

The behavioural economics of government responses to COVID-19

Gigi Foster^{1*}

Abstract

How have governments around the world responded to the novel coronavirus first discovered in China's Wuhan province in late 2019 (the cause of COVID-19 disease)? What has driven governments' responses, and to what extent can behavioural economics help us to understand the policies that have been enacted? In this short paper I examine the responses of four countries, mapped against media reporting, local context and viral spread, and discuss how core behavioural economics insights can illuminate the possible reasons for those responses. The paper concludes with observations about how these insights can be used for good by governments – in predicting public reactions, and in setting and selling government policy – the next time that the world faces a pandemic.

JEL Classification: H12; I18; Z18

Keywords

COVID-19 — fear — media — salience — reference dependence

¹ *UNSW Business School, University of New South Wales, Sydney, Australia*

***Corresponding author:** gigi.foster@unsw.edu.au

Introduction

The world has been shaken by the COVID-19 pandemic in a way unlike what we have seen in any prior global health event. What started as a local health anomaly in one Chinese province quickly became a world-stopping crisis affecting every major nation in 2020. Industries from travel to manufacturing suffered acute, sudden disruptions due to political action to lock down cities and block free movement of people and goods between countries. This experience provides an unprecedented opportunity to examine political leaders' responses to an acute global crisis in light of the wealth of insights from behavioural economics, and ask which behavioural elements may have influenced public sentiment and the ensuing political responses we have seen. Scientific reflection on what has happened is a step towards enabling governments around the world to better prepare for the likely public response, and be better equipped to implement countermeasures to safeguard human interests, when the world faces another pandemic.

This short paper proceeds as follows. In Part 1 I review the timeline and nature of responses of several nations to the developing coronavirus phenomenon, selecting geographically and economically diverse nations that saw varying degrees of penetration of the virus. A core feature of this review is to chart popular media reports about the virus accessible to the public in each country, and to discuss the chronological alignment of those reports and other global and national markers of the pandemic's trajectory with the country's public policy announcements. Second, informed by the results in Part 1, I

review a suite of well-documented behavioural phenomena and outline how each of them may have played a role in generating the public sentiment and subsequent political responses we have seen. Part 3 concludes with a set of lessons from the experience that humanity can take to its next confrontation with a contagious global health threat.

No certainty about causality is claimed in any of this analysis, nor is there a claim that the news reports and announcements analysed, gathered in good faith but under significant time pressure, are an unbiased selection of all reporting delivered during this period to residents of each country. Rather than focussing heavily on sample representativeness of media reports or convincing econometric identification, I employ in this paper mainly logical scientific deduction, with the goal of delivering policy-relevant reflection on what we have been through, and guided by the assumption that the stylized behavioural insights observed in many other contexts will likely also have played a role here. The analysis in this paper benefits from some, but not perfect, hindsight: while we now know far more than we did in January 2020 about this new virus, we are still learning. As the remaining uncertainty resolves over the coming months and years, the picture of what we should have done in response to the virus will also become clearer.

Part 1: Responses of world leaders to COVID-19

Leaders in developed and developing nations, with different evolving trajectories of novel coronavirus infection and deaths due to COVID-19, have responded in different ways to the

new virus. Tables 1A-1D provide week-by-week timelines of country-specific viral and economic trajectories, local context, global events, and media reports relevant to the virus,¹ mapped to government responses for a selection of countries from different points on the spectra of economic development and degree of severity of the virus's attack: Australia, Thailand, Sweden, and the UK. The timelines run from mid-January to the end of April 2020.

1a Australia

The trajectory of the virus in Australia was very muted during the window of observation compared either to epidemiologists' initial projections,² or to the trajectory followed by the virus during this window in many other developed countries. However, Table 1A shows that media reports about the virus through the month of March were increasingly frantic. Early in that month, headlines were offering grim infection and death count projections and signalling an imminent economic tailspin, with stocks in "freefall", tourism and the finance sector reeling, and consumers panic-buying essential supplies. During February and the first week of March, government policy focused mainly on travel bans and announcements gradually upgrading the risk posed by the virus. On 11 March, Australia's health minister said the country could not predict the trajectory of the virus, and words and phrases that stoke fear continued to appear in headlines over the ensuing three weeks – like "chaos", "panic", "slaughtered", "fears", "go bust", "hit the wall", "falls off a cliff", and "edge of a precipice" – when speaking both of the virus and, particularly, of projected economic effects. In headlines focussing on the virus itself, there is little evidence of comparisons against existing illnesses, death rates for different age groups, or other perspective. At late as 13 March the country's chief medical officer tried to urge calm, saying that COVID-19 was "a very mild illness" (an accurate description of most novel coronavirus infections). However, between 16 March (the release date of Imperial College London modelling predicting millions of deaths in the US and the UK) and 30 March, the government moved to gradually lock down the economy. After this point, reporting became less focused on stoking fear, and more focused on providing the public with information and tracking about the disease that had arguably taken up residence in their minds as the right thing to fear at this moment.

¹Headlines tabulated in Tables 1A-1D were selected from sources and according to the search algorithms detailed in the Appendix. Data on government actions were gathered from the news sources from which headlines were selected plus official sources, such as the UK government's daily press briefing. Supplementary data on the actual spread of the virus and local context (drawn from local sources) and notable chronological markers covered broadly in worldwide news are also shown in each timeline. Social media content, while undoubtedly important in influencing popular opinion, is more fractured by consumer subgroup than national newspaper headlines and lies outside the scope of the present paper.

²E.g., theconversation.com/coronavirus-modelling-shows-the-government-is-getting-the-balance-right-if-our-aim-is-to-flatten-the-curve-134040.

1b Sweden

As shown in Table 1B, the Swedish policy timeline starts to be very active before mid-March, with multiple announcements and proactive steps taken by the government, including statements on 12 March about the efficient allocation of testing resources and the potential negative consequences of closing schools and undirected testing. Instead of blanket instructions directed towards everyone in the society at all times, specific instructions are provided in government messaging pertaining to certain activities and population sub-groups in the days leading up to the release of the Imperial College London estimates. The only large-scale policy act even in the days immediately following the release of the ICL estimates was the closure of senior high schools. Headlines do not seem fearful but instead mainly report facts, and as early as 24 March focus on optimistic angles such as a reduction in home break-ins and "stories of progress to bring you hope".

1c Thailand

Table 1C shows that Thailand's headlines were reasonably sparse until mid-March, focussing mainly on mask supplies, depressive effects on the tourism industry, and reporting of single- and double-digit counts of new infections, while the government announced reactionary steps until that time that mainly targeted particular traveller groups perceived to be at risk. With the exception of one plea not to stockpile food, the government did not make any reassuring statements during this period that may have helped calm its residents (and the request against stockpiling may well have come across as desperate and itself sparked more panic). On 18 March, two days after the release of the abovementioned Imperial College London projections, new modelling was released that projected 400,000 infections in the country, and this was followed by a slew of government action a few days later towards lockdown. After that point, the headlines shift to describing the orders and punitive measures one would expect in a police state, and government policy focusses mainly on control of the population, with only two announcements about aid: one from the government purse, and a second one requesting help from private donors.

1d The United Kingdom

Headlines early in the window of observation in the UK (see Table 1D) are reasonably controlled, presenting facts and explicitly pushing against fear ("UK warns against mass panic") but also increasingly suggesting that the government was under-reacting (e.g., the sarcastic headline "Now wash your hands" on 27 February, and the near-simultaneous reporting in late February of dire warnings about the virus and reassuring statements from the government).³ 15 March brought the telling headline that a surge in the death toll "forces [Boris] Johnson to act", followed the next day by the release of ICL estimates, and a slew of policy was released over the ensuing

³As late as early March, British PM Boris Johnson was still seen shaking people's hands regularly.

few days. Efforts against the virus were described in headlines throughout March using words like “fight”, “army”, “battle” and “tackle”, as if the virus were an enemy that must be defeated. On 19 March, the public was told that the Queen had fled London “in fear” from the virus. In the ensuing days the headlines became more extreme, flagging the prospect of much worse times to come and unlimited fines for breaking the rules. From that time onward, the headlines read as if the virus is a potent foe, and government policy became tighter and tighter. As late as 11 April, the British public were told that social distancing could be “indefinite”.

Part 2: Behavioural inputs to the global response

Prior work has sought to demonstrate how the artful use of behavioural insights can assist in health policy-making (e.g., Hanoch & Finkelstein, 2013). Table 2 on page S15 of Matjasko et al. (2016), reproduced from the UK’s Behavioural Insights team, lists with a handy acronym – MINDSPACE – nine “behavioural insights” that have been tapped to inform health policy in the UK. Matjasko et al. (2016) reviews several concrete examples, from vaccination nudges to lifestyle-related pre-commitment programs, intended to illustrate how these behavioural insights can be exploited to improve “health, decision-making, and government efficiency” (p. S13).

The existing literature applying behavioural insights to optimal health policy-setting has focused almost exclusively on setting health policy in times without acute perceived public health threats. This is understandable, as the penetration of behavioural insights into policy-setting, aided by the advent of behavioural insights units within national governments, has occurred mainly over the past decade when few health emergencies have emerged requiring quick, high-stakes, welfare-maximising policy response. The COVID-19 crisis presents an opportunity to ask how behavioural economics could be – or could have been – used to set health policy when a new global health threat is perceived.

I briefly review below four insights from behavioural science that are relevant to understanding the responses we have seen over the past few months in these countries. These insights are to do with the power of salience; present bias; reference dependence; and the power of fear.

2a Salience

When people’s minds are focused strongly on one item – which can be a consciously chosen or externally manufactured condition – then their decision-making tends to award more weight to features and outcomes related to that item than would be true if their attention were divided across a number of different items. While individual willpower plays a role in controlling the salience of different items amongst the sea of thoughts and external stimuli that an individual could focus on at any given moment, the external manufacture of salience through messaging (e.g., advertisements) can be powerful, as indicated by the large advertising budgets of many companies.

Messaging also reaches individuals via news media. Salience drives behaviour through what has been termed in behavioural economics the “availability bias” or “availability heuristic” (Tversky & Kahneman, 1973).

In the context of the coronavirus crisis, the salience of the virus phenomenon in the mind of the public is likely to have increased together with increases in the focus given to coronavirus-related stories in the media. Amongst the sample of national news coverage reviewed in Part 1, Sweden’s news coverage of coronavirus was more diluted than the Australian or UK news coverage, with a smaller fraction of reports in Australia and the UK than in Sweden during the period of observation that were unrelated to the virus. This may have contributed to a higher level of concern about the virus in the minds of the Australian and British publics than in the minds of Swedes.

In 2006, Cass Sunstein suggested that due to the power of the availability heuristic to determine behaviour, significant action on climate change would likely only be taken as “a result of available incidents that seem to show that climate change produces serious and tangible harm” (Sunstein, 2006, p. 195). Applying the same logic to the virus crisis, it is perhaps no wonder that politicians in the UK and Australia took serious action, in name at least against the virus, given the near-constant barrage of reports of serious and tangible harm produced by the virus to which the public was exposed.

2b Present bias

Outcomes today matter more to individuals than outcomes tomorrow, an observation already accommodated in the classic economic concept of a discount rate and further explored by behavioural economists (e.g., Rick & Loewenstein, 2008, who remarked upon the comparative intangibility of future rewards, a concept applied subsequently to examine the likely long-term sustainability of individual behaviours aiming to contain the novel coronavirus [theconversation.com/hand-washing-and-distancing-dont-have-tangible-benefits-so-keeping-up-these-protective-behaviors-for-months-will-be-tricky-136457]). In the context of the coronavirus crisis, the immediate potential for loss of health and life – so clearly evident via photographs of the stricken from countries whose health care systems at certain moments were overrun, such as Italy – will have loomed far larger than any future potential losses from any immediate actions taken. This will have caused a disproportionate focus on adopting actions to avoid suffering and death in the present, as opposed to the future, even if those actions to minimize immediate costs would bring huge future costs in both economic and human terms.

