Covid-19 and Future Threats:
A Law Enforcement Delphi Study

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DAWES CENTRE
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Disclaimer

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Executive Summary

On 30 January 2020 the World Health Organisation declared the outbreak of Covid-19 a “Public Health Emergency of International concern” which posed an unprecedented threat. Chief police officers recognised that quick decisions needed to be taken, working with partners to ensure public safety and to help contain the spread of the virus. The National Police Chiefs’ Council (NPCC) assumed the lead for the national policing response, using an enhanced cross portfolio command structure named Operation Talla.

The work described in this report was commissioned by the NPCC and conducted by the Dawes Centre for Future Crime at UCL, in consultation with Op Talla, to understand the effects of the pandemic on the policing response and future impacts.

Here, we report the findings of the (Delphi) study, the aims of which were to elicit expert opinion from a wide range of UK law enforcement agency stakeholders (LEAs) to understand their perspectives about the police response to the pandemic, how the pandemic affected policing, what worked well and should continue, how the pandemic affected crime, and how crime might change as a consequence of other future drivers of changes (e.g. climate change, Brexit and technological change).

The key aims of the study were to:

- Systematically assess learned experiences of policing during the disruption to inform future policy
- Contribute towards LEAs readiness to police future disruptions and operate under “normal” conditions
- Anticipate future crime trends
- Inform policing strategy and policy

The main report covers all of the themes identified. Here, however, we discuss only those themes for which there was a clear consensus that motivated one or more recommendations.

In terms of **community engagement**, respondents felt that the 4Es (engage, explain, encourage, enforce) approach had worked well, but that reduced opportunities for face-to-face contact had negatively affected community engagement, particularly with the elderly and those without internet access. While respondents agreed that a return to face-to-face engagement would be important, there was also a very clear consensus about the value of the continued use of online platforms for the reporting of crime, the taking of statements and for interactions with partner organisations. The use of online meeting platforms in particular was perceived as transformative.

There was a clear consensus that the pandemic had impacted negatively on **staff wellbeing** in a variety of ways. These included the impact of increased workloads due to abstractions and the re-deployment of staff, fears for personal safety, the need to enforce public health policy, and having to simultaneously deal with protests as well as the pandemic quickly and consistently. Respondents also agreed that the timing of, and lack of clarity in, government guidance created difficulties in communicating with the public which undermined the police’s ability to enforce the rules quickly and consistently and also impacted on staff wellbeing. Remote working, on the other hand, was generally perceived to have improved staff quality of life, although there was acknowledgement that for some, lone working would have had negative effects, indicating the need for tailored solutions that are sensitive to individual’s needs going forwards.

In terms of the key **activities that there should be investment in**, respondents reached a clear consensus about the need for continued investment in IT to improve collaborative working, for the need to increase provision in mental health support for staff and officers, the need for organisational adaptation to balance in-person and remote working, and the need for Horizon Scanning, strategic foresight and organisational learning and preparedness.

Turning to the other drivers considered, respondents identified a variety of ways in which policing might be affected. For **climate change**, they agreed that there would be an increase in protests, the theft of high-value technologies (e.g. electric vehicle components), and that challenges would be encountered in policing changing environments. For **Brexit**, respondents agreed that cybercrime, fraud, hate crime, human trafficking, and the smuggling and counterfeiting of goods would increase. With respect to **technology and online crime**, respondents reached a consensus that fraud, cyberstalking and harassment, online child sex abuse, identity theft, cyber terrorism and malicious influence campaigns would all increase in the future. Consensus was also reached that new technologies such as Unmanned Aerial Vehicles (e.g. drones), Artificial Intelligence and 3D printing would create problems that the police would have to deal with. In terms of how policing should respond, two common themes were the need for investment in, and the coordination of, futures and foresight activity, and the need to prioritise the prevention and investigation of cybercrime.

These findings and the additional insights discussed in the report motivated twelve key recommendations and 8 sub-recommendations, which are now summarised.

Methodology

The Delphi method is a future scenario forecasting tool used to elicit opinion from experts on a particular topic which typically encompasses two or more rounds. The first round serves as a "systematic brainstorming" exercise during which experts are surveyed (individually) using a set of open questions about the topics of interest. In the second round, experts are sent a summary of the findings from the first round and asked to indicate which responses they agree with and the strength of their agreement. The second round therefore serves to identify where consensus or disagreements exists. Where consensus exists, this can be used to identify priorities for future action. Participants were recruited from across UK police forces and LEA stakeholders, with invitees being those who had specifically been involved in the Covid-19 response.

Two blocks of questions were used. The first focused on the policing of the Covid-19 pandemic and participants were asked about: *Community Engagement, Communications, Staff Wellbeing, Policing Demand, Covid-19 Recovery* and *"other"* issues. The second block focused on five drivers (*Climate Change, Social and Political Change, Technological Change, Online Crime,* and *Brexit*) of future change that may affect policing and crime over the next 10 years, and which stakeholders would need to be involved to address problems identified.

Answers provided in Round 1 were analysed to identify the themes that emerged, and in Round 2, participants were asked to indicate the extent to which they (dis)agreed with them. For some themes, a clear consensus of opinion emerged, but for others respondents were divided or most disagreed with the theme identified.

Recommendation Summary

The recommendations presented, which were independently formulated by the Dawes Centre for Future Crime at UCL, are motivated by the findings from the research conducted. As such, they do not necessarily reflect NPCC/NPoCC thinking.

In relation to Communication and Technology

Recommendation 1 – Police forces should continue to use communication platforms and develop/update digital transformation strategies that consider the diverse needs of the workforce, the security of the platforms used (security settings should be enabled by default), and other organisational goals (e.g., carbon footprint was highlighted by respondents).

Recommendation 2 – NPCC should coordinate, and police forces to adopt, a more strategic approach to the police use of social media when communicating with the public, including what to include in posts and what to prioritise and when (for a discussion of police use of Twitter, see Nikolovska et al., 2021).

Recommendation 2.1 – UKRI or other organisations should fund or encourage applications for research to develop the evidence base on the effective use of social media by the police, in times of crisis and business as usual.

In relation to Community Engagement

Recommendation 3 - The NPCC and College of Policing (as leads for professional practice) should seek to understand (or commission research to understand) what can be learned from the 4Es approach and how this might be transferred to other areas of policing, including future disruptions and current areas of operational policing.

Recommendation 3.1 - Given the applicability of such approaches (4Es) to a wide range of scenarios, and their potential beneficial impact on perceptions of police legitimacy, we recommend that the College of Policing review police training requirements to ensure that all officers receive sufficient training in these (and other) forms of community engagement.

Recommendation 4 – The police should consider how to most effectively communicate with those who are not regular internet users, particularly under conditions like those experienced during the pandemic (but not necessarily caused by a pandemic). One option, that respondents suggested and agreed would be useful, is the use of “pop-up” hubs at places where people naturally congregate, such as supermarkets. Given the public’s general use of supermarkets (and other facilities, e.g., doctors surgeries), exploring other opportunities to work with them would be worth pursuing too.

In relation to Staff Wellbeing

Recommendation 5 – NPCC and College of Policing should capture learning and best practice from other organisations/sectors in terms of managing health and wellbeing following the pandemic that could be applied in a police context (in general and for future disruption in particular) and explore models for delivery.

Recommendation 5.1 – Staff are individuals and for some Covid-19 will have a longer lasting impact on their psychological wellbeing than others. We recommend that police forces review their capacity to provide mental health support for staff, particularly for scenarios of prolonged pressure (including long Covid). This should include managerial and clinical (where applicable) interventions for trauma management.

Recommendation 6 – The NPCC should maintain relationships within the Home Office at a strategic level and ensure timely communications and updates are provided to forces. It is recognised that the process of creating new policies during disruptions is complex (and fast moving) but ongoing relationships with government should seek to improve communication timeliness in response to future crises.

Recommendation 6.1 – The government should consider how the lead department (which will vary by type of crisis) will engage and communicate across other government departments to enable timely and effective consultation and delivery across policing.

Recommendation 7 – Police forces should review agile working (including remote working) policies in terms of how these might impact upon quality of life (and also efficiency).

In relation to Foresight Activity

Recommendation 8 – Police forces should engage in their own foresight activities and draw on the work of others, including the College of Policing, Home Office, the National Crime Agency (NCA), Interpol, Europol, industry, and academia (e.g., Dawes Centre for Future Crime at UCL). The implications of such work and plans to address any threats identified (including impacts on health and wellbeing), or opportunities to exploit, should be explicitly articulated in force management statements and pay attention to the guidance provided in HMICFRS's Annual Assessment of Policing in England and Wales (2022)[1][2].

Recommendation 8.1 – To facilitate Recommendation 8, the College of Policing should review the training provided to police forces in relation to futures and foresight activity to ensure that sufficient training is provided to police staff in terms of what the appropriate techniques are and how to apply them (or commission others to do so).

1 https://www.justiceinspectorates.gov.uk/hmicfrs/publications/state-of-policing-the-annual-assessment-of-policing-in-england-and-wales-2021

Recommendation 8.2 – Home Office, College of Policing and NPCC should explore readiness models in nations that routinely deal with major disruptions and disasters to which the police have to (or should) respond to see what might be learned and applied in a UK context.

Recommendation 8.3 – Home Office, College of Policing and NPCC should work together, ideally appointing an "owner" to coordinate activity foresight at a national level, to ensure that activities are joined up, that learning is cumulative, coordinated, widely communicated and thataction is taken, when necessary. Absent this, future threats may be identified but limited or inadequate action taken to prevent them, which may lead to an increased demand on policing in the future.

In relation to Technology and Online Crime

Recommendation 9 – The NPCC should work in line with the HMICFRS (2022) report to prioritise the prevention and investigation of online offending (including fraud). It will be important to ensure that roles and responsibilities are clear, and that sufficient resourcing (to ensure both capacity and capability) is provided for this growing problem.

Recommendation 10 – The law enforcement community should engage with industry and others, for example, through the police security initiative *Secure by Design*, to anticipate which high value technologies are likely to be targeted by criminals and work to design out the associated threats. This work should be aligned with, rather than duplicating, the foresight activity discussed above (see Recommendations 8 and 8.3). The Police Foundation (2021) have suggested that a new Crime Prevention Agency should be established (see Muir, 2021), and given statutory powers to undertake such work and we endorse this recommendation.

Recommendation 10.1 – Full use should be made of the (existing) Crime and Disorder Act 1998, with community safety partnerships and local authorities ensuring that activity occurs and that this is coordinated.

Recommendation 11 – Those involved in police foresight activities should explicitly work with those outside of the policing community whose futures work might have implications for crime and policing more broadly (e.g., community engagement, and the policing of other community interventions). As per recommendation 8.3, it will be important to ensure that a lead agency is appointed to oversee this work and to ensure that action is taken, where possible.

General Preparedness

Recommendation 12 – On behalf of the policing community, the NPCC should engage with the Home Office and others to monitor developments and if necessary, stand up a national coordinating operation (such as Op Talla) in response to critical and/or emerging threats to policing to support forces at national, regional and local levels.

Acknowledgements

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Background

On 30th January 2020 the World Health Organisation declared the outbreak of Covid-19 a “Public Health Emergency of International Concern” which posed an unprecedented threat. Chief police officers recognised that quick decisions needed to be taken, working with partners to ensure public safety and to help contain the spread of the virus.

The National Police Chiefs’ Council (NPCC) assumed the lead for the national policing response, using an enhanced cross portfolio command structure named Operation Talla. Through collective coordination facilitated by the National Police Coordination Centre (NPoCC), and working with the College of Policing, the NPCC has provided strategic direction, consistency, and guidance to support policing at a national, regional and local level, whilst recognising the operational independence and accountability of Chief Constables[2].

The work described in this report was a collaboration between Op Talla/NPoCC and the Dawes Centre for Future Crime at UCL and it is part of a wider portfolio of projects conducted in relation to Learning, Recovery and Reform undertaken or commissioned by NPoCC. Following a debriefing event by the NPCC/NPoCC across the policing system in April 2021, twenty learning “themes” were identified and have been used to identify the broad priority areas for which more detail was sought in this study.

Introduction

Around two years from the onset of the pandemic, we are moving from *reacting* to *living* with disruption. Crime has been impacted by the pandemic, reducing for some types of offence but increasing for others. There is uncertainty about what will happen next and what the demands for the police and associated stakeholders are likely to be in the coming years. While there are no future facts, understanding how crime might change and what the priorities might be for policing can be investigated in a variety of ways including expert elicitation exercises.

Here, we report the findings of a Delphi study (see below) conducted by the Dawes Centre for Future Crime[2] at UCL in collaboration with Op Talla[3], NPoCC. The aim of the study was to elicit expert opinion from a wide range of UK law enforcement agency stakeholders (LEAs) to understand their perspectives about the police response to the pandemic, how the pandemic affected policing, what worked well and should continue, how the pandemic affected crime, and how crime might change as a consequence of other future changes (not limited to the pandemic). The key aims of the study were to:

- Systematically assess and summarise learned experiences of policing during the disruption
- Contribute towards LEAs readiness to police further disruption or operate under "normal" conditions
- Anticipate future crime trends
- Inform policing strategy and policy

2 The study is led by Prof. Shane Johnson and Dr Manja Nikolovska (Dawes Centre for Future Crime at University College London). The Dawes centre for future crime at University College London identifies emerging crime threats and works to deliver pre-emptive interventions for the benefit of society.

3 As part of the NPCC's coordination of the national policing operation for Covid-19 (Operation Talla), the Recovery, Reform and Learning Programme was established to help assess and understand the learning, risks, opportunities, and impact of Covid-19 on crime and policing to aid ongoing response, as well as to inform options for reform and renewal in the longer term. The Op Talla Recovery, Learning and Reform Programme, now being led by T/Chief Superintendent Sara Crane, is focussed on developing a deeper understanding of the opportunities and longer-term impacts and learning from Covid-19 and consider the implications for future policing.

Methodology

The Delphi method is a future scenario forecasting tool that elicits opinion from experts on a particular topic. It usually encompasses two or more rounds, depending on the aims of the study. Where the aim is to see if consensus exists, and to see how views vary across participants, two rounds will generally be sufficient. Where the aim is to reach absolute consensus on a set of issues, more rounds will typically be necessary. In their review of Delphi studies, Giannarou and Zervas's (2014) found that of the 32 studies considered, 18 employed two rounds. We use two rounds here as our aim was to identify where consensus exists and where views differed.

The first round serves as a "systematic brainstorming" exercise during which experts are surveyed (individually) using a set of open questions concerning the topics of interest. This round identifies the set of issues that concern those who participate, and a qualitative analysis is used to identify the themes that emerge. Compared to alternative approaches such as surveys, one benefit of the Delphi technique is that respondents help to identify which specific issues/question will be the focus of the study. In the second round, experts are sent a summary of the findings from the first round and asked to indicate which responses they agree with and the strength of their agreement. The second round therefore serves to identify where consensus or disagreements exists, where issues raised are only a concern to a minority, and everything in between. Where consensus exists, this can be used to identify priorities for future action, and it is this which is the focus of round 2 of the study.

Systematically identifying where consensus exists in this way was considered important. An alternative approach would have been to draw conclusions and make recommendations based on the qualitative analysis of responses provided in round 1. However, a problem with this is that the emergence of a theme does not show that there is agreement about it (e.g., as round 1 respondents are not asked to nominate ideas that they disagree with there is no opportunity for them to indicate what they thought was unimportant). This can only be established by explicitly asking respondents if they agree or not with an issue raised.

Other approaches, such as focus groups, exist to achieve the same aims as the Delphi method. These can be easier to conduct but are subject to the problem of "group think" and a lack of anonymity can lead to participants falsely agreeing with senior (or respected) members of the group for a variety of reasons, which can distort the true perspectives of the group. The analysis of data collected through interviews or other methods is valuable too, but these approaches do not allow participants to reflect on the responses of others. Moreover, the analysis of the responses can be quite subjective and may not reflect the views of the collective. The Delphi method combines the strengths of the focus group methodology and other approaches by (for example) allowing respondents to share views with each other and to reflect on these. It also addresses the weaknesses of these other methods by allowing respondents to participate anonymously and by allowing them to correct any errors of interpretation.
In the sub-sections that follow, we briefly describe who was surveyed and the methods used in each of the two rounds of the study. Prior to completing the study, the design and methodology was reviewed by the UCL Department for Security and Crime Science's ethics committee and exempted from requiring ethical approval from the UCL ethics committee.

Round 1 Method

For round 1, data were collected in November 2021 using the online survey platform Qualtrics. Participants were sent a link by Op Talla to the survey and either completed it in their own time or at an event organised for this purpose that was held on 24 November 2021. Participants were recruited from across UK police forces (including territorial police forces/special police forces, specialist law enforcement agencies and Government and local authorities) and LEA stakeholders, with invitees being those who had specifically been involved in the Covid-19 response. The first round of the study included 47 experts, which is a good sample for a Delphi study (see, Giannarou & Zervas, 2014). The average number of years of experience in the respective organisations among the experts was 18 years and Table 1 shows the organisations from which respondents came (not all respondents indicated their organisation).

Table 1: Distribution of respondents by organisation in Rounds 1/2

Organisation	No. of participants		No. of
Devon and Cornwall Police	8/3	Greater Manchester Police	1/1
NPCC/NPoCC	5/2	Gwent Police	1/2
Surrey Police	3/3	Hampshire Police	-/1
ACRO Criminal Records Office	2/2	Kent Police	1/1
Avon and Somerset	2/1	Lincolnshire Police	1/-
Metropolitan Police	2/2	Merseyside Police	1/-
NCA	2/1	Ministry of Justice	1/-
South Wales Police	2/1	MoD Police	1/1
Sussex Police	2/-	North Wales Police	1/-
Cambridgeshire Constabulary	1/1	Staffordshire Police	-/1
College of Policing	1/1	Royal Cayman Islands Police	1/1
Cumbria Constabulary	1/1	Royal Gibraltar Police	1/-
Derbyshire Constabulary	-/1	Thames Valley Police	1/1
Dorset Police	-/1	Wiltshire Police	-/2
		Total	**47/40**

Questions Asked in Round 1

The study consisted of two types or blocks of questions. The first focused on the policing of the Covid-19 pandemic. The specific questions asked were informed by a review of the literature and the findings from the previous 10kv event commissioned by Op Talla (see above). In this block, participants were asked to provide up to 5 "free text" answers for questions about the following topics:

Community engagement – we asked how community engagement had changed during the pandemic, for which communities' engagement had been most difficult, and which approaches to community engagement used during the pandemic respondents would like to be continued.

