Life in Anticipation of the COVID-19 Pandemic 'Peak': Reflecting on 'Strategies' for and Variations in attempts at 'Flattening the Curve' and Managing the Crisis

Reidar Staupe-Delgado

Roskilde University, Department of Social Sciences and Business
Universitetsvej 1, 4000 Roskilde, Denmark
UiT The Arctic University of Norway, Department of Technology and Safety
Postboks 6050 Langnes, 9037 Tromsø, Norway
staupedelgado@gmail.com

On March 11th, 2020, the World Health Organization (WHO) declared the emerging COVID-19 threat a pandemic following the global spread of the virus. As countries around the world implemented emergency measures in a concerted effort to handle the emerging pandemic, the nature and implications of the different kinds of precautionary measures adopted have remained contested. The majority of countries opted for efforts to slow the rate of infection, whilst critics have argued for stricter and milder measures, respectively. The living experience of the pandemic is inherently temporal as it is shaped by sentiments of living in anticipation of the envisioned pandemic peak(s) and aftermath, as vividly illustrated with references to the need for 'flattening the curve' so as to reduce the impact of the looming or creeping crisis. This paper sets out to critically discuss the notion of pandemic 'strategies', recognizing also that governments altered their strategic stances throughout the initial phase of the pandemic. It is likely that the aftermath of the crisis will trigger discussions of what kind of response should be considered as best practice. Thus, greater attention to the notion of 'strategies' in light of the COVID-19 pandemic is in order.

Keywords: Coronavirus; public health preparedness; creeping disaster.

1. Introduction

The outbreak of a novel type of coronavirus labeled SARS-CoV-2 gave rise to the declaration of a Public Health Emergency of International Concern (PHEIC) on January 30th, 2020. On March 11, 2020, the World Health Organization (WHO) declared a pandemic status for the outbreak, having observed that the outbreak was now of a global scale (WHO 2020). Having originated as a 'pneumonia of uncertain cause' in the city of Wuhan in the Chinese province of Hubei, the viral disease COVID-19 eventually spread to every corner of the world. As countries around the world implemented emergency measures in a concerted effort to manage the emerging pandemic, the nature and implications of the different precautionary measures adopted are increasingly contested. Many countries opted for efforts to halt the reproduction of the disease, whilst critics have argued for stricter and milder measures, respectively. In any case, it is clear that the management of creeping crises poses distinct challenges (Boin *et al.* 2020a, 2021). Affect, in turn, shaped by cultural lenses and prevailing political constellations, as well as how crises are narratively constructed, results in great variation in responses and interpretations of the unfolding course of events (Brown 2020). It is in many ways precisely this sense of the COVID-19 pandemic 'unfolding before our very eyes' that also generates this intense sense of bracing for the worst, the next peak, holding our breath to see if the curve will 'flatten', producing socio-cultural effects ranging from the individual to the societal and global level (Werron and Ringel 2020).

This paper is inspired by public debates that often featured in the global media in the first year of the COVID-19 pandemic which centered on what kinds of strategic stances should be pursued, and particularly how countries (claimed to) 'shift' from one 'approach' to another in response to 'emerging insights'. The United Kingdom (UK), for example, was quick to abandon a strategy centered on shielding mainly the elderly. South Korea was praised for its test-trace-and-isolate (TTI) strategy. Norway shifted from first pursuing a strategy emphasizing that the population should limit contact and work from home so as to protect at-risk populations, before eventually debating whether to pursue a 'slow down' or a 'beat down' strategy, presenting it as a critical conjuncture for the country (Government of Norway 2020a). In debates surrounding whether to opt for a 'slow the spread' rationale or a more ambitious goal, the Government of Norway concluded that slowing the spread was not enough and the country hence went for a 'beat down' strategy, which was later replaced by a long-term response more akin to a 'slow the spread' strategy, also relying on TTI with the purpose of 'keeping infections under control' (*ibid*). New Zealand and to some extent Australia have been cited for their

'zero tolerance' strategies, albeit also having had to face criticism for the adverse consequences this strategic choice has had for people and families dependent on travel. Australia, for instance, have faced criticism for not facilitating the safe return of its citizens (BBC 2021). All over the world, we have since witnessed, on one hand, sets of narratives concerning the presentation of strategy, and on the other hand discussions focused on what concrete non-pharmaceutical interventions (NPIs) the strategy should consist of, accompanied by normative discussions on how much freedoms could desirably or legally be limited and how to draw the line between safety concerns, rights and liberal values (Hale *et al.* 2020; Capano *et al.* 2020; Boin *et al.* 2021). In the second year of the pandemic, in 2021, the strategic stance has shifted to one focused on vaccines, which in turn has given rise to optimistic strategic stances centered on quickly reopening and other ones centered on more careful and less optimistic approaches. In this context, an 'eradicationist' narrative can be observed on one end, and a normalization narrative on the other end.

Reflecting on the kinds of responses taken, their nature and their potential implications are therefore necessary, not only for informative reasons, but also because discussions on what kind of approaches will set precedence is likely to be a highly contested process. The stakes are high as hard-won liberties are in some contexts set aside in favor of militarized or 'draconian' responses (Kalkman 2020; Boin *et al.* 2021). In broad strokes, kinds of responses may be meaningfully grouped into five broad categories of interventions that different countries have implemented and indeed shifted between depending on changes in the political climate as well as new data. This typological discussion is intended to inform conceptual advances in the wake of the pandemic as well as to serve as a useful analytical tool in a policy research context.

