
The Frailties of Expert Judgement in UK Public Policy: The COVID-19 Experience

COMMUNICATION | EDITORIAL | INVITED CONTRIBUTION | **PERSPECTIVE** | REPORT | REVIEW

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ABSTRACT

In response to the COVID-19 pandemic, the United Kingdom deployed a set of measures to reduce the impacts of the spread of SARS-CoV-2. These measures included a national lockdown and restrictions to most leisure activities.

Analysis of relevant testimony and scientific data reveals that the UK Government had a delayed reaction, in which the opportunity cost of lives and economic stability were lost. Information on the severity of the virus was made available as early as January 2020. However, inaction remained the chosen strategy up until March 2020. Analysis of decision-making and biases suggests that lack of diversity in decision-making is of concern in prevailing top-down decisions. While the Scientific Advisory Group for Emergencies (SAGE) was able to showcase a variety of conclusions from their modelling data, the evaluation of models as a strategic tool for outcome analysis was poor. For example, when compared to Austria, the UK was slow in acting on modelling data as a probabilistic tool for mitigating risks.

Limitations of the decision-making process are also explored to make the case that decisions made through a better integrated framework of health professionals, non-experts and policymakers could reduce risk and lead to more meaningful outcomes.

Keywords Evidence-based · Decision-making · Experts · SAGE

Overview

- The UK was slow to adopt genuinely evidence-based policy-making practices.
- Expert recommendations on public policy, through SAGE, were selectively chosen and questioned by non-experts.
- Decision-making was largely top-down and often lacked sufficient grounding in scientific evidence.

Introduction

The COVID-19 pandemic has produced an inconceivably large footprint on the 21st century. It has led to the deaths of nearly five million individuals and infected approximately 245 million people globally [1]. In the United Kingdom (UK), nine million people have been infected, with a mortality rate of 2,000 persons per every million, ranking 27th in the world with respect to deaths [2]. While the UK has been fast in its vaccine rollout, the impacts of COVID-19 remain apparent in the population. Government decisions made during the pandemic have invariably impacted the lives of citizens and systemically changed industries such as hospitality, retail and manufacturing [3].

Approaches to COVID-19 have been driven by policymakers in government for reacting to and managing the crisis (figure 1). An analysis of pandemic policy and expert judgement in the UK reveals weaknesses of the response. This essay investigates the correlation between expert judgement and evidence for policymaking.

The UK’s Response to COVID-19

In late January, as the threat of COVID-19 loomed in the UK, the Government called for the Scientific Advisory Group for Emergencies (SAGE) to analyse the potential risks of a pandemic [4].

SAGE is responsible for providing evidence to government officials for better understanding and decision-making, while the Cabinet Office Briefing Room (COBR) is the Government’s high-level response team for issues of national emergency. The combined role of SAGE and COBR is to produce responses that are in the best interests of the nation, using channels of communication as seen in figure 1.

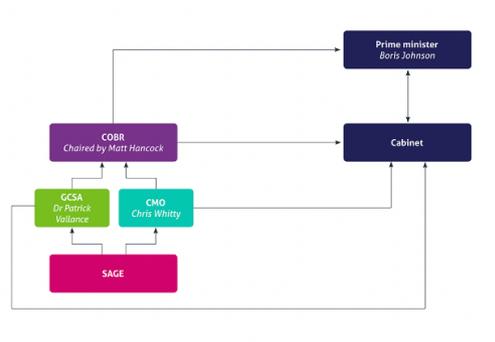


Figure 1: Phase 1 of UK Government COVID-19 response. Reproduced from [4].

Three months into the pandemic in June 2020, the Joint Biosecurity Centre (JBC) was developed for the purpose of scientific communication within the Government. The Prime Minister (PM), Boris Johnson, declared a nation-wide lockdown on the 23rd of March 2020. This was followed by another similar lockdown on the 5th of November 2020.

The PM was informally consulted by a former chief advisor, Dominic Cummings, on a possible epidemiological threat in January 2020. Cummings revealed that he did not formally engage 10 Downing Street or the PM on the prevalence of COVID-19 in January or February 2020 [5]. Cummings also acknowledged his awareness of the issue in early 2020; however, he did not deem it material at the time. This is despite the World Health Organization (WHO) declaring COVID-19 a public health emergency of international concern on the 30th of January 2020, 43 days prior to the UK’s first formal response [6]. At this stage, nations across the world took action in limiting social interaction and commercial activity [7]. The UK did not bar travel across its borders until June 2020 and allowed for large sport events until March 2020.

COVID-19 Decision-Making: An Evidence-Expert Interface

The UK Government published guidance for combatting influenza pandemics in 2006 [8]. This provided a framework for responses during an influenza-type pandemic. The report provided high-level points for risk management. This framework superficially suggests an extensive preparation for a virus like COVID-19.

