

Title: Holding a stigmatising attitude at the start of the COVID-19 outbreak (the COVID-19 Rapid Survey of Adherence to Interventions and Responses [CORSAIR] study)

Short title: *COVID-19 and stigma*

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Data availability statement:

The data are owned by the UK's Department of Health and Social Care, so no additional data are available from the authors.

Conflict of interest:

All authors had financial support from NIHR for the submitted work. RA is an employee of Public Health England; HWWP receives additional salary support from Public Health England and NHS England; NTF is a participant of an independent group advising NHS Digital on the release of patient data. All authors are participants of the UK's Scientific Advisory Group for Emergencies or its subgroups. There are no other financial relationships with any organisations that might have an interest in the submitted work in the previous three years and no other relationships or activities that could appear to have influenced the submitted work.

Funding information:

LS, RA and GJR are supported by the National Institute for Health Research Health Protection Research Unit (NIHR HPRU) in Emergency Preparedness and Response, a partnership between Public Health England, King's College London and the University of East Anglia. RA is also supported by the NIHR HPRU in Behavioural Science and Evaluation, a partnership between Public Health England and the University of Bristol. HWWP receives funding from Public Health England and NHS England. NTF is part funded by a grant from the UK Ministry of Defence. The views expressed are those of the authors and not necessarily those of the NIHR, Public Health England, the Department of Health and Social Care or the Ministry of Defence. Surveys were commissioned and funded by Department of Health and Social Care (DHSC), with the authors providing advice on the question design and selection. DHSC had no role in analysis, decision to publish, or preparation of the manuscript. Preliminary results were made available to DHSC and the UK's Scientific Advisory Group for Emergencies.

ABSTRACT

Objectives: To identify the prevalence of a stigmatising attitude towards people of Chinese origin at the start of the COVID-19 outbreak in the UK population and investigate factors associated with holding the stigmatising attitude.

Design: Online cross-sectional survey conducted 10 to 13 February 2020 (n=2006, people aged 16 years or over and living in the UK).

Methods: We asked participants to what extent they agreed it was best to avoid areas heavily populated by Chinese people because of the COVID-19 outbreak. Survey materials also asked about: worry, perceived risk, knowledge, information receipt, and perception of government response to COVID-19, and personal characteristics. We ran binary logistic regressions to investigate associations between holding a stigmatising attitude, personal characteristics, and psychological and contextual factors.

Results: 26.1% people (95% CI 24.2% to 28.0%, n=524/2006) agreed it was best to avoid areas heavily populated by Chinese people. Holding a stigmatising attitude was associated with greater worry about COVID-19, greater perceived risk of COVID-19, and poorer knowledge about COVID-19.

Conclusions: At the start of the COVID-19 pandemic, a large percentage of the UK public endorsed avoiding areas in the UK heavily populated by people of Chinese origin. This attitude was associated with greater worry about, and perceived risk of, the COVID-19 outbreak as well as poorer knowledge about COVID-19. At the start of future novel infectious disease outbreaks, proactive communications from official sources should provide context and facts to reduce uncertainty and challenge stigmatising attitudes, to minimise harms to affected communities.

Abstract word count: 246/250

Key words: COVID-19; stigma; worry; infectious disease outbreak; discrimination

INTRODUCTION

The COVID-19 pandemic emerged from Wuhan, China. On 23 January 2020, the Chinese government imposed a lockdown on Wuhan and other cities in Hubei province.(1) By 11 February 2020, there had been 42,708 confirmed COVID-19 cases and 1017 deaths in China, and the virus had been detected in 24 other countries (total 393 cases and 1 death).(2) Between 29 January and 27 February 2020, there were over 50 repatriation flights from Wuhan,(3) including two to the UK that received widespread media attention.(4)

Outbreaks of novel infectious diseases are often characterised by a pattern of distancing the disease from oneself or in-groups, blaming groups perceived as responsible for the origin and spread of infection (often marginalised groups or those in power, such as the government), and stigmatisation of those who have contracted the illness or who are thought to have exacerbated the spread.(5-7) At the start of the COVID-19 outbreak, influential figures around the world referred to the virus based on its place of origin (e.g. “Wuhan coronavirus”, “China virus”),(8) increasing stigmatisation and discrimination.(9) Internationally, there was an increase in racism towards people of Chinese or East Asian descent.(10) In the UK, there was an almost three-fold increase in hate crimes towards people of Chinese origin or appearance between January and March 2020.(11)

While factors associated with perceiving stigma have been well-researched, there is less research investigating factors associated with endorsing stigmatising attitudes. Research suggests that holding stigmatising attitudes towards medical conditions (e.g. HIV/AIDS) is associated with sociodemographic characteristics, such as lower education, and psychological factors, such as poorer knowledge about the condition.(12) Beliefs that someone has personal control, responsibility and blame over having contracted an illness have also been found to explain endorsement of stigmatising attitudes towards infectious diseases.(13)

In this study, we investigated the prevalence of holding a stigmatising attitude towards the Chinese community in the UK at the start of the COVID-19 outbreak. We investigated whether holding of a stigmatising attitude was associated with personal characteristics and psychological and contextual factors.

