



C19 National Foresight Group: Intelligence Briefing Paper 3

Returning to Schools, Adherence to Guidance and Compliance with Lockdown Measures

28/05/2020

Paper prepared by Dr Sally Andrews, Stacey Stewart, Adam Potter, Stephanie Blanco, edited and synthesised by Dr Rowena Hill

This briefing synthesizes data with systematic findings from across academic subjects. These data contribute to our existing knowledge on who is mostly likely to be experiencing adversity in our communities. To start to build a (provisional) picture about who is likely to be most affected by Covid-19 and the impacts from measures we had to implement.

Contents

Context.....	1
Returning to School.....	1
Adherence to Guidance	3
Academic Synthesis: Compliance with Lockdown Measures	11
Adherence to Covid-19 Management and Containment Behaviours.....	12
Factors that lead to less compliance with containment/distancing measures: A lack of understanding	12
Open to interpretation	12
The impact personality/boredom traits have on following measures	13
Impact of clear communication	14
Local Partnership Information Sharing	14
Factors Influencing Engagement and Success:.....	14

Context

The National Foresight Group should soon be able to start using the data trends and varying data sources, with existing evidence bases of vulnerabilities, compound to effect groups. Using data in this way, we could start to build existing and emerging risk profiles from Covid-19.

The bank holiday has delayed some of the usual data releases we use, so we were expecting some more data analysis but the data simply has not been released as yet. We will incorporate it in to our work next week and look to see how we can sensibly analyse and present the data appropriately given two data points next week.

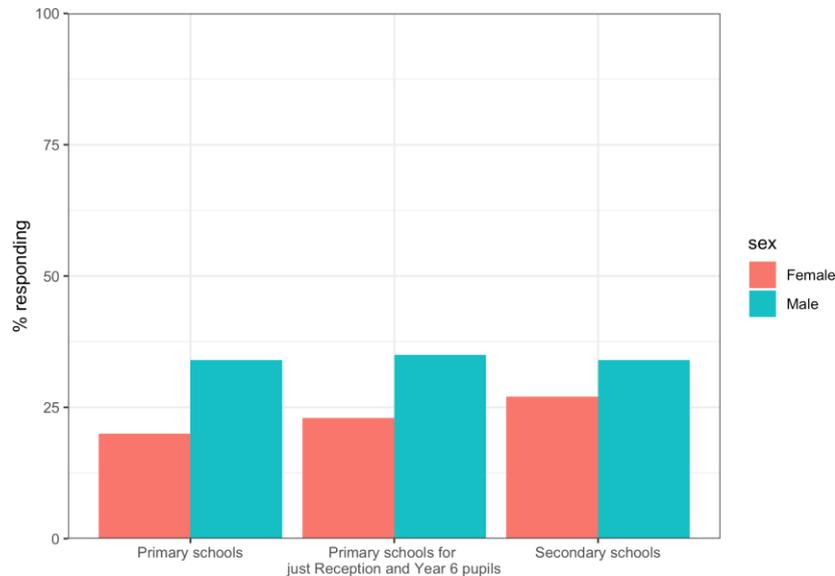
Returning to School

Given that one of the upcoming big social changes is pupils returning to school, we thought it sensible to provide an overview of the data relating to this.

- **Please note**, we use the term ‘Schools Reopening’ here to mean ‘Schools Accepting More Pupils’ as we are aware that schools did not ‘close’. However, it is a term of reference used widely in the public narrative. We use this shorthand and apologise in advance to those teachers and staff who have continued to work in schools supporting children of keyworkers and those children most vulnerable

throughout the implementation of lockdown measures.

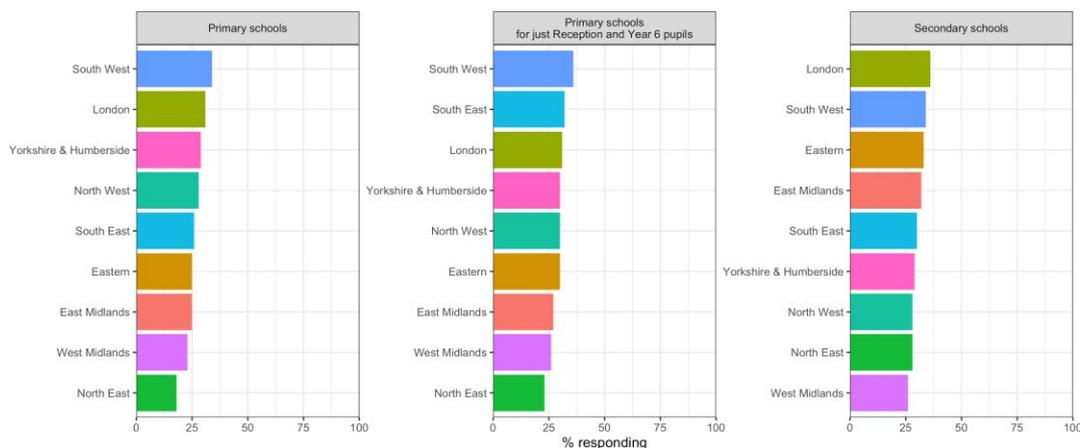
Figure 1: Schools Reopening



This data is generated from a survey completed by JL partners (<https://www.jlpartners.co.uk>), who previously worked in 10 Downing Street under Conservative government. Their polling methods are not transparent, but demographic data in the survey show a representative spread across British society, and having checked the questions posed, we conclude they are fit for purpose for giving a general barometer of the national school picture (in that the question set is neither markedly leading nor politically positioned).

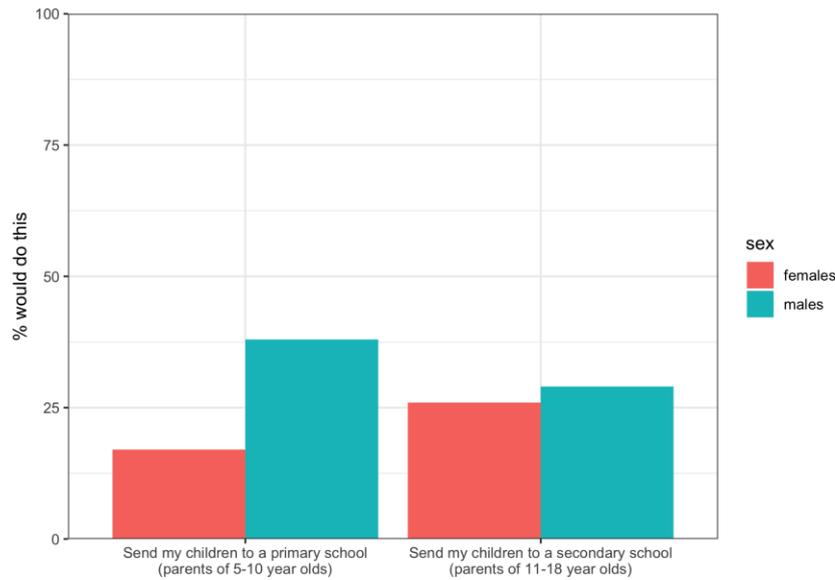
The survey was completed between the 20th-22nd May and sought to gauge public mood over the reopening of schools. Of the overall population, most do not think that schools should reopen soon (only ~25% of people), although more males than females think that schools should reopen. We hoped to triangulate this with YouGov data, but at the point of sharing this document, that data had not been released. We will however carry this forward to next week to do the same analysis and cross-referencing next week to monitor the public mood on this.