By mid-April, commentators in Australia who suggested that the value of future costs of imposed restrictions might be far greater than the value of present costs avoided (including the author: abc.net.au/qanda/2020-20-04/12141184) were savaged in the international media (dailymail.co.uk/news/article-8237177/Gigi-Foster-Q-Economist-says-Australia-shouldnt-gone-coronavirus-lockdown.html) as “heartless” advocates

of prioritising money over lives who advocated throwing old people under a bus while letting young people go to the pub. This both reflects and is reflected in the extreme present bias in public sentiment at this stage in the crisis, despite the fact that the peak of new cases in Australia had come weeks previously. Present bias was also on display in policy statements in Australia, the UK, and Thailand: leaders in those countries frequently foreshadowed no future policy walk-back as they took draconian steps in late March and early April (e.g., border closures in Australia, the postponement of all “non-urgent” surgeries in the UK, and the impositions of curfews in Thailand) – implying that the present was all that mattered. By contrast, several of Sweden’s radical policy announcements, such as school closures and adjustments to sick pay entitlements, were announced together with expiration dates.

2c Reference dependence

All perception is relative. If no benchmark is provided to guide the interpretation of information about a potential new threat, then people cannot understand the level of danger truly posed by that new threat. Comparisons to seasonal flu, death rates from other causes, or life-years taken on average from (mostly older and often already sick) COVID-19 victims were mainly absent from mainstream media headlines from mid-March through the start of April in any of the countries surveyed.⁴ Instead, daily absolute tallies of virus-related infection and death rates became a regular feature of news reporting, a trend away from perspective. Media reporting in three out of the four countries reviewed in Part 1 contained very little benchmarking of infection or death rates except to other regions or countries, some of which were doing worse in terms of COVID-19 infections or deaths but then were mainly depicted as counterfactual “there but for the grace of God” scenarios to be avoided.

Examples of this contextualisation of Covid infection/death rates relative only to other places’ Covid infection/death rates, but not more broadly to analogous tallies due to other causes, began in Australia as early as March 5th when Chinese tallies were used as a reference point for potential Australian numbers. These Covid-to-Covid contextualisations continued with comparisons across regions in Victoria and New South Wales, and between Australia and Spain. Thai headlines too contained comparisons of provincial rates and of the national tally to that of the rest of the world. On 30 April, a British headline claimed ominously “UK’s death toll becomes third highest in world”.

A loss of broader perspective was also reflected in the use as reference points of more severe threats than that posed by COVID-19, such as the 1918 Spanish Flu – whose death profile and virulence were clearly far worse – than those of COVID-19 – rather than reference points that could mitigate

⁴More contextualized reporting did occasionally appear – e.g., Hodgson (2020) – but was overwhelmed by the narrow focus of other stories. This would logically have been in part because editors believed that narrow reporting focused squarely on the clear and present perceived danger would sell more reads (as they say in the media, “if it bleeds, it leads”).

the fear. Changes to the public infrastructure were also observed, as virus-related information and advice came to dominate health ministries’ websites. Some of this information was ringfenced into separate virus-related sections, as exemplified by the Daily Infographics of Australia’s Department of Health, commenced on 6 April, and Sweden’s Public Health Agency’s creation on 29 March of a new website reporting on virus infections and deaths.

At time of writing, virus-related content crowded out almost anything else on the primary landing page for the health ministries in Australia, the UK and Thailand, whereas the primary landing page of Sweden’s health ministry still led with a statement of that ministry’s core mission.⁵ The Swedish government’s announcements throughout the window of observation also made explicit reference to goals other than minimizing the number of coronavirus effects, such as the goal for health care workers to remain able to go to work (behind the non-closure of schools) and the goal of having young people still able to continue their studies in distance mode. Such references remind the reader that other things are important, thereby maintaining some perspective on the present threat.

2d Fear

As most broadly recognised in behavioural economics by the term “affect heuristic” (Slovic et al., 2007), emotion is known to be a powerful behavioural motivator. Emotions are experienced in gradations of valence, from negative to positive, and guide our behaviour in general toward situations likely to generate more emotions of the latter type and fewer emotions of the former type.

In the pantheon of human emotion, fear holds a unique position. A basic emotion that we share with many animals, fear floods the brain and suppresses any other emotion, for very good evolutionary reasons. If a threat is truly and deeply feared, then humans will sacrifice hugely in the short run to try to avoid it. Controlling one’s fears requires significant sangfroid and is made more difficult when surrounded by fear messages. In this sense, fear itself is contagious.⁶ This carries a clear implication: we are vulnerable to taking action that reduces deep fear, particularly when others are also fearful. As stated in Frijters and Foster (2013), “In terms of manipulating people in the short run, the fear induced by the threat of violence is perhaps the quickest and surest means of manipulation” (p. 175).

The novel coronavirus seemed to pose a violent threat early in the window of observation, and fear of the virus was magnified via the powerful lens of media. People were manipulated by their great fear to such an extent that public

⁵The four government health ministries’ websites: health.gov.au/ (Australia), gov.uk/government/organisations/department-of-health-and-social-care (UK), moph.go.th/ (Thailand), government.se/government-of-sweden/ministry-of-health-and-social-affairs/ (Sweden).

⁶An interesting goal for future research would be to estimate the R-naught (healthline.com/health/r-nought-reproduction-number) of fear within a society.

discourse regressed at some points to pre-Enlightenment levels, with sections of the population – including public figures – becoming vulnerable to superstitious beliefs⁷ and conspiracy theories (e.g., that 5G networks were to blame for the coronavirus⁸). Headlines in three of the four countries examined here are emotive and alarmist, with some examples of what appeared verbatim in the Australian and UK headlines already reviewed above, and this should be expected to fuel fear.⁹ The following words stoking fear were used in Thai headlines between February and March in reference to the COVID-19 phenomenon: “reels”, “alarming”, “panic”, “crisis”, “outrage”, “anxiety”, “emergency”.

This fear did not have to be stoked by news suppliers. Perhaps taking a cue from their government’s more balanced approach, Sweden’s news publishers used far more factual and objective words in their headlines, with less emotive content – for example, on March 21st: “Number of coronavirus deaths in Sweden rises to 20”; or, on April 7th, “Sweden sees average of just over 40 coronavirus deaths a day”.

Weakened by fear, unable to escape the salience of the virus phenomenon, focused on infections and deaths happening right now rather than anything that might happen in the future, and bereft of sanity-preserving reference points, the citizens of three out of four of the countries examined in this paper were sitting ducks for any policy prescription – proportionate and appropriate, or otherwise – that held out the promise of reducing their fear of the clear and present danger that they so keenly perceived.

Part 3: Lessons for the future: How can we better safeguard human welfare next time?

The global response to the novel coronavirus pandemic has arguably been far out of proportion to the true nature of the threat.¹⁰ Many other diseases and illnesses that have a contagious aspect kill many more people every year, including influenza, sexually transmitted diseases, and lung diseases caused by smoking (the latter of which like fear is contagious socially, not physically, but the contagion is no less powerful). As a consequence of our over-reaction to the novel coron-

⁷[theguardian.com/world/2020/apr/16/as-coronavirus-spreads-around-the-world-so-too-do-the-quack-cures](https://www.theguardian.com/world/2020/apr/16/as-coronavirus-spreads-around-the-world-so-too-do-the-quack-cures)

⁸[businessinsider.com.au/coronavirus-conspiracy-5g-masts-fire-2020-4?r=USIR=T](https://www.businessinsider.com.au/coronavirus-conspiracy-5g-masts-fire-2020-4?r=USIR=T)

⁹While not shown in the tables, technical-sounding phrases like “infection fatality rate” and “R-naught” were frequently used in public parlance about COVID-19. These phrases were hard for laypeople to understand, increasing the uncertainty and stress to which they were subjected. This factor too may have made people more susceptible to messages of fear.

¹⁰For guidance on how to evaluate the effect on total human welfare of the economic lockdowns implemented by many countries in response to the virus, see the following: clubtrotto.com.au/2020/03/18/has-the-coronavirus-panic-cost-us-at-least-10-million-lives-already/, internationalaffairs.org.au/australianoutlook/lockdowns-could-kill-more-people-than-covid-19/, quadrant.org.au/opinion/qed/2020/05/run-the-numbers-survey-the-folly/, and japantimes.co.jp/opinion/2020/05/29/commentary/world-commentary/six-deadly-lockdown-sins/.

avirus outbreak, we are likely to lose a total number of lives worldwide that is greater by more than an order of magnitude than the number of lives we will have saved, even under the worst global projections (e.g., Imperial College London estimates, released on 16 March), which themselves have proven so far to be out by orders of magnitude.

The main lessons emerging from the analysis above are two-fold.

1. *Fear of immediate violence is king.* When a new threat emerges that is perceived to be large, imminent, and violent enough, it is people’s fear that will drive their responses, and this fear will eventually influence government policy. This is true even if the fear is unjustified by the extent of the real threat, and even if governments were initially working in a direction more proportionate to the real threat. The salience of the new threat both reflects and is reflected by the extent to which it is spoken about in the media. Soberingly, the policy on which the government lands in response to this fear need not be appropriate and proportionate to the threat: as observed on the British television series *Yes, Prime Minister*, what is important for the government at moments of crisis is to be seen to do something about the threat, rather than to effectively fight the threat (as per the Politician’s Syllogism¹¹).
2. *Perspective is key.* Without independent references against which to compare new information, the public – and then resultantly the government – is prone to further mis-gauge the nature of a new threat. This can exacerbate and extend the contribution of the initial fear response and the omission of balanced evaluation of the appropriateness of the government’s response to the threat. The in-built present bias of the public, fuelled by fear of the immediate uncertain threat, will lead to an inability to think beyond the costs paid or avoided in the present moment.

These observations allow the creation of advice for averting, in future global health emergencies, the type of global disaster that has befallen us as a result of world leaders’ response to the novel coronavirus pandemic.

First, it is vitally important for governments to control the fear levels in their populations. Sweden achieved this via confident announcements through the window of observation, reassuring the public that the degree of the health threat was understood and being appropriately controlled. Sweden’s news media also did not play up the health threat, helping to contain fear. Australia’s government, by contrast, was notable for subjecting its residents to periods of prolonged

¹¹From Wikipedia (accessed 17 June 2020): “The politician’s syllogism, also known as the politician’s logic or the politician’s fallacy, is a logical fallacy of the form: We must do something. This is something. Therefore, we must do this. The politician’s fallacy was identified in a 1988 episode of the BBC television political sitcom *Yes, Prime Minister* titled “Power to the People”.”

uncertainty about policy directions, fuelling worry. Rather than conveying a reassuring message of having the situation under control, Australia's PM sent the exact opposite message on 1 April, by praying and committing the nation to God. When policy directions were announced in Australia, they often focused on economic restrictions or stimulus packages without directly addressing the degree of the health threat, leaving unaddressed residents' growing fears about the virus itself potentially spiralling out of control.¹²

Second, it is important to provide perspective both within and across time when communicating about the health threat, giving appropriate reference points and countering present bias. Again, Sweden's messaging referenced the longer-run future and the trade-offs faced in the present moment, such as those related to keeping schools open. Australia by contrast exhibited an extreme present-oriented focus in its own policies, resorting at times to policy directions that seemed to toe the line of "short-run safety" but carried no clear connection to reducing deaths or suffering due to the virus itself (e.g., closing outdoor recreation paths).

There are mechanisms for achieving the above aims that will not be palatable to Western democratic nations, such as media control. Better-quality education systems may help somewhat in building the population's willpower and capacity to think in terms of trade-offs, but only in the long run. Feasible preparations for the next pandemic that can be implemented today involve adding the above lessons to countries' public health emergency response plans.

Also, in the future when new health threats are perceived, economic policy should not be set exclusively by epidemiologists, who tend to badly mis-estimate the death toll of new infectious bugs (Nadella et al., 2020). Nations should ensure that behavioural economists are sitting at the table when setting economic policy about perceived global health threats that are fast-moving and contagious, and therefore subject to bias in perception and decision-making.

