Centre for Policing Research and Learning

The Open University

Policing Uncertainty, Decisions and Actions in a National Emergency

A report on a study of policing leadership and decision-making in the UK during the Covid-19 pandemic

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April 2022

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Executive summary

This research project examines real-world senior police decision-making in the context of radical uncertainties and unexpected events generated by a national (and international) crisis. This report draws on detailed interviews with 16 senior officers and staff in two English police forces: a large metropolitan force and a smaller force with significant elements of rural and coastal policing. The primary data collection was conducted between October 2020 and March 2021. The report also draws on publicly available documents and a workshop discussion of emerging findings with policing members of the Centre for Policing Research and Learning in April 2021.

Whilst the operational posture and capabilities of UK police forces are well configured to adapt to unforeseen events, the scale and nature of the Covid-19 crisis were unprecedented. In particular, the crisis was experienced from the early stages as unbounded both in time and geography; offering a unique opportunity to examine policing leadership in a time of crisis.

Police forces as high reliability organisations

It is clear from our analysis, that the forces we studied achieved a robust and resilient response to the challenges of the Covid-19 crisis. Key capabilities which supported this response included well practiced competences in the strategic command of critical and major incidents and leaders with deep experience of risk management in the face of uncertainty and unexpected events.

The two policing organisations we studied, as they responded to the challenges of the pandemic, demonstrated capabilities which prior research has associated with the characteristics of 'high reliability organisations' (HROs). Nonetheless, this HRO perspective also points to some areas that might usefully prompt deeper reflection within policing.

- Whilst strategic command capabilities were an important foundation for resilience in facing the pandemic, there were signs that this mode of operating needs adaptation for major incidents of highly extended duration and scope. Both the difficulties in drawing boundaries around the Covid crisis and its extended duration seem to have placed significant stress on the wellbeing of those in the chain of command.
- Some challenges to resilience have come from the embeddedness of policing in a wider system. Not least from the pace of policy churn and, at times, inconsistent messaging from the government.
- Some concerns were expressed that seem to suggest policing strategic command structures and practices could, at times, reduce conceptual slack (the availability of sufficient diversity of perspective) and encourage too rapid simplification and convergence to a single story, under the pressures of an extended crisis.
- Finally, we noted that within a command-and-control hierarchy there can be a risk of missing expertise and diversity of perspective that does not align with the hierarchy.

We suggest the Strategic Command Model should be re-evaluated in the context of protracted incidents (such as the pandemic). Consideration should be given to mechanisms to reduce command fatigue. For example, planned role rotation and the full inclusion of key police staff roles and associated training, to alleviate pressures during protracted events.

We further suggest that, especially in crises of extended duration, strategic command practices would benefit from structures and tools that enhance rapid lateral consultation and seeking greater diversity of perspective.

The purposes of business continuity planning and exercising

We have highlighted that pre-pandemic planning, including exercising, did not result in plans that were especially useful in responding to the Covid-19 crisis. However, there is some evidence that these processes did produce useful knowledge and capabilities that informed the operational response to the pandemic. This includes planning with goals unrelated to pandemic planning; for example, Brexit preparations. The value of planning for specific contingencies and exercising for specific hazards and threats may be less in the specific plans they produce than in the ways they expose organisational capabilities to a wide range of tests and produce understanding and improved capabilities which are relevant to a wide array of situations, including yet unknown challenges.

We suggest consideration be given to designing and using exercising, and business continuity planning, in a way which allows for capturing and disseminating learning, and building capabilities, that may be relevant to a much wider set of future events than were considered in the process. This should include careful attention to drawing on a wide range of perspectives and expertise, including through multi-agency collaboration.

Supporting innovation

As in many other contexts, the pandemic functioned as an accelerator for innovation, both bottom up and top down. However, we have also noted that while greater agility of innovation will undoubtably be needed in a fast-changing world, that without changes to governance and consultation processes it may be hard to retain the agility of innovation achieved in the crisis. This will be especially true of bottom-up innovation.

Thus, we suggest that an important element of increasing innovation agility, might usefully be the development of approaches to agile consultation and governance, which allows for decisions as experiments. Such approaches reframe governance as a coaching role, keeping innovators focussed on the perspectives of the intended beneficiaries of innovation, and helping remove organisational barriers to innovation. They also include a focus on rapid evaluation of innovations and dissemination of learning.

The National Decision Model

Many of the research participants discussed use of the National Decision Model (NDM). The NDM has some obvious benefits, including acting as a clear prompt to consider multiple relevant facets of a decision and its role in recording of a defensible basis for decisions. However, we have noted two concerns. First, the potential in the context of cultures of blame, perhaps exacerbated by intense external scrutiny, for recording a defensible basis for decisions to develop into making defensive decisions. Second, the concern that the combined effect of the NDM and increasing emphasis on evidence-based decision-making may delegitimise the use of experience-based intuition. The effect may be less to reduce reliance on intuition than to make it less discussible and hence less available for critical scrutiny and reflection.

Thus, we suggest that in training the NDM, it is important to emphasise the difference between defensible decisions and defensive decision-making and for leaders to consider how to avoid creating the conditions (e.g., anticipation of ready blame) in which defensive decision-making may thrive. It is also important to emphasise that experience-based knowledge and contextual understanding is part of the evidence base. We further suggest that in using the NDM, an important supplementary question to consider is 'how do I feel about this decision, and why?'.

We hope that this report will be a useful contribution to extending deliberations about learning from the pandemic experience.

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1. Introduction

Much academic work on decision-making has focused on taking optimal decisions in the context of known risks[1]. However, there is increasing interest in the distinction made many years ago by Knight between risk and radical uncertainty [2]. In this view, risk concerns situations in which the set of relevant potential outcomes is known and can be assigned likelihoods. Under radical uncertainty, by contrast, the space of potential outcomes is not fully known, likelihoods are difficult to assign meaningfully, and events may be hard to frame and categorize.

The situation facing policing during the Covid-19 crisis seems to substantially concern taking decisions not in terms of well understood risks but in the face of radical uncertainties in a rapidly evolving situation. This includes uncertainties about the impact on workforce, supply chains and operational capacity, government policy announcements, and the levels of public compliance with measures such as distancing and lockdowns, and the duration of the crisis.

In such contexts, there are no meaningful foundations for making optimal decisions and good anticipatory thinking is often less about planning based on forecasts than expert bets on what to pay attention to, in order to make sense of an evolving situation [3]. In these circumstances, there is a premium on the ability to entertain constructive doubts about how a situation has been understood whilst acting decisively but with a willingness to revise understandings and plans rapidly.

This research project examines real-world senior police decision-making in the context of radical uncertainties and unexpected events generated by a national (and international) crisis. This report draws on detailed interviews with 16 senior officers and staff in two English police forces conducted between October 2020 and March 2021, and a workshop discussion of emerging findings with members of the Centre for Policing Research and Learning, in April 2021. Full details of the research methods and process may be found in the appendix.

The report is structured as follows. In section 2, we discuss key features of the crisis as experienced by research respondents. In Section 3, we examine the operational policing response to the Covid-19 crisis through the lens of high reliability organisation theory. In Section 4, we take a close look at the decision-making tools and process that interviewees discussed. In Section 5, we draw overall conclusions, including suggestions for the future.

2. The nature of the crisis

Whilst the operational posture and capabilities of UK police forces are well configured to adapt to unforeseen events, the scale and nature of the Covid-19 crisis were unprecedented. In particular, the crisis was experienced from the early stages as unbounded both in time and geography.

As one research participant put it:

> *"There's no boundaries, it is like a flood, not going to stop and it's not just geographical boundary, this is national, there is nobody to phone a friend to, to come and help you over the horizon. Everyone has the same thing, and we don't know how long it is going to last"*.

Early evolution of the crisis

The possibility of a global pandemic first came into senior officer awareness, mostly in January 2020. At this stage there was significant uncertainty about the likely evolution of the hazards, with much focus on flu as a model for its evolution and risks. As in most organisations, there was a sense that the situation should be monitored, and contingencies considered. However, views tended to align with the statement of the UK's chief medical officer on 23rd January who had revised the risk to the UK population from 'very low' to 'low' that "*while there is an increased likelihood that cases may arise in this country, we are well prepared and well equipped to deal with them*".

As one research participant explained:

> *"In January we started monitoring Wuhan and the fact that this thing was happening in China, and I asked the team just to give me a bit of a brief and understand you know 'what's going to happen here?' And the brief I got in January was yes, you know we probably need to have a little think about it, but there's not too much to worry about. That's the biggest understatement I have ever been briefed with in my whole career."*

By mid-February the possibility of a pandemic was being taken more seriously and, moving into March 2020, concern escalated.

