

Distributing systems level leadership to address the COVID-19 pandemic

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Received 1 May 2020

Revised 11 March 2021

Accepted 25 March 2021

INTRODUCTION

COVID-19 pandemic has disrupted the political, economic and healthcare systems of most, if not all countries across the globe. As such, the COVID-19 pandemic represents another global health catastrophe similar to the Spanish influenza (1918–1920), H1N1 swine influenza (2009–2010) and West African Ebola (2014–2016) with high mortalities. Current public health measures aimed at subduing the spread of COVID-19 virus seem to be working but are not extensive enough to prevent ongoing infections and death.¹ There is a need for leadership at the systems level, necessary because COVID-19 represents a complex problem, of a type commonly characterised as (volatile, uncertain, complex ambiguous (VUCA) unlikely to be effectively addressed by a single agency or person.² In the context of COVID-19, leadership of the system encompasses politicians, scientific experts, civil servants and front-line practitioners, where leadership is shaped by the system in which it is enacted, and its historical, political and national characteristics.^{3 4} We discuss systems level leadership to address the COVID-19 outbreak,^{5–7} with concern for recovering from COVID-19.

As our first aim, we outline three themes related to how systems level leadership might influence recovery from the COVID-19 pandemic. Second, we provide comparative international descriptors that we critically evaluate against these three systems level leadership themes. We draw on observations of the way systems level leadership is enacted across England, Australia, India and in the Caribbean (Aruba), thus drawing on lessons from both OECD nations and low-income and middle-income countries (LMICs), and small as well as large countries, in our analysis. Following which, in our conclusion, we set out prescriptions for systems level leadership in the context of considerable VUCA.²

THEORETICAL INSIGHT

As our first theme, to understand prospects for recovery, we need to examine preparation precrisis. In the preparation phase, while organisations and their leaders are faced with the intractable problem of planning for the unexpected they must overcome any tendency to feel a crisis will not happen to them. Preparatory work by leaders for a pandemic might include development of physical and social infrastructure, establishing monitoring and surveillance systems, emergency action plans, medical systems and other capacities. Lack of resource stymies leadership capacity for the necessary

recovery from crises, nurtures the blame game and is likely to render learning following the crisis more challenging.⁸

Second, we highlight debate about the most effective leadership configurations for addressing and recovering from COVID-19. Conceptions of leadership appropriate to address a crisis such as that presented by COVID-19, on the one hand, highlight the need for heroic individualistic leadership.⁹ Indeed, we have seen heroic leaders emerge in the political domain (Jacinta Ardern, New Zealand's Prime Minister), among scientific experts (Chris Whitty, chief medical officer, CMO, UK), and the clinical front line: see James Stoller's account of such hero leaders at the Cleveland Clinic in the USA where he works in a previous issue of *British Medical Journal Leader*.¹⁰ Such individualistic leadership is necessary to respond to the immediate crisis engendered by COVID-19, but contemporary leadership studies alert us to the need to complement this with distributing leadership at a systems level as we move through to a phase of recovery from such crises.^{11 12} A complex issue such as a influenza pandemic involves a large number of agencies, all of whom encompass discrete professional and organisational expert jurisdictions. We, thus, argue postheroic leadership alternatives that go beyond a single, 'heroic' individual are needed to manage the crisis since we need to combine knowledge capabilities of a myriad of actors. This is not merely a case of having a myriad of leaders 'around the table', but ensuring their leadership efforts are not fragmented, rather they share the same values and their influence is synergistic and aligned in addressing COVID-19.¹³

Finally, the initial affective leadership response to any crisis is likely to impact on the ability of any system to develop and maintain the necessary productive interactions underpinning effective leadership for recovery. During the early stages of any crisis leaders commonly distance themselves from responsibility for the crisis and exhibit defensiveness regarding any attribution for failure.¹⁴ As such, the unintended consequence of blame can entrap people into established behavioural commitments and make it more difficult to recover from crisis on the basis that blame and paralysis works against collective learning, as it reduces trust, openness to information and communication.¹⁵