Acknowledgments

This work benefitted from excellent research assistance provided by Michael Baker and DJ Thornton. All errors remain mine.

References

- Frijters, P., & Foster, G. (2013). *An economic theory of greed, love, groups, and networks*. Cambridge University Press.
- Hanoch, Y., & Finkelstein, E. A. (2013). Health psychology meets behavioral economics: Introduction to special issue. *Health Psychology, 32*(9), 929-931.

- Hodgson, C. (2020). True death rate remains elusive. *Financial Times*, 31 Mar 2020: p. 8.
- Matjasko, J. M., Cawley, J. H., Baker-Goering, M. M., & Yokum, D. V. (2016). Applying behavioral economics to public health policy: Illustrative examples and promising directions. *American Journal of Preventive Medicine, 50*(5S1), S13-S19.
- Nadella, P., Swaminathan, A., & Subramanian, S. V. (2020). Forecasting efforts from prior epidemics and COVID-19 predictions. *European Journal of Epidemiology 35*, 727-729.
- Rick, S., & Loewenstein, G. (2008). Intangibility in intertemporal choice. *Philosophical Transactions of the Royal Society B*, doi.org/10.1098/rstb.2008.0150.
- Slovic, P., Finucane, M. L., Peters, E., & MacGregor, D. G. (2007). The affect heuristic. *European Journal of Operational Research 177*, 1333-1352.
- Sunstein, C. R. (2006). The availability heuristic, intuitive cost-benefit analysis, and climate change. *Climatic Change, 77*, 195-210.
- Tversky, A., & Kahneman, D. (1973). Availability: A heuristic for judging frequency and probability. *Cognitive Psychology, 5*(2), 207-232.

¹²The climate of fear was further exploited by individuals who took on vigilante-like personal responsibility for enforcing restrictions, which occurred famously in both the UK and Australia.

Appendix

Explanation of Headline Sources and Selection Algorithm

While the use of a single unified algorithm to select news headlines across the four countries was initially sought as an ideal, several factors made the creation of such an algorithm infeasible. To deliver sensible results, headline selection methods for each country had to be sensitive to (1) the limitations of online search tools, (2) the news publishing culture of the country, and (3) language. These three factors are discussed in more detail below.

1. *Search tools.* Identical use of search engines both external to publications (e.g., Google, Factiva) and within particular news publications generated results that were non-comparable across the four countries. This meant that the use of search engine technology had to be customised to each country.
2. *News publishing culture.* Differences in news media culture had to be taken into account when selecting headlines. For example:
 - (a) Some Australian publications blogged the coronavirus story throughout each day, resulting in a profuse jumble of text, sub-headlines and key points. These blogs were not particularly useful for extracting the overarching message that is conveyed by a typical news headline.
 - (b) Thai English-language news uses careful, non-inflammatory language that often simply serves as a mouthpiece for the government.
 - (c) Sweden's news media is typically anti-sensationalist.
 - (d) UK news media runs the entire continuum from sober factuality to tabloid shrieking.
3. *Language differences.* Swedish and Thai headlines could not be translated into English without the risk of losing grammatical integrity and/or the emotional content contained in the original messaging. For this reason, it was necessary to source headlines instead from English-language news publications for both countries: The Local for Sweden, and Bangkok Post and Nation Thailand for Thailand.
 - (a) In the case of Thailand, the two major English-language papers from which headlines were selected target the expatriate community, the interested international community outside of Thailand, and more highly educated Thais. The reader should keep in mind when interpreting the Thai headlines that mass news media aimed at ordinary Thais may have carried more powerful emotional messaging than conveyed in the tables in this paper.

- (b) In contrast, in the case of Sweden, translating a sample of headlines from the native Swedish into English and comparing these with English-language news headlines from the The Local suggested that neither the content nor the emotional tenor of the original Swedish language were lost in translation. However, these translations resulted in uneven grammatical quality. The reader can be fairly confident that the headline messaging in The Local displayed in the tables in this paper captures the emotional tenor of the broader Swedish-language news.

Headline Selection Methodology

Acknowledging the caveats noted above, a set of principles was followed to collect headlines from each country.

For all four countries, the initial headline search was made using the search terms “coronavirus” and “COVID-19”. This yielded many headlines each day for all countries. A headline selected for inclusion in the tables in this paper was chosen on the basis of two subjective criteria: (1) it captured the most important and relevant content of the day, and (2) it captured the ‘spirit’ of the emotional messaging across as many of the headlines as possible. With respect to point (2), the reader should note that in the case of the UK, the rich variety of news media makes it more difficult to single out the underlying ‘spirit’ of the messaging. The tabloid press offers headlines that are typically more emotionally charged and sensational than, for example, The Times or The Guardian. The tabloids were largely ignored for purposes of this paper, but the reader should be mindful of their wide readership in the UK.

1. *Australia.* Factiva search on The Australian-Online, The Age, The Age-Online, Sydney Morning Herald, Sydney Morning Herald-Online, AFR online (Australian Financial Review). Separate text search using the same search terms on the ABC News online site.
2. *United Kingdom.* Daily Google search of “What the Papers Say”, which yields actual photos of newspaper front pages for the major UK dailies.
3. *Sweden.* Daily search on The Local.
4. *Thailand.* Daily search on The Bangkok Post and Nation Thailand.

AUSTRALIA (Table 1a)

Date	Events	Headlines	Government action
20/01/2020	First US coronavirus case reported in Washington state. One week earlier, on 13 January, Thailand had reported the first case of coronavirus outside China.		
21/01/2020			
22/01/2020			
23/01/2020	Chinese city of Wuhan placed under quarantine.		
24/01/2020			
25/01/2020	First case of infection in Australia reported: a Chinese man in his 50s who arrived in Melbourne on a flight from Guangzhou on January 19. Four more placed in quarantine.	“Coronavirus spreads across Australia amid scramble to find more cases” (Sydney Morning Herald). “Coronavirus: three cases in NSW and one in Victoria as infection reaches Australia” (Guardian). “Virus fear unsettles investors” (Australian)	Australia raises Wuhan alert to “do not travel”.
26/01/2020	Australia considers evacuating citizens caught in China amid lockdown.		
27/01/2020	UNSW student becomes the fourth person in NSW to test positive. Sydney schools ask students returning from China to stay away.		Chief Medical Officer Brendan Murphy says there is “no evidence of sustained human-to-human transmission outside of the Hubei province” and insufficient evidence to support quarantining passengers as they arrive.
28/01/2020		“Bad news on bad news: Virus could land \$2.3b hit to the economy” (Melbourne Age). “Virus ‘spreads faster’ than SARS” (Australian).	
29/01/2020	The S&P/ASX 200 closes below 7000, the Australian dollar falls and bond yields reach three-month lows.		The Australian Health Protection Principal Committee (AHPPC) says “we should take a highly precautionary approach” and recommends 14-day isolation for any persons in contact with a confirmed case.
30/01/2020	Last flight from Wuhan to Australia lands in Sydney with no passengers showing symptoms.	“Rebound for stocks as virus fears ease” (Australian).	
31/01/2020	WHO declares virus outbreak an “international emergency”.		Foreign arrivals from mainland China no longer allowed entry into Australia. Exemptions for citizens, residents, and their immediate family, but asked to self-isolate for 14 days.
01/02/2020	Qantas says it will suspend service to China from February 9. The university regulator relaxes rules on attendance and online content to help the higher education system respond to the international student crisis. All Monash University students are asked to stay away from classes until mid-March.	“Australians told not to travel to mainland China due to coronavirus threat, border restrictions tightened considerably” (ABC). “Lucky passengers checked for coronavirus after escaping Wuhan on last flight to Sydney” (Guardian). “Fires and virus could drive nation into recession” (Sydney Morning Herald).	Government issues a “do not travel” advice for China. Department of Health releases first epidemiological report on the virus in Australia. Released regularly since then.
02/02/2020			
03/02/2020		“Tourism braces for massive hit” (The Age). “International student market faces \$8b hole” (Sydney Morning Herald).	
04/02/2020	Around 100,000 Chinese students planning to attend Australian education institutions are stranded outside Australia.	“The real fight is against fear” (Sydney Morning Herald). “100,000 Chinese students stranded” (The Australian).	
05/02/2020	Chemist Warehouse has run out of face masks and some pharmacies are reportedly selling hand sanitizer at twice its normal price.	“Hand sanitizer price doubles” (The Age). “Top universities face losing thousands of students, hundreds of millions dollars” (Sydney Morning Herald).	14-day ban for non-citizens arriving from China.
06/02/2020		“No reason for panic - yet” (Australian Financial Review).	
07/02/2020			
08/02/2020			

AUSTRALIA (Table 1a - continued)			
Date	Events	Headlines	Government action
09/02/2020	The Australian dollar falls to 67.18 US cents, its lowest level since 2009.		
10/02/2020			
11/02/2020		“ASX reaches three-week high as risk appetite rises” (The Age) “No virus vaccine for 18 months” (The Australian).	Brendan Murphy says there is no community transmission of the virus in Australia.
12/02/2020		“ASX within sight of record high as CBA, CSL rally” (Sydney Morning Herald).	
13/02/2020	Tokyo Olympics organisers strongly reject claims that the 2020 games will be cancelled.	“Morrison extends China travel ban amid virus fears” (The Australian).	Prime Minister extends travel ban on Chinese for seven more days.
14/02/2020	National academic union calls on university vice-chancellors to guarantee the incomes of casual university teachers, many of whose livelihoods are threatened by the virus travel embargo on China.		
15/02/2020			
16/02/2020			
17/02/2020			
18/02/2020			
19/02/2020	180 Australians stuck on Diamond Princess cruise ship evacuated to Darwin. 4 test positive.	“Shopping mall giant Vicinity slashes profit forecast amid coronavirus crisis” (The Age). “Qantas slashes Asia flights” (The Australian).	
20/02/2020			China travel ban extended for another week.
21/02/2020			
22/02/2020		“COVID-19 Has Been Contained in Australia - No Evidence of Any Possibility of Contagion in the Community” (The Australian).	Health Minister Greg Hunt says the virus has been contained and that there is no reasonable threat of infection. He is backed by Brendan Murphy.
23/02/2020			
24/02/2020		“Australian share market tumbles in broad sell-off as investors fear coronavirus spread” (ABC).	
25/02/2020	Companies across a broad segment of the economy face deteriorating outlook as virus impacts extend beyond tourism and education.	“Billions wiped off market as contagion hits” (Sydney Morning Herald). “Coronavirus to hit economy harder than bushfires: Frydenberg” (The Australian).	
26/02/2020		“Coronavirus now spreading fastest outside China” (The Australian).	
27/02/2020	Airlines, carmakers and beer companies warn of tough times as virus spreads.	“Australia declares coronavirus will become a pandemic as it extends China travel ban” (Guardian). “Disrupted flights and travel insurance: how the coronavirus is affecting travel for Australians” (Guardian).	PM announces activation of Australian Health Sector Emergency Response Plan for CV-19.
28/02/2020		“Coronavirus update: Latest news on COVID-19 after Australia activates emergency plan” (ABC). “Australian stocks remain in freefall as coronavirus panic drives market down 10% for week” (Guardian). “Virus contagion will mean global recession” (The Australian).	
29/02/2020	About 40 customers at a beauty salon in Gold Coast exposed to virus by an infected employee who has just returned from Iran.	“‘Genuine panic’: Stocks shed \$210b in worst week since financial crisis” (The Age).	
01/03/2020	Man evacuated from Diamond Princess becomes first Australian to die of virus. Panic-buying of toilet paper, pain medicine and hand sanitizer at supermarkets.	“Australia records first coronavirus death as authorities review Italy travel advice” (The Age). “Shoppers empty supermarket shelves as virus fears bite” (The Australian).	Government announces 14-day travel ban from Iran.
02/03/2020	A NSW health worker becomes the first reported case of community transmission, as total cases rise above 30.	“Coronavirus update: Australian cases rise above 30 as expert warns more are ‘inevitable’, travel advisory to Italy issued” (ABC).	