METHOD

Design

Online cross-sectional survey conducted by BMG research on behalf of the English Department of Health and Social Care (data collected 10 to 13 February 2020). We analysed these data as part of the COVID-19 Rapid Survey of Adherence to Interventions and Responses (CORSAIR) study.⁽¹⁴⁾ In the UK, the first two cases of COVID-19 were declared on 31 January 2020. At the time of data collection, there had been a total of nine cases detected. Of these cases, four were transmitted in East Asia and five were contacts of a confirmed UK case where the virus was transmitted in France. No onward transmission had been detected within the country.

Participants

Participants were recruited from Respondi, a specialist research panel provider (n=50,000) and were eligible for the study if they were aged 16 years or over and lived in the UK. Quotas based on age and gender (combined) and Government Office Region reflected targets based on the Office for National Statistics. For this survey, participants were reimbursed in points (equivalent to approximately 25p) which could be redeemed in cash, gift vouchers or charitable donations. For this analysis, we had a final sample of 2006. Because quick turn-around for data collection is essential during a rapidly evolving crisis, the survey used standard opinion polling methods using nonprobability sampling, an approach common within market research, political polling and social science.

Study materials

Outcome measure

Participants were asked to what extent they agreed that “because of the coronavirus outbreak, it is best to avoid areas in the UK that are heavily populated by Chinese people” on a five-point “strongly disagree” to “strongly agree” scale, which was recoded to create a binary outcome variable (“strongly agree” and “agree” versus “strongly disagree,” “disagree” and “neither agree nor disagree”). Participants could also answer “don’t know”; these answers were recoded as missing for our binary outcome variable.

Personal characteristics

Participants were asked to state: their age; gender; whether they had dependent children; whether they themselves or another household member had a chronic illness; their

employment status; whether they themselves, a family member, or friend worked for the National Health Service (NHS); their highest level of education; and their ethnicity. Index of multiple deprivation was derived from participants' postcode.(15)

Psychological and contextual factors

Worry about COVID-19 was measured by a single item asking participants "overall, how worried are you about coronavirus?" Responses were on a five-point scale from "not at all worried" to "extremely worried". We recoded worry about coronavirus as a binary variable, grouping together "very" or "extremely worried" versus "not at all," "not very," or "somewhat worried".

Perceived risk about COVID-19 was measured by asking participants "to what extent [they] thought coronavirus [posed] a risk to" themselves and people in the UK on a five-point scale from "no risk at all" to "major risk". Participants were also asked to what extent "coronavirus would be a serious illness for me" on a five-point scale ("strongly disagree" to "strongly agree").

To measure knowledge about COVID-19, participants were asked to what extent they agreed or disagreed with seven items relating to misinformation that was being spread at the time of data collection (five-point scale: "strongly disagree" to "strongly agree"). These were:

- I could catch coronavirus from animals [false]
- I could catch coronavirus from packages or products ordered from China [false]
- I could catch coronavirus from someone else who has it, even if they do not have any symptoms yet [true]
- It is likely that I have some natural immunity to coronavirus [false]
- There is a vaccine available to protect against coronavirus [false]
- Antibiotics are an effective treatment for coronavirus [false]
- It is currently unsafe to come into contact with someone who has been to Wuhan in China in the past 14 days, regardless of whether they seem ill or well [true].

We judged responses as "true" or "false" based on information provided at the time by the UK Government. We scored knowledge items from +2 (strong agreement with a correct answer) to -2 (strong disagreement with a correct answer) and coded "don't know" as 0. We

summed the items to give a total knowledge score, rescaled to give a score of 1 to 29, with higher scores indicating higher knowledge.