Figure 2: Regional Comparison of Public Mood of Sending Children Back to School



There is little regional variation in these views, though there is some evidence of slightly greater support for children to return to school in southern regions of England.

Figure 3: Parental Gender Comparison Sending Children Back to School



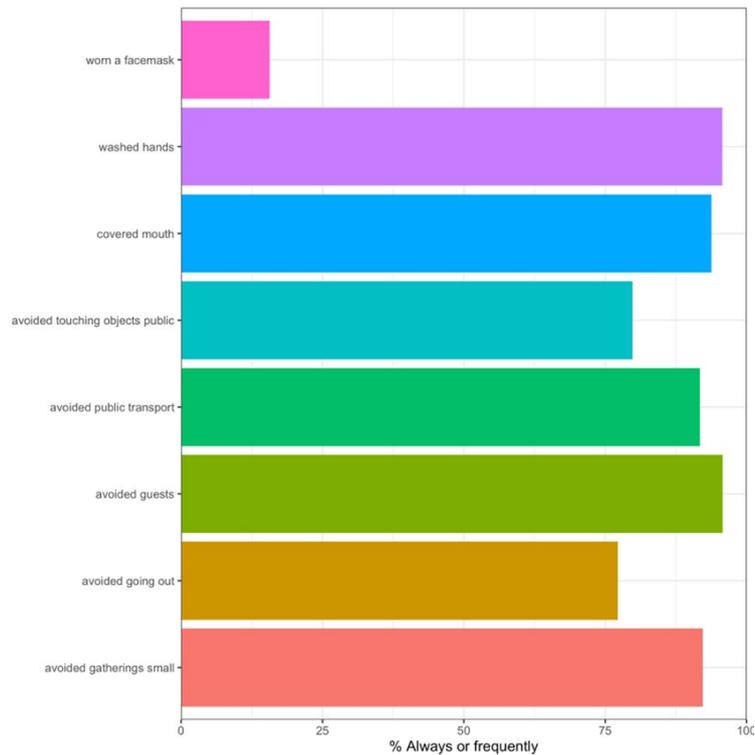
When parents were asked if it became possible to send children to school, whether they would send them, parent's responses maintained that they would not send their children to school. Again, there is a clear disparity between mothers and fathers for primary aged children, with fathers of primary aged children more likely to send children to school than mothers. However, there is a consistent consensus between mothers and fathers for secondary school children to return to school, although still only 25% of parents report that they would send their child to school should they reopen to more pupils.

This may reflect parental concern around viral load, and the safety of returning to schools. The impact this may have on the perceived risk for other family members. This could also reflect parental apprehension concerning shifts in routine.

Adherence to Guidance

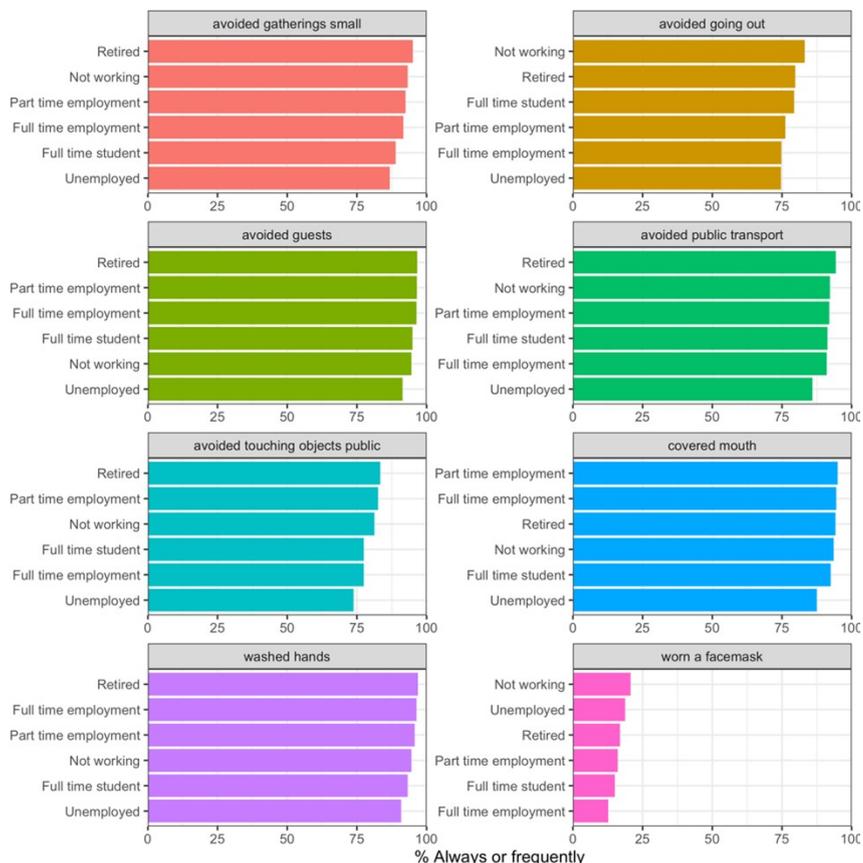
The following data are from the UCL / YouGov Covid Behaviour Tracker (coviddatahub.com). This is an ongoing survey which began on 1st April 2020, and has, to date, recruited >7000 participants. The most recent survey was completed on 18th May 2020. These data cover the whole of the UK, including devolved nations. There are no clear changes over time, and so these behaviours are presented as an aggregate of the time period between 1st April 2020 and 18th May 2020. This means that the majority of the data were collected prior to the most recent governmental announcements on easing of restrictions (England) and maintenance of restrictions (NI, Scotland, and Wales).