AUSTRALIA (Table 1a - continued)

Date	Events	Headlines	Government action
03/03/2020	WHO says world in 'uncharted territory'. PM calls for calm as virus prompts panic buying at supermarkets. Australia's largest toilet paper producer moves to 24-hour production.	"Coronavirus update: People suspected of carrying COVID-19 could be detained under Australia's biosecurity laws" (ABC). "Shoppers strip shelves of toilet paper, rice" (The Australian).	Reserve Bank lowers its cash rate 25 basis points to 0.50%.
04/03/2020	Tenth case of virus confirmed in Victoria. Second Australian death – a 95 year-old nursing home resident. Economist Warwick McKibbin says up to 100,000 Australians and 68 million people worldwide could die from the virus in a worst-case scenario.	"Coronavirus update: More COVID-19 cases confirmed across Australia as shoppers stock up on toilet paper, groceries" (ABC). "Panic buying lifts supermarket shares" (The Australian). "About 50 Qantas and Jetstar staff confirmed to have coronavirus, Adelaide Airport cluster grows" (ABC). "Virus 'could kill up to 100,000 Australians'" (Australian Financial Review).	
05/03/2020	Catholic Church changes the way Holy Communion is given to reduce risk of spreading the virus.	"Coronavirus travel slump putting event and conference organisers at risk" (ABC). "Coronavirus: Australia warns millions could become infected as China toll passes 3000" (Guardian).	Prime Minister announces ban on South Korea arrivals and new screening measures announced for Italy. Treasurer Josh Frydenberg promises more than \$1 billion on stimulus measures to support small businesses.
06/03/2020			
07/03/2020	Two die and thousands stranded on Grand Princess cruise ship in Florida after 21 cases confirmed.	"100,000 jobs at risk from virus outbreak, S&P warns" (Sydney Morning Herald). "Cairns feels the pinch as coronavirus turns city into a tourist ghost town" (Guardian).	'We are prepared': Brendan Murphy issues virus warning. PM offers to share expected \$1 billion of virus health costs with the states.
08/03/2020		"Sigma's plea: don't stockpile medicines" (The Australian).	AHPPC recommends restrictions on CV-19 contacts and travellers from listed higher-risk countries; Australian Government secures additional 54 million face masks. Deputy chief medical officer Paul Kelly asks public not to panic-buy medical supplies.
09/03/2020	Third virus fatality. Stock markets plunge on global recession fears. Australian stock market down 7.33% in worst day since GFC.	"Recession coming: Westpac's Evans" (The Australian). "Oil collapse wipes \$140bn from ASX" (The Australian). "Alarm bells: Oil price crash is a worrying sign for the health of the world economy" (The Age). "'Signs of stress': Banks smashed in market rout" (The Age).	Australian government stimulus package promises financial support 'as fast as possible'.
10/03/2020	WHO declares a pandemic. Australia's confirmed cases passes 100. Major retailers demand rent reductions and threaten to withhold payments. Qantas cuts approximately a quarter of its international flight capacity by suspending routes and using smaller aircraft.	"Coronavirus fears prompt Qantas to slash services over next six months" (ABC). "Kikki K collapses into receivership with 450 jobs at risk" (The Age). "'Survival of the fittest': Qantas cuts more flights, warns airlines will collapse" (The Age).	
11/03/2020	MONA cancels winter arts festival. Consumer confidence is at its lowest level in five years.	"Australia's stock market takes fresh dive as coronavirus cases rise to 122" (Guardian). "Universities face financial crises as enrolment cutoffs loom" (Sydney Morning Herald).	AHPPC provides recommendations for healthcare and age care workers. Italy arrivals blocked. Health minister says Australia cannot predict how many will die from virus. Commonwealth Government unveils a \$2.4 billion health package. Government widens travel ban to include Italy.
12/03/2020	CEO of Grattan Institute, Dr John Daley, says Australia must either close its borders or shut down a significant amount of community activity, or it will go the way of Italy. Graham Turner, founder of Flight Centre, tells government and public to stop panicking, as the company closes 100 stores. Australian share market has its worst day since the GFC as the US bans travel from Europe.	"Billions of dollars pumped into coronavirus-hit economy in bid to stave off recession, Scott Morrison announces" (ABC). "Virus 'first wave' may hit 20 per cent of NSW: Chief health officer" (The Australian). "ASX plunges 7.4pc as US travel ban sparks recession fears" (Australian Financial Review).	PM announces \$17.6 billion stimulus package: \$750 cash payments to those on existing Commonwealth payments, investment incentives for almost all businesses, and support for small businesses who employ apprentices.

AUSTRALIA (Table 1a - continued)

Date	Events	Headlines	Government action
13/03/2020	Justin Trudeau's wife tests positive. Home affairs minister Peter Dutton confirms he has tested positive. Global shortage of test kits. Telstra orders its 20,000 nationwide staff to work from home.	"Gatherings of more than 500 people to be cancelled, Australians urged not to travel overseas amid coronavirus fears" (ABC). "Fear of the unknown: Sharemarkets in chaos as panic takes over" (The Age). "Authorities warn first wave of infections in NSW to top 1.5 million people" (Sydney Morning Herald). "Australia bans mass gatherings for first time in a century" (Sydney Morning Herald).	AHPPC issues guidelines for public gatherings, testing, and social distancing. Brendan Murphy urges calm and says virus is a very mild illness. The federal government and states agree to split the costs of virus healthcare, expected to be approximately \$1 billion.
14/03/2020	Australia has 50 new cases in a single day for the first time.	"Coronavirus update: Australia passes 200 cases, Apple closes stores, Spain to put country under lockdown" (ABC). "They would have been slaughtered": Coronavirus crisis causes capital freeze for Australian business" (Guardian). "Retirement savings at risk amid market uncertainty" (Sydney Morning Herald).	
15/03/2020	Global shortage of virus test kits hits Australia as other nations limit exports. Woolworths launches a dedicated shopping hour each day for the elderly and disabled.	"NSW bans gatherings of more than 500" (The Australian). "Coronavirus quarantine enforced for all people entering Australia, lockdowns on the table" (ABC). "Australia in lockdown; virus numbers grow, hit to economy gets larger" (The Age). "Airlines will go bust because of quarantine rule: Flight Centre CEO" (Australian Financial Review).	Government orders all international arrivals to self-isolate for 14 days, regardless of their point of origin. Requirement is to be enforced with fines and/or prison time. NSW bans outdoor gatherings limited to 500 people.
16/03/2020	Imperial College London issues its Report 9: estimates 510,000 deaths in UK and 2.2 million in the US in the absence of mitigation strategies. ASX200 falls 9.7%, its steepest one-day fall in 33 years.	"Lockdown Begins" (The Age). "Dow Jones plunges 13 per cent as coronavirus sell-off intensifies on Wall Street and Donald Trump warns of US recession" (ABC). "Australian government signals second-round stimulus package as market tumbles 9.7%" (Guardian).	Victorian Premier Daniel Andrews declares State of Emergency, urges federal government to restrict entry by travellers from the US.
17/03/2020	Private schools in Victoria close despite the advice of the state's Chief Health Officer, who says school closures are ineffective in minimising the spread of the virus.	"Coronavirus update: Qantas and Jetstar slash international flights as Tom Hanks released from hospital" (ABC). "Public in state of uncertainty as state of emergency grips city" (The Age). "Tourism falls off a cliff as losses climb to \$3b a month" (Sydney Morning Herald). "Government urges Australians overseas to return home as borders close around the world" (Guardian).	Self-isolation required for overseas travellers, cruise ships blocked for 30 days. DFAT advises Australians overseas to return home as soon as possible. The NSW government unveils a \$2.3 billion package to boost healthcare capacity, including purchase of equipment and increasing ICU space.
18/03/2020	Virgin suspends international flights and cuts domestic flights by 50%. The government announces a \$750 million aid package for the airlines in the form of waiver of industry fees and levies. Even so, Qantas suspends all international flights and stands down two-thirds of its workforce, while Virgin suspends all international flights from March 30 to June 14. University of Sydney's 10,000 staff encouraged to work from home.	"Airlines given \$750m handout" (The Age). "WA Government urges people to avoid interstate travel as coronavirus cases increase" (ABC). "Do not travel overseas – Morrison announces new overseas travel restrictions" (The Australian). "Australians fearing for economy over health" (The Age). "Qantas stops international flights, stands down workers" (The Australian).	Human biosecurity emergency declared by the Governor-General. AHPPC recommends the continuation of a 14-day quarantine requirement for all returning travellers; DFAT raises travel advice for all overseas destinations to Level 4 'Do Not Travel'. Prime Minister announces strict rules for nursing home visits: maximum 2 visitors at a time and no one under age 16.
19/03/2020	Number of cases in NSW passes 300. Some economists warn that the housing market could be facing a 20% price fall if the recession lasts more than six months. Australian dollar declines in value to US55 cents, before recovering to close above 58 cents.	"The Australian dollar hits lowest level since 2002, ASX extends fall" (ABC). "Australia closes borders to all visitors amid coronavirus pandemic" (Sydney Morning Herald). "Australian housing market will hit the wall in coronavirus recession, experts say" (Guardian).	Indoor gatherings limited to 100 people. RBA cuts cash rate to 0.25%. PM announces that Australia will close its borders to non-citizens and non-residents as of 9pm tomorrow night. Tasmania effectively closes borders to mainland Australia.

AUSTRALIA (Table 1a - continued)

Date	Events	Headlines	Government action
20/03/2020	NAPLAN (national testing of schoolchildren) cancelled for the year. The Australian dollar closes lower again, at just above 57 US cents. This was to be the trough.	“Market meltdown ‘the worst ever’” (The Australian). “Queensland COVID-19 case tally rises by 40 to 184” (ABC). “Borders to shut as PM tries to curb virus spread” (The Age). “‘We are facing extinction’: Tourism, hotel sector calls for \$900m in relief” (Sydney Morning Herald).	Victorian government announces a \$1.7 billion support package for businesses.
21/03/2020	All of Sydney’s eastern beaches to close on Sunday. Virus cases climb across Asia Pacific as lockdowns in US widen.	“Economy on the edge of a precipice” (The Age). “Eerie quiet fills deserted malls” (The Age). “PM prepares nation for suburban lockdowns” (Sydney Morning Herald). “Iconic Sydney beaches closed as restrictions enforced amid coronavirus crisis” (The Age).	Borders closed to non-citizens and residents, enforced self-quarantine for citizens. Qld, WA, NT and SA close borders to non-essential travellers.
22/03/2020	Total number of cases now exceed 1,000.	“Australia’s coronavirus cases surge past 1000 as NSW records most number of infections” (Sydney Morning Herald). “Scott Morrison calls for all non-essential travel to be avoided” (Sydney Morning Herald).	Second tranche of stimulus measures announced, worth AUD\$66.2 billion, including cash transfers to businesses of up to \$100,000, an effective doubling of the Job-Seeker payment or those out of work to \$1100 per fortnight, and the introduction of a Coronavirus Supplement of \$550 per fortnight for those who have seen a reduction in their income. People will be allowed tax-free superannuation access up to \$10,000.
23/03/2020	Number of new cases continue to rise, to 364 from 281 yesterday. S&P/ASX 200 closes at 4402.50, down 38% from its high from its peak on February 20.	“NSW schools stay open but parents urged to keep children at home to contain spread of coronavirus” (ABC). “Australian shares plunge again as businesses shut and US Congress bickers over coronavirus stimulus package” (ABC). “‘Worst since 1932’: Two million Aussies face unemployment queue” (The Age).	Pubs and clubs closed, restaurants allowed take-away only.
24/03/2020	430 new cases – this will prove to be the second highest daily tally of the outbreak.	“Coronavirus update: Morrison announces further restrictions, Australian cases pass 2,000, Trump lashes out as US death toll surges” (ABC). “Job losses set to rival the Great Depression” (Sydney Morning Herald).	Ban on Australians travelling overseas. School-based immunisation programs, with the exception of the delivery of meningococcal ACWY vaccine, are paused.
25/03/2020	Global death toll passes 20,000. Global confirmed cases top 400,000. Travellers arriving at Sydney airport on Sunday given incorrect advice about self isolating.	“Coronavirus cases in NSW rise past 1,000, Border Force boss blames State Government for Ruby Princess bungle” (ABC). “Coronavirus restrictions tipped to send Australian house prices tumbling” (Guardian). “No parties, no outings, no gatherings... no excuse – Victorian Premier on COVID-19 update” (The Australian).	PM establishes National COVID-19 Coordination Commission as a strategic advisory body providing advice to mitigate the social and economic impacts of the pandemic. Temporary suspension of all non-urgent elective procedures in both the public and private sector. Progressive scale-up of social distancing measures; aged care providers limit visits to a maximum of two visitors at one time per day.
26/03/2020	US Senate passes massive \$US2.2trn stimulus bill.	“No passengers off boats in Sydney until further notice, Berejiklian says” (The Australian).	Expanded testing criteria. Restricted movement into some remote areas. NSW National Parks closes campgrounds, visitor centres, and high-visitation areas. Some other states follow suit. Many local municipalities close local parks in following week.
27/03/2020	Myer announces it will close stores and stand down 10,000 staff due to virus crisis.	“Eastern Australia’s coronavirus hotspots revealed: map shows affluent Sydney suburbs hard hit” (Guardian). “Coronavirus infections in NSW rise to 1,405, but new cases drop for second consecutive day” (ABC). “Coronavirus crisis job losses will raise mortgage stress more than the GFC did: analysts” (ABC).	Data released by the Victorian and NSW health departments reveals that Sydney’s eastern suburbs and Melbourne’s affluent retirement suburbs have suffered a relatively higher incidence of infections.