Participants were asked how much they had “seen or heard about coronavirus in the past seven days” with possible responses being “I have not seen or heard anything,” “I have seen or heard a little,” “I have seen or heard a fair amount,” and “I have seen or heard a lot.” On 2 February 2020, a public information campaign was launched by the English Department of Health and Social Care called “Catch it, Bin it, Kill it”,⁽¹⁶⁾ based on a similar campaign of the same name developed in the 2009/10 influenza H1N1 pandemic. Participants were asked if they had seen or heard “advice on how to protect yourself and others from coronavirus” and “recommendations to ‘Catch it, Bin it, Kill it’” in the last seven days. Possible answers were “yes, I have seen or heard this” and “no, I haven’t seen or heard this”.

Participants were asked to identify the three sources that they had “received most of [their] information about coronavirus from in the past seven days” from a list of sixteen possible sources. These included official sources such as NHS111 (a free-to-call single non-emergency number medical helpline operating in most of the UK), the NHS website and GOV.UK (the UK government website); mainstream media, such as television news, newspapers (print and online) and radio; and unofficial sources, for example, social media sites, search engines and friends and relatives. We created separate binary variables to indicate whether participants had received most of their information from official sources, the mainstream media, or unofficial sources. For each information source, participants were said to have used this source if they indicated it as one of their top three sources of information.

Participants were asked to state to what extent they agreed or disagreed that: “the Government [was] putting the right measures in place to protect the British public from coronavirus”; they felt they were “getting the information [they needed] from the Government and other public authorities on coronavirus;” and they felt they knew what they needed to do “to limit [their] risk of contracting coronavirus”. Participants answered on a five-point Likert scale (“strongly disagree” to “strongly agree”). We summed scores on these three items to give a total score (range 3 to 15, Cronbach’s $\alpha=.74$). Lower scores indicated lower satisfaction with the Government.

To assess perceived credibility of information from the Government, participants completed an adapted form of the Meyer Credibility Index.⁽¹⁷⁾ Participants were asked to state on a

five-point scale Likert scale (“strongly disagree” to “strongly agree”) whether information from the Government about coronavirus could be trusted, was accurate, told the whole story, and was biased or one-sided. We summed scores on the four items of the Meyer Credibility Index items (range 4 to 20, Cronbach’s $\alpha=.76$). Lower scores indicated poorer credibility.

Ethics

This work was conducted as a service evaluation of the Department of Health and Social Care’s public communications campaign and, following advice from the University Research Ethics Subcommittee, was exempt from ethical approval.

Patient and public involvement

Due to the rapid nature of data collection, patients and public were not involved in the design, analysis or interpretation of results. The survey questions were based on materials developed in 2014 in preparation for a future influenza pandemic by our team.(18) These items were refined in 2014 in three rounds of qualitative interviews (n=78) and had their test-retest reliability checked in two telephone surveys (n=621).(19)

Power

A target sample size of 2,000 was used for each wave, allowing a 95% confidence interval of, at most, plus or minus 2.2% for the prevalence estimate for each survey item.

Analysis

We used binary logistic regressions to calculate univariable associations between holding a stigmatising attitude and personal characteristics, worry, perceived risk, knowledge, information, perception of government response. We used a second set of logistic regressions adjusting for all personal characteristics (including education).

We ran *post hoc* logistic regression analyses adjusting for worry about coronavirus as well as personal characteristics.

We recoded answers of “don’t know” as missing data.

The survey method used quota sampling with weightings. In practice, the weights did not substantially affect rates of holding a stigmatising attitude. Our analyses report unweighted statistics.

RESULTS

26.1% (95% CI 24.2% to 28.0%, n=524/2006) agreed that it was best to avoid areas in the UK that were heavily populated by Chinese people; 64.3% (95% CI 62.2% to 66.4%, n=1290/2006) did not agree and 9.6% did not know (95% CI 8.3% to 10.9%, n=92/2006; see Table 1 for breakdown).

Results of univariable and multivariable analyses are reported in Tables 2 and 3. Holding a stigmatising attitude was associated with: greater worry about COVID-19; greater perceived risk from COVID-19 (to oneself and people in the UK); greater perceived severity of COVID-19; poorer knowledge about COVID-19; not having seen or heard information from mainstream media; having seen or heard information from official sources; greater perceived credibility of the UK Government; greater satisfaction with the UK Government response; having a chronic illness oneself; having a dependent child in the household; being employed; lower education; and living in a more deprived area. Younger age was associated with holding a stigmatising attitude in a non-linear manner, with stigmatising attitude declining with increasing age and then flattening.

In post-hoc analyses which adjusted for worry and personal characteristics, the following factors were no longer associated with holding a stigmatising attitude: employment status; index of multiple deprivation; and having seen or heard information from official sources.