Some countries, for various reasons, implemented what we may label '*laissez-faire*' responses throughout or at different points in time during the course of the pandemic. As we have already noted, grouping governments by response is perhaps not a feasible thing to do. Most governments have changed strategic stance several times both as a result of the epidemiological situation and due to swings in political mood. Moreover, some governments have done this due to uncertainty concerns, other due to health indicators on the ground, and yet others due to political and economic concerns. In some countries, like Brazil and the United States (US), there has also been notable variation between regional authorities and their willingness to partake or resist national-level mandates. Other strategies have involved (or at least contained as a component) an emphasis on '*shielding*' and protecting the vulnerable and at-risk populations, such as the elderly. Many Western governments have also emphasized '*focused*' strategies that aim to

facilitate as much continuity as possible, through such tools as TTI, closing down more periodically in response to a worsening epidemiological situation, and opening more once certain positive thresholds are reached again (sometimes radical shifts between re-openings and closure also led to scandals). In such situations, as well as other situations where control is lost (which makes e.g., TTI difficult), more indiscriminate measures are often implemented, which I refer to here as '*halting*' strategies. These include curfews, mobility regulations, work-from-home declarations, closing down malls, pubs, restaurants and the like. Halting strategies aim to brake the pandemic onset by lowering the number of people infected by each infected individual through more-or-less universal contact reduction measures and partial closedown of spaces where crowd control is impractical, as in the popular discourse on 'halting the spread of the virus' or aiming to 'flatten the curve'. At the most intense end of the continuum, we find strategies I refer to here as '*suppressing*' strategies. These are sets of indiscriminate measures aimed at lowering the basic reproduction number to a point where the spread disease is effectively curbed, bringing the onset of outbreaks to a halt, going beyond 'flattening the curve' towards bringing it 'under control', often after control has been lost rendering focused approaches infeasible and halting strategies insufficient. In the wake of vaccine rollout, these tendencies have largely continued. We can observe that some countries open quickly in a more laissez faire manner after a certain vaccine coverage was reached, whilst other countries continue with stringent measures despite notable vaccination rates. Further, the very different rates at which populations in different countries get vaccinated (either due to poor access or scepticism) give rise to debates around whether vaccines can end the global pandemic.

Pandemic response is often shaped to a significant extent by uncertainty (Karlsen and Kruke 2018). Given the uncertainty decision-makers face, not only due to the relatively long incubation period of the disease of up to two weeks, but also because of the limited evidence base behind all the proposed sets of measures, the feasibility of each of the measures listed here remains contested. Among the factors often cited as consequential in the decision for an optimal approach are the following: Dilemmas concerning financial impact on the economy, both over the short-term and long-term; the choices of neighboring countries — giving rise not only to political pressure domestically but also having a direct effect on the possible effectiveness of measures owing to the realization that 'one cannot realistically win this battle alone'; and matters of human rights and principles of justice (such as unnecessarily hindering freedom of movement and entrepreneurship after which it is no longer necessary out of public health concern). The purpose of this paper is therefore to reflect on the nature and kinds of responses, the arguments

underpinning them, as well as their potential societal and political implications. Conceptually the paper engages with the wider pandemic response policy literature (cf. Boin *et al.* 2020, 2021; Maor and Howlett 2020; Capano *et al.* 2020).

This paper is structured as follows. Section 2 elaborates on the nature of each of the potential 'strategy narratives' that countries have adopted (and have struggled to decide between) in response to various 'pandemic waves' or 'peaks'. Section 3 reflects on the stakes involved in the various strategy narratives, focusing particularly on the positive and negative arguments presented for each strategy, reflecting particularly on the potential implications for current knowledge on the politics of pandemic response and health emergencies as well as on the challenge faced by developing countries. The final and concluding section presents a reflection on the potential fallout from the pandemic with a particular focus on the question of how the normative views that the pandemic created will linger and potentially set precedent for future pandemic responses.

2. Anticipating the Imminent Peak and Potential for Catastrophe

In early 2020, the emerging COVID-19 pandemic triggered global reactions and responses, as well as indifference in some instances. What was in early 2020 experienced by decision-makers as a highly uncertain time, the slow build-up of the COVID-19 pandemic constituted a 'fundamental challenge for the crisis management capacities of the modern state' (Capano *et al.* 2020). The pandemic can best be conceptualized as a creeping disaster that struck the world by relative surprise (Boin *et al.* 2020a), although, perhaps paradoxically, deadly pandemics featured highly on decision maker's lists of likely risks to society. Due to its onset dynamics and the way it spreads, the pandemic is essentially a temporal phenomenon both epidemiologically and in the way it is experienced socially (Werron and Ringel 2020). To a large extent, this uncertainty was connected to the dreaded arrival of 'the peak' or the 'top of the curve (Figure 1). In most countries, the initial 'peak' was subsequently followed by new 'waves' months later.

Symbolism is recognized as an essential aspect of legitimizing emergency measures ('t Hart 1993). One can argue that visual representations of surge bed capacity became the very symbol of the slowly emerging pandemic towards mid-March 2020. Shortly after the WHO pandemic declaration, the narrative focus of the crisis was fixed on 'flattening the curve', generating intense feelings of anxiety for many as sentiments of collectively bracing for potential system collapse intensified. The fear was that, if the measures were to prove insufficient, the curve would end up becoming too steep with potentially catastrophic societal consequences and we would not be able to tell in the present, only in the future, if
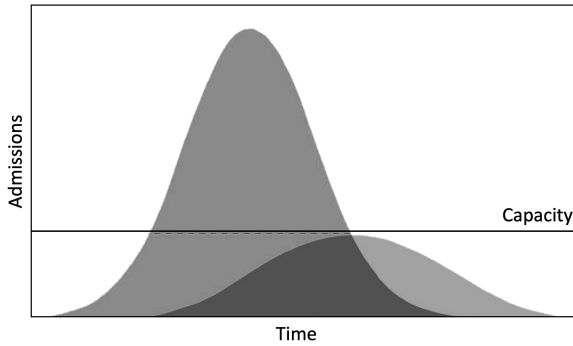
Figure 1. Surge Bed Capacity Illustration

society was on the right track. A major source of uncertainty was then finding the right balance between safety and freedom so as to keep 'the curve' within the carrying capacity of the systems. This feeling arguably intensified after Ferguson *et al.* (2020) published their estimates of how bad it could get if measures proved insufficient, triggering the implementation of measures in most countries with varying degrees of strictness and socio-economic consequences.