AUSTRALIA (Table 1a - continued)

Date	Events	Headlines	Government action
28/03/2020	460 new cases today, which will turn out to be the peak. Collapsed stationery retailer kikki.K closes its 59 stores. David Jones closes its small-format fashion stores, which include Country Road, Mimco and Witchery, throwing 5,000 out of work.		Mandatory isolation in hotels for travellers.
29/03/2020	Australia records 3400 cases of the virus with median age of 48. Public health experts call on the Prime Minister to release the modelling that is being used as the basis for policy decisions.	"Queensland records second coronavirus death, as Government bans house parties and considers new hospitals" (ABC). "Social media awash with fake treatments for coronavirus" (Sydney Morning Herald). "'Show us virus modelling', experts ask PM" (Sydney Morning Herald).	Further AUD\$1.1 billion package announced providing rebates for tele-health, funding for mental health services and domestic violence prevention, and additional cash for emergencies.
30/03/2020	Home furniture retailer Nick Scali closes its 58 stores. New virus cases decline sharply, from 460 on March 28 to 265 on March 30. The share market rallied, with the S&P/ASX 200 rising 7%.	"Over-70s ordered to stay at home" (The Age). "City given hope as rate of infections begins to ease" (The Australian). "COVID-19 has put jobs in danger. How many workers don't have leave entitlements?" (ABC). "Rental crisis as landlords wonder who will pay" (The Australian). "Virgin seeking \$1.4bn bailout to keep flying" (The Australian).	Special provisions applied to vulnerable people in the workplace. Additional regional social distancing measures. Australia announces AUD\$130 billion "Jobkeeper" wage subsidy package. The package delivers \$1500 per fortnight to employers to pay their workers, and is due to last for 6 months, back-dated to the beginning of March 2020. The Prime Minister orders people over age 70 to stay home and restricts all outdoor gatherings to two people.
31/03/2020	Two border force officers reportedly test positive as Australian deaths rise to 19. Retail association to press government to include more casuals in Jobkeeper payment. Australian airlines ask government for up to AUD\$5.6 billion to survive.	"ASX delivers best gains on record" (Sydney Morning Herald).	Health Minister Hunt says government will not allow private hospitals to collapse as a result of not being able to conduct elective surgeries during the virus crisis.
01/04/2020	Australian virus deaths rise to 21 as ex-health professionals urged to rejoin workforce. The Seven Network orders staff to take 20% pay cuts. Uniqlo closes all its Australian stores and stands down about 1,500 staff.	"Coronavirus update: Spain's death toll hits 10,000, Australia passes 5,000 confirmed cases, PM announces free child care" (ABC). "Plan to move infected prisoners into private hospitals" (Sydney Morning Herald). "Tracking the devastating march of COVID-19 across NSW" (Sydney Morning Herald). "Scott Morrison prays for Australia and commits nation to God amid coronavirus crisis" (Guardian).	The Australian Government announces it will provide free childcare services to families. Cost AUD\$1.6 billion. Health Minister Hunt says prisoners with virus will be moved into private hospitals.
02/04/2020	Number of new cases in NSW drops below 100.	"Worldwide covid-19 cases to reach one million in the coming days" (The Australian).	
03/04/2020	ASX200 finishes its best week since 2011.	"Scott Morrison says the coronavirus curve is flattening. Are we turning the corner?" (ABC). "Virgin Australia is running out of cash and facing downgrades as coronavirus grounds planes, costs jobs" (ABC).	Chief medical officer says global cases could be 5-10 million.
04/04/2020	Australia's death toll from the virus reaches 30.	"'Australia won't look the same': ANZ's Elliott warns coronavirus impact will be generational" (Sydney Morning Herald).	Deputy chief health officer, Paul Kelly, advises the broader public not to wear face masks, partly because of supply limitations and partly because incorrect use can make it more dangerous for the wearer.
05/04/2020	H&M closes its 49 Australian stores and stands down 1,300 staff.	"Police launch criminal probe into Ruby Princess" (The Australian). "'Police state': Stopping the virus with the full brunt of the law" (The Age). "H&M follows the fashion – and shuts" (The Australian).	NSW Police launch criminal investigation into whether Ruby Princess broke the Biosecurity Act.
06/04/2020	University of Sydney simulation finds that COVID-19 cases would peak by mid-April and fall to almost zero by July. Number of new cases falls for the sixth consecutive day.	"New coronavirus cases in Australia could number almost zero by July, modelling suggests" (Guardian).	Department of Health announces that 2432 people have recovered from virus. Begins releasing daily infographics.

AUSTRALIA (Table 1a - continued)

Date	Events	Headlines	Government action
07/04/2020	Flight Centre to close 428 stores by the end of July.	“Police fine learner driver in coronavirus lockdown blitz” (The Age). “Flight Centre to shut 428 stores” (The Age). “RBA keeps rates on hold” (The Australian). “PM opens door to lifting restrictions” (The Australian).	
08/04/2020	Australia’s death toll reaches 50 amid data suggesting that the infection growth rate is slowing. Property research firm, CoreLogic, says that more than 45% of the residential properties that went to auction last weekend were withdrawn from sale.	“Migrant workers and international students stuck in Australia due to coronavirus travel bans” (ABC). “Half nation’s businesses let staff go, cut hours” (The Age). “A plague on housing” (The Age).	
09/04/2020	General practice clinics across Australia are experiencing a steep decline in patient numbers as virus causes people to avoid going to the doctor for non-virus-related illnesses. Australian Retailing Association encourages shopkeepers to open if they can comply with social distancing requirements.	“Virgin Australia suspends domestic flights during coronavirus crisis” (ABC). “Retailers encouraged to start reopening stores” (The Age). “Queensland to bring in new coronavirus restrictions, meaning even residents will need a special permit to enter the state” (ABC).	Air crew on international flights will be required to self-isolate at their place of residence (or hotel) between flights or for 14 days, whichever is shorter. Health minister Hunt says the curve if flattening but Easter weekend will be critical.
10/04/2020		“Victorian government announce \$40.2 million support package for those at risk of family violence” (ABC). “Pandemic could push half a billion into poverty: report” (The Age). “A winter flu season means Australia’s coronavirus lockdown could last for months” (ABC).	
11/04/2020	US deaths pass 20,000.		
12/04/2020	New cases continue their downward trajectory, with only 21 in the latest 24 hours compared with 89 the previous day.	“Health Minister ‘cautious’ as NSW records seven new coronavirus cases” (Sydney Morning Herald).	Victorian government extends state of emergency for another month.
13/04/2020	Virgin Australia grounds all its aircraft, stands down thousands of employees and enters a trading halt.	“Andrews extends state of emergency” (The Age).	Tasmanian government closes the North West Regional Hospital and North West Private Hospital for cleaning, and put the entire staff of over 1000 people and their families into quarantine.
14/04/2020	NAB’s Business Confidence Index drops to its lowest level on record.	“ASX lifts, while collapse in business confidence points to ‘unprecedented’ recession: NAB report” (ABC). “IMF forecasts big coronavirus growth hit amid world in a ‘great lockdown’” (ABC). “Unemployment to hit 10 per cent: Treasury” (The Age).	
15/04/2020	US virus deaths pass 30,000. A Western Australian man becomes the first person in Australia to be jailed for breaking a self-isolation directive. IMF predicts the Australian economy will shrink 6.7% this year, before a rebound in 2021.	IMF predicts deep recession, V-shaped rebound (Australian Financial Review).	Prime minister says that pay cuts for himself, ministers and senior public servants are not under consideration.
16/04/2020		“Downturn will hit us like truck: Morrison” (The Australian). “Business push to reopen in May” (Australian Financial Review).	AHPPC provides advice on reducing the potential risk of virus transmission in schools.
17/04/2020			
18/04/2020		“Payne calls for international COVID-19 review” (The Australian).	Government pushes for an independent global review of the origins and initial spread of the virus.
19/04/2020	The Grattan Institute forecasts that between 1.9 and 3.4 million people (14% and 26% of the work force respectively) will be unemployed as a result of the virus.	“Sydney Airport traffic plunges 97pc” (The Australian). “Jobless shock ‘worst since depression’ despite JobKeeper” (Australian Financial Review).	Victorian Premier Andrews says the 4,000 new ICU beds his government announced less than 3 weeks ago would likely not be needed.
20/04/2020	Number of new cases drops to 13.	“Virgin enters administration” (The Australian). “Beijing accuses Australia of pandering to US in ‘anti-China crusade’” (Australian Financial Review).	
21/04/2020		“Millions lose work as jobs pain tipped to last years” (The Age).	

AUSTRALIA (Table 1a - continued)

Date	Events	Headlines	Government action
22/04/2020		“800,000 people lose their jobs in three weeks” (The Age). “Petrol profits highest in 10 years” (The Australian). “Home sales plunge as buyers sit out” (The Australian).	
23/04/2020			
24/04/2020			
25/04/2020		“Australia on track for ‘cautious’ ‘easing’” (The Age).	
26/04/2020			
27/04/2020	Bondi Beach reopens as NSW restrictions are eased.		Brendan Murphy says government has no access to any data from the new virus app and it will “never be used for any other purpose” than contact tracing.
28/04/2020			
29/04/2020	University researchers present ‘controlled adaptation’ or ‘elimination’ strategies to the Health Minister, saying continuing strict lockdowns until June would result in 50% higher economic growth afterwards.	“Support for lockdown until June” (Melbourne Age). “Wesfarmers flags closures in Target overhaul” (Sydney Morning Herald).	PM says travel to New Zealand is a possibility. Paul Kelly warns there could be a second wave of infections as restrictions are lifted.
30/04/2020	Retail property owners report steep declines in sales at their shopping centres in the March quarter, and predict worse is to come.	“Property trusts sound alarm on dire outlook” (The Australian).	