Communications – we asked about communications between stakeholders during the pandemic and what worked well.

Staff wellbeing – we asked what aspects of policing the pandemic had affected staff the most.

Policing demand – we asked what demands on police time were expected to remain high or increase in the next 5 years, including crime types, forms of Anti-Social Behaviour (ASB) or demands on investigative/forensic capabilities.

Covid-19 recovery – we asked participants what the key activities should be in their organization to coordinate its recovery and learning in relation to Covid-19.

Other issues – we asked participants to identify any other issues we did not ask about that they thought were important to policing disruptions.

The second block of questions focused on five drivers (see below) of future change that may affect policing and crime over the next 10 years. In each case, we asked participants how that driver might affect crime in the next ten years, how we might prepare and respond, and which stakeholders should be involved to address the disruptions or impacts that could occur. All participants (N=38) who completed the survey in their own time completed all Covid-19 questions and questions for one of the topics in block 2 (which were randomly allocated). To increase the sample of those who answered questions for block 2, all those who participated in the online event answered questions for all topics covered in block 2, but not the Covid-19 questions. Consequently, we had the following number of respondents for each block of questions:

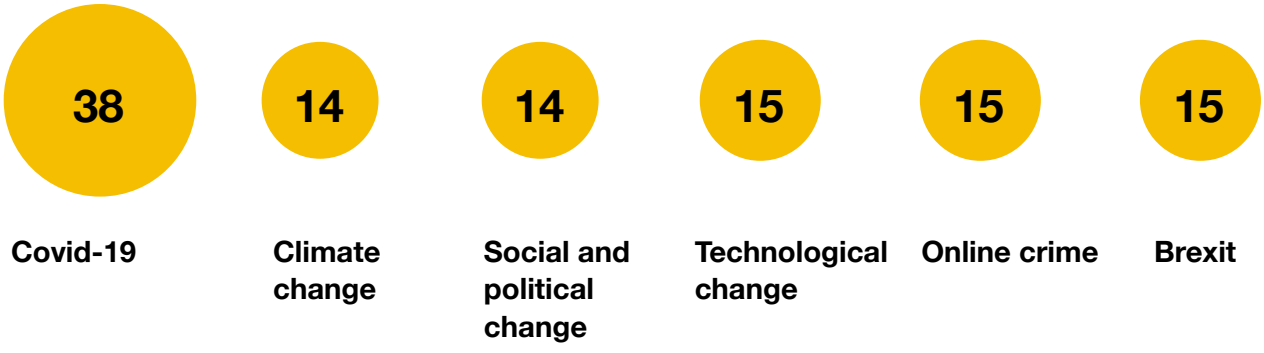


Illustration 1 Number of participants who responded to each block of questions

Round 1 Qualitative Analysis

Naturally, many of the responses provided in round 1 overlapped or related to similar issues. Consequently, all responses were analysed using a thematic analysis (Braun and Clarke, 2006). This is a qualitative method used to identify, analyse and report patterns in open ended textual data such as that collected in round 1. The process involves the researcher(s) qualitatively evaluating each data point (in our case each participant's open-ended answers to each question) and assigning a contextual code to each answer (usually a very short textual description of each open-ended answer). After such contextual codes are assigned, the process is repeated on the initial level contextual codes, by assigning broader contextual codes to identify emerging (major) themes. This process is iterative until saturation of the major themes is reached, and/or no further grouping is possible. As with any form of qualitative analysis, there is some subjectivity to the analysis. To minimise this, the analyses were conducted in an iterative fashion by two researchers and once the themes had been identified, they were discussed amongst the UCL–Op Talla team. Doing so also ensured that the themes used in round 2 were those that could usefully inform Op Talla's work.

Round 2 Method

In round 2, invitations were sent by Op Talla to the same set of respondents who took part in round 1 asking them or a delegate to complete round 2 of the survey. Those who responded completed the round 2 survey on the Qualtrics survey platform. All participants were shown the full set of responses that emerged in round 1 (for all blocks of questions) and were asked to indicate the extent to which they agreed or disagreed with them using a 9-point scale (which ranged from strongly disagree to strongly agree). Where topics identified were inter-related (e.g., if respondents discussed the role of social media for different groups) the topics were presented together but respondents were still asked about the specific issues individually (e.g., the use of social media for the specific groups highlighted).

A total of 141 respondents participated in round 2. As was the case with round 1, as shown in Table 1, typically one or two respondents contributed from each organisation (and not all respondents indicated which organisation they worked for). In some cases, respondents from a police force area took part in round 1 but not round 2, and vice versa. However, for one police force (FORCE A), 103 respondents (including two that participated in round 1) took part, which was substantially more than the number that took part in round 1.

While having a large sample is beneficial, if we were to include the responses from all 103 respondents from FORCE A, the overall sample could be biased towards the views of one police force. For this reason, we analysed the data for the whole sample (141 respondents) and for a more representative sample (40 respondents) that excluded the majority of respondents from FORCE A separately. In the case of the latter, those included from FORCE A were those who had participated in both rounds 1 and 2 (2 respondents). A sample size of 40 compares favourably with other Delphi studies and was considered sufficient. For example, in their review of Delphi studies, Giannarou and Zervas (2014) reported that two-thirds of the studies identified had sample sizes of less than 50 (and over half had sample sizes of less than 30). While there was some minor variation between the main sample and Force A for a handful of issues, responses were largely the same for the two groups and hence we discuss this issue no further.

In the next section we detail the major themes that emerged in round 1 for each question. These are illustrated with representative quotes (reported verbatim) taken from the data. Themes that received only a few responses are not discussed here but were asked about in round 2.

Round 1 Findings – Policing the Pandemic

Round 1 Findings – Policing the Pandemic

Changes to community engagement

In terms of community engagement and how it changed during the pandemic we received 104 answers. The major themes that emerged were; the ***shift to online*** (28% of answers), ***less face-to-face*** (13%), ***shift of policing role to Covid-19 response*** (13%), ***innovation*** (6%), ***short-lived changes*** (6 %), ***reporting*** (5%) and ***legislation*** (4%).

In terms of the ***shift to online,*** respondents discussed this in both positive and negative terms, with negative statements including:

> "Many organisations struggled with adapting to new ways of working. Communicating effectively with partners was a significant issue for several months until IT solutions caught up."

> "There were some negative aspects with the on line engagement in terms of stigmatizing certain behaviours and individuals and shaming those who did not follow lockdown rules."

> "Community engagement moved online, with fewer opportunities for face-to-face engagement. This was particularly the case with vulnerable groups, because we had to risk assess interactions and we were aware there was a risk we could spread the virus".

Positive statements included:

> "We found that the pandemic allowed us to get closer to the community, through a wave of communications, in particular social media, with some very serious messages and information, but also the light-heartened humour."

> "Many of the core functions of policing continued except for community engagement which I do not think will ever go back to how it was before due to new skills and technology and the fact that more people get involved online."

> "The use of public access media such as Twitter were used to support and assure the XXXX Community the actions to safeguard them and their dependants both in and out of the workplace."

A smaller proportion of answers (13%) suggested that during the pandemic engagement suffered from reduced opportunities for face-to-face contact. Examples included:

> "Opportunities to engage with members of the community who were vulnerable/shielding during lockdown were reduced."

> "Engaging with local authorities at every level also became more challenging. The inability to meet in person was a substantial barrier in many cases that hasn't yet been overcome."

In terms of the *shift of the policing role to Covid-19 response*, most hardships concerned the balance between policing and community engagement as we knew it before the pandemic and the new expectation of the police adopting a public health role (enforcing lockdown rules for example):

> "It became clear that the public and government have an expectation that police will fill a public health role when required. This is an expansion of the police role that has yet to be recognised or acknowledged. Meaning that non-crime has a greater priority than has previously been acknowledged."

> "Neighbourhood resources were diverted to front line policing during the pandemic, to cope with the impact of sickness and self-isolation."

In terms of *innovation*, respondents mostly reflected on how outreach and communication evolved through the use of social media.

> "Innovation in addressing domestic abuse through the use of support in its different forms. It featured in our daily briefs to the community with an emphasis on the community being our eyes and ears."

> "The pandemic drove innovation in the way we communicated with the public and communities in a virtual way. This doesn't however provide the rich depth of relationships key to building trust."

Some changes to community engagement were described as *short-lived* changes,

> "Reflecting 20 months into the pandemic – the initial lockdown response was short-lived, and the workforce absence data suggests that the impact was less than was suggested in terms of service continuity. In fact, there were opportunities that emerged and were exploited to pursue warrants for example."

In terms of ***reporting***, challenges were found around the reporting of incidents of domestic violence and general delays in reporting.

> "Challenges in reporting crime- particularly for some of our most vulnerable people i.e., DA Victims, children, elderly etc who didn't have the opportunity to access 'safe' routes of communication."

In terms of ***legislation***, changes were reported to have created strain:

> "Unclear guidance from central government led to forces having different levels of tolerance when it came to policing the restrictions. In some areas this damaged community engagement opportunities especially where the media portrayed the police negatively."

> "Speed at which legislation was enacted caused inconsistencies and lack of confidence in policing."

Community engagement with vulnerable communities

In terms of ***community engagement***, we asked respondents for which communities' engagement had been most difficult during the pandemic. Respondents provided 78 answers. The major communities identified were the ***elderly*** (13%), ***BAME*** (10%), ***youth*** (10%), the ***financially disadvantaged*** (6%) and those with ***limited access to technology*** (6%).

Most responses were limited to a few words, but some of the more detailed responses include the following:

> "The over 65, often these individuals have underlying health conditions, and also tend to engage in more 'traditional' approaches."

> "The elderly with little knowledge on how to seek information from digital media."

> "Children and young people because of school closures and also less socialising out and about."

> "Black, Asian and minority ethnic communities have been affected by powers and disproportionately through worse health outcomes and death as a result of Covid-19 - engagement has been worse due to shielding combined with a fear of reporting."

> "Those that don't have access/skillset with technology such as older populations, those with learning needs or mental health."

> "Vulnerable people also were effected and had challenges in using the engagement methods available, ie websites, social media. For example, elderly or disabled members of public. Usual routes via partnerships were not in place either due to front line service delivery cuts."

Community engagement and approaches to continue

Finally, we asked which approaches to community engagement used during the pandemic would respondents like to see continue. We received 77 answers, with the majority focusing on ***online working and technology*** (38%), ***police practice*** (21%), ***remote working*** (14%), ***values*** (8%) and ***partnerships*** (8%).

In terms of ***online working and technology***, comments included the following:

> "Increased, stable and easily accessible on-line engagement tools allowing live time engagement and conversation."

> "The ability to reach out to all communities both at work and at home utilising the available IT Infrastructure to have a reach beyond the Mon-Fri and 9 to 5 comms."

> "Use of electronic means to report less serious crime/incidents to reduce demand in call centres."

> "The use of social media is key in terms of general messages BUT there remain significant groups (mainly elderly), that do not engage with social media. Visibility in communities is clearly vital for reassurance."

> "Our strong media strategy and online reporting has been vital during the pandemic enabling us to get messages out but to also receive feedback from our communities."

In terms of ***police practice***, the answers revolved around a continued public health approach:

> "More holistic understanding of communities from a wider Public Health style approach that we saw during the pandemic and in partnership with agencies and communities."

> "Community Building and Helping – It is without little doubt that the pandemic had a devastating impact on families. During the Pandemic the XXXX <police force> was integral in recognizing the needs of families and making contacts to ensure the basic necessities were had. This may have raised the profile of individual staff, but it serves as organizational community engagement to foster partnerships."

In terms of ***remote working***, a commonly held view was that online meetings have been productive as more people were able to attend, and because they improved the frequency of partner meetings and relationships. However, they noted that face to face meetings should not be neglected. Another comment of note was:

> "There is a critical need to examine and understand the impact of desktop resolution of incidents and remote investigations on victim experience and outcome rates. What is the evidence that victims remain effectively safeguarded?"

In terms of ***values***, respondents reported that police visibility and openness should be improved, while in terms of ***partnerships*** respondents would like to see the joint working and multi-agency approach continue. For example,

> "Private Sector and Public Sector Dialogue – this the author believes should continue not only in the stages of a pandemic but consistently beyond disasters, pandemic, or adverse events. This was vital to police success during the pandemic but vital for long-term community engagement."

Communications

We asked what worked well in terms of communications between stakeholders during the pandemic and received 97 answers. Two major themes emerged: ***partnerships with specific stakeholders*** (49%) and ***remote working*** (36%).

In terms of Partnerships with specific stakeholders, answers often concerned partnerships with local resilience forums (LRFs), strategic coordination groups (SCGs) or tactical coordination groups (TCG), and the Op Talla approach. Example quotes include:

> "The Local Resilience Forum (LRF) functioned very well, increasing attendance at LRF meetings, and providing an ability to meet more regularly

throughout the pandemic. This is both the response SCG/TCG and the Business as Usual groups through Executive and Business Management Group meetings. This has been facilitated by Microsoft Teams and at times (Skype and Zoom)."

"Multi-agency working between agencies [such as Local Resilience Forum partnerships, the local Pandemic Multi Agency Response Team (PMART), Strategic Coordination Groups (SCGs)]."

"The Op Talla reporting processes has opened lines of communication with Cabinet Office, albeit that the Beating Crime Plan was still imposed without consultation."

"The Op Talla data collection has helped NPCC to understand and identify key trends and shown that a central rapid turnaround data collection is within the art of the possible including providing the data back to forces to highlight forces at risk of additional scrutiny from the minister."

"Governance and coordination provided by Op Talla for the national coordination for policing which supported local delivery in a consistent way."

In terms of ***remote working***, respondents suggested that the shift to online meeting and MS Teams has proved cost effective, environmentally friendly, and productive.

"The ability to hold and invite a larger group of stakeholders to online meetings (MS Teams) which allowed for sharing of Areas of Good Practices that had been established as well as Areas of Development."

"Changes with people working from home and greater use of MS Teams has meant that stakeholders are more receptive at changing the approach to meetings, such as child services and associated meetings."

"Teams, Zoom, Skype has revolutionized how we manage meetings. It can sometimes be just as good as face to face BUT we all recognize that there are times where face to face is very important. NOT all officers currently have access to Teams, but this is improving. Teams in particular has reduced travel, reduced risk of spread of the virus in the workplace and I suspect has saved countless hours/ money in travel".

Staff wellbeing

We asked about what aspects of policing the pandemic affected staff the most. We received 121 answers to this question and the major themes to emerge were: ***remote working*** (33%), ***lack of government clarity*** (8%), ***Covid-19 anxiety*** (8%), ***wellbeing in general*** (6%), ***staffing*** (4%), ***shift to response*** (4%) and ***personal protective equipment (PPE)*** (4%).

In terms of ***remote working***, some respondents perceived the flexible and agile working approach employed during the pandemic as positive while others identified negative aspects. Among the positive statements, remote working was seen by some respondents as effective in terms of flexibility and agility, and as something that would not have been previously considered.

> "The ability to work remotely would not have been considered previously with the impact on staff sometimes travelling long distances with incurred personal travel costs. This has now been adopted temporarily with a view to establishing a policy but has allowed for a more conducive work/home life balance and financial benefit to the staff."

> "Agile and more flexible working has reduced stress associated with caring responsibilities."

On the other hand, some respondents found remote working mentally taxing and isolating.

> "Isolation – working from home with little if no contact with team members face to face."

> "Feelings of isolation amongst staff working from home that rely on coming to work as an escape from home – understanding that not everyone's living arrangements are suited to home working e.g. young professionals sharing a house – living, eating, working and sleeping in one room very difficult "

> "Agile working although largely positive has also led to people feeling isolated and unsupported especially when leaders are absent".

Respondents also noted both the positive and negative sides of remote working, urging for finding work-life balance in the future:

> "Remote working – Had both positive and negative impacts. Positive in the sense that it allows people to be more flexible with work life balance and has given more space in the office for essential workers. Negative is some people have felt they were being left out."

Respondents reported that a lack of clear guidance from government and mixed messaging ultimately harmed policing practice:

> "A lack of clarity from Government and failure to consult ahead of plans being announced to the public. Policing left 'holding the baby' with no detail to work on."

> "(…) The delay in communications from central government was felt during regulation changes and specifically had a profound effect on the ability to deliver up to date proformas for officers to use. At times this work carried on through the night. This led to significant burnout and the ability of staff being able to perform at their highest level the next day."

> "The delay and also short notice notifications from the government created uncertainty for the organisation and communities as the manner in which legislation and guidance would be implemented was developed in a rapid fashion and was difficult to both communication and provide consistency, particularly in the early part of the pandemic."

Examples of how fears associated with contracting the virus were expressed include:

> "Like everyone else in society staff have faced anxiety around the risk of infections, and despite some robust process and PPE, staff have felt they are at greater risk."

> "Impact on frontline staff putting themselves at risk every day, wearing of uncomfortable and restricting PPE and the fear and anxiety of how going to work then impacts on their family, putting them at risk of illness."

> "Genuine fear of dealing with the public and having to get close contact not knowing if the people they were dealing with were positive. Impacted greatly on custody due to the role of staff having to search detainees daily and not having the position to social distance."

Among the less represented themes were *wellbeing in general*, *staffing*, *shift to response, diversity challenges* and *PPE.* Responses that focused on staff wellbeing being negatively impacted more generally considered the strains associated with policing the pandemic such as wearing PPE in long and difficult operational settings; police reputation suffering as their role shifted to enforcing public health guidance, and new police officers not having the opportunity to gain experience of certain aspects of policing since they joined the force.

> "Fears remain concerning burn-out and mental fatigue from both Covid-19 specific challenges and necessary working arrangements and indirect effects on all service delivery from the pandemic."

> "The police were undertaking activities which they had never previously undertaken, and as a result a small section of the public were very negative about the police who were 'enforcing' health protection regulations."

> "Junior officers not gaining experience of certain aspects of Policing since joining the Force (e.g. Officers with over 12 months service with zero experience of policing the Night-time Economy)."

> "Failure to adapt onboarding effectively for new starters joining during the pandemic."

Policing demand

We asked about what demands on police time are expected to remain high or increase in the next 5 years (including crime types, forms of ASB or demands on investigative/forensic capabilities) and received 110 answers. The major themes were *mental health* (20%), *public order/protests* (14%), *cybercrime* (14%), *domestic abuse* (9%), *hate crime* (4%) and *backlogs in the system* (4%).