We now consider the three themes raised in literature about systems level leadership through illustrations across our four countries, analysis of which we derived from their respected national media; for



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To cite: Currie G, Gulati K, Sohal A, et al. *BMJ Leader* Published Online First: [please include Day Month Year]. doi:10.1136/leader-2020-000280

example, in case of England, we reviewed headlines from BBC News, the Guardian and Financial Times. In essence, literature suggests a need for leadership to be pluralised, even as heroic leaders come to the fore and for leadership to be pointing in the same direction, with leaders creating synergy through their efforts to address crises.¹⁶

ILLUSTRATIVE EXAMPLES

England

Statistics: Using statistics produced by John Hopkins University on 15 March 2021, for comparison purposes (www.coronavirus.jhu.edu), there have been 4.23 million cases and 125 000 deaths in the UK, of which England represents the major constituent (UK population is 68 million, of which England is 55.3 million). John Hopkins University notes that statistics may be collected in different ways by countries, with considerable under-reporting in some countries, nevertheless international commentary highlights England has performed poorly relative to other countries.

Preparation for COVID-19: In England, the government was slow into lockdown, lagging some weeks behind its European neighbours, even as COVID-19 in the population became increasingly evident. The government appeared complacent. We note, for instance, Professor John Ashton, a leading Public Health expert, branded England's COVID-19 response 'pathetic ... they've been doing it in a (non) smoke-filled room and just dribbling out stuff.' (The Guardian, 12 March). Such complacency was reflected in the prime minister missing a total of five Cobra meetings (government's main emergency committee) at the start of the outbreak. The government's initial stance, although since denied, was one of encouraging 'herd immunity' through accepting large swathes of the population would become ill (Financial Times, 9 March). The economic imperative was dominant even in the early days of COVID-19, encouraged by more libertarian Ministers, seemingly at odds with others in the Government, such as the Health Minister. Following which, England lacked surveillance infrastructure for COVID-19, perhaps more crucially it lacked supplies of testing equipment and personal protection equipment for front-line professionals. The high death rate in England, in part is due to poor preparation, and likely to render recovery following the crisis more challenging than it might otherwise have been. As evident below, poor preparation fuelled allegations of blame and defensiveness across the ranks of leaders in different domains that might be expected to come together in response to COVID-19.

Individualistic and distributed leadership configuration: In the context of poor preparation outlined above, the prime minister, Boris Johnson aligned his role as one of a 'wartime' leader akin to Churchill, a prime minister regarded as hero by the English public. Following which, and despite poor preparation, an encouraging collective trajectory of leadership emerged. Alongside his inclusion of key ministers concerned with the economy and health, we also note inclusion of scientific experts in the leadership configuration in daily media briefings about COVID-19 alongside the prime minister. We see the government rely on a narrower range of knowledge capabilities than might be optimal, with evidence produced by epidemiologists and statistical modellers privileged, and to some extent behavioural scientists. Further, despite problems of supply chains for personal protective equipment and the challenge of mounting an effective operational response at organisational level to the delivery of health and social care, there is an absence of those front-line leaders with organisation and management expertise. Rather, the Government took a centralised, command-and-control approach,

which might be characterised as symbolic to show they are doing something to address COVID-19. Large-scale exhibition centres were converted into temporary 'Nightingale' hospitals. When the crisis subsided with COVID-19 numbers dropping, and lockdown restrictions much reduced, this potentially allowed space for reflection and learning regarding the effectiveness of collective leadership in anticipation of the much predicted second wave of the pandemic. However, first, the prime minister pushed back against an imminent inquiry. Second, central government, despite calls for greater involvement of regional and local leaders in decision making, did not extend the leadership collective. This was apparent in the government mandating a local lockdown in June in a city in the English Midlands, Leicester, within which local health and political leaders were both surprised by the lockdown and starved of the nationally held data they needed to control infections. The leadership fractures between central government and local government were even greater as a second lockdown extended later in the year on a regional basis. Even within the Government, so-called 'hawks' in the ruling party, who wanted the economy opened up, were at odds with the Prime Minister's decision making around lockdown. Rather than distributed, leadership can be characterised as fragmented at the second lockdown stage. Only during a third lockdown, which was implemented on a national basis, did leadership appear more distributed, with consensus within government and between central and local government, in the face of increasing incidence of COVID-19 and visible pressure on the National Health Service (NHS) and their staff with increasing hospitalisations. Following which, the government worked closely with NHS and public health organisations to ensure, along with Israel, England has been one of the fast movers in vaccinations, with 23.34 million of the population vaccinated by 15 March 2021, and all adults expected to have received at least their first dose of a the vaccination by end June 2021.