DISCUSSION

We found that approximately one-quarter of the UK population held a stigmatising attitude towards people from Chinese communities at the start of the COVID-19 outbreak. Other UK surveys conducted at a similar time found that 14% reported avoiding contact with people of Chinese origin or appearance,(20) and that 30% thought it would be “prudent” to not eat at Chinese restaurants “to reduce the risk of getting infected with coronavirus”.(21) This can lead to economic harm,(22, 23) and may be associated with other trends such as an increase in hostility, including discrimination and racially aggravated assault.(11, 24) Studies in other countries have also shown evidence for blaming of the Chinese community at the start of the COVID-19 outbreak.(25)

Holding a stigmatising attitude was associated with greater perceived worry about COVID-19, and higher perceptions of the risk and severity of COVID-19. It may be that people who were more worried and perceived a greater risk from COVID-19 thought they would be

protect themselves from contracting the infection by avoiding areas frequented by Chinese populations in the UK. This highlights the need for official communications that provide clear advice on behaviours that prevent the spread of illness, such as good respiratory and hand hygiene and physical distancing.(26, 27)

In line with research investigating outbreaks of other infectious diseases, we found an association between poorer knowledge about COVID-19 and being more likely to hold a stigmatising attitude.(12) At the time of data collection, there were many uncertainties surrounding COVID-19. The majority of confirmed COVID-19 cases and deaths had occurred in China,(2) and the worldwide news media were reporting on the strict quarantine measures that had been put in place in Wuhan and other cities in Hubei Province.(1) Our results suggest that at the start of an emerging infectious disease outbreak, there is a need for proactive official communications which provide contextual and factual information to reduce uncertainty, and which challenges emerging stigmatising attitudes. As recommended by the WHO,(28) neutral scientific language to describe a pathogen, rather than deriving a name from its country of origin (e.g. “Wuhan coronavirus”, “China virus”) may help reduce negative sentiments towards that group.(8, 9)

In our data there seemed to be a trend between holding a stigmatising attitude and receiving information from official sources. This association was no longer apparent when controlling for worry, suggesting that higher worry may have driven both stigma and information seeking. We found that those who had not seen or heard information from the mainstream media were more likely to hold a stigmatising attitude. In the UK, most people use mainstream media for their news (77% television, 47% newspapers, 43% radio),(29) and the minority who do not may be more likely to already hold stigmatising attitudes or be more likely to encounter them in the non-mainstream media sources that they turn to for news.(30) We found an association between holding a stigmatising attitude and greater satisfaction with the UK Government response and greater perceived credibility of the UK Government. We are not sure why this may be and tentatively speculate that these associations may be confounded by political beliefs.(31) Our results differ from a study investigating attitudes towards HIV/AIDS, tuberculosis, and SARS in Hong Kong, which found that holding more stigmatising attitudes was associated with less favourable attitudes towards Government policies related to the disease.(13)

Holding a stigmatising attitude was also associated with personal characteristics such as having a dependent child, lower education, having a chronic illness oneself, and younger age. Lower education is associated with holding stigmatising attitudes of infectious diseases.(12) There was no longer an association with living in a more deprived area when controlling for worry.

Stigmatising attitudes due to infectious disease outbreaks persist over time, continuing on after the outbreak has been controlled.(8) For example, one study found that people who had contracted SARS in Hong Kong in 2003 were still experiencing discrimination up to three years later.(32) Therefore, it should not be assumed that the passage of time will resolve stigmatisation and discrimination. This is concerning as experiencing racial discrimination is associated with greater psychological distress and poorer life satisfaction.(33) As at the start of other emerging infectious disease outbreaks, a stigmatising attitude towards a minoritized ethnic group was prevalent in the UK at the start of the COVID-19 outbreak. As the pandemic has progressed, stigmatising attitudes may have shifted to other minoritized populations perceived as spreading the illness, people who have had infection confirmed, and those who show symptoms of infection (e.g. coughing in public).(34) This is worrying in the context of an emerging infectious disease outbreak, as fear of social stigma for catching infectious diseases can stop people seeking treatment.(35)

Several limitations should be considered for this study. First, we used self-report measures. Social desirability may have minimised reporting of the stigmatising attitude. Second, while the use of an online market research panel is helpful in ensuring data are collected quickly, there are limitations to this approach. People who actively sign up for such panels may not be representative of the general public in terms of, for example, the amount of time they spend on-line and hence the likelihood of them encountering on-line public health campaigns. Third, the cross-sectional nature of the data makes it impossible to be certain about the directions of causality in the associations we have reported. Fourth, given the large number of statistical tests we conducted, Type 1 errors may be apparent in our data and caution is particularly required for associations where the confidence intervals approach one.