SWEDEN (Table 1b)

Date	Events	Headlines	Government action
20/01/2020	First US coronavirus case reported in Washington state. One week earlier, on 13 January, Thailand had reported the first case of coronavirus outside China.		
21/01/2020			
23/01/2020	Chinese city of Wuhan placed under quarantine.		
24/01/2020			
25/01/2020	Death toll hits 41 as doctor dies from virus in China.		
26/01/2020			
27/01/2020			
28/01/2020			
29/01/2020			
30/01/2020	SAS cancels all flights to and from China.		
31/01/2020	WHO declares virus outbreak an “international emergency”. Sweden’s first case of the virus is confirmed in Jönköping – a woman in her 20’s recently returned from Wuhan.	“First case of coronavirus confirmed in Sweden” (The Local). “Sweden to airlift citizens from coronavirus-hit Wuhan” (The Local).	The Foreign Ministry will assist the 15 Swedish citizens in Wuhan to leave there.
01/02/2020			
02/02/2020	Eleven Swedish citizens are flown home from China on an evacuation flight from Wuhan.		
03/02/2020		“Coronavirus evacuation flight: 11 Swedes return home from China” (The Local).	
04/02/2020			
05/02/2020			
06/02/2020			
07/02/2020			

SWEDEN (Table 1b - continued)

Date	Events	Headlines	Government action
08/02/2020			
09/02/2020			
10/02/2020			
11/02/2020			
12/02/2020			
13/02/2020	Tokyo Olympics organisers strongly reject claims that the 2020 games will be cancelled.		
14/02/2020	SAS extends its suspension of flights to and from China until March 29.	“Coronavirus: SAS extends suspension of flights to China” (The Local).	
15/02/2020			
16/02/2020			
17/02/2020			
18/02/2020			
19/02/2020			
20/02/2020			
21/02/2020			
22/02/2020			
23/02/2020			
24/02/2020			
25/02/2020		“Sweden raises risk alert for spread of coronavirus” (The Local).	The risk of the virus spreading in Sweden is upgraded from “very low” to “low” by the Public Health Agency.
26/02/2020	A second case of virus is confirmed - a man in his 30's from Gothenburg who has just visited Italy.		
27/02/2020	Five new cases confirmed.	“Sweden confirms five new coronavirus cases, including first patient in Stockholm” (The Local). “Around 40 may have been exposed to Gothenburg coronavirus patient” (The Local).	
28/02/2020	Four more cases confirmed.		
29/02/2020	Two more cases confirmed.		
01/03/2020			
02/03/2020		“Sweden halts flights from Iran over coronavirus fears” (The Local).	Swedish health authorities upgrade the risk of the virus spreading in Sweden from “low” to “moderate”. The Foreign Ministry advises against all travel to Iran. Sweden becomes the first country in the world to suspend Iranian airline Iran Air’s permit in Sweden.
03/03/2020	Number of cases doubles from 15 to 30. WHO says world in ‘uncharted territory’.	“Sweden’s first coronavirus patient recovers” (The Local). “Coronavirus: SAS suspends flights to northern Italy” (The Local).	
04/03/2020	Number of cases increases to 35.	“Why did Sweden’s confirmed coronavirus cases double overnight?” (The Local).	The Public Health Agency announces that it will begin testing more people for the virus, including those who are showing symptoms after traveling abroad or who have been in close contact with confirmed cases.
05/03/2020	China toll passes 3000. Number of cases in Sweden passes 350. Many of the cases are linked to travellers who have returned from Italy.	“Two patients in intensive care as coronavirus cases rise to more than 300” (The Local).	The Foreign Ministry advises against all non-essential travel to northern Italy and some areas in South Korea.
06/03/2020			
07/03/2020	Two die and thousands stranded on Grand Princess cruise ship in Florida after 21 cases confirmed.		
08/03/2020			
09/03/2020	First case of community transmission. Stock markets plunge on global recession fears.		

SWEDEN (Table 1b - continued)

Date	Events	Headlines	Government action
10/03/2020	WHO declares a pandemic.	“‘Very high’ risk of coronavirus spreading in Sweden” (The Local).	Swedish health authorities upgrade the risk of the virus spreading in Sweden to “very high”. The Public Health Agency advises members of the public to avoid non-essential visits to hospitals and care homes, and reiterates the importance of people who work with vulnerable groups staying away from work if they have any symptoms such as a cough or fever. Sweden’s foreign ministry extends its travel recommendations to advise against all non-essential travel to all of Italy.
11/03/2020	The first Sweden-linked virus death is confirmed. US President Donald Trump announces a travel ban to the US from all countries in the Schengen area, which includes Sweden.	“Sweden bans large events to halt coronavirus spread” (The Local). “Sweden confirms first death of coronavirus patient” (The Local).	The Public Health Agency issues ban on all public events of over 500 people. Sweden’s Foreign Ministry advises against non-essential travel to the Austrian state of Tyrol. Police stop carrying out routine breath tests. Sweden’s government scraps the first unpaid day of sick leave, meaning that people who take leave from work due to sickness will receive sick pay from the moment their absence begins, effective immediately and in force for 1.5 months.
12/03/2020	Nordic gym chain SATS closes clubs for (initially) two weeks. Prison riot in Norrtälje linked to virus restrictions, including on visitors.		Denmark and Norway are both closing schools temporarily, but Sweden’s Public Health Agency warns that such a decision would have consequences for parents working in essential jobs such as healthcare. Stockholm health authorities announce that only elderly people and patients in hospital will be tested for the coronavirus from now on, part of a new national strategy aimed at using resources in the most effective way. Other people who experience symptoms are instead directed to national health line. The Public Health Agency updates its guidelines to urge anyone with symptoms of the coronavirus or a cold, regardless of whether or not they have been travelling, to stay at home and limit social contact until symptom-free for at least two days.
13/03/2020	Many hospitals have introduced bans on external visitors. The Stockholm stock exchange’s OMXS index recovers 2.6 percent in early morning trading, after plummeting 11.1 percent on Thursday – a historically sharp fall in line with other European markets. Airlines SAS and Norwegian cancel flights between Scandinavia and the US in the wake of Donald Trump’s travel ban, with Norwegian temporarily laying off half its staff. The pandemic causes the Formula 1 premiere to be cancelled. Justin Trudeau’s wife tests positive. Global shortage of test kits.	“Swedish PM urges against non-essential travel amid coronavirus outbreak” (The Local).	Prime Minister Stefan Löfven urges Swedes to avoid international travel. Sweden cancels its upcoming scholastic aptitude test for university admissions, affecting 70,000 students.
14/03/2020	Second virus death – an elderly woman in Gothenburg. Several private initiatives are under way to help people who have to self-isolate at home with their groceries. Examples include the social media hashtag Din-GranneHär (YourNeighbourHere).	“Second person dies from coronavirus in Sweden as latest confirmed cases rise to 924”.	

SWEDEN (Table 1b - continued)

Date	Events	Headlines	Government action
15/03/2020	Third death. Scandinavian Airlines announce plans to temporary lay off up to 10,000 staff. Global shortage of virus test kits; nations limit exports.	“Business and jobs: Sweden launches 300 billion kronor crisis package” (The Local).	PM announces there are no imminent plans to close Sweden’s borders. The government announces plans for what could amount to a 300 billion kronor (\$31 billion) crisis package to help struggling businesses. The package include provision for short-term layoffs, where employers’ wage costs could be halved but the employee would still receive more than 90 percent of salary, and the state would cover the difference; the central government taking over sick pay responsibility in April and May; the possibility for companies to defer paying in employers’ social security contributions, preliminary tax on salaries and value-added tax that are reported monthly or quarterly. Stockholmers particularly urged to work from home. Parliament announces changes to numbers of people in chambers in line with social distancing. Sweden’s Public Health Agency clarifies that the advice against non-essential travel to anywhere in the world has less to do with the risk of spreading infection and more to do with the risk of ending up in a situation where it is impossible or harder to get home.
16/03/2020	Number of cases exceeds 1000. Imperial College London issues its Report 9: estimates 510,000 deaths in UK and 2.2 million in the US in the absence of mitigation strategies.	“Stockholmers urged to work from home as Sweden’s coronavirus deaths rise to seven” (The Local).	Sweden recommends all senior high schools (gymnasie level, children aged over 16) to close starting tomorrow, and to introduce distance learning so that students can keep studying. The decision also applies to universities and municipal adult education. Sweden halts international travel into the country following an EU decision. The entry ban will in force for 30 days. Badly-affected airlines will receive state support. In a deal between the Danish and Swedish governments, SAS has been guaranteed three billion kronor in state support. Public Health Agency epidemiologist Anders Tegnell tells reporters the country should be prepared for more cases and more deaths in the coming weeks. Emphasises importance of flattening the curve. Anders Tegnell says that community infection is worsening in an increasing number of places, and advises against travel to the major cities. Health Minister Lena Hallengren announces a new deal for Sweden for deliveries of protective face masks. Parliament votes to empower the government to close schools and preschools if necessary. Sweden’s state-run alcohol chain Systembolaget will reduce opening hours in Stockholm because of a staff shortage resulting from the virus outbreak. Public broadcaster SVT will start broadcasting programmes especially for children who have to stay at home. Region Stockholm (hospital) launches a self-assessment test for the virus online. Foreign Minister says Sweden has no plans to fly home Swedish citizens or residents who are stranded abroad.
17/03/2020	Plans to increase intensive care capacity to meet anticipated higher demand.		
18/03/2020	Supply chain disruptions cause Swedish truck maker Scania to announce a halt to production at most of its European plants.		
19/03/2020	Stockholm hospitals ramp up preparations for more cases.		
20/03/2020	Swedavia, the operator of Sweden’s airports, lays off 1,900 staff due to the huge reduction in flight traffic, and gives notice that 800 workers may be permanently laid off. Volvo halts production in Sweden, a move that affects around 25,000 employees. Swedish university campuses close to students and continue classes online.	“Volvo suspends car production in Europe and the US” (The Local).	

SWEDEN (Table 1b - continued)

Date	Events	Headlines	Government action
21/03/2020	Death toll rises to 20, with 1,746 confirmed cases.	“Number of coronavirus deaths in Sweden rises to 20” (The Local).	Testing strategy has shifted to testing only those with severe respiratory symptoms and/or who belong to vulnerable groups.
22/03/2020			Prime Minister Stefan Löfven makes a televised speech to the nation urging everyone to step up and do their part to prevent the spread of the virus. Sweden announces a A\$170 million cash infusion into its arts, cultural and sports sector.
23/03/2020	More than 18,000 workers have been given notice so far in March, compared with about 3,300 in the same month last year.		Anders Tegnell says Sweden’s strategy is currently focused on protecting the elderly and risk groups. Elderly people are urged to limit direct contact with other people.
24/03/2020	Stockholm public transport company SL is criticised for cutting services after pictures emerged of overcrowded buses during rush hour.	“Table service only: Sweden’s new restrictions for bars and restaurants” (The Local). “While most of Europe is in lockdown, Sweden is going its own way” (The Local).	Health Minister Lena Hallengren urges Swedes to practice social distancing, although no official recommendation is made to follow WHO guidelines stipulating people should remain one metre apart. Stockholm councillor Kristoffer Tamsons urges people to drive as much as possible. Sweden is to allow table service only at bars, restaurants, night clubs and cafés, under new restrictions expected to come into effect tomorrow. Venues with table seating are also told to leave enough space between tables. Any venue that does not comply with the new rules risks being shut down.
25/03/2020	Deaths in Stockholm almost double overnight. Global death toll passes 20,000. Global confirmed virus cases top 400,000.	“Home break-ins drop by more than half in Stockholm as coronavirus hits” (The Local). “Coronavirus in Sweden: Five stories of progress to bring you hope” (The Local).	Anders Tegnell says that government policy is not to eliminate the virus but to bring it down as much as possible with reasonable measures so that healthcare services can continue to function. Stockholm City Council present a crisis package for small businesses. Measures include letting businesses defer payment of rent on premises owned by the council’s property firms, and making it possible for food trucks not to have to pay a fee for land lease.
26/03/2020	US Senate passes massive \$US2.2trn stimulus bill.		The government presents a series of new measures to mitigate the impact of the virus outbreak on small businesses and entrepreneurs. The proposed measures include: loan guarantees to banks that provide loans of up to 75 million kronor to small and medium-sized companies; reduction of employers’ social security contributions between March 1 st and June 30 th ; a temporary discount on rental costs for companies in sectors hit hard by the virus (e.g., durable consumer goods, hotels, restaurants); temporary rule changes to enable sole traders affected by the outbreak to get tax cuts; allowing sole traders to defer their spring VAT payments.
27/03/2020	Number of confirmed cases exceed 3,000.		Prime Minister Löfven urges people not to travel during the Easter break. Says that the government cannot legislate and ban everything, and urges personal responsibility. Nonetheless, Sweden bans gatherings of more than 50 people, with effect from Sunday the 29 th . Sweden now plans to try to evacuate Swedish citizens who are stranded abroad.