Figure 4: All Behaviours



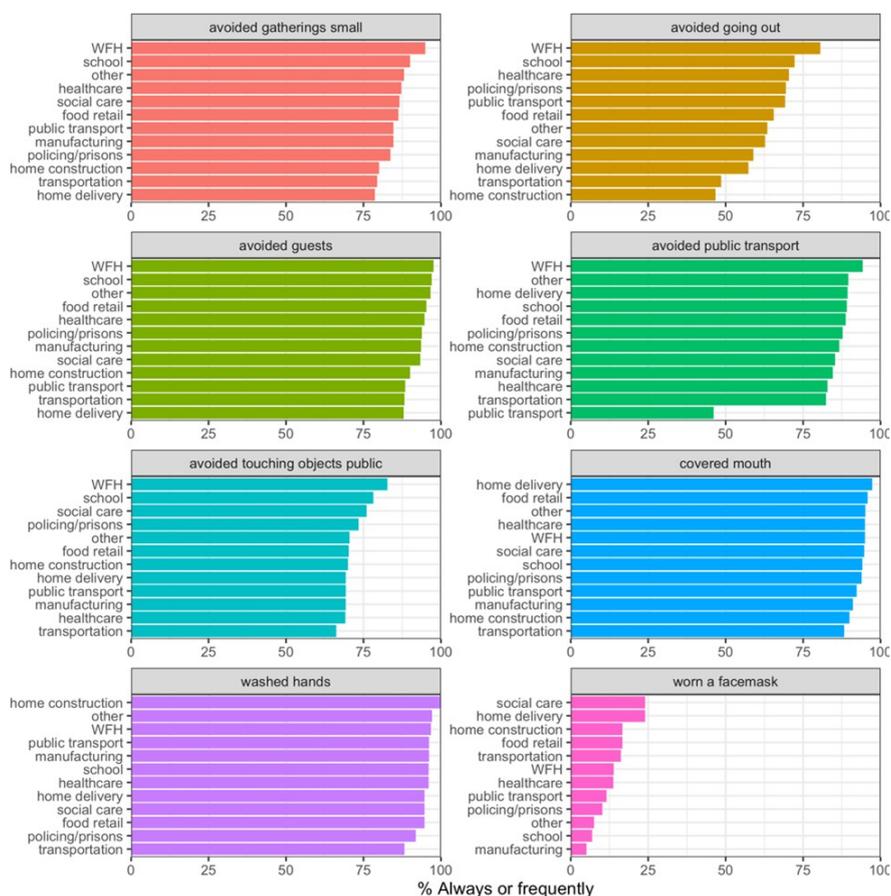
People are largely reporting adhering to the lockdown guidance. Very few people overall are wearing facemasks (~20%). While most people are avoiding physically proximate behaviours, there is a small minority who are less likely to avoid these behaviours. For example, 10% of people have not avoided small social gatherings (up to 3 people from outside the household).

Figure 5: Adherence by Employment Status



The unemployed are least likely to engage in physical distancing behaviours (note that this category is distinct from those who are not working, who may be furloughed or not economically active). However, unemployed people and those not working are most likely to wear facemasks frequently. Retired people are most likely to engage in physical distancing behaviours, which may reflect ongoing recognition for the increased risk to older adults.

Figure 6: Adherence by Employment Type



People who are working from home are most likely to engage frequently in physical distancing behaviours. This is separate to the contact that those working outside the home would be expected to have as part of their employment, as it includes having guests to one’s home, attending social gatherings, and going out generally. Those in social care and home delivery are most likely to frequently wear a facemask (~25% of people), while less than 10% of people working in schools wear facemasks.

These data show the relative engagement in behaviours by those in employment, who are working from home or working outside the home. Notably, those working outside the home avoid physical proximity less than those working from home. The types of employment listed cover keyworker roles, in addition to non-keyworker roles who continued working outside the home – these are included as “other”.

Notably, these are not simply a result of working outside the home; those working from home are consistently avoiding small social gatherings, having guests to the home, and other avoidance behaviours more than those working outside the home. This may reflect the relative difference in deviation from the norm experienced by people in these positions; that is, if you are going to work, then things are not as different from the norm as they are for those working from home. This may also explain the lower likelihood of engaging in avoidance behaviours of those who are unemployed. With more people now returning to work, this may result in more people deviating from the guidance about physical distancing.

As an alternative or additional explanation for non-working people, it is also pertinent to note that this group are consistently reporting higher levels of loneliness than others. Their engagement in physically proximate behaviours may be an indicator of addressing loneliness, indicated in the figure below (figure 7).

Figure 7: Mood Overtime by Employment Type

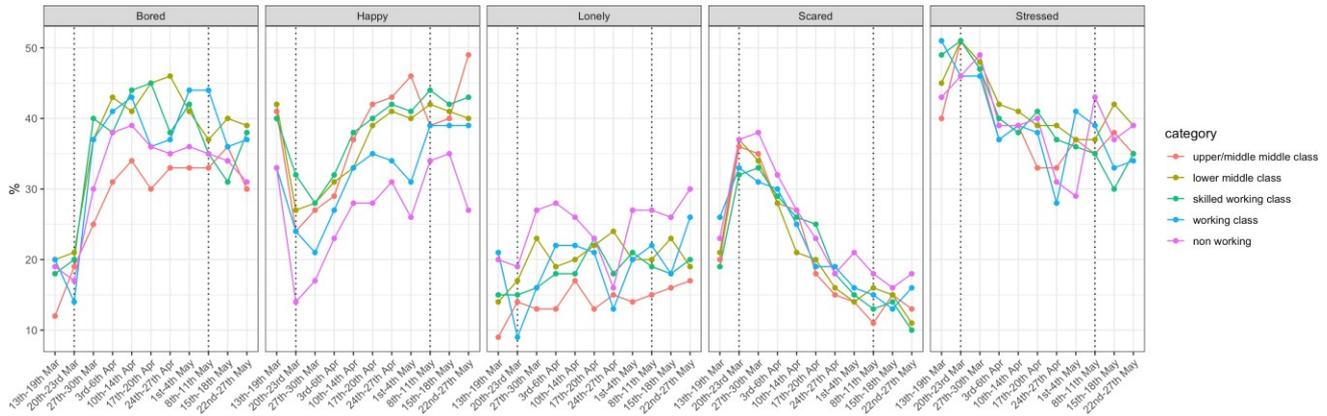
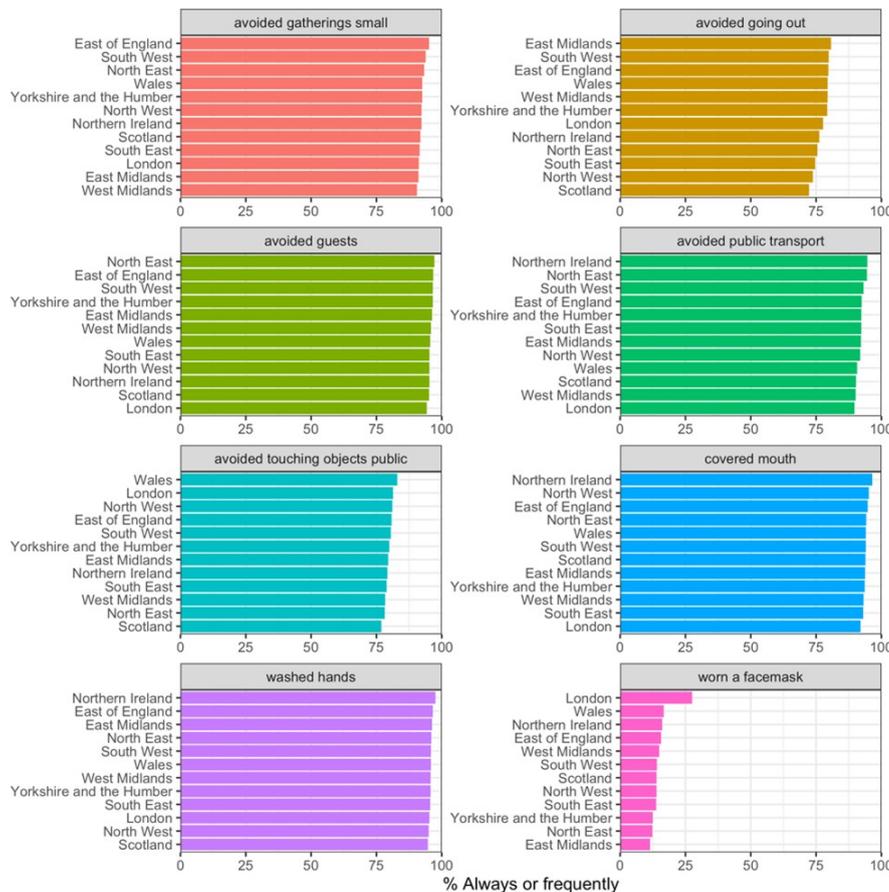