In terms of mental health, respondents noted that demand in mental health services has significantly increased and that they expect it to remain high, with illustrative quotes including:

> "Mental Health – this has always been challenging, but mental health demand has increased significantly. Suicides have increased by 33% in the short term. The Constabulary has doubled the resourcing which is focused on mental health. It can be anticipated that this increase will continue over the coming years at the same time mental health services will come under more pressure."

> "Mental Health demand increased significantly during the pandemic and continues to be a huge demand upon policing resources. Policing continues to fill the gaps in MH provision and response to people in crisis."

> "Increased mental health issues will be atop the list (……) From the simplest to the most complex behavioural changes can be seen daily (to the trained eye) by employees and members of the public who are exhibiting more aggression, reclusive, and/or passive-aggressive behaviours. The true impact of the pandemic is not yet seen."

With respect to public order and policing protests:

> "Demand for public order trained officers to police demonstrations / protest and to provide mutual aid across the country will remain high in light of the climate emergency and other social movements."

> "An increase in social unrest due to conspiracy theories perpetuated by social media like we have seen in the pandemic."

> "Public order duties will remain high due to the pre-planned upcoming events and protest / terrorist incidents etc."

Apropos *cybercrime*, respondents commented on the increase in offending and a lack of preparedness:

> "Cyber Crime – in particular online fraud and targeting of the vulnerable increased during covid and we expect this to continue to grow as a means of committing acquisitive crime."

> "Cybercrime and stalking and harassment offences have increased significantly driving increases in domestic offences as a result."

> "Online living and economy fuelled by the pandemic has caused fraud proliferation. There is no apparent structure, resource or plan that meets the demand let alone prevention. The lengthy delay in creating such a plan and structure is shaming for policing and easy money for organised crime whose ability to identify and exploit new opportunities exceeds that of policing, legislation and banking."

Concerns about *domestic abuse* were less commonly articulated in detail but included:

> "More hidden harm because of the pandemic – increased DA and child protection cases, and children who have witnessed harm during pandemic becoming victims/offender themselves."

> "Domestic violence due to people losing jobs and poverty stresses on home lives."

Comments about *hate crime* tended to focus on this remaining high, but also highlighted a potential new form of it:

> "(……), xenophobic behaviour may increase (…….) The most damning example of this was the prosecution of a visitor regarding COVID19 Violation which sparked heated debates from opposing views. This may well fall in the edicts of atypical ingroup/outgroup attitudes but nonetheless will increase in the years to come. That may result in what is referred to as "hate crime" (…….)"

In relation to ***backlogs*** created by Covid-19, respondents reflected on how this has and will continue to have an impact upon investigations:

> "Continued challenge with the backlogs from the criminal justice system adds pressure and demand to maintaining contact with victims and witnesses to ensure there is continued motivation and support for attendance at court. Furthermore, the demand for review and additional evidence which may come to light in the long run from investigation and charge to court. Whilst an ongoing responsibility post charge, the ongoing relationship between victim and suspect."

> "Capacity and capability to undertake digital investigations will continue to increase, lengthening investigation times and slowing CJS processes."

Recovery

We asked about the key activities respondents thought would be necessary to coordinate recovery and learning in relation to Covid-19 and received 110 answers. The major themes included ***learning*** (24%), ***future planning*** (18%), ***remote working*** (16%,) ***partnerships*** (7%), ***welfare*** (6%) and IT (4%).

In terms of ***learning***, respondents emphasised the importance of an evidence/data-based approach and the need for the continued ***sharing of best practice.***

> "Better use of evidence/data and insight in making decisions around priorities, systems and deployment."

> "Have a permanent resource within NPCC to ensure engagement and buy in from forces alongside NPCC and College of policing."

> "Documenting the lessons is important for organizational learning – there MUST be a database which for years to come will serve as the reference to policing in the pandemic."

In terms of ***planning***, respondents highlighted the importance of Horizon scanning exercises, business continuity plans and continued debriefing of what works.

> "Keep up the energy and prepare for like events. Don't let the COVID related projects fade. The next threat is around the corner. Establish a dedicated team for Horizon Scanning, Strategic Foresight and Organisational Learning and Preparedness. This team should then connect to any products coming out of Talla and disseminate into force and make sure that the organisation is at optimum readiness for next threat by 'war-gaming'."

> "Review all business continuity plans to include loss of personnel due to a pandemic. It will be all too easy to have forgotten about covid in 2-3 years' time. We must capture this moment."

> "Review business continuity plans to ensure well prepared for events with a similar impact. Will include consideration of processes such as staged enforcement, deployment and crime investigation policies which change when demand/our capability changes."

> "Ensure debriefing is used to confirm what processes/policies worked which can then form the basis of an 'off the shelf' plan for future events of this nature."

Remote working also emerged as a major theme within the ***recovery*** answers. Respondents suggested that going forward (post-pandemic), even though they would like to see remote working continued, a balance between remote working and physical presence will have to be established.

> "Embracing new ways of working and not going back to out-moded things such as all meetings being face to face."

> "Getting the balance between agile/flexible working and being present in the workplace right for some departments that have become almost exclusively remote working."

> "Develop agile/blended working approach for all roles – with exception of frontline response. "

> "Alternative Work arrangements for otherwise operational staff. Clearly remote working will never be a key feature for policing however strategic groundwork should be done now to ensure that Business as Usual and Continuity of Operations are not impacted should the need arise again for a pandemic type of deployment."

Among the less represented major themes, we have found respondents calling for continued investment in IT, continued partnerships with Op Talla and the multiagency approach, and investing in occupational welfare.

> "Continue to invest in innovative IT technologies to support remote working and integration with partners to continue to build on efficiencies of remote working and meetings."

> "Continue to engage with Ministry of Defence (MoD), OP Talla Team, Defence Community, and partner organisations to undertake further engagement to identify what is missing from the learning and understand why e.g., more operationally focussed learning and valuing diversity and inclusion themes."

> "Through the Regional Recovery Leads network and force Organisational Learning SPOCs, Op Talla and The College of Policing have shared findings to assist in identifying any areas/issues for deeper exploration through, for example, knowledge sharing events (KSEs)."

> "Organisational health and wellbeing – being proactive – Long Covid effects support networks and signposting – has already been highlighted as having a good improvement but [Occupational Health Units] OHU still highlighted as having resourcing problems"

> "Ensure effective ongoing, long-term wellbeing/Occupational Health services are in place."

Other issues

As a final question in this block, we asked respondents whether there were issues relevant to policing and disruption that we did not ask about. We received 44 answers which varied in content, meaning that major themes were more difficult to identify. However, the latter included those on ***staffing*** (18%), ***planning*** (7%), ***wellbeing*** (7%), and ***community engagement*** (5%).

In terms of ***staffing***, the issues raised were mainly about investing in new staff.

> "Ensuring we continue to recruit but accepting that when people are first operationally deployed in a period of policing disruption, we have to manage expectations of these newly deployed officers so we can continue to develop them to cope with 'normal' demand."

> "Op Uplift – recruiting significant numbers of additional officers, the impact of that on back-office functions and response as they need mentoring and the lag time for them to become fully effective, as well as the need to backfill natural turnover and some PCCs that have committed to funding additional new recruits on top of the Uplift."

> "Current demands on Health and Social Care do not link directly with Covid but to a multitude of issues including EU Exit, a lack of social care workers, bed blocking in hospitals, other agencies being unable to meet demand."

In terms of ***planning***, respondents commented that:

> "Analytical capability has been eroded significantly in many forces and has become focused on supporting operational activity rather than forces planning processes. Force Management Statements have exposed that capability gap in some forces. More investment in planning and analytical functions is needed to make best use of additional officer numbers."

> "Pre-identified national roles where a cadre of people are trained and receive continued development who can be seconded when required to fulfil national critical roles."

In terms of ***wellbeing***, family life was identified by some as having suffered during the pandemic:

> "Pressures upon staff during times of national crisis need to be understood better. Family life was significantly altered during the lockdown periods of the pandemic and put huge pressure on individual staff."

in terms of ***community engagement***, there was a call for looking into community engagement pre-pandemic times.

> "Pre-pandemic community engagement vs Post-Pandemic Community Engagement – the author believes that globally there has been a mind-shift from what one's (human) basic priorities are and a much more appreciative mindset. Policing should appreciate this, and we should begin to understand how this impacts staff and the community we serve. This the author believes would lead to better community engagement."

> "What community engagement pre-pandemic might have helped with the communication at the time of the pandemic".

Round 1 Findings – Future Issues

In this section, we report the findings for the future issues respondents were asked about, following the same format as the previous section. As discussed above, the number of participants answering questions about these issues was less than for the main Covid-19 block of questions, but the number of respondents was comparable to many Delphi studies with experts.

Future Issues: Climate Change

Climate change and crime

We asked respondents how climate change could affect crime in the next 10 years and received 44 answers. The major themes identified were: ***public order and protests*** (42%), ***acquisitive crime*** (15%) and ***corruption*** (4%).

In terms of ***public order and protests***, some respondents hypothesized that civil disobedience would increase, and that protest activity would put strain on the police force.

> "Protest. As seen already protesters in this area are passionate and can generate large numbers and cause large disruption."

> "Protest is very resource intensive, very impactive. The specific concerns currently are linked to insulate Britain. Unless something changes in terms of consequences for those arrested or they chose to stop the current disruptive tactics we will continue to have to plan resources to be able to respond, taking up disproportionate police time."

Acquisitive crime and *corruption* were also anticipated to increase.

> "Flooding could lead to desperation and looting of supermarkets or houses and protest action."

> "Organised crime groups could take advantage of the stresses caused by climate change and increasing demand for resources. For example, disruption to resource-related supply chains, because of the impact this would likely have on certain industries (e.g., agriculture), could lead to more corruption, price-gouging and demands for protection."

> "Policy responses to climate change will require new legal mechanisms that will in turn require rigorous policing. For example, enforcing regulations in carbon trading, as well as investigating corruption or fraud in such a system, is something that police forces may get drawn into."

Climate change and preparedness

We asked how we should prepare for disruptions arising from climate change in the next 10 years and received 44 answers. The major themes were *planning* (20%), *partnerships* (16%) and *equipment* (7%).

In terms of *planning*, there was an urge for Horizon scanning and other planning exercises.

> "Horizon scanning national forces in the world and business practices."

> "Exercise responses with appropriate partners and anticipate which charities or volunteers' services have expertise and capability and are likely to autonomously respond to crises. Train them in [Joint Emergency Services Interoperability Programme] JESIP and involve them in exercises. Ensure organisations have complementary procedures."

In terms of *partnerships*,

> "Ensure that forces work collaboratively to address issues common to all, rather than each force having to consider and implement a force-specific approach."

> "More and better engagement with a wide range of non-traditional stakeholders from the environment, humanitarian and international development communities."

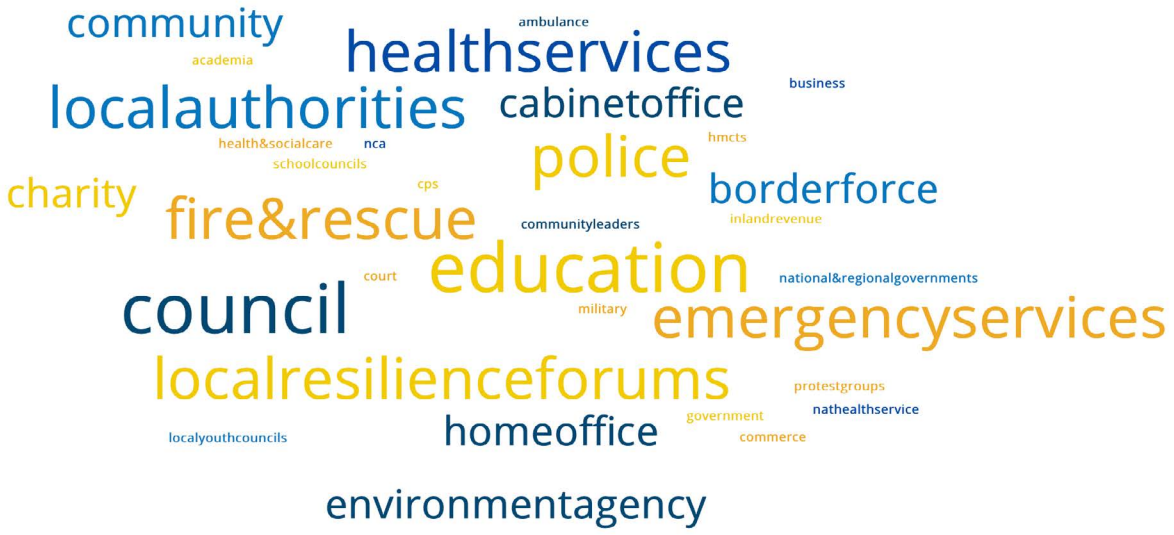
> "Linking with partnerships to have plans in place – also strengthening the national coordination role which will ensure coordination with government and across forces and consistency in response."

In terms of *equipment investment*,

> "Seek to future-proof equipment, vehicles, and other resources. Costs could be reduced through jointly/centrally purchasing specialist resources which would then be made available to a particular force when the situation required".

Climate change and stakeholder involvement

When asked which stakeholders should be responsible for mitigating disruptions brought about by climate change, we received 55 answers (see word cloud) which included Government departments (13%) such as the Environment Agency and Home Office, local authorities/councils (10%) and education (7%). Other stakeholders (e.g., police, border force, fire service, inland revenue) were mentioned but occurred less frequently.



Word Cloud 1 Stakeholders respondents suggested should be involved in addressing climate change from a policing perspective

Among the more detailed answers:

> "Partners, that although are in LRFs (Local Resilience Forums) need to bring together in the planning similar to events such as G7 – for example health, local authorities – this way the relationships and links are already in place for when the emergency response happens."

> "Policing directorate across government – so by that I mean all departments that impact upon and oversee policing – Home office, health, cabinet office etc – we need to set up emergency 'teams' that can stand up when required into pre-existing structure."

Future Issues: Social and Political Change

Social and political change and crime

We asked what social and political changes (in the UK or more globally) are most likely to affect UK crime and policing in the next 10 years and received 42 answers. The major themes to emerge were ***societal inequalities*** (19%), ***climate change*** (10%) and ***Brexit*** (5%).

In terms of ***social inequalities***, this concerned increasing demographic and socio-economic gaps among the population, such as a growing ageing population and growing vulnerable and disadvantaged populations (victims of domestic violence or unemployed), that can affect crime.

> "Growing ageing population leading to increases in older vulnerable groups likely to be targeted by criminals."

> "The change in demographics – aging population with more money and a young population with more ambition, divided society a widening gap."

> "Unemployment following COVID lockdowns. This could happen again. Furlough can't keep coming back each time we have a problem so that will cause financial issues for a lot of people."

Issues associated with climate change and Brexit have and will be discussed elsewhere in this report and so are not discussed further here.

Social and political change and preparedness

We asked how we should prepare and respond to disruptions brought about by social and political change and received 40 answers. The major themes were ***planning and learning*** (27%), ***communications*** (12%), ***partnerships*** (12%) and ***legislation*** (10%).

In terms of ***planning and learning***, some respondents suggested horizon scanning exercises and improved training but did not provide additional detail. In terms of ***communications***, several respondents suggested increased transparency.

> "Police forces need to effectively communicate the rationale for any action, otherwise there is a risk of being seen as enforcing a particular political agenda, rather than enforcing the law."

> "Listen, hear what is real and not what is believed. Often the decisions are made by those who have been advised by one and not heard from all. Also (EU Exit example) ensure you get all the bad news and not just the bits that "sell Seats"."

In terms of ***legislation***, some respondents highlighted a need for more agile legislation and for accountability and stability in legislation.

> "Legislation needs to be more dynamic and able to respond to technological developments (e.g., Cloud computing). Law enforcement agencies need to be vocal in advocating for necessary amendments."

> "Hold legislators to account for the outcomes of their decisions in the same manner that the police are held to account by the IOPC [Independent Office for Police Conduct] and HMICFRS."

Social and political change and stakeholder involvement

When asked which stakeholders should be responsible for mitigating disruptions brought about by social and political changes respondents provided 43 answers. Key agencies identified were ***central*** (14%) and ***local government*** (14%), but a range of other stakeholders (e.g. health and emergency services, the voluntary sector) were identified as important.

Word Cloud 2 Stakeholders respondents suggested should be involved in addressing social and political change from a policing perspective

Among the more detailed answers:

> "NPCC to establish a way of monitoring, assessing, and communicating what the potential future risks are (Major Crisis scanning through to local community tensions scanning, and also to technology threats)."

> "Government, local authorities, police and law enforcement/intelligence agencies, fire service, NHS, Border Force, HMCTS, relevant private companies/ service providers (e.g., social media companies), media organisations."

Future Issues: Technological Change

Technological change and crime

We asked what technological change is most likely to affect crime in the next 10 years and received 50 answers to this question. These varied substantially (e.g., 3D printing, cryptocurrencies, drones, nanotechnology, quantum computing, wearables) though common answers were associated with the following themes: ***cyber*** (18%), ***data*** (18%) and ***AI*** (8%).

In terms of ***cybercrime***, more detailed answers included:

> "Further migration of goods, services and social interactions online (e.g. cloud computing, metaverse, virtual and augmented reality)."

> "Digital dependency creating vulnerability to cyber-attack by proxies and organised crime who may be the same."

> "Increased demand for digital connectivity and services to be delivered more quickly and that access should be 24/7."

In terms of ***data***, respondents suggested data related issues as technological change that would affect crime.

> "Increasing online presence, unregulated information exchange and social media."

> "Volume and quality of data collection about individuals and applications in criminal justice which may have some predictive capability or protective/ preventative capability such as facial and emotion recognition."

> "Encryption of digital devices limiting the access to law enforcement."

With the following exception, respondents were less explicit about how AI might be misused:

> "Artificial intelligence. Opens risk of hacking personal information in new ways."

Technological change and preparedness

In terms of preparedness, we had 36 answers. Most focused-on *planning and learning* (42%), *investments* (17%), *partnerships* (14) and *prevention* (6%).

In terms of *planning and learning*, more detailed answers included:

> "Identify within each force using key data what the top priorities are and rising trends. Once a top 5 is identified then carry out a problem solving on each completing a tactical options menu which can be used as a consistent approach."

> "Tech forecasting and sense-making – developing processes that help us to anticipate and track the development of new technologies as well as explore and understand their potential implications."

