Leadership and resilience in a crisis: life in the time of coronavirus

A paper based on an online presentation to the Institute on 30 March 2021 by

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With limited guidance in the literature on leadership and resilience in a crisis, Dr Robertson has managed the Coronavirus Disease 2019 pandemic in Western Australia based on his prior experience of disaster management. Herein, he describes how he did this. He recounts the mistakes made and lessons learned as a guide to the management of future crises. Decision-making involves taking risks and you need to understand your risk appetite and that of those to whom you report.

Key words: coronavirus; COVID-19; crisis management; leadership; policy advice; resilience.

As Western Australia's Chief Health Officer, I currently am responsible for managing the coronavirus pandemic within Western Australia. In this paper, I will address leadership and resilience in a crisis based on my experience in managing the pandemic[2].

Coronavirus Disease 2019

Coronavirus disease 2019 (COVID-19)[3] has been with us since the beginning of 2020. It is caused by a small virus in the coronavirus family, viruses that commonly occur in bats and similar animals. COVID-19 mainly expresses as a respiratory illness with a fever, a dry non-productive cough and a headache. It can progress into pneumonia and, in a small percentage of cases, to death. There are no specific antiviral treatments – some have been tried but they did not work. The best approach so far has been symptomatic management, but vaccination is now possible also.

This disease was first described in Wuhan City in Hubei province, China, in late December 2019. Most speculation is that it is a wild virus from bats, possibly horseshoe bats, and may have come from wet markets where these animals are sold, although some recent studies have discounted that hypothesis. Others speculate that the Wuhan Institute of Virology (WIV) may have been the source as it was doing research on coronaviruses at the time[4]. There are, however, many unanswered questions and the origin remains uncertain.

The Wuhan outbreak was declared a public health emergency of international concern on 30 January 2020. The virus spread from China to Spain and Portugal and, by 14 April, was a global phenomenon. Today, the pandemic remains a crisis, particularly in the United States, Brazil, parts of Europe, parts of Southeast Asia and India. The number of cases continues to accumulate. The United States, France, the United Kingdom, Brazil and Italy are some of the worst-off countries and, as of 27 March 2021, there had been over 126 million cases diagnosed, including 2.77 million deaths, worldwide. In Australia, there had been just over 29,000 cases with 900 deaths. So, it is an extensive disease that impacts on us all.

In Australia, we imposed travel restrictions on entry to Australia from China on 1 February 2020 and subsequently from all other nations. We had a first wave of COVID-19 infections towards the end of March into April 2020, then a second wave in winter, largely in Victoria, with a few cases in other states. We have had no further waves over the summer.

Strategic Leadership Considerations

Let us consider now the coronavirus pandemic in the context of leadership and resilience in a crisis. There have been multiple texts published on leadership, including on organisational leadership and military leadership, but there is only limited

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[2]The sub-title, "Life in the time of coronavirus", is a reference to a book by Gabriel García Márquez, *Love in the time of cholera* (Márquez 2016), which is about resilience during a crisis.

[3]Coronavirus disease 2019 (COVID-19) is related to Severe Acute Respiratory Syndrome (SARS) and Middle East Respiratory Syndrome (MERS). COVID-19 is caused by a novel coronavirus now called Severe Acute Respiratory Syndrome Coronavirus 2 (SARS-CoV-2) that was first identified Wuhan, China, in December 2019. Coronaviruses are a group of related RNA viruses that cause respiratory tract infections in mammals (including humans) and birds. Coronaviruses readily mutate and can be translocated from one species to another.

[4]In November 2019, a number of WIV's staff became unwell, possibly related to work on this virus ranging from 'gain of function' research (into the kind of changes that need to be made to the virus to allow it to become a pandemic) to vaccine development. Such work could have led to an accidental leak of the virus from WIV.

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guidance on leadership in a crisis, particularly a prolonged crisis. There is some guidance on dealing with a short-term disaster but less guidance on public health leadership in a pandemic.