The UK was considered a leader in pandemics and even deployed its own resources to combat epidemics outside of the UK such as Ebola and SARS [9]. Despite this, the UK was overwhelmed with rises in cases and deaths, amounting to 50,000 deaths by July 2020 [10]. This inconsistency can be traced back to the operations of UK Government bodies. In testimony to the governmental commission on COVID-19, Mark Walport provided insight into the operations of SAGE [11]. Walport described a ‘lack of data sharing’ between SAGE and medical communities. This is also highlighted in a report published by the UK Government in which doctors at the National Health Service (NHS) confirm a lack of data transparency between community and government modelling [12].

Impediments in data collection can be difficult when determining the extent of a crisis. While this issue came closer to a resolution after the PM took lead of COBR meetings [5], it created a dilemma for policymaking.

SAGE presented several models for COVID-19 in the UK. These were potential pathways in which the pandemic could proceed depending on various limitations that were placed on social interaction. The UK Government had to make decisions on the extent to which social interaction would be curbed. Eker compares the response of the UK with that of Austria for model-based policymaking [7]. Eker shows that UK policymakers had a cynical approach to the accuracy of models, pointing out their inaccuracies. Austria, on the other hand, used models by accounting for their errors and integrating them into scenario analyses. This allowed for swift action as compared to the UK. Eker argues that a scientific approach would involve acting on models since they are not ‘correct’, only ‘useful’.

While the data made available in the UK was slower to update than in Austria, the models generated by SAGE were sufficient to show a trend in COVID-19 cases that garnered alarm. Scientists on SAGE formally recommended pursuing a response against the virus earlier than when the PM took action [12]. Eker estimates that if the UK had acted on its models in a similar way to Austria, by closing borders and cancelling sporting events three weeks earlier, the first lockdown could have been delayed, if not avoided all to-

gether [7]. This suggests that policymakers in the UK were not considering information from purely a scientific perspective, as evident in the time-frame of decisions made despite early evidence for more stringent measures [12]. This leads to the consideration of what other factors influenced the UK’s decision-making process, in addition to the modelling data and scientific evidence.

The Confluence of Politics and Evidence in COVID-19

UK policymakers were quick to question the validity of models and assume that inaction was a favourable solution. Often, decisions for which the outcomes are unknown creates room for mistakes that promulgate into unforeseen circumstances. The decision not to act on the threat of COVID-19 stemmed from a lack of information [13]. Such biases can impact the decisions of policymakers as well as the rest of the population.

The decision not to act until later than other countries was made by a PM who was quoted as being ‘more concerned with the economic threat of paranoia around COVID-19 rather than any medical threat’ [14]. The severity of COVID-19 was not of sufficient concern to the Government even when SAGE reported its models [5]. The UK Government adopted a stance against COVID-19: it was to remain cautious and place a ‘greater emphasis on hygiene’. This may be described as a carefree approach when presented with data on the possible spread of COVID-19. The lack of concern or immediacy to act on the evidence surrounding COVID-19 became the grounds on which the spread intensified in the early months of 2020.

In a Danish study, the role of evidence in politics was explored to examine how predispositions can impact responses to evidence for politicians [15]. A key finding was that politicians who have predispositions to opposing scientific evidence are less likely (30-61%) to accept evidence once presented. For UK policymakers, the link between prior beliefs on the propensity of COVID-19 to cause serious impact and response to modelling data becomes clearer. The UK Government consistently doubted the extent to which COVID-19

would be a threat while governments around the world proceeded to formulate responses [16].

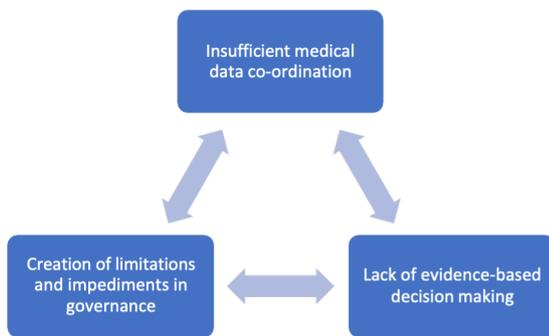


Figure 2: Decision impact cycle: COVID-19 policy impediments.

For data sharing within the NHS, the above biases likely manifested in limiting the sharing of data, which were poorly rotated between key stakeholders in the medical complex. Those same policymakers would also then question the accuracy of modelling data. Figure 2 illustrates how these processes are linked with a lack of evidence-based policymaking. It can be argued that information was unable to flow within the system and could have caused impediments in pursuing the best policy response. This brings into question the following: who determines evidence as credible in policymaking?