At the start of future infectious disease outbreaks, we need to expect, measure, and address the fact that groups perceived as responsible for the origin and spread of infection will experience stigmatisation and discrimination. We found that at the start of the COVID-19 outbreak in the UK, over one quarter of people held a stigmatising attitude, namely thinking

it was best to avoid areas heavily populated by Chinese people. Holding a stigmatising attitude was associated with poorer knowledge and greater worry about, and greater perceived risk of, COVID-19. This suggests a need for proactive communications outlining contextual and factual information about disease transmission, evidence-based information about behaviours which prevent the spread of infection, and challenging stigmatising attitudes.

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Table 1. Percentage of people who agreed or disagreed that because of the COVID-19 outbreak, it was best to avoid areas in the UK that were heavily populated by Chinese people (total n=2006).

	N	% (95% CIs)
Strongly agree	208	10.4 (9.0 to 11.7)
Agree	316	15.8 (14.2 to 17.3)
Neither agree nor disagree	396	19.7 (18.0 to 21.5)
Disagree	524	26.1 (24.2 to 28.0)
Strongly disagree	370	18.4 (16.7 to 20.1)
Don't know	192	9.6 (8.3 to 10.9)

Table 2. Associations between personal characteristics and holding a stigmatising attitude.

Participant characteristics	Level	Because of the coronavirus outbreak, it is best to avoid areas in the UK that are heavily populated by Chinese people			
		Neither agree nor disagree/disagree/strongly disagree n=1,290, n (%)	Agree/strongly agree n=524, n (%)	Odds ratio (95% CI) for holding a stigmatising attitude	Adjusted odds ratio (95% CI) for holding a stigmatising attitude
Gender	Male	624 (68.6)	285 (31.4)	Reference	Reference
	Female	657 (73.4)	238 (26.6)	0.79 (0.65 to 0.97)*	0.83 (0.67 to 1.02)
Age	N, M, SD	N=1,290, M=48.9, SD=18.2	N=524, M=45.6, SD=19.2	0.99 (0.98 to 1.00)*	0.93 (0.90 to 0.96)*
Age – quadratic (age-mean) ²	-	-	-	-	5.61 (2.42 to 13.02)*
Dependent children	No	932 (73.6)	334 (26.4)	Reference	Reference
	Yes	358 (65.3)	190 (34.7)	1.48 (1.19 to 1.84)*	1.48 (1.15 to 1.91)*
Chronic illness - self	None	903 (72.8)	338 (27.2)	Reference	Reference
	Present	371 (67.7)	177 (32.3)	1.27 (1.02 to 1.59)*	1.51 (1.19 to 1.93)*
Chronic illness – other household member	None	1,093 (71.7)	432 (28.3)	Reference	Reference
	Present	181 (68.6)	83 (31.4)	1.16 (0.87 to 1.54)	1.12 (0.83 to 1.52)
Employment status	Not working	591 (73.7)	221 (26.3)	Reference	Reference
	Working	687 (69.0)	308 (31.0)	1.26 (1.02 to 1.54)*	1.38 (1.06 to 1.81)*
Work for NHS - self	No	1,204 (72.0)	468 (28.0)	Reference	Reference
	Yes	75 (62.5)	45 (37.5)	1.54 (1.05 to 2.27)*	1.16 (0.77 to 1.77)
Work for NHS – members of my family	No	1,106 (70.6)	461 (29.4)	Reference	Reference
	Yes	173 (76.9)	52 (23.1)	0.72 (0.52 to 1.00)*	0.72 (0.51 to 1.01)
Work for NHS - friends	No	1,143 (70.9)	469 (29.1)	Reference	Reference
	Yes	126 (75.6)	44 (24.4)	0.79 (0.55 to 1.13)	0.75 (0.51 to 1.09)
Highest educational or professional qualification	GCSE/vocational/A-level/No formal qualifications	832 (69.5)	365 (30.5)	Reference	Reference
	Degree or higher (Bachelors, Masters, PhD)	458 (74.2)	159 (25.8)	0.79 (0.64 to 0.98)*	0.75 (0.59 to 0.95)*
Index of multiple deprivation	1 st quartile (least deprived)	309 (75.9)	98 (24.1)	Reference	Reference
	2 nd quartile	327 (72.8)	122 (27.2)	1.18 (0.86 to 1.60)	1.05 (0.76 to 1.44)
	3 rd quartile	330 (69.0)	148 (31.0)	1.41 (1.05 to 1.91)*	1.31 (0.96 to 1.79)
	4 th quartile (most deprived)	324 (67.5)	156 (32.5)	1.52 (1.13 to 2.04)*	1.36 (1.00 to 1.87)*
Ethnicity	White	1,197 (71.8)	469 (28.2)	Reference	Reference
	Minoritized ethnic groups	82 (60.7)	53 (39.3)	1.65 (1.15 to 2.37)*	1.45 (0.97 to 2.15)