Affective leadership response to COVID-19: The promise of an emerging collective leadership configuration across different actors and levels of the system has dissipated. Beginnings of blame were evident in England in the immediate aftermath of emergence of COVID-19. Anthony Costello, former Director of Maternal and Child Health at WHO has been particularly critical of the English Government's response as 'a litany of failures' (The Guardian, 7 April). Worryingly, rather than reflect and learn during the space afforded later on by the summer within which case numbers fell, the government showed its disposition towards blaming scientific experts for poor advice. Meanwhile, the scientific experts claimed the government didn't follow the experts. This was starkly evident when the prime minister demanded employees return to work, but the government's chief scientific advisor refuted the idea and emphasised employees should work from home when they could. The government also blamed other agencies for failure to effectively address the COVID-19 pandemic. Public Health England in particular was castigated for failure. Meanwhile, the head of the civil service, Mark Sedwell, was 'stood down' by the Prime Minister, influenced by his private chief advisor, Dominic Cummings, that the civil service proved weak in responding to the COVID-19 pandemic. While, supported by a rapid mass vaccination programme, England appears to be coming out of the pandemic quicker than many other nations, should there be a public inquiry (the prime minister has suggested there will be given time), then there is likely to be blame as well as learning derived from this.

Summary: In England, while the inclusion of scientific leaders to address volatility and uncertainty of COVID-19 is praiseworthy, given leadership fragmentation, a prevalence of

scapegoating from some of the leadership configuration, and poor leadership preparation for a pandemic, the configuration for leadership appeared to not be effectively distributed to frame the response to COVID-19 in England as well as might be desirable. While the rapid mass vaccination programme appears to underpin a recovery trajectory, in the face of COVID-19 incidence numbers and associated deaths, we suggest enactment of distributed leadership at the system level in England has proved inadequate.

INDIA

Statistics: According to the Johns Hopkins Coronavirus Resource Centre, on 15 March 2021, India, an LMIC of around 1.3 billion people, has the second-highest number of coronavirus cases (after the USA), with 11.26 million cases and 158 063 deaths (less than 2%). However, due to India's poor health monitoring system, there could be significant under-reporting of this data. Nonetheless, it appears that India outperformed several developed countries, including the USA, in terms of COVID-19 management.

Preparation for COVID-19: Capacity issues, lack of collaborative leadership and operational feasibility have been to blame for poor preparation to manage COVID-19. The pandemic has highlighted the flaws and shortcomings of India's response in terms of low testing rates, inadequate healthcare services and deficient social security. Supplies of necessary equipment, such as PPEs, were not provided in a timely way, and as the epidemic progressed, shortages arose rapidly. Other services, such as hospital beds, ventilators, were also way below the requirements. The main purpose of the lockdown was to buy time for making preparations to deal with the pandemic effectively postlockdown through deployment of public health personnel; increasing the testing capacity; establishing a consistent strategy for tracing and quarantining contacts; and maintaining the treatment and protection of patients across critical facilities. However, there emerged criticism that central government thwarted or made the efforts of state governments more complicated in absence of synergistic leadership to address the pandemic.