SWEDEN (Table 1b - continued)			
Date	Events	Headlines	Government action
28/03/2020	Death toll reaches 100.	“More than 100 coronavirus patients have now died in Sweden” (The Local). “Explaining the science behind Sweden’s relaxed coronavirus approach” (The Local).	
29/03/2020			The Public Health Agency publishes a new website providing statistics about the virus, including regions affected and the age and sex of patients.
30/03/2020	About 6,500 people, including doctors, nurses and students, have applied to help out in the Stockholm region’s healthcare system, where around half of Sweden’s confirmed virus cases and deaths have so far been located.	“Stockholm hospitals brace for ‘increasing coronavirus storm’” (The Local).	King Carl XVI Gustaf and Queen Silvia are both in their 70s and self-isolating in Sörmland, carrying out royal duties from a distance. Sweden temporarily relaxes the eligibility rules for unemployment insurance, and raised both the minimum and maximum amounts to be paid out.
31/03/2020		“Big rise in job losses expected in Sweden due to the coronavirus crisis” (The Local). “Sweden asks Public Health Agency to increase coronavirus testing” (The Local).	Finance Minister Magdalena Andersson says the government expects another 100,000 people to lose their jobs this year and the unemployment rate to rise from 7% to 9%.
01/04/2020			
02/04/2020	Several banks are raising the limit for contactless payments in an effort to limit physical contact. According to a survey by Swedish radio, many Swedish care homes have confirmed or suspected cases of the virus.		Almedalen, Sweden’s annual political festival, is cancelled. The coronavirus crisis will last for months, not weeks, Prime Minister Löfven tells Swedish TV. Stockholm asks the Swedish Association of Local Authorities and Regions for permission to activate a so-called ‘crisis situation deal’ for health-care staff working in intensive care in the region. This would mean staff can be told to work up to 48 hours a week rather than 40 (the standard working week) but at a salary up to 220% higher.
03/04/2020			Stockholm’s public transport will return to full capacity on Monday, in an effort to avoid crowding on buses and other vehicles which could lead to the spread of infection. The Swedish foreign ministry extends its advice against non-essential travel to anywhere in the world until June 15 th . Stefan Ingves, the head of Sweden’s Central Bank – Riksbank – outlines measures the Riksbank has undertaken to mitigate the economic impact of the virus, including more corporate lending via banks and lending by financial institutions from the Riksbank; reducing the overnight lending rate for banks; and purchasing government, municipal, mortgage and corporate bonds and commercial paper.
04/04/2020		“Sweden disputes accusations of lack of coronavirus action” (The Local).	Sweden strongly rejects the accusation levelled at it both domestically and internationally that life is carrying on as usual, and of risking the lives of its citizens by not taking more stringent measures to curb the spread of the virus.
05/04/2020	All commercial flights between Sweden and the UK suspended as of April 9 th .	“Airlines suspend flights between Sweden and the UK” (The Local) “Sweden’s coronavirus death rates ‘higher than previously thought’” (The Local).	
06/04/2020	Death toll passes 300. Swedish domestic airline BRA halt all flights from April 6 th until further notice.	“New Stockholm field hospital to open its doors to coronavirus patients” (The Local).	Swedish Employment Agency’s new figures show that 49,500 people have been handed their notice since March 1. The hotel and restaurant sector is the hardest hit, with more than 14,000 people affected. A new army field hospital set up at the Älvsjö conference centre in Stockholm is expected to open to patients today. Sweden’s Central Bank extends its 500 billion kronor loans for companies struggling with the economic fallout of the pandemic to sole proprietors.

SWEDEN (Table 1b - continued)

Date	Events	Headlines	Government action
07/04/2020		“Sweden sees average of just over 40 coronavirus deaths a day” (The Local).	Legislation set to apply from April 18 to June 30 allows the government to take measures such as closing schools, shopping malls, or restaurants without first getting parliamentary approval. The Public Health Agency is looking into why the virus has spread to more elderly care homes in Sweden than in the other Nordic countries.
08/04/2020		“Sweden dismisses Trump’s claim after US president takes swipe at coronavirus strategy” (The Local).	Tegnell says that now in Stockholm one person infects on average only one other person. However, infection in elderly care facilities is a concern. Tegnell pushes back on comments by President Trump that Sweden had adopted a herd immunity strategy and was suffering badly. Swedish company Essity, the world’s largest producer of toilet paper and other hygienic products, is to deliver millions of surgical masks to the Swedish healthcare system, as part of a new deal with the government.
09/04/2020	Virus hitting immigrant communities in Stockholm particularly hard.	“Why are there so many coronavirus cases in Stockholm’s northern suburbs?” (The Local).	
10/04/2020			
11/04/2020			
12/04/2020	Infection toll exceeds 10,000. Over 100 virus-related incidents have been reported to police in Sweden, according to a report from public broadcaster SVT. This includes people who have claimed to be infected with the virus and have coughed or spat at police officers.		
13/04/2020			
14/04/2020	Death toll exceeds 1,000.	“Sweden’s coronavirus strategy sparks fierce debate as deaths pass 1,000” (The Local).	
15/04/2020	Stockholm’s Fotografiska Museum, one of the capital’s most popular attractions, has closed its doors until further notice and given notice to staff after seeing a drop of 98 percent in visitors compared to a normal week.	“Three scenarios: How the coronavirus crisis could hit the Swedish economy” (The Local).	Johanna Sandwall, head of crisis preparedness at The National Board of Health and Welfare, says 525 people were receiving treatment in intensive care for the virus today, five fewer than the previous day. She also reports that there was still plenty of spare capacity in Sweden’s intensive care units, where the number of beds is continually being increased. Sweden’s unemployment figures could rise to 13.5 percent this year if the virus crisis drags on, according to a worst-case scenario presented by the government today. In the best-case scenario, unemployment will quickly recover and climb back to roughly today’s level, and in the main scenario unemployment will rise from 6.8 percent last year to 9.0 percent this year. A new law grants the government extraordinary powers, including temporary closure of businesses, limits on public gatherings and closure of ports and airports. The prime minister says it is far too early to start easing restrictions, while thanking those people who had heeded calls not to travel during the Easter break.
16/04/2020		“Swedish lawmakers hand government extra powers to fight coronavirus” (The Local).	A new law grants the government extraordinary powers, including temporary closure of businesses, limits on public gatherings and closure of ports and airports. The prime minister says it is far too early to start easing restrictions, while thanking those people who had heeded calls not to travel during the Easter break.
17/04/2020		“Expect Sweden’s coronavirus restrictions to last for months: Swedish PM” (The Local).	Sweden extends its entry ban for another 30 days.

SWEDEN (Table 1b - continued)			
Date	Events	Headlines	Government action
18/04/2020	People with foreign backgrounds in poorer neighborhoods of Stockholm are disproportionately affected by the virus, raising concerns that a greater effort needs to be made to protect them.	“Coronavirus outbreak in Sweden raises fears of ‘blind spot’ in some communities” (The Local).	
19/04/2020 20/04/2020		“Sweden adds obesity to list of coronavirus high risk groups” (The Local).	
21/04/2020	A new virus test of blood taken from blood donors in Stockholm shows that at least 11 out of 100 had developed antibodies, with the real figure believed to be higher.		The Public Health Agency presents a new modelling of the spread of coronavirus in Stockholm. It was to be withdrawn the following day due to an error.
22/04/2020			Health Minister Lena Hallengren says the National Board of Health and Welfare will soon be asked to distribute free hand sanitiser to elderly care homes and homecare assistants.
23/04/2020	2,021 deaths and 16,755 confirmed cases so far.	“Coronavirus: Death toll in Sweden passes 2,000” (The Local).	The government says that Sweden passed its peak infection point on April 8.
24/04/2020		“The biggest myth about Sweden is that life is going on as normal” (The Local).	Deputy Prime Minister Isabella Lövin - “The biggest myth and misconception is that life goes on as normal in Sweden. It absolutely does not. We have seen Easter travel decrease by 90 percent, we have businesses going bankrupt, a record number of temporary layoffs, and a lot of unemployed people”.
25/04/2020		“We’re working day and night to save jobs in Sweden... but we can’t make guarantees” (The Local).	
26/04/2020 27/04/2020	According to the Public Health Agency, a total of 2,274 people have died with the virus, from over 18,000 known cases.	“Sweden publishes new statistics on coronavirus death toll” (The Local).	The National Board of Health and Welfare suggests that deaths from coronavirus are approximately 10% higher than reported by the Public Health Agency. The discrepancy is due to differenced in the way the two agencies register deaths.
28/04/2020	Scandinavian airline SAS has announces plans to lay off up to 40 percent of its workforce in Sweden, Denmark and Norway. The move affects up to 1,900 full-time positions in Sweden as the airline warns it may take years for demand for air travel to return to pre-crisis levels.	“Coronavirus crisis ‘has completely changed Sweden’s economic prospects’” (The Local). “SAS to cut up to 5,000 jobs amid coronavirus crisis” (The Local).	The Riksbank leaves Sweden’s key interest rate unchanged but doesn’t exclude the possibility of cutting the rate in future.
29/04/2020	In a survey of more than 1,600 Swedes conducted by five academics at five European universities, 31% of respondents rated the nation’s response to the outbreak as not forceful enough. Another 18% were neutral and the remaining 51% considered the response forceful enough. Despite the argument that Sweden’s strategy comes at the expense of the old, support for the country’s response increased with age. 40% of people aged 15-29, but 61% of those aged over 70, state that the Swedish response has been sufficient.		
30/04/2020	App launched by Lund University to track spread of virus is downloaded by about 2,000 people.	“App launched in Sweden to help track spread of the coronavirus” (The Local).	