Frailty in Judgements for COVID-19 Policy

UK policymakers are legally obliged to make decisions on responding to threats like COVID-19 from the perspective of the nation as a whole, considering trade-offs and mitigations appropriately. Decision-making, however, fell on a select group of individuals who were expected to respond in an holistic manner. Were these individuals the experts who drove the decision-making process? The scientists on SAGE were deemed to be experts because of their backgrounds in epidemiology. A key distinction must be made between experts and policymakers: the former advise on the development and shaping of a policy, whereas the latter oversee implementation of the decision itself, taking into account advice from several areas of expertise.

This difference is particularly noteworthy because of the use of evidence-based policies. The UK Government established the Joint Biosecurity Centre (JBC) as a response to criticisms on evidence and policy. However, the onus of decisions on major restrictions such as lockdowns remained ‘very much top-down’, as suggested in testimony by Professor DS Davies [17]. Davies implies that information may have travelled from SAGE or JBC towards shaping possible plans of action; however, final decisions were made independently by ministers and policymakers. Dominic Cummings himself admitted to being ‘nowhere nearly as informed’ towards scientific information [5]. This is concerning because the decisions made by policymakers were not fully grounded in scientific evidence but rather were strongly politically driven. This created a gap in the degree to which information available in the UK and around the world was considered. This represented a failing of the UK Government to recognise the severity of a situation when evidence was available.

In a study conducted on UK evidence-based policymaking [18], it was shown that experience played a role in the development of evidence-based policies. While the paper suggested that experience can contribute towards developing meaningful policies, Fleming noted the shortcomings of experience and the confusion around evidence when this was in conflict with experience. It showed how tacit knowledge can provide insight on information that is not quantifiable, but it can also lead to ignorance in the presence of direct evidence. This finding mirrors that of the UK Government’s response to COVID-19: early inaction despite evidence.

It could be hypothesised that the framework of the UK’s COVID-19 response, which relied on top-down decision-making with limited information sharing and a predisposition to seeing COVID-19 as less detrimental, led to decisions that were more heavily based on experience rather than evidence at pivotal points. This is reflected in the testimony of Dominic Cummings when the PM spoke prematurely to heads of the NHS and key ministers at 10 Downing Street on herd immunity and received positive feedback without any relevant data available [5]. This conversation took place in the first week of March 2020, days before a national lockdown was implemented.

To avoid the accumulation of biases and predispositions, the inclusion of a broader array of perspectives could be better integrated into decision-making. This would involve introducing more diverse perspectives and adding more formal challenges to decisions made. As literature shows, decision-making on risk is better when decisions are decentralised and delegated to different stakeholders [19]. The UK Government lacked inclusion of a wide range of stakeholders in decision-making and did not include its original framework for influenza pandemics, as it did not include surveying or group study [8].

Limitations

While the UK's COVID-19 response has been shown to have been influenced by biases and a lack of expert judgement, the difficulties in credibly determining risk should also be considered. Research shows that biases can exist because of challenges in meeting the demands of constituencies [15]. Politics pressures policymakers to produce swift responses without compromising economic sectors or public opinion.

The implementation of a lockdown was opposed to the wants of many parliamentarian's constituencies and consequently to their chances of reelection. This, however, does not justify the negligence of the UK Government because, in the same string of logic, constituencies expect policymakers to implement decisions without being impeded by the same frailties as the relatively uninformed public, a legal basis for why policymakers are placed in positions of decision-making. The notion of politicians becoming susceptible to hinderances that impede decision-making in the public interest is inconsistent with the purpose of policymakers as persons with good analytical and critical abilities.

Conclusion

The response to COVID-19 in the UK has sparked controversy and multiple hearings at the highest offices. The inability to sufficiently base a decision on scientific data while minimizing biases, despite having a reputation as a leading authority on pandemic responses, suggests ineffectiveness

in the UK Government's planning structure and data-sharing policies. The deliberation of expertise in decision-making is largely skewed because decisions are largely made with a top-down approach. This brings into question the identity of an expert. Scientific experts provide ceremonial service while decision-making is largely done by policymakers, driven by their own biases and perceived notion of expertise.

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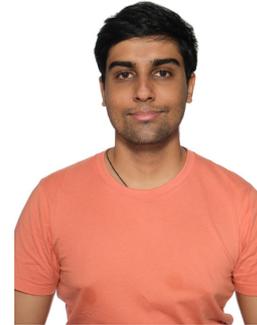
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Pranjal is a MSc Environmental Technology student at Imperial College London. He has a background in Chemical and Environmental Engineering at the Hong Kong University of Science and Technology. As an avid fan of sustainability, Pranjal has consistently remained involved in environment-related work. He has interned at Ernst & Young Climate Assurance and worked with a solar start-up as a sustainability strategist. He also hosts several research projects in which he has researched renewable technology and the implementation of climate adaptation in electric grids. Pranjal has a keen interest in studying environmental decision-making and environmental policy implementation.



Conflict of interest The author declares no conflict of interest.