> "Understanding of new and innovative tech that is likely to be viable in the future and work with manufactures to understand this and actively involve policing in crime prevention at concept."

Examples of the more detailed answers among *investments*, *partnerships* and *prevention* were:

> "Invest in ICT defences for our own systems, but also to maximise the opportunity for private organisation / individuals to put safety measures in place."

> "Using frameworks (including ethical) and support created by the central organisations (e.g., College/NPCC), strong partnerships with academia and other public sector organisations."

> "Look early at ways of preventing people becoming victims of these new emerging crimes. This would involve having to work with experts in these areas."

Technological change and stakeholder involvement

In terms of which stakeholders should be involved to prevent these disruptions, we had 28 answers. Major themes did not emerge as clearly as for the other questions, but stakeholders that were mentioned more than once included *technology companies* (19%), *local authorities* (15%), *academia* (11%) and *the military* (7%).

Word Cloud 3 Stakeholders respondents suggested should be involved in addressing technological change from a policing perspective

Among the more detailed answers were:

> "Councils also have Horizon Scanning Strategic Foresight and Sustainability capability and products. These should largely be integrated with policing outputs per geography – sensitive matters should be by exception. The threats and impacts are whole system. Pooling capability and understanding whole-system impacts will ensure preparedness."

> "Governments world-wide, local authorities, police and law enforcement/ intelligence agencies, Border Force, HMCTS, relevant private companies/ service providers (e.g., tech developers and social media companies), media organisations."

> "National organisations specialising in data science eg Alan Turing, the Dawes centre for Future Crime etc"

Future Issues: Online crime

Online crime

We asked which online crimes (existing or novel) are likely to be most prevalent in the next 10 years. We received 55 answers to this question with the major themes being ***fraud*** (31%), ***sexual harassment*** (12%), and ***child sexual exploitation*** (9%).

In terms of ***fraud***, besides the general, the following examples were provided:

> "Technologically enabled crimes which use novel and increasingly sophisticated forms of 'digital deception' to achieve a specific objective (e.g., fraud; theft; blackmail; stalking; harassment)."

> "Fraud associated with fears over coronavirus / other medical requirements and considerations that were introduced as part of the response to the pandemic. Exploiting fears/regulation for data access/gain."

In terms of ***sexual exploitation*** and ***child sexual abuse***, respondents were mostly brief, but the following answers were more detailed:

> "Sextortion is emerging and albeit international it affects local communities therefore policing needs to be prepared with a coordinated approach – local support alongside national pursuit."

> "Online abuse. As the world of online gets bigger, so does the amount of information out there that is reported to policing where crimes are being committed in particular around safeguarding children."

Online crime and preparedness

Asked how to prepare and respond to these crimes in terms of policing, respondents provided 32 answers. Major themes revolved around ***planning and learning*** (28%), ***partnerships*** (22%), ***reform*** (13%) and ***investment*** (9%).

In terms of ***planning and learning***, respondents highlighted the need for the better tracking of emerging technologies:

> "Do a better job of spotting and keeping track of emerging technologies, their criminogenic potential and their implications for policing."

> "Use experts to understand and monitor emerging technologies and crime trends."

In terms of ***partnerships***, collaboration, particularly with private sector and Big Tech companies was suggested. Among the more detailed answers:

> "Work with banks to reduce fraud. A lot of fraud is reported to action fraud so does not come to policing, this feels to be a mistake as it is something that highlights safeguarding concerns as well as something that is very personal to someone so important to have that good interaction to build trust as a member of the public probably doesn't realise that action fraud means your local police are not investigating so any negative experience with them will reflect badly on local police force."

> "Work more closely / be more assertive with providers to anticipate how online platforms (new and established) might be used to commit novel offences and identify potential (design-based) mitigations."

Accent was also placed on ***reform*** where respondents reflected on the need for this in terms of policing cybercrime.

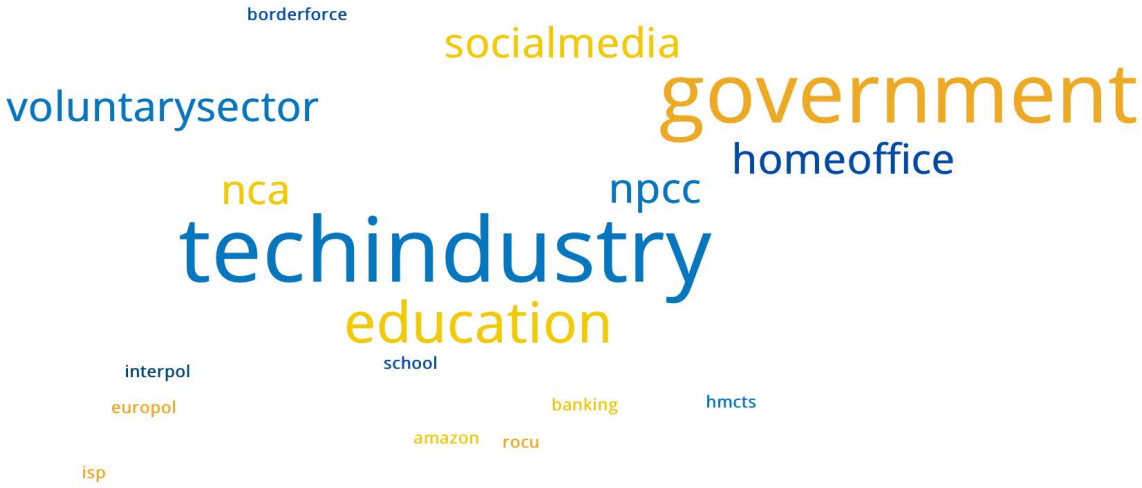
> "There needs to be a national police force / department charged with disruption of organized criminals – the 45 territorial force structure is not fit for purpose in this area of growing criminality."

> "Reform police forces with a clear department that is fully invested in to tackle this growing area of crime, police forces are not structured to properly deal with cybercrime at the levels it is increasing at."

> "Reform and restructure online / cybercrime into a separate policing function considering 40% of all crime is now online."

Online crime and stakeholder involvement

Respondents provided 35 answers regarding which stakeholders should be involved in addressing these disruptions. The majority revolved around *industry* (39%), *government* (12%) and *educational* actors (12%).



Word Cloud 4 Stakeholders respondents suggested should be involved in addressing online crime

More detailed answers regarding each of the major themes include:

> "Tech industry to develop and bring to market products and services that can help people differentiate between what's real and what's fake online."

> "Government to improve legislative powers but encourage public engagement and awareness to be proactively cyber aware to prevent crime in the first place."

> "Education establishment to improve awareness of research and investment in training for law enforcement, also to improve recruitment."

Future Issues: Brexit

Brexit and crime

We asked which crimes (existing or novel) are likely to be most affected by Brexit in the next 10 years. Respondents provided 48 answers to this question which were quite varied, ranging from *fraud* (13%), *hate crime* (9%), *human trafficking* (9%), *public order* (9%), *counterfeit goods* (7%) and cybercrime (7%).

Among the more detailed answers for these themes were the following:

> "Technology enabled fraud is likely to become more of a threat, without the partnerships in place within the EU this may put the UK at risk."

> "Companies (possibly inadvertently) breaching technical Regulations/ requirements/restrictions imposed or changed as a result of Brexit."

> "Increase in hate. I believe that many of the issues caused by Brexit have been masked by the pandemic, and once the reality hits home, I think many of the public will be looking to blame others."

> "Immigration related issues seem to be very much in the media, this is wider than policing, however, people trafficking is likely to worsen and become more lucrative for criminals."

> "Poverty related criminality – The impact on crime related to poverty could see a further increase in exploitation including a shift in demographics linked to those who would normally have been employed seeking to get by in any way possible and this could manifest in new / novel criminality methods."

> "Increase in criminal use of small boats at non major ports for the illegal entry of goods and people into the UK."

Brexit and preparedness

With respect to preparedness, respondents provided 30 answers. The common themes that emerged were *investment* (27%), *partnerships* (23%) and *planning and learning* (17%).

In terms of the first theme, investments and increased budget were suggested for IT, maritime, and staffing. For example,

> "We need to increase both capacity (recruiting and retaining people) and then capability, through effective training. We need to move away from role specific training, and instead adopt an ethos that sees more people being trained across a wide range of subjects to improve capacity."

> "Increase maritime capability to respond to incidents at sea. Train and exercise with multi-agency partners."

In terms of *partnerships*, the following represent some of the more detailed answers provided:

> "Coordination internationally on establishing agreements for serious criminals to be dealt with quickly."

> "Increased freedom with regards to sharing intelligence throughout Europe."

> "Work with others to understand at a local policing level the health of society in terms of employment, homelessness, children in care."

In terms of *planning and learning*, respondents suggest increased learning of best practice in prevention of human trafficking and understanding the latent features of Brexit.

> "Continue to build on the good work that is happening in the prevention of human trafficking, ensuring best practice is shared."

> "Understanding what latent features of Brexit has impact upon a criminal element. This is to say what has Brexit made easier or harder for criminal masterminds to do. "

Brexit and stakeholder involvement

When asked about which stakeholders should be involved in preventing disruption and crime caused by Brexit, respondents provided 44 answers. These were again quite varied but most revolved around *Border Force* (14%), *central Government* (11%), *local authorities* (7%) and the *voluntary sector* (7%). Local resilience forums were also mentioned in this context.

Word Cloud 5 Stakeholders respondents suggested should be involved in addressing Brexit from a policing perspective

Example responses included:

> "Government, local authorities, police and law enforcement/intelligence agencies, Border Force, HMCTS, relevant private companies/service providers (e.g., social media companies), media organisations."

> "Local multi agency partnerships working closely and improving information sharing, this should be the same with sharing information across policing that is more general and open such as county threats and risks / emerging issues."

> "Greater understanding of the capability and capacity of the voluntary sector is needed so that they can be deployed to provide humanitarian assistance freeing up police resources to focus on prevention and detection of crime."

Round 1 Summary

In this first half of the report, we highlighted those themes that were most discussed in Round 1 of the study. Doing so served to illustrate the sorts of issues that emerged and provided an opportunity to share quotes from respondents to bring the analysis “alive”. While conclusions and recommendations could be made based on the themes identified, the emergence of a theme does not show that there is agreement about it. For example, round 1 respondents were not asked to nominate or consider ideas that they might disagree with and so there was no opportunity for them to indicate what they thought was unimportant (or wrong). This can only be established by explicitly asking respondents if they agree or not with an issue raised. For this reason, and because establishing where consensus exists was considered important in this work, in the second round of the study we sought to establish which themes respondents agreed with and those that they did not.

Round 2 Findings

Round 2 Findings

For the round 2 data, the aim of the analysis was to examine the extent to which consensus existed across respondents and which responses they generally agreed or disagreed with, and those for which there was no clear agreement (either positive or negative). Perhaps ironically there is no consensus in the research literature as to how consensus should be established in Delphi studies. This is perhaps because studies use different scales to measure agreement, have different sample sizes, and so on. Here, we use a percentage agreement of 70% to indicate consensus, acknowledging that no approach is without limitations.

In the sections that follow, we present graphs that indicate the levels of agreement for each general theme and the specific topics that emerged in Round 1. To simplify presentation, in each case we present stacked bar graphs with 5 levels: Strongly disagree, disagree, neither agree or disagree, agree, and strongly agree[4]. Consensus is said to have occurred if at least 70% of the respondents agreed or strongly agreed with a particular question, and we highlight where this level of consensus was reached in the text that follows. For presentation purposes, in some graphs, the themes have been reworded slightly to make the text fit on the graphs.

Community Engagement

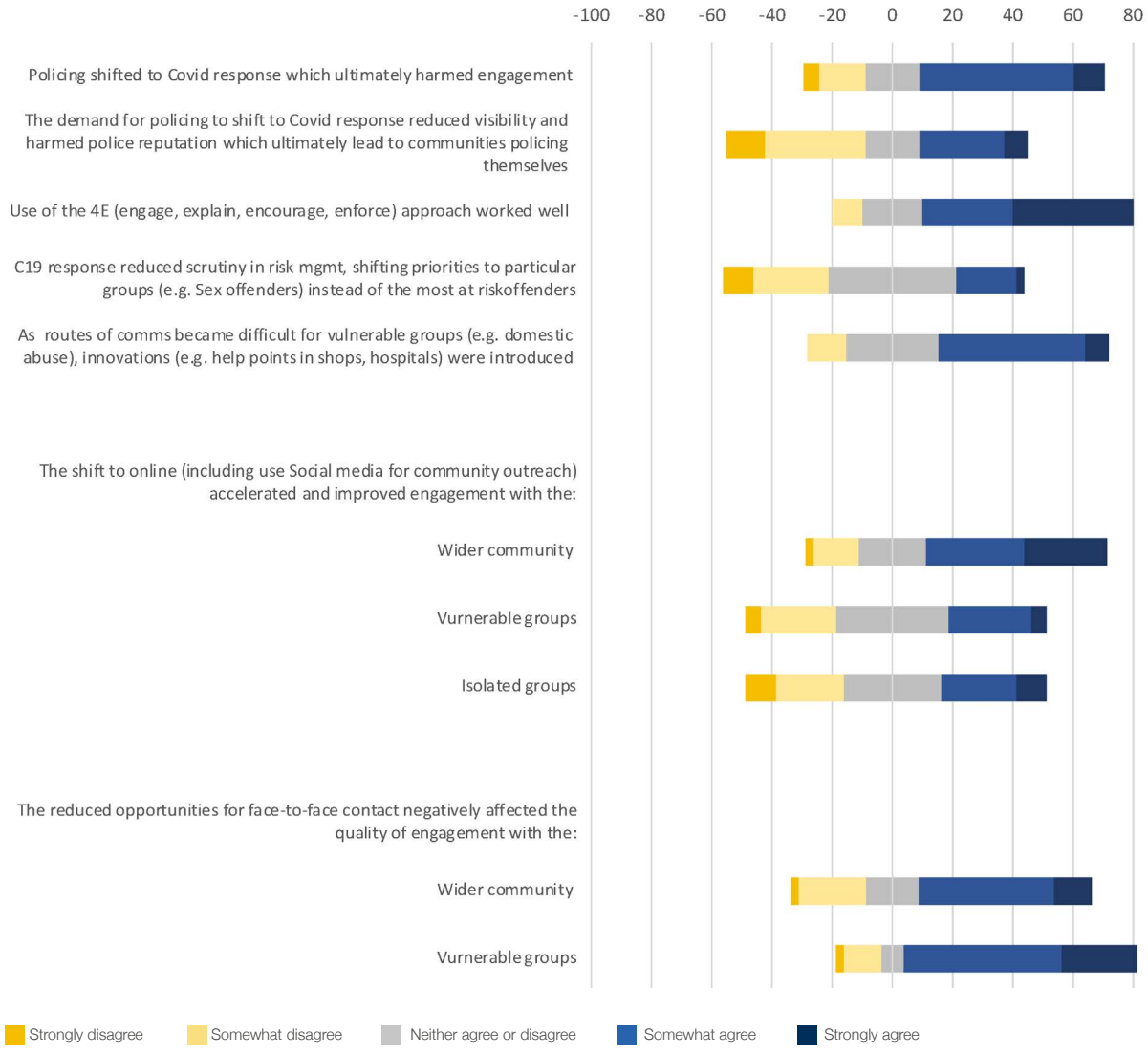
Figure 1 shows the themes that emerged with respect to what respondent's thought had changed during the pandemic in terms of community engagement. For each issue, we show the stacked bars in such a way to make their interpretation as simple as possible. The proportion of a stacked bar that is shaded blue and is on the right side of the figure indicates the fraction of respondents that agreed with an issue, while the proportion that is shaded orange and located on the left side of the graph indicates the fraction that disagreed with an issue. The proportion of the stacked bar that is shaded grey and located around the centre of the graph indicates the fraction of respondents who neither agreed nor disagreed with the issue.

To take an example, with respect to the suggestion that the shift in the policing response to Covid-19 ultimately harmed engagement, we see that most respondents held a view on this, with about 60% agreeing (although only a small fraction strongly agreed) and only about 20% disagreeing. It is clear from Figure 1 that even though the issues listed were those that emerged from Round 1, it was not the case that all respondents agreed with all of them. In fact, for the issues shown in Figure 1, opinion was often quite mixed.

With respect to items for which there was consensus or some degree of it, respondents generally agreed that the use of the 4Es approach had worked well (70% agreement), that reduced opportunities for face-to-face contact had negatively affected community engagement with isolated and vulnerable groups (70% agreement), and to a lesser extent the wider community (53% agreement). With respect to the latter, there was a degree of agreement (60%) that the shift to online methods of community outreach (e.g., social media) had accelerated and improved engagement with the wider community, but this fell short of the 70% threshold.

4 Ratings of 1 or 2 on the original scale were coded as strongly disagree, ratings of 3 or 4 were coded as disagree, a rating of 5 was coded as neither agree or disagree, ratings of 6 or 7 were coded as agree, and ratings of 8 or 9 were coded as strongly agree.

Figure 1 What changed in terms of community engagement during the pandemic?



The particular groups (i.e., wider community, vulnerable and isolated groups) discussed above were those that emerged through the analysis of an open question about community engagement. When asked explicitly in a subsequent question about which groups community engagement had been more difficult (see Figure 2), respondents came to a consensus that challenges had been encountered for those without internet access (82%), the elderly (78%), and to some extent those living in poverty or financial disadvantage (68%), and victims of domestic abuse (60%). However, for the other groups identified, there was a lack of consensus, and in some cases (e.g., for young people) respondents collectively disagreed that a particular community had been harder to engage with during the pandemic.

Figure 2 Which communities was community engagement more difficult with during the pandemic?