As the country moved towards and entered the first lockdown in late March 2020, the scale of challenge to policing organisations increased markedly. A particular challenge was the rate of policy churn moving from a more typical cycle of months and years to hours and days.

> *"It was the best example of a rising tide incident that I have ever been involved in, … people couldn't really comprehend the scale and the speed at which it would hit … I have vivid memories of, watching the news at five o'clock to hear what I would be responding to that evening and my day started at about half past five going 'oh god, how are we going to do that and what are the implications and what's the law and what powers have we got', so that became incredibly challenging. I would say on a near daily* basis [politicians] *were contradicting what they were supposed to be saying, so I think that was really challenging."*

Despite these challenges, both forces were able to quickly mobilise a resilient response, drawing on well-developed capabilities for strategic command of critical and major incidents.

Three factors during the first lockdown (announced 23rd March 2020) were frequently mentioned as important in reducing the level of challenge. First, there were high levels of public compliance with regulations and guidance. Second, the first lockdown led to a significant fall in normal levels of demand on policing services and resources. Third, in both forces studied there was evidence of significant workforce commitment with lower than usual levels of sickness and absenteeism early in the crisis. Although the impacts on stress and wellbeing became apparent as the extended duration of the crisis evolved.

The reductions in demand on police services during lockdown also enabled shifting resources to non-Covid related priorities: a greater focus on vulnerability in one force and redeployment of resources to serious and organised crime in the other. In both cases with marked success.

Operational uncertainties

The unexpected events of the pandemic generated both certainties and uncertainties. For example, it quickly became apparent that it would be necessary to shift to homeworking for significant parts of the workforce. This was not simple to achieve but the necessity was clear. It was also quickly clear that core elements of the service would need particular attention to ensure they could continue operation, for example custody suites and operations rooms.

At the same time there were important uncertainties. Some were particularly focussed on the deeply unfamiliar nature of the hazards faced by officers including the threat of taking home risks to their families. It is a common feature of policing command that judgements and risk assessments must be made about putting officers in the way of harm, but this crisis felt very different to many of our research participants. For example: -

"As a Firearms Officer I manage risk, as a public order commander I manage risk, … quite regularly I will authorise unarmed surveillance people to follow people who may have a gun and that felt really different, …However, [the virus was not] *a tangible threat, there is no training to tell them how to deal with it. I can't put tactical perimeters around what they can and can't do to protect themselves if the situation changes; and worse case scenarios kept coming back to my mind around gathering, people failing to comply with lockdown, mass panicking, doctors' surgeries, hospitals, self-presenters, the worry well, I could go on."*

Other key uncertainties revolved around the implications of rapidly evolving events for ensuring delivery of core services, especially in relation to the possibility of significant levels of illness and, thus reduced policing workforce availability.

Ethical and values tensions

Some participants particularly noted that the most difficult uncertainties often had ethical uncertainties at their heart, often amplified by the unfamiliar nature of the crisis. For example, there was tension between the police responsibility to enforce regulations to reduce transmission rates whilst also ensuring the safety and well-being of their workforce, as well as maintaining sufficient levels of workforce. Early problems with availability of adequate PPE[5], created ethical dilemmas about balancing public protection with workforce protection and which officers to prioritise for PPE use. As the crisis progressed there were also tensions between the strong commitment in both forces to policing by consent and increasing political pressure to engage in greater enforcement rather than a primary focus on engagement, explanation and encouragement to comply.

"Lots of things tested us, which meant that often we found ourselves placed in an ethical discussion over the top of what seemed like a clinical decision just to make sure of what we were doing because some of it was extraordinary stuff".

"My view was that despite Covid there was such a strength of feeling around [the Black Lives Matter] *movement that of course we needed to facilitate unlawful protest, which is a remarkable thing for a* [senior police officer] *to say, but it is only made unlawful by Covid restrictions, but there was no way I was having riot police going onto the streets … to close down Black Lives Matters rallies because it was a voice that needed to be heard and that was a hugely intense debate."*

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[5] Personal protective equipment.

3. Delivering operations with high reliability in a crisis

There is an increasing body of research on what have been termed 'high reliability organisations' (HROs); organisations that maintain high levels of operational reliability in the face of potentially dangerous consequences of failure, despite significant uncertainties and regular unanticipated events. Studies have typically focused on contexts such as fighting wildfires, aircraft carrier operations and management of nuclear power stations.

As Weick and Sutcliffe[4] describe, "*Success in working under these conditions is due in part to mindful organizing that allows people to notice the unexpected in the making, halt it or contain it, and restore system functioning. The hallmark of an HRO is not that it is error-free but that errors do not disable it.*"

The operational environment for some important elements of policing has these elements that HROs typically face, and the requirement for high operational reliability in the face of risks of dangerous failures, significant uncertainty, and the unexpected. As discussed in section 2, the requirement for an effective policing response to the Covid-19 crisis, also presented these elements. Thus, it seems useful to consider the operational response to the crisis of the two police forces against key characteristics of successful HROs identified repeatedly in research.

Research into organisations that consistently achieve high reliability in these conditions[5] suggests they are able to "*respond in real time, reorganizing resources and actions to maintain functioning despite peripheral failures.*"[6]. To achieve this, they are:

1. Committed to resilience (the capabilities needed to detect, manage and recover from errors and the unexpected);
2. Reluctant to simplify (avoid simplifying information and unexpected events into familiar categories too quickly);
3. Sensitive to operations in an evolving situation (anticipating and noticing what is happening regardless of intentions, designs and plans);
4. Preoccupied with failure (pay attention to weak signals that problems may be about to arise); and
5. Defer to expertise regardless of hierarchy.

Commitment to resilience

A common definition of resilience is "*the capability of a system to maintain its functions and structures in the face of unexpected events and to degrade gracefully when it must*" [7]. To this, other definitions of resilience add the ability to rapidly learn and grow in the face of disruption.

There is little doubt that the two policing organisations we studied demonstrated this capability in large measure during the pandemic. Largely reliable service was maintained, with careful protection of core services, there was both top-down and bottom-up innovation in response to new demands, and periods of reduced demand were exploited effectively to achieve core goals such as tackling vulnerability, and serious and organised crime. Careful attention to prioritisation of key services through a red-amber-green rating approach, supported planning for graceful and planned degradation of service should the need arise.

Two important elements underpinned this resilience: well-practiced capabilities and routines in the strategic command of major and critical incidents, and leaders and workforce familiar with facing uncertainty and the unexpected on a regular basis.

"Dealing with critical incidents are what we do the best in my view. When we know it is all hands to the pumps, our difficulty is managing everyone's enthusiasm because everybody wants to be involved in it. There is no calmer environment than us being hit with a panic …, you know when everyone else runs around we just don't, so dealing with a crisis is when we are at our best"

> *"We were just able to go into straight forward command control, critical incident; all the structures in the main that have been tried and tested so many times. Whilst it may not have looked orderly it felt it."*

Nonetheless our analysis of participants responses identified three issues worth attention in ensuring future resilience: preparing for crises, the limits of strategic command approaches, and the resilience of the wider public services system that policing is part of.

1. Prior pandemic exercising and business continuity planning

The most common view among our research participants of prior work on contingency planning and prior pandemic exercising was that it had been of very limited value in responding to the Covid crisis:

> *"I know one we have not necessarily exercised, well some of us have been involved in some exercises of this nature the problem was I don't think anyone ever believed we would be here, so I don't think they had the same sort of redolence individually like that might have with a dirty bomb".*
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> *"So early on, I think that nothing was certain, I think we were in an environment whereby we didn't know. We looked at our business continuity plans and don't think any of our business continuity plans really reflected what we thought we were facing in relation to a pandemic, even though we had discussed pandemic, because we had never lived through one. That lived experience hadn't turned itself into words on a page."*

Others highlighted the problem of recognising not just single threats to business continuity but multiple intersecting threats. For example, the way in which the co-location of key teams, at a time when training capacity was significantly reduced, could lead to Covid-infection wiping out whole areas of capability.