Two other key texts that had a big effect on the experience of living in anticipation of 'the peak' were *Coronavirus: Why You Must Act Now* and *Coronavirus: The Hammer and the Dance* (Pueyo 2020a. 2020b), the latter also featuring centrally in debates over which strategic stances to assume in the face of the emerging threat. Although not published in scientific outlets, these articles were among the most shared and liked articles on social media with over 60 million reads and were translated into over 40 languages, including different versions of translations. Published just as most European countries were implementing stringent measures, the publication of *Coronavirus: Why You Must Act Now* served to establish a sense of urgency by effectively visualizing the cost of inaction measured not in weeks or months, but in days. *Coronavirus: The Hammer and the Dance* argued the case for swifter implementation of strict measures to regain control by comparing the implementation of strict measures and more relaxed mitigative measures. This publication also gave rise to further debates around types of responses, the paper itself distinguishing between inaction, mitigation and 'the hammer' as distinct approaches. Later adaptions also referred to the work of Reason (1997) on '*The Swiss Cheese Model*', illustrating how measures should be seen as sets of measures that are most effective in combination (Figure 2).

By mid-March 2019, most European news outlets were continuously communicating their published health strategic stance by way of reference to 'the curve' or
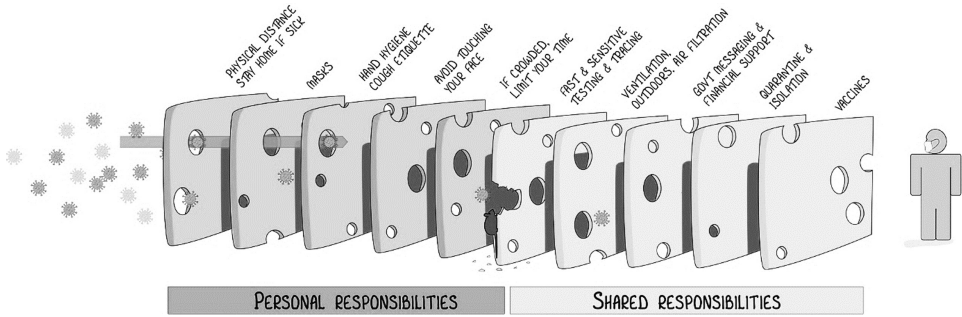
Figure 2. The 'Swiss Cheese Model' as used to Visualize COVID-19 Measures. The illustration, which is based on the work of Reason (cf. 1997), aims to illustrate how each intervention (cheese layer) has weaknesses (cheese holes). the metaphor thus illustrates how multiple layers or sets of interventions improve safety and reduces risk (MacKay 2021)

'peak', which was estimated to arrive by late spring or early summer the same year, with narratives centered on the crucial importance of slowing down or altogether curbing the exponential graph. Indeed, major news outlets all over the world had by this time begun updating infection graphs and death graphs day and night, strengthening the sense of dread as life was increasingly dominated by anticipation of the peak and uncertainty rose as to whether societies would be successful at halting or curbing present trends. From a sociological viewpoint, Werron and Ringel (2020: 59) argue that

> Until the end of May, responsive practices in many countries and with few exceptions were largely affirmative of the goal to fight the virus by adhering to the standards promoted by a powerful discourse coalition of politicians in public office, health officials and scientists, journalists and other actors who enjoy the privilege of being well-established "public orators." By early to mid-June, there were more and more signs of an increase in responsive pandemic practices aiming to resist the dominant definition of the situation — in some countries and/or regions more than in others.

The time-lag between the moment measures was implemented and the time at which their effects would materialize in terms of declining graphs was significant, about two weeks, furthering the sense of uncertainty at the initial stages of the pandemic about whether societies were on the right course or headed for a collision. Although the 'rudder' had been turned, it was not certain we could get off collision course, as it were. As part of the scramble to avoid the worst predictions becoming reality, most governments thus formulated and revised their strategic

stance continuously as more data became available and also as a result of continuous shifts in public sentiment and the political climate, also generating some controversy. It was commonly observed that one 'mode of resistance is "highlighting inconsistencies", especially on the part of those who are in favor of the dominant definition of the situation' (*ibid*.). Resistance was often rooted in different kinds of meta-narratives, 'ranging from established political cleavages ("we cannot trust party X") and scepticism about science to full-blown conspiracy theories such as "Bill Gates is trying to depopulate the world"' (*ibid*.). As uncertainties became to a greater extent embedded into everyday experience, one could argue that the experience eventually resembled more one of enduring the now obviously long onset of the pandemic (Honkasalo 2007). All of the above has important implications not only for public health but also for how we may approach creeping crises as a topic of inquiry, as it increasingly becomes clear that long onsets lasting many months drains public and leaders in what may be labeled surprising ways. Thus, sentiments towards measures shift and affective states are readily altered as conditions improve or worsen over time due to setbacks and a release in the strictness of measures (Cairney and Wellstead 2020; Maor and Howlett 2020), with implications also for crisis leadership and political pressure.

3. Kinds of Response Measures and Strategies Adopted by Countries

Health authorities and governments vary widely with regards to their framing of the COVID-19 threat and as to how the aims of selected strategies are presented to the public. Whilst bearing in mind that the actual measures implemented may not correspond to the way in which the stated goal of a particular strategy is framed (e.g., stating that the goal is curbing whilst the measures implemented appear to not be pursuing such ends in practice), the goal of this paper is not to assess the quality of any given country's measures but to provide an overview of kinds of strategies. As stated in the introduction, the goal of this conceptual exercise is not necessarily to establish an exhaustive typology of objective responses with mutually exclusive categories, but rather represents a reflection or elucidation effort concerning the notion of choosing a particular strategic stance. Below is a rudimentary effort at teasing out types of responses that covers most of the measures discussed later in this paper.

