Everybody has a job to do

How collective values and clear communication helped eliminate Covid-19 in Aotearoa New Zealand.

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Abstract

In the second half of 2020, the population of Aotearoa New Zealand was enjoying life in parks, bars and sports games while much of the rest of the world faced a Christmas in lockdown. This was due to the collective effort of the entire population earlier in the year. Under the leadership of Prime Minister Jacinda Ardern and Director General of Health Dr Ashley Bloomfield, Aotearoa New Zealand eliminated Covid-19 from the community. Twice.

This thesis comprises three studies that examine different elements of the communications campaign that mobilised a nation to look after each other. It shows how collective values, clear communication and a sense of purpose combined to bring Aotearoa New Zealand through the first wave of Covid-19 relatively unscathed.

Dedication

Rocker, thanks for making this happen.
xMatt

Acknowledgments

This thesis could not have happened without the help of many incredible people.But firstly, thank you Covid-19 for providing the subject matter. To Jacinda, Ashley, Juliet, Siouxsie and Toby, thank you for being the leaders we needed. And thank you for taking the time to share your experiences and insights. To my participants, thank you all for spending a night before Christmas chatting about what we'd all been through.

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Gregory. Thanks for stewarding me through this. Your gentle steering made all the difference.

Finally, thanks Roxanne for your patience and Gus, Eli and Ruby for your cuddles all the way through.

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Attestation of Authorship

I hereby declare that this submission is my own work and that, to the best of my knowledge and belief, it contains no material previously published or written by another person (except where explicitly defined in the acknowledgements), nor material which to a substantial extent has been submitted for the award of any other degree or diploma of a university or other institution of higher learning.

Signature: Date: 30.11.2023

***Approved by the Auckland University of Technology Ethics Committee* on 26 November 2020**

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Chapter 1. Introduction

1.1. Purpose and Significance of the Research

1.1.1. Personal background. At the start of 2020, I embarked on my teaching and research career simultaneously. Within four weeks of the start of semester, we were in lockdown and were asked to stop teaching and prepare to begin again online after the Easter break. At the time, in my own studies, I was being asked to form a research question for my research-methods paper. Initially, I was investigating possibilities in climate communication research. However, when the world shut down in a matter of weeks, some were making observations about the cleanliness of the air and the benefits to the environment, with rapid environmental changes being observed in some places (Bhat et al., 2021; Chow, 2020). Others, including myself, began asking the question: Why can we act this fast for a virus when we have been dragging our feet on a larger existential threat, climate change, for decades?

As I lived through one of the most celebrated responses to the threat of the coronavirus on the planet, I pivoted in my research focus in the same way so many of us had to pivot in our work environments at this time (Fox & Frye, 2021; Guillén, 2020). The question I first formulated asked what climate communication could learn from the Aotearoa New Zealand government's Covid-19 communications response. Due to the size and scope of a Master's thesis, it became clear that while I may be able to deduce some learnings from the Covid-19 response, applying it to climate change communication was likely a whole other thesis.

1.1.2. The events in question. Early in 2020, it became clear that a novel coronavirus, now known as Covid-19, had not been contained in China and was rapidly spreading around the globe with devastating consequences. As the virus spread through Asia, Europe and the Middle East through January and February, Aotearoa New Zealand was watching. The Ministry of Health began regular updates on January 27 (Ministry of Health, 2020) and our first case was reported on February 28 (The McGuinness Institute, 2023). While country-specific border restrictions had been put in place before then, public-facing government communications increased and social restrictions began to be implemented until, on March 21, 2020, Prime

Minister Jacinda Ardern announced the four-stage Alert Level System (see appendix 1) and the start of restrictions at Alert Level Two. Two days later Ardern announced that the country was now in Alert Level Three and had a little over 48 hours to prepare for the highest level of restrictions, Alert Level Four: Lockdown. In the following weeks, Ardern and the Director General of Health, Dr Ashley Bloomfield, (along with other ministers and public servants) kept the public of Aotearoa New Zealand informed about what was happening, what they could expect to happen, and what was expected of them, through daily media briefings that were broadcast on TV and live-streamed through various traditional and social media outlets daily. Rather than the continual growth of cases experienced in most other countries around the world (WHO, 2023), Aotearoa New Zealand's cases peaked in the first week of April and then began to reduce as the benefit of the lockdown measures started to take effect.

The response of Aotearoa New Zealand was held up as an example around the world, as was Ardern's communication and leadership through the first wave. Over three years later, Ardern has stepped down from office, but her government's communications response is still highly regarded globally (Olley, 2023), even if on local shores her former political opponents are trying to poke holes in it for their political gain (Hill, 2023).

1.1.3. Research question. This study aims to find out what can be learnt from the communications campaign that led to Aotearoa New Zealand's world-leading response. The main research question is as follows:

> What, if anything, can the Aotearoa New Zealand communications response during the first wave of Covid-19 teach us about crisis communication?

1.2. Design of the Study

As a qualitative researcher, it is important to establish where this research sits on the ontological and epistemological spectrums before understanding the theoretical basis of it. Ontologically, this research sits between critical realism and bounded relativism as defined by Moon and Blackman (2014). What that means is while I believe reality can be "captured by broad critical examination" (2014, p. 1169), I am also aware that there are subjective views, other than my own, that shape how reality is experienced by individuals. Epistemologically, I

have taken a constructivist approach to this research. I am analysing how my participants interpreted the events of this study and their interaction with official interactions and other members of the public. A pragmatic paradigm has been allowed to guide the research as it happened. Tapping into my tacit knowledge and my own individual experiences throughout the course of the pandemic, I have let them inform and guide my research. Similarly, I have allowed personal and public events that occurred over the three years of this project to guide my next step. Different theoretical frameworks have been applied as and when appropriate to the research. As a practitioner in the creative arts, I am also a believer in story-telling. A narrative flow is important to my own meaning-making.

As this thesis is by publication, there was always the intent to conduct three separate studies into Aotearoa New Zealand's communication response to Covid-19. (For the same reason, more specific methodological discussion will occur in each of the main chapters.) Early in the research process, a couple of unique elements of the Aotearoa New Zealand communications campaign were identified. The first was the award-winning science communication collaboration of Toby Morris, illustrator and graphic journalist, and Dr Siouxsie Wiles, microbiologist and science communicator. Morris and Wiles' work was used by Prime Minister Jacinda Ardern early on in the pandemic communication and went viral globally at about the same time (Open Access Australasia, 2020). Their work provided an easy way for those scrolling social media to understand the implications of the impending virus. The second unique element identified was the metaphor of the bubble as a unit of humans surviving the pandemic together. While Ardern did use other metaphors, including militaristic metaphors common among world leaders at the time (Castro Seixas, 2021), the bubble stood out as a unique concept that was picked up rapidly by the public.

I began a textual analysis of the GIFs (Graphic Interchange Format) created by Morris and Wiles through a VUCA (Volatility, Uncertainty, Complexity and Ambiguity) framework for a conference on "Communicating in a VUCA World" (Toroa Communication Research, 2020) in November of 2020. Interviewing Morris and Wiles individually was always an intended method of gaining original data. To guide the questioning for the semi-structured interviews, it was important to understand how the public felt about what had happened to date. A focus

group was arranged for the week before Christmas of 2020 to gain some rich insight into what members of the public felt about the events of that year before heading off on their summer holidays. While the focus group did provide rich data about the government response and the metaphor of the bubble, it did not yield as much data about the Morris and Wiles collaboration as hoped.

However, the Morris and Wiles semi-structured interviews were conducted by video call in 2021, transcribed using otter.ai, and provided rich commentary to be analysed alongside their work. These interviews were used as the primary data for an article for a VUCA special edition in the Journal of Applied Journalism and Media. That article appears as Chapter 3 of this thesis and a more detailed methodology is employed within that chapter.

The bubble became the next point of focus. There was ample data available from the focus group about their thoughts on the metaphor, but as I had the creators' point of view for the Morris and Wiles collaboration, I wanted to do the same for the bubble. While wading through footage and press conferences of the period being researched, I deduced that Ardern had been the first to use the word "bubble" within one of her daily Covid-19 briefings. A chance encounter with a high school friend of Jacinda Ardern's led to an appointment for an interview mid-2023 (see Appendix 3 for details). Near the end of the interview with Ardern, she suggested contacting Juliet Gerrard, the Prime Minister's Chief Science Advisor, as she would be able to give me more details and her side of the story. A month later, Gerrard happily agreed to the interview and, as suggested, provided invaluable data for this research. In preparation for each of these interviews, I mentioned to both Ardern and Gerrard, that while I was preparing an article about the metaphor of the bubble, I would also like to speak more widely about the early phases of the pandemic response.

While coding the transcripts of these interviews, I was troubled by the fact that Ardern did not recall where the metaphor came from and Gerrard had always attributed it to Ardern. In my initial investigation, I had discovered reference to Dr Tristram Ingham (a medical researcher at the University of Otago, Wellington) and his working group to empower disabled communities through the pandemic (Franks, 2020). With no reference to Ingham from either Ardern or Gerrard, I reviewed the transcripts again and found that Bloomfield and Ardern had

both used it on the same day, March 24, 2020, in separate media conferences. The next step was to find out which conference was first. Bloomfield's. One email and another week later and I was in front of the man who said "bubble" on TV first. He confirmed his understanding that the metaphor had come from Ingham's work. Now, armed with data from three people who had been knighted for their work on this public health communication response, I began writing the article that has become Chapter 4 of this thesis. More methodological specifics are available within that chapter.

For the third study, I returned to a document that came to my attention in the early stages of preparing this research, the World Health Organization's Outbreak Communication Guidelines (2005). The document stuck with me through the three years of this project due to the similarities between the guidelines and the communications response of Ardern's government. While I asked my three interview participants whether they had knowledge of the guidelines, they all responded in the negative. This provided me with a hypothesis for the third main section of this thesis. An investigation into how closely the Aotearoa New Zealand communications response followed the Outbreak Communication Guidelines. Data collected from the interviews and publicly available information was used to draw both deductive and inductive conclusions for what is now Chapter 5.

Finally, the key findings and themes of each study were analysed alongside themes and a framework from existing literature to draw overarching conclusions that answer the main research question of this thesis. While a slightly unorthodox method of designing a study, the researcher and his supervisor are confident that the analysis done has been thorough and the conclusions drawn are sound.

1.3 Design of the Thesis

The design of this thesis has been dictated by the individual studies and the findings they have generated. It is worth noting that as this is a thesis by publication, Chapters 3-5 are three individual studies and while there is a common thread, each chapter does not directly follow on from the last.

Chapter 2. Literature Review

This chapter reviews relevant scholarship on theories and frameworks used in the following chapters. As two of these chapters have been prepared as standalone articles for publication, they include their own reviews of the literature.

2.1. Ardern and the Aotearoa New Zealand Communication Response

The Ardern government's communication response in the early stages of the pandemic has been commended widely in the literature. Cousins (2020) summarised it well when she stated the response to be one "that placed science, leadership, and careful language at the forefront" (2020, para. 7). Academics were writing about Ardern's leadership while still living under the lockdown measures she had imposed. Suze Wilson, a leadership scholar from Aotearoa New Zealand, published an informal article on the research-focused website The Conversation (Wilson, 2020b) in April of 2020 while restrictions were at their height, giving three reasons why Ardern's response had been a masterclass. She argued that rather than trying to solely enforce compliance as many international leaders were at the time, Ardern balanced "direction, care and meaning-making" (Wilson, 2020b, para. 15). Ardern's approach, Wilson argued, gave people the tools they needed to cope with the unprecedented scenario through her regular daily briefings, open and honest answering of questions and her ability to persuade much of the population of Aotearoa New Zealand to act for the collective good. A little over a month after the article's release, as restrictions were easing across Aotearoa New Zealand, Wilson (2020a) formalised her findings in the journal *Leadership*. Wilson's argument here reinforced the concept of mobilising collective effort, enabling coping, and the importance of being led by expertise to foster a shared purpose and ultimately save lives and livelihoods.

Beattie & Priestley's (2021) reflexive thematic analysis of the Aotearoa New Zealand government communication took a more linguistic focus that brought the government's "open, honest and straightforward communication" (Beattie & Priestley, 2021, p. 4) to the fore. Ardern did this, they argued, by providing New Zealanders with daily updates on the information they

needed to understand what the virus was doing and how they, as the government, were dealing with it. They highlighted Ardern's distinctive, motivational language using militaristic and sporting analogies to ask her "team of five million" to "unite against Covid-19" (Beattie & Priestley, 2021, p. 5). The final theme they identified was one that Wilson (2020b) argued was more difficult for leaders to use to help motivate their populace. It was expressions of care. Ardern has been widely regarded as an empathetic and compassionate leader (Graham-McLay, 2023; Simpson et al., 2022; Voina & Stoica, 2023). Beattie and Priestley (2021) illustrated the linguistic choices, including the expressions of care that connected Ardern to her audience, the public of Aotearoa New Zealand.

Voina and Stoica (2023) took the argument a step further when they stated that Ardern's leadership was guided by a feminist ethics of care. They argue Ardern is able to escape the classic gender bind and use her femininity to her advantage. Similarly, Simpson et al. (2022) emphasise her compassionate leadership. They explained how paradox is at the heart of the compassionate leader as they must be simultaneously strong and kind, decisive and caring and such. They use Ardern as an example of a compassionate leader helping people conserve and replenish their resources as they move through the crisis.

Ardern's gender arises again when McGuire et al. (2020) explain how women are more likely to be thrust into leadership during a crisis due to the fact that a woman's communication style leans toward relationship-building and making connections. It could be posited that that played a part in how Ardern ended up as head of the New Zealand Labour Party when she was installed as leader just seven weeks before an election, after the poor performance of her male counterparts (Roy, 2017).

McGuire et al. (2020) put direct dialogue with the public at the forefront of their argument, saying that "crisis leadership is a discursive and co-constructed phenomenon" (2020, p. 363). They go on to suggest that Ardern co-created the shared experience of the crisis with the public of Aotearoa New Zealand. Sensemaking played a large part in how Ardern brought the public along with her, they argued, assisting individuals to "develop a shared understanding of reality" (McGuire et al., 2020, p. 363).

Hafner and Sun (2021) also talked about the discursive nature of leadership and how it is jointly constructed. They reinforced the importance of the people whom the leader is surrounded by, including advisors, the public and the media. They made an observation about the media, speaking of the rehearsal and theatre of the daily press conferences, that there was a lack of tension between the media and the leadership. Echoing observations made by Wilson (2020a), they stated that everyone just seemed to be doing their job. There was a distinct lack of combativeness, as if the media knew their role in the pandemic was to help get these messages across as clearly as possible. This is a sentiment the Centers for Disease Control and Prevention's Crisis and Emergency Risk Communication framework states quite clearly, "During the beginning of a crisis, reporters are less concerned with investigative journalism or making stories more dramatic. They, and their audience, are more interested in knowing what happened and how to stay safe" (Center for Preparedness and Response, 2017).

Hafner and Sun (2021) talk about the importance of vision as well. They cite Charteris-Black's (2006) observation that a charismatic leader can persuade their audience by juxtaposing negative visions of what could be with positive visions of the future.

2.2. Advertising Theory and Public Health Communication

This thesis draws from advertising theory for a number of reasons. Firstly, the author has worked in the industry and teaches this subject. The second, as this thesis contends, is that much of the thinking that drives creative advertising comes into play when discussing urgent crisis communication. This section of the literature review covers some of the main advertising concepts that pertain to what is also a rapid form of communication requiring high impact.

White (2012) bemoaned a lack of modern academic thinking in the advertising creativity literature. While there has been some progress since, it is still the case that many of those who write on the subject of advertising creativity are, or were, practitioners. Having analysed the practice from the first-person perspective, many successful advertising creatives have gone on to write books on the processes of creating ads after decades in the industry (Hegarty, 2011; Ogilvy, 1985; Trott, 2015). These books often rely on base theories that have been around for over 100 years. One that White mentioned, which pertains to this research, is

the AIDA model of communication. The model suggests "the steps to be taken by the seller at each stage are as follows:

> Stage I. Secure attention.
> Stage II. Hold attention through interest.
> Stage III. Arouse desire.
> Stage IV. Create confidence and belief.
> Stage V. Secure decision and action.
> Stage VI. Create satisfaction."
> (Kitson, 1920, p. 21)

These stages seem a model highly applicable to modern crisis and public health communication and its dialogic nature. At their base level, both advertising communication and crisis communication are about modifying behaviour; asking people to change what they are doing for their own benefit. Reynolds and Quinn (2008) argued for open and empathetic communication to get the public to take action during a pandemic over a decade before Covid-19. Decades before that, Bernbach was arguing for "warm human persuasion" (Bernbach, 1989, p. 8) over "cold arithmetic" in his own quest to drive people to act.

In the same way that persuasive-writing experts teach the importance of understanding your audience to get your message across (Camp, 2008), so too do public health experts. Freimuth et al. (2000) talk of audience segmentation as a means of getting the right message to the right people in a public health setting over a dozen years before digitisation meant ads could be served to individual audience members again and again based on their previous interactions (Bruce et al., 2017).

Sullivan (2022, p. 105) dedicates a whole chapter to simplicity which starts with the following sentences: "If you take away one thing from this book, let it be the advice in this section. Simpler is almost always better." He goes on to say "a quick-get is the first and most important thing an idea needs to have" (Sullivan, 2022, p. 105). Advertising plays by the old cliché of less is more. The unique selling proposition has been a cornerstone of the advertising profession for decades (White, 2012) and has in recent decades morphed into the single-minded proposition to emphasise the point that more than one main idea at a time will start to overwhelm the audience. The Aotearoa New Zealand Covid-19 ad campaign is a good example

of this. Each and every ad had one thing the public could do to help serve the main purpose: "Unite against Covid-19" (Hunt, 2021a).

2.3. VUCA

VUCA (volatility, uncertainty, complexity and ambiguity) is used as a framework for one of the articles in this thesis. This section of the literature review will provide some context for the framework, while the article itself will provide further details relevant to the related study.

The acronym VUCA was borne out of the US Army War College in the late 1980s. There are conflicting reports about the origin of the term. It has been cited in documents from the college as early as 1987 (U.S. Army, 2022). However, consensus points to the terms that make up the acronym being adapted from Bennis and Nanus (1985). It has been utilised in business leadership as a concept to describe the constant disruption of markets by an ever-evolving digital and global landscape (Bennett & Lemoine, 2014). More recently, after a global pandemic and with the ever-looming threat of climate change, it has come to represent the myriad of issues facing the global population. Wilson (2023) summarises the four elements as follows:

> **Volatility** – rapidly changing effects that impact our natural and social world
> **Uncertainty** – a lack of information, or conversely an information overload, makes future scenarios hard to predict
> **Complexity** – interconnected, often systemic, issues where there are a multitude of opinions on possible fixes
> **Ambiguity** – difficulties in making sense out of events, often due to a lack of objective truth.

Wilson goes on to explain that, as a whole, VUCA implies "a context awash with a dynamic of unforeseen events and/or difficult, complex challenges" (Wilson, 2023, para. 14).

This chapter has summarised the key literature and theories that form the background and basis for this research. The following chapters build on the literature in their individual studies.

Chapter 3. Keep Calm and Make GIFs: Communicating Covid-19 in Aotearoa New Zealand

The following chapter comprises an article published in *Communicating Chaos: New perspectives on VUCA,* a special edition of the *Journal of Applied Journalism and Media Studies* published in June 2023. The article analyses a collaboration between science communicator Dr Siouxsie Wiles and illustrator Toby Morris. Their collaboration began in March 2020 as a way to get important information about the Covid-19 virus to members of the public in a way that was easily accessible via social media channels. Their contribution to science communication during the pandemic was unique at the time, and was picked up internationally through social media and online outlets such as Huffington Post (Open Access Australasia, 2020). Prime Minister Jacinda Ardern used a printed version of Morris and Wiles's first GIF, known as *Flatten the Curve*, during one of her daily press conferences. Their work was identified early on in this research project as another tool in Ardern's kit that helped her clear communication of the government's Covid-19 restrictions and planning.

This article draws from advertising theory to explain some of the illustrative choices made by Morris. It asks how the GIFs the two communicators created together helped the wider public navigate the VUCA (volatile, uncertain, complex, ambiguous) situation of Covid-19. This chapter analyses two of the GIFs created by Morris and Wiles and data obtained from the transcripts of semi-structured interviews with them in the first half of 2021. It draws conclusions about the applicability of VUCA Prime as a way to communicate through VUCA situations.