However, there was an important alternative perspective offered by one senior officer, who suggested that what was of considerable use was not the plans that came out of contingency and continuity planning, but the planning process itself, (including planning for Brexit) which led to a detailed understanding of operational interdependencies, such as the operation of key supply chains:

> *"[Prior business continuity planning] was Incredibly useful because it gave us that immediate understanding of which elements of the force we could close down, what are the critical dependencies because the problem is with policing is it is very easy to say as long as we have people in blue light cars rushing around and we've got prison cells we'll keep working, but of course the cells don't work if you haven't got your jailers, the cells don't work if the catering company can't bring food in for the prisoners, police can't go and nick people if they haven't got cars to go and do it in… What the business continuity plans enabled us to do was to understand which aspects we could legitimately close down. I think the other bit that was really important is it really brought to light the supply chains and the risk that sits within the supply chains. So we did a big piece of work kind of around commercial, which also linked into Brexit, because you know similar sorts of issues and again you kind of look at who is your primary supplier, but where the risks come is where they'd sub-contracted out elements of their contract and you know we found that there were some engine parts that we just weren't going to be able to get because the system had broken down, which we'd never ever had known if it hadn't been for those business continuity plans."*

We suspect this is an important insight. In business continuity planning and exercising, in contexts of significant uncertainty, it is the planning process rather than the specific plans which may be of most value. This places a premium on using exercising and business continuity planning in a way which allows for capturing and disseminating learning that may be relevant to a much wider set of events than were considered in the process.

Crucially, faced with uncertain futures, there is a premium on modes of planning which support the capability to monitor and adapt rather than predict and plan[8]. Thus, the value of planning for specific contingencies and exercising for specific hazards and threats may be less in the specific plans they produce than in the ways they expose organisational capabilities to a wide range of tests and produce understanding and improved capabilities which are relevant to a wide array of situations, including yet unknown challenges. It is notable, for example, that some of the understanding about supply chain issues during the Covid-19 crisis came, not out of pandemic planning, but out of planning for Brexit. We suggest that there would be significant benefit in planning exercises, and designing the ways in which learning is captured from them, with this insight in mind: that the true value of exercising is less plans for a specific hazard or threat, than in building preparedness for as yet unanticipated threats and crises.

Despite, the concerns about effectiveness of prior plans for a pandemic, gaps in planning were quickly recognised and addressed, not least through the rapidly engaged strategic command approach. Although, as we now go on to review, strategic command capabilities, faced with these unusual challenges, came under significant strain.

2. The limits of strategic command capabilities in a crisis of highly extended, and uncertain duration

The strategic command capabilities of both forces contributed in large measure to a resilient response. However, as the crisis progressed, these capabilities came under significant strain.

Strategic command approaches tacitly assume a time-limited context for critical and major incidents. This tacit assumption has been severely tested by the covid pandemic, leading to some important impacts on physical and mental wellbeing for those in command roles.

> *"The other part for me was around burnout … my boss … he will work 80/90 hour weeks and I just said to him this isn't sustainable as I was trying to do this and my day job and I think we put a lot of pressure on people, and I think it affected their health because it wasn't just, it wasn't like the Olympics it wasn't just for two weeks it was going on and on."*
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> *"Police leaders, everyone thinks they are really strong and super resilient, we can go on forever. And you can't and I think there was times we were recognising as leaders our decision making was flaky and we were getting tired, and we were getting grumpy at times and trying to learn to manage our families and working environments differently"*
>
> *"We appointed a … Bronze and the first two Bronzes both went off with stress/depression. They are making technically you know life impacting decisions and the guidance was changing on a daily basis and there was a real lack of clarity."*

A second issue with applying the strategic command approach concerned the difficulty of drawing boundaries around the 'incident'. The impact of the pandemic affected almost all aspects of policing. Early in the crisis, the chain of strategic command for the crisis response came under significant pressure with many elements of the two forces seeking urgent guidance, and decisions being requested on many aspects of 'business as usual' which were experiencing unusual circumstances.

For example:

> *"I think there were two really big bits for me, one was it felt at times like on top of my day job I was running the* [whole force]*, because it felt like everything I was doing was setting direction for how the entire organisation would run, … literally everything that I did had a consequence somewhere and in retrospect that is too much to do when you are also trying to do your day job, you just can't do it, so that was a big piece of learning.*

The other thing is how you apportion responsibility for activity, so for a protest, for a normal operational incident your kind of Gold, Silver, Bronze structure works really well because it is a linear command, you set your clear direction, do your plan, go and deliver it. It does work like that to an extent on a big rising tide operation, but this was so far reaching it touched every aspect of what we do and then you end up almost designing how you are going to police everything and you've got to be really careful about what it is you are trying to achieve"

3. The resilience of the wider system

Any organisation is part of a wider system and depends for its resilience on that wider system. For policing Covid-19, important elements included multi-agency working and relationships with politicians and media.

Most participants reported good relationships with partner organisations and deepening relationships through the crisis, not least through local resilience forums. However, some concerns were raised about the capabilities of partner organisations in responding to major incidents, leading to pressure on policing representatives to lead on issues which fell outside their core expertise. For example:

"*I think one of the challenges with anything like this is it needs a whole systems approach, and you identify very early in an emergency which part of the system is not operating well. I think one of the things that we have never quite addressed and still wouldn't have an answer to is* [given the complexity of local government and the different capabilities and political stances], *how you close that gap when this is an operational incident? I think there is* [a need to review] *the wider system and the support the government bring to that system to support us in a future crisis. I think the police will ultimately always be ok because that is kind of our bread and butter, that's what we do as will the fire, as will ambulance and the NHS. Local authorities less so, highways less so, and I think that is a big gap still going forwards.*"

"*… as we started moving into that first wave and the care homes started struggling and there was no PPE and the hospitals were struggling and the mortuaries were failing none of this fell on the police, you know we actually for the first time ever I can remember had a really small part to play in that wider system, but what then happened is we started stepping in and filling the gaps because there was no support to the local authority and there was no rule book and a … a lot of them are not used to operating in that environment.*"

There were questions too about the role of government in supporting a resilient response from policing organisations. Policing organisations are used to both policy churn and political and media scrutiny. However, the intensity and pace of both were unusually high during key periods of the pandemic, and this combined with sometimes unclear and contradictory messaging from politicians.

"*We don't make the laws as you know parliament makes the rules, we have to interpret them. … we sometimes had less than 24 hours to actually interpret that law operationally and legally and then apply it and then you get commentators criticising the police style and tone, which vary massively …across the country.*"

"[there was daily policy churn], *probably for the first five weeks I should think until we started getting quite vocal saying this has got to stop, this is just getting ridiculous, we cannot respond without information*"

"[Ministers misinterpret their own guidance in press conferences] *and then you do get things like 'what about Dominic Cumming's?' …a lot of it is very much in the media gaze and in the face of quite strong political pressures as well."*

As we will return to, in discussing decision-making frameworks in policing, whilst public accountability is important, a particular concern is that intense external scrutiny, and scapegoating,

from politicians, media and publics, has the potential to reinforce cultures of blame within policing organisations.

As we explore below, reinforcing blame cultures also risks reducing the 'conceptual slack' needed to respond effectively to the unexpected.

Reluctance to simplify

As the heart of 'reluctance to simplify' is the concern that moving to a simple account of '*what is going on*' too early, often leads to becoming stuck in a single story, using ready-made frames and categories and the operational policies and practices that accompany them. Such stories develop their own momentum and can drive inattention to cues that don't fit the story[9].

Perhaps aided by the demonstrable unfamiliarity of the circumstances senior officers found themselves navigating, there were good signs, in participants accounts, of early willingness to stay with the confusion and complexity of events and keep updating understanding. For example:

> "*I think there were quite a lot of examples of the thing that we thought we were doing is not producing the effect that we hoped for. So, if I think through my* [Covid-19 response] *strategy at the time, I wrote version one in February, I think by the time I handed over to* [X] *after 8 weeks we were on about version nine or ten, so in a short period of time you know we had completely reviewed that strategy.*"

A key capability that helps high reliability organisations avoid becoming stuck in an oversimplified single story is '*conceptual slack'.* That is the availability of a sufficient diversity of perspective, and openness to different perspectives, avoiding the tendency to treat new situations as just another version of the routine and familiar. Research on high reliability organisations highlights the importance of informal networks in containing crises. In a command-and-control structure where decision dialogue is typically up and down a chain of command, there are often questions of where diversity of perspective comes from. Some of our research participants resolved this, to some extent, through reliance on using 'critical friends' as a sounding board.

> "*…with experience you know, you phone a friend. You know critical friends in this environment are huge. It is just about, [my opposite number in a neighbouring force] and myself were having almost regular calls what do you think, how, just to get a feel for about how that group think around things.*"

To a lesser extent this also included getting perspectives from partner organisations (both formally and informally:

> "*You had the Strategic Coordination Group and all these wicked issues around vulnerability, food parcels all the policing issues were being discussed in a strategic coordination of partners and there was also a Tactical Coordination Group, so you had a lot, you had lots of diverse organisations…that were coming together and able to work and understand things and I think that's probably the biggest. If I talk about this to anybody I talk about collaboration, of partnership*"

Nonetheless, in highly hierarchical, command-and-control organisations, generating sufficient conceptual slack can be challenging. This challenge is recognised in military organisations, leading to forms of leadership training and doctrine that seek to ensure the conceptual slack associated with sufficient diversity of perspective, and attention to context, in interpreting policies and orders. For example, in British Army leadership training, leaders are often advised to seek opinions from more junior team members first to avoid the tendency to align with more senior perspectives. They also use the concept of 'intelligent disobedience' in relation to the need to reinterpret objectives in the light of rapidly evolving contexts. In the RAF, non-commissioned officers are trained in 'constructive dissent' with more senior colleagues.