Laissez-faire narratives emphasize minimal or no intervention for various reasons. While some countries may be implementing only a minimum of public health measures in response to the COVID-19 threat, mainly due to a relative inability to do so (for example, due to resource constraints or internal conflict) a few countries have actively taken a minimum intervention stance, often based on

priorities concerning the economy and livelihoods. Although few countries have actively maintained such a stance throughout the duration of the pandemic, many countries, including the US, Sweden, UK and Brazil were hesitant to adopt stringent measures at the onset of the pandemic. However, it should also be mentioned that in the case of both Brazil and the US, a considerable conflict between national-level and local narratives was observed, with local decision makers in many cases not reproducing the laissez-faire narratives of the national government. Whilst this strategy only minimally disrupts livelihoods and business over the short term, it eventually becomes clear that countries hesitant to adopt measures at first later experience higher infection and death rates than countries with more consistent strategies.

It is problematic to infer that any country maintained a laissez-faire attitude throughout the duration of the pandemic. Yet it is clear that laissez-faire narratives constitute a distinct kind of strategic stance that leaders have adopted at times, not only at the initial onset. Indeed, some national leaders have also returned to laissez-faire narratives after a period of implementing other, more stringent approaches, with Trump and Bolsonaro perhaps being suitable examples. This demonstrates that these kinds of strategies should not be understood as entirely categorical or mutually exclusive.

Shielding and protecting approaches mainly aim to shield so-defined 'at-risk groups' (e.g., the elderly and people with underlying health conditions) from as much social contact as possible until the COVID-19 threat is brought under control. The UK, among other countries, pursued such an approach initially as part of a 'herd immunity' logic. This was later abandoned when reports, such as that of Ferguson *et al.* (2020), suggested that the human death toll could be considerable. The WHO has since questioned the basis of this strategy, particularly in light of its reliance on imperfect information and estimation at this stage (Randolph and Barreiro 2020). It could be assumed that both the Netherlands and Sweden initially preferred a minimum intervention strategy which was since veering towards more of a flexible stance, emphasizing voluntary and non-disruptive NPIs. However, all countries for a time suspected that herd immunity was imminent later realized through antibody tests that a smaller-than-expected share of the population had been infected and thus immunity being lower than anticipated, again indicating that mortality and morbidity was higher than initially assumed. It should also be mentioned that few governments have explicitly indicated that herd immunity was a goal or explicit strategic stance, it was more often than not a wished-for by-product of minimalist intervention. It still remains a key part of the overall strategic repertoire, indicated by such documents as the UKs guidance note on *Guidance on shielding and protecting people who are clinically extremely vulnerable from*

COVID-19 (UK Government 2020). The initial phase of the discourse surrounding the pandemic in these countries was in many places focused on the at-risk groups, meaning that the population at large could enjoy somewhat greater freedom given that at-risk groups were 'shielded'. In Norway, for example, press briefings with Prime Minister Solberg and a speech delivered by King Harald V, emphasized the importance of shielding our vulnerable and elderly from the virus, initially framing the strategic response in terms of a collective sacrifice to protect at-risk groups among us. From a press briefing by the Norwegian minister of health, it was stated that

> The measures will have a significant impact on the personal freedom of our inhabitants. These are measures that directly shape the daily lives of people and how our society functions. We are doing this to halt an infection that poses little risk to the many, but that may be very dangerous for some. We do this to shield those of us who are most vulnerable (Government of Norway 2020b).

This rhetoric was later abandoned as deaths among non-risk groups were observed and critique surrounding the observation that 'you and I could also suffer hospitalization or death' shifted the political climate. The interaction between political rhetoric or shifts in the political landscape and the shifts in public sentiments is complex. However, these narratives seem to have eventually become politically problematic as many people who were not at risk also fear to suffer adverse consequences should they catch the disease. In summary, shielding and protecting may be considered one kind of narrative and strategic stance in the sense that it has surfaced throughout, particularly at the beginning of the pandemic, based on clear demographic patterns observed in mortality and morbidity data. Yet, variation in the degree to which non-risk groups have feared infection has also shaped the attractiveness (or lack thereof) of such rhetoric, indicating also that during creeping crises, such as COVID-19, public sentiments periodically change as the day-to-day lived experience of the pandemic changes.

Focused approaches have emphasized a minimum economic disruption logic but with extensive testing and contact tracing in the population to allow for as much normalcy as possible. It is necessary to declare at the onset that, for many countries, a focused approach became impractical from an early stage due to an initial lack of testing and control. The kind of strategic toolbox that we here label 'focused' relies on aggressive testing and intervening mainly in epidemiological hotspots, in turn requiring sufficient overview to know, more or less, where infection is happening at any given time. Not to be confused with a laissez-faire stance, focused measures are extensive, costly and, some would say, intrusive as social interaction must be monitored for control to be maintained. Presence must

be recorded, lists of attendants must be archived and group sizes must be controlled under a sort of regime aimed at 'breaking the chain of infection' wherever it is observed to be breaking out. Using South Korea as an example, the government has enacted laws that grant it authority to access CCTV footage, GPS data from phones, bank transactions and other details of any person confirmed to have COVID-19 (Parodi *et al.* 2020). South Korea, Hong Kong and Taiwan were frequently brought forward as having pioneered this approach early on with an extensive apparatus engaged in contact tracing and a strong focus on high test capacity. Other countries that may be said to have initially adopted a 'hammer and dance' approach (Pueyo 2020b), had an opportunity to adopt a focused approach at a later time in the pandemic onset after regaining their footing and carefully releasing measures, only after test and trace capacities had been strengthened. A focused approach necessarily hinges on continuous adjustment of the approach as new data comes in, tightening control around hotspots while swiftly releasing measures in locations where the infection is under control. Perhaps the main difference between what we label a focused kind of strategy is that it, unlike a halting or curbing approach, is as spatially focused as possible. In the absence of control, the strategic stances of halting or curbing are built on an assumption that every person is potentially positive, meaning that social interaction at large must be greatly limited in a more universal and indiscriminate way. While recognizing that the type is fuzzy at best, what we refer to as focused kinds of responses are those sets of responses that aim to isolate and break chains of cases, minimizing the degree to which the population as a whole are affected indiscriminately.