3.1. Introduction

Covid-19 is arguably the most VUCA (volatile, uncertain, complex, ambiguous) global situation since World War II. Two years after the pandemic began, the situation was as volatile and unpredictable as ever before. As Veil et al. (2008, p. 31) stated, “The literature on crisis and disaster has always emphasized the role of communication”, and this pandemic has illustrated the importance of clear communication in helping people navigate VUCA situations. Countries whose leaders bluffed their way through the early stages of the pandemic, ignoring the science, have seen disastrous consequences (Paz, 2020; Philips, 2021), while countries where the leaders followed the scientific evidence, and transparently communicated the risk and required response to their public during the first half of 2020, minimized the damage (Frieden, 2021; Hyland-Wood et al., 2021). The Aotearoa New Zealand government’s Covid-19 response was lauded locally and internationally, highlighting communication as the key to success in eliminating the virus in the first six months of the pandemic (Frieden, 2021; Greive, 2020; McGuire et al., 2020; Provoke Media, 2020)

While the initial government response in Aotearoa New Zealand has been shown deserving of this praise, there were some contributions to the country’s communications effort that have been overlooked by the academic community. In one instance, the collaboration of microbiologist and science communicator, Dr Siouxsie Wiles, and illustrator and creative director, Toby Morris, created social-media-friendly communications that translated the complex science of Covid-19 into easy-to-understand GIFs, short for Graphic Interchange Formats, which can produce brief looping animations (Cyber Definitions, n.d.). This research asks what characteristics of the Morris and Wiles collaboration helped people navigate the Covid-19 VUCA situation. This study also asks whether a counter-VUCA model might exist that is appropriate for a public communication context; one that helps mitigate the common pitfall of answering a complex situation with confusing messages. It goes on to highlight how the findings from this study support the model of VUCA Prime as a way for communicators to navigate a VUCA situation.

3.1.1. Background: VUCA and Covid-19. Since the start of the pandemic, much has been written about Covid-19 and its significance for different scholarly fields. The implications of Covid-19 as a VUCA state have been explored in education (Hadar et al., 2020; Myung & Kimner, 2020), organizational development (Ey et al., 2021), music (Tolmie, 2020), leadership studies (Worley & Jules, 2020), and healthcare (Maini et al., 2020; Sturmberg & Martin, 2020). While the nature of the VUCA impacts defined in these studies varies from larger existential issues arising from Covid-19 to role-specific experiences in the day-to-day, a key theme of the literature is the application of adaptability, versatility, or flexibility for combatting the drawn-out VUCA state that the pandemic has presented.

Several attempts have also been made at creating an acronym to counter VUCA. VUCA Prime, created by futurist Bob Johansen (2007), is one of the earliest counter-models to VUCA and is widely referenced by business and leadership practitioners (Clayton, 2019; Clio, n.d.; di Bartolomeo, 2019; O'Shea, 2017). VUCA 2.0, coined by Bill George (2017), has also gained a significant amount of traction (Confederation for Indian Industry, 2019; Mitchell, 2021; Tidwell, 2020). Some have conflated the two, using George's title with Johansen's descriptors (Faecks, 2021; Yoder-Wise, 2021) or using some of the terms interchangeably (Vuca World, n.d.).

VUCA	**VUCA Prime (Johansen 2007)**	**VUCA 2.0 (George 2017)**
Volatile	Vision	Vision
Uncertain	Understanding	Understanding
Complex	Clarity	Courage
Ambiguous	Agility	Adaptability

Table 1: VUCA and counter-VUCA models.

Both VUCA 2.0 and VUCA Prime were created for business leadership purposes, as Johansen (2007), and later George (2017), were looking to combat the increasingly VUCA state of the modern business world. This study came to focus on Johansen's (2007, p. 177) VUCA Prime and his "rules of thumb to follow as you figure out how to make your peace with your own VUCA world." Johansen argued for a compelling vision, understanding based on trust, a clear,

well-framed message and the agility to let the events of the VUCA world shape actions and outcomes. Each of the four terms of VUCA Prime will be discussed in more depth throughout the course of this article.

3.1.2. Public health crisis and communication. Since Aotearoa New Zealand successfully eliminated the first wave of Covid-19 from the community in May 2020 (Cousins, 2020), Prime Minister Jacinda Ardern and her government's communications response have been praised, studied, and critiqued in both the media and academic literature. A local news website editor (Greive, 2020) and senior academic (Wilson, 2020b) both called the communication campaign a masterclass and two of the country's leading epidemiologists deigned her leadership "brilliant, decisive and humane" (Baker & Wilson, 2020, para. 10). Aotearoa New Zealand topped various ranking lists of countries throughout 2020 and early 2021 for its pandemic response (Lowy Institute, 2021; Provoke Media, 2020) and public support for the strict measures increased during the initial lockdown period (Manhire, 2020).

Beattie and Priestley's (2021) thematic analysis of the daily media briefings holds Ardern up as an exemplar of crisis communication, while Craig (2021) argued her regular calls for kindness from New Zealanders towards each other was a useful tool in controlling her positive political image. McGuire et al. (2020) analysed a wide range of media texts, concluding that Ardern's leadership persona evolved throughout the period of the initial lockdown from a strong, decisive leader to a fellow human going through the same lockdown experience, the latter emphasised by her use of Facebook Live from a home setting.

A part of the success of Aotearoa New Zealand's communication campaign during this initial wave was due to Ardern's ability to lean on experts and rely on their work when and where appropriate. Jamieson (2020a) praised the speed with which the Ardern government acted, and he is one who recognised the science communicators who aided the government's response. He fleetingly mentioned Toby Morris and Dr Siouxsie Wiles, as did Freeman et al. (2022) in their study of the implications of Covid-19 on children and families in New Zealand and the Pacific. What is lacking in the literature is a study of how the work created by Morris and Wiles connected with the people in Aotearoa New Zealand and beyond. Kearns and Kearns

(2020) argued comics should play a significant role in communicating through the pandemic due to their proven history in delivering vital health information. They asserted that the storytelling of comics lends itself to better understanding and sense-making when compared to the knowledge-deficit model common to the communication of science.

3.2. Methodology

This study contextualises the collaboration of cartoonist Toby Morris and microbiologist and science communicator Siouxsie Wiles within a VUCA framework. The effectiveness of two key media texts created by Morris and Wiles was analysed against the theory of advertising creativity; a theory that relies heavily on practice and the writing of practitioners rather than academics. This theory came to the fore due to the researcher's own professional and academic background, as well as Toby Morris' professional history in the advertising industry. Creative advertising theory is also applicable in a VUCA context due to the shared focus on clarity of message (Bernbach, 1989; Camp, 2008; Sullivan, 2022). The analysis of two of their most widely shared GIFs is summarised in the following sections.

The second half of the analysis is based on semi-structured interviews with Morris and Wiles. Conversational in style, these interviews were designed to shed light on Morris and Wiles' methods, processes, and intentions in creating the work, specifically, the two GIFs mentioned. For the purposes of this study, Toby Morris and Siouxsie Wiles were interviewed separately, once each via Zoom video-conferencing for a duration of approximately 90 minutes. Deploying a thematic analysis approach, as outlined by Elo and Kyngäs (2008), these semi-structured interviews were coded thematically using NVivo analysis software. The key terms of VUCA were included as keywords while other themes and keywords were identified inductively throughout the coding process. Subsequently, the corresponding terms of VUCA Prime and VUCA 2.0 were applied as keywords and coded against the interview data. Further iterations of coding ensured it was thematically appropriate and methodologically sound, with minor and irrelevant themes being discarded throughout the process. VUCA 2.0 was later eliminated from the analysis due to its similarities to VUCA Prime and the lack of occurrences of the VUCA 2.0 term *courage* in the early stages of coding. VUCA and VUCA Prime terms were then matrix-

coded against themselves, each other, and previously identified themes to identify patterns and correlations. Findings focus on the two keywords with the most references (*accessibility* and *values*) and the terms derived from VUCA and VUCA Prime.

3.3. Analysis

This study focuses on the collaboration between Dr Siouxsie Wiles and Toby Morris. Dr Wiles had been writing articles for the New Zealand online magazine and news website, The Spinoff, about Covid-19 since January 2020 (The Spinoff, n.d.). Wiles began working with Morris in March 2020 as the first cases of Covid-19 reached Aotearoa New Zealand. The following analysis sheds some light on how the collaboration formed and analyses two of the key Covid-19 communications they created.

3.3.1. A counter-VUCA collaboration. Johansen (2007, p. 177) stated the importance of *vision*, "In the face of volatility, people need a sense of direction, and leaders have a chance to provide intentionality and purpose." Dr Siouxsie Wiles took it upon herself in the early stages of the pandemic to write and share informative articles about the virus (Wiles et al., 2023).

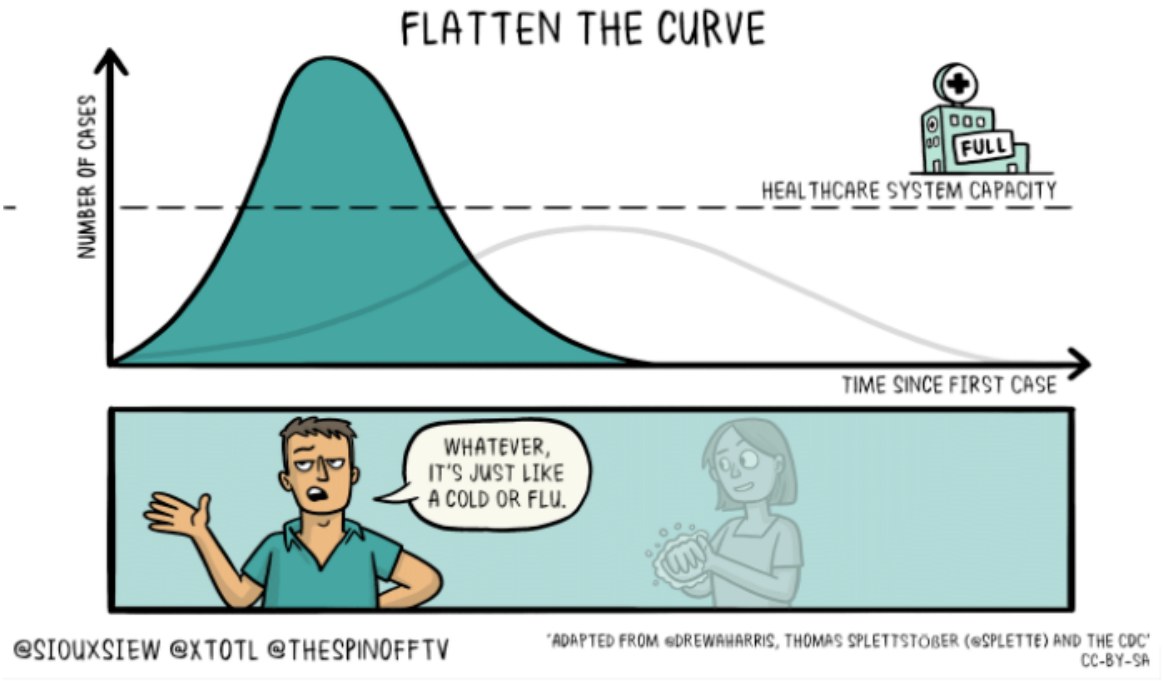
When Dr Drew Harris, a population health analyst at Thomas Jefferson University, Philadelphia, published his version of the flatten-the-curve graph (Harris, 2020), Wiles understood what he was trying to communicate and contemplated how she could improve it. She contacted The Spinoff to see if Toby Morris was available to illustrate a new version of the Drew Harris graph. Morris, who had been following Wiles' articles, dropped his other work to contribute to the pandemic response. Consistent with the VUCA pressures, the gravity and urgency of the pandemic meant that within an hour of Wiles' request, she was on the phone with Morris planning a revised version of the flatten-the-curve graph (Wiles, S., personal communication, 7 April 2021). By the next morning, their flatten-the-curve GIF was live on The Spinoff and was rapidly shared across social media.

Even in the very first stages of collaboration, the four elements of VUCA Prime were present. Wiles had a clear *vision* of how Morris could aid the *clarity* of her communications. Their adaptation would increase the *understanding* of the audience it reached and both Morris

and The Spinoff were *adaptable* enough to bring her vision to life. While the last two sentences may seem a little heavy-handed, the coding of Morris and Wiles's interviews later in this study highlights how appropriate the VUCA Prime model is to this case study. The VUCA pressures of mounting Covid-19 cases, constant updates on scientific information and, later, new variants and vaccines, nurtured the necessary conditions for Morris and Wiles to continue creating their communications.

3.3.2. GIF #1 - Flatten the curve. The Flatten the Curve GIF (Figure 1), which started the Morris and Wiles collaboration, clearly set itself apart from other Covid-related information. However, it is important to reiterate that this GIF did not present any information that was not readily available online at the time. Instead, it was a reinterpretation of the Drew Harris graph, itself an adaptation of a CDC graph (Figure 2). The crucial difference with Harris' adaptation was the addition of a line representing the capacity of the healthcare system. The idea he intended to get across was that, should the virus be allowed to spread unchecked, the healthcare system would be overwhelmed with Covid-19 cases and unable to provide any of its other vital services (Roberts, 2020). Morris and Wiles' adaptation made the graph easier to understand and actionable for the public, adding the proactive steps people could take to help flatten the curve and slow the spread of Covid-19. In the Morris and Wiles GIF, the two illustrated characters took on two possible counter viewpoints, the repercussions of each character's actions visualised as the image frames changed. The female character who is taking the cautious/advised approach showed the steps that the public could take to help flatten the curve. Encouraging personal responsibility was a key element of the Morris and Wiles collaboration. They were not just giving people a more aesthetically pleasing and simpler way of digesting Covid-19 data, their vision was always to show people what they themselves could do with the information (Morris, personal communication; Wiles, 2021). The work they produced for this GIF, and for all their future collaborations, took the stance of not only explaining the science as simply and clearly as possible but also showing how individuals could improve the situation for themselves and their community.

Figure 1: Toby Morris and Siouxsie Wiles, *Flatten the curve,* 2020. GIF 14.05 x 25.07 cm, The Spinoff. Released under a Creative Commons CC-BY-SA licence; reprinted with permission.



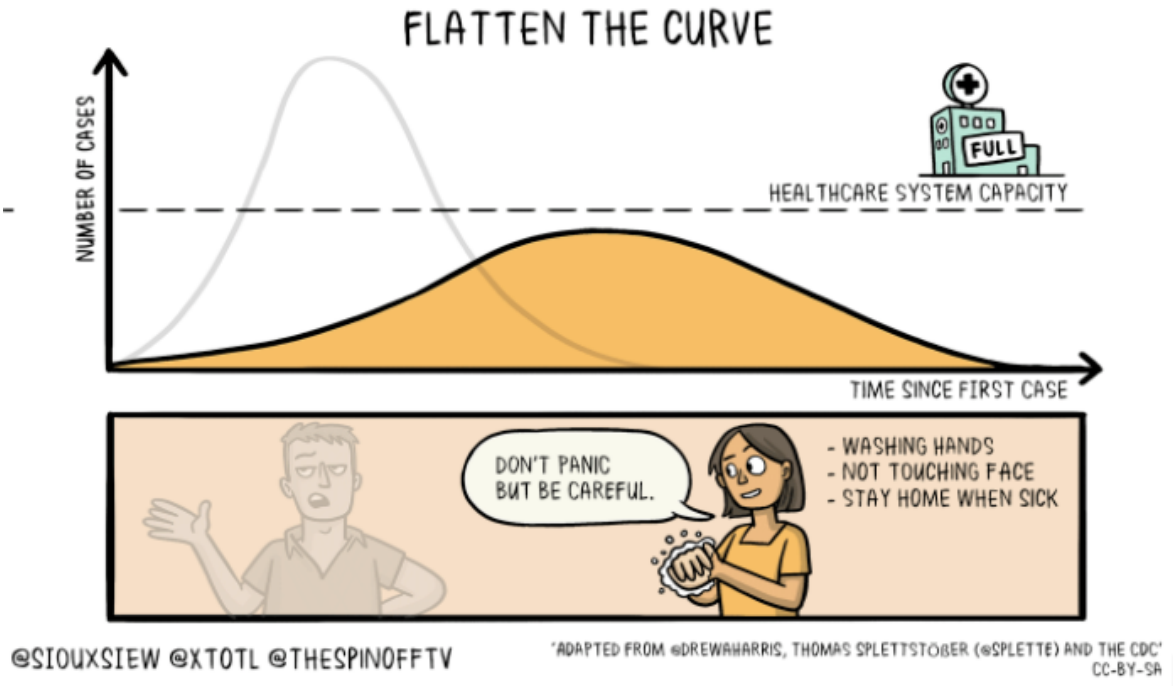
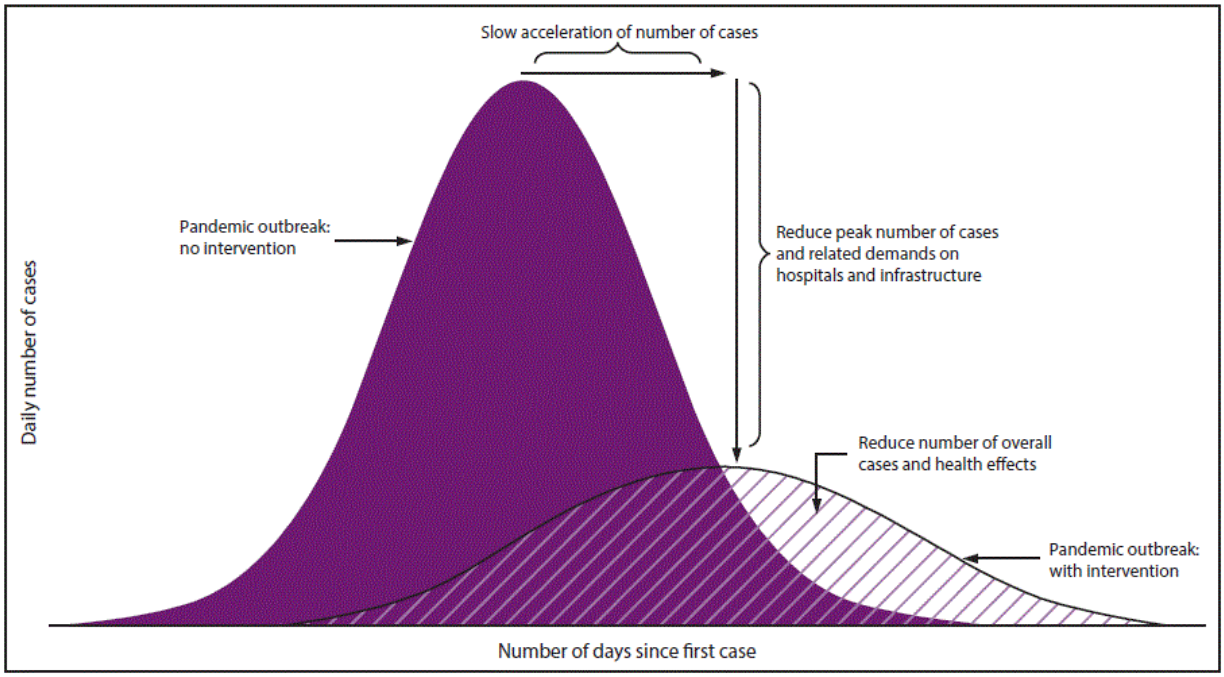


Figure 2: Centers for Disease Control and Prevention (U.S.), 2007. *Interim pre-pandemic planning guidance: community strategy for pandemic influenza mitigation in the United States: early, targeted, layered use of nonpharmaceutical interventions;* © CDC.



Wiles was very clear about her intentions when she first started writing articles on Covid-19 and sharing them through social media; she wanted as many New Zealanders as possible to understand what was happening and what they could do to affect the course of the pandemic (Wiles, 2021a). The built-in feedback mechanism of social media gave Wiles the ability to clarify her stance and prepare her next article based on the public conversation on these channels. This approach is somewhat counter to the scientific deficit model; the idea that a gap in knowledge can be filled by one-way communication (Ahteensuu, 2012; Ishihara-Shineha, 2017). This model prevails in science internationally even though it has been widely criticised (Katsikopoulos, 2021).

Wiles' ability to reach people where they were was amplified through her collaboration with Morris. His illustrations made her work even more accessible. Morris stated, "We wanted people to take some responsibility and take some ownership [...] take it seriously and make good choices." By translating, rather than solely presenting scientific information to the public, and by showing the reader the two extreme examples of best and worst behaviour, they purposefully interpreted the data and made it relevant and applicable for the intended audiences.

The following quote from the pioneer of modern advertising, Bill Bernbach (1989), highlights one challenge of science communication during VUCA times and provides a rationale for the success of Morris and Wiles work.