Some concerns were expressed in interviews, that seem to suggest policing strategic command structures and practices could, at times, reduce conceptual slack and encourage too rapid simplification and convergence to a single story, under the pressures of this highly extended crisis.

> "[W]e don't necessarily always consult widely enough or we don't necessarily consult the right people, we don't necessarily look at, you know, where it might be working better in the UK or learning from other organisations. You know, we are quite impulsive and want to make decisions and want to make them quickly"
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> "… the role of gold can be a lonely place, but doesn't have to be a lonely place, you know I think you can make it lonely."
>
> "Operational decisions need to be made in a shorter timeframe, making the decisions in a shorter timeframe lessens the opportunity for consultation. Consultation would typically draw out things that you hadn't thought of, of perspectives and contexts. So therefore, it is useful to have a model or something to lean on to check yourself because you are often checking your own homework, whereas decisions that are made through consultation I just think you know lend themselves to being more naturally reflectively made and then stepping back through things just instinctively."

It may be that, especially in crises of extended duration, strategic command practices would benefit from structures and tools that enhance rapid lateral consultation and seeking greater diversity of perspective.

Sensitivity to operations in an evolving situation

Decades of research on work practices in organisations show that there is always a mismatch between formal operating procedures and policies and actual working practices. No set of rules or guidance can foresee the complexities of real, messy, working reality often even in mundane operational tasks, never mind among the challenges of an unfamiliar situation. All work requires some degree of improvisation and moment to moment adaptation to achieve its goals. At the same time policies and procedures may be bypassed or acted on in a 'tick box' way for other reasons, including misunderstanding, work pressure, or competing directives.

Sensitivity to operations is concerned with maintaining current awareness not of what 'should' be happening but what *is* happening operationally. It requires sensitivity to weak signals that events may not be unfolding as expected and effective communications channels and practices that avoid blaming the messenger or disregarding information that is inconsistent with current assumptions.

A common theme in interviews was the value of experience as a firearms commander or public order commander in managing the dynamic and uncertain situation presented by the pandemic and public behaviour in response to it. In particular, participants emphasised the value of their prior experience in policing of needing to stay alert to the unexpected and continually update understanding of evolving situations. However, most also emphasised ways in which the pandemic generated new and unfamiliar challenges that meant prior assumptions did not hold.

For example:

> "When I was a Firearms Commander you would look at your information and intelligence and you always knew you know what the threat was, whether it was an individual, a weapon, you know you would go through things like what the capability was, but with Covid we didn't really know what it was and we didn't know how it would impact on the organisation, so you were thinking about - everyday you would be having discussions and thinking, realising oh my gosh this could be possible implication of it, so it was a position we had never found ourselves in before."
>
> "[We had particular problems with policing beaches, we are used to planning for seasonal effects and events, but during lockdown] we couldn't make any planning assumptions. Generally, most of

our events happen at weekends, so again we could increase our resources over the weekends, but Tuesday when we had a heatwave we had [a large influx] *and you couldn't have anticipated that nor could you have prepared for it and the issues that then that created for us at a local policing level you know were quite significant.*

Nonetheless, there was evidence that significant efforts were quickly made to ensure effective information on the impacts of the pandemic on operations and regularly update contingency planning. For example:

"The big uncertainty for us was around how it was going to affect our staff. …Just these enormous expectations that we were going to lose so many staff, so we got into a really good reporting process with our HR department. So again, it was quite interesting saying to them you need to be in by 7 in the morning because this report has to be done by 8 for the daily reserve, but these were really good and every day you would look."

"So that first month was just assessing what we had, who was going to be affected, what we needed to do, were the plans robust enough, did each department head know what their minimum staffing requirement was and then if we went below minimum what we were doing to need to switch off and then what our capability gaps were, so we had red lines for instance, the Control Room couldn't close, that was you know an arterial route into the force we could not close that, so we ended up having to identify all the staff that could provide resilience to the Control Room and we pump primed them, so we said right we've identified 30 people they're yours, so it doesn't matter if you don't need them now they are yours. Bring them up to speed to make sure that they can feed into you when you do need them. We had a training group of officers that was due to join us to go into their initial classroom training. We handed those over to the Control Room and we said they are brand new, we had sworn them in early, so they are sworn officers now, so they are yours train them for contact management … so we very quickly started to identify critical areas of business and how we could resource those for the long term."

Preoccupation with failure

Preoccupation with failure is not so much about an obsession with past failures (except as a source of learning), nor is it about a focus on blame. Rather it is about systematic alertness to small cues that events and the consequences of actions may be unfolding differently to expected. Alertness to unfolding problems that don't fit expectations can be especially hard for organisations with a history of success. For example, as Starbuck and Milliken [10] note in their discussion of the NASA Challenger disaster: *"Success breeds confidence and fantasy. When an organization succeeds, its managers usually attribute success to themselves or at least to their organization, rather than to luck. The organization' s members grow more confident of their own abilities, of their manager 's skills, and of their organization's existing programs and procedures. They trust the procedures to keep them apprised of developing problems, in the belief that these procedures focus on the most important events and ignore the least significant ones."*

In policing, the preoccupation with the potential for failure is manifest in the strong focus on risk assessment, risk mitigation and contingency planning. This was also evident in policing responses to Covid-19, with much early effort devoted to identifying priorities for protecting policing functions, contingency planning and risk and threat assessments.

However, there were perhaps some blind spots. As discussed earlier, whilst attention was given to workforce wellbeing and resilience, it is less evident that sufficient attention was paid to the potential for burnout in senior roles within the strategic command structure. It may be that the very success of the strategic command model meant that less attention was paid to how it might need to be adapted in the context of a crisis of extended duration.

Deference to expertise regardless of hierarchy.

As Chassin and Loeb [11] describe:

"When confronted by a new threat, HROs have mechanisms in place to identify the individuals with the greatest expertise relevant to managing the new situation and to place decision-making authority in the hands of that person or group. They do not invoke organizational hierarchy or expect that the person with the most seniority or highest rank will be the most effective at dealing with the problem." (p.459)

 Other researchers have described the rapid assembly of informal groups in HROs to bring appropriate knowledge and expertise to bear on unexpected problems. And noted that,*"decisions migrate around these organizations in search of a person who has specific knowledge of the event."*

Such a principle is problematic for strongly hierarchical rank-based organisations such as military organisations and police forces. Nonetheless, such organisations often develop formal and informal mechanisms for identifying and using diverse sources of expertise in decision-making and rapid response to incidents and the unexpected.

In the two policing organisations we studied, one mechanism for deploying appropriate expertise in relation to the demands of the pandemic seems to have been greater integration of police staff in the strategic command structure, albeit that this required significant adaptation to new ways of working for many police staff.

"[In relation to Strategic Command] most of the Police Officers got it because they had been used to, certainly by the time you get to Chief Inspector and above they were used to working in either a Public Order or Firearms Command Structure, but areas like our [xxx], the Head of Department is a member of police staff and HR was similar and I think it was a completely new environment to them, they had never worked in that structure before and I think we put a lot of pressure on them around decision making"

Another concerned the development of approaches to rapid consultation. For example:

"Normally in HR policy you know by the time you have written it, consulted it, you know passed it around, checked it, it is sort of six months I guess, there or thereabouts. We would have a Gold meeting on a Monday, … every day of the week initially, then we moved to three times a week, so on the Monday we would identify an issue, by the Wednesday we would have a draft and by the Friday we would have signed it off. The challenge with that is the HR professionals had to go away and translate as best they could the legislation. What we had to do was condense the consultation period, into a few hours rather than a few months. We had to run through our legal department, just to make sure that we had got the legislation right. We had to run through our unions or federations, our staff associations to try and get their buy in."

The importance of drawing on community and partner expertise, for example in relation to enforcement of Covid-19 regulations was also recognised:

"We did link in quite well all be it remotely to our independent advisory groups and our communities and our partners and sort of sound things off of them, particularly around the balance between engagement and enforcement and things like that, but also setting our priorities, so we are very well versed in using independent advisory groups now and these are members of the public, who will come along and offer a perspective sometimes scrutinise our own behaviours and our own practices and I think we really stepped up to that. That engagement with communities was really, really important."