Halting, or prolonging as well as lessening the 'peak' of the pandemic to make it somewhat less intense and to reduce strain on the healthcare system seems to be the strategy that most countries pursued. The approach essentially involves an admittance that containment or control is infeasible, and narratives instead center on keeping infections rate within the carrying capacity of the health system (see Figure 1). Centrally, the strategy involves reducing the number of contact points between potentially infected people with the objective of reducing the basic reproduction number (or the number of people infected by each infected individual) so as to 'drag out' the duration of the pandemic rather than entirely curb it. The goal of this strategy is mainly to allow healthcare systems to increase their capacity in anticipation of the expected surge in critically ill COVID-19 patients as well as to distribute these across a longer temporal period. Halting kinds of response thus emphasize reducing the intensity of local epidemics on the hand while aiming to increase the resilience of the health system on the other (often expressed in public communication in terms of 'buying time' or similar formulations). As mentioned in the previous paragraph, efforts at halting the onset of the pandemic in most cases

constitute an indiscriminate response as no particular populations are targeted. Instead, a series of measures need to be aimed to reduce contacts and infection that is implemented for whole communities with few exceptions. It also makes sense to say that variants of surge bed capacity visualizations have become a defining feature of the public imagination of the then-emerging pandemic and its dreaded peak. Essentially introducing a dilemma of price of 'cure' vs. price of disease, efforts at slowing down the peak open up for controversial debates surrounding how stringent the measures should be, how much society can pay (both in economic and social terms) for a mitigative effect, as well as what constitutes an acceptable reproductive number, transmission rate and mortality.

While the duration of the desired prolongation is much debated due to the high cost of the measures involved, the arguments underpinning this approach revolve around the logic that, if such prolongation can avoid the peak being excessively steep, a larger number of people (out of those affected by the illness during the pandemic(s)) may receive intensive care. At the very beginning of the pandemic, when high uncertainty was prevalent, decision makers also justified the need for buying time on the grounds that this would indirectly also buy us more information and reduced uncertainty. Conversely, then, the shorter the onset period, the larger the surge — meaning that capacity will be exhausted sooner and to a greater degree, leading to a greater human toll due to exploded capacity in intensive care units. This is the central idea communicated by visual representations of surge bed capacity, such as Figure 1.

Suppressing measures aim to restrict the transmission rate of the disease so as to eventually bring a local or national outbreak under control (and potentially end it, as New Zealand set out to do). In practice, because this approach requires a vast amount of resources and capacity (e.g., for curfews, contact tracing, testing and quarantines, depending on the lack of control initially), few societies have had the political will to pursue such stringent measures over time, and where they have been used they have often been limited geographically to key epicenters. While recognizing that the various measures represented here may overlap, in the sense that a deceleration strategy may require periods of suppress measures to gain control of exponential reproduction rates, maintaining 'suppress measures' is arguably too costly and socio-politically problematic for most governments to pursue them for prolonged periods of time. Argentina is one example of a country that pursued such an approach, maintaining lockdown for a considerable period of time. Furthermore, critics of stringent suppressing measures have challenged such methods, arguing that reoccurrences are likely and that keeping COVID-19 cases at near-zero levels for a period of uncertain duration is in many ways politically infeasible and potentially socially undesirable, as witnessed by demonstrations in

many countries. The local resistance against measures also show the contentious nature of balancing safety vs. freedom dilemmas. However, due to the potential for saving many lives, proponents of such measures have in turn critiqued governments for not having strived to implement strategies aiming at curbing the pandemic at an early stage, but often at a great cost for mental health and the working poor, particularly in countries with large informal economies and weak social nets.

4. Discussion: Navigating Dilemmas, Contradictions, Paradoxes and Drawing Lessons for Effective Pandemic Response in the Future

The type of pandemic response pursued may be attributable due to a myriad of considerations and uncertainties. The ideological disposition of the ruling party's leadership, composition of its structural governmental institutions, robustness of its economy and responsive resources can all help shape or alter the course of selected strategies. Success is also hard to gauge, whether it is measured with regards to the mitigation of the overall death toll, negative economic impact or perhaps even pursuit of that which is least socially intrusive, thus these strategies are often adopted as a means towards the achievement of an overarching aim. Indeed, countries and sub-populations have varied significantly in what they consider to be an appropriate yardstick of success. Temporal considerations as to whether the strategy is intended to have a long or short-term impact may also factor in the assessment of its success, and perceptions of what comprises a successful strategy are likely to also contrast between the major beneficiaries and losers within, respectively, affected demographical groups. It is not clear whether necessarily the strictest responses are the best, just as it is not clear whether the most relaxed measures are ethical if the death toll is far higher as a result. As sentiments towards measured shift and affective states are altered, policymakers thus require an approach that provides clarity and robustness in order for a response to be implemented effectively whilst simultaneously needing to be proactive and flexible due to the continuously shifting epidemiological and affective landscape. Indeed, an interesting aspect of the response to this pandemic has been the importance of the latter for the former.

Public sentimentality may go some way as to dictating what may become considered 'best practice' for future pandemic response, at least in a given political context. The New Zealand premier, Jacinda Ardern, swept to victory in the 2020 election with the largest swing to an incumbent government in the country's history and the ability to form the first single-party majority government since 1993 (van Veen 2020). This being partially attributed to the acclaimed handling of the

pandemic response in which one of the world's strictest lockdowns during March–April 2020 resulted in a death toll of 25 and less than 2,000 confirmed cases amongst a population of 5 million. On the other hand, the US president Donald Trump saw approval ratings plummet during the COVID-19 crisis on the back of a stuttering economy, as well as the highest number of total cases and deaths of any nation to date (Johns Hopkins University 2020). This may well have been a central reason for the election of Joe Biden as the 46th president of the US, although COVID-19 is not necessarily the only salient issue in the minds of citizens. It is clear that divisions over how to face the pandemic are not easily overcome. Protests have arisen in many countries in a worldwide in backlash against the curtailment of civil liberties and the prospect of enforcement by governments with regards to the wearing of masks, curfews and social distancing restrictions. Sweden is also cited as having observed a staggering number of deaths relative to its Nordic neighbors, but with less of a political backlash. The majority of Nordic countries narratives centered on their favoring of less interventionist approach, using only as many restrictions and as much enforcement as 'necessary' at any given time. Sweden was also been hailed at attempting to draw on voluntary measures and minimal intrusion (Thomas 2020), although their strategic stance became scandalized later on. Other commentators have labeled the 'Swedish model', relying on a laissez-faire approach, at least comparatively, as 'a disaster' (Bjorklund and Ewing 2020). Norway in essence followed a similar 'focused' approach whenever and wherever the epidemiological situation allowed for it, although with border control (Sweden did not close borders). But in essence bars serving food as well as restaurants have essentially remained open (with social distancing measures) throughout the pandemic in that country, with masks only having being mandatory in Oslo and Bergen (Norway's largest cities), and only for shorter periods of time when the epidemiological situation was seen as sufficiently severe to justify their mandatory use. Thus, the lens through which success is viewed could also rest upon the weight given to civil liberties vs. the costs of non-interventionist strategies. Discussions of best practice and pandemic response precedence are likely to reflect these tensions.

