 255 (48.6) |  |
| Radio (national or local) | No | 793 (51.2) | 757 (48.8) | .17 |
| Yes | 214 (47.5) | 237 (52.5) |  |
| An NHS GP practice, clinic or hospital | No | 869 (49.2) | 896 (50.8) | .008\* |
| Yes | 138 (58.5) | 98 (41.5) |  |
| Leaflets | No | 983 (50.2) | 976 (49.8) | .37 |
| Yes | 24 (57.1) | 18 (42.9) |  |
| Posters | No | 930 (50.) | 930 (50.0) | .29 |
| Yes | 77 (54.6) | 64 (45.4) |  |

Table on uptake of handwashing behaviours

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | **Participant characteristics** | **Level** | **Washing hands thoroughly and regularly** | | | |
| **Not done, done same amount as usual, n (%)** | **More than usual, n (%)** | **Adjusted odds ratio (95% CI)†** | **Also adjusting for worry** |
| Personal characteristics | Gender | Male | 2945 (65.0) | 1588 (35.0) | Reference | Reference |
| Female | 3746 (68.6) | 1716 (31.4) | 0.83 (0.76 to 0.91)\* |  |
| Age | Raw age | N=6715, M=48.1, SD=18.08 | N=3311, M=48.46, SD=18.79 | 1.00 (0.98 to 1.02) |  |
| Age – quadratic (age-mean)2 | - | - | - | 1.00 (1.00 to 1.00) |  |
| Dependent children | No | 4829 (67.7) | 2307 (32.3) | Reference | Reference |
| Yes | 1886 (65.3) | 1004 (34.7) | 1.11 (1.00 to 1.24)\* | NS |
| Chronic illness - self | None | 4556 (66.4) | 2302 (33.6) | Reference | Reference |
| Present | 2039 (68.0) | 961 (32.0) | 0.96 (0.87 to 1.07) |  |
| Chronic illness – other household member | None | 5621 (67.4) | 2723 (32.6) | Reference | Reference |
| Present | 974 (64.3) | 540 (35.7) | 1.13 (1.00 to 1.28)\* | NS |
| Employment status | Not working | 3089 (67.7) | 1477 (32.3) | Reference | Reference |
| Working | 3565 (66.3) | 1812 (33.7) | 1.04 (0.94 to 1.15) |  |
| Work for NHS - self | No | 6234 (66.8) | 3093 (33.2) | Reference | Reference |
| Yes | 412 (68.2) | 192 (31.8) | 0.94 (0.78 to 1.14) |  |
| Work for NHS – members of my family | No | 5695 (66.7) | 2839 (33.3) | Reference | Reference |
| Yes | 951 (68.1) | 446 (31.9) | 0.93 (0.81 to 1.05) |  |
| Work for NHS - friends | No | 5975 (66.7) | 2982 (33.3) | Reference | Reference |
| Yes | 671 (68.9) | 303 (31.1) | 0.91 (0.78 to 1.06) |  |
| Socioeconomic group (Index of multiple deprivation) | 1st quartile (least deprived) | 1512 (66.5) | 762 (33.5) | Reference | Reference |
| 2nd quartile | 1614 (65.6) | 847 (34.4) | 1.01 (0.88 to 1.14) |  |
| 3rd quartile | 1797 (67.4) | 871 (32.6) | 0.91 (0.80 to 1.04) |  |
| 4th quartile (most deprived) | 1792 (68.3) | 831 (31.7) | 0.85 (0.75 to 0.97)\* |  |
| Ethnicity | White | 6182 (67.6) | 2959 (32.4) | Reference | Reference |
| Black and Minority | 489 (59.3) | 335 (40.7) | 1.45 (1.23 to 1.71)\* |  |
| Highest educational or professional qualification | GCSE/vocational/A-level/No formal qualifications | 4605 (68.0) | 2170 (32.0) | Reference | Reference |
| Degree or higher (Bachelors, Masters, PhD) | 2110 (64.9) | 1141 (35.1) | 1.08 (0.98 to 1.19) |  |
| Worry | Worry | Not at all/not very/somewhat worried | 5528 (71.2) | 2236 (28.8) | Reference | - |
| Very/extremely worried | 1139 (51.7) | 1065 (48.3) | 2.29 (2.06 to 2.55)\* | - |
| Perceived risk | To oneself | 5-point Likert-type (1=no risk at all, 5=major risk) | N=6530, M=2.4, SD=0.99 | N=3264, M=2.87, SD=1.05 | 1.49 (1.42 to 1.56)\* |  |
| To people in the UK | 5-point Likert-type (1=no risk at all, 5=major risk) | N=6581, M=2.92, SD=0.95 | N=3286, M=3.3, SD=0.94 | 1.44 (1.37 to 1.51)\* |  |