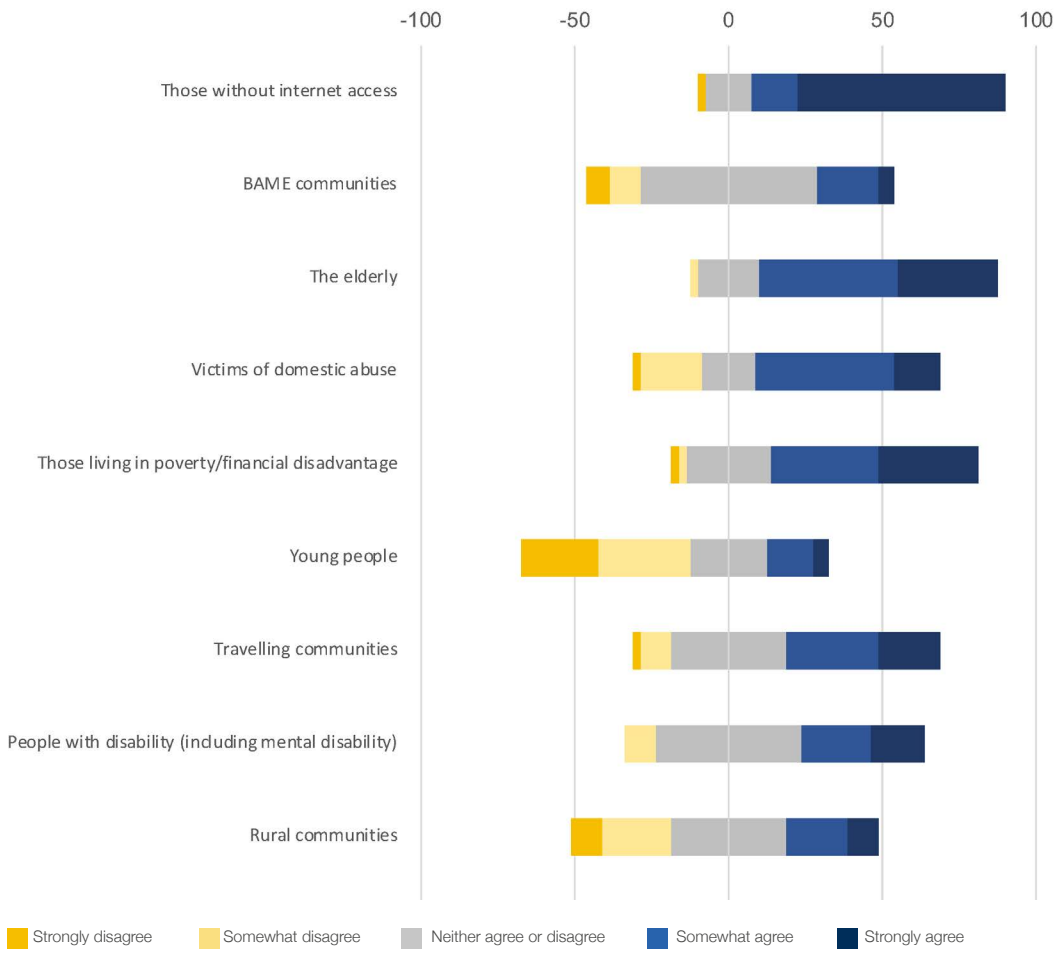
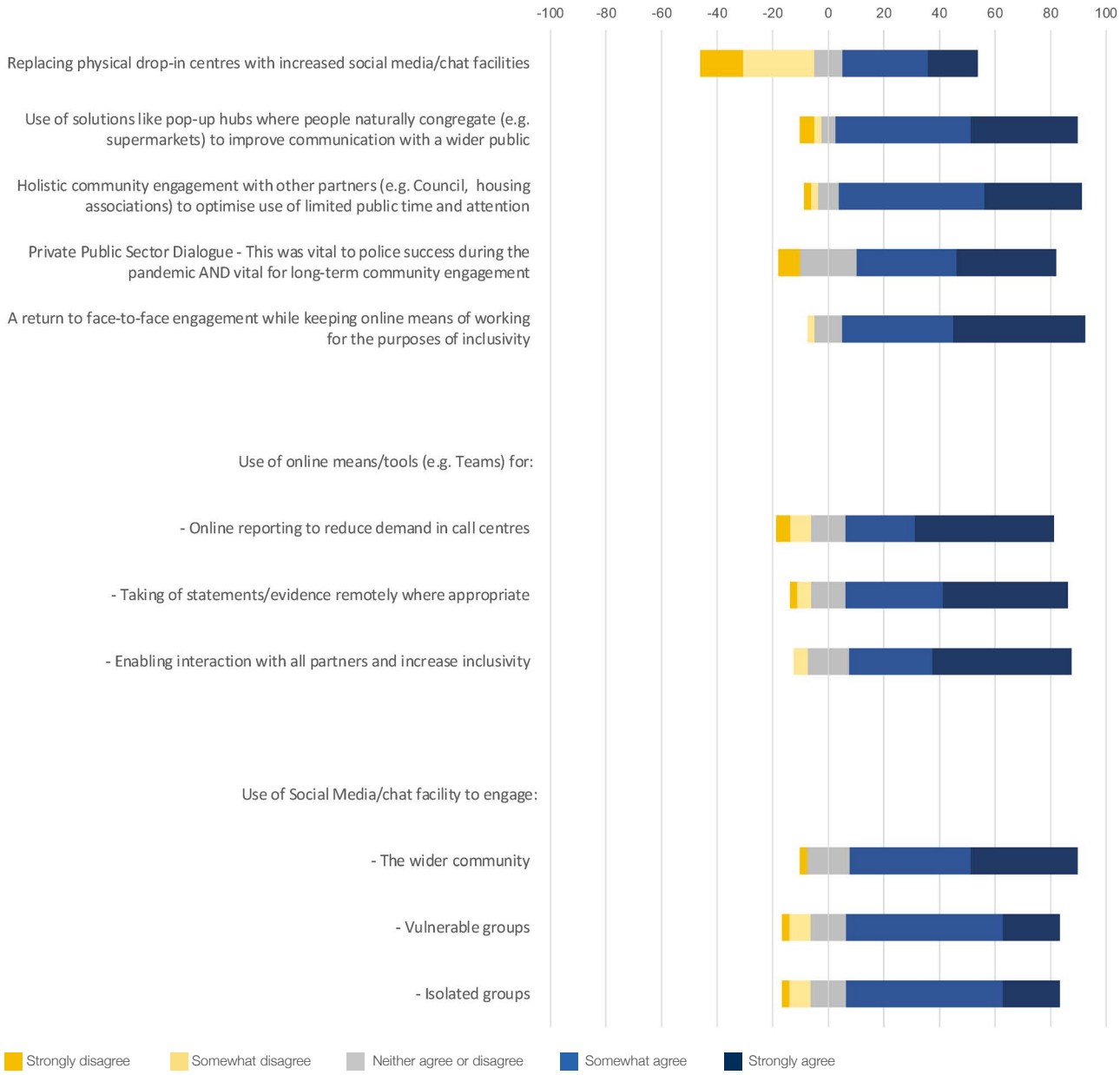


Figure 3 shows the findings regarding the forms of community engagement employed during the pandemic that respondents wanted to see continue. There was a clear division of opinion about reducing the number of physical drop-in centres (and replacing them with increased social media or chat facilities). While few had no opinion on this, almost half either agreed or disagreed with this idea, although few felt strongly about the issue. There was particularly strong support for a return to face-to-face engagement (while keeping online modes of communication to increase inclusivity), but also clear consensus for the continuation of a private-public sector dialogue, more holistic community engagement and the use of pop-up hubs in areas with high footfall (in all cases, agreement exceeded 70%). There was also consensus of agreement (above 70%) about the continued use of online platforms for the online reporting of crimes, the taking of statements, and for interaction with partner organisations. Likewise, respondents agreed that they would like to continue to see social media and chat facilities used for engagement with all the communities that round 1 respondents had suggested would benefit from such communications.

Figure 3 Which approaches to community engagement used during the pandemic would respondents like to see continue?

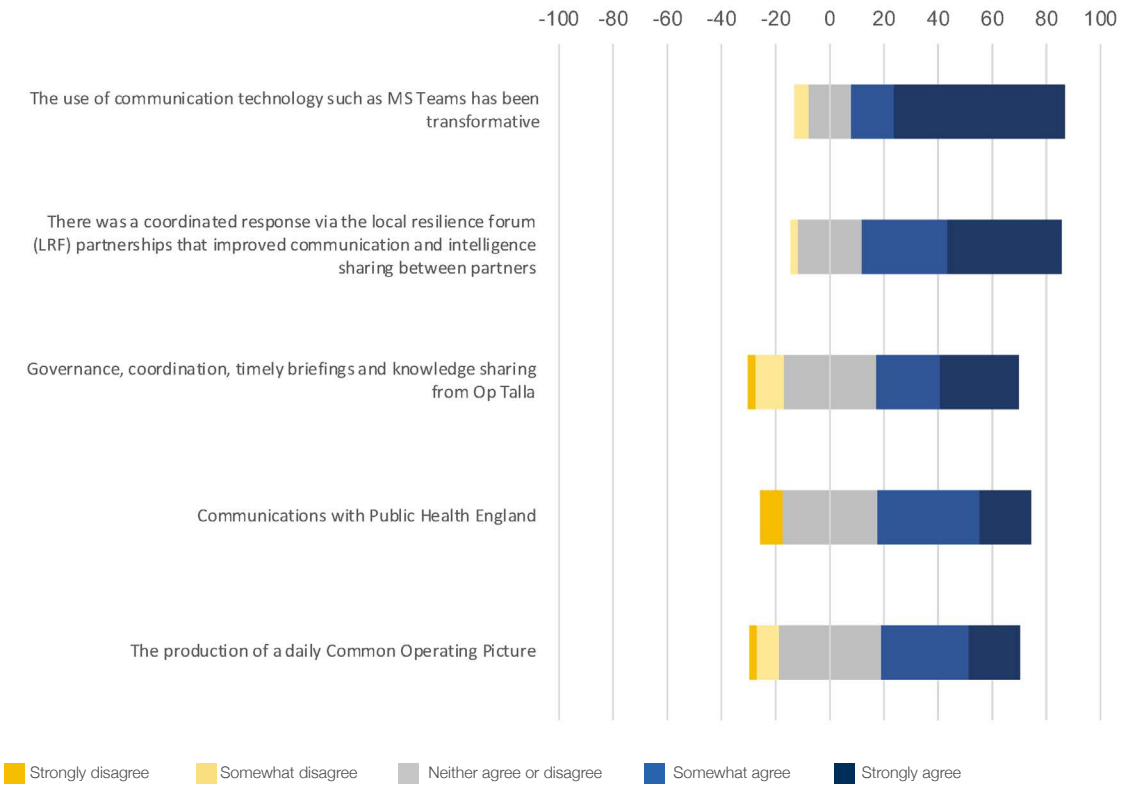


In terms of communications between stakeholders, what worked well?

Figure 4 shows where consensus emerged for what respondents believed worked well in terms of communication with stakeholders. There was clear consensus (more than 70% agreement) regarding the benefits of using communication technology such as MS Teams to communicate with stakeholders, and for the enabling role that the local resilience forums played. For the other topics, more than 50% of respondents agreed with the theme identified (and almost 30% strongly agreed about the role of Op Talla) but consensus was not reached in these cases.

For these latter three topics, the large proportion of respondents who neither agreed or disagreed may well suggest that many respondents were unaware of the specific guidance provided (or other activity conducted by Op Talla or Public Health England, say), or did not know how they contributed to (say) the LRF communications.

Figure 4 In terms of communication with stakeholders, what worked well?



Staff wellbeing

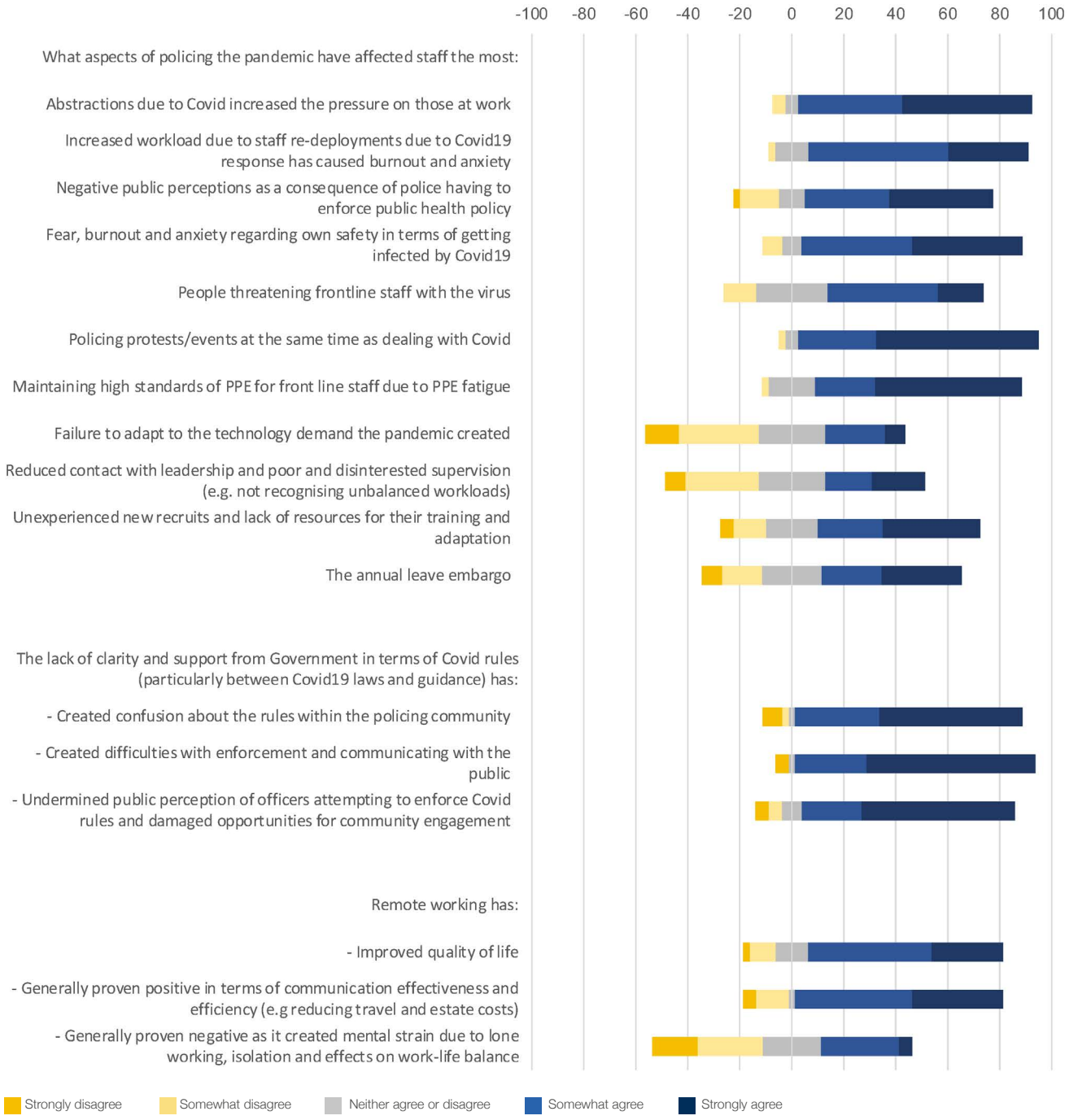
Figure 5 shows the responses to questions about staff wellbeing and what affected them most during the pandemic. For the main sample, we see that there was a consensus that abstractions due to Covid-19 (90% agreement) negatively impacted upon staff, that there was an increased workload due to the re-deployment of staff which caused burnout and anxiety (84% agreement), and that fear for their own safety negatively affected staff (85%). Respondents (72.5%) agreed that enforcing public health policy impacted negatively on public perceptions of the police, and that dealing with protests on top of the pandemic took its toll on officers (92.5% agreement).

There was also a consensus (89% agreement) that there had been fatigue associated with maintaining high standards of PPE throughout the pandemic. While 60% of respondents agreed that the fear of people threatening officers with the virus affected staff, consensus was not reached on this issue. For the other items shown in the top section of Figure 5 opinion was clearly more divided.

There was clear consensus about the negative impact of the lack of clarity in government guidance, with respondents strongly agreeing that this created confusion within the policing community (88% agreement), that it created difficulties in communicating with the public (93% agreement), and that it undermined the police's ability to enforce the rules (83% agreement). We think it is important to highlight the fact that while this issue is about communications, in this instance, it came up during a question about wellbeing and not communications. This is important because it suggests that the harm associated with poor communications extends to affecting staff wellbeing as well as their ability to police the public that they serve.

With respect to the impact of remote working on staff wellbeing, there was consensus (75% agreement) that this improved quality of life, and that it conveyed benefits in terms of organisational efficiency (80% agreement). In round 1, some respondents had suggested that remote working had created mental strain, isolation and impacted negatively on work-life balance. While the overall trend for round 2 respondents was to disagree with this statement, there were clearly some divisions on the issue, suggesting that it is was a problem for some.

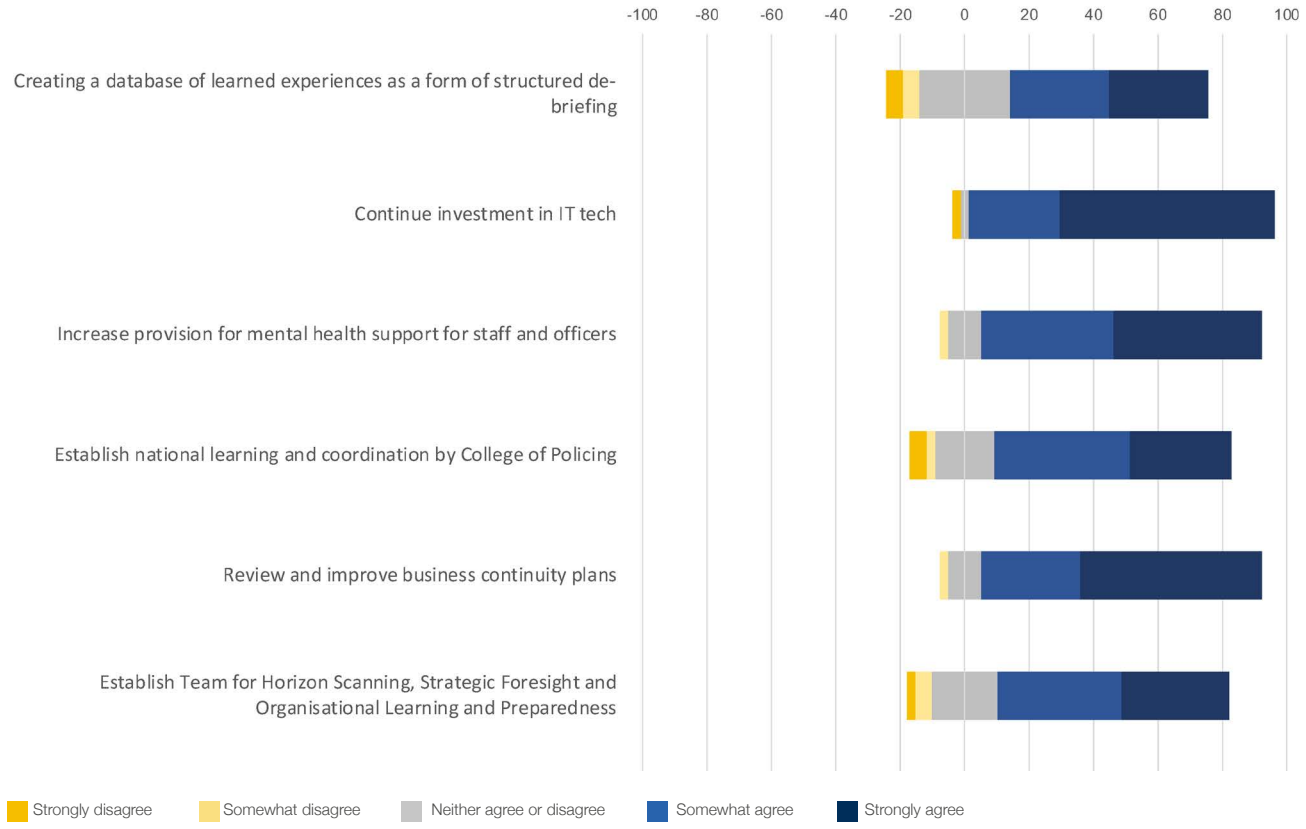
Figure 5 Staff wellbeing



What should the key activities be for your organisation to coordinate recovery and learning in relation to Covid-19?