There is also the suggestion that certain governments may have sought an opportunistic response in order to consolidate or strengthen their position and assume greater authority, thus the chosen strategy may not seek to succeed in the more conventional sense of damage limitation. Indications of a negative change in the quality of global democracy and human rights since the onset of the pandemic are also coupled with disruptions to electoral processes in many countries (The Economist 2020). Public pressures may sway decision making, whilst measures that rely largely upon the general population self-imposing social distancing,

lockdown and hygiene practices may test societal adherence and resilience. Enforcement of stringent social regulations and control could also bring into question the role of the state with regards to the duty of care over the general population and limits to civil liberties and freedoms. In authoritarian regimes, the pandemic may allow leaders to foresee any destabilizing consequences that a response may have with regards to preservation of power and also any opportunities it may present to extend this.

The difficulty of having to act upon imperfect information also presents a significant obstacle for the selection of the optimal strategy. Moreover, the presentation of strategy has to be actively framed and the frame has to work in terms of public acceptance (Boin *et al.* 2009). This became particularly evident during the spring of 2020, when reliable information both about the virus itself and the effects of measures were unclear. Fenz and Kharas (2020) state that it is hard to estimate the impact of COVID-19 due to many uncertainties and large indirect ramifications from resultant policy responses. Policymakers have to contend with the need to consider advice from those with scientific and political expertize and implement this into a practical and palatable response. The effects of the indirect and unintended ramifications of policy responses can result in a number of unanticipated consequences. The ability of a society to maintain vital functions in the face of pandemics is dependent on successful interactions between a wide series of participants, components and processes. Sound decision-making within these settings places a major emphasis on understanding the current state and developing trends at an early point of time (Wolf 2020). Thus, lessons from the COVID-19 pandemic should help with regards to anticipation for future pandemic response and allow for more decisive action. The result should be that a subsequent pandemic is less likely to catch the world 'off-guard' and better anticipate the flow and ebb of how a virus might spread and as to when it may reach its peak. The importance of motivation and fatigue in the population should also feature more prominently in pandemic plans and communication strategies. Whilst it is too early to tell the long-term consequences of policy responses to COVID-19, drastic measures are likely to bring about a variety of alterations to socio-economic systems and unexpected secondary and tertiary effects. It is reasonable to expect that these effects and perturbations are going to be the topic for social research for some time.

Political considerations may also clash with the advice and guidance afforded by experts. In democratic societies, this can bring into focus the role of non-elected experts and bureaucrats as well as their relationship to those elected officials currently holding office. For example, Sweden's approach, built upon advice from the state epidemiologist, is subject to a government appointed commission to

investigate the appropriateness of the strategy due to excessive deaths (Milne 2020). One could argue that it is unclear whether the Swedes are pursuing a focused approach (that initially failed) or a laissez-faire approach. The UK government's response to the pandemic has brought much scrutiny as to whether expert advice has been adhered to as well as the levels of transparency in the decision-making process (Landler and Castle 2020; Grey and MacAskill 2020). The UK response has also been shaped by a frequent change in response type, ranging from shielding to focus to suppressing measures, repeatedly showing a tendency to underestimate the persistence of the pandemic. It also seems clear that where governance contradictions have been observed, such as in federal systems, local decision makers have often played a pivotal role where national leaders have assumed a more laid back role. In Brazil, for example, contradictions between national-level and lower levels of governance have forced local leaders and other sectors of government to step up despite a fragmented national leadership (Barberia and Gómez 2020).

The spread of the virus has been rapid, and thus governments have been forced to act decisively despite this information deficit. This is an uncomfortable situation to be in as due to the severity of the measures required — and their significant impact and consequence — a precautionary approach would normally be favored in decisions of such magnitude. However, the fallout from a failure to act decisively and effectively is likely to have had a devastating impact on both human health and the economy. None of the aforementioned strategic responses are devoid of negative repercussions. The political landscape in many countries is likely to remain affected in the long term due to the COVID-19 pandemic, thus future pandemic response may draw upon the adoption of strategies that are most advantageous for policy makers with regards to public perceptions of performance (particularly in the case of democratic regimes) or responses that prove least disruptive with regards to negative implications for socioeconomic systems. Till then, the stories that emerge and gain hold now are likely to shape the questions of precedent that will follow in the pandemic aftermath as we enter endemic phases.

5. Concluding Remarks

Which kinds of strategies adopted during the COVID-19 pandemic will be highlighted as best practice remains to be seen at the time of writing, but no doubt there will be lessons drawn in addition to the added benefit of hindsight in assessing the long-term impacts and repercussions from the measures taken. It is likely that we may see regional variations in what kinds of responses are preferred

where, depending on prevailing political maneuvering space, culture, trust and other factors. Whether we will learn remains to be seen (Eriksson *et al.* 2021; Boin *et al.* 2021). Policymakers will be able to assess the fallout from response strategies, whilst also gaining a greater understanding for future pandemic preparedness and awareness. The robustness of systems and institutions will have also been tested, which therefore provides opportunities for refinement and alteration whereby shortcomings have been exposed. It seems as though economic uncertainty stems more from uncertain policy response to the virus than from the virus itself, so decisiveness can be seen as key in order to mitigate the initial spread of a virus and economic repercussions, in addition to bolstering confidence amongst the populace.