As a public health physician and a disaster medicine expert, I have three public health objectives:

- to prevent unnecessary morbidity, mortality and economic loss resulting directly from the disaster;
- to make sure that we do not mismanage our disaster relief efforts and make matters worse; and
- to minimise the risk to the community from any hazards, identify those things that are likely to give rise to those hazards, and optimise any activities that might reduce their risk.

In Western Australia, these principles now guide our public health activities to mitigate the impact of public health emergencies, to reduce the subsequent disease and to make sure we have sufficient staff.

Looking at crisis leadership and resilience, there are a few things we need to consider. Initially, we need to frame the event. To do that, we need to look both inside and outside the organisation. COVID-19 is not just a health issue; it is a whole-of-government issue.

We have to be aware of unconscious bias. It is very easy to fall back on the familiar and the comfortable, particularly in medicine, as we know what to do in other disease outbreaks. But COVID-19 is hardly the same.

Ambiguity becomes a major issue. There were, particularly early on, very weak and conflicting signals as to how bad the disease was; what it was that we needed to do; and, often dealing with limited information, there was a need to act with courage. When dealing with that ambiguity, we needed to listen to our critics, and the people who worked with us, to make sure that what we were doing was evidence-based and made logical sense. We also had to have the courage to be accessible, so people could follow our lead.

Management of the Pandemic in its Early Stages

I like this 19th century quote from Field Marshal Helmuth von Moltke: "No plan of operation survives first contact with the enemy" (Hughes 1993: 45-47) and that is certainly what happened in this circumstance. The COVID-19 situation rapidly evolved and quickly outran our pre-disaster response plans. We had extensive disaster response plans, including pandemic and respiratory illness disaster response plans, and we had the legislation to implement them. But we had never used that legislation, nor had we ever implemented a health state of emergency. Further, my role as Chief Health Officer and the roles of the State Health Incident Controller and the Director General of Health, were quite unclear.

We knew what the plans said and they helped us to set up initially, but it rapidly became obvious that we were going to have to work very closely with other agencies, particularly the Western Australian Police and national agencies, including the Commonwealth Departments of Health and Prime Minister and Cabinet. We had to have very good operational structures and people, plus a very clear understanding as to where we were heading to get through the crisis.

We also had to deal with a lack of preparedness. An issue we had early on was that we were relying on just-in-time supplies of personal protective equipment (PPE) when, all of a sudden, those supplies dried up because the whole world wanted PPE. We had to deal with that quickly.

Then there was role conflict. We had both an operational role – to make implementation work; and an advisory role to government. As the lead operational agency, we had to work with our health sector, the police, other relevant agencies and our Premier and Cabinet colleagues to make sure implementation worked. Concurrently, we had to advise our Premier and the respective Ministers who held relevant legislative and administrative responsibilities.

In Western Australia, the primary legislative heads of power in such circumstances are in the *Emergency Management Act* and the *Public Health Act*. We had to rapidly implement our state emergency and pandemic plans. By early March 2020, we only had 78 cases of COVID-19 in in Australia and we had had one death in Western Australia, a passenger from the *Diamond Princess* cruise ship. There had been a couple of deaths in New South Wales. The majority of Australian cases had a history of travel from mainland China and we were just starting to see cases coming in from Iran. Rapid growth in infections followed. By the end of March, we knew we had a serious problem and that it was getting out of control.

We had already brought in border controls on travel from China, and border controls on travellers from other nations were introduced rapidly over that period.

We needed an organisational structure to support my role at the hazard management agency and as Chief Health Officer and to support the various people reporting to me. This structure was established rapidly.

A State Health Incident Co-ordination Centre (SHICC) is a virtual organisation that is only created in times of disaster, but this had had to become a full-time State organisation. A number of Commonwealth statutory provisions had to be activated as well, including the *Biosecurity Act* and *National Health Security Act*.