Nonetheless, some felt the constraints of operating in a command and control focussed hierarchy meant that diversity of perspective could be limited, and this could lead to oversimplification:

"*Something we have talked* [about] *quite a lot, it is this desire to bound everything, to be bounded and you know not deal with the wicked things, only deal with the simple things and you know my own personal view and this won't apply to everyone it is just because you know police officers generally aren't used to dealing with nuance they deal with black and white and those things that are black and white are things that they have been told to do and you know the hierarchy works against us in that way because you get told to do things much more than in other organisations.*"

Police forces as high reliability organisations

HROs are characterised as organisations facing requirements for high operational reliability in the face of risks of dangerous failures, significant uncertainty, and the unexpected, yet able to "*…respond in real time, reorganizing resources and actions to maintain functioning despite peripheral failures.*"[6]

The two policing organisations we studied, as they responded to the challenges of the pandemic, seem to fit this description in large measure. Nonetheless, this HRO perspective also points to some areas that might usefully prompt deeper reflection within policing.

First, whilst strategic command capabilities were an important foundation for resilience in facing the pandemic, there were signs that this mode of operating needs adaptation for major incidents of highly extended duration and scope. It is worth questioning, whether the very success of strategic command capabilities in policing might create a blind spot in relation to the need to significantly adapt this mode of organising. Both the difficulties in drawing boundaries around the Covid crisis and its extended duration seem to have placed significant stress on the wellbeing of those in the chain of command.

Second, some challenges to resilience have come from the embeddedness of policing in a wider system. Not least from the pace of policy churn and, at times, inconsistent messaging from the government.

Third, some concerns were expressed that seem to suggest policing strategic command structures and practices could, at times, reduce conceptual slack and encourage too rapid simplification and convergence to a single story, under the pressures of an extended crisis.

Finally, we noted that within a command-and-control hierarchy there can be a risk of missing expertise and diversity of perspective that does not align with the hierarchy.

4. Decision-making processes and tools

Organisations' ability to deal with major unexpected events and an uncertain environment depends on capabilities that have been developed before the unexpected happens. Lagadec suggests that when a crisis hits, it acts as *"an abrupt and brutal audit: at a moment's notice, everything that was left unprepared becomes a complex problem and every weakness comes rushing to the forefront. The breech in the defences opened by crisis creates a sort of vacuum"*[12].

So, what can be learned about strategic and operational decision-making processes in policing from the 'brutal audit' of the pandemic crisis?

Values and legitimacy

An important guide in difficult decisions for many of the research participants was core policing values and their own personal values. However, difficulties commonly came into focus around values conflicts. During the pandemic the police were being asked to enforce unprecedented powers that curtailed citizens' civil liberties; that were seen by some of the public as invasive. This led to different effects on different communities and claims of disproportionate policing with some community and faith groups, as well as challenges to a fairness of response, stretching policing by consent.

A commonly mentioned values element to decision processes was the centrality of policing by consent and 'public legitimacy'. This was core to much decision-making related to policing compliance with Covid regulations. It was exemplified by the four Es approach (Engage, Explain, Encourage, Enforce) with the emphasis on the first three and enforcement of Covid regulations as a last resort. However, this did come at times into tension with the need to respond to public, media and political pressure for stronger enforcement and a sense that over time it was necessary to counter 'compliance fatigue' by demonstrating an increased willingness to enforce.

> *"We were kind of conscious of as an organisation around not wanting it to affect our relationship with our communities because policing by consent is a very treasured part of our policing approach and the sort of conditions that were put on society and police being the enforcers of that we wanted to make sure we had that balance really right."*

Covid-enforcement was by no means the only topic which prompted reflection on values dilemmas. Policing protests in the context of the pandemic also raised values dilemmas, both Covid-19 related and otherwise. For example, in relation to Black Lives Matter protests, values tensions were very much involved in developing policy on officers 'taking a knee'.

> *"There were some really tricky ones that divided policing about whether 'you take a knee', at what time do you allow personal choice over what is appropriate as a professional response and I think that was a bit, there was a bit of time taken before the police service sort of got a reasonable position was [that] it wasn't appropriate to do it when you were on duty when you were trying to look after people, which was probably the phrase we should have gone out with a bit earlier."*

National Decision Model

A key tool that many reported reaching for when making decisions was the National Decision Model (NDM):

> *"I am a Firearms Commander and I love the National Decision-Making Model and you can virtually throw any problem at the National Decision-Making Model and it just calms everything down. The NDM in a beautiful way where sometimes it feels like, it feels like it's all going off at a cock and you can just go ok stop, what's the information, what's the risks and threats, what's the relevant information, ok what do we do to counter those risks and threats and then we set the actions and it*

> *is just a very stable common sense approach to any problem and I think the NDM has served, can serve us well in all contexts including during Covid."*

Although some felt it to be best confined to rapid decisions in an operational context.

> *"So the National Decision-Making Model I would still use the principles from it making difficult operational decisions… it is not something that I have been using on a kind of management leadership decisions if you see what I mean. …I think that it is because the operational decisions need to be made in a shorter timeframe, making the decisions in a shorter timeframe lessens the opportunity for consultation would typically draw out things that you hadn't thought of, of perspectives and contexts, so therefore it is useful to have a model or something to lean on to check yourself because you are often checking your own homework, whereas decisions that are made through consultation I just think you know lend themselves to being more naturally reflectively made and then stepping back through things just instinctively and yes I suppose just as a general principle I wouldn't"*

For some though, the key role for the model was in making decisions defensible to later scrutiny.

> *"I don't think [the NDM] is really used other than in, other than when you know you are going to be asked about it, I think that, so I do some public order commander work as well, much more likely to use it in that situation as well, but in a day-to-day basis it seems to be theory that hasn't translated into practice."*
>
> *"Whether it leads to better decisions? I would listen to argument, but it certainly leads to more defensible decisions."*

In any public organisation, there is good reason to ensure consequential decisions are defensible. However, there is a broad grey area between ensuring decisions are defensible and 'defensive decision-making'. Defensive decisions-making occurs when decision-makers choose an option that is not the best for the organisation's goals, but rather is most likely to protect their reputation and avoid negative personal consequences if things go wrong. That is, making the decision which will be most defensible if plans fail (for example, default options or rigid adherence to standard procedures, or delegating a decision upwards), rather than the best decision in context.

It is also clear that much police decision-making during the crisis was the subject of intense scrutiny from media, the public, and politicians. In the context of intense external scrutiny, faced with uncertainty, it is common to succumb to defensive decision-making[13]. Tomkins et al. note in their discussion of leadership challenges within policing, that "*police leaders both expect and experience more responsibility than control; more blame than praise; and interpretations of failure based more on personal fault than on situational or task complexity*" [14], and "*The daily experiences of policing involve immense challenges and different possibilities for action, infused with considerable fearfulness about the politics of blame and the threat of harm …, which can have a detrimental effect on individual and organizational learning*"[15].

Some participants felt defensive decision-making was exacerbated by the context of the crisis:

> *"…that's a really difficult, a really difficult issue because sometimes people make wrong decisions in good faith with catastrophic outcomes and then society wants to punish people if they make judgement errors. …You go into kind of closed loop thinking, nobody will want to make decisions if every time they get something wrong, they are going to be, [punished] either they will cover up their mistakes or they won't make the decisions in the first place."*
>
> *"I remember some of our meetings becoming quite fractious with people saying they were getting enquiries that frankly should have been dealt with at sergeant level, you know coming into [senior] level or my level and it just got ridiculous… I think that was purely down to leaders from all levels at the organisation wanted to do the right thing, but they just didn't know what the right thing was.*

They wanted that top level cover particularly when we were making people come to work and it became difficult it almost felt like they just wanted me to say that's ok, so if it all went wrong it is not them it's me that's got that responsibility."

NDM, evidence-based policing and experience-based intuition

In any organisation faced with uncertainty, experience-based expert intuition will always play a role. Research on intuition in organisations emphasises the importance of critical engagement with intuition. The NDM taken together with an increased focus on evidenced-based policing could in some circumstance lead, not to reduced reliance on intuition, but an increased tendency to 'rationalise' intuitions and present reasons for decisions that are constructed post-hoc. This in turn would reduce opportunities to expose intuitions to critical discussion.

Research participants commonly felt that difficult decisions need not just to be thought to be right but also to 'feel right'. This has two important elements, first feelings coming from experience-based intuitions and secondly feelings in relation to personal and policing values.