> There are two attitudes you can wear: that of cold arithmetic or that of warm human persuasion. I will urge the latter on you. For there is evidence that in the field of communications, the more intellectual you grow, the more you lose the great intuitive skills that make for the greatest persuasion - the things that really touch and move people. (Bernbach, 1989, p. 8)

Morris' visual communication, combined with Wiles' vision, set this communication apart from its predecessors by using "warm human persuasion" (Bernbach, 1989, p. 8). The use of colour, cartoon-style characters and the animated nature of the GIF meant that Morris and Wiles' message was available to people on social media channels and in the language of social media. In contrast, the scientific graphs permeating social media at the time fit into the "cold arithmetic" Bernbach spoke of as the alternative. These other graphics often took the form of growing line graphs and exponential curves (Catanzaro, 2020; Zaiets et al., 2020) showing the cold hard science of the virus but not showing people how they could act. Through a VUCA Prime lens, when compared to the original CDC flatten the curve graph, or the Drew Harris reinterpretation, Morris and Wiles' version was much easier to comprehend and associate with. Morris' addition of a small cartoon hospital with a full sign added clarity to Harris' capacity line and highlighted the point he was trying to make; with an unchecked spread of the virus, the healthcare system would be quickly overwhelmed.

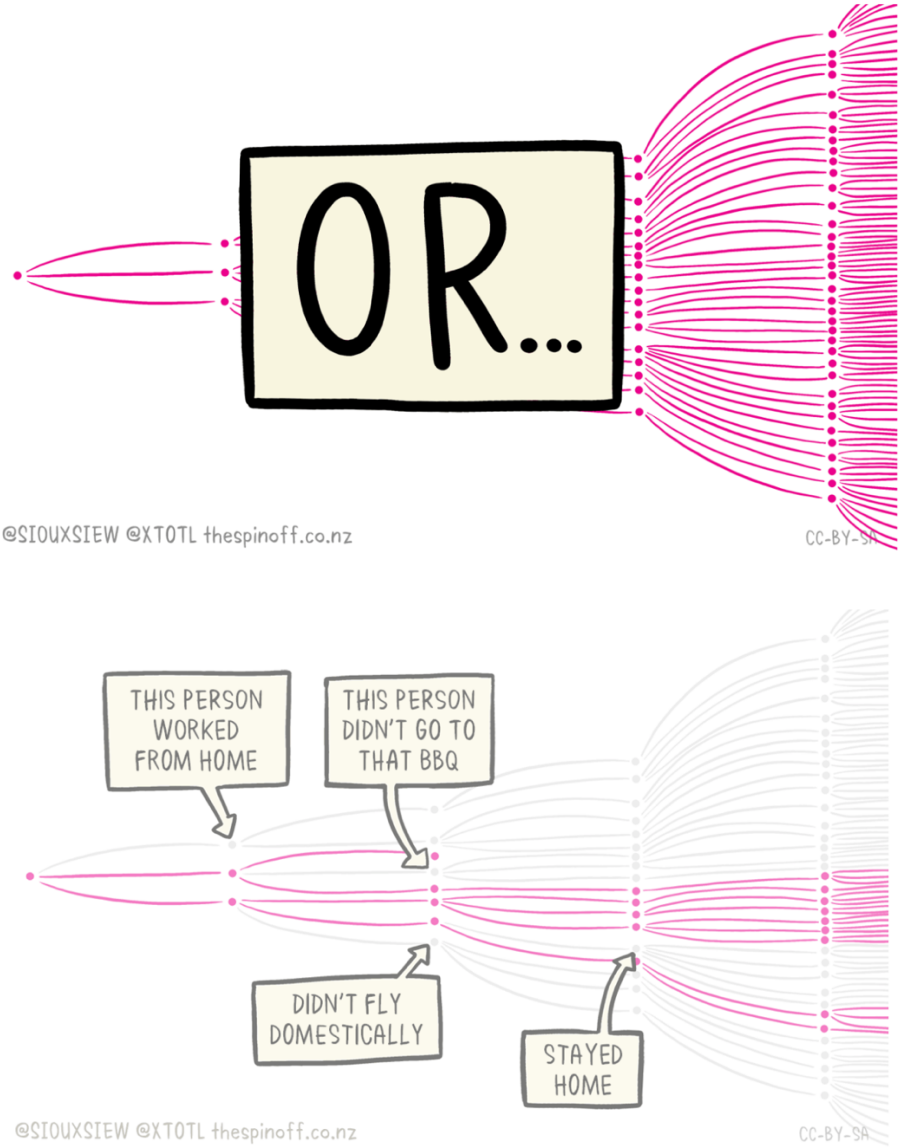
The public who interacted with the Morris and Wiles visualisation required fewer steps to read and interpret the message than they did for the original graphs, as the GIF is laid out in a way that makes for fast content processing. The illustrated graph is a clear example of Sullivan's (2022, p. 115) "quick-get"; the concept that the most important aspect of communicating an idea is how fast you can get it across to your audience. This thought was reiterated by Johansen (2007, p. 178) himself when he stated, "Framing a message is critical... Framing is a first step toward clarity, and clarity is so important for people who have exceeded their own personal thresholds for complexity and understanding." Especially when life-saving

information is coming from multiple sources, and the science is constantly being updated; an urgent VUCA situation.

The preceding shows how Morris and Wiles' Flatten the Curve GIF unknowingly utilised components of the VUCA Prime model. Not only did the simplicity and accessibility of the cartoon version of the graph add *clarity*, it also gave the public of Aotearoa New Zealand a *vision* of how they could take action to combat the virus and avoid the worst-case scenario. They were giving the public the opportunity to do what Johansen suggested when he created VUCA Prime. The full title of Johansen's work, *Get There Early: Sensing the Future to Compete in the Present* (2007), is an appropriate analogy for how Wiles approached getting information to the general public. Flatten the Curve, and subsequently Break the Chain, were what Johansen would call getting there early to be able to adapt to the VUCA situation as it changes.

3.3.3. GIF #2 - Break the chain. The break the chain GIF (Figure 3) was created a couple of weeks into the Morris and Wiles collaboration and is the one that "went doolally" (Wiles, personal communication). The motion of the GIF and simplicity of the story once again follow the premise of the quick-get. The three Rs of persuasive writing, as proposed by Camp (2008, p. 13), state "Remember the Reader and the Result." While the Break the Chain GIF is an animation, it can be categorised as persuasive writing, it was a clear example of communication where the reader and the result were front of mind. Unsurprisingly, the data of this study reiterated how much Morris and Wiles had their readers in mind as they created the work. For those in Aotearoa New Zealand looking for guidance on how to behave as the threat of the virus approached, these GIFs clearly illustrated the repercussions of the choices they would make in the coming days and weeks.

Figure 3: Toby Morris and Siouxsie Wiles, *Break the chain*, 2020. GIF. 1360 x 856 px. The Spinoff. Released under a Creative Commons CC-BY-SA; reprinted with permission.



3.4. VUCA vs VUCA Prime

For the purposes of this study, Toby Morris and Siouxsie Wiles were interviewed separately about the GIFs mentioned above and their wider collaboration. These semi-structured interviews were coded thematically using NVivo analysis software. The key terms of both VUCA and VUCA Prime were included as nodes while other key and descendent nodes were identified inductively throughout the coding process.

It is important to reiterate that a VUCA framework had not been established for this research at the time these interviews took place. The questioning in the semi-structured interviews was to investigate the characteristics and intentions of their collaboration to

determine what made their communications so successful and engaging. The study was not intended to encourage VUCA-related coding. However, subsequent coding using VUCA terms revealed how relevant the VUCA and VUCA Prime frameworks are to this case.

Node	References	Node	References
VUCA	**32**	**VUCA Prime**	**60**
Volatility	20	Vision	21
Uncertainty	9	Understanding	18
Complexity	13	Clarity	18
Ambiguity	2	Agility	12

Table 2: VUCA and VUCA Prime references in original data.

With 60 unique references, VUCA Prime far outstripped any individual coded keyword and had nearly double the unique references of VUCA terms (Fig. 6). Of the VUCA Prime terms, *vision* appeared most commonly with 21 references, many relating to Wiles' clear focus and goals when communicating the science of the pandemic. Johansen (2007) spoke of the clarity of intent and direction of *vision* as a part of his VUCA Prime model. He also stated that "vision seeks to create a future" (Johansen, 2007, p. 58), which speaks directly to Wiles' intentions concerning her writing about the pandemic in the first instance and her subsequent collaboration with Morris. Throughout the interviews with Morris and Wiles, it became clear that Wiles had a vision of New Zealanders working together to get through the pandemic, and this collaboration was a part of how she could help facilitate that future for herself and the rest of the country.

> A really deliberate thing was just – people need to understand what's happening. And they need to do that calmly so that we can get through this together. - Wiles
>
> She said to me the reason I wanted to ask you to work on it was that you are good at making things... putting the audience into things and making it clear why we should care about something. - Morris
>
> I was right to stick with my guns. I was right to learn those skills [science communication]. I was right to take that stuff seriously because when you're in a public health crisis, it turns out that the skills that I had developed over all those years and that expert knowledge of infectious diseases were really, really important. - Wiles

3.4.1. Accessibility. *Accessibility* appeared regularly throughout both of the interviews. The references coded under *accessibility* can be split into three key themes. The first was about helping people understand the message they were trying to convey; *accessibility of understanding*.

> I'm trying to take complicated and sort of niggly issues, or important issues, that people sort of should be talking about and should be thinking about, but it can sometimes be kind of daunting and put those into accessible or approachable, sort of formats. - Morris
>
> We need to phrase things in a way that's understandable and accessible to the broadest possible audience. - Morris
>
> The graphics are being able to then distil and, here's the main point. And if you don't have any time to do anything else, this is what we need you to take away. - Wiles
>
> There's a little hospital with a full sign on it which is very, very, very obvious but I felt like it's just one of those things that saved somebody two seconds of thinking. - Morris

Saving somebody two seconds of thinking is a good analogy for Morris and Wiles' intentions. Aware that people were frantically looking for guidance during this VUCA time, they wanted to help people understand what they were trying to get across and make smart decisions as quickly as possible.

The second theme that arose from *accessibility* was about how easily the public was able to access the work in whatever media channel they were using; *ease of access*. Using graphics to highlight key components of their topics was a cornerstone of the Morris-Wiles collaboration. Wiles' writing was always available to supplement the graphics and it gave readers a more in-depth understanding should they want it, while Morris' graphics communicated key information in GIF format so that it could be grasped while scrolling through a social media feed. Morris was acutely aware of where their audience was, what they were doing under these VUCA circumstances, and where they were most likely to see and engage with their content.

> We're sort of working under the assumption that also people are just sitting at home frantically sort of doom-scrolling. Just, sort of, staying on social media necessarily. That if we can get across as much of the message as we can, without people even leaving that one post, you know, that we can get it in one Twitter post or one Facebook post. - Morris

Reaching people on the social media platforms they were interacting with and sharing information about the pandemic was an integral part of the collaboration and something that was a part of Wiles' vision when she initiated the collaboration with Morris.

The third and final theme revolves around the access they gave other communicators to their work; *professional accessibility*. Both Morris and Wiles emphasised that their graphics were published under a Creative Commons licence, which meant they could be shared and repurposed without explicit permission as long as the authors were credited. This gave communicators around the world access to their work as a tool in their own communication campaigns against Covid-19. Wiles identifies herself as a strong proponent of open-access research (Open Access Australasia, 2020; Wiles, 2021b) and wanted to extend the same principle to their creative output.

> It was a very, from our perspective, was a very explicit, 'You're welcome to take this. So, take it.' - Wiles

> Usually, the instinct was to be quite protective of [my work] but whereas Siouxsie's more, you know, her sort of outward-looking science focus, kind of thing, was like, 'the more people that hear this the better.'
> - Morris

3.4.2. Values, expertise and personal responsibility. The reference that appeared the most after accessibility was *values*. Reflecting on the careers of Morris and Wiles, on some of their own explanations throughout the interviews, and the key messaging from Prime Minister Jacinda Ardern and the Aotearoa New Zealand government during the same phase of the pandemic, it becomes clear how and why *values* featured so heavily in their interviews. Morris and Wiles both spoke of their shared values, and how each of them had made an impression on the other before they even thought of working together. Themes of *mutual professional respect* and *shared values* emerged; the two were seldom mutually exclusive.

Morris and Wiles are both experts in their fields. Morris is one of Aotearoa New Zealand's most awarded commercial artists. He has won accolades at the New Zealand News Publishers' Association Awards every year since 2016 (1News, 2020; Bagge, 2016; Newshub, 2019; NPA, 2022; StopPress, 2017; The Spinoff, 2018) and was the 2021 winner of Te Puiaki Whakapā Pūtaiao Science Communication prize (Royal Society Te Apārangi, n.d.-a). His non-

fiction comic strip work for Radio New Zealand and The Spinoff, under the banners of *The Pencilsword* and *The Side Eye* respectively, has focused on social issues affecting New Zealanders. He said himself during this interview that he is aware that a part of the reason he was approached by Wiles was his ability to take "complicated and sort of niggly issues" people should be thinking about and make them less confronting and more accessible. When asked about how this collaboration differed from his previous work, he used the words "public duty." In Morris' mind, this collaboration was important work that had to be done.

Wiles' story is similar. Her journey to science communication came about as a call to the public good while working in the UK. After winning a significant prize for her research on ethical animal use in science in 2005, she was prompted by the sponsoring organization to share her findings with the wider public. The importance of communicating her research is something that has stuck with her. Wiles has been awarded more than once for science communication (Maurice Wilkins Centre, 2013; Royal Society Te Apārangi, n.d.-c), she was appointed a Member of the NZ Order of Merit in 2019 and won New Zealander of the Year 2021 for her science communication efforts during the pandemic (New Zealander of the Year Awards, n.d.). She expressed that she firmly believes, as a scientist working at a taxpayer-funded institution, that "the public have a right to know what we do with their money." Her work in Aotearoa New Zealand has been guided by that same philosophy; by "learning how to communicate in different ways to different people."

When the coronavirus pandemic began, Wiles was reminded of a hypothetical apocalyptic influenza discussion she facilitated on the remote Great Barrier Island off the North Island of Aotearoa New Zealand. There sociologist Professor David Johnstone, from Massey University, explained how it would be the communities that "work together and come together and don't leave anyone behind" (Wiles, personal communication) who stood the best chance of surviving. This stuck with her, and Wiles deliberately aimed at keeping the community at the heart of all her communications about Covid-19. She saw her collaboration with Morris as an embodiment of their shared values, the goal of which was to inform as many New Zealanders as possible so they could keep themselves and others safe from the virus. Upon analysis, it became clear that the theme of personal responsibility that ran through their communications during the

pandemic was also something that drove them on a personal level; both felt the responsibility to use their professional skills to benefit the community.

In spreading their message as far and wide as they could, Wiles' values came to the fore in another way. It was she who pushed to release their work under the Creative Commons licence to get it to as many people as possible. "It was about sharing and the message being really important", she said. The message Morris and Wiles were trying to get across was similar to the "be kind" and "team of 5 million" messages from Prime Minister Jacinda Ardern. Craig (2021, p. 302) suggested Ardern's call to kindness was a form of political control, a way of maintaining a carefully constructed political image, "particularly when it was supported by competent management of the crisis." While Craig's reasoning is clearly outlined regarding the political discourse, there is more to be said about why kindness was "appropriate given the nature of the infection that threatened the population" (Craig, 2021, p. 302). The values of kindness and community have been important in helping the public of Aotearoa New Zealand navigate the Covid-19 crisis. While some of Ardern's stock phrases have become clichés in the lexicon of Aotearoa New Zealand's Covid response, they were key in the success of the government communication "masterclass" (Greive, 2020; Wilson, 2020b). The same could be said of the Morris and Wiles collaboration. All of their work was created to give the public agency over their actions and to put their community first, a goal shared by Wiles, Morris, and Ardern.

3.5 Discussion

3.5.1. Summary of findings: A proof of VUCA Prime? The collaboration of Morris and Wiles and its "simple and human approach to a once-in-a-lifetime problem" (Best Awards, 2020, judge's comment) greatly aided the public as they navigated the early stages of the pandemic, helping them understand what was happening. Gladwin (2020) highlighted the affordance of digital storytelling for creating empathy and social momentum for environmental causes. Similarly, the Morris-Wiles collaboration has "affect[ed] change through empathy-driven media texts" (Gladwin, 2020, p. 285)

When analysed through a VUCA framework, the Morris-Wiles collaboration reveals the strength of Johansen's (2007) VUCA Prime as a counter-model in a communication context.

> **Vision.** Wiles had a clear vision of what she wanted to achieve with her communication of the pandemic from the outset. The resulting work of her and Morris' collaboration also gave readers a clear vision of how their actions could impact the course of the pandemic.
>
> **Understanding**. Similarly, Wiles knew that her understanding of the science could aid the understanding of New Zealanders facing a VUCA threat.
>
> **Clarity**. The importance of clarity featured heavily throughout the interviews. When Morris won the 2021 Prime Minister's Prize for Science Communication, he stated that "clarity is the number one goal" (Royal Society Te Apārangi, n.d.-a).
>
> **Agility**. Morris and Wiles took an agile approach to working throughout the pandemic, updating their message as the science and best advice around the virus changed, as well as putting their other work commitments on hold to contribute to the pandemic response.

3.5.2. Agility, accessibility or clarity? This study shows that the Morris and Wiles collaboration fits into the VUCA Prime model (Johansen, 2007). The data also make an argument for an amendment when it comes to communicating a solution to VUCA issues; replacing *agility* with *accessibility.* While it was necessary for Morris and Wiles to be agile in the way they worked during the pandemic, accessibility was key to the success of their communications. What set the work of this collaboration apart from other science communication of the time was its ease of accessibility and ease of understanding; it was created for the social media platforms it was to be read and shared on and easily understood by people of all ages and backgrounds. However, the similarity between *clarity* and *accessibility* makes the amendment questionable, especially when talking about accessibility as an ease of understanding. If we were to fold *accessibility* into our understanding of *clarity*, this researcher proposes the following model as a VUCA Prime for Communication:

> **Vision** – A clear understanding of the goals your communication is to achieve.
>
> **Understanding** – Communicators must have access to the expertise to fully understand the issue and communicate the solution or mitigation in a way the reader understands.
>
> **Clarity** – Ensure your communication is simple and accessible. Reach people where they are, frame your message in the simplest way possible and design it for the media they use.
>
> **Agility** – Follow the plan to navigate your VUCA situation but remain flexible to adapt as the information changes.

3.6. Conclusions

In the early stages of the Covid-19 pandemic in Aotearoa New Zealand, the GIFs created by Morris and Wiles gave members of the public both an understanding of what was happening and guidance on how they personally could affect the course of the pandemic. Informed by their expertise and shared values, Morris and Wiles' work and communication processes provided insights into how it was possible to deal with a VUCA problem with clear, accessible communication.

This study has found that the model of VUCA Prime (Johansen, 2007) stands up as a relevant counter for communicators in a VUCA situation, in this case, the early stages of the Covid-19 pandemic. It has also shown the importance of accessibility in communication. Ease of access and understanding were both vital to the success of the Morris-Wiles collaboration. They created messages for the media in which they were to be consumed with a distinct focus on making everything they produced as easy to understand as possible.

The theme of personal responsibility should also not be overlooked. Their sense of responsibility was evident throughout their interviews in the way they felt obliged to use their expertise to help their community, and ultimately the global population, understand the science as the pandemic progressed. The communications that came from this collaboration were clearly produced to give the public clear steps to improve their personal and community situation heading into the pandemic.

As this is but one example, based on interviews with the two main collaborators and supported by a media-text analysis, there are limitations to the extent conclusions can be drawn or models extrapolated from the data. However, the findings from the analysis of the GIFs and the interviews stand up against advertising theory and the VUCA Prime model stands up in a communications context. There is an opportunity for

further research that tests whether VUCA Prime is the best model for communicators to navigate VUCA problems. Whether this takes the form of analysis after the fact or a conscious adoption of VUCA Prime while communicating crises, there is little doubt there will be ample opportunity to do so.

Chapter 4. Bubble Formation: Exploring Metaphor as a Non-Pharmaceutical Intervention.

The manuscript that makes up this chapter has been prepared for submission to the Journal of Health Communication. It has been submitted as part of this thesis before submission to the journal.

Early in the research process for this thesis, one of the key elements of Aotearoa New Zealand's response to the Covid-19 pandemic was identified as the metaphor of the bubble. Prior to the pandemic, "living in a bubble" could be used as an insult to suggest that the subject of conversation was unaware of what was really happening in the world around them.

In 2020, just before Aotearoa New Zealand headed into their first lockdown of the Covid-19 pandemic, Prime Minister Jacinda Ardern used it as a new metaphor. The bubble now came to mean the small group of people New Zealanders were to be isolating with. Using a crisis communication framework, this study draws from metaphor theory to ask how the metaphor of the bubble caught on so fast and how it aided the Aotearoa New Zealand communication response to the pandemic during the first wave in early 2020. Data drawn from a focus group in late 2020 was analysed alongside semi-structured interviews with three key actors from the government's communication team, former Prime Minister, Dame Jacinda Ardern, the Prime Minister's Chief Science Advisor, Dame Juliet Gerrard, and the then-Director General of Health, Sir Ashley Bloomfield, shows the importance of simplicity, context and trust in how the public embraced the bubble.