Figure 6 shows participant's responses to what they felt their force/organisation should prioritise with respect to recovery and learning in relation to Covid-19. Most respondents agreed with the majority of the issues that emerged in round 1, with consensus being reached for all items (71-94% agreement) except the need to create a database of learned experience as a form of structured de-briefing, a suggestion that was supported by 62% of respondents. As such, respondents agreed that priority should be given to continued investment in technology, the increased provision of mental health support, the review and improvement of business continuity plans, coordination of learning by the College of Policing, the establishment of Horizon Scanning, strategic foresight and organisational learning and preparedness teams, and cultural and organisational adaptation to balance remote and in-person working.

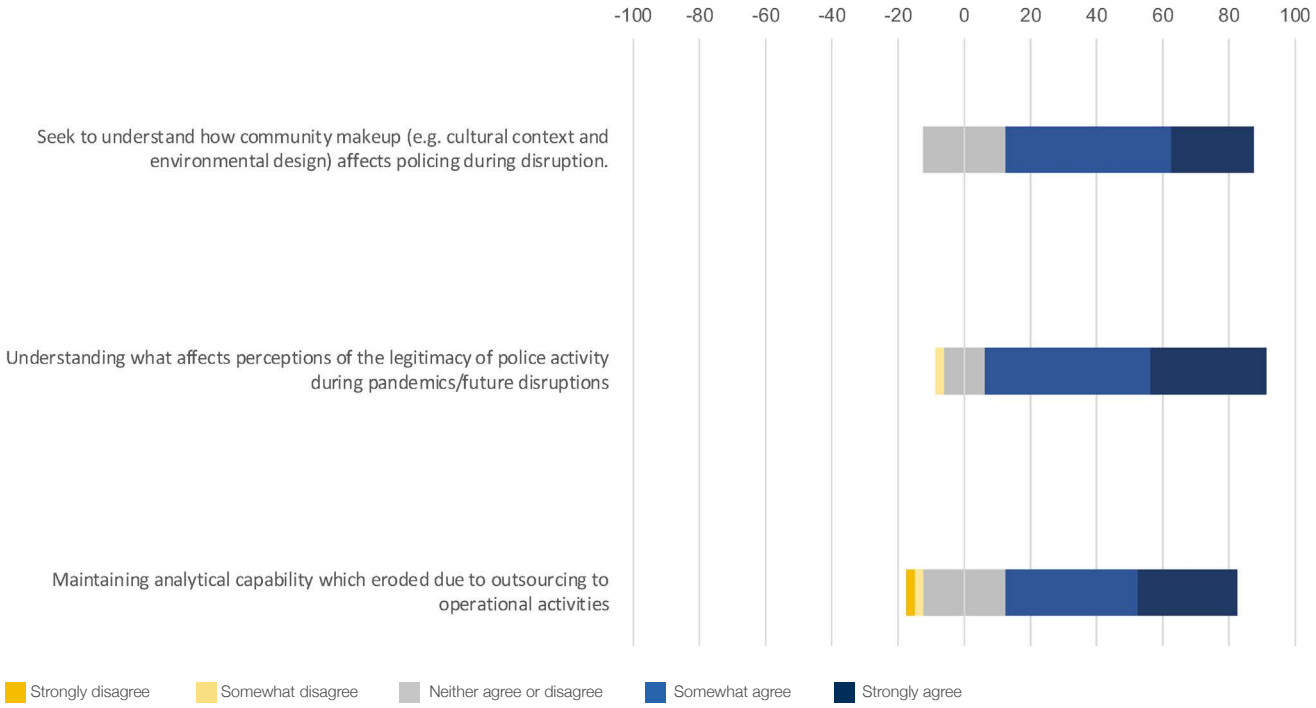
Figure 6 What should the key activities be in a force/organisation to coordinate its recovery and learning in relation to Covid-19



Other things important to policing and disruptions

Figure 7 shows participants' responses to suggestions about anything that had not been covered already. Only three issues emerged from Round 1 but consensus was reached for all of them, with respondents agreeing that there was a need to understand how community make up (broadly defined) affects policing during times of disruption (75% agreed and no respondents disagreed with the need to do this), what affects perceptions of police legitimacy during disruptions (85% agreed), and the need to maintain analytic capacity during disruption rather than allowing it to be eroded (70% agreed).

Figure 7 Other things important to policing and disruption

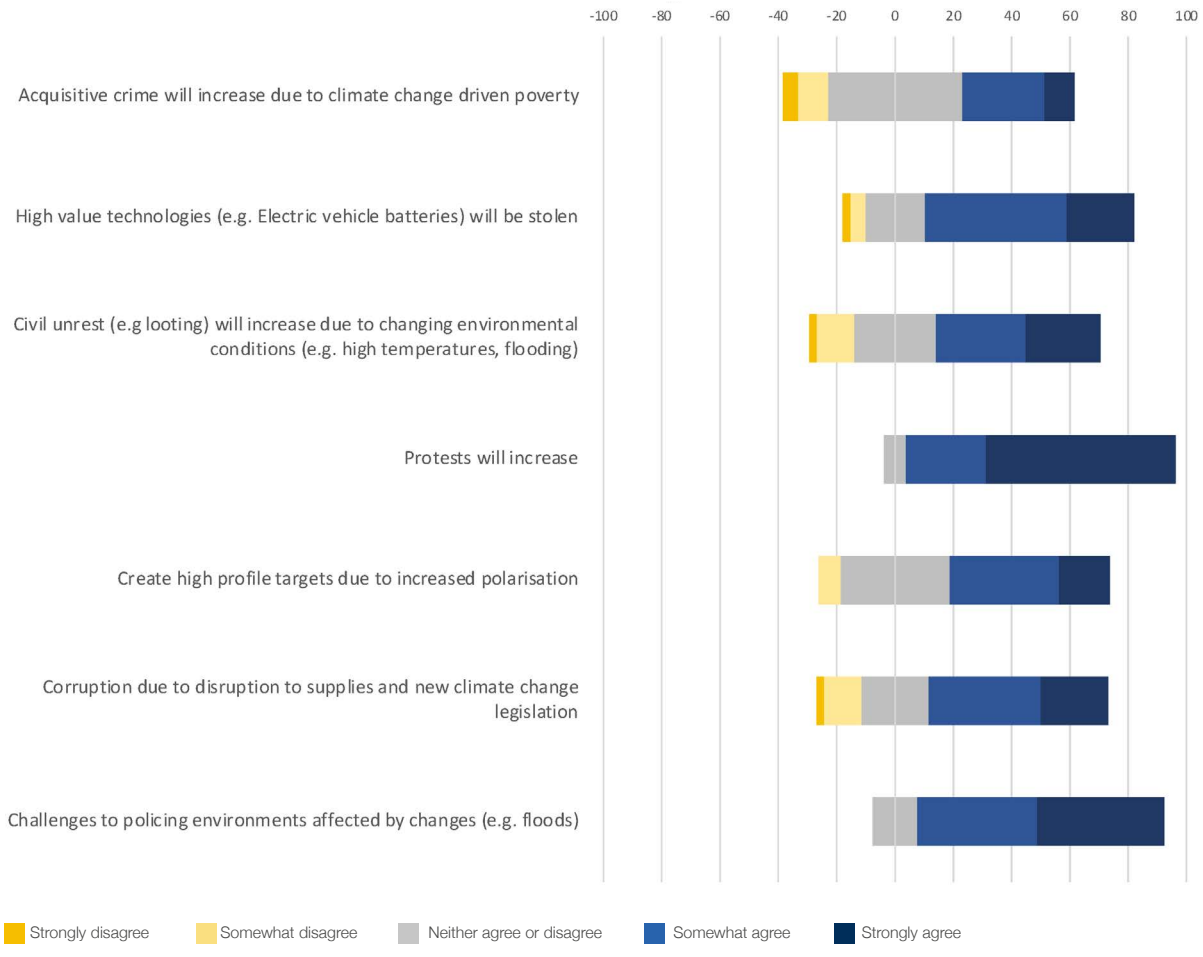


Climate Change

How could climate change affect crime in the next 10 years?

Figure 8 shows that respondents agreed with some but not all the suggested ways in which climate change might affect crime in the future. There was agreement that protests would increase (93% agreed), that high value technologies including electric vehicle batteries would be targets for theft (72% agreed), and that the policing task would be affected by changes to the environment, such as flooding (85% agreed). Respondents tended to also agree that disruptions to supply chains and new legislation might create opportunities for corruption (62% agreed), that changing environmental conditions would lead to civil unrest (56% agreed), and that polarisation might create high profile targets (55% agreed), but a clear consensus did not emerge for these issues. While some (38%) agreed that acquisitive crime would increase as a consequence of climate change, most neither agreed nor disagreed with this scenario.

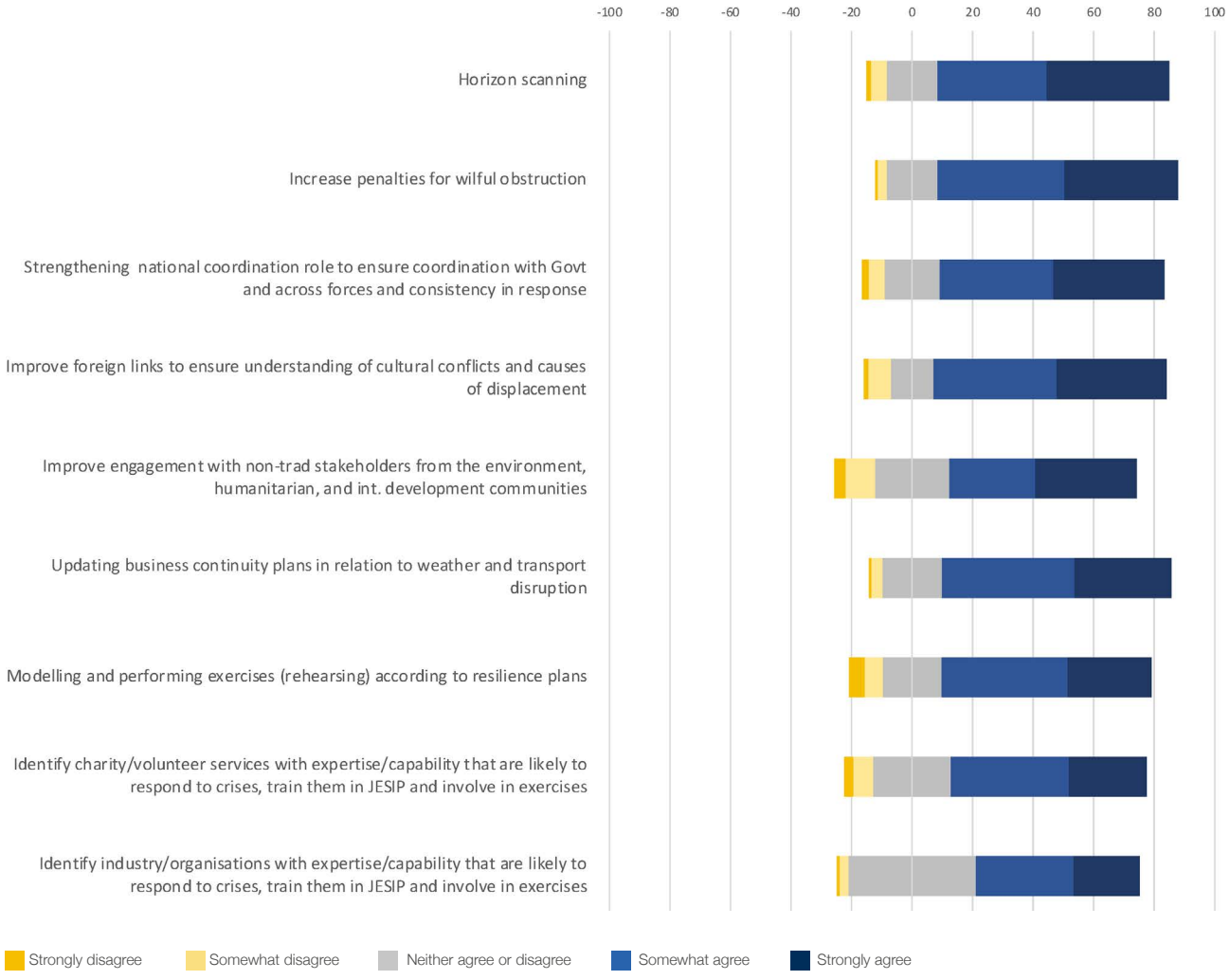
Figure 8 How could climate change affect crime in the next 10 years?



In terms of policing preparedness and response to disruptions caused by climate change in the next 10 years, what should we prioritise?

Regarding policing preparedness and climate change, Figure 9 shows that consensus was reached for two-thirds of the suggestions identified in round 1. The perceived need for horizon scanning (76% agreed), the updating of business continuity plans (76% agreed), the need to rehearse resilience plans (69% agreed), and the strengthening of national coordination (74% agreed) suggest that respondents felt that it will be important to avoid strategic surprises through the completion of foresight activities and planning. The need to improve foreign links to understand cultural conflicts and causes of displacement (77% agreed) speaks to similar issues. Finally, in terms of policy responses, respondents felt that it would be helpful to increase penalties for acts of wilful destruction (79% agreed).

Figure 9 How should we prepare and respond to anticipated changes in crime associated with climate change?

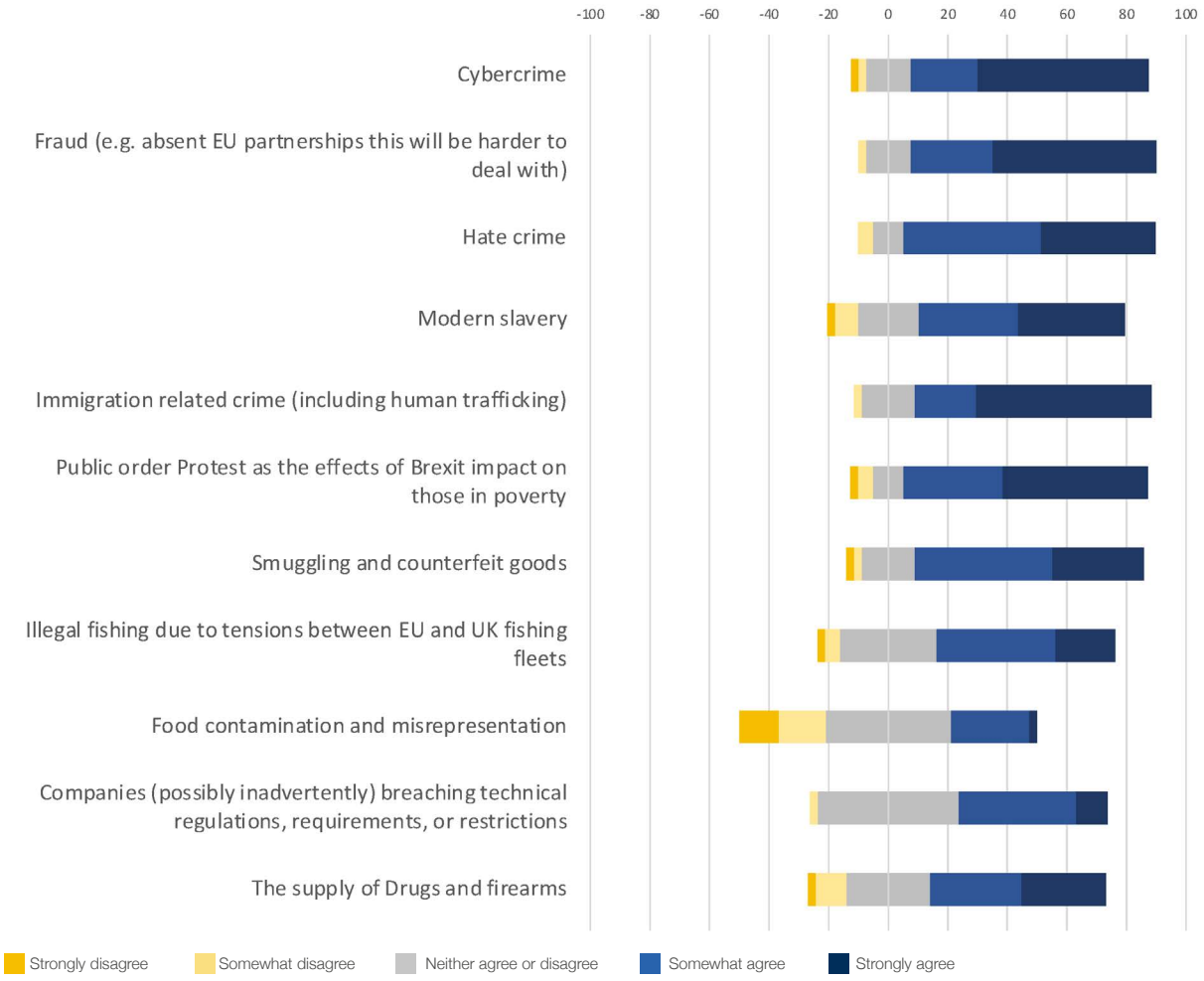


Brexit

Which crimes are likely to be most prevalent due to Brexit in the next ten years?