We worked very closely with the Commonwealth Department of Health and with the Australian Health

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Protection Principal Committee, which brought all of the state and territory chief health officers together to co-ordinate an evidence-based, nationally-consistent response, including a national COVID-19 plan. The plan worked remarkably well. The federal and state governments listened to the committee's advice, which covered likely impacts on health, and, with other agencies, on education, tourism, the economy, and how to deal with such health impacts in a whole-of-government manner. This whole-of-government advice extended to how to maintain critical services such as food supplies, water and fuel supplies and essential government services like policing, and making sure the public knew what was going on.

During the first wave of coronavirus infections, we struggled. There were supply shortages all around the country. We had to adjust, working very rapidly to acquire sufficient supplies. To manage our risks, we employed border controls, hotel quarantining, community testing, contact tracing and lockdowns as needed nationally and regionally. We also had to impose social-distancing restrictions to decrease the density of people on public transport and in various venues, whether in businesses, in hospitality or other industries. Each Australian jurisdiction went into some form of lockdown, including school closures. A number of issues arose from the lockdowns for the workforce and for travellers. Interstate travel basically ceased for a period.

Further, we had to make sure that, if COVID-19 did become a major outbreak, we were prepared for it both in our hospitals and the community. As an example, we set a target of about 120 intensive-care unit (ICU) beds in Western Australia initially, which we increased to 427 ICU beds. There was a vast list of specialist equipment also needed to enable that target to be reached. We got there eventually, but it took a lot longer than we hoped. Fortunately, though, we have never had to use this capability.

Longer-term Strategic Planning and Implementation

The next step in our crisis leadership involved thinking strategically about big-picture, longer-term issues to ensure they were not lost in the operational frenzy. We needed to get to a situation where we could bring our country out of this pandemic. Going forward, we would need to know what was going on. To do so, we would need to rely on everything from local news to national information. We would need to be working with our teams, but also working up to ministers. It became critical, more than in any previous event, to work very closely, not only with my Health Minister, but with the Premier and other key ministers.

Using a chess analogy, we needed an overall strategy to guide us through the 'middle game'. In that first 12 months when we knew we were not going to have a vaccine, we needed a strategy for how to get through that 12 months and get some form of economic recovery after the first wave. We needed to allow business to continue – to allow people to go out, relax and spend money. Getting the 'middle game' right would prepare us well for the 'end game'.

The 'end game' would be when we could get the population protected enough that we could start opening it up, not just to our nation, but to the world. One option for the 'end game' was to achieve immunity through infection, but that has not worked when tried in a number of countries, including the United Kingdom and Sweden. When they tried that, they ended up with tens of thousands in hospital and tens of thousands of deaths. Even then, only about 8 per cent of the Swedish population were protected.

Vaccination rapidly became the only viable option, with the intention that, if we could protect the majority of community and achieve some form of 'herd immunity', then COVID-19 would go from being a pandemic disease to possibly an endemic disease similar to influenza. But to get there, we had to think strategically about the public health measures that would be necessary.

So, beginning in February 2020, the focus turned to strategic planning, particularly operational planning informed by modelling – what happens if we get an outbreak in a prison; how do we model something in an aged care facility; and worst-case scenario planning at both a local and national level. We also had a number of reviews that looked at whether our future planning was robust.

Operational matters considered included: how to set up COVID clinics; what do we need to do to surge up our ICUs; are the clinical guidelines adequate; can we use the private hospitals; what is the health workforce, how do we expand that, and how do we triage if we get too many cases. We also had to focus some plans at a national level.

We reached a point after the first wave where, initially, we thought that we might not be able to suppress the disease, but in the end, we were successful and we remain highly successful in meeting a goal of no community transmissions *i.e.* we have no cases in our community. The only cases we have are those that are coming in from overseas.

On-the-Job Learning and Adaptability

The next step in building leadership, resilience and adaptability became developing resilience and flexibility in our workforces, particularly around ambiguity and complexity. We have seen maturing in these aspects. Early on, we had conflicting messages on the disease; we did not know what the likely effects were or the best ways to manage it. There were lots of theories and not much evidence. We had to work

closely with agencies like Police, Premier and Cabinet, Education, Transport and other agencies that we had had good relationships with, but never to this extent. We made mistakes on the way, but we learnt a lot of lessons about working together. We have had to deal with legislation that had never been applied before and learn how to use a state of emergency, its strengths and weaknesses.