Not only do imminent threats themselves impact decision making and public sentiment, but also the very anticipation of their onset. Analyzing how sentiment is affected in this manner can also enhance capabilities for understanding the subsequent reactionary measures and motivations. Thus, socioeconomic systems tend to realign themselves in accordance with top-down governmental decision making, which in turn is often influenced by public sentimentality. With the COVID-19 pandemic, many countries around the world were bracing themselves for its imminent impact on the basis of imperfect knowledge. Meso- and macro-level interactions help shape the trajectory for a subsequent strategic approach, and thus the need to keep the curve within system capabilities became the subject of intense scrutiny.

The need to flatten the curve became paramount to many prior to widespread infection rates in order to stop the anticipated trajectory that could have the potential to overwhelm socioeconomic systems, particularly with regards to interlinkages between the economy and public health. 'Suppression measures' not only entail a large economic cost, but often run the risk of encouraging upon civil liberties such as freedom of assembly or the right to privacy. 'Halting measures' flatten the curve with regards to the number of new cases of infection, but also steepen the recession curve that can exacerbate the negative economic impact. The balance is not an easy one to strike, particularly when the anticipation is one of dread due to a vast array of unknowns and potential pathways. Life in anticipation is one of unease, both amongst the populace and decision makers, requiring action in the present not based on present conditions but due to expected future, undesirable conditions. The time lag between the present action and observable outcomes is a considerable source of uncertainty for decision makers giving rise to frequent changes in strategic stances as new information comes in and the political realities change.

This paper sets out to reflect on kinds and variations of responses to the ongoing COVID-19 pandemic. In reflecting on how decision makers anticipated the

spread of the virus and sought to 'flatten the curve', we argue that the kinds of responses may be labeled (crudely) as falling into one of the following categories: (1) laissez-faire, (2) shielding and protecting, (3) focused, (4) halting and (5) suppressing. Decision makers have also varied between these, sometimes as a result of uncertainty or changes in epidemiological context, but other times also because of more scandalous management, forcing a change in approach. It should also be noted that many of these are used in combination. For example, suppressing strategies aimed at bringing an out-of-control situation into control are often only necessary for a time, until focused measures can be re-instated in combination with a shielding approach. Striking an optimal balance between individual liberties and epidemiological outcomes in light of 'the curve' remains a controversial and value-laden issue. Discussions of response precedent and best practices following the pandemic are likely to feature highly in lesson debates. In either case, it seems clear that electorates and sub-populations within countries struggle to agree on the optimal kind of response, as demonstrated by recent demonstrations towards what is perceived as unnecessarily strict responses. Similarly, laissez-faire responses have also been met by resistance by many. The role of fear, dread and other affective states in the populace may also not be ignored by pandemic planners, as a balance between mental health and compliance must also be maintained. Ultimately, only time will tell what kinds of responses (and in what mix and dosage) will go down in textbooks as optimal responses to similar future pandemics. Further research will be needed to strengthen the knowledge on how normative priorities and contradictions between kinds of strategies should better be balanced and prioritized.

Acknowledgments

References

Barberia, LG and Gómez EJ (2020). Political and institutional perils of Brazil's COVID-19 crisis. The Lancet, 396(10248): 367–368, https://doi.org/10.1016/S0140-6736(20) 31681-0.

BBC (2021). *Australians Stuck Overseas 'Abandoned' by Their Own Country.* https://www.bbc.com/news/world-australia-56924188 [May 17, 2021].

Bjorklund, K and Ewing A (2020). The Swedish COVID-19 Response Is a Disaster. It Shouldn't Be a Model for the Rest of the World. https://time.com/5899432/sweden-coronovirus-disaster/ [May 17, 2021].

Boin, A, 't Hart P and McConnell A (2009). Crisis exploitation: Political and policy impacts of framing contests. Journal of European Public Policy, 16(1): 81–106, https://doi.org/10.1080/13501760802453221.

Boin, A, Ekengren M and Rhinard M (2020a). Hiding in plain sight: Conceptualizing the creeping crisis. Risk, Hazards, & Crisis in Public Policy, 11(2): 116–138, https://doi.org/10.1002/rhc3.12193.

Boin, A, Lodge M and Luesink M (2020b). Learning from the COVID-19 crisis: An initial analysis of national responses. Policy Design and Practice, 3(3): 189–204, https://doi.org/10.1080/25741292.2020.1823670.

Boin, A, McConnell A and P't Hart (2021). Governing the Pandemic: The Politics of Navigating a Mega-crisis. Cham: Palgrave.

Brown, P (2020). Studying COVID-19 in light of critical approaches to risk and uncertainty: Research pathways, conceptual tools, and some magic from Mary Douglas. Health, Risk & Society, 22(1): 1–14, https://doi.org/10.1080/13698575.2020.1745508.

Cairney, P and Wellstead A (2020). COVID-19: Effective policymaking depends on trust in experts, politicians, and the public. Policy Design and Practice, 4(1): 1–14, https://doi.org/10.1080/25741292.2020.1837466.

Capano, G, Howlett M, Jarvis DSL, Ramesh M and Goyal N (2020). Mobilizing Policy (In)Capacity to Fight COVID-19: Understanding variations in state responses. Policy and Society, 39(3): 285–308, https://doi.org/10.1080/14494035.2020.1787628.

Eriksson, K, Staupe-Delgado R and Holst J (2021). Drawing Lessons from the COVID-19 Pandemic: Seven obstacles to learning from public inquiries in the wake of the crisis. Forthcoming.

Fenz, K and Kharas H (2020). A mortality perspective on COVID-19: Time, location, and age. https://www.brookings.edu/blog/future-development/2020/03/23/a-mortality-perspective-on-covid-19-time-location-and-age/ [May 17, 2021].