With respect to the types of crime respondents felt would increase as a consequence of Brexit, consensus was reached for 6 of the 11 crime types identified in round 1 (see Figure 10). Respondents collectively felt that cybercrime (80% agreed), fraud (83% agreed), hate crime (85% agreed), immigration related crime including human trafficking (80% agreed), public order protests regarding the effect of Brexit on those in poverty (82% agreed), and smuggling and the counterfeiting of goods (77% agreed) would all increase. While some agreed that other forms of crime, such as illegal fishing, and food misrepresentation would increase, many did not, or held the opposite view.

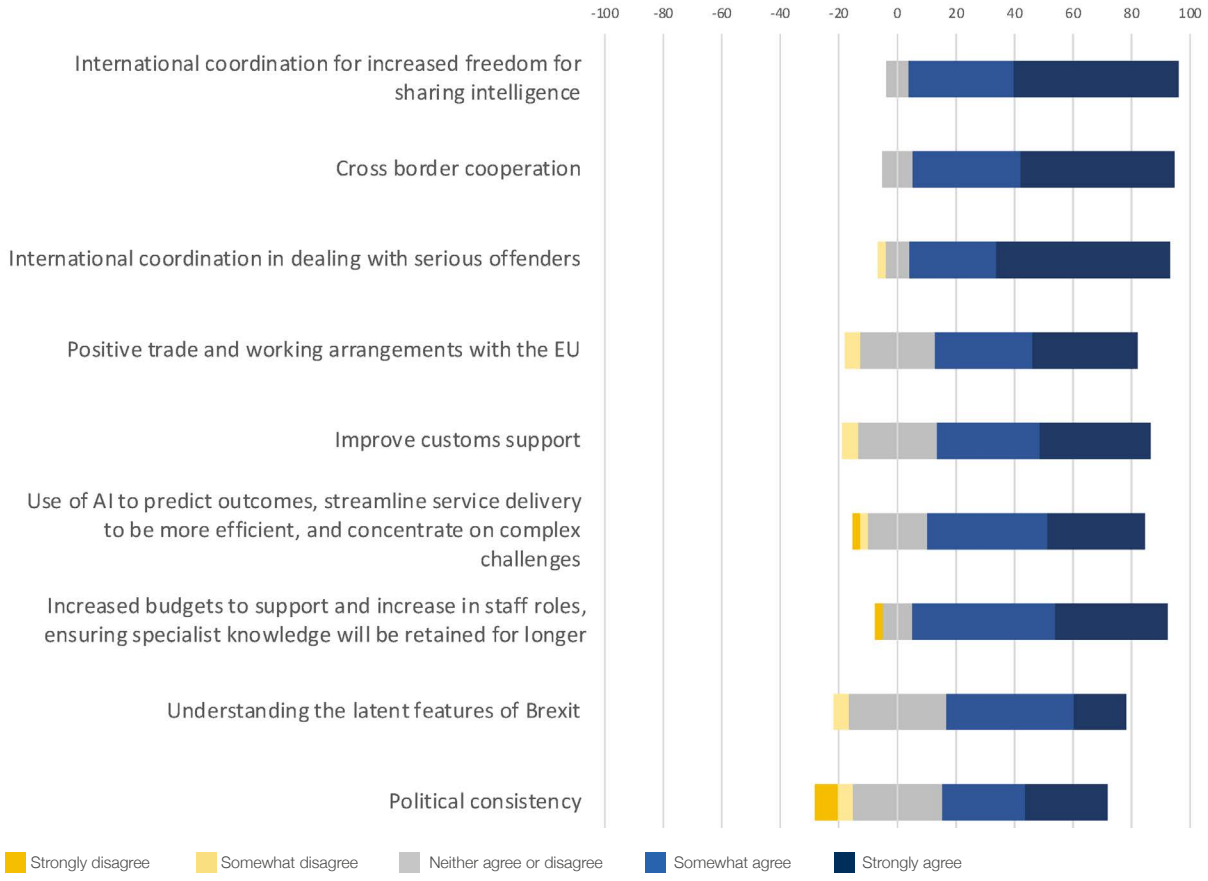
Figure 10 Which crimes (existing or novel) are likely to be most prevalent due to Brexit in the next ten years?



With respect to policing preparedness and responses to new or existing crimes associated with Brexit, what should we prioritise?

In terms of how the policing community should prepare for the changes anticipated as a consequence of Brexit (see Figure 11), these were quite different to those identified for preparing for climate change. A clear theme that respondents agreed on was the need for international and cross border coordination in dealing with serious offenders, and the need for intelligence sharing (90% agreed). Improvements to customs support (73% agreed) and the need to increase budgets to develop and retain staff with specialist knowledge (88% agreed) were also seen as important, as was the need to use artificial intelligence (AI) to predict outcomes and support service delivery (74% agreed). While many agreed with the need to better understand the latent implications of Brexit, for political consistency, for positive trade and working arrangements with the EU, consensus was not reached for these themes.

Figure 11 How should we prepare and respond to anticipated changes in crime associated with Brexit?



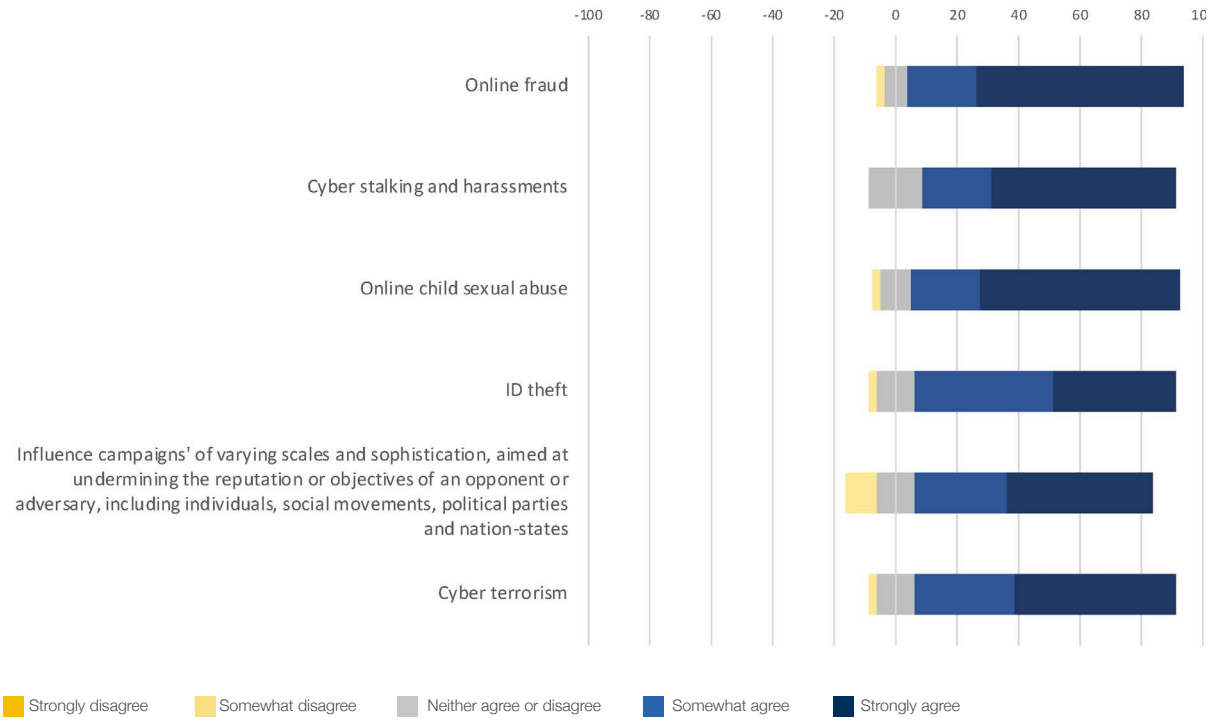
Technology Change and Online Crime

The round 1 responses to the technology and online crime questions overlapped considerably and so in round 2 we took the decision to merge these.

Which online crimes (existing or novel) are likely to be most prevalent in the next 10 years?

Figure 12 shows that participants generally agreed with all of the themes that emerged in Round 1 (70% or more agreed), although the strength of agreement was stronger for online fraud (68% ***strongly*** agreed), cyberstalking and harassment (60% ***strongly*** agreed) and online child sexual abuse (65% ***strongly*** agreed) than for the other themes (for which 40-53% ***strongly*** agreed).

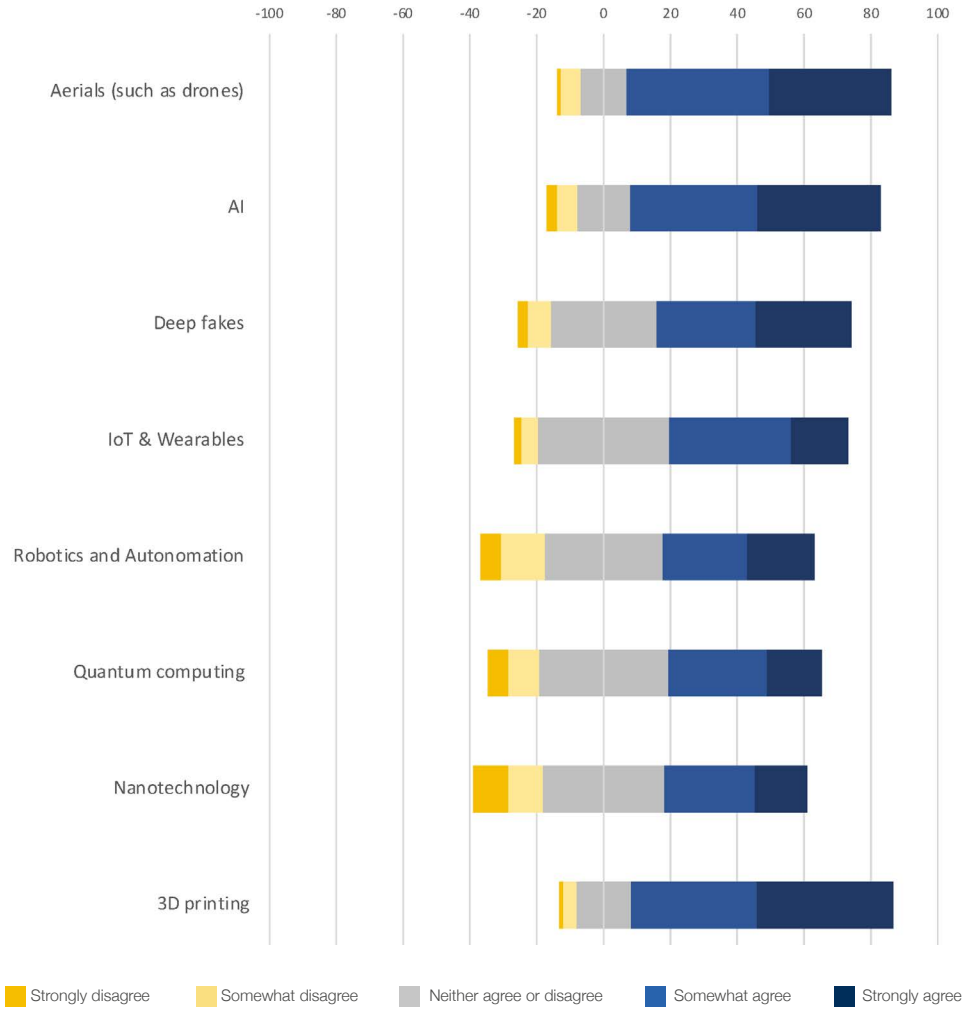
Figure 12 Which online crimes (existing or novel) are likely to be most prevalent in the next 10 years?



What technological change is most likely to affect crime in the next 10 years?

As shown in Figure 13, less consensus emerged for the types of technology that would most likely affect crime in the next ten years. Respondents agreed that aerial vehicles, such as drones (79% agreed), Artificial Intelligence (75% agreed), and 3D printing (79%) would affect crime, but there was no consensus for the other technologies, with many respondents having no opinion one way or the other. It is, of course, not possible to tell if this was because respondents did not feel sufficiently qualified to comment on these technologies or because they were unsure what impact on crime they might have.

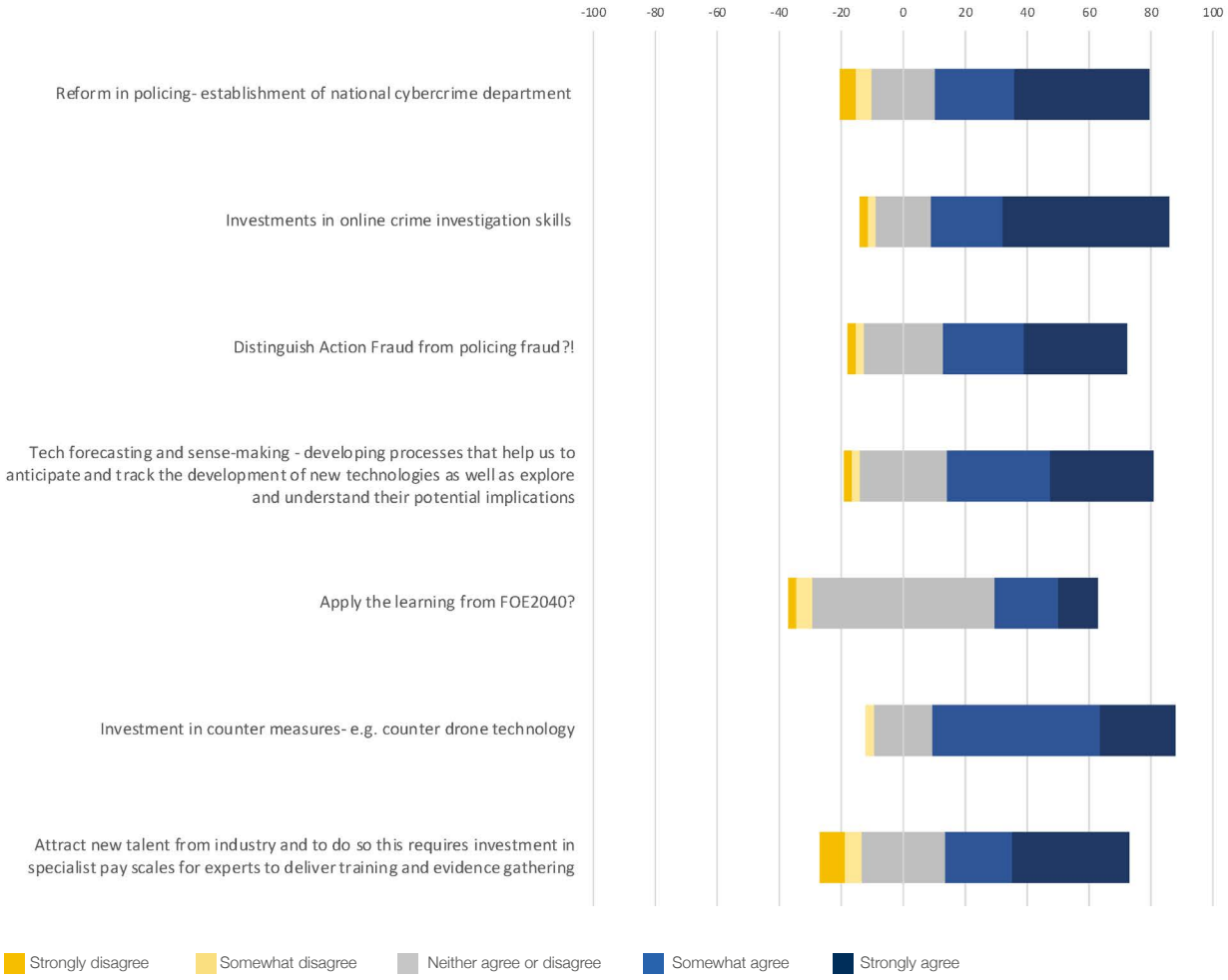
Figure 13 What technological change is most likely to affect crime in the next 10 years?



How should we prepare and respond to technology change and crime online?

Figure 14 shows that respondents reached consensus for just two of the seven suggestions about how the policing community should prepare for technological change and online offending. These were for investment in online crime investigation skills (77% agreed) and investment in countermeasures such as counter-drone technology (78%). Consensus was almost, but not quite, reached for the need to establish a national cybercrime department (69% agreed). For the other items, there was more diversity of opinion amongst respondents.

Figure 10C What technological change is most likely to affect crime in the next 10 years?



Conclusions and Recommendations

Our findings clearly show the benefit of employing a formal method for identifying consensus. Had we not done this, we might have concluded that respondents agreed about all of the themes that emerged in round 1, even though they clearly did not. Some examples include the suggestion in round 1 that young people had been difficult to engage with during the pandemic. In round 2, we found that only 20% agreed with this, suggesting that in general the reverse was true. Similarly, while some felt that there had been a failure to adapt to the technology demands created by the pandemic, most respondents did not (only 30% agreed). In terms of the impact of climate change on crime, while some felt that climate change driven poverty would lead to increases in acquisitive crime, most had no view on this. These are just a few examples, but they serve to illustrate the value of employing an approach that enables respondents to generate the themes to be explored, but also explicitly seeks to identify if and where consensus exists.

We will discuss the items for which consensus was reached below, but we did not expect respondents to reach a consensus for all items and they did not. Where agreement was not reached, perhaps most interesting are those items for which there was a bifurcation with non-trivial proportions of respondents agreeing and disagreeing with them. Examples included:

- The suggestion that the demand for policing to shift to Covid-19 response reduced visibility and harmed police reputation which ultimately led to communities policing themselves.
- That the Covid-19 response reduced scrutiny in risk management, shifting priorities to particular groups (e.g., Sex offenders) instead of the most at-risk offenders.
- That the shift to online (including the use of social media for community outreach) accelerated and improved engagement with vulnerable and isolated groups.
- That physical drop-in centres should be replaced by the increased use of social media or chat facilities.
- That there had been a reduction in contact with leadership during the pandemic that affected the quality of supervision.
- And how remote working had impacted upon staff wellbeing (most felt this was positive, but some felt it created isolation)

Such variation could occur for a variety of reasons. Perhaps most obviously, context matters, and this will influence the cross section of the public to be served, how the public responded to the pandemic, as well how the policing strategy was implemented locally. Variation in these three factors (and others) and their interaction will have impacted upon outcomes and respondent's perceptions of them. Future work might seek to unpack such variation as it may help to identify good practices or situations/contexts in which certain responses work well or do not work as intended.