"I think in terms of when they didn't feel right, inevitably they weren't, and we're not backward at changing our mind and of course with such a dynamic situation you can always say as a result of changes we are doing this when the reality was it was nothing to do with that you just got it wrong in the first place. I think there were some decisions, some internal decisions around what's your approach to carrying over annual leave? We took a decision which was slightly at odds with national policing. Of course, you end up with a week's worth of conversation before you inevitably go back to that decision. We had one recently about the use of mobile phones and the download of the Track and Trace app, police officers shouldn't be using it, why not? You've got a phone, you want to use it, use it, just be aware that there might be some security implications. Policing said no, everyone thought 'what!'. Four days later we all said it just felt wrong, there was evidence behind it and then four days later we said no, no you can use it, but you won't be able to use it on your police device."

As Tomkins and Bristow note in their research on the practice of evidence-based policing[16], evidence based prescriptions of 'what works' are often interpreted as 'what works everywhere' regardless of the nuances of context. They argue for complementing evidenced based policing approaches with a more contextualised approach to 'what works' and a greater ethical focus on 'what matters'. How evidenced-based practice is conceptualised, communicated and trained can have important consequences.

Often both ethical considerations and experienced-based intuition are encountered via emotions, a sense of decisions or actions 'feeling' right or wrong. As well as the ways in which strong emotions can bias decision-making, critical attention to the information carried by emotions can play an important positive role in decision-making [9]. A potentially useful addition to the NDM would be the questions 'how do you feel about this decision?' and 'what lies behind those feelings?'.

Strategic command model

The strategic command approach, first developed in London in the aftermath of the Broadwater Farm riots, has become a central feature of UK policing and has been adopted by other public services. There is little doubt, from the interviews, that this was a highly important capability that played a key role in enabling a rapid and resilient response to the pandemic crisis.

Nonetheless, as discussed in the previous section, some of our respondents did raise some issues around its operation during what has been a uniquely extended crisis. First, the crisis required bringing some elements of the workforce within the strategic command chain, who had no experience of this mode of operation. Second, multiple research participants commented on the difficulties of working in a critical incident mode for very extended periods.

For others, whilst the strategic command approach and the national decision model were an important part of the response, they felt that prior critical and major incident experience still left them unprepared for handling aspects of the crisis. Some of this especially concerned the need to take rapid decisions and action in domains which normally involved a more 'slow-time' process.

'Quick time' versus 'slow time' decision-making

A common distinction made by research participants was between 'quick-time' and 'slow-time' decision making; decisions which must be made in the moment such as in dynamic incidents versus longer-term decision making. A consistent view was that policing organisations are very capable in the domain of quick-time decision-making with well-practiced structures and routines. However, some expressed concerns about whether their force was as effective in 'slow-time' decision mode:

> "[We] *generally do the reactive stuff very well, you know we are very geared up and set up structurally for that, but what we are not great at is being on the front foot of planning and organising, so for the critical stuff we are, but … around you know HR practices, our finance management, our fleet management, our estates management, so all of the core things that keep any organisation functioning, I think sometimes whether it is digital and IT, sometimes those kinds of challenges are quite high level for us.*"
>
> "*I think when we do stuff in slow time when we don't have to rush it through you know we can be I think sometimes a lot more clunky in how we make decisions because we don't necessarily always consult widely enough or we don't necessarily consult the right people, we don't necessarily look at where it might be working better in the UK or learning from other organisations. We are quite impulsive and want to make decisions and want to make them quick and I think we could sometimes take a step back and slow our thinking and decision making down*".

Although others took a contrary view:

> "*I think the only difference is in quick-time you get on, you make your decision and before too long it is all over and done and you are able to draw breath and review and move on and by and large we make good decisions. In slow-time decision making you get on you make your decision and it is good decision with what's in front of you, but there isn't there moment where there hasn't been that moment where you can say ok this is over now, and therefore your decision making may prove to be less good that it could have been, but that's only with the new information that you have now and the hindsight that you have now got, or because you are examining that decision in the light of, you know, things that have happened since.*"

Others noted that, because of the nature of the crisis, decisions normally made in slow-time, with space for consultation, diversity of perspective and reflection, had needed to be taken in quick-time. One consequence was that decision-making on interpreting new legislation, new HR policies and innovative approaches to governance took place within a Strategic Command frame at very much greater speed than normal.

Agility

Multiple respondents noted the significant role that both bottom-up and top-down rapid innovation played in the crisis response. Examples included multi-agency approaches to attending Covid-19 related deaths, new uses of body-worn cameras as well as significant innovations in working practices and HR policies.

For some research participants a key element of learning for the future was their force discovering the ability to take an agile approach to decisions and action for change and innovation:

> "…it was absolutely amazing to see it, I have never seen anything so quick in my life, you know in policing change takes so long and it's so protracted and you have to go through so many, jump through so many hoops and there is so much tape. And what was amazing about Covid, the silver lining of it for policing, was we've learnt that things can happen quickly like that. And you, you know if you are forced to put it into practice you can. Then analyse it and then you can look at it if it is working and you don't necessarily not for everything, you don't have to go through this massive, protracted kind of process; which is unfortunately what we seem to do. You know years of work before we ever get any change"

> "I describe it as an accelerator and a way of forcing us into things that culturally we wouldn't have done, or been very reluctant to do, so I think the, again I go back to the irony is not lost on me, doing all this fantastic international work to answer the exam question of what do we …need to do to respond to the change in workforce environment, ways of working, call it what you will and what will people of the future coming into policing what will they want …and , I have a raised smile on this one, actually what our findings were is 'it is all about flexibility' ".

There is important learning to be taken forward on the potential to improve organisational agility in innovating and progressing change. However, some research participants were concerned that this speed of decision-making came at some cost of consultation and effective governance oversight.

> "The speed and the agility of what we did was great, but the problem is with that, it all went through, because it had to, without governance. So, what's the long-term financial sustainability of all those decisions as we go forward?"

Increased agility and innovation will undoubtably be needed in a fast-changing world, with a changing workforce and with increasing frequency of global and national disruptions. However, without effective governance scrutiny and consultation the potential for costly failures is amplified. Without changes to prior forms of governance and consultation it may be hard to retain the agility of innovation achieved in the crisis, a concern reflected by some research participants.

Thus, an important element of approaches to improving organisational agility, might usefully be the development of approaches *to agile consultation and governance*, which allows for decisions as experiments. Such approaches reframe governance as a coaching role, keeping innovators focussed on the perspectives of the intended beneficiaries of innovation, and helping remove organisational barriers to innovation[17].

5. Conclusions

Policing organisations faced important uncertainties during the pandemic. These included the unbounded nature of the crisis, difficulties in predicting public behaviour, and the pace and intensity of policy churn in government.

Some key uncertainties were particularly focused on the deeply unfamiliar nature of the hazards faced by officers including the threat of taking home risks to their families. It is a common feature of policing command that judgements and risk assessments must be made about putting officers in the way of harm, but this crisis felt very different to many of our participants.

In this report, we have primarily focussed on common themes across the two forces we studied. There were some differences, mostly arising from differences in the nature of challenges. For example, in one force, the greater challenge of policing protests and serious and organised crime, and in the other a greater focus on responding to vulnerability and policing coastal locations and other areas attracting large numbers of visitors from outside the area. However, our analysis suggests that our most important findings, which we have prioritised presenting, apply across both forces and seemed recognisable to policing participants from other forces, in the workshop on emerging findings we held during the CPRL annual conference.

Operational capabilities

It is clear from our analysis, that the forces we studied achieved a robust and resilient response to the challenges of the Covid-19 crisis. This was supported by high initial levels of public compliance, a significant fall in volume of street crime and other forms of demand during periods of lockdown, and high workforce commitment (paradoxically leading to lower than usual sickness absenteeism levels during the early stages of a health crisis).

Key capabilities which supported this response included well-practiced competences in the strategic command of critical and major incidents and leaders with deep experience of risk management in the face of uncertainty and unexpected events.

The two policing organisations we studied, as they responded to the challenges of the pandemic, demonstrated capabilities which prior research has associated with the characteristics of 'high reliability organisations' (HROs). Nonetheless, this HRO perspective also points to some areas that might usefully prompt deeper reflection within policing.

Our analysis suggests that while strategic command capabilities were an important foundation for resilience in facing the pandemic, there were signs that this mode of operating needs adaptation for major incidents of highly extended duration and scope. We have argued that the very success of strategic command capabilities in policing might create a blind spot in relation to the need to significantly adapt this mode of organising. Both the difficulties in drawing boundaries in policing operations around the Covid-19 crisis, and its extended duration seem to have placed significant stress on the wellbeing of those in the chain of command. Further challenges to resilience have come from the embeddedness of policing in a wider system, not least from the pace of policy churn and, at times, inconsistent messaging from the government.

We have also questioned whether, under the pressures of an extended crisis, policing strategic command structures and practices could, at times, reduce conceptual slack, leading to too rapid simplification and convergence to a single story. Within a command-and-control hierarchy there can be a risk of missing expertise and diversity of perspective that do not align with the hierarchy.