While other countries tried to adopt the word, they were either too late or had otherwise changed the meaning of the word in a way that watered down its effectiveness. The metaphor of the bubble was a unique part of Aotearoa New Zealand's response and warrants an investigation to see how, if at all, it helped eliminate Covid-19 from our shores.

4.1. Introduction

> Whatever your bubble is for the month is the bubble that you must maintain. That has to be a small group of individuals who [are] part of your bubble… Keep your distance from anyone outside of your bubble. And that's how we'll get through this.
>
> – NZ Prime Minister Jacinda Ardern, March 24, 2020

This is the first public mention of bubbles in the context of Covid-19 by then-Prime Minister Jacinda Ardern, early in 2020. This first mention was on a Tuesday. By that Thursday, the people of Aotearoa New Zealand were living in their bubbles and both the general population and news reports were referring to them as such (Carroll & Daly, 2020; McLachlan, 2020; RNZ, 2020; Wiles, 2020)

This study explores how the metaphor of the bubble caught on so fast and how, if at all, it helped Aotearoa New Zealand eliminate Covid-19 twice.

4.1.1. Origins of the bubble. The bubble was not a part of the Government's Covid-19 communication strategy (Ardern, J., personal communication, June 26, 2023). Then Director General of Health, Dr Ashley Bloomfield used it once during a media conference earlier on March 24. The same day Ardern first used it. Ardern however, used it eight times to answer a single question. Her response was to a question about custody-sharing parents during the upcoming lockdown (Devlin & Manch, 2020). It was a concept that caught on instantly in the comments of the Facebook Live video of that media conference (Ardern, 2020b). Ardern's Chief Science Advisor, Professor Juliet Gerrard, stated that she instantly latched onto the metaphor, telling Ardern, "[I] love bubble. Siouxsie loves bubble. Everybody loves bubble. Let's do bubble" (personal communication, August 8, 2023). In the following days, explainers from different media (Devlin & Manch, 2020; RNZ, 2020; Wiles, 2020) and the Ministry of Health (Ministry of Health - Manatū Hauora, 2020) clarified what a bubble was and how it could be used to protect yourself, your loved ones and your wider community. By the time the population of Aotearoa New Zealand was in lockdown, less than 48 hours later, "bubble" had

become a part of their vernacular and most New Zealanders stuck to their bubble over the coming weeks.

As a metaphor, the bubble was quickly understood and lent itself well to this form of isolation. However, rather than being a well-prepared communications tool, Ardern's delivery suggested it was rather an impromptu way of helping people understand how to best isolate over the coming weeks. The speed with which science communicators, media and the public took up the metaphor suggests it quickly became a shorthand reference for this new way of living and to communicate the precautions needed to protect themselves and each other from the novel coronavirus.

4.1.2. Bubbles and other metaphors. The word bubble has been regularly used as a metaphor for various situations common to modern life. In economics, share-market or housing bubbles are indicators of an overinflated market with any impending pop of these bubbles regularly discussed and debated by academics (Harwood, 2006; Tookey, 2017; Van Der Yeught, 2007), analysts and media commentators (Bell, 2023; Nasdaq, n.d.). Bubble has also been used as a metaphor to describe expatriate communities (Miao et al., 2023), suburban middle-class society (Kato, 2011), and the individual (Sloterdijk, 2011).

Metaphors have been used in many ways by many governments throughout the pandemic. Castro Seixas (2021) analysed the use of militaristic metaphors by various leaders in the early stages of the Covid-19 pandemic, concluding that metaphor analysis could be a valuable tool in crisis communication. She stated that while the use of war metaphors had received criticism for its violent, power-based nature, it was used by many leaders to prepare the public for hard times; the situation is as serious as war. These militaristic metaphors, she argued, also foster unity and resilience in communities that band together against a common enemy. Castro Seixas brought together crisis-communication theory with critical metaphor theory, concluding the war metaphors themselves were not inherently negative, rather the subtleties of language and context allow these metaphors to be employed in a variety of ways, including invoking compassion and care. She pointed out that there was no correlation between leaders' use of the metaphors and the efficacy of their Covid-19 response. While comparisons to war are

something Ardern (2023) tried to avoid, her address to the nation on March 21, 2020, gave the impression of a leader at war. Her announcement of a system of alert levels was broadcast at midday on a Saturday from her office in the Beehive (New Zealand's Houses of Parliament) with a picture of Michael Joseph Savage, the Labour Prime Minister who declared New Zealand's involvement in World War II, looking over her shoulder. The bubble, first used by Ardern just two days later, presented a much softer way for the public to think of the impending isolation.

In 2020, shortly after New Zealand had eliminated Covid-19 for the first time, Trnka and Davies (2020) argued for changes to the bubble metaphor. Their study was designed to improve the use of the metaphor as a tool for other nations facing Covid-19, with a specific focus on those living alone or in non-family households. They acknowledged the metaphor of the bubble as "central to the New Zealand success story" (Trnka & Davies, 2020, p 167). They saw the connotations of bubbles as being light and playful, often something children are found to be playing with. This, they claimed, offset some of the negative language, such as lockdown, quarantine and distancing, used for similar purposes. Burnette and Long (2023) echoed this sentiment, referring to the language of bubbles conjuring "nostalgic whimsy" (p. 99) as well as emphasising their link to soap, safety and cleanliness. They observed the positivity and humour of tweets that included the word bubble as opposed to the negative sentiments expressed by those tweeting about lockdown.

Trnka and Davies' (2020) findings critiqued the impact of the lockdown on non-family, multi-person households, which make up 5% of the populace. While their findings pointed to some needed improvements to the bubble concept, especially for those living in shared accommodation, they did also identify a willingness in many of their participants to adhere to the "spirit of the restrictions" (p. 48) to reduce the spread of Covid-19. This study aims to address how this metaphor proved so useful for such a vast majority of the populace and what can be drawn from it for future crisis communication.

4.1.3. Crisis and public-health communication. Themes of trust and transparency stand out in the literature about crisis communication (Reynolds & Seeger, 2005), especially in the context of pandemic communication (Bhargava & Nairn, 2023; Tworek et al., 2020; World

Health Organization, 2005). In their comparative analysis of democratic communications responses to Covid-19, Tworek et al. (2020) proposed that rapid, high-trust, pro-social communication was the best way to use communication to save lives in a pandemic. The World Health Organization Outbreak Communication Guidelines (World Health Organization, 2005) highlight *trust* and *transparency* as two of the five features of good pandemic communication, with the other three working in support of these.

It has been observed that Ardern used the daily media briefings during this first wave of Covid-19 to build trust with the nation (Bhargava & Nairn, 2023; Degani, 2023; Manhire, 2020). Wilson (2020) argued that this daily open-conference style, which included lengthy media question time, increased the transparency of government communications by cutting out any media obfuscation. Bhargava and Nairn (2023) argued that Ardern's communication through this first wave was a "textbook example" (p. 192) of communicating during the initial stages of a crisis according to the Crisis and Emergency Risk Communication (CERC) model (Reynolds & Seeger, 2005; Seeger et al., 2020).

Sandell et al. (2013) emphasised the role the media plays in shaping public perception of a pandemic, especially when it came to communicating the uncertainties surrounding an unknown disease. They argued governments needed to work more closely to include media in their pandemic communication planning. Bhargava and Nairn (2023) reiterated the importance of managing uncertainties and using adaptive leadership to encourage and empower the population despite the uncertainty.

4.2. Methodology

This study uses a crisis communication framework with a pandemic communication lens to focus in on the government communications in the first wave of Covid-19 in Aotearoa New Zealand. Elements of metaphor theory provide the basis of analysis for the bubble metaphor in this study and its comprehension by members of the public. Gibbs and Gerrig (1989) argued, due to their specific contexts, metaphors have no extra cognitive cost when compared to literal alternatives. Alternatively, Noveck et al. (2001) proposed there is an extra

cost to processing a well-chosen metaphor, but that this should be offset by the benefits the use of the metaphor provides.

This study pulls data from multiple sources, the first of which was a focus group held in mid-December 2020. A focus group was chosen to gain insight into the shared understandings (A. Gibbs, 1997) of the lockdown experience. Due to the social limitations of the lockdown measures and the timing of Aotearoa New Zealand heading into a summer free from restrictions, such an organised discussion (Kitzinger, 1994) would provide a deeper insight into participants' feelings and beliefs of their Covid-19 experience than surveys or individual interviews could. While case numbers and deaths from Covid-19 were growing across the world (Blackall, 2020; Taylor, 2020), New Zealanders had eliminated the virus and were living mostly free from restrictions as they headed into Christmas. The Alert Level system was still in place with the whole country at Level 1 (The McGuinness Institute, 2023), vaccines were due to be distributed in the new year and there was a sense from participants in the room that the nation had beaten the virus. Several participants, all resident in Aotearoa New Zealand during the period studied, had connections overseas with representation from British, French and Chinese nationals. Many expressed their gratitude for being in Aotearoa New Zealand and under the leadership of the government at the time.

Participants volunteered through advertisements disseminated through the researcher's own social media channels and those of his department. Inclusion criteria dictated that participants were over 18 and resided in Aotearoa New Zealand for the first six months of 2020. The nine participants consisted of three men (24-65) and six women (20-46). While all participants were residing in Aotearoa New Zealand at the time, the group contained expatriates from France, Britain and China. Pseudonyms have been used to reference participants throughout this article.

Further data is pulled from three in-depth semi-structured interviews. A semi-structured, conversational style of interview was chosen to focus on the research question while allowing the three interviewees, as subject-matter experts, to raise points they found important to the subject matter. It also allowed the interviewer to probe deeper into relevant topics as they arose (Harrell & Bradley, 2009). These interviews were informed by the data acquired from the focus

group and the themes that arose from its initial coding. The first interview took place on June 26, 2023, with former Prime Minister, Dame Jacinda Ardern, at her workplace in Auckland, New Zealand. The interview was arranged via email after an introduction by a mutual connection. At the conclusion of this interview, Ardern suggested a conversation with Juliet Gerrard, her Chief Science Advisor. The second interview, similarly arranged via email, took place on August 8, 2023, with Professor Dame Juliet Gerrard, in her offices at the University of Auckland. Finally, Sir Ashley Bloomfield was interviewed on October 31, 2023, also at the University of Auckland. These interviews lasted 45, 50 and 65 minutes respectively.

Aronson's (1995) pragmatic approach to thematic analysis was employed on the data. The focus group and interviews were all recorded and transcribed using AI transcription software and corrected by the researcher. The focus group was coded and identified themes from this informed the questioning of the semi-structured interviews. The first round of coding was completed using NVivo software. As sub-themes emerged, the process moved to a spreadsheet where over-arching themes were solidified and tested against the literature.

4.3. Findings and Discussion

This study has identified three main themes present in the focus group that were also present in the interviews with Ardern, Gerrard and Bloomfield. The first, *a softer word for a harsh reality,* is about the metaphor of the bubble and the elements that made it a positive reference point for the public of Aotearoa in the first instance. The second, *in one second you get it,* is about the speed at which the metaphor was adopted. This speed of understanding links to the use of metaphor as a natural part of human thinking within an established context (R. W. Gibbs, 2023)

The third theme, *we were so lucky to have those two there*, is about trust, both earned and given. Echoing the literature on crisis communication, trust comes to the fore from both the perspective of Ardern and Bloomfield, as the communicators, and the participants, as the public. Prochazka and Schweiger (2019) defined trust as a relationship between two actors that involves risk. They also stated trust holds a view to the future and it reduces social complexity when used

effectively. For this study, the trustee is the public of Aotearoa New Zealand and the truster is their government communicators: Ardern, Bloomfield et al.

4.3.1. A softer word for a harsh reality. Linguistically, the word bubble is more playful than the harsher language that had, until then, defined how the virus and the restrictions were talked about (Burnette & Long, 2023; Trnka & Davies, 2020). Part of this is due to the bilabial plosive and alliterative repetition of the B sound as opposed to the harsher velar and alveolar plosives (Trujillo, 2002) found in the word lockdown. One participant described this as "friendly language" while another repeatedly referred to the bubble as "cute", due to the combination of linguistic and visual softness and its inevitable link to children.

In reality, the words lockdown and bubble were referring to an identical unprecedented situation that much of the global population found themselves in. Burnette and Long (2023) compared #Covidnz19 tweets containing the words lockdown and bubble. The main difference between the two lies in the nuances of their meanings. One suggested an isolation imposed by the powers that be, including connotations of prison, while the other empowered the New Zealand population to keep themselves, their families, and wider communities safe (Burnette & Long, 2023). This metaphor of the bubble became a tool, used not just by the government but also the wider public, to guard against the virus.

Interviewed as a part of this study, three years after the events in question and having stepped down as Prime Minister, Jacinda Ardern spoke of how she had been using the word bubble behind the scenes for a short time before she first used it in post-cabinet question time on 24 March 2020. "It was a metaphor you could play with in lots of ways. So, I remember there being quite close proximity to when we started using it amongst ourselves to when we used it publicly" (personal communication, June 26, 2023).

Ardern also discussed how the bubble conveyed a sense of fragility, echoing the sentiments of the focus group.

> It kind of alludes to some sort of protective layer, I think, that can be popped though if you don't look after it properly. (Maude, 46)
>
> The word, it kind of had a fragility to it as well. It was the idea that anyone else coming in, your hermetically sealed safe space pops. So it captured

> something without having to explain it. (Ardern, J., personal communication, June 26, 2023).
>
> First of all, it conveys that there's this sort of invisible but real wall around you and that it's fragile as well. And so if you say you need to look after that wall, you need to stay in your bubble and it just it really got to the heart of what we absolutely needed people to do in terms of isolation. Don't break the walls of the bubble or put the walls of the bubble in peril. I think it's, on many levels, just a really clever metaphor. (Bloomfield, A., personal communication, October 31, 2023).

Once again, these two examples illustrate how the bubble metaphor unfolded itself as people thought about it more, revealing more benefits as time and reflection allowed them extra cognitive processing.

There are observations from the focus group that seem to support the thinking of Noveck et al. (2001), with some extra processing, or cost, further benefits arise. Participants, at this point actively reflecting on the semantics of the metaphor (R. W. Gibbs, 2023), overtly referenced the strong visual elements of the bubble; their own experience with real bubbles informed how they interpreted this new metaphorical bubble. Some were reminded of children playing with bubbles, the fragility of them, and the frustration children experience when their bubbles burst. These all played into their own understanding of the bubble as a way for them to protect themselves and the rest of their communities. The metaphor helped them understand the importance of distance, not wanting to be responsible for bursting their own bubble, or the bubbles of other, possibly more vulnerable, people. They were quick to point out the similarities between the metaphorical bubble and actual bubbles. The following examples were revealed when the participants were specifically asked to reflect on the meaning of the metaphor rather than the instant understanding discussed in the following section. Nevertheless, they do reveal benefits of metaphorical thinking that were not necessarily intended in its original use.

> When we went to level three, you could potentially merge a bubble with another bubble. Again, actual bubbles do that, you know? (laughter) You've got two bubbles and they become a giant bubble. So it even worked for that I thought, ‘Ah, that's genius.’ (Maude)
>
> In my mind, I've always had my house in this big bubble. That's always been my image. (Tim, 39)

> I think it helps with the social distancing thing as well because you're keeping at the distance that you won't bump into someone else's bubble, you know. (Maude)

4.3.2. In one second you get it. A strong theme that emerged from the focus group is the power of the bubble as a visual metaphor. Participants discussed the speed at which the metaphor of the bubble was grasped. "You kind of heard the word, the phrase, once and you're like, ok cool, I've got it." (Jack, 24). Jack went on to explain how the simplicity of the metaphor aided this instant understanding, "I know what that is referring to, it's not complicated at all in any way. It's really simple."

Jack's sentiment, and the context, were reflected in the comments on the Facebook Live stream (Ardern, 2020b) when Ardern first mentioned the bubble as a way to think of the people you would spend lockdown with. Within three minutes of Ardern first mentioning the bubble, comments from those watching showed how quickly they had grasped the concept. An Australian user even went as far as tagging their Prime Minister, State Premier and national medical association. It seems reasonable to assume this was an attempt to get them to adopt a similar model.

Timecode	User	Comment
24:16	Julia C	Bubble concept sounds manageable
24:53	Shaun B	Someone is going to ask me later what was said and all I'm going to be able to say is something about bubbles
25:03	Rawinia E	Hope everyone does keep to their bubbles
25:38	Rebecca J	Bubble
26:11	Sue VD	Love the idea of bubble - well done Jacinta (sic) 👍 @ScottMorrison(ScoMo) @MarkMcGowan @AustralianMedicalAssociation (WA)

Table 3. Comments from the Facebook Live of the post-Cabinet briefing March 24, 2020 (Ardern, 2020b)

In terms of the metaphor being picked up quickly and enthusiastically, Juliet Gerrard spoke of how Dr Siouxsie Wiles, a prominent science communicator during the pandemic, messaged her before the Prime Minister had even finished the press conference to say, "I love

bubble, let's do bubble. I'm ringing Toby [Morris]". By this point, Wiles and Morris's work on flattening the Covid-19 infection curve had already gone viral and their partnership was set to continue throughout the pandemic (Halliday, 2023).

Importantly, Gerrard and her colleagues, including Wiles, had been brainstorming terms to use instead of household unit or "infection prevention control". Gibbs stated that "pragmatic goals appear to play a significant, early role in metaphor processing. People do not necessarily first analyse the complete literal or semantic meanings of a linguistic expression before pragmatic meanings are derived" (R. W. Gibbs, 2023, p. 2). This applies directly to the examples above. When Ardern used the word bubble, it took on the role these science communicators had been trying to fill. For the members of the public, the anticipation of Covid-19 was keenly felt, based on what had been observed overseas and the lockdown restrictions, in the form of alert levels, that had been announced three days prior (The McGuinness Institute, 2023). The bubble was so rapidly understood because it gave them a quick way to recognise the group of people they would be living with under the aforementioned restrictions.
Bubbles were interpreted slightly differently by different people but the key thought behind them was understood by those of almost all ages in a very short space of time. Take the following example from a jogger on the fourth day of the first New Zealand lockdown.

> On my outdoor excursion, I was approaching a bubble family consisting of 3 children who were scattered all over the walking path. The father saw me and shouted "BUBBLE FORMATION" and all children immediately snapped back into close contact, 2 metres from me. That's parenting. (Hogan, 2020)

The comments below this tweet showed huge support for the parenting style. While a few overseas commenters asked what a bubble family was, the majority of the responses celebrated the encounter with several conveying the sentiment that they wished it had been filmed.

4.3.3. We were so lucky to have those two there. Referring to Ardern and Dr Ashley Bloomfield, the two leads of the daily media briefings, Bert stated, "We were so lucky to have those two there." The literature on crisis communication emphasises the importance of the public's trust in those communicating urgent pandemic messaging (World Health Organization, 2005). The participants in the focus group had a huge amount of trust in Ardern and Bloomfield which manifested in different ways. For some, it was Ardern's track record.

> I think that Jacinda Ardern had built up a tremendous amount of capital, before this had even started and trust, even [with] people who were politically not aligned with her. (Bert)
>
> Jacinda Ardern and how she handled the... what happened in Christchurch [when 51 Muslims were gunned down by a white supremacist in 2019]. (Zena, 23)

For others, the way Ardern presented information to the public during the pandemic response helped her earn their trust.

> She used to do those live videos on Facebook, and she'd been in her pyjamas. Those were, oh like, she's going through the same that we are. (Amanda, 20)
>
> Jacinda from the outset, she was like, "No, definitely not." She's adamant. And I think that when everyone's feeling flustered, because you're not sure what's going on, having leaders who are firm and know what they're doing and they don't go back on it is quite important. (Gina, 25)
>
> You build trust on results as much as anything. And the fact that they said from the offset, "It's flatten the curve. So it's not gonna change at once, you've gotta just trust us for the first two weeks", or whatever it was, "and then you'll start to see the numbers go down. (Jack)

Dr Ashley Bloomfield also played a large part in building the trust participants had in the government messaging and restrictions.

> He's got a very calm manner about him as well, which again, I think links back to that trust that people have. (Maude)
>
> I'm gonna listen to him. And I feel like that was like, quite a universal thing amongst young people as well like, Ashley's on at 1, it wasn't the C*ovid* announcement. It was like Bloomfield's on at 1. (Sarah, 21)
>
> Her and the combination of having Ashley Bloomfield and his evidence-based approach I think the pair of them. We just wanted to do the right thing. (Bert)
>
> His style of communication as well, which was, I think, very humble. Very transparent. Very evidence/fact-based. And not defensive. Like, you know, they enabled the journalists at the media briefing to ask a lot of questions...