Figure 8: Adherence by Region



Londoners are most likely to wear a facemask when out and about. This might be capturing a behaviour reflecting the advice regarding densely packed areas or mass transit. The increased use by Londoners may indicate a limited ability to, or concern about, the limited ability to physically distance in enclosed spaces.

Londoners are slightly less likely to frequently or always have guests, although this is not a large deviation from other regions. There are no other clear consistent differences in approaches to physical distancing or hygiene behaviours between UK regions.

Interestingly, NI, Scotland and Wales, who continue to have more stringent restrictions, are not reporting different/higher patterns of adherence than England (see Figure 8), although note that these data are aggregated since 1st April. We will continue to monitor avoidance and hygiene behaviours over time, to identify any regional deviations that may emerge.

Figure 8: Adherence by Region: Devolved Nations

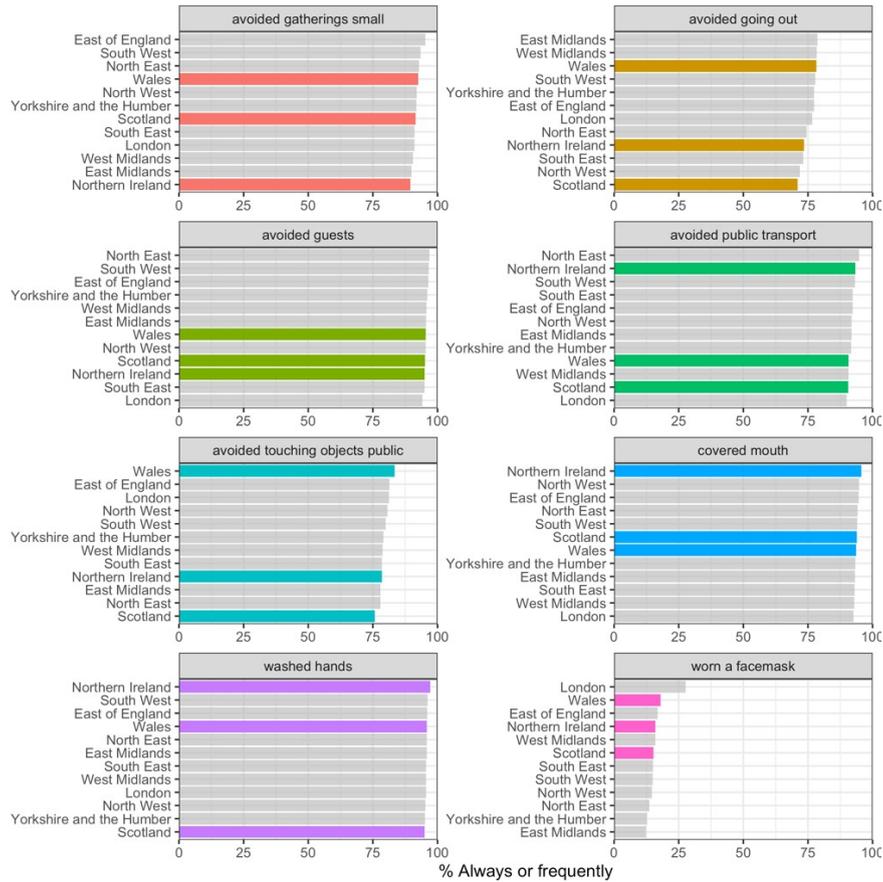
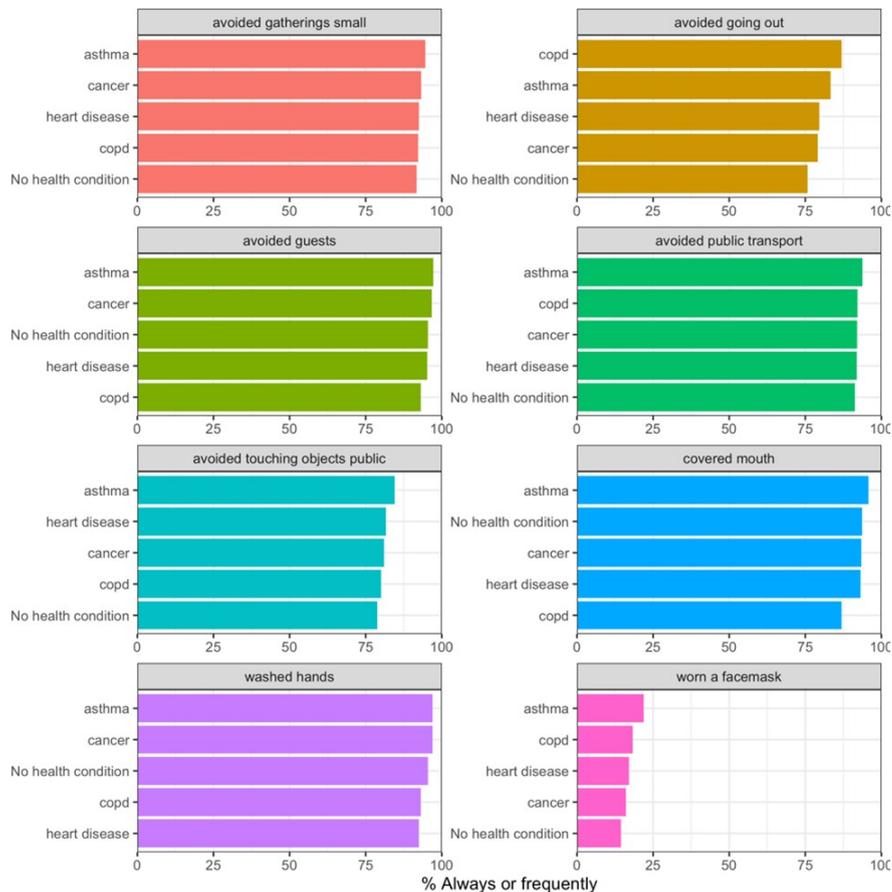