Individualistic and distributed leadership configuration: That India implemented a nationwide lockdown without meticulous planning and transparency fits with the highly personalised leadership style of the Prime Minister Modi. Nevertheless, the early phase of India's response to the emergence of COVID-19 was enacted through a collective leadership configuration across a high level group of ministers (similar to emergency committee, Cobra, in England) comprising of central government ministers of Health, Civil Aviation, External Affairs, Defence and Home Affairs to review, monitor and evaluate the preparedness regarding management of COVID-19 in the country (www.pib.gov.in). Below this sat groups empowered to advise about discrete issues, such as supply chains and public communications. These were coordinated by the Ministry of Home Affairs (MHA). Guidelines were issued to all 37 states and union territories on management of COVID-19 and progress was regularly reviewed through video conferencing by high-level government officials. District Collectors were designated as the 'nodal officers' at field level for containment operations, who were given adequate authority to take the critical decisions in coordination with respective state governments. Meanwhile, scientific experts were involved in briefings through electronic and social media. Initially, there was little conflict in the leadership efforts of scientists and the central government, in large part because the former were drawn from central government funded and controlled institutions,

such as Indian Council of Medical Research, All India Institute of Medical Sciences, National Institute of Virology. India appeared to enact the necessary collective leadership for an effective response to COVID-19, nevertheless cracks in leadership were to appear as set out in the next section.

On 16 January 2021, India launched the world's largest vaccination campaign against the COVID-19, vaccinating about 300 million people in priority categories. To date, however, just 0.3% of the population has been completely vaccinated. The first group consisted of healthcare and front-line staff, while the second group consisted of people over 60 years and those aged 45–59 who had comorbid conditions. This second group began receiving vaccinations from 1 March 2021. The Ministry of Health set up more than 20 000 vaccination sites across the country, and launched a dedicated website (cowin.gov.in) and CoWin app for registration. Surprisingly, India offers free vaccination at government hospitals and has set a price limit of Rs.500 (US\$7) for two doses at private hospitals. The Ministry also drafted a 'COVID-19 Vaccine Communication Strategy' to ensure the success of the vaccination programme, and is now working closely with public and private health organisations, individual influencers, community groups, and social media. Like England, the vaccination programme appears underpinned by more effective distribution of leadership than previously evident.

Affective leadership response to COVID-19: We see evidence of conflict, specifically between central ('union') government and individual state governments, which adversely affected attempts to curb the pandemic. The MHA constituted an Inter-State Ministerial Team (ISMT) to inspect states, such as Kerala, that were potentially diverging from national lockdown. Conflict was evident with West Bengal, where state government failed to provide ISMT with sufficient data about patterns of COVID-19. Following which, the chief minister of West Bengal blamed central government for taking unilateral and undesirable actions against some state governments. In Delhi, the state government accused the central government of issuing home isolation rules alleging that it was not an epidemiological decision, but a political one, highlighting inconsistency over quarantine rules applying in the city. Meanwhile, central government accused Delhi-based state government of generating terror in the city through overestimation of numbers of cases of COVID-19, which had an adverse economic impact on the city and its region. We also see conflict emerging between scientific experts and central government. In May 2020, three medical professional bodies sent a joint statement to Prime Minister Modi criticising the handling of the COVID-19 outbreak, highlighting lack of consultation by central government with epidemiologists who had a greater knowledge of the nature of disease transmission relative to experts in statistical modelling whose views seemed privileged. Blame across different levels of government and between government and scientific experts seemed increasingly prevalent in India as numbers of COVID-19 climbed.

Summary: In India, we see an antecedent configuration of individualistic and distributed leadership across the system. Vaccinating a billion people, including hundreds of millions of adults, against COVID-19 would be a daunting and unparalleled challenge in India, and it will take at least a couple of years to reach half of the population. Health practitioners are more likely to help with recovery, but a lack of coordination between the central and state agencies has weakened India's chances of learning and recovering from the pandemic. It appears that the implementation of distributed leadership in Indian health system has only been moderately effective in COVID-19 response.

Australia

Statistics: On 15 March 2021, John Hopkins Coronavirus Resource Centre reports 29 074 cases and 909 deaths from COVID-19 in Australia having a total population of nearly 27.8 million. Of the the total number of deaths, 820 (90.2%) were in the state of Victoria (population just under 6.7 million), primarily in the city of Melbourne and among older Australians living in residential care homes. There have been no deaths from COVID-19 in Australia since mid-October 2020.