We had to be constantly evolving and flexible, accepting that we had made mistakes at times, learning many lessons from them. We have had to make multiple decisions, often very quickly and on limited information, but generally based on an assessment of whether the risk is low, medium or high, informed by the evidence available and a knowledge of its limitations, together with an assessment of the risk appetite of the government and its agencies. Risk appetite has varied among governments and agencies over the course of the pandemic.

We also needed to listen to our critics. At times, they could see things that we might be missing. At other times, we were ahead of them. Part of the role of executive leadership involves protecting your agencies, not from criticism, but from micro-management by other agencies or the political hierarchy. Doing so allows the operational people to do their jobs.

We also had to deal at times with disconnects between operational decisions and the health advice. You get asked one day whether we should close the borders and the next day whether we should allow painting of children's faces. You have to make those decisions based on risk.

As well, we had to navigate the law. My role as the Chief Health Officer was primarily regulatory. Nevertheless, I was asked to provide public health advice and the health position in the Palmer High Court case. We were ultimately successful in that instance, but there was a range of other issues that we had to deal with, such as: the potential use of Rottnest Island for hotel quarantining; should we allow schools to go back; could we do without state border controls and at what stage should we require them.

We had to deal with the crews of merchant ships, many of whom were COVID-infected. We developed expertise in managing infected cruise ships and merchant ships.

I provide health advice to my government and accept that there are broader contexts of which I need to be aware. As a military example, the USS *Theodore Roosevelt* experienced an outbreak early in the pandemic. The first three cases were reported in March 2020. By May, the ship had over 1100 cases which put the ship was out-of-action. The captain, correctly, had tried to evacuate the ship, but was not supported by his government and he was relieved of his command – that story is still running. In France, the *Charles de Gaulle*, another aircraft carrier, had nearly half of its crew infected by 18 April 2020.

The Australian Defence Force (ADF) has had a better experience. We have done quite a lot with the ADF in Western Australia. We have worked closely with the Royal Australian Navy (RAN) to clear ships as they have docked. The RAN adopted very good arrangements early on, including not disembarking in foreign ports, and we did not see any outbreaks of disease in its ships. We worked with the Special Air Service Regiment when borders were closed late in 2020 to make sure their selection course could proceed, including ensuring that soldiers from interstate could be quarantined before participating. More recently, we have worked with the Pacific Patrol Boat Project to ensure that crews could enter Western Australia from the Pacific countries to undergo training and pick up patrol boats.

There have been very close links with the states and territories, probably far closer than previously. These are vital relationships.

As Chief Health Officer, I cannot make all the decisions. I need the support of good leaders. Distributed leadership requires role clarity and freedom of action. My deputy chief health officers run the State Health Incident Co-ordination Centre and the Public Health Emergency Operating Centre. You have to have the right people in the right roles and a number of times we have had to move people into different roles to make sure that we had the right people in the right places. We have had to develop those key relationships, often at a far deeper level than we have ever done before. This has become incredibly important as we worked through the 15 months of managing this pandemic. I also have spent a lot of time with our legal teams because of the state of emergency and the Palmer High Court case.

Communications have become critical. This is part of dealing with the politics, the media and the general public. It is crucial to keep people informed. The media have been very beneficial. While we have had criticisms at times, it became critical that managing conflict was factored into my role. We now expect everything to be examined; we expect to be as transparent as we can be. There are three stages of disaster communications: what has happened; what are you doing about it; and who is to blame. We have had to deal with some interesting conspiracy theories, fake news and things like micro-chipping vaccines, that coronaviruses have been caused by 5th generation communication rollouts *etc*.

We have had to deal with people who have misbehaved. We have had to involve police where people breached quarantine or otherwise did the wrong thing. But, generally, the public has come along with us.