Figure 9: Health

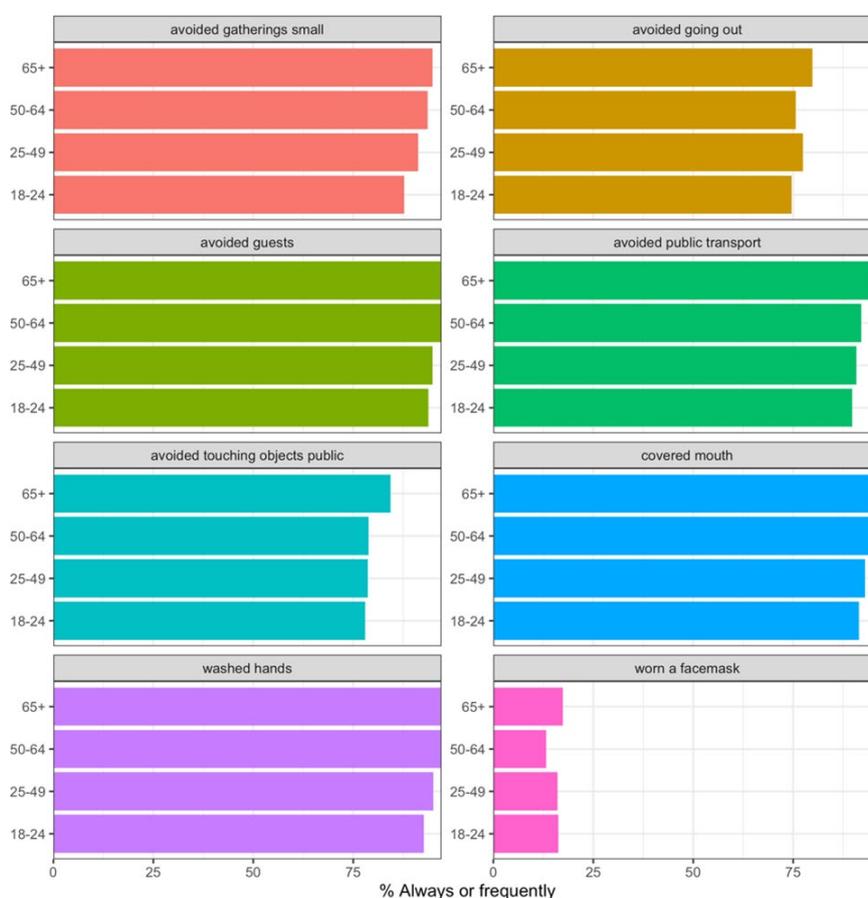




If you remember for a few weeks the mood data suggested those with health conditions were experiencing wellbeing concerns and higher levels of loneliness. Following inferences drawn from the ONS data on wellbeing, we examined the adherence behaviours of people with health conditions that are 'high risk' from Covid-19. While people with the four health conditions were slightly more likely to frequently avoid physically proximate behaviours, these were only marginally more so than those without health conditions.

This is possibly something of concern to consider. Although in the context of very high levels of adherence, perhaps with a gradual easing of lockdown measures, it might be important to consider stressing to those who are shielding to continue to do so. Essentially, to reiterate the messaging of health and protective behaviours to high-risk people. For example, sending bespoke communications advising these individuals, i.e. can they relax some behaviours in line with advice to the wider population with the ease of lockdown measures?

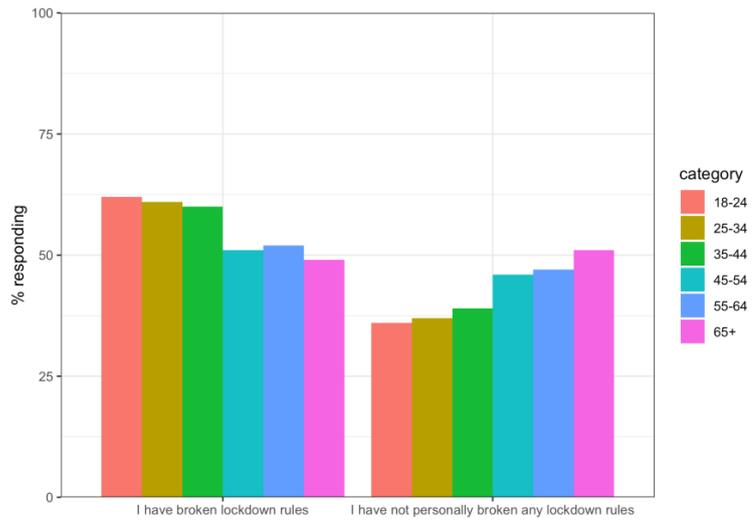
Figure 10: Age



Most people report frequently engaging in physical distancing and hygiene behaviours, though there are small but obvious differences between age groups. Most consistently is that young adults are least likely to adhere to physical distancing behaviours, which may reflect their own perceived risk or vulnerability. This might indicate that people engage with avoidance behaviours for the purposes of protecting themselves, rather than the most vulnerable in society. However, this does contradict some academic findings on a spread of age groups where the prosocial behaviour of protecting others was found to be more motivating than protection of self.

Young adults are also least likely to engage with hygiene behaviours. Older adults are most likely to report engaging in physical distancing behaviours and are most likely to frequently wear a facemask.