> And it seemed like they were pretty straightforward with the answers, even when some of the things went, maybe not as well as they wanted to. (Maude)
>
> One of the reasons you felt trust, in both of them, was because they were quite certain in their approach. (Gina)

While not every participant was able to articulate why they trusted them as well as the comments above, they emphasised they did trust the Government communications, especially the daily briefings helmed by Ardern and Bloomfield. It became clear that it was the transparency, clarity and consistency of their regular communications that built the trust with the public. Several participants highlighted this by comparing Aotearoa New Zealand's communications with those of their home countries:

> I was following closely what was happening in France. And they were told one thing one week, and then it kept changing, the rules kept changing, the messages kept changing, they didn't have alert, clear alert levels of, Oh, this is not allowed. But this is allowed and who thinks this is completely contradictory. So it doesn't make sense. (Maude*, France*)
>
> There was an eat-out to help out scheme. So you get very heavily subsidised meals out. At the same time, as them saying, don't go out unless you have to. So it's like there's two different people giving out these messages sort of thing. (Jack*, UK*)
>
> The thing as well with the UK and probably a lot of Europe is... it's when they kind of said, use your common sense at the beginning, and people are now trying, it's always cheating the system. Everyone, especially in the UK [is] anti-government. You're like, 'Oh you're not doing anything for me.' So they kind of... you're trying to get around it. Everything they say you're kind of like picking it apart so, as much as, like, in some ways, the government has been pretty awful at times in the UK. (Gina*, UK*)

The above quotations from international participants show how important trust in the government is to the reception of their message. The reverse of this can also be extrapolated from their comments; the clarity and consistency of the messaging from the Aotearoa New Zealand government helped strengthen the trust that existed. As mentioned, there was a sense from the participants that the nation had beaten the virus. Participants talked about lockdown as if they were reminiscing. They talked about other countries in an almost dismissive way. Our communication was a lot stronger and clearer, they said, and Ardern and Bloomfield never swayed far from their core message.

Some members of the New Zealand public took their support of the government to the next level, creating an IMDb (Internet Movie Database) page for a TV series they titled the 1pm

Daily Update, “An (sic) big-star studded New Zealand show that inform (sic), have fun and get people news (sic) hosted by most of the wonderful people in the government, including the president (sic) Jacinda Arden and the Director-General of Health Dr Ashley Bloomfield” (IMDb, n.d.). While there is an element of satire to this, and its origins are likely due to people looking for something to do during lockdown, the posting of this and its current 9.3/10 rating by 1.8k users (IMDb, n.d.), echo the trust of Ardern and Bloomfield that was found in the focus group and Ardern’s own sentiment: “This will only work if we’re moving as a collective.” (Ardern, J., personal communication, June 26, 2023).

4.4. Conclusions

Public health and crisis communication literature hold trust and transparency up as cornerstones of successful crisis management (Bhargava & Nairn, 2023; Reynolds & Seeger, 2005; Tworek et al., n.d.; World Health Organization, 2005). While Ardern eventually lost the trust of much of the public (McClure, 2021), the clarity, consistency and transparency of her government’s communication response through the first wave of Covid-19 engendered trust with the public of Aotearoa New Zealand. This study strengthens this thinking, especially in the context of the early stages of pandemic management.

Ardern and her government’s communications response, whether conscious or not, closely followed pandemic communication best practice models (Seeger et al., 2020; World Health Organization, 2005). Ardern and Bloomfield were aware of the need to take people with them as the country tackled the oncoming pandemic and set about communicating a complex situation with as much clarity as possible, wherever they could reach their public.

It is the clarity of this communication, and the trust it engendered, that laid the context for the metaphor of the bubble to be accepted so rapidly. In the first instance, the bubble was a well-chosen metaphor delivered in the right context, supporting the theory of intrinsic metaphorical thinking (Gibbs Jr. & Gerrig, 1989; R. W. Gibbs, 2023). With extra time and reflection, the bubble metaphor also provided some benefits that not even Ardern had foreseen.

This is consistent with the assertion that there are significant benefits to a well-chosen metaphor in the right context (R. W. Gibbs, 2023; Noveck et al., 2001).

This study supports the idea that, in the case of a public health crisis, trust in the communicator plays a vital role in public adherence to restrictions. It also puts forth that it is this trust that allowed the metaphor of the bubble to be so rapidly accepted by such a large segment of the population.

Chapter 5. A Pandemic by the Book: How the Aotearoa New Zealand Response Unknowingly Followed the WHO Outbreak Communication Guidelines

> The World Health Organization (WHO) believes it is now time to acknowledge that communication expertise has become as essential to outbreak control as epidemiological training and laboratory analysis.
> (WHO Outbreak Communication Guidelines, 2005)

> I'm fascinated by, and really inspired by, the lessons around how to build trust through public communication because I talk about the communications being the most important public health intervention, because we required people to do quite extraordinary things. And they needed to understand why. I think the communication was fundamental there. (Bloomfield, 2023, October 31)

5.1. Introduction

In the early stages of this research project, the World Health Organisation's Outbreak Communication Guidelines (OCG) came to the researcher's attention as a communication framework intended to help government communicators in the exact situation Aotearoa New Zealand's found themselves in at the start of 2020. On cursory inspection, it seemed the government had used these as a framework to guide their communications. However, in the interviews for this research, both Prime Minister and Director General of Health of the time, Jacinda Ardern and Ashley Bloomfield respectively, admitted this was a document that had not come to their attention.

This chapter is a self-contained study that analyses data gathered from interviews with key actors in Aotearoa New Zealand's communication response to Covid-19 in 2020 against the OCG (see appendix 2) to answer the following questions:

> **RQ1 To what extent, if any, did the Aotearoa New Zealand government communication response, in the first wave of Covid-19, mirror the World Health Organisation Outbreak Communication Guidelines (OCG)?**
>
> **RQ2: In what ways, if any, does the Aotearoa New Zealand Government communication response validate the effectiveness of the WHO Outbreak Communication Guidelines?**

5.2. Methodology

This study uses pragmatic analysis, a system of inductive and deductive methods to analyse qualitative data (Ramanadhan et al., 2021). Pragmatic analysis was chosen as this study brings together thematic analysis (inductive themes) and document analysis (deductive themes).

Data for this research was gathered from transcripts of a focus group of nine participants held in December 2020, and semi-structured interviews with the Prime Minister of the time, Dame Jacinda Ardern, the Director General of Health, Sir Ashley Bloomfield, and the Prime Minister's Chief Science Advisor, Professor Dame Juliet Gerrard, held between June and October of 2023. Both the focus group and the semi-structured interviews were chosen for the conversational style that allows for rich detailed data about shared and individual experiences (Harrell & Bradley, 2009).

Initially, the five key best practices of the OCG, explained below, were used as codes to deductively identify similarities and differences between the guidelines and the response.

In the initial round of coding, each interview and the focus group were coded individually. Inductive codes from each were allowed to emerge alongside the overarching and deductive ones. Subsequent rounds of coding allowed themes to emerge from across the various participant sessions.

The original data mentioned above was compared with that acquired from 18 transcripts of government media conferences held between 21 March – 1 April 2020. Document analysis was undertaken on these transcripts with the same five codes obtained from the OCG applied to the data. Patterns and themes were identified to test and supplement those that arose from the original data.

This chapter is broken into two parts. The first deals with the deductive coding to test how closely the response of the Aotearoa New Zealand government followed the OCG. While there is overlap among the five key best practice guidelines and their implementation, in the following discussion the five guideline titles are used as section headings.

The second part of this chapter discusses the inductive codes identified in the data. It explores the findings, and discusses the key themes identified and to what extent the

communication response by the government of Aotearoa New Zealand in the first wave of Covid-19 validated the OCG.

5.3. Outbreak Communication Guidelines Analysis

As mentioned, the following section compares the Aotearoa New Zealand government response to the OCG best practice guidelines. The five guidelines are: trust, announcing early, transparency, the public and planning.

> ***5.3.1. Trust.*** *The overriding goal for outbreak communication is to communicate with the public in ways that build, maintain or restore trust. This is true across cultures, political systems and level of country development.* (World Health Organization, 2005, p. 2)

"In a sense, I think trust is not just one of the five points, it's kind of your overarching goal isn't it?" (Bloomfield, A., personal communication, 31 October, 2023). This begs the question, as Ashley Bloomfield suggests here and the OCG states above, do the four other guidelines in the OCG support the building of trust between government communicators and the public?

It has been established earlier in this thesis that Ardern had built up political capital with the public of Aotearoa New Zealand, especially in the wake of two major crises: the 2019 Christchurch Mosque shootings, in which 51 people were killed by a white supremacist (RNZ, n.d.), and the eruption of Whakaari White Island, an active tourist location, which claimed 22 lives (1 News, 2020), later that same year. Ardern's communication during and immediately following the 2019 Christchurch Mosque shooting has been described as "the defining moment in her time as New Zealand prime minister" (Graham-McLay, 2023). Her empathetic style in the wake of this crisis, and the swift action to ban nearly all semi-automatic weapons (Ardern & Nash, 2019) were one of the reasons focus group participants for this study stated they trusted her leadership in the early stages of the Covid-19 pandemic.

While such examples help, it is hard to quantify the trust Ardern and her government had built at the start of 2020. However, data gathered by the online news and culture magazine, the Spinoff (Manhire, 2020), showed the public's support of the government's national lockdown measures increased as Aotearoa New Zealand came through this first lockdown and

eliminated Covid-19 from within its borders. The Government's Covid-19 response had garnered enough support that the Labour government, under Ardern's leadership, achieved unprecedented support in modern New Zealand politics (Shaw, 2020), earning 50% of the party vote in the 2020 general election (Electoral Commission, 2020). Local and international analyses of the election result (Cheng, 2020; Menon, 2020; Roy & McLay, 2020; Van Veen et al., 2021) were quick to credit the Government's Covid-19 response with the trust the electorate put in them to govern for another term.

Both Ardern and Bloomfield, in their interviews for this research, talked about the many different levels of trust that were needed to lead through a pandemic. One of the key themes that emerged was the viewing of trust as a two-way street. They had to trust the public of Aotearoa New Zealand to do what was needed as much as the public needed to trust them to give them the information they needed to successfully eliminate the virus. As they both pointed out, you cannot enforce a lockdown in a liberal democracy. It must be done with the consent of the public. Clause 1c of the OCG also states that the trust must go both ways. The twice-daily regularity of the pandemic-related media conferences was one way that the government began to earn that trust, showing up every day, sharing the information they had and reinforcing the key messages they wanted to get across to the public.

Ardern did show trust in the public of Aotearoa New Zealand. While the populace had trust in Ardern and her leadership, she had trust in it to do the right thing; "you need to have everyone take a bit of responsibility to make it work" (J. Ardern, personal communication, June 26, 2023). Ardern and her chosen communicators continually put the onus back on the public to do their part, in a positive way. In her one and only address from her Beehive office, Ardern stated, "Here are the things that we need from you", before listing the changes to public behaviour needed under Alert Level 2. This was reinforced by the Director of Civil Defence and Emergency Management at the time, Sarah Stuart-Black, "I think we just need to have that patience to get through this period, but we'll continue to remind people about what the right actions are to take to keep themselves and their families and everyone else safe". (010420 All of Government Press Conference, n.d.)

The OCG states that losing trust has severe consequences, one of which is an increase in fear amongst the public (WHO, 2005, p.2). While framed negatively here, Bloomfield and Gerrard both also speak of fear as a driving factor in the compliance of the public, an observation we will revisit in section 3. The Public.

The OCG also states that trust-building measures can be counter-intuitive "such as acknowledging uncertainty or avoiding excessive reassurance" (WHO, 2005, p 2). While Ardern was not publicly explicit about the action of trust building, she was quick to acknowledge that neither she, nor anyone on her team, had all the answers and they were candid about this throughout their regular updates to the nation. Bloomfield reinforced this when he talked about telling the public "What you know, and what you don't know. And if you don't know, say that straight away, because you only need a half second hesitation, and people think, 'Oh, he's hiding something.'" (A. Bloomfield, personal communication, 31 October, 2023). Ardern and Bloomfield's willingness to "front up" to their knowledge, and lack of, is a good example of Bhargava and Nairn's (2023) adaptive leadership which involves "constant learning, experimenting and engaging with the public to help them understand the complexity of the problem" (p. 190).

The openness and engagement did engender trust in the public. Participants in the focus group articulated their trust in different ways. One participant mentioned a concern about a lack of information and clarity around PPE early on in the pandemic, yet he was also the one who said, "we were so lucky to have those two there."

While trust with the public is the main goal of the first action point of the WHO guidelines, clause 1.b.II., emphasises the importance of trust between "communicators, technical staff and policy-makers" (World Health Organization, 2005, p 2). In these early stages of the pandemic, Ardern led a daily Covid-19 press conference, livestreamed through various traditional, online and social media outlets, two hours after another helmed by the Director General of Health, Dr Ashley Bloomfield, had finished. In making statements and answering questions, Ardern and Bloomfield each kept to their area of expertise and would defer to each other, and their ministerial and public-service colleagues, when appropriate. While they became iconic as a public pairing during the media briefings, even Dr Bloomfield himself did not recall

such a long period apart. In the ten days from Ardern's Alert Level briefing from her office in the Beehive (Houses of Parliament) there was only one time that they stood on the podium together. This occurred on March 29, 2020, the date of the first reported death from Covid-19.

Bloomfield dealt with cases, deaths and medical concerns and specificities, while Ardern was responsible for communicating and justifying her government's policies and the restrictions on citizens, as well as fronting questions from the media. Ardern's Chief Science Advisor, Juliet Gerrard, called Ardern and Bloomfield "gifted communicators and complementary in style" (J. Gerrard, personal communication, August 8, 2023). She also highlighted the fact they both fully understood the issues and communicated them well. "They understood, so we understood," she said.

Gerrard expressed a sense of pride about how the wider science community in Aotearoa New Zealand "leant in" to assist. Part of Gerrard's role was to help communicate with science communicators and to keep the Prime Minister abreast of what had been said in the media. In this early stage of the pandemic, the high-profile science communicators in Aotearoa New Zealand were saying the same thing: stick to your bubble (Deguara, 2020; Hendy, 2020; Wiles, 2020). This was yet another way Ardern's government built the public's trust. The government's response leaned heavily on the science, and in the early stages of Covid-19 this meant that the government's advice echoed that of the experts. Trust in science has been identified in the literature as one of the strong points of this government's communications (Cousins, 2020; Jalil, 2021).

As has been illustrated above, trust was involved in many different parts of the response and between many different actors. Bloomfield explained the different levels of trust that were needed:

> So, the trust thing's on a whole lot of levels. Fundamental to our success was the trust of the public, but I also had to have the trust of the PM and senior cabinet ministers, the trust of my colleagues across government, the trust of the people I was working with in the health system, you know, because I talked to them and they were watching at one o'clock every day to find out what to do next. And to get their… in a sense, their instructions for the next 24 hours and, you know, 'We'll be back tomorrow, same time and listen in, because we'll tell you what's next.' But also, the trust of your team because we were asking them to work to do extraordinary work, and take risks because we didn't know what... we didn't have a game plan. We didn't have a plan. And so

> trust from them that you had their back if things didn't go exactly to plan. It was really important as well. So, there were quite a few dimensions of that trust that were all important. (A. Bloomfield, personal communication, 31 October 2023)

In a similar way, the two daily press conferences were examples of the trust in the roles each person had to play. While Ardern, as Prime Minister, held much of the information and could talk to it, throughout this period she would defer to Bloomfield on specific health-related questions, or the appropriate minister or public servant who joined her in these daily conferences. In many ways, those who spoke at the daily media conferences were demonstrating the behaviour they wanted the public to emulate. This deference to the knowledge of their counterparts showed trust in, and respect for, the roles each of them played.

While the public often referred to them as Jacinda and Ashley, in the daily conferences Ardern referred to Bloomfield as either Dr Bloomfield or the Director General. Bloomfield took this a step further, stating that the first time he addressed Ardern by her first name was the day she stepped down from her role as Prime Minister, such was his respect for the formality of the relationship and the importance of their respective roles. While the respect and the formality were a part of the job, there was an ease and a large amount of trust in their working relationship.

> In terms of how we tag teamed, as it were, I think it was more intuitive. I mean, sometimes it was an obvious political question, or the question was directed at her, or at me, but sometimes it would be directed at me and clearly be a political question, in which case, I was confident she would step in. Or I could say, I think that's a better question for the Prime Minister to answer. But in many respects, it was just intuitive and over time, I guess you get that understanding about, and that trust in each other, so the key thing is that there's no conflict between the responses. There's no daylight between you. So, the responses are congruent, but also are adding value from two different perspectives. (A. Bloomfield, personal communication, 31 October 2023)

The final note on *trust* in the OCG, point 1.d., stated allowing "high-profile critics" (World Health Organization, 2005, p2) to watch and participate helps build and maintain trust. A note that is once again reflected in the government's response when they established the Epidemic Select Committee in March 2020 (The McGuinness Institute, 2023). Importantly, this committee was chaired by the then-leader of the opposition, Simon Bridges, arguably the

highest profile critic any sitting prime minister has. High profile critics could easily be seen as a component of the *transparency* guideline, however, it has been included here to match the format of the OCG.

5.3.2. Announcing early. *The parameters of trust are established in the outbreak's first official announcement. This message's timing, candour and comprehensiveness may make it the most important of all outbreak communications.* (World Health Organization, 2005, p. 3)

Jamieson (2020b) claimed "go hard, go early" (Ardern, 2020a) was the phrase that defined the Aotearoa New Zealand government response. Ardern's first use of this phrase, on March 14, 2020, was before there had been a community case of Covid-19 within Aotearoa New Zealand. However, the virus had arrived at the border, and Ardern announced there would be 14 days of isolation for any travellers arriving into New Zealand. Jalil (2021) uses this to question the premise of *go hard, go early.* While acknowledging the brilliance of the communication response, she argued this was a political catchphrase and there were real delays between the first cases arriving in Aotearoa New Zealand and the implementation of border closures, mandatory isolation and quarantine measures.

However, before "go hard, go early" became a political slogan, the process of *announcing early* had been enacted by the Ministry of Health when they started holding regular Covid-19 media stand-ups. Dr Ashley Bloomfield, then Director General of Health and Chief Executive of the Ministry of Health, held the first Covid-19 press conference alongside Director of Public Health, Dr Caroline McElnay, on January 27, 2020.

The *Announcing early* section of the guidelines suggested that, in a digital world, an outbreak is not possible to be concealed. It emphasised the importance of *announcing early* in support of point 1, *trust*, and point 3, *transparency*. Clause 2.e. II. reinforces the points made under *trust* about incomplete information, "It is critical to publicly acknowledge that early information may change as further information is developed or verified" (World Health Organization, 2005, p. 3). As shown above, this is something communicators established early, especially Bloomfield.

When talking about the speed of the shutting the country down, Juliet Gerrard stated, “I think we did it astonishingly quickly. Considering how hard it is to actually shut down a country. Remembering we're a democracy.” (Personal communication, 8 August, 2023). It was not only the speed of the announcements that aided the response in Aotearoa New Zealand but also the speed of the consequent actions. Both Ardern and Gerrard spoke of the “window” they had in which to make the call. Gerrard also highlighted the fact that nearly all other countries locked down with Covid-19 after their health systems had already become overwhelmed:

> Whichever way you add it up when we have any sniff of COVID we locked down. Because the goal wasn't to suppress it. It was to eliminate it so that we had that lovely window where we're all out at the pub, while the rest of the world was locked down and coughing. So, the two different things were adapting a policy that has worked in a very different political framework to a democracy and pressing the red button much earlier than other people were pressing. – (J. Gerrard, personal communication, 8 August, 2023).

As Gerrard states above rather than just *announcing early*, Ardern and her government acted early each time Covid-19 made its presence felt within New Zealand. While not the first announcement about Covid-19, Ardern’s announcement of the four-stage Alert Level system on 21 March, 2020 (The McGuinness Institute, 2023), had the import of the first official announcement. It was the first announcement in which wide-reaching restrictions were imposed on the whole populace. Prior restrictions had been limited to the border and health recommendations such as washing your hands, not touching your face and staying home when sick. It was this acting early, combined with stricter restrictions than comparable countries that allowed New Zealanders to enjoy relative freedoms for the second half of 2020 while much of the world were in and out of lockdown.