Resilience

The pandemic has been non-relenting over a long duration – it has been an ultra-marathon. One aspect of resilience in this context is looking after our staff. We often do far better with our junior staff – rostering them off, getting them leave – than our senior staff. We have had a few senior staff whom we have had to push to take a break, but we all operate better after we have had some downtime. This is about pacing yourself. It has parallels to how we would manage headquarters staff in a conflict. We need to think about how we should support people and give them downtime that works for them.

We are under constant review. We are subject to national and state reviews and this will be ongoing We also have new challenges coming up. Those that we have to be looking at from a strategic point of view include: how do we roll out our vaccines; what do we do about our international borders; how do we open up society; what is COVID-normal going to be in 2021, 2022 and beyond.

The Vaccination Programme

The next phase is our rollout of the COVID-19 vaccination programme. There are two vaccines available in Australia: the Pfizer/BioNTech vaccine and the Oxford/AstraZeneca vaccine. The Pfizer vaccine has to be imported and, as it is based on a messenger-RNA, it has cold-storage requirements so is a lot harder to handle. The AstraZeneca vaccine is now being manufactured in Australia and supply will ramp up over time. As of 29 March 2021, nationally, 474,000 persons had received their first of two COVID vaccinations. The national rollout is progressing by phases, vaccinating the population by priority groupings. Essential service personnel were vaccinated in Phase 1a. We are now progressing to Phase 1b – the elderly (over 70-years-old), Aboriginal and Torres Strait Islanders over 55, and younger adults with underlying medical conditions. Probably by mid-year, we will commence Phase 2a which covers those over 50-years-old and other high-risk workers.

So, the vaccination programme is progressing. It has been a little slow initially, but it will pick up as supplies of the AstraZeneca vaccine improve over the next few weeks. The states have responsibility for vaccinating their frontline health people and critical and high-risk workers. The Commonwealth has responsibility for most of the other groups, although we anticipate that the states will be assisting the Commonwealth.

There is a question around vaccine safety. The vaccine safety database is huge – there have been over 53 million doses administered in the United States to date, and tens of millions of doses of the AstraZeneca in the United Kingdom. There have been some adverse events. Most people get a sore arm and feel a bit unwell after both vaccines. Some vaccines are worse than others, but they are highly effective. Research from Scotland shows that these vaccines prevent up to 95 per cent of hospital admissions. Most people would not mind a small infection, but would be unhappy to end up with a serious one.

Conclusion

Studies of leadership and resilience in a crisis are underdone. Most of the leadership literature is organisational rather than crisis focused. During the coronavirus pandemic, we have learned many lessons. They will remain relevant for the next stages of the pandemic and they should guide our leadership and resilience in the future. Practical leadership requires a willingness to accept that decision-making is about risk-taking. Your risk appetite may change the ways that you attempt to solve a crisis and also the ways that people respond to your leadership.

The Author: Dr Andrew ('Andy') Robertson has led Western Australia's COVID-19 response. He joined the Western Australia Department of Health (WA Health) in October 2003 as Director, Disaster Preparedness and Management. He led a medical team in the Maldives after the 2004 Indian Ocean Tsunami; managed WA's response to the 2005 Bali bombings; led a medical team into Indonesia after the 2006 Yogyakarta earthquake; and was a radiation health adviser after the 2011 Fukushima nuclear disaster. He was WA's Deputy Chief Health Officer from 2008 to 2018 when he became Chief Health Officer, and Assistant Director General of Public and Aboriginal Health. He served in the Royal Australian Navy from 1984 to 2003 taking part in three tours to Iraq as a biological weapons inspector for the United Nations Special Commission. Since 2003, he has been a naval reservist and, as a Commodore, was Director-General Navy Health Reserves from 2015 to 2019. He was awarded the Conspicuous Service Cross (CSC) in 1999 for outstanding achievement in the field of nuclear, biological and chemical defence; and the Public Service Medal (PSM) in 2013 for outstanding public service as Director, Disaster Management and Preparedness in WA Health. [Photo of Dr Robertson: the author]

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