Good operational capabilities are an important element of preparedness for unexpected crises. However, foresight approaches that anticipate the capabilities needed for crisis resilience are also important[9]. Both forces make use of contingency planning and exercise responses to foreseen threats. However, most respondents felt that plans developed out of prior exercises and contingency

planning have been of little use in responding to the Covid-19 pandemic. This perhaps reflects a particular mindset about the role of exercising and contingency planning which sees these processes as valuable for the plans, and capabilities they develop in relation to specific threats.

An alternative perspective may be of more use in a world in which the next threat is often not like what has been experienced before. By exercising responses to a wide range of different simulated challenges, organisations are able to develop learning and capabilities that are relevant to a wide array of situations, including yet unknown challenges. Faced with uncertain futures, there is a premium on modes of planning which support the capability to monitor and adapt rather than predict and plan[8]. It is relevant, for example, that some of the understanding about supply chain issues came, not out of pandemic planning, but out of planning for Brexit.

Defensible versus defensive decision-making

Public organisations are legitimately required to be accountable for the decisions they make to the public and the politicians who serve the public. Hence, it is perhaps unsurprising that some of the research participants felt that a primary role for the National Decision Model (NDM)is in ensuring that decisions are defensible.

However, as we noted in section 4, in the face of intense public scrutiny and willingness to scapegoat, it is easy for recording defensible decisions to slip into making defensive decisions that are not the best choices in context, but more likely to protect the decision-maker if things go wrong[13].

Some of our respondents discussed the importance of decisions 'feeling right' as well as being thought to be right. These feelings often reflected some mix of experience-based intuition and ethical concerns. In this context, we also note that the combination of an increasing focus on evidence-based policing and defensible decisions could serve to delegitimise the role of such feelings in professional judgment. A more useful stance may be that such feelings often carry useful information but that they deserve the same critical scrutiny as other forms of information[18].

Building on learning and innovation from the crisis

Experience does not equal learning. There is a strong body of research evidence documenting common organisational failures to learn from crises, or tendencies to learn the wrong lessons (given that the next crisis is likely to be very different)[19]. Nor is there a single locus of learning. Individuals and subgroups in organisations and among their stakeholders typically draw very different lessons.

In common with many organisations around the world, police forces engaged in rapid innovation in response to the crisis. The pace of innovation and change confounded many expectations about the speed of innovation and change possible in these organisations. This raises a significant question about the sustainability of rapid innovation practices. To respond at great speed in a crisis situation represents no guarantee that the conditions to support such agility can be institutionalised so that agility can be maintained post-crisis. As we have highlighted in section 4, an important pre-condition may be the development of new and more agile modes of innovation governance, and mechanisms to evaluate and share learning from innovations.

Considerations for organisational development and future practice

Our analysis and conclusions suggest several areas worthy of attention in police force renewal work, which we outline below.

The purposes of business continuity planning and exercising

We have highlighted that pre-pandemic planning, including exercising, did not result in plans that were especially useful in responding to the Covid-19 crisis. However, there is some evidence that

these processes did produce useful knowledge and capabilities that usefully informed the operational response. This includes planning with entirely different goals, for example, Brexit preparedness. The value of planning for specific contingencies and exercising for specific hazards and threats may be less in the specific plans they produce than in the ways they expose organisational capabilities to a wide range of tests and produce understanding and improved capabilities which are relevant to a wide array of situations, including yet unknown challenges.

In business continuity planning and exercising, in contexts of significant uncertainty, it is the planning process rather than the specific plans which may be of most value. The greatest benefits from these processes may be in building knowledge and capabilities that will be useful in facing as yet unanticipated challenges. Such processes will be most effective when careful attention is given to ensuring sufficient diversity of perspective in the process including both through identifying relevant expertise regardless of hierarchy in the organisation and through multi-agency planning processes. This is key to avoiding following an oversimplified single story, and/or the tendency to treat new situations as just another version of the routine and familiar.

We suggest consideration be given to designing and using exercising and business continuity planning in a way which allows for capturing and disseminating learning and building capabilities that may be relevant to a much wider set of future events than were considered in the process. This should include careful attention to drawing on a wide range of perspectives and expertise.

Supporting innovation

As in many other contexts, the pandemic functioned as an accelerator for innovation, both bottom-up and top-down. It is important to capture the learning both from specific innovations and from the processes which led to them. Innovations should be carefully evaluated, with a focus on identifying those innovations that add value and are sustainable as 'business as usual' as well as those that were unsuccessful or unsustainable.

However, we have also noted that while greater agility of innovation will undoubtably be needed in a fast-changing world, that without changes to governance and consultation processes it may be hard to retain the agility of innovation achieved in the crisis. This will be especially true of bottom-up innovation.

Thus, an important element of increasing innovation agility, might usefully be the development of approaches to agile consultation and governance, which allows for decisions as experiments. Such approaches reframe governance as a coaching role, keeping innovators focussed on the perspectives of the intended beneficiaries of innovation, and helping remove organisational barriers to innovation[17].

The strategic command model

Capabilities in strategic command were at the heart of the successful policing response to Covid-19.

However, it was clear that as the crisis progressed, Strategic Command came under significant strain. Strategic Command approaches assume a time limited context for critical and major incidents. This assumption was tested by the covid pandemic, leading to impacts on physical and mental wellbeing for those in command roles.

We suggest the Strategic Command model should be evaluated in the context of protracted incidents (such as the pandemic), with consideration of mechanisms to identify key roles that could be 'rotated', with the full inclusion of key police staff roles and associated training, to alleviate pressures during protracted events.

We also note the difficulties under operational pressure of obtaining and integrating sufficient diversity of perspective and associated conceptual slack to obtain high reliability performance despite high pressure and uncertainty. Within a command-and-control hierarchy there can be a risk of missing expertise and diversity of perspective that do not align with the hierarchy.

We suggest that, especially in crises of extended duration, strategic command practices would benefit from structures and tools that enhance rapid lateral consultation and seeking greater diversity of perspective. This might usefully be built into business continuity and planning processes

The National Decision model

The National Decision model has some clear benefits, including acting as a clear prompt to consider multiple relevant facets of a decision and its role in recording of a defensible basis for decisions. However, we have noted two concerns. First, the potential in the context of cultures of blame, perhaps exacerbated by intense external scrutiny, for recording a defensible basis for decisions to develop into making defensive decisions. Second, the concern that the combined effect of the NDM and increasing emphasis on evidence-based decision-making may delegitimise the use of experience-based intuition. The effect may be less to reduce reliance on intuition than to make it less discussable and hence less available for critical scrutiny and reflection.

Thus, we suggest that in training the NDM, it is important to emphasise the difference between defensible decision and defensive decision-making. Leaders should consider how to avoid creating the conditions (e.g. anticipation of ready blame) in which defensive decision-making may thrive. It is also important to emphasise that experience-based knowledge and contextual understanding is part of the evidence base.

We further suggest that in using the NDM, an important supplementary question to consider is 'how do I feel about this decision, and why?'.

Beyond policing

This report has considered a number of external factors influencing the resilience of the policing response to the pandemic. First, we have raised questions about resilience of government decision-making and communication during the pandemic and improving these capabilities in government crisis management is clearly important. Second, it is clear that some policing partner organisations have less effective crisis management capabilities than others.

We suggest that both these points bear further examination as the government develops its National Resilience Strategy. It will be important for police forces and their partners, to share learning from the crisis, developing new policies, practices and forms of training.

Final thoughts

By the time we began gathering data, significant work had already been completed on the learning from the crisis for force renewal. Early attention to capturing learning is clearly important. As military historians Cohen and Gooch colourfully describe, "*in the chaos of the battlefield there is the tendency of all ranks to combine and recast the story of their achievements into a shape which shall satisfy the susceptibilities of national and regimental vain-glory. . . . On the actual day of battle naked truths may be picked up for the asking. But by the following morning they have already begun to get into their uniforms.*"

However, there is also a risk that the key stories about what is to be learned become fixed too quickly, and uncomfortable learning reshaped into more palatable form. We hope that this report will be a useful contribution to extending deliberations about learning from the pandemic experience.