| Severity of coronavirus (self) | 5-point Likert (1=strongly disagree, 5=strongly agree) | N=6060, M=3.47, SD=1.21 | N=3098, M=3.62, SD=1.1 | 1.25 (1.19 to 1.30)\* |  |
| Likelihood of catching coronavirus | 5-point Likert (1=strongly disagree, 5=strongly agree) | N=4466, M=2.44, SD=1.01 | N=2476, M=2.83, SD=0.98 | 1.36 (1.29 to 1.43)\* |  |
| Knowledge | Knowledge | Range 6 to 29 | N=6715, M=19.66, SD=3.79 | N=3311, M=19.99, SD=4.09 | 1.00 (0.99 to 1.02) |  |
| Information | Amount heard | 4-point Likert-type (1=have not seen or heard anything, 4=seen or heard a lot) | N=6670, M=3.39, SD=0.74 | N=3304, M=3.58, SD=0.63 | 1.25 (1.16 to 1.34)\* |  |
| Information source – official sources | No | 4813 (69.3) | 2129 (30.7) | Reference | Reference |
| Yes | 1902 (61.7) | 1182 (38.3) | 1.31 (1.19 to 1.44)\* |  |
| Information source – mainstream media | No | 893 (70.3) | 377 (29.7) | Reference | Reference |
| Yes | 5822 (66.5) | 2934 (33.5) | 1.22 (1.06 to 1.41)\* |  |
| Information source – unofficial sources | No | 4245 (68.3) | 1967 (31.7) | Reference | Reference |
| Yes | 2470 (64.8) | 1344 (35.2) | 1.14 (1.04 to 1.26)\* |  |
| Advice on protection | No | 1828 (77.9) | 519 (22.1) | Reference | Reference |
| Yes | 4887 (63.6) | 2792 (36.4) | 1.45 (1.29 to 1.63)\* |  |
| Recommendations to “Catch it, Bin it, Kill it” | No | 2463 (76.3) | 763 (23.7) | Reference | Reference |
| Yes | 4252 (62.5) | 2548 (37.5) | 1.56 (1.40 to 1.73)\* |  |
| Advice on handwashing | No | 105 (75.5) | 34 (24.5) | Reference | Reference |
| Yes | 2011 (51.9) | 1862 (48.1) | 2.74 (1.80 to 4.17)\* |  |
| Perceived effectiveness and confidence in carrying out behaviour | Perceived effectiveness | Not effective | 493 (77.0) | 147 (23.0) | Reference | Reference |
| Effective | 6097 (66.0) | 3137 (34.0) | 1.65 (1.35 to 2.03)\* |  |
| Self-efficacy for behaviours | Confident could carry out | 422 (72.3) | 162 (27.7) | Reference | Reference |
| Not confident could carry out | 6213 (66.5) | 3132 (33.5) | 1.25 (1.02 to 1.53)\* |  |
| Government response | Satisfaction with government response | Range 3 to 15 | N=5708, M=10.72, SD=2.42 | N=3043, M=10.85, SD=2.36 | 1.01 (0.99 to 1.03) | 1.02 (1.00 to 1.04)\* |
| Credibility of government | Range 4 to 20 | N=5088, M=12.79, SD=2.62 | N=2740, M=13.02, SD=2.63 | 1.03 (1.02 to 1.05)\* |  |

†Controlling for all personal characteristics, survey wave, and region

*Please note that this work has been conducted rapidly and has not been peer reviewed or subject to normal quality control measures.*

Datasets used:

* Department of Health and Social Care weekly tracker
  + Tracking DHSC marketing, coronavirus attitudes, beliefs, knowledge, reported behaviour, satisfaction with Government response, credibility of Government.
  + Data collected weekly (Monday to Wednesday) since late January.
  + N~2000 per wave.
  + Market research company commissioned: BMG Research.
  + *This survey is not designed to collect the views of NHS workers and respondents in this sample working in the NHS are not representative of the wider NHS workers in general. In particular, the sample in the survey is of NHS staff who have time to participate in on-line polls. In the context of a major public health crisis this poses very substantial limitations.*

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