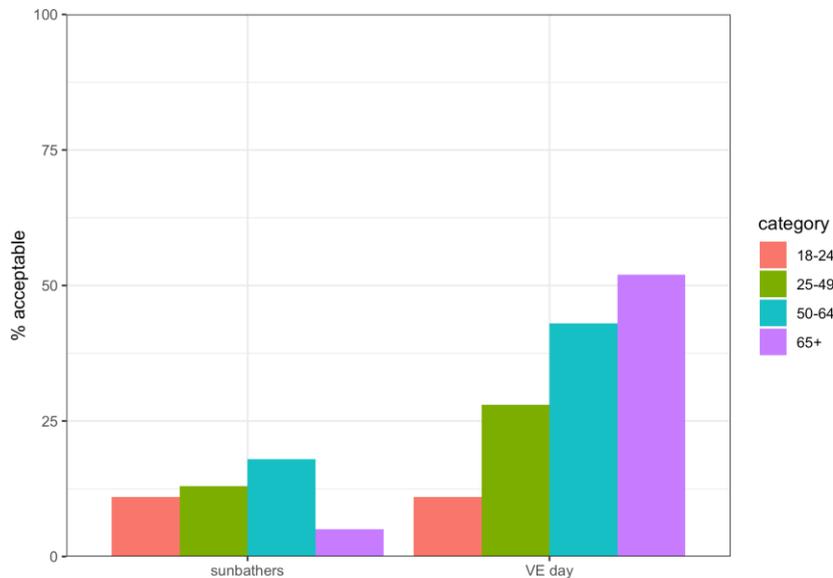
Figure 11: Breaking of Lockdown Guidance



➤ **Please note, this is back to using the JL Partners survey data**

Over 50% of all people have broken lockdown rules, with this increasing with age. There is a marked shift with ~60% 18-44 year old's breaking rules, and ~50% 45+ breaking rules. This represents that people may be making their own decisions about safety. However, this survey did not ask the regularity of people breaking the rules, and so it may be that rules are being broken by many people, but as a 'one off'.

Figure 12: Acceptability



Source: Muckney Police



Source: BBC North East



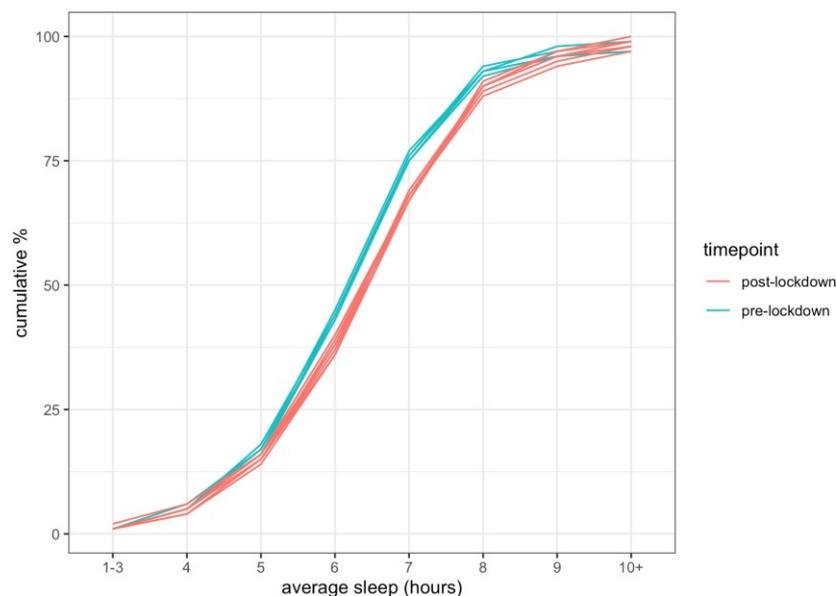
This figure relates to the pictures above this text. The picture on the left is of people sunbathing which we will call 'sunbathers', the picture on the right is of members of the public on VE day participating in a conga which we will call 'conga'. YouGov then asked participants their views of these behaviours.

More people thought the VE day "socially distant" conga celebration was acceptable, than thought that sunbathers in London was acceptable (survey date 18th May). For the acceptability of sunbathers behaviour, all age groups rate the acceptability similarly. There's a clear age-difference in perceived acceptance of the sunbathers for the 65+.

Young adults were similarly likely to judge the photograph of people sunbathing as inappropriate as with other age groups, however they were far more likely to judge the VE day conga as inappropriate than any other age group. This conflicts with their decreased likelihood to avoid physically proximate behaviours. Suggesting that people's perceptions of what is appropriate for others may not be consistent with their own actions.

- Use of many of these sunbathing and green space images have been considered by psychologists and frequently debunked when compared with drone footage of the same space on the same day. The angles of the pictures are frequently selected to create the appearance of a crowd, when in fact there is compliant physical distancing. The threat to wellbeing from decreased access to green spaces and reduction in opportunity to congregate as a socially dispersed group (group experiences are unique, high value wellbeing experiences) outweighs the value of the media using these shots to warn of the likelihood of uncompliant social gatherings.

Figure 13: Positive Impact on Sleep



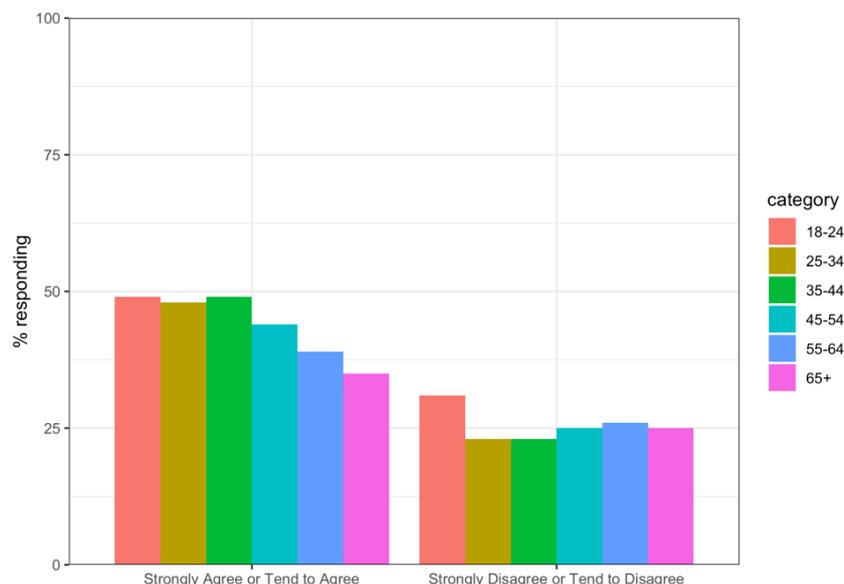
Sleep is still relatively unexplored, especially the benefits of good sleep hygiene/routine on general physical and psychological health. The more we know, the more aspects of our beings and lives is influenced positively by more (and better quality) sleep. This includes the ability to concentrate, general wellbeing, gut microbiology, wider physical health and the list goes on.