References

1. Tuckett, D., L. Smith, and D. Good, *Good Decision-Making under Uncertainty: The Current Research Landscape and A Future Research Agenda: Report to EPSRC/ESRC/NERC.* 2018.
2. Knight, F.H., *Risk, uncertainty and profit.* . 1921, New York, NY: AM Kelley.
3. Klein, G., D. Snowden, and C.L. Pin, *Anticipatory thinking*, in *Informed by Knowledge*. 2011, Psychology Press. p. 249-260.
4. Weick, K.E. and K.M. Sutcliffe, *Managing the unexpected: Resilient performance in an age of uncertainty.* Vol. 8. 2011: John Wiley & Sons.
5. Weick, K.E. and K.M. Sutcliffe, *Managing the unexpected: Sustained performance in a complex world.* 3rd ed. 2015, Hoboken, NJ: John Wiley & Sons.
6. La Porte, T.R., *Complexity and uncertainty: Challenge to action*, in *Organized social complexity: Challenge to politics and policy*, T.R. LaPorte, Editor. 1975, Princeton University: Princeton, NJ. p. 332-356.
7. Allenby, B. and J. Fink, *Toward inherently secure and resilient societies.* . Science, 2005. **309**(5737): p. 1034-1036.
8. Stults, M. and L. Larsen, *Tackling uncertainty in US local climate adaptation planning.* Journal of Planning Education and Research, 2020. **40**(4): p. 416-431.
9. Fenton-O'Creevy, M. and D. Tuckett, *Selecting futures: The role of conviction, narratives, ambivalence, and constructive doubt.* Futures & Foresight Science, 2021. **online**.
10. Starbuck, W.H. and F.J. Milliken, *Challenger: Fine-tuning the odds until something breaks.* Journal of Management Studies, 1988. **25**(4): p. 319-340.
11. Chassin, M.R. and J.M. Loeb, *High-reliability health care: getting there from here.* The Milbank Quarterly, 2013. **91**(3): p. 459-490.
12. Lagadec, P., *Preventing chaos in a crisis.* 1993, Maidenhead: McGraw-Hill.
13. Artinger, F.M., S. Artinger, and G. Gigerenzer, *CYA: frequency and causes of defensive decisions in public administration.* Business Research, 2019. **12**(1): p. 9-25.
14. Tomkins, L., J. Hartley, and A. Bristow, *Asymmetries of leadership: Agency, response and reason.* Leadership, 2020. **16**(1): p. 87-106.
15. Tomkins, L., *Strengthening OL through evidence-based practice: Learning from 'what matters' as much as 'what works'. Research Paper for the OL Board*, in *MPS Organisational Learning*. 2020, Centre for Policing Research and Learning, Open University: Milton Keynes.
16. Tomkins, L. and A. Bristow, *Evidence-based practice and the ethics of care: 'What works' or 'what matters'?* Human Relations, 2021: p. 00187267211044143.
17. Beaumont, M., et al., *Using agile approaches for breakthrough product innovation.* Strategy & Leadership, 2017.
18. Vohra, S. and M. Fenton-O'Creevy, *Intuition, expertise and emotion in the decision making of investment bank traders*, in *Handbook of Research Methods on Intuition*. 2014, Edward Elgar Publishing.
19. Elliott, D., *The failure of organizational learning from crisis–a matter of life and death?* Journal of Contingencies and Crisis management, 2009. **17**(3): p. 157-168.

Appendices

1. Research project methods

The research project was carried out within what Van de Ven (2007) has described as an 'engaged scholarship' approach. In research of this type, we as researchers are partners with the decision makers, and they are involved from the design of the research through to the outputs, as we tailor the work to make it useful for their ongoing practice and are careful that our outputs match their needs.

Engaged scholarship, requires researchers to work in partnership with practitioners and not privilege academic theory over practitioner insights. Both existing theory and practitioner insights are used to sensitise researchers to key areas of enquiry and important cues to attend to. A particular feature of the research has been co-design of the study with two key contacts (one in each force) and testing of emerging insights at a workshop with CPRL members including members of police forces not participating in the research.

Data were drawn from detailed interviews with 16 senior police officers and staff from across the two participating forces. Interviewees were chosen in consultation with key contacts as having been closely involved in the forces Covid-19 response. Discussions in the workshop on emerging findings also helped shape the analysis.

All data were stored securely and anonymised. All members of the research team and the transcriber used, were employees of the Open University and passed CTC vetting.

Analysis was conducted through thematic analysis of transcripts of interviews, all members of the research team were involved in initial coding of the transcripts and higher-level coding categories were developed though team discussion and through iterating between the data and prior research literature. Key publicly available documents have been used for secondary checks to validate key conclusions, including police evidence to parliamentary select committees (e.g. House of Commons Home Affairs Committee, 2020), a policing inspectorate report on the pandemic response (HMICFRS, 2021) and a report on public sector responses to the pandemic by the Institute for Government and the Chartered Institute for Public Finance and Accountancy (Davies, Atkins, Guerin, & Sodin, 2020).

Davies, N., Atkins, G., Guerin, B., & Sodin, S. (2020). *How fit were public services for coronavirus?* Retrieved from https://www.instituteforgovernment.org.uk/sites/default/files/publications/how-fit-public-services-coronavirus.pdf

Her Majesty's Inspectorate of Constabulary and Fire and Rescue Services (HMICFRS). (2020) *Policing the pandemic: The police response to the coronavirus pandemic during 2020.* London: Her Majesty's Inspectorate of Constabulary and Fire & Rescue Services. Retrieved from https://www.justiceinspectorates.gov.uk/hmicfrs/publications/the-police-response-to-the-coronavirus-pandemic-during-2020/

House of Commons Home Affairs Committee. (2020). *Oral evidence: Home Office Preparedness for Covid-19, 6 April* (HC 232). Retrieved from https://publications.parliament.uk/pa/cm5801/cmselect/cmhaff/correspondence/OE00000267.pdf .

Van De Ven, A. H. 2007. *Engaged scholarship: A guide for organizational and social research*, Oxford University Press on Demand.

2. Research Team

Mark Fenton-O'Creevy is Professor of Organisational Behaviour in the Open University and Chair of the Open University Centre for Policing Research and Learning's Partnership and Advisory Board. He has nearly three decades experience of researching decision-making in organisations in contexts of risk and uncertainty. He is a founder member of the national research network Challenging Radical Uncertainty in Science, Society and the Environment.

Dr Nicky Miller is the Director for Knowledge into Practice for The Open University's Centre for Policing Research and Learning (CPRL) where she leads the ambitious and innovative programme of 'research into practice, practice into research', which is at the heart of the CPRL's partnership between academic researchers and police forces/agencies. Nicky's research interests are focused on knowledge mobilisation, understanding the barriers and facilitators in getting research into practice, as well as evidence-based policing through police-academic collaborations and building the 'what works' evidence base in policing.

Dr Helen Selby-Fell is a Senior Lecturer in the Faculty of Business & Law at The Open University, UK. Her research interests and publications cover various areas of policing, including 'evidence-based policing' (EBP), in particular, the challenges associated with embedding EBP in the police service. Prior to her appointment as Senior Lecturer, Helen has fifteen- years' experience in the police service, where she held various senior police staff roles in a metropolitan police force.

Dr Benjamin Bowles is Research Fellow in the Open University Centre for Policing Research and Learning. He is an anthropologist with experience of research into decision making in contexts of uncertainty.

3. The Centre for Policing Research and Learning

The Centre for Policing Research and Learning (CPRL) is a collaboration with 24 police forces and agencies across the UK, and with more than 80 OU academics from a wide range of disciplines.   This collaboration creates and uses knowledge to improve policing for the benefit of society, by producing research and learning that have been employed by police forces across the UK and beyond.

The Centre is involved in an ambitious programme of work across three streams:

- Research – undertaking research relevant to policing. Research is jointly decided in partnership between the police and academics. Police partners add valuable insights, expertise and context while the academics bring knowledge of literature and research methods to the design, delivery, and interpretation of the research which generates valuable evidence-based practice.

- Learning and education – providing a range of blended, on-line and face to face learning in a series of informal as well as accredited packages that range from bite-sized and free 'open educational resources' (OERs) to police constable degree apprenticeships (PCDA) and the PhD studentship programme.

- Knowledge into practice – increasing the impact of the Centre's work through the exchange, translation and use of its research, learning and education into policing practice. This is supported through an understanding of 'what works' in bridging the 'knowing-doing' gap in management and organizations.

Collaboration and co-production are at the heart of the Centre's approach. The central tenet of the CPRL is research into practice and practice into research, combining the best of both academic and police perspectives on a range of challenges, research questions and educational opportunities. It values the contributions which can be made by both academics and practitioners, but particularly by teams comprised of both. There is very much a two-way benefit of this in ensuring the value and relevance of research and its mobilisation into practice. The research feeds into educational pathways. It is shared and embedded through knowledge exchange activities. In this way, the Centre contributes to the work of police agencies as they adapt to a changing policing landscape, with its greater emphasis on evidence-based practice.

The Centre for Policing Research and Learning website gives details of all the research, learning and knowledge into practice initiatives