Bloomfield reiterated this sentiment, and the importance of announcing early, when talking about the fact he began running media stand-ups from the Ministry of Health in late January 2020:

> The main reason we did the stand-ups was because already, within a few days, you know, by late January, this issue was starting to get legs. Our media team was starting to be overwhelmed by the volume of inquiries and questions. The idea was to invite the reporters in, do a stand-up. Say, ‘Here's the latest, here's everything we know, have you got any questions?’ and for the first many of those stand-ups, and all the way through, a lot of the responses were, ‘we

> don't know' or 'we were trying to find that information out.' …It was before WHO had even declared, at that time, a public health emergency of international concern. So, you know, in one sense, I'd like to say, yes, we sat down and mapped out and charted out this really careful approach to how we would build public trust. But actually, in many senses… often by the time you recognise or can say this is a pandemic, you're behind the eight ball. It's too late. What you need to recognise is very early on, it has pandemic potential and act accordingly. (A. Bloomfield, personal communication, 31 October 2023)

These media stand-ups came from the daily media requests for updates on the virus as the Aotearoa New Zealand media followed how the virus was tracking around the world. Bloomfield said, "things were changing so rapidly. It was the best way to sort of get the latest information out, instead of having one thousand questions in the inbox."

5.3.3. Transparency. *Maintaining the public's trust throughout an outbreak requires transparency (i.e. communication that is candid, easily understood, complete and factually accurate). Transparency characterizes the relationship between the outbreak managers and the public. It allows the public to "view" the information-gathering, risk-assessing and decision-making processes associated with outbreak control.* (World Health Organization, 2005, p. 4)

As mentioned above, transparency and trust are closely intertwined. Ardern stated she saw her role as a sharer of information. She said her job at that early stage of the pandemic had been to ingest a huge amount of scientific information and find ways to communicate it to the public in the simplest possible terms. Under *transparency*, the OCG (2005, p5) stated, "Transparency, by itself, cannot ensure trust. The public must see that competent decisions are being made." Throughout Aotearoa New Zealand's first lockdown, Ardern's daily press conferences shared with the public the information the government was working with and clearly laid out a plan to get through the coming weeks. As mentioned above, Ardern and Bloomfield would state if they were unsure of something rather than trying to bluff through as other world leaders had, to disastrous results (Paz, 2020; Philips, 2021; Simpson et al., 2022). Gerrard spoke of the openness of the communication coming from Arden and Bloomfield, "there was an honesty about what was known and what was wasn't known. And there's deep understanding of those boundaries by both the protagonists."

The daily Covid-19 update became a part of regular life for many New Zealanders. In the analysis of 18 press conferences as a part of this study, one pattern emerged early and remained consistent throughout; two thirds or more of every press conference was dedicated to answering questions from the media. Of the 18 transcripts analysed, only one dropped below this level and only by a very small margin. Ardern made it clear that the media questions were the main reason they were there. Each day she would open the floor with the phrase, "Happy to take questions" or a variation thereof. This positive language insinuated that she was there to help everyone understand, she had nothing to hide, and the format of the conferences meant she was there to do it on a daily basis. Similarly, Bloomfield concluded many conferences with, "We look forward to seeing you tomorrow", suggesting these crisis-borne conferences had become an important, possibly even enjoyable, part of his daily routine.

The OCG brought up economic arguments as a barrier to transparency and a common refrain against restrictive measures, one seen both in Aotearoa New Zealand and around the world. Within the same paragraph, the OCG also stated evidence suggests that economic recovery is faster for a government who has communicated transparently and established its reputation as an effective outbreak manager (World Health Organization, 2005, p. 4). This prediction turned out to be well founded as by the end of 2020 Aotearoa New Zealand was one of only four countries to have achieved a full economic recovery (Withers & Bloomberg, 2020).

5.3.4. The public. *Understanding the public is critical to effective communication. It is usually difficult to change pre-existing beliefs unless those beliefs are explicitly addressed. And it is nearly impossible to design successful messages that bridge the gap between the expert and the public without knowing what the public thinks.* (World Health Organization, 2005, p. 6)

This fourth component is something Ardern stressed she and her team were constantly trying to get right. Ardern said, with each decision they made they tried to imagine how it would affect different people in different circumstances.

Tworek et al. (2020, p37) spoke of "pulling in citizens and civil society." They highlighted Ardern's use of Facebook Live on the eve of the first national lockdown and how the informality of her social media livestreams cast her as a "fellow citizen" answering

questions through the chat in an ask-me-anything (AMA) style. From Ardern's perspective, she saw these streams as a way of reaching people where they were:

> People use multiple channels. The most important thing is that people are hearing this information. What are some other ways we can share it?
>
> We just can't repeat this stuff enough… even if people are seeing me everywhere, some people will see me once and I felt like it was just important to just be there. Be calm.
>
> Here's just something, perhaps it might make a difference for some people. I did not for a moment appreciate, at the time, how much those meant to some people.
>
> It was literally as we went, our whole principle all the way through was share information as we get it, because this will only work if we all are moving as a collective. (J. Ardern, personal communication, 26 June, 2023)

This mode of communication aligns well with clause 4a of the OCG; "risk communicators teach that crisis communication is a dialogue" (World Health Organization, 2005, p. 6). The comment feed on the livestreams created a way for Ardern to respond directly to concerns. Ardern and Bloomfield also repeatedly spoke of how the content of the daily media conferences was shaped by the conversations that were being had in the public realm. In this case, these were on social media, a public forum that was in its infancy when these guidelines were established.

Ardern's leadership has often been labelled empathetic and compassionate (Maak et al., 2021; Voina & Stoica, 2023). In an interview for this study, she stated how she was trying to do right by the most New Zealanders as possible. There have been critiques that the lockdowns were harder on marginalised and at-risk communities (Trnka and Davies, 2020). Tworek et al. (2020) acknowledge that while this has been an issue globally, countries who had a rapid and effective communication response mitigated this somewhat through feedback loops as the pandemic progressed. In the case of Ardern, this included the comments on social media feeds, often as she was reporting to the nation from her own living room. While there was some positive feedback within the comments section and public discussion of how restrictions are being interpreted, Ardern was quick to admit that some of the comments got "pretty gnarly" (J. Ardern, personal communication, 26 June, 2023).

Bloomfield came to understand the public in his own way with the help of the of the daily press conferences:

> This was the funny thing, you know, I joke about the fact of being asked the same question more than once. And I explained to people why that happened, because each reporter wanted the clip for, or the soundbite for their station. But I came to treat that as a gift because it gave me a chance to give exactly the same answer and repeat my key messages. And I also joked about the fact that I really recognized I didn't have to get annoyed at being asked the same question or being asked what people might think were inane or stupid questions, because the rest of New Zealand was getting annoyed on my behalf. So thanks for having my back. Because I knew even as I stood there being calm and just responding, people were kind of shouting at their TVs going, "This is stupid. Tova's already asked that question", you know, so it was kind of like in the back of my mind... and again, the main thing people needed from me, I felt, and for me it was the best thing, was just be completely even and calm. And to be reassuring as it were. Not to look rattled. (A. Bloomfield, personal communication, 31 October 2023)

Bloomfield understood his role in allaying the fears of the public and sharing information in a way that gave confidence to the public of Aotearoa New Zealand. He also reiterated the sentiment made by Ardern about the importance of social licence; bringing the public with them on the journey to eliminate Covid-19.

> There is no way, in any environment where you police by consent. And where you have one police officer for four or five, five per 500 people and you're not an army state that you're going to be able to rigorously maintain this through enforcement. And so then you need to have everyone take a bit of responsibility to make it work. (J. Ardern, personal communication, 26 June, 2023)

> I didn't crush the curve. We crushed the curve together with our collective kindness because it was that ‘stay home, save lives, be kind’, which I think may have been deliberate or may have just been, you know, one of those things in retrospect, it was a call... I like to talk about leadership as an invitation to collective action. And that's what it was. It was really clear what people needed to do. But the ‘be kind’ gave them something to do. It's different from saying stay home, save lives and look after yourselves. It's saying stay home, save lives and look after each other. Yeah. And people did. They thought, okay, I can ring my neighbour, I can find out if they need anything from the grocery store. I can check in on my friends. It was that mobilisation of the collective kind of response. That was what crushed the curve, because it needed everybody to do their bit. (A. Bloomfield, personal communication, 31 October 2023)

Gerrard and Bloomfield both understood that fear was a driver in the public’s willing acquiescence to the restrictions. They suggested that Ardern used this in her favour when setting

the Alert Levels. When it was suggested to her that by the time Ardern announced the Alert Level system and the nation's move into Alert Level Two, many people were already hoping for the full lockdown of Alert Level Four, Gerrard responded, "Everybody thought that by the time she did it" (J. Gerrard, personal communication, 8 August, 2023). She went on to explain why the Alert Levels began at Level Two and changed to Level Four on the next business day.

> I think it was communicated very cleverly to create social licence for level four… There was a massive debate about whether we started in level two or three. We knew we had to get to four. We knew we had to get there quickly because we were trying to jump through this window before it took off. So you had to convince the entire population there was a plan. It was clearly communicated, there was a risk framework, they needed to understand it. 'And by the way, you're starting here.' And so ultimately level two gave people time to get their head around what was going on… But I think if she hadn't done the behind the desk, 'this is how people who are coping with it are coping. This is a system that we're going to use. It's really simple. It's really clear. Think about it for a minute.' If you hadn't done that, as people understood and absorb the information they started going, but we should be at level four. And it's like, 'yeah we should. Well done people.' (J. Gerrard, personal communication, 8 August, 2023)

Bloomfield suggested that the intended enduring nature of the framework of the Alert Level System itself was an important consideration in starting at Alert Level Two:

> I think why we landed there was because there was a lot of discussion about this. To go straight to, you know, to say, 'here are the levels' and we wanted that framework to be enduring and say, 'Well, we're going straight to level three.' 'Then what's the point of having one and two?' The big challenge of course, and the trick is not to go up, it's how and when you come back down and had to have something to go down to that seems to make sense. (A. Bloomfield, personal communication, 31 October 2023)

To go back to the role of fear, Bloomfield reinforced the use of fear as a catalyst in gaining that social licence. When asked how experiences this time would affect future pandemics, he responded:

> The first part of the response to that is it depends how scared they are. Because for all that our comms and everything we did was on point, people were genuinely scared. We could see what was happening and I was scared. Colleagues throughout the health system, were shit-scared. I mean, because they could see that we all have either lived in and/or worked in and/or know people who have and/or still live and work in the UK and we could see what was happening. (A. Bloomfield, personal communication, 31 October 2023)

Bloomfield went on to describe the despair his colleagues in the health sector were feeling, the "collective sigh of relief" they felt when level four was announced and summarised it with the following statement, "back to your question, I do think it depends again, it depends how scared people are next time."

Another way the government leadership team understood the public was highlighted by Gerrard. She explained how the Alert Level policy Aotearoa New Zealand worked under for most of 2020 and 2021 was adapted from a Singaporean model, which itself had been adapted from Wuhan's elimination model. The key difference with Aotearoa New Zealand was that it was a liberal democracy, unused to draconian pandemic measures. The OCG was created after the successful elimination of the SARS-CoV-1 virus in 2004, with the countries Gerrard referenced as models to emulate during Covid-19 (SARS-CoV-2), Singapore and Taiwan, having successfully eliminated the virus. It was unsurprising these restrictions were followed by the Singaporean public, a populace armed with experience and conditioned by harsh punishments for even minor infractions of the law. Gerrard explained how they understood New Zealanders' tendency to push the limits and bend the law somewhat. This resulted in restrictions that were more stringent than Singapore and Taiwan. As Gerrard explained it, "We've got the spikiest function" on the Oxford stringency index. In other words, rather than bouncing slightly near the top end of the stringency graph as many countries did, when Covid-19 appeared in Aotearoa New Zealand, the most stringent restrictions were imposed. Once the government was certain that it was no longer in the community, however, the restrictions were lifted to be lower than anyone else's; "we were either partying on down or we were locked down" (J. Gerrard, personal communication, 8 August, 2023)

5.3.5. Planning. *The decisions and actions of public health officials have more effect on trust and public risk perception than communication.* (World Health Organization, 2005, p. 7)

The fifth and final key practice of the OCG, *planning*, is the one which the Aotearoa New Zealand communications response diverges from the most. It had been widely reported that Aotearoa New Zealand's healthcare system was ill-equipped to handle a widespread

outbreak of Covid-19 before the pandemic began (Daalder, 2020). Ardern acknowledged this in her interview, while Bloomfield was specific.

> If you look at the Global Health Security Index published in late 2019, the US was the best prepared country for an outbreak. The UK was the second-best prepared jurisdiction, as it is. We were 35th and got a bit of flack at the time. So, preparation and planning is one thing, but it actually comes, at the end of the day, it comes down to how you lead, how you communicate, and how you make decisions. (A. Bloomfield, personal communication, 31 October 2023)

Flattening the curve, the idea of using non-pharmaceutical interventions to slow the spread of the virus, had become an international goal by the time the virus reached New Zealand shores. The New Zealand science communication collaboration of Morris and Wiles, creating a social media friendly version of the graph that went viral globally helped spread this message (Halliday, 2023). While many nations pursued a flatten-the-curve approach to lessen the impact on their healthcare system, Ardern had seen the figures and she could not see how it would work in New Zealand. The best-case scenario still had cases above the capacity of New Zealand's healthcare system.

> I just remember looking at it and thinking we need a new strategy. You know, I couldn't... I couldn't see that information in some of the modelling that was been presented to us around how many deaths it would be and not try an alternative. (J. Ardern, personal communication, 26 June, 2023)

The alternative was elimination. In March 2020, Ardern and her government committed to a zero Covid strategy which meant a sustained social restriction approach to keep Covid-19 from spreading in the community. From this stage forward, Ardern and her government had a clear plan. A four-stage alert level system was put in place and with the help of other non-pharmaceutical interventions, including border restrictions, bubbles and social distancing, New Zealand successfully eliminated the virus. Ardern is very clear that, from her perspective, it was something New Zealanders all did together. However, it is the clarity and consistency of the government messaging that gave the New Zealand public the agency to do what was needed.

While there were many variables at play, Ardern knew that they had to have a plan for any situation:

> Ultimately, we had this new problem that people just needed you to fix to the best of your ability. And my view was, therefore that if we didn't know, we would say it, but we would always have a plan. So you could say, I don't know whether or not the disease is going to do X or Y, but regardless, in the absence of enough information around that, here is our plan. (J. Ardern, personal communication, 26 June, 2023)

Bloomfield echoed these thoughts, with a little more emphasis on the lack of a plan:

> That gives me a sense of confidence when then I can kind of hold that meta narrative, and the Prime Minister's quite the same. And some people criticised her for being too down in the detail, but that's actually for both of us, that's where our confidence lay in knowing that what we were trying to do was assemble a jigsaw puzzle without the benefit of the box with the picture on the front. (A. Bloomfield, personal communication, 31 October 2023)

While the communication response had not been planned out and, as Bloomfield suggests, was being arranged on the fly, the communicators' commitment to transparent regular communication got the right message across to the public of Aotearoa New Zealand. How the communication was led can also not be overlooked. Clause 5b of the OCG stated, "Communication planning is usually led by agency communicators and often ignored by senior management" (World Health Organization, 2005, p. 7). In this case, the senior management were the agency communicators. The Director General of the Ministry of Health and the Prime Minister were the two that led Covid-19 communications from the start.

5.4. Findings and Discussion

After the final round of coding, three main themes had emerged from the data: *we (New Zealand)*; *trust in each other*; *the quick-get*. While related and interconnected to the best practice suggested by the OCG, these themes offer greater insight into the success of the communication response and how the communications resonated with the public in this instance.

5.4.1. We (New Zealand). Throughout the media conferences, the interviews, and the focus group, leaders and participants used the first-person plural pronoun "we" to refer to the entire population of Aotearoa New Zealand. This theme brings together *the collective sense of agency* and *moving as a collective* created by the government communicators and, from the participants in this research, received by the public of Aotearoa New Zealand. It also draws on a theme of responsibility *to do the right thing* drawn from the focus group.

It has been mentioned earlier in the thesis the sense of achievement and collegiality the group of strangers in the focus group had, having been a part of the eliminating Covid-19 from Auckland twice. As a researcher, I had to refrain from including myself in this collective *we*. I also lived through this communication response, and as the facilitator of the focus group and the interviewer of Ardern, Bloomfield and Gerrard there seemed to be no separation between any of us. We had all experienced the same thing. We had all experienced it from different perspectives. However, when this *we* was used in conversation during the focus group and semi-structured interviews, it was done by myself as the interviewer/facilitator as well as by the participants. Who the *we* referred to was not questioned. There was a clear delineation between when Ardern and Bloomfield used the pronoun for themselves as leaders and communicators and when they used it to refer to the population of Aotearoa New Zealand. In the focus group, rather than quarrel or dissent at observations put forward, there were nodding heads in agreement and participants adding to and finishing each other's thoughts.

While most instances of this *we* were not used consciously, Bloomfield spoke of it more overtly, "I didn't crush the curve. We crushed the curve together with our collective kindness." He now talks about leadership as "an invitation to collective action."

Much has been written about Ardern and her inclusive language "uniting" the population, yet on reflection three years after the events in question, her language hasn't changed:

> We were all acknowledging that we were off to try and do something that was quite untested and it might work and it might not. But there was a real sense that we were collectively owning that. That's what we were going to do. I've really felt like that. (J. Ardern, personal communication, 26 June, 2023)

Ardern wasn't the only one conscious of the fact that it was, and had always had to be, a collective effort. When asked what the collective values were that allowed us to eliminate the virus, Gerrard responded, "I think if you distil it down, it's the value placed on an old person's life." This reinforced an earlier statement she had made: "There is a threat, we're on this. If we all behave in this way, Granny will still be here for Christmas. And I think it was a very simple message in that sense."

The focus group participants saw themselves as a part of the effort to eliminate the virus. They had been given individual agency to work as a collective: "That's how people rallied around this thing. 'Oh cool, we're going there? Yeah, we can all go in the same direction'" (Maude).

While people were physically isolated from each other they still felt a part of a wider national community. Participants had the following to say: "God, we hadn't watch live TV for ages. And it was interesting that sense of... there's so many people watching together the same thing at the same time, which, I think, we were not used to" (Maude) and, "It's nice to know everyone's going through it together" (Amanda, 20)

Nearer the end of the lockdown period, they also felt a sense of communal success, "there's that feeling of, 'well done us', when there were no cases. We've done really well being at home" (Jack, 22).

5.4.2. Faith (implicit trust). Trust is central to the OCG and within crisis communication literature. Both speak of it needing to be earned and of how easy it is for government communicators to lose it. While plenty has been written about how Ardern had earned the trust of her public, the data in this study suggests a trust that was more implicit. This theme was drawn from the codes of *trust*, *collaboration* and *decision-making*.

As discussed above, Ardern, Bloomfield and the public servants who were a part of the communication response trusted each other that they would do their respective roles well. In what was obviously a high-pressure situation, the communication collaboration was not always smooth sailing, but the data suggests there was a significant amount of respect from all actors for the role each of them had to play. When speaking of the decision to move to Alert Level

Four just two days after announcing the system and starting it at Alert Level Two, Bloomfield described one such interaction,

> I remember one of the PM's senior advisors saying, 'But Ashley you were saying yesterday, Level Two. What's [changed]?' He sort of went at me quite hard. And I said, 'Listen, I would rather change my mind and tell you what I'm thinking and get criticised by you, than not tell you what I'm thinking.' And he just said, 'I'm not criticising. I just want to understand.' Because he was thinking about how do we communicate that [change]. (A. Bloomfield, personal communication, 31 October 2023)

This is a good example of the pressure cooker of the communication role in a crisis like this, as well as the respect for delegated responsibilities. Bloomfield assumed the advisor was attacking, whereas the advisor wasn't questioning Bloomfield's thinking, he wanted to understand his thinking so he could get on and perform his role in the crisis.

In a similar way, participants trusted Bloomfield and Ardern to do their jobs. While part of this comes from being included as part of the collective, the sense from the focus group was that the trust was they were happy to put their trust in these leaders, even if not all of them were sure why, "Everyone was just like, 'Yeah, okay. I don't know why, but I trust him. If you trust him I, trust him'." (Sarah, 21).

The Spinoff's public polling throughout the lockdown period shows strong support for the government's response. Over the course of five polls between March 23 and June 16, support for the response stayed between 80-84% (Manhire, 2020). More importantly, those who deemed the response excellent grew from 59% to 74% as the country moved all the way down to Alert Level One.

Yet this faith did not just go one way. There was a large amount of implicit trust given by the communicators to the public. Ardern, Bloomfield and Gerrard, while at times understanding New Zealanders' ability to push boundaries and test rules, had faith that they were all in it together. In a lot of ways, they had to trust the populace to do what was asked because it was the only way their elimination plan could work.

5.4.3. The quick-get. This theme emerged from the following codes: *clarity and consistency*, *repeating key messages* and *easy terms of reference*. From the beginning, Bloomfield and Ardern were looking for ways to communicate this highly complex situation and ways to combat it, as simply as possible. Gerrard spoke of the elation felt by herself and Siouxsie Wiles when Ardern used the term *bubble*. They now had a single word to convey the sometimes unusual, isolated arrangements people found themselves in.