This figure shows the cumulative number of hours slept per night for several weeks before and after lockdown. Since lockdown, more people are getting a good night's sleep, with fewer people getting 5 or 6 hours, and more people getting 8 or 9 hours. There is no change in the proportion of people getting more than 10 hours sleeping.

These data may reflect a positive impact of a slower pace of life; with fewer people commuting for work, and less busy lives generally. It is also notable that there is no increase in the proportion of people "oversleeping" (i.e. over 10 hours per night). Oversleeping is a likely coping mechanism for

people who are out of work, and so the evidence that people are not more likely to engage in oversleeping is a positive sign.

Figure 14: Enjoying Being at Home

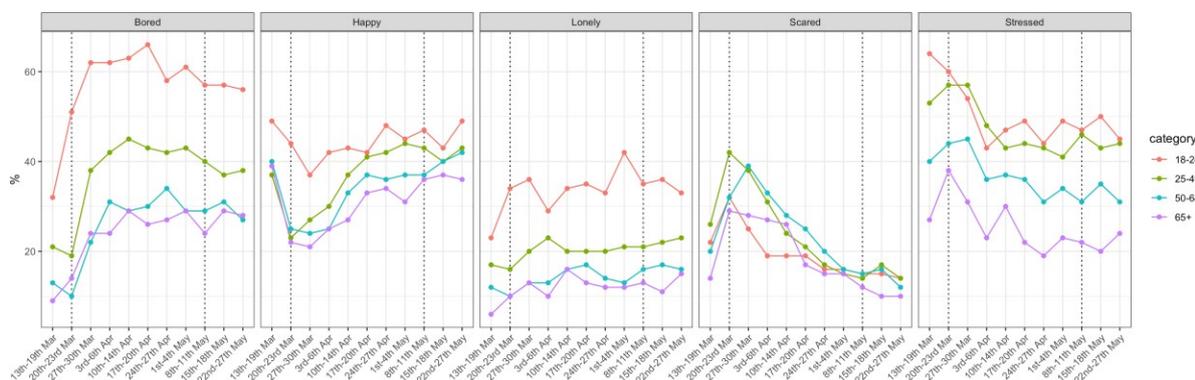


Many people report that they have enjoyed spending more time at home, with approximately half of younger adults (18-44) agreeing, with this gradually reducing in the older age groups. This may reflect older adults not showing as much change in the amount of time they are spending at home.

This may again reflect some advantages to the lockdown, in that people are enjoying the increased amount of time they are spending at home, perhaps another reflection of a slower pace of life.

However, not everyone is enjoying spending more time at home, with approximately 25% of people disagreeing. More younger adults (18-24) than other age groups report actively disagreeing that they are enjoying being at home more, which corroborates with the consistently increased boredom and loneliness that people in this age group continue to experience (see Figure 15).

Figure 14: Increased boredom and loneliness in 18-24 year olds



Academic Synthesis: Compliance with Lockdown Measures

(gathered from systematic literature reviews, rapid reviews, webpages, academic articles, pre-prints,



academic expertise)

N.B. This is not a literature review, but a review of the broad area (balanced with C19 specific) to see what topics lie within the area to inform future work. Predominantly based on systematic literature reviews and rapid reviews. This is to indicate the size of the literature review should we wish to commission one. Carried out by Rosie Daly, Stacey Stewart with revisions and edits by Dr Rowena Hill, NTU. Please contact us if you require a list of sources consulted to develop your own literature review.

Please note, ≡ denotes where a smaller number of studies/theory have been able to contribute to the inferences so caution should be taken.

In order to inform the data findings exploring **returning to school**, please see our academic synthesis from last week (21.05.2020).

In order to inform and compliment the data findings exploring adherence to Covid-19 management behaviours please see the summary of academic literature and commentary informing on **adherence behaviours and containment**. Please note – we believe SAGE and subgroups have completed further work on this.

In order to compliment the proposal of the **local partnership sharing** informing containment of Covid- 19 resurgence, please see the summary of academic literature and commentary informing this area.

Adherence to Covid-19 Management and Containment Behaviours

Human response and behaviour to pandemic restrictions being lifted and/or re-instated has been completed following previous experiences of pandemics. There is lots of advice on containment and reviews of what other countries are doing. Behaviour of individuals is affected by a range of factors including previous experience, personality traits (boredom, extroversion, conscientiousness etc), level of information given, perception of risk and confirmation of risk within their own personal networks. This document compiles the growing/developing understanding of how an **individual** makes choices, and what influences these choices, during a pandemic.

Factors that lead to less compliance with containment/distancing: A lack of understanding

Studies suggest that people with less education had incomplete knowledge about influenza and they were less willing to comply with isolating at home. This requires communication about Covid-19 to be more available, accessible and shared in reliable ways so that the majority of the population can comply with the guidance in place. In other words, simple, straight forward and accessible guidance is required.

Open to interpretation

Discussion with own networks

Some studies suggest that there are typically two behavioural responses; self-protective actions, and individuals keeping routine ways of behaving. Information about risks informs people about potential threats, but what happens after this; their availability of self-protective actions; their reaction and how they process the situation; is highly social and complex. Typically there are a number of sequential stages; upon receiving the information, individuals interpret the message and formulate their own understanding on whether the risk communication is real; they then seek additional information from their personal contacts to verify their understanding, which helps them define their own situation and whether they are personally endangered. People learn, build knowledge and experience from relating ideas to each other to form a complex network that shapes how they make choices. The literature suggests that being in a pandemic outbreak is no different. This means that people's responses are behavioural outcomes of their reaction process, influenced by the choices they make and the interactions they have with others as a result of



processing information.

If individuals do not interpret the information received as a warning message of risk, or if they do not believe in the risk, then they would ignore it and continue as they choose; this also occurs if the risk cannot be confirmed through their personal contacts, or if they do not consider themselves as targets of the risk. This is relevant for communicating to the younger age groups, as messaging has typically been that they are less susceptible.

Less risk

≡ Indicative findings with those who think they have had C19 have concluded that those people are less likely to engage in social distancing measures, compared to those who think they have not had it. This is because they believe they have had some immunity to COVID-19 so they report less adherence to social distancing measures and they are less worried about COVID-19. They are also less likely to keep pace with the common symptoms of COVID-19. There are approximate measures that the number of people in the UK who think they have already had C19 is *double* the current prevalence estimates. People who think they have already had C19 may therefore contribute to the transmission of the virus through non-adherence to distancing measures. Clear communication to this group is needed to explain why protective measures continue to be important to encourage sustained adherence.