Preparation for COVID-19: The lessons learnt from a recent Royal Commission into natural disaster arrangements is likely valuable for future planning and preparedness for crisis such as health pandemics. The 2019–2020 summer bushfires had a devastating impact on human life, property and wild life. The Royal Commission examined Australia's readiness for and response to all natural disasters. It made 80 recommendations, including improved coordination among all levels of governments during emergencies, with central ('federal') government taking a leading role in co-ordinating responses by state and territory governments.

Following which, all states and territories responded rapidly in putting in place a system for COVID-19 testing and tracking, encouraging citizens to take a test at their local testing centre (typically within a few kilometres from their home). Each state/territory acted quickly to mobilise staff in their local Department of Health to provide the necessary supplies of PPE, ventilators and other equipment. A case in example is the state of Victoria where the Department of Health and Human Services worked closely with one large healthcare provider to build and operate a highly efficient distribution centre providing warehousing and logistics services to a number of other healthcare service providers across the state.

Individualistic and distributed leadership configuration: When considering COVID-19, its' first and second waves paint a contrasting picture of the handling of this pandemic in Australia and characteristics of individualistic and distributed leadership. The initial response by the federal government and the state/territory governments was swift and appeared highly effective. A National Incident Room was activated on 20 January 2020 by the prime minister, Scott Morrison, who very quickly established the National Cabinet that included the state premiers and chief ministers of the territories, which might be viewed as similar to England's emergency committee, Cobra. The Australian Health Protection Principle Committee, composed of scientific experts, held its first meeting on 30 January, chaired by the federal CMO that included CMOs of every state and territory. The State of Victoria, as with other states and territories, also established a special cabinet, namely the Coronavirus Crisis Cabinet. Each jurisdiction developed its own response with rapid implementation. During the first wave, supported by the federal government, there was good coordination of leadership response by the states and territories (each supported by their own CMOs and Health Ministers). Individualistic and distributed leadership was clearly visible. In contrast, during the second wave, we note states and territories responding independently, as each state/territory imposed their own restrictions and border closures, following which fragmentation of efforts emerged between the federal government and the state/territory governments, as well as among the leaders of the states/territories. This highlights the fact that individual and distributed leadership is a dynamic phenomenon and fragmentation across jurisdictions can dilute system level leadership.

Affective leadership response to COVID-19: The first wave reached its peak just before the end of March 2020 and during the second half of April, there were only a handful of infections reported daily. It seemed that Australia had successfully handled COVID-19, with just over one hundred deaths reported nationally. However, not everything seemed to have worked well. The Ruby Princess cruise ship was allowed to dock in Sydney and resulted in over one hundred infections on Australian soil and in other countries when passengers were allowed to board flights to return to their homes overseas. This has highlighted the breakdown of communication among the various authorities involved, leading to an official government inquiry being held into this incident. Another incident that essentially led to the second, more severe, wave of COVID-19 infections in the state of Victoria resulted from the hotel quarantine debacle in Melbourne. Starting in April 2020, hundreds of visitors returning from overseas were put into quarantine across a number of hotels. The security measures put in place (having multiple security guards at each hotel) were not directly handled by the state government but essentially handed over to a few security firms who then subcontracted to others to find the necessary staff, resulting in them failing to do their job effectively. It took a number of weeks before the state government stepped in to take more drastic action, bringing in the state police and the Australian Defence Force personnel. Following which, the second wave started to appear in mid-June 2020, with the number of daily infections quickly rising to well beyond the peak reached in the first wave. The state government put in place aggressive suppression measures, introducing stage 4 lockdown in Melbourne and stage 3 lockdown in regional Victoria. By mid-October 2020, the number of daily infections reported reduced to very small numbers, leading to reducing the restrictions significantly. There has been some disagreement and blame among the state and federal leaders to the extent of the measures being put in place in this respect and when the borders will be opened up, especially for Victorians. Following a small cluster of COVID-19 cases recorded at a hotel near Melbourne Airport in early February 2021, the Victorian government put in place a 5-day 'circuit breaker' lockdown across the whole state. This measure was considered essential and was highly effective in stopping the spread of the virus from the local area. Again, we see that Australia's leadership response at the system level has proved responsive to emerging threats posed by COVID-19.