*p<.05

Table 3. Associations between psychological and contextual factors and holding a stigmatising attitude.

	Participant characteristics	Level	Because of the coronavirus outbreak, it is best to avoid areas in the UK that are heavily populated by Chinese people			
			Neither agree nor disagree/disagree/strongly disagree n=1,290, n (%)	Agree/strongly agree n=524, n (%)	Odds ratio (95% CI) for holding a stigmatising attitude	Adjusted odds ratio (95% CI) for holding a stigmatising attitude
Worry	Worry	Not at all/not very/somewhat worried	1,101 (77.7)	316 (22.3)	Reference	Reference
		Very/extremely worried	181 (46.8)	206 (53.2)	3.97 (3.13 to 5.02)*	3.69 (2.86 to 4.75)*
Perceived risk	To oneself	5-point Likert-type (1=no risk at all, 5=major risk)	N=1,268, M=2.3, SD=0.9	N=514, M=2.8, SD=1.2	1.65 (1.49 to 1.83)*	1.56 (1.40 to 1.74)*
	To people in the UK	5-point Likert-type (1=no risk at all, 5=major risk)	N=1,277, M=2.8, SD=0.9	N=518, M=3.4, SD=1.1	1.94 (1.74 to 2.17)*	1.86 (1.66 to 2.09)*
	Severity of coronavirus (self)	5-point Likert (1=strongly disagree, 5=strongly agree)	N=1,205, M=2.6, SD=1.1	N=492, M=4.2, SD=0.9	1.72 (1.54 to 1.93)*	1.75 (1.55 to 1.98)*
Knowledge	Knowledge	Range 6 to 29	N=1,290, M=20.1, SD=3.4	N=524, M=18.0, SD=4.6	0.86 (0.84 to 0.89)*	0.87 (0.84 to 0.89)*
Information	Amount heard	4-point Likert-type (1=have not seen or heard anything, 4=seen or heard a lot)	N=1,286, M=3.3, SD=0.7	N=523, M=3.4, SD=0.7	1.04 (0.90 to 1.20)	1.01 (0.87 to 1.18)
	Information source – official sources	No	1,024 (72.7)	384 (27.3)	Reference	Reference
		Yes	266 (65.5)	140 (34.5)	1.40 (1.11 to 1.78)*	1.33 (1.03 to 1.71)*
	Information source – mainstream media	No	119 (61.3)	75 (38.7)	Reference	Reference
		Yes	1,171 (72.3)	449 (27.7)	0.61 (0.45 to 0.83)*	0.59 (0.42 to 0.83)*
	Information source – unofficial sources	No	828 (71.7)	327 (28.3)	Reference	Reference
		Yes	462 (70.1)	197 (29.9)	1.08 (0.87 to 1.33)	0.87 (0.68 to 1.11)
	Advice on protection	No	454 (71.2)	184 (28.8)	Reference	Reference
Yes		836 (71.1)	340 (28.9)	1.00 (0.81 to 1.24)	1.00 (0.80 to 1.25)	
Recommendations to “Catch it, Bin it, Kill it”	No	568 (71.4)	227 (28.6)	Reference	Reference	
	Yes	722 (70.9)	297 (29.1)	1.03 (0.84 to 1.26)	1.06 (0.85 to 1.31)	
Government response	Satisfaction with government response	Range 3 (lowest) to 15 (highest)	N=1,132, M=10.7, SD=2.4	N=466, M=11.0, SD=2.5	1.05 (1.00 to 1.10)*	1.08 (1.03 to 1.13)*
	Credibility of government	Range 4 (lowest) to 20 (highest)	N=1,000, M=12.8, SD=2.3	N=419, M=13.7, SD=3.0	1.16 (1.10 to 1.21)*	1.17 (1.11 to 1.23)*

*p≤.05