Ferguson, N, Laydon D, Nedjati Giliani G, Imai N, Ainslie K . . ., and Ghani A (2020). Impact of non-pharmaceutical interventions (NPIs) to reduce COVID19 mortality and health-care demand. https://spiral.imperial.ac.uk:8443/handle/10044/1/77482 [May 17, 2021].

Government of Norway (2020a). Long-term strategy and plan for the management of the covid-19-pandemic and adjustment of measures. https://www.regjeringen.no/no/dokumenter/langsiktig-strategi-og-plan-for-handteringen-av-covid-19-pandemien-og-justering-av-tiltak/id2701518/ [May 17, 2021].

Government of Norway (2020b). *Extensive Measures to Combat the Coronavirus*. https://www.regjeringen.no/no/aktuelt/nye-tiltak/id2693327/ [May 17, 2021].

Grey, S and MacAskill A (2020). *Johnson Listened to his Scientists about Coronavirus — but They were Slow to Sound the Alarm*. https://de.reuters.com/article/us-health-coronavirus-britain-path-speci/special-report-johnson-listened-to-his-scientists-about-coronavirus-but-they-were-slow-to-sound-the-alarm-idUSKBN21P1VF [May 17, 2021].

Hale, T, Angrist N, Cameron-Blake E, Hallas L, Kira B, Majumdar S, Petherick A, Phillips T, Tatlow H and Webster S (2020). Oxford COVID-19 Government Response Tracker. https://www.bsg.ox.ac.uk/research/research-projects/coronavirus-government-response-tracker [May 17, 2021].

't Hart, P (1993). Symbols, rituals and power: The lost dimensions of crisis management. Journal of Contingencies and Crisis Management, 1(1): 36–50, https://doi.org/10.1111/j.1468-5973.1993.tb00005.x.

Honkasalo, M (2008). Enduring as a mode of living with uncertainty. Health, Risk & Society, 10(5): 491–503, https://doi.org/10.1080/13698570802408700.

Johns Hopkins University (2020). *COVID-19 Dashboard by the Center for Systems Science and Engineering (CSSE) at Johns Hopkins University.* https://coronavirus.jhu.edu/map.html [May 17, 2021].

Kalkman, JP (2020). Military crisis responses to COVID-19. Journal of Contingencies and Crisis Management, 29(1): 99–103, https://doi.org/10.1111/1468-5973.12328.

Karlsen, A and Kruke BI (2018). The role of uncertainty during the Ebola Pandemic in Western Africa (2014–2016). Journal of Extreme Events, 5(1): 1–18.

Landler, M and Castle S (2020). *The Secretive Group Guiding the U.K. on Coronavirus.* https://www.nytimes.com/2020/04/23/world/europe/uk-coronavirus-sage-secret.html [May 17, 2021].

MacKay, IM (2021). *The Swiss Cheese Respiratory Virus Defence (illustration).* https://figshare.com/articles/figure/The_Swiss_Cheese_Respiratory_Virus_Defence/13082618?file=25708493 [May 17, 2021].

Maor, M and Howlett M (2020). Explaining Variations in State COVID-19 Responses: Psychological, institutional, and strategic factors in governance and public policy-making. Policy Design and Practice, 3(3): 228–241, https://doi.org/10.1080/25741292.2020.1824379.

Milne, R (2020). Swedish Expert Admits Mistakes in Country's Handling of Coronavirus. https://www.ft.com/content/dae6d006-9adc-46d5-9b4e-79a7841022e8 [May 17, 2021].

Parodi, E, Jewkes S and Park J (2020). Italy and South Korea Virus Outbreaks Reveal Disparity in Deaths and Tactics. https://www.reuters.com/article/us-health-coronavirus-response-specialre/special-report-italy-and-south-korea-virus-outbreaks-reveal-disparity-in-deaths-and-tactics-idUSKBN20Z27P [May 17, 2021].

Pueyo, T (2020a). Coronavirus: Why You Must Act Now. https://tomaspueyo.medium.com/coronavirus-act-today-or-people-will-die-f4d3d9cd99ca [May 17, 2021].

Pueyo, T (2020b). Coronavirus: The Hammer and the Dance. https://tomaspueyo.medium.com/coronavirus-the-hammer-and-the-dance-be9337092b56 [May 17, 2021].

Randolph, H and Barreiro LB (2020). Herd immunity: Understanding COVID-19. Immunity, 52(5): 737–741, https://doi.org/10.1016/j.immuni.2020.04.012.

Reason, J (1997). Managing the Risks of Organizational Accidents. Farnham: Ashgate.

The Economist (2020). *The Pandemic has Eroded Democracy and Respect for Human Rights.* https://www.economist.com/international/2020/10/17/the-pandemic-has-eroded-democracy-and-respect-for-human-rights [May 17, 2021].

Thomas, N (2020). WHO Official praises Sweden's Response to Coronavirus Pandemic. https://edition.cnn.com/world/live-news/coronavirus-pandemic-08-31-20-intl/h_7ef6817282c1f566c8165b24dcb0a350 [May 17, 2021].

UK Government (2020). *Guidance on Shielding and Protecting People who are Clinically Extremely Vulnerable from COVID-19.* https://www.gov.uk/government/publications/guidance-on-shielding-and-protecting-extremely-vulnerable-persons-from-covid-19/guidance-on-shielding-and-protecting-extremely-vulnerable-persons-from-covid-19 [May 17, 2021].

van Veen, J (2020). Jacinda Ardern's Majority may Prove to be her Biggest Challenge. https://www.bbc.com/news/world-asia-54582346 [May 17, 2021].

Werron, T and Ringel L (2020). Pandemic practices, part one. how to turn "Living Through the COVID-19 Pandemic" into a heuristic tool for sociological theorizing. Sociologica, 14(2): 55–72, https://doi.org/10.6092/issn.1971-8853/11172.

WHO (2020). *Timeline of WHO's Response to COVID-19*. https://www.who.int/news/item/29-06-2020-covidtimeline [May 17, 2021].

Wolf, M (2020). Knowing pandemics: An investigation into the enactment of pandemic Influenza preparedness in urban environments. Science & Technology Studies, 30(4): 8–29, https://doi.org/10.23987/sts.63093.