Australia's COVID-19 vaccination programme started in late February 2021 and will become available in phases. The Australian Government is being advised by the Australian Technical Advisory Group on Immunisation and consistent with guidance from WHO, prioritisation of groups for the first dose has been carried out and vaccinations have begun. Delays in the supplies of COVID-19 vaccine, reliant on a global supply chain, have illustrated, however, that leadership efforts may need to extend beyond a single nation's system, and leadership requires distribution at a global level.

Summary: In Australia, while antecedent conditions for effective leadership include preparation and synergy across levels of government, the VUCA of COVID-19 means little room for error from leaders. Australian leaders seem to be learning in real-time, which might enhance prospects for recovery. The state of Victoria demonstrates that although mistakes can be made (eg, the poor handling of the hotel quarantines), a strong system-level leadership team aids an effective response and infrastructure to cope with crises.

Aruba

Statistics: Not currently covered by John Hopkins University's statistics as a separate nation, the island's public website identifies 8110 cases and 77 deaths to date in a population of 116 576. Currently, there are 205 active COVID-19 cases and an estimated 10 561 inhabitants have received the first shot of the Pfizer COVID-19 vaccine (data provided 7 March 2021).

Preparation for crisis: From a healthcare delivery perspective, specific leadership actions were taken in anticipation of the potential escalation of COVID-19 admissions to the island's 288 bed hospital. These actions facilitated unique collaborative and learning opportunities. For example, due to the fragile nature of the island's healthcare infrastructure, the Horacio Oduber Hospital (HOH) and ImSan as the primary health facilities on the island, quickly reached out to each other, took stock of their human and technical resources and crafted strategies to combine and use these resources efficiently. The HOH leadership set up a multidisciplinary outbreak management team (OMT) that liaised directly with the officials of the island's DPH. The OMT conducted daily briefings, informing and updating hospital staff about the developments using a central communication channel. The hospital coopted intensive care clinicians into its efforts to address COVID-19, to facilitate fast track training sessions on COVID-19 mechanical ventilation for back up teams of non-intensive care clinical personnel. The pandemic also highlighted the importance and need for compassionate and psychologically safe working environments in times of crisis. The impact of the pandemic on the psychological well-being of hospital employees catalysed the creation of a special task force to develop and implement a peer support network designed to offer formal and informal support to hospital employees, both in the short and long term.

Individualistic and distributed leadership configuration: Aruba is a small island nation and configuring distributed leadership across the limited geography and number of actors might be less challenging, nevertheless there are lessons to be gleaned for smaller size countries. When the first COVID-19 case was reported in Aruba on 13 March, decisive measures were taken 2 days later to immediately close the island's water and airspace to commercial transportation. Staged mitigatory measures followed including school closure, and lockdowns of bars, restaurants and commercial businesses. The prime minister of Aruba's decision to pre-emptively shut the island to foreign traffic was seen as unequivocal and swift in response to the pandemic. There was also extensive collaboration between the Prime Minister's Health, Justice and Finance Ministers as well as inputs from different scientific experts in a National Crisis Commission set up by the Government. These early measures established the antecedent conditions for subsequent recovery on the island. In case of Aruba, we thus see the type of individualistic leadership that the public might expect in crisis, but also this was enacted in parallel with leadership distributed across relevant ministerial areas and scientific experts.

Affective Leadership Response to COVID-19: Coming out of the imposed lockdown, however, proved to be difficult. Caught within the conflicting tensions of a national health safety crisis, rising protests due to government-imposed movement restrictions and a destabilised tourism-dependent economy, the borders of Aruba were reopened to inbound travel on the 10 June. It was not a decision that was embraced by all stakeholders, with particular concern about ending lockdown coming from healthcare providers. Aruba's government trod carefully and its' decision to reopen borders was made in conjunction with its' Department

of Public Health (DPH) and in line with recommendations from the WHO, The Dutch National Institute for Public Health and the Environment and Centers for Disease Control in the USA. A number of safety measures set up before discontinuing lockdown included heightened surveillance and local containment of the (spread of) the virus through aggressive identification and management of potential COVID-19 cases, and the gradual easing of on-island restrictions based on the case-response effect of targeted measures aimed to reduce the number of COVID-19 cases. Stringent health standards and safety protocols, such as the 'Aruba Health & Happiness Code', were also implemented island-wide, especially within the tourism and hospitality business.