Clarity and consistency was a true *in vivo* code, articulated by one participant but echoed by others:

> I think there was a lot of clarity and consistency in the government's message here. I was following closely what was happening in France. And they were told one thing one week, and then it kept changing, the rules kept changing, the messages kept changing …there was a clarity and a consistency throughout, I think, in New Zealand, that was probably better than anywhere else I've seen in the world. (Maude)
>
> We just saw the logic of it. They presented everyday evidence of why we're doing what we're doing and kept reminding us of the basic messages and very few people disagree. (Bert, 67)
>
> You can sort of tick off in your head. Okay, that makes a lot of sense. Sure. (Jack)
>
> In one second, you get it. (Maude)

5.5. Conclusions

This chapter has shown that the Aotearoa New Zealand government communications closely followed the World Health Organisation's Outbreak Communication Guidelines. For four out of the five guidelines, *trust, announcing early, transparency* and [understanding] *the public*, the Ardern government's communications mirrored the guidelines of the OCG incredibly closely. When it came to the fifth guideline, *planning*, Aotearoa New Zealand created the plan as they went. This did not, however, hinder the effectiveness of their response. As Bloomfield stated, the US and UK were at the top of the list for pandemic preparedness, but their response was found lacking. From this it is fair to conclude that the Aotearoa New Zealand government response followed the World Health Organization Outbreak Communication Guidelines incredibly closely, barring the aforementioned caveat.

The second research question proposed at the top of this chapter is not quite as easy to answer. If we accept that the Ardern government followed the OCG, albeit unintentionally, and we accept the effectiveness of the Ardern government response, as does the WHO (Olley, 2023) and the population of Aotearoa New Zealand who lived through it (Manhire, 2020), then the answer to the second question must be yes. The Aotearoa New Zealand government response to the first wave of Covid-19 does show ways in which the OCG can be effective. While Aotearoa New Zealand had a less effective plan in place should a pandemic have hit, the leadership of Ardern and Bloomfield brought the populace with them. The themes identified in the second half of this chapter are of significance in how this leadership played out. The inclusiveness of the government communications brought the populace together, in the same way its key slogan suggested: "Unite against Covid-19". The government trusted the public to do what was necessary to protect the most vulnerable in society, while at the same time the public trusted the government to communicate what was necessary to do at each phase of the pandemic. The transparency and accessibility of the government communications cannot be overlooked. Messaging remained consistent; it was easy to understand and throughout there were clear calls to action so the public understood its role in how to stop the spread of the virus. Perhaps then, planning is not as important as decisive leadership when it comes to communicating through the early stages of a pandemic. In this instance, a decisive response, led by science and delivered empathetically, had all the components necessary to come through the intensive phase of the pandemic with negative excess mortality (fewer deaths than would have been expected based on previous years) (Olley, 2023).

Since the events of the early stages of the pandemic focused on in this research, things have changed politically in Aotearoa New Zealand. Near the end of 2021 through the start of 2022, the vaccine became available and misinformation about it spread globally. Protests took place on the grounds of parliament (RNZ, 2022). In this phase of the pandemic, the government's messaging was changing regularly. As Juliet Gerrard put it, "Towards the end it got a bit hairy. So the off-ramp was harder." This does not, however, change the effectiveness of the crisis communication, or the overwhelming support for the measures taken throughout the first wave of the pandemic. This study offers a glimpse into how and why people supported the

effort to eliminate Covid-19, despite entering into some of the most stringent restrictions on the planet. It also shows how a trusted government, willing to move quickly will be key to getting through the next pandemic as *we* did this one.

Chapter 6 – Conclusions

This chapter summarises the three studies completed and the key findings of the research within. It synthesises the information included in the studies that form the three central chapters of this thesis to triangulate the data and draw overarching conclusions for the thesis research question: What, if anything, can the Aotearoa New Zealand communications response during the first wave of Covid-19 teach us about crisis communication? Finally, this chapter will suggest some practical applications for this research derived from the findings and considers possible opportunities for further research.

6.1 Summary of Key Findings

The first key finding of this research is that VUCA Prime is an applicable model for communications to combat a VUCA situation such as a global pandemic. The work created from the collaboration of Morris and Wiles demonstrated the value of creating clear, accessible communications to aid public understanding in a time of crisis. The researcher proposes the following adaptation of VUCA Prime for those communicating with the public through a crisis.

> **Vision** – A clear understanding of the goals your communication is to achieve.
>
> **Understanding** – Communicators must have access to the expertise to fully understand the issue and communicate the solution or mitigation in a way the reader understands.
>
> **Clarity** – Ensure your communication is simple and accessible. Reach people where they are, frame your message in the simplest way possible and design it for the media they use.
>
> **Agility** – Follow the plan to navigate your VUCA situation but remain flexible to adapt as the information changes.

The second key finding is that the metaphor of the bubble was rapidly accepted because it was a well-chosen device delivered in an explicit context. The success of the bubble was also due to the fact that the public had trust in the person who was communicating the metaphor, then-Prime Minister, Jacinda Ardern. This implies that with the understanding of trust as a necessary component, expanding the use of metaphor within crisis communication, as Castro Seixas (2021) suggested, could be done more effectively.

The third key finding in this project is that Ardern's government unknowingly followed the World Health Organization's Outbreak Communication Guidelines almost to the letter. Their response followed the OCG in four out of the five best practices outlined: *trust; announcing early; transparency* and *the public*. While the preparedness for a pandemic outlined in the fifth best practice, *planning*, was something Aotearoa New Zealand lacked, Ardern's government more than made up for it with regular, clear commnunication and decisive action. They had a malleable plan once the response was in action.

6.2 Overarching Conclusions

Each of the three main chapters draws themes from the data. The table below (Table 4) has been created to triangulate the themes from these three chapters alongside the themes from the Ardern government response identified by Beattie and Priestley (2021), and the leadership framework proposed by Wilson (2020a) to actively identify what has been learned from the Aotearoa New Zealand communications response during this first wave of Covid-19. Once identified and tabulated, these themes were colour-coded as patterns were identified.

GIFs	Bubbles	By the book	Beattie & Priestley	Wilson
Accessibility	Softer word for a harsh reality	We (New Zealand)	Open, honest straightforward communication	Foster a shared purpose: minimise harm to lives and livelihoods
Values	In one sec you get it	Implicit Trust	Distinct and motivational language	Be led by expertise
Personal responsibility	We were lucky to have those two there	Clarity and consistency	Expressions of care	Mobilise collective effort
Expertise				Enable coping
				Build trust in leadership

Table 4. Research themes

Three overarching themes have been identfied (Table 5). Each of the themes identified speaks to ways that the Aotearoa New Zealand's communciation response brought the public in, rather than dictating to them what must be done.

i. *Empathetic and inclusive* – this theme talks to the empathetic leadership that brought out the collective values of Aotearoa New Zealand.

ii. *Everyone has a job to do* – this theme speaks to the agency that the communication response gave the public of Aotearoa New Zealand to take action. The language used encouraged New Zealanders to take responsibilty for how they dealt with the virus. *Distinct and motivational language* could have found itself under the third theme. However, on review of the analysis, the motivational element and active language used by Ardern and her team kept it under this theme.

iii. *The quick-get* – simple and accessible language, consistently delivered was key to the government communicators getting their message across.

Empathetic & inclusive	**Everyone has a job to do**	**The quick-get**
We (New Zealand)	Implicit trust	Clarity and consistency
Expressions of care	Personal responsibility	In one second you get it
Foster a shared purpose	Distinct and motivational language	Open, honest straightforward communication
Enable coping	Mobilise collective effort	Accessibility
Softer word for a harsh reality	We were lucky to have those two	Led by expertise

Table 5. Overarching themes

These themes speak to the successful enaction of collective values throughout the period studied and represent the key learnings from the Aotearoa New Zealand communication response. This thesis has referenced leadership, public health communication, advertising, design, public relations and crisis communication theories and experts to explain how well thought out and executed specific elements of this communications campaign were. This is partially due to the fact that, while there were two obvious people at the helm of the campaign, there were many dozens more working behind the scenes. Achieving elimination only occurred because the vast majority of New Zealanders understood the threat well and what they needed to do to help ensure it did not gain a foothold in their community. Ardern and Bloomfield led a communication response to the threat of Covid-19 that involved the entire population of Aotearoa New Zealand.

As has been stated in the literature, and repeatedly throughout this thesis, trust plays a large role in successful crisis communication. What has been uncovered in this work, that the literature doesn't state explicitly, is that in high-stakes crisis situations the trust must flow both

ways. This two-way trust has been implied in studies of Ardern's response: in the ethics of care theories (Voina & Stoica, 2023); the dialogic and discursive nature of crisis communication (Hafner & Sun, 2021; McGuire et al., 2020); and the compassion and empathetic nature of that discourse (Simpson et al., 2022; Voina & Stoica, 2023; Wilson, 2020b), yet, until now, it has not been stated. For people to have faith in their government, they need to know that their government has faith in them. Ardern trusted the people of Aotearoa New Zealand to do what was necessary when it was needed the most, and it worked until that trust was later undermined.

6.3. Practical Implications of this Research

This thesis has shown there are frameworks to help policymakers and leaders in communicating in a crisis. The Outbreak Communication Guidelines (World Health Organization, 2005) is just one such framework. One of the important things to note is that neither Ardern nor Bloomfield was aware of that document. It is possible they had exposure to other crisis response documents such as CERC (Center for Preparedness and Response, 2017). However, from the interviews held as a part of this research, it is clear, due to their backgrounds, they implicitly understood what needed to be done. The question is though, is that a reasonable expectation for us to have of all of our leaders in the future? Most leaders do not hold an undergraduate degree in communications, as Ardern does. How can we equip the world's leaders to understand the speed and magnitude of the decisions that need to be made and communicated in crisis situations?

6.4. Limitations of this Research

While this thesis presents a robust case study of the Aotearoa New Zealand communications response, there are some limitations that must acknowledged:

i. While the focus group presented rich data that gave an insight into how the population of Aotearoa New Zealand viewed the government response at that point in time, the data set was small, nine participants, and is not representative of the population.

ii. Time with the expert interview participants was limited and conversations with each raised further questions to be presented to others. While a longer dialogue would have allowed more depth of understanding, due to the nature of their roles, repeated interviews would have proved logistically difficult.

iii. This study only looked at the initial wave of Covid-19 in Aotearoa New Zealand. This was a conscious decision. As mentioned in Chapter 5, the Ardern government did not communicate as clearly through the vaccine rollout in 2021. Science communicators, including Wiles, at points disagreed with the government's direction, and misinformation and disinformation were rife amongst segments of the population. Due to the limited scope of a Master's thesis, a narrow focus was necessary.

iv. While consultation and guidance has been provided by a supervisor, this project has, for the most part, been conducted as individual research. There is much to be said for collaborative projects, especially in the fields of communications and thematic analysis.

6.5. Opportunities for Further Research

This study compared the Ardern government response to the OCG. There are many different models in crisis communication that could be applied to this same data. This researcher believes that it would be found that this government's response, during this time period, will likely closely follow other models of crisis and leadership communication.

Analysis of what went wrong during the later phase of the pandemic, mentioned above, would also be useful. Bhargava and Nairn (2023) present one study of the differences between the first and later phases of the pandemic. Research into how to maintain trust through a crisis in the age of mis- and disinformation will be invaluable to current and future leaders.

6.6. Significance of this Study

6.6.1. Significance of the pandemic. For years, Aotearoa New Zealand had been warned to prepare for a pandemic. Barely a month before Covid-19 was discovered, the Global Health Security Index gave Aotearoa New Zealand a mere 54% overall score. Of the SARS,

MERS and H1N1 (Swine flu) outbreaks earlier this century only swine flu took hold within our population. The OCG (World Health Organization, 2005) were created in the wake of the SARS outbreak 2002-2004. Similarly, in Aotearoa New Zealand our first pandemic plan was released in 2006 (Ministry of Health, 2006).

None of the preceding outbreaks this century spread as far or as fast as Covid-19. However, it is scientifically accepted that the possibility of large pandemics occuring increases as the human population increases, we encroach on animal habitats, and our climate warms (Marani et al., 2021; Park, 2022; Penn, 2021). As these large-scale pandemics become more common, understanding how to deal with them will become even more important. This research, and the research it has built upon, is significant for leaders and communicators who must prepare for these new diseases.

6.6.2. Significance of the participants. It should be noted that all of the interview participants involved in this study have been recognised at the highest level for the work they did during the period studied. Three of them have been knighted, at least in part due to the role they played in eliminating Covid-19. Gerrard was honoured in the New Year list at the end of 2020, Bloomfield two years later, and Ardern received the highest possible honour of Dame Grand Companion (GNZM) in the first King's Birthday Honours mid-2023 (Department of the Prime Minister and Cabinet, n.d.). Wiles, already made a Member of the NZ Order of Merit in 2019 for her services to microbiology and science communication (Royal Society Te Apārangi, n.d.-b), was awarded New Zealander of the Year in 2021 for her leadership through the Covid-19 response (Hunt, 2021). Finally, Morris was awarded the Prime Minister's Science Communication prize in 2021 (Royal Society Te Apārangi, n.d.-a). The researcher is humbled that they all took the time to be a part of this study, but more importantly the fact that they did speaks to their belief in the collective values they all hold.

6.6.3. Significance of the findings. This study shows the critical importance of communications and effective leadership in the public realm, especially when it comes to science communication. Communication was the cornerstone of Aotearoa New Zealand's response that eliminated Covid-19 twice. While, as Bloomfield stated, "Communication [is] the most important health intervention" (A. Bloomfield, personal communication, 31 October,

2023), there is little use having the best science if you do not have someone able to communicate it in a succinct way that brings about the desired action among citizens.

This thesis has identified several significant findings due to its by-publication nature. Chapter 3 established the importance of creating communications that are accessible, easily understood and created for the media in which they are to be consumed. The contents of Chapter 4 demonstrated how the metaphor of the bubble was widely accepted by the public thanks to the trust Ardern and her government had built with the populace prior to and throughout the very early stages of the pandemic. The discussion in Chapter 5 revealed how closely the government of Aotearoa New Zealand followed the WHO Outbreak Communication Guidelines, even if it was in an unknowing fashion.

However it is the high level themes, extracted earlier in this chapter that present the true learnings for crisis communication moving forward. As the world stares down the barrel of the climate crisis and politics in the Global North becomes increasingly more divisive, empathetic and inclusive leadership is needed more than ever. Paired with clear communication and a collective sense of responsibility, this style of leadership has the ability to carry nations safely through unprecedented times of crisis. This researcher is hopeful that it does.

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Appendices

1. **Alert Level Framework**
2. **WHO Outbreak Communication Guidelines**
3. **One degree of separation/How I met Jacinda/Why I love Aotearoa.**

New Zealand COVID-19 **Alert Levels**

Unite against COVID-19

- **The Alert Levels are determined by the Government and specify the public health and social measures to be taken in the fight against COVID-19.** Further guidance is available on the **Covid19.govt.nz** website.

- The measures may be updated based on new scientific knowledge about COVID-19, information about the effectiveness of control measures in New Zealand and overseas, or the application of Alert Levels at different times (e.g. the application may be different depending on if New Zealand is moving down or up Alert Levels).
- Different parts of the country may be at different Alert Levels. We can move up and down Alert Levels.
- Essential services including supermarkets, health services, emergency services, utilities and goods transport will continue to operate at any level. Employers in those sectors must continue to meet health and safety obligations.
- Restrictions at the different Alert Levels are cumulative (e.g. at Alert Level 4, all restrictions at Alert Levels 1, 2 and 3 apply).

Updated 14 December 2020

	ALERT LEVEL 1	ALERT LEVEL 2	ALERT LEVEL 3	ALERT LEVEL 4
OUTCOME	Keep out global pandemic. Population prepared for increase in alert levels if necessary.	Physical distancing and restrictions on gatherings to address sporadic cases or a cluster in New Zealand.	Further restrictions on activities, including at workplaces and socially, to address a high risk of transmission within New Zealand.	Strong restrictions to limit all people movement and contact to contain community transmission and outbreaks.
SUMMARY	Be prepared, and be vigilant. Border measures are in place. Public health measures in place, but no physical distancing is needed.	Businesses open, but physical distancing requirements apply. Gatherings limited.	Stay at home, other than for essential personal movement, and going to work/school. Stay in extended bubble, which includes close family or caregivers.	Stay at home, other than for essential personal movement and doing essential work. Stay in immediate household bubble.
Public health measures	Public health measures are guidance for everyone but are not a legal requirement. No physical distancing requirements.	People should keep 2 metres from people they don't know in public and retail stores. Keep 1 metre in other environments like workplaces, gyms, libraries and cinemas where practicable. Groups of friends and whānau should be limited to 100 people when socialising.	People required to keep 2 metres apart outside home where possible (apart from people within their extended bubble). This requirement does not apply to emergency and frontline public services (e.g. healthcare). In a controlled environment such as a workplace, 1 metre distancing is required.	People should keep 2 metres apart at all times outside home, including at workplaces. This requirement does not apply to emergency and frontline public services (e.g. healthcare).

General public health advice:

- Regularly disinfect surfaces; wash and dry hands, cough and sneeze into elbow, don't touch your face; if you have cold or flu symptoms stay at home and ring Healthline or your GP.

Contact tracing:

- Ongoing contact tracing for all confirmed and probable new cases of COVID-19, with appropriate isolation measures put in place.
- QR codes issued by the NZ Government must be displayed in workplaces and on public transport to enable use of the NZ COVID Tracer App for contact tracing.

Testing:

- Testing of all potential cases of COVID-19 for people who meet the case definition (i.e. are displaying relevant symptoms). Tests will take place at dedicated Community-Based Assessment Centres or designated practices.
- Random testing within communities (including for people who are asymptomatic) may be carried out locally to inform understanding on the spread of the virus in certain areas.

Isolation and quarantine:

- Stringent self-isolation of those who display relevant symptoms of COVID-19, test positive for COVID-19, have been in close contact with someone who tests positive for COVID-19, including quarantine/managed isolation for those who have been overseas in the last 14 days. Quarantine facilities mandated for those who do not have sufficient capacity to self-isolate effectively.

Border:

- Robust border measures in place which safeguard against the risk of COVID-19 being transmitted into New Zealand. Currently, managed isolation or quarantine on arrival for 14 days before onward domestic travel.

	ALERT LEVEL 1	ALERT LEVEL 2	ALERT LEVEL 3	ALERT LEVEL 4
Personal movement	No restrictions on personal movement. Sports and recreational activities allowed. People are encouraged to record where they have been and who they have been by using the NZ COVID Tracer App.	**Leave home, but in a safe way.** Participating in sports and recreational activities is allowed, subject to conditions on gatherings, record keeping, hygiene requirements and – where practical – physical distancing. People at higher-risk of severe illness from COVID-19 (e.g. older people and those with underlying medical conditions, especially if not well-controlled) may work and study, if they agree with their employer or education provider that they can do so safely.	**People instructed to stay at home**, other than for essential personal movement: • Accessing local services and businesses • Going to work or school (only for those who have to) • Low risk recreation in local area • Shared and extended bubble arrangements • Emergencies and giving effect to court orders • Travelling to permitted gatherings • Limited customary purposes • Relocating a home or business • Medical reasons • Those who have an exemption to travel because of compassionate reasons • Foreign nationals leaving New Zealand • New Zealanders resident in the Realm returning home, and • People arriving in New Zealand from overseas and returning home after 14 days' isolation/quarantine at port of arrival (except air and marine crew). **People must stay within their immediate household bubble**, but can extend this to connect with close family/whānau, or bring in caregivers, or support isolated people. This extended bubble should remain exclusive. Anyone who feels unwell must immediately self-isolate from others in their extended bubble. **People at higher-risk of severe illness from COVID-19** (e.g. those with underlying medical conditions, especially if not well-controlled, and the elderly) are encouraged to take additional precautions when leaving home. They may work, if they agree with their employer that they can do so safely.	**People instructed to stay at home**, other than for essential personal movement as defined in Health Act Order of 3 April 2020. **People must stay within their immediate household bubble**. There may be extended bubbles where there are shared care and custody arrangements. Anyone who feels unwell must immediately self-isolate from others in their bubble. **Sports and recreational activities** allowed if within scope of essential personal movement as defined in Health Act Order of 3 April 2020. **People at higher-risk of severe illness from COVID-19** (e.g. those with underlying medical conditions, especially if not well-controlled, and the elderly) are encouraged to take additional precautions when leaving home. They may work, if they agree with their employer that they can do so safely.
Travel and transport	No restrictions on freight. All freight can be distributed and received. All freight can enter and leave the country.			All freight can be distributed and received, with essential freight prioritised. This includes de-vanning, delivery to and receipt by businesses (including those businesses not currently permitted to trade for receipt only) and customers. All freight can enter and leave the country.
	Face coverings must be worn on domestic flights.	Face coverings required on public transport and domestic flights (but not inter-island ferries) – school buses and children under 12 are exempt along with passengers in taxis or ride share services and people with disabilities or mental health conditions. Face coverings can be anything that covers your face, or a mask.		
			Passengers and workers in transport stations and on public transport services must comply as far as reasonably practicable with the 1-metre physical distancing rule. On air transport services and small passenger service vehicles passengers must maintain physical distancing as far as reasonably practicable.	
	No restrictions on domestic travel. Avoid mass transport if sick, awaiting a result from a COVID-19 test, or required/ recommended to self-isolate. Border restrictions remain in place.	**You can travel, but do it in a safe way.** Do not use mass transport if required to self-isolate/ quarantine, experiencing symptoms of COVID-19, awaiting a result from a COVID-19 test, suspected/ probable/confirmed to have COVID-19, or if subject to an individual notice issued under section 70(1)(f) of the Health Act. Appropriate physical distancing and other risk mitigating measures in place on public transport and aircraft as agreed by relevant agencies.	**Travel is allowed for the following essential personal movement in your local area:** • Accessing local services and businesses • Going to work and school • Low risk recreation in local area • Extended bubble arrangements, and • Travelling to permitted gatherings. **Those travelling on public transport should avoid peak times unless they are going to work or school.**	**Personal travel (including the use of private cars or public transport) is only permitted within territorial authority, and for essential personal movement** as defined in Health Act order of 3 April 2020.