Where respondents did reach consensus, this suggests a common issue that should be prioritised for consideration in strategic decision-making. We turn to some of these themes now and make recommendations, where relevant. These recommendations were independently formulated by the Dawes Centre for Future Crime at UCL and do not necessarily reflect NPCC/NPoCC thinking.

Communication Technology

Almost all respondents saw the need for continued investment in information technology. Technology and how we interact with it is constantly evolving and hence it is important to ensure that new opportunities are routinely identified, and that an evidence base is developed to assess "what works" to reduce crime but also to deliver the wider set of outcomes that policing aims to achieve. The use of communication platforms (e.g., Teams) were discussed as being transformative in terms of facilitating communications within policing and with external partners, in terms of achieving a good work-life balance (although some found the use of it isolating), and in terms of saving resources associated with travel time and consequently the organisation's carbon footprint. These findings are consistent with conclusions presented in the Op Talla Workforce Recovery - Paper 2 (2021).

Recommendation 1 – Police forces should continue to use communication platforms and develop/update digital transformation strategies that consider the diverse needs of the workforce, the security of the platforms used (security settings should be enabled by default), and other organisational goals (e.g., carbon footprint was highlighted by respondents).

In terms of communicating with the public, most felt that reduced opportunities for face-to-face contact negatively affected this, particularly for vulnerable and isolated groups. Perhaps not surprisingly then, social media platforms, and the benefits of using them to communicate with the public, were discussed frequently. However, it is important to acknowledge that social media applications are constantly evolving and that there is a very limited evidence base as to "what works" in terms of the police use of social media. In a recent study, Nikolovska, Johnson & Ekblom (2021) examined police use of Twitter during the pandemic and found that while this platform was routinely used to inform the public about the pandemic, and to provide information about crimes for which the risk had increased, opportunities were missed. For example, many tweets did not provide details of where victims could report offences or find further information (though this varied by crime type). Moreover, for some offence types, such as domestic abuse, while there was an increase in the information provided over time, including where victims might seek help, the provision of this information peaked during (rather than before) the lockdown when conditions might have made it difficult for those in need of help to ask for it.

Recommendation 2 – NPCC should coordinate, and police forces to adopt, a more strategic approach to the police use of social media when communicating with the public including what to include in posts and what to prioritise and when (for a discussion of police use of Twitter, see Nikolovska et al., 2021).

Recommendation 2.1 – UKRI or other organisations should fund or encourage applications for research to develop the evidence base on the effective use of social media by the police, in times of crisis and business as usual.

Community Engagement

Returning to the issue of community relations, respondents agreed that there was a need to better understand what influences the public's perception of police legitimacy during pandemics and future disruptions. In terms of strategies employed during the Covid-19 pandemic to manage this, they felt that the use of the 4Es (Engage, Explain, Encourage, and Enforce) approach had worked well. This chimes with the findings of a study by Aitkenhead et al., 2022 – which included interviews with police officers and surveys of the pubic – and found that the approach helped to maintain police-public relations. Like the authors of that study, we recommend that:

Recommendation 3 - The NPCC and College of Policing (as leads for professional practice) should seek to understand (or commission research to understand) what can be learned from the 4Es approach and how this might be transferred to other areas of policing, including future disruptions and current areas of operational policing.

Recommendation 3.1 - Given the applicability of such approaches (4Es) to a wide range of scenarios, and their potential beneficial impact on perceptions of police legitimacy, we recommend that the College of Policing review police training requirements to ensure that all officers receive sufficient training in these (and other) forms of community engagement.

In terms of those sections of society for which engagement had been most difficult, there was generally a lack of consensus about this, with two exceptions. These were the elderly and those without internet access. According to the Office for National Statistics (ONS) data[5], internet use varies significantly across age groups with 99% of those aged 16-44 years using the internet but only 54% of those aged 75 doing so. With this in mind, the two groups identified may largely be one and the same, and hence solutions to the problem might revolve around addressing the digital divide. Internet use will most likely increase over time for all sections of society which may help to address this issue, however, this does not mean that everyone will use the internet in the same way or that communication via online platforms will have the same effects for everyone.

Recommendation 4 – The police should consider how to most effectively communicate with those who are not regular internet users, particularly under conditions like those experienced during the pandemic (but not necessarily caused by a pandemic). One option, that respondents suggested and agreed would be useful, is the use of "pop-up" hubs at places where people naturally congregate, such as supermarkets. Given the public's general use of supermarkets (and other facilities, e.g., doctors surgeries), exploring other opportunities to work with them would be worth pursuing too.

5 https://www.ons.gov.uk/businessindustryandtrade/itandinternetindustry/bulletins/internetusers/2020

Staff wellbeing

Not surprisingly, respondents agreed that the pressures associated with policing the pandemic (e.g., abstractions) impacted upon staff wellbeing. In line with this, it was perhaps also unsurprising that respondents suggested and agreed that increasing the provision of mental health support for staff and officers should be a key activity for police organisations as part of their recovery and learning in relation to the pandemic.

Policing needs to recognise the cumulative and incremental effect of the pandemic. Unlike a localised traumatic event, the impact of the pandemic unfolded over a sustained period of time which creates a unique leadership and policy challenge in terms of providing welfare support. Activity has taken place, including online resilience workshops which were organised during the early Covid-19 response. These were well attended but there are challenges in reaching all appropriate staff.

Recommendation 5 – NPCC and College of Policing should capture learning and best practice from other organisations/sectors in terms of managing health and wellbeing following the pandemic that could be applied in a police context (in general and for future disruption in particular) and explore models for delivery.

Recommendation 5.1 – Staff are individuals and for some Covid-19 will have a longer lasting impact on their psychological wellbeing than others. We recommend that Police forces review their capacity to provide mental health support for staff particularly for scenarios of prolonged pressure (including long Covid). This should include managerial and clinical (where applicable) interventions for trauma management.

Perhaps not so expected was the finding that a lack of clarity and support from the government in terms of how they announced changes to rules/laws also impacted upon staff wellbeing. There was, for example, very clear consensus that this created confusion within the policing community, and there was a perception that it undermined public perceptions of police officers (for example), all of which impacted upon staff wellbeing.

Recommendation 6 – The NPCC should maintain relationships within the Home Office at a strategic level and ensure timely communications and updates are provided to forces. It is recognised that the process of creating new policies during disruptions is complex (and fast moving) but ongoing relationships with government should seek to improve communication timeliness in response to future crises.

Recommendation 6.1 – The Government should consider how the lead department (which will vary by type of crisis) will engage and communicate across other government departments to enable timely and effective consultation and delivery across policing.

As noted above, while most respondents felt that remote working had a positive impact upon officer's quality of life, there were some concerns that it created isolation. Moreover, a consensus was reached that there was a need for cultural adaptation among forces to achieve a balance between remote and in-person working.

Recommendation 7 – Police forces should review agile working (including remote working) policies in terms of how these might impact upon quality of life (and also efficiency).

In August 2020, the Op Talla Recovery Programme requested all UK and non-Home Office forces to submit their Top Ten organisational learning points in relation to Covid-19. Agile working was raised frequently in this exercise and consequently Op Talla have produced a paper "Agile Working in Policing, lessons from the Covid-19 pandemic". This is available to police forces on the Policing Knowledge Hub and we recommend that use is made of this resource when carrying out Recommendation 7.

Foresight Activity

Across a variety of topics, respondents agreed that there was a need to invest in foresight activity (e.g., horizon scanning), business continuity plans, and to conduct resilience training exercises. As noted above, one Round 1 respondent expressed this as follows:

> "Keep up the energy and prepare for like events. Don't let the COVID related projects fade. The next threat is around the corner. Establish a dedicated team for Horizon Scanning, Strategic Foresight and Organisational Learning and Preparedness. This team should then connect to any products coming out of Talla and disseminate into force and make sure that the organisation is at optimum readiness for next threat by 'war-gaming'."

Horizon scanning exercises can and should focus on technologies, but (as alluded to above) they should not be limited to these, and should consider how political (e.g., Brexit), environmental (e.g., climate change), societal (e.g., changing societal views), economic (e.g., rising inflation), legal (e.g., new legislation) and other drivers might impact upon crime or the policing of it in the future. The College of Policing's Future Operating Environment 2040 report was identified as an important resource in round 1, but in round 2 most respondents held no view on its utility in helping the police community prepare for the future. While it is difficult to discern why that was the case, one possibility is that most respondents were just not aware of the report and its findings. Given the value of the work, this should be investigated and further dissemination planned, if necessary.

Recommendation 8 – Police Forces should engage in their own foresight activities and draw on the work of others, including the College of Policing, Home Office, NCA, Interpol, Europol, industry, and academia (e.g., Dawes Centre for Future Crime at UCL). The implications of such work and plans to address any threats identified (including impacts on health and wellbeing), or opportunities to exploit, should be explicitly articulated in force management statements and pay attention to the guidance provided in HMICFRS's Annual Assessment of Policing in England and Wales (2022)6[2].

6 https://www.justiceinspectorates.gov.uk/hmicfrs/publications/state-of-policing-the-annual-assessment-of-policing-in-england-and-wales-2021

Word Cloud 6 All stakeholders identified in round 1

In terms of who might be consulted in such work, the word cloud above shows all of the stakeholders identified by respondents who participated in round 1 of this Delphi study. Different stakeholders will, of course, be more relevant for some issues than others, but what the word cloud suggests is that respondents recognised the value of a range of stakeholders in understanding the issues that the police will have to deal with in the future and hence the need to engage with diverse groups. In addition to consulting with UK partners to understand future or emerging issues, much can also be learned by considering how other countries deal with disruptions that they face on a relatively routine basis.

Recommendation 8.1 – To facilitate Recommendation 8, the College of Policing should review the training provided to police forces in relation to futures and foresight activity to ensure that sufficient training is provided to police staff in terms of what the appropriate techniques are and how to apply them (or commission others to do so).

Recommendation 8.2 – Home Office, College of Policing and NPCC should explore readiness models in nations that routinely deal with major disruptions and disasters to which the police have to (or should) respond to see what might be learned and applied in a UK context.

Recommendation 8.3 – Home Office, College of Policing and NPCC to work together, ideally appointing an "owner" to coordinate activity at a national level, to ensure that activities are joined up, that learning is cumulative, coordinated, widely communicated and that action is taken, when necessary. Absent this, future threats may be identified but limited or inadequate action taken to prevent them, which may lead to an increased demand on policing in the future.

Technology and Online Crime

It will be important for the policing community to consider which technologies might create new crime opportunities in the future or be of value to the policing enterprise. For example, consumer electronic devices such as televisions, security cameras and doorbells are increasingly internet connected, which creates opportunities for criminals (for a review, see Blythe & Johnson 2021) but also for law enforcement. While our respondents recognised this type of technology (including wearables, such as smart watches) as a potential crime threat, more concern was raised about technologies such as drones, 3D printing and Artificial Intelligence (for a review of AI-enabled future crime, see Caldwell et al., 2020). For the other technologies identified (quantum computing, robotics, and nanotechnology) many respondents held no view about their crime risks. This is not surprising as respondents could not be expected to be experts on these topics. However, there should be expertise or an understanding of their crime potential within the policing community if we are to get ahead of the problems rather than having to respond to them after criminals exploit their potential. Adopting recommendations 8-8.2 in a systematic way should help to address this agenda.

In terms of the capacity to respond to the crime threats associated with online environments and new technologies, most agreed that there was a need to prioritise cybercrime (including fraud, online child sexual abuse, and cyber stalking) and to invest in online crime investigation skills, to invest in countermeasures such as anti-drone technology[7] and for the need to establish a national cybercrime department. All of this resonates with the conclusions of the 2021 HMICFRS's State of Policing report which, as well as highlighting the (future) role of technology in policing, concludes that the prevention and investigation of (online) fraud is not sufficiently resourced or prioritised by police forces, with their being too much reliance upon Action Fraud, the national reporting centre, whose role is to record rather than investigate or prevent these offences.

7 For drones, counter-drone technologies are already used in some areas, such as those who police international airports. However, counter-drone technology is not universally deployed, and this is just an example raised by respondents to illustrate a broader point.

In combination, these issues raise an interesting debate about whether there should be a specific policing structure aimed at proactive prevention and investigation to combat online criminality. Currently, the National Crime Agency would target the most serious criminals, police forces would pursue the most serious offences, but the capacity and structures at force level are not generally sufficient to police online criminality as they would traditional criminality. The recent appointment of a Chief Science Advisor (CSA) for policing and the establishment of the Police Science Advisory Council (PSAC) to support their work, signals recognition that the policing portfolio is increasingly complex (the Home Office's CSA previously dealt with policing as part of her portfolio) and might present an opportunity to review whether the policing structure is fit for purpose now and in the future.

Recommendation 9 – The NPCC should work in line with the HMICFRS (2022) report to prioritise the prevention and investigation of online offending (including fraud). It will be important to ensure that roles and responsibilities are clear, and that sufficient resourcing (to ensure both capacity and capability) is provided for this growing problem.

Climate Change

Climate change is, of course, a significant concern in general. However, our focus here is about how the environmental changes it might bring about could impact upon crime opportunity and/or the task of policing. In terms of the former, respondents reached a consensus that climate change would lead to increased levels of protests, and the theft of high-value technologies. If implemented, recommendations 3 and 3.1 will help police to manage protests. In terms of the theft of high value items, the likely key to addressing this will be the reduction of crime opportunities, which is something that should be the responsibility of those manufacturing or selling goods. This is not something that policing can address directly, but policing will have to deal with the downstream impacts of this if it goes unaddressed. As such:

Recommendation 10 – The law enforcement community should engage with industry and others, for example, through the police security initiative Secure by Design, to anticipate which high value technologies are likely to be targeted by criminals and work to design out the associated threats. This work should be aligned with, rather than duplicating, the foresight activity discussed above (see Recommendations 8 and 8.3). The Police foundation (2021) have suggested that a new Crime Prevention Agency should be established (see Muir, 2021), and given statutory powers to undertake such work and we endorse this recommendation.

Some high-value technologies, or components of them, might be owned or in some other way governed (e.g. they may have to approve their installation), by local authorities. Section 17 of the Crime and Disorder Act 1998[8] places a legal duty on local and other authorities to do all that they can to reduce crime and disorder in their local environment. Consequently, we further recommend that:

Recommendation 10.1 – Full use should be made of the (existing) Crime and Disorder Act 1998, with community safety partnerships and local authorities ensuring that activity occurs and that this is coordinated.

8 https://www.legislation.gov.uk/ukpga/1998/37/section/17

With respect to the challenges of policing environments affected by climate change, this too will require forward planning and the consideration of the likely environmental scenarios that might emerge in the short– to long–term. Engagement with the Environmental Agency (EA) and other organisations who will be considering the impacts of climate change on the UK would be an obvious action in this respect (see also recommendation 8.1).

Recommendation 11 – Those involved in police foresight activities should explicitly work with those outside of the policing community whose futures work might have crime and broader (e.g., community engagement, and the policing of other community interventions) policing implications. As per recommendation 8.3, it will be important to ensure that a lead agency is appointed to oversee this work and to ensure that action is taken, where possible.

Brexit

Many of the potential impacts of Brexit on crime may not be visible for some time but it is important to try to anticipate and plan for these now. Several of the concerns that respondents raised regarding Brexit (cybercrime, online fraud, online child sexual abuse) have already been discussed, but it will be important to understand if and how they may be impacted by Brexit in particular. Offences that were only raised in relation to Brexit included possible increases in hate crime, modern-slavery, and immigration-related crime. As the effects of Brexit unfold, it will be important to understand if and how it could impact on these (and other) forms of crime and what might be done to address these risks. For example, in what ways might legislation or other things change that could make these crimes easier to commit, or more difficult to investigate or prosecute. At the time the Brexit referendum was announced, and for some time after, concerns were raised about how changes to intelligence sharing platforms such as the Schengen Information System and the European Criminal Records Information System, and legal instrument such as the European Arrest Warrant, would impact upon policing in the UK but also in Europe. Perhaps not surprisingly then, in this study, respondents highlighted the need to coordinate international intelligence sharing, and for cross border processes to be in place to deal with serious offenders. Both the anticipation of these threats and the action taken to deal with them will need to be addressed, and this should be included in the activities that form recommendations 8 and 8.1. The outcomes of Operation Yellowhammer, the Government's contingency planning for a 'no deal' Brexit should feed into this activity. However, things have moved on since then and Brexit has not happened in a political, societal or legal vacuum which highlights the need for continued activity to understand how Brexit might yet affect crime. Research conducted at the Dawes Centre for Future Crime at UCL, which includes a systematic review of the available literature, an assessment of the post-Brexit risks of corruption and financial crime (Pasculli, 2019), and a planned Delphi study, can inform this activity.

Recommendation 12 – On behalf of the policing community, the NPCC should engage with the Home Office and others to monitor developments and if necessary, stand up a national coordinating Operation (such as Op Talla) in response to critical and/or emerging threats to policing to support forces at national, regional and local levels.

Closing Thoughts

It is important to note that this study, like any other, is not without limitations. For example, it is not a survey of thousands of officers and so the views expressed here may not reflect those of all police officers across the UK. However, this was not the aim of the study. Instead, it was a national study of "experts" who were involved in the coordination of the pandemic response. Of course, with surveys, the questions asked and the responses that can be provided are typically set by the survey team, which means that important issues can be overlooked because they were simply not asked about. The latter can be addressed to some extent by asking respondents "open" questions, but analysing these responses can become infeasible for large samples, and as we saw with our own analysis, might lead to assumptions being made that a consensus exists where it does not. The approach taken here then, enabled us to explore those issues that respondents felt were important and to subsequently establish where a consensus existed. Future work might involve a larger survey using the round 2 questions that emerged here.

On the basis of the findings, we have made 12 key recommendations and an additional eight sub-recommendations. Some of these echo those made independently by others using different sources of data, which serves to reinforce those suggestions. Others are novel recommendations that emerged from the findings of this study. If the pandemic has taught us one thing, it is that we need to be prepared for the future. We hope that the recommendations of this study are taken forward by the relevant organisations and that we ***are*** prepared for the next disruption, and that we do not find ourselves making the same or similar recommendations in the future. As highlighted throughout the recommendations, this will not only require that recommendations are implemented but also that lead agencies are identified to own and be accountable for them.

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