Summary: As a small resource limited nation, tension between economic and public health objectives in Aruba were exacerbated, with consequent potential to fragment leadership. Nevertheless, attention to global prescriptions to mediate uncertainty of COVID-19, and synergy and alignment between higher level leaders and those on the front line of healthcare delivery contributed to recovery from COVID-19 in what is a tightly networked country. New challenges the island is facing, include the education of its inhabitants about the benefits of vaccination and the acquisition of sufficient vials to ensure optimal coverage of the island's population.

CONCLUSION

Comparative lessons for systems leadership in pandemic times

We highlight in a crisis situation, both in its immediate response and its influence on recovery following the crisis, leadership is enacted within a situation of considerable VUCA.² Leaders are not sure what they are dealing with, and what they should focus on in addressing the volatile crisis. Historical precedents are limited from which to draw learning to address a situation in which many variables interact in unpredictable ways. Outcomes and endpoints remain unclear. Yet data and insights must be gleaned in real time to drive discrete, manageable chunks of action. In essence, while our analysis aims to provide prescription for systems level leadership, much of what leaders do will be necessarily improvised in such a VUCA context. The four nations we examine might be seen as similar, with respect to the trajectory of lockdowns and gradual release from lockdown. Yet, there are differing outcomes, and indeed the volatility and uncertainty of COVID-19 means we cannot assume, even with what appears effective leadership, recovery proceeds smoothly. India and Australia performed relatively well in the immediate aftermath of COVID-19, and despite the former coming in the category of LMIC with a huge population. However, the effectiveness of their systems leadership appears to have dipped, significantly in India's case, thus inhibiting prospects for recovery. Further, Australia shows significant within country variation in its recovery from COVID-19, with Melbourne going back into lockdown in August 2020, and then in February 2021. The key statistic of deaths per 100 thousand population reveals England as a poor performer in their systems leadership response to COVID-19. Finally, Aruba, like India and Australia managed the aftermath of the pandemic well, but due to its small scale, suffered an immediate economic backlash as its tourism-dependent economy collapsed. Our international comparative analysis highlights three leadership prescriptions that help us think through how systems level leadership might be configured over time to recover from COVID-19.

Prescription 1: preparation for crisis: recovery is shaped by antecedent conditions, even prior to the emergence of COVID-19. Leadership around planning for unanticipated events is crucial, since lack of preparation for such events is likely to engender blame rather than a learning response towards recovery.

Prescription 2: individualistic and distributed leadership configuration: Notwithstanding the volatile and unpredictable nature of COVID-19, the leadership trajectory for recovery is one which requires a large number of stakeholders from discrete professional and organisational boundaries to be engaged in a leadership response over time. As such, leadership needs to be distributed across political, scientific and front-line clinical domains, with synergistic, rather than fragmented, momentum.

Prescription 3: affective leadership response to COVID-19: What should be avoided in such a volatile and unpredictable situation is blame and scapegoating. Governments may find it more difficult to engage leaders where they feel they ‘may be hung out to dry’ for failing to effectively address any crisis, and thus slow to contribute to recovery efforts. In this respect, England’s system level leadership may be less aligned and synergistic in its recovery efforts.

Correction notice The affiliation “Department of Pediatrics, Dr. Horacio E. Oduber Hospital, Caya Punta Brabo, Aruba” has been added for author Jamiu Busari.

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Contributors All five authors (GC, KG, AS, DS and JOB) have contributed to the Commentary. All provided empirical description of leadership in their health systems, GC took the lead in developing the analytical framework and writing.

Funding National Institute for Health Research Applied Research Centre West Midlands.

Competing interests None declared.

Patient consent for publication Not required.

Provenance and peer review Not commissioned; externally peer reviewed.

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