	ALERT LEVEL 1	ALERT LEVEL 2	ALERT LEVEL 3	ALERT LEVEL 4
Travel and transport (cont)			**Travel between regions is allowed for the following essential personal movement:** • Workers travelling to do essential work • Going to work or school (only in neighbouring region) • Shared bubble arrangements • Relocating a home or business • Those travelling for medical reasons • Emergencies and giving effect to court orders • Those who have an exemption to travel because of compassionate reasons • Foreign nationals leaving New Zealand (except Cook Strait ferries) • New Zealanders resident in the Realm returning home, and • People arriving in New Zealand from overseas and returning home after 14 days' isolation/quarantine at port of arrival (except air and marine crew). • Travelling out of Auckland to return to your primary residence. All other travel is not allowed.	
Gatherings	No restrictions. Organisers of gatherings are encouraged to keep records to enable contact tracing.	**All gatherings (such as weddings, birthdays, funerals and tangihanga) restricted to 100 people.** Additional conditions on gatherings: • Physical distancing and infection prevention and control requirements must be met. • All gatherings must record attendees to ensure contact tracing may be conducted if necessary. • All venues can open for the purposes of dining. No participants allowed who have COVID-19 symptoms or who need to be in isolation/quarantine for any reason.	**Gatherings of up to 10 people at a time for wedding services, funerals and tangihanga.** Wedding receptions or other celebrations are not allowed. Consumption of food/drink not permitted. Workplaces, education facilities, public transport and supermarkets are not considered gatherings. Additional conditions on gatherings: • Physical distancing and infection prevention and control requirements must be met. • All gatherings must record attendees to ensure contact tracing can be conducted if necessary. • No participants allowed who have COVID-19 symptoms or who need to be in isolation/quarantine for any reason.	**All gatherings cancelled.**
Public venues	No restrictions.	**Public venues such as libraries and pools can open if they comply with public health measures and ensure 1 metre physical distancing and record keeping.** Event facilities, including cinemas, stadiums, concert venues and casinos can have more than 100 people at a time, provided that there are no more than 100 in a defined space, and the groups do not mix.	**All public venues closed** (e.g. libraries, museums, cinemas, food courts, gyms, pools, amusement parks, playgrounds, farmers' markets). **Public open spaces (e.g. parks) may be used**, but people need to maintain physical distancing outside their extended bubbles.	**All public venues closed** (e.g. libraries, museums, cinemas, food courts, gyms, pools, amusement parks, playgrounds, farmers' markets). **Public open spaces (e.g. parks) may be used**, but people need to maintain physical distancing outside their bubbles.
Health and disability care services	No restrictions.	• Health and disability care services operate normally as far as possible. • Hospitals will operate in line with the National Hospital Response Framework. • Primary and community health providers will operate in line with the Community Response Framework. • Physical distance and infection control guidelines followed. • Remote consultations used wherever possible.	• Hospitals operate in line with the National Hospital Response Framework. • Primary and community health providers will operate in line with the Community Response Framework. • Residential facilities remain open with strict visitor policies. In home visiting required for priority populations. • Pharmacies remain open.	• Hospitals operate in line with the National Hospital Response Framework. • Primary and community health providers will operate in line with the Community Response Framework. • Only urgent acute care conducted in person, maintaining public health guidelines. Routine care postponed. • Residential facilities remain open with strict visitor policies. In home visiting required for priority populations. • Pharmacies remain open.

	ALERT LEVEL 1	ALERT LEVEL 2	ALERT LEVEL 3	ALERT LEVEL 4
Workplaces	Businesses must operate safely **and** fulfil all their usual health and safety obligations. Alert Level 1 places no additional legal obligations on them: • Businesses and services are encouraged to maintain records to enable contact tracing but this is not a legal requirement.	Businesses and workplaces must operate safely. This means: • complying with general Alert Level 2 settings; • meeting appropriate public health requirements for their workplace (e.g. having contact tracing systems and physical distancing); and • fulfilling all other health and safety obligations. All businesses are encouraged to use alternative ways of working if possible. Business premises can open for staff and customers provided they meet public health requirements. Services can also be provided on customers' premises (e.g. in homes). Close contact services can operate if they meet public health measures including robust record keeping, good hygiene practices and minimised contact to the extent possible. If a workplace cannot meet these measures it cannot open its physical premises.	People required to work from home unless that is not possible. Workplaces can only open if: • workers cannot work from home, **and** • workplaces are operating safely, **and** • customers are not allowed on premises, **and** • businesses can trade without physical contact with customers (e.g. through phone/online orders, delivery, pick-up and drive-through). Businesses cannot offer services that involve close personal contact, unless a supermarket, dairy, primary produce retailer (e.g. greengrocer, fish monger or butcher), pharmacy, petrol station or hardware store providing goods to trade customers, or it is an emergency or critical situation. Supermarkets, dairies, primary produce retailers and petrol stations can have customers on premises. Retail is possible through delivery and non-contact collection of goods and prepared food at the door (including the doors of businesses located inside malls). No consumption of food/drink is allowed by customers on premises. If businesses cannot operate safely, staff must not go to work and premises should remain closed. "Operating safely" means: • complying with Alert Level 3 settings in this table, **and** • meeting appropriate public health requirements for their workplace, including for workers (e.g. putting up physical barriers), **and** • fulfilling all other health and safety obligations.	People required to work from home unless that is not possible. Workplaces can only open if: • there is only one worker in the premises (or household bubble), **OR** • workers cannot work from home, **and** • they are operating safely, **and** • they are essential services. "Operating safely" means: • complying with Alert Level 4 settings in this table, **and** • meeting appropriate public health requirements for their workplace (e.g. putting up physical barriers), **and** • fulfilling all other health and safety obligations. This means if a business providing an essential service cannot operate safely, workers must not go to work and premises should remain closed. Only supermarkets, dairies and petrol/service stations can open their retail premises to the public. Essential services must also comply with any specific restrictions on how they operate.
Education	Any educational facilities connected to a confirmed or probable case of COVID-19 must close temporarily, if advised by the public health unit, to support contact tracing and case and contact management.	**Tertiary education facilities, schools and early learning centres are open for all age groups.** • Early learning centres and schools are all physically open including Years 11–13. Distance learning is available for those unable to attend school (e.g., where there are people self-isolating). • Tertiary education facilities are open, and will maintain the core capability to deliver comprehensive distance learning to students. Any educational facilities connected to a confirmed or probable case of COVID-19 must close temporarily, if advised by the public health unit, to support contact tracing and case and contact management.	**Early learning centres and schools are open for children in Years 1–10, with appropriate health measures in place.** • Early learning centres will be open to provide childcare for people who are working. Children will not be able to attend playcentres and play groups. Home-based care, education and supervision of young children for more than one family in a home if public health control measures can be implemented. Children are encouraged to stay at home, if caregiving is available. • Primary and intermediate schools are open. If there is a parent or caregiver available to look after children at home and school children have access to distance learning, children and young people are encouraged to continue distance learning at home. • Secondary schools are open for young people in Years 9 and 10 who may not be able to stay home by themselves. All young people in Years 11–13 learn from home. • Tertiary education facilities open for limited activities involving small groups (up to 10 people), and with distance learning provision for others. Any educational facilities connected to a confirmed or probable case of COVID-19 must close temporarily, if advised by the public health unit, to support contact tracing and case and contact management.	**All educational facilities closed.** • All schools engaged in some form of distance learning. • Necessary tertiary student and some school hostel (where international students cannot return home and/or it is not safe for domestic students to return home) accommodation can remain open.

WHO Outbreak communication guidelines

Acknowledgements

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The issues presented in the guidelines arose from topics raised and discussed at the consultation.

WHO/CDS/2005.28

WHO

Outbreak communication guidelines

Background

Disease outbreaks are inevitable, and often unpredictable, events. The environment surrounding an outbreak is unique in all of public health. Outbreaks are frequently marked by uncertainty, confusion and a sense of urgency. Communication, generally through the media, is another feature of the outbreak environment. Unfortunately, examples abound of communication failures which have delayed outbreak control, undermined public trust and compliance, and unnecessarily prolonged economic, social and political turmoil. The World Health Organization (WHO) believes it is now time to acknowledge that communication expertise has become as essential to outbreak control as epidemiological training and laboratory analysis. But what are the best practices for communicating with the public, often through the mass media, during an outbreak?

Guidelines for communicating with the public during outbreaks

In early 2004, WHO began an effort to construct evidence-based, field-tested communication guidance that would promote the public health goal of rapid outbreak control with the least possible disruption to society. The first step in this process was an extensive review of the risk communication literature. During this process, WHO identified risk communication components which had direct relevance to outbreaks. Then, this body of material was distilled into a handful of features strongly associated with communication effectiveness or, when lacking, strongly associated with failures. Finally, these few features were assessed by outbreak control experts from a wide variety of cultures, political systems and economic development. The result of this extensive review, filtered through a broad practical assessment, is a shortlist of outbreak communication best practices.
They are listed below.

1. Trust

The overriding goal for outbreak communication is to communicate with the public in ways that build, maintain or restore trust. This is true across cultures, political systems and level of country development.

a. The consequences of losing the public's trust can be severe in health, economic and political terms. Abundant research and prominent public health examples support the hypothesis that the less people trust those who are supposed to protect them, the more afraid the public will be and less likely they will be to conform their choices and behaviour with outbreak management instructions.

b. Senior management must endorse this goal but winning their support for specific trust-building measures faces many practical barriers.

I. This is because these trust-building measures are often counter-intuitive (such as acknowledging uncertainty or avoiding excessive reassurance).

II. Consequently, building trust internally between communicators and policy-makers is critical. Trust is also essential between communicators and technical outbreak response staff who may not see the need of communicating with the public especially if it means diverting them from other tasks. This internal relationship – between communicators, technical staff and policy-makers – is sometimes known as the "trust triangle".

- It is important that the trust triangle be established before it is needed. This can be complicated because different stakeholders, perhaps represented by different ministries, may have conflicts of interest which will require consensus building among partners.

c. Trust in communicating with the public is critical in both directions. Evidence shows that public panic is rare and most rare when people have been candidly informed. But the extent to which outbreak managers trust the public's ability to tolerate incomplete and sometimes alarming information influences communication decision-making and effectiveness.

d. Mechanisms of accountability, involvement and transparency are important to establish and maintain trust, and they are especially important to slowly rebuild trust when it is low. Allowing high-profile critics to watch decision-making and even participate, for example, reduces the need for trust and increases trust.

2. Announcing early

The parameters of trust are established in the outbreak's first official announcement. This message's timing, candour and comprehensiveness may make it the most important of all outbreak communications.


Secrets and lies in Europe

Mad cow disease is perceived as a British problem. But there are signs that the infection has spread silently across the Continent and may now be about to erupt

Debora MacKenzie, Brussels

BEFORE 1996, supermarkets in Brussels that sold British beef would proudly advertise the fact on large signs over their meat counters. Since the scare over mad cow disease put an end to British beef exports, the signs have promoted Belgian beef as a safe alternative—pure and trustworthy, and free from bovine spongiform encephalopathy.

But there is growing evidence that shoppers in Brussels, and all over Europe, are

1989, virtually all caused by infected British feed. Belgium, Austria, Luxembourg, Sweden, Finland and Spain have reported none. Denmark says it has had one case, Italy two and Germany five, though all in cattle imported from Britain. The contrast oddly with France's 27 cases, all of which were indigenous and all of which were linked to infected British MBM. The Dutch reported their first two cases this spring, apparently also caused by infected British feed.

A tale of mad cow and ostriches

Virtually all the risk with BSE has already been taken by the UK population and we do n... the human form of 'mad cow' disease, nvCJD

Angered by the Government's slow

a. In today's globalized, wired world, information about outbreaks is almost impossible to keep hidden from the public. Eventually, the outbreak will be revealed. Therefore, to prevent rumours and misinformation and to frame the event, it is best to announce as early as possible.

b. People are more likely to overestimate the risk if information is withheld. And evidence shows that the longer officials withhold worrisome information, the more frightening the information will seem when it is revealed, especially if it is revealed by an outside source.

c. An announcement must be made when public behaviour might reduce risk or contribute to the containment of the outbreak.

d. The small size of an outbreak alone or a lack of information are insufficient arguments to delay an announcement. There are times when even one case, such as an Ebola report, can justify early announcements.

e. But there are potential problems.

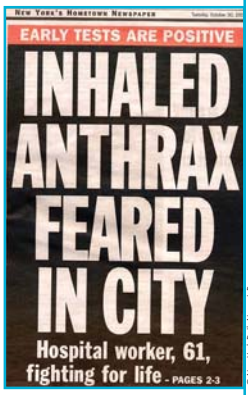
I. Rapid announcements may surprise important partners who might disagree with the initial assessment. This can be minimized by having well-established communication pathways in place among key and predictable stakeholders. These systems should be tested during routine exchanges or through desktop exercises.

II. Early announcements are often based on incomplete and sometimes erroneous information. It is critical to publicly acknowledge that early information may change as further information is developed or verified.

The benefits of early warning outweigh the risks, and even those risks (such as providing inaccurate information) can be minimized with appropriate outbreak communication messages.

3. Transparency

Maintaining the public's trust throughout an outbreak requires transparency (i.e. communication that is candid, easily understood, complete and factually accurate). Transparency characterizes the relationship between the outbreak managers and the public. It allows the public to "view" the information-gathering, risk-assessing and decision-making processes associated with outbreak control.



a. Transparency provides many benefits, including demonstrating how even at a time of uncertainty and confronting unknowns, outbreak managers are systematically seeking answers.

b. Since transparency can also expose weaknesses in outbreak management structures and operations, it provides a strong incentive for deliberative and accountable decision-making.

c. Total candour should be the operational goal consistent with generally accepted individual rights, such as patient privacy. The key is to balance the rights of the individual against information directly pertinent to the public good and the public's need and desire for reliable information. Announcing the limits of transparency publicly, and explaining why those limits are being set, is usually well tolerated provided the limits are justified. But if limits to transparency become excuses for unnecessary secretiveness, the likely result will be a loss of public trust.

d. Many barriers can block transparency.

I. Economic arguments are often raised, but public health officials' first concern has to be human health. There is, however, an increasing body of evidence showing that recovery from the economic impact of an outbreak is faster when governments have been transparent and have developed a track record of effective outbreak management.

II. Media preparation should be an essential component of professional development for public officials. Whenever possible, such preparation should precede each media interaction. It is not a process of preparation of delivery skills so much as preparation of specific messages and answers to likely questions.

III. Spokespersons or public officials may not feel confident in delivering bad news or discussing uncertainty.

IV. And there might be a fear of revealing weaknesses in infrastructure. Pride, embarrassment, and fear of being blamed can also lead to lack of candour.

V. Although these factors are very difficult to manage in an acute situation, culture change among decision-makers and senior technical officers leading to greater transparency should be one of the strategies in preparedness planning for outbreaks.

Transparency, by itself, cannot ensure trust. The public must see that competent decisions are being made. But in general, greater transparency results in greater trust.

4. The public

Understanding the public is critical to effective communication. It is usually difficult to change pre-existing beliefs unless those beliefs are explicitly addressed. And it is nearly impossible to design successful messages that bridge the gap between the expert and the public without knowing what the public thinks.

a. Early risk communication was directed at informing the public about technical decisions (known as the "decide and tell" strategy). Today, risk communicators teach that crisis communication is a dialogue.

b. It is the job of the communicator to understand the public's beliefs, opinions and knowledge about specific risks. This task is sometimes called "communications surveillance".

c. If possible, representatives of the public should be brought into the decision-making process. Often this is not possible, so it becomes the job of the outbreak communication manager to understand and represent those views as decision-making evolves.

d. The public's concerns must be appreciated even if they seem unfounded. When a publicly held view has validity, policy-making should be consistent with that view. When a publicly held view is mistaken, it should still be acknowledged publicly and corrected, not ignored, patronized or ridiculed.

e. Risk communication messages should include information about what the public can do to make themselves safer. This affords people a sense of control over their own health and safety, which in turn allows them to react to the risk with more reasoned responses.

The public is entitled to information that affects their health and the health of their families. Learning who they are and what they think is critical to successful outbreak communication. Communication about personal preventive measures is particularly useful as it empowers the public to take some responsibility for their own health.

5. Planning

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The decisions and actions of public health officials have more effect on trust and public risk perception than communication. There is risk communication impact in everything outbreak control managers do, not just in what is said. Therefore, risk communication is most effective when it is integrated with risk analysis and risk management. Risk communication should be incorporated into preparedness planning for major events and in all aspects of an outbreak response.

a. Have a risk communication plan ready before it is needed. Outbreak communication planning must be a part of outbreak management planning from the start. To be effective, outbreak communication cannot be a last-minute, add-on feature to announce decisions.

b. Communication planning is usually led by agency communicators and often ignored by senior management. Because outbreak communication principles include some counter-intuitive notions about dealing with the public, it is a potential hazard to wait for a crisis to tell managers about the need to acknowledge uncertainty or empathize with the public's beliefs and fears.

c. Issues of first announcements, limits of transparency, and other communication components should be agreed upon by senior management and ideally by the political leadership before the crisis is breaking. Central features include answering questions such as: What needs to be done? Who needs to know? Who is the spokesperson? What agency has the lead? And who needs to act? These steps are also placed in context, so they are linked to other ministries and, if need be, the international community.

This does not mean that outbreak communication which has not been planned is doomed to failure. Trust, for example, can develop during an outbreak. But it is far easier to build trust before it is needed.

Conclusion

If implemented effectively, these guidelines for outbreak communication will result in greater public resilience and guide appropriate public participation to support the rapid containment of an outbreak, thus limiting morbidity and mortality. In addition, effective outbreak communication will minimize the damage to a nation's international standing, its economy and its public health infrastructure.

WHO is now extending its outbreak communication activities. Among the next steps is the development of training for communications staff so that they can provide support to WHO country offices during high-profile outbreaks. WHO also plans to assist Member States in building capacity in outbreak communication when requested.

The overriding public health goal is to bring the outbreak under control as quickly as possible, with as little social disruption as possible. Effective outbreak communication is one tool to achieve that goal.

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Appendix 3

One degree of separation/How I met Jacinda/Why I love Aotearoa.

In 2022, a friend of a friend moved into our neighbourhood in Snells Beach, north of Auckland. My wife mentioned to me she was an old high school friend of Jacinda Ardern (yes, from Morrinsville) and she had had Ardern and her family up to stay soon after they'd moved in. I thought little of it. At that point Ardern was still Prime Minister and the chances of an interview for research seemed too slim to chance.

Fast forward a year, Ardern is no longer in office, and I've had a few conversations with said friend around school and local social circles. One rainy day at about 2.45pm outside Snells Beach School, said friend was sat in the car next to mine, so I took my chance, knocked on her window and took my spot in her passenger seat to avoid the rain. Explaining my research, I asked if she would be able to help me contact Ardern for an interview. "Sure," she said. "Here leave her a message." After which she promptly pressed the record button on her WhatsApp chat with Jacinda, leaving me scrambling to succinctly explain my research and ask her for an interview. I also typed my email into the chat and by the next Monday, her PA, Barbara, had emailed to set up the interview.