≡ Those studies on Covid-19 which aim to understand why the general public might be resistant to health communications, have found that they were not resistant to public health communications. Instead they interpret and implement them differently and if people did not see themselves at risk, they did not consider that they were putting others at risk.

The impact personality/boredom traits have on following measures

≡ Studies exploring why some people stay home but others do not have found boredom is a factor and this affects compliance with containment measures. This is explained as the more often you can do something (watch TV) the less attractive it becomes, and in such circumstances other options such as seeing friends become more attractive. If the first option (TV) diminishes in value, people may undertake potentially detrimental alternative activities. Compounding this, is that people differ in boredom proneness; males have a higher tendency than females to get bored, and age is negatively associated with boredom proneness.

Those more prone to boredom are associated with lower self-reported adherence to social distancing and a higher likelihood of having contracted C19. This association between boredom and adherence is mediated by an individual's perception of difficulty to comply with measures; those with higher boredom proneness perceived social distancing as difficult and so were less likely to practice it.

Younger male adults show the lowest compliance with containment measures, they tend to have high boredom proneness and more pronounced negative consequence of low self-control. As this group are also likely to be carriers of C19, interventions should be tailored to combat boredom.

Information overload

Individual-level intentions of self-isolating are affected by higher frequency of social media use which contributes to information overload. Messaging about reducing frequency of news intake and social media use should continue.

Positive behaviours

Agreeing with the containment strategy and seeing positive aspects of the crisis are important factors in mitigating stress and increasing adherence. We saw in some of the data analysis a few weeks ago that academic work was picking up a need to hear evidence-based success stories relating to Covid-

19. Feeling that containment measures are not sufficient or are too extreme is associated with



more stress. Interventions that are taken proportionately to future resurgence at local levels should have a greater adherence by the public. Achieving a balance of what that proportionality might look like, could be informed by public consultation groups and communications informed by public mood and sentiment. Demonstrating the impact of collective action, and the large quality and quantity of academic theoretical work which sits behind this, could be used to inform messaging. An example of this is international approaches where the public have adopted messaging inferring a 'no mask = no going outside' which uses social norms to embed behaviour.

Impact of clear communication

Public-spirited behaviour is most likely when there is clear and frequent communication, strong group identity, and social disapproval for those who do not comply. This has implications for language, leadership and day-to-day social interaction.

Evidence links crisis communication to behaviour change. As well as speed, honesty and credibility, effective communication involves empathy and promoting useful individual actions and decisions. Using multiple platforms and tailoring message to subgroups are beneficial too.

Risk perceptions are easily biased. Highlighting single cases or using emotive language will increase bias. Risk is probably best communicated through numbers, with ranges to describe uncertainty, emphasising that numbers in the middle are more likely. Stating a maximum, e.g. "up to X thousand", will bias public perception of risk.

Local Partnership Information Sharing

Since single and dependent organisations within a government cannot deal with and solve complex problems alone, managing public services increasingly relies on multiple networks of interdependent organisations.

Successful information-sharing projects produce several benefits, such as increased productivity, improved decision making, reduced costs, increased revenues, integrated services, enhanced professional networks and better control and coordination of the organization.

Factors Influencing Engagement and Success:

Leadership

Effective leadership is a key component of the engagement in and success of information sharing between local government agencies. Formally assigned project managers increases the efficiency of the information sharing. Acting as a leader for collaborative work such as inter-organisational information sharing is highly resource consuming and requires significant personal attention. Such attention and efforts are often lacking in the members of a collaborative, particularly public managers with other big full time jobs. Therefore, a formally assigned project manager is a key actor to initiate and sustain the inter-organisational information sharing collaboration amidst a complex environment.

However, appropriate leadership style is also important: blockers of information sharing include control- oriented management and a lack of agreement on the goals of information sharing. Leaders who reward and promote information sharing both within and across organizations, and acknowledge the establishment of shared goals tend to facilitate successful information sharing.

Central Government and Policy

The central government is important in facilitating and encouraging information sharing between local government agencies. Central government has a key role to encourage and persuade local government agencies to participate in information sharing within and among local authorities by providing them with suitable funding, improving their IT infrastructure and enhancing the level of IT skills and knowledge among the employees.



Policy and legal frameworks are important determinants of successful information sharing between local government agencies. Clear mandates such as official policies that gives legitimate grounds for different sectors to collaborate can facilitate information sharing and mandates, when these come from higher levels of government this increases local government engagement in information sharing. One of the main enablers of successful information sharing in the public sector is establishing a legal and formal framework which can guide the information integration and sharing activities such as interagency agreements and common legislation for the authorities.

Political and legal issues are also barriers to information-sharing including: restrictive laws and regulations (e.g., civil service regulations) that constrain sharing; lack of executive and legislative support for an information-sharing; and the requirement to assure confidentiality of important data and information.

Trust

Trust between collaborating agencies is important for the success of information sharing. Building trusted social networks can be a fundamental stage of exchanging information. Developing ongoing trusted relationships based on mutual understanding of needs and concerns and shared responsibility enables sharing of intelligence, and an increase in trust is associated with an enhancement of the accuracy and efficiency of inter-organisational information sharing.

Professional identities and organisational cultures may be barriers to trust and risk taking in forming new relationships. These structures separate and often isolate practice domains, knowledge resources, and routines. The lines of authority, formal reporting relationships, and policy frameworks usually do not encourage and may even prohibit many forms of information and knowledge sharing, including cross-boundary collaboration.

Technology Systems

The technological systems used for information sharing are a vital determinant of the engagement in and success of information sharing between local government agencies. Technical infrastructure is associated with the success of inter-organisational information sharing and those systems that minimise changes to internal processes and information flow increase success. Effective tools to ease the management of the shared public information include information inventory, technical standards and common data definition.

Perceived hardware and software complexity and incompatibilities of system components are often cited barriers to IT implementation. Systems and processes that cross traditional organisation boundaries where information can be securely and efficiently shared between partners is associated with success.

Individual Factors

Individual factors also influence whether an individual employee will engage successfully with information sharing initiatives. General administrative experience, prior information sharing project experience and pre-existing relationships all increased individual employee's expectations of the benefits of information sharing.

This could inform the desired experience of those people identified to fill key roles facilitating the sharing of intelligence in partnerships.

END.

Contact us: If you have any questions about this output please email: c19foresight@ntu.ac.uk

Corresponding editing author Dr Rowena Hill is seconded full time to provide academic representation on the C19 National Foresight Group, and works at Nottingham Trent University.