THAILAND (Table 1c)			
Date	Events	Headlines	Government action
20/01/2020	First US coronavirus case reported in Washington state. One week earlier, on 13 January, Thailand had reported the first case of coronavirus outside China - a 61 year-old Chinese woman in a tour group from Wuhan. Her condition is not severe and she is ready to return to China.	“First Coronavirus 2019 patient found in Thailand” (Nation Thailand, 13 January).	
21/01/2020			
22/01/2020			
23/01/2020	Chinese city of Wuhan placed under quarantine.		
24/01/2020	Fifth case confirmed in Thailand - another tourist from Wuhan.	“Fifth coronavirus victim confirmed in Thailand” (Nation Thailand).	
25/01/2020	Death toll hits 41 as doctor dies from virus in China.		
26/01/2020			
27/01/2020			
28/01/2020	Thai Airways says that the virus is having little effect on its operations because it has relatively few flight routes to China. Thailand still has the largest number of confirmed cases outside China (14).	“Six more coronavirus cases discovered in Thailand” (Nation Thailand). “THAI [Airways] claims limited impact from new coronavirus crisis” (Nation Thailand).	
29/01/2020			
30/01/2020	WHO declares global health emergency.	“Two charged for spreading fake coronavirus news” (Nation Thailand). “Thai officials debunk netizens’ claims of coronavirus deaths” (Nation Thailand).	The government’s Digital Economy and Society (DES) ministry is monitoring media for ‘fake news’ about the virus. Two arrests have been made while four other offenders have been released with a warning.
31/01/2020	WHO declares virus outbreak an “international emergency”. Thailand reports its first case of local virus transmission when a taxi driver who had never been to China is found to be infected. Total cumulative number of cases so far is 19.		
01/02/2020			
02/02/2020			
03/02/2020			
04/02/2020			Thai government sends a plane to Wuhan to retrieve 138 stranded Thai citizens. Six are hospitalised with suspected infections upon their return and the remainder are sent for 14-day quarantine at a naval base.
05/02/2020	Face masks in short supply as people panic buy.	“Face masks ‘snapped up right away’” (Bangkok Post). “Virus imperils Thai economy” (Bangkok Post).	
06/02/2020			
07/02/2020			
08/02/2020		“Health minister apologises for anti-Western slurs” (Bangkok Post).	Health minister forced to apologise for saying that foreigners who refused to wear masks should be “kicked out of Thailand”.
09/02/2020			
10/02/2020			
11/02/2020			
12/02/2020	Chinese government prohibition on outbound tour groups since January 24 is beginning to take a heavy toll on the Thai tourist industry.	“Chiang Mai reels under impact of new coronavirus as tourists stay away” (Nation Thailand). “COVID-19 inflicts severe blow on Phuket hotel industry” (Nation Thailand).	
13/02/2020	Tokyo Olympics organisers strongly reject claims that the 2020 games will be cancelled.		
14/02/2020			
15/02/2020	China death toll passes 1,500.		
16/02/2020			
17/02/2020			
18/02/2020	Phuket province seeks government help as exodus of Chinese tourists devastates local economy.		
19/02/2020			

THAILAND (Table 1c - continued)			
Date	Events	Headlines	Government action
20/02/2020		“Thailand Ready For Worst COVID-19 Scenario” (Bangkok Post).	Prime Minister Prayut Chan-o-cha reassures the public that Thailand is ready for the worst and that everything is under control.
21/02/2020		“COVID-19 to Get Dangerous Label” (Bangkok Post).	The government officially classifies the virus as a dangerous communicable disease, and approves a plan for more stringent measures if the situation gets worse.
22/02/2020		“Jump in Virus Cases Outside China Alarming” (Bangkok Post).	Government announces it has stepped up screening procedures in 8 provinces popular with Chinese tourists.
23/02/2020			Ministry of Public Health announces airport screening procedures for visitors from Italy.
24/02/2020			
25/02/2020			
26/02/2020		“Virus Shatters 2,500 Student School” (Bangkok Post).	
27/02/2020	False rumours of virus outbreaks circulate on social media, causing panics.	“Rumour quashed of 22 suspected virus cases in Rayong” (Nation Thailand). “Patient Walks Out of Hospital, Sparking Panic Search” (Bangkok Post). “MPs Fear Virus Contagion in House” (Bangkok Post).	Government says it is speeding up packaging and distribution of masks.
28/02/2020			
29/02/2020	42 confirmed cases by the end of February.		
01/03/2020	First confirmed death is a 35 year-old man who had originally been diagnosed with dengue.	“COVID-19 claims first life in Thailand” (Nation Thailand).	
02/03/2020	Despite government assurances, masks are increasingly scarce and the price is escalating.	“Mask Supply Crisis Looms” (Bangkok Post).	
03/03/2020	WHO says world in ‘uncharted territory’. Panic buying of masks after news of the first Thai death from the virus has caused a national shortage, with most retailers having run out of stocks.	“Outrage over mask shortages” (Bangkok Post).	
04/03/2020		“Government Moves to Stop Face-Mask Hoarding” (Bangkok Post).	
05/03/2020	China death toll passes 3000.		Four countries designated as high-risk ‘disease-infected zones’ and incoming travellers from those countries placed under quarantine.
06/03/2020			Government says it will step up surveillance of Thai workers who returned from South Korea and ignored requests to self-quarantine.
07/03/2020	Two die and thousands stranded on Grand Princess cruise ship in Florida after 21 cases confirmed. In Thailand, concerns grow that Thais returning from high-risk countries abroad are dodging self-quarantine rules and endangering lives.	“Anxiety grows as returnees avoid quarantine” (Bangkok Post).	
08/03/2020			
09/03/2020	Stock markets plunge on global recession fears.		About 80 Thais who returned from South Korea and slipped through government screening procedures at Bangkok Airport have been told to turn themselves in to health authorities within three days or face legal action.
10/03/2020	WHO declares a pandemic.		
11/03/2020			
12/03/2020	Trump suspends travel from Europe for 30 days. Tom Hanks tests positive for virus in Australia.		
13/03/2020	Justin Trudeau’s wife tests positive. Global shortage of test kits.	“Five new COVID-19 cases confirmed in Thailand” (Nation Thailand).	
14/03/2020			
15/03/2020	Global shortage of test kits; nations limit exports. National opinion poll run on March 11-12 finds 68% of Thais are ‘concerned’ about the spread of the virus.	“32 new COVID-19 cases found in Thailand” (Nation Thailand).	The Prime Minister appeals for calm and says there is no need to stockpile food, as some food items start disappearing from supermarket shelves.

THAILAND (Table 1c - continued)			
Date	Events	Headlines	Government action
16/03/2020	Imperial College London issues its Report 9: estimates 510,000 deaths in UK and 2.2 million in the US in the absence of mitigation strategies.		Songkran - one of Thailand's most important annual holidays - is postponed until further notice.
17/03/2020	UK measures to last at least 'several months'		
18/03/2020	35 new cases in one day, of which 25 are linked to an unauthorised event organised by the army at a Bangkok boxing stadium on March 6.	"At Least 400,000 Infections Expected" (Bangkok Post). "Cinemas to close to stem spread of virus" (Bangkok Post).	Government's Communicable Disease Division estimates that with effective controls and treatment, the number of infections can be limited to 400,000 by the end of 2021.
19/03/2020			Foreign travellers entering Thailand required to have health certification and health insurance.
20/03/2020			
21/03/2020	Virus cases climb across Asia Pacific as lockdowns in US widen. Thai AirAsia and Bangkok Airways suspend all international flights.		
22/03/2020	New cases in Thailand now over 100 per day; 188 announced today (peak).	"188 new cases take Thailand's COVID-19 total to almost 600" (Nation Thailand). "Neighbouring provinces follow Bangkok in closing many public outlets" (Nation Thailand).	Bangkok government orders public venues, including restaurants, bars and cinemas closed in the Bangkok metro area until April 12. Only supermarkets, pharmacies and takeaway food permitted to remain open. Five other provinces quickly follow suit.
23/03/2020	An estimated 80,000 Bangkok-area workers who lost their jobs because of the lockdowns leave the city en masse for their family homes in the provinces, raising fears that the virus will spread across Thailand.	"Tycoons urge unity amid chaos" (Bangkok Post).	More provinces follow Bangkok's lead and announce shutdowns.
24/03/2020		"PM Declares State of Emergency" (Nation Thailand). "Cabinet approves B117bn stimulus" (Bangkok Post).	Government declares State of Emergency with effect from March 26. Phuket provincial government closes all high-risk places until March 31. Places closed are: malls, pharmacies, shops, entertainment venues, spas, restaurants, golf clubs, pet-service shops, beauty clinics, barber and tattoo shops, and swimming pools. Cabinet approves 117 billion baht stimulus package that includes three monthly cash disbursements of 5,000 baht for workers.
25/03/2020	Global death toll passes 20,000. Global confirmed virus cases top 400,000.	"Govt to invoke emergency rule - Virus claims 3 more lives, cases up to 827" (Bangkok Post).	
26/03/2020	US Senate passes massive \$US2.2trn stimulus bill. The number of cases in Thailand passes 1,000.	"Army boxing promoters 'wrong' to ignore virus warning" (Bangkok Post).	Government announces enquiry to determine responsibility for the boxing event at Lumpinee Boxing Stadium on March 6, which was responsible for originating a large number of infections.
27/03/2020		"Public Told to Stay Home for Seven Days" (Bangkok Post).	General Pornpipat Benyasri, chief of Defence Forces, urges people nationwide to stay home and stop socialising for seven days, starting this weekend. He threatens a 24-hour curfew if the public don't cooperate.
28/03/2020		"Lockdown upends people's lives" (Bangkok Post).	
29/03/2020	Phuket beaches close, hotels will not take new guests and all nine airlines servicing Phuket have suspended operations.	"All beaches in Phuket closed indefinitely" (Nation Thailand).	Government chastises people for not practising social distancing diligently enough.
30/03/2020	Inmates riot at Buriram central prison over rumours of a virus outbreak sparked by a group of inmates sentenced to life imprisonment. A number of prisoners escaped - some had been recaptured while others are still on the run.	"Prisoners escape in Buri Ram jail riot after COVID-19 rumour" (Bangkok Post). "Handout could see 20m apply" (Bangkok Post).	Government's Fiscal Policy Office says 17.2 million people have already applied for the 5,000 baht handout intended to cushion the impact of unemployment during the outbreak.
31/03/2020			Nonthaburi province, a part of Greater Bangkok, imposes a curfew banning people from leaving home between 11pm and 5am until further notice. The national government bans egg exports to ensure adequate domestic supply.

THAILAND (Table 1c - continued)			
Date	Events	Headlines	Government action
01/04/2020			
02/04/2020	Food delivery businesses are experiencing a windfall as social distancing keeps customers away from restaurants and supermarkets. Kasikorn Research Centre has forecast 17% growth this year in food ordered through apps.	“Cops to Get Tough With Virus Rule Breakers” (Bangkok Post). “Virus crisis fuels food delivery bonanza” (Bangkok Post).	
03/04/2020	World Bank warns Thailand of 5% GDP decline in its worst-case scenario.		Curfew introduced nationwide from 10pm – 4am nightly. Foreign nationals forbidden to enter Thailand.
04/04/2020	6,500 curfew violations reported.	“Police, Soldiers Enforce Nationwide Coronavirus Curfew” (Bangkok Post). “PM condemns curfew breakers, says violators ‘lack social conscience’” (Bangkok Post).	All flights into Thailand banned from 4-6 April. Police and military personnel set up hundreds of roadblocks around the country to enforce curfew and limit travel. Another 152 Thais reentering the country evade quarantine, prompting the government to instruct them to report to the authorities by 6pm Saturday or face legal action.
05/04/2020	British prime minister Boris Johnson checks into hospital with virus. In Thailand, three virus patients die and 102 new cases are reported.	“Three more COVID-19 patients die as Thailand sees 102 new cases” (Nation Thailand).	Most provinces go into lockdown under the orders of individual provincial governments, introducing the same measures as Bangkok. Apart from the business closures that mimicked those in Bangkok, key elements of lockdowns in most provinces included: 1. Inter-provincial travel restricted and enforced by roadblocks. Anyone stopped and deemed ‘at risk’ is transferred to quarantine or hospital; 2. Restrictions on group gatherings; 3. Closure of hotels after last guest checks out; 4. Masks required outside the home; 5. Ban on alcohol sales.
06/04/2020		“No plan for 24-hour curfew yet” (Nation Thailand).	Incoming flight ban extended until April 18. Government dismisses rumours of a 24-hour curfew.
07/04/2020			
08/04/2020	New cases in a 24-hour period roughly triple, from 38 to 111.	“Chiang Mai halts alcohol sales to fight COVID-19” (Nation Thailand).	Government presents a 1.9 trillion baht (A\$95 billion) stimulus package that includes cash giveaways to an estimated 9 million people and soft loans to small- and medium-sized businesses. Chiang Mai government follows other provinces in halting alcohol sales.
09/04/2020	Woman who had earlier recovered from virus in March falls ill again. 54 new cases reported in Thailand, less than half of the previous day.	“Chaiyaphum woman infected with COVID-19 for second time” (Nation Thailand). “Bangkok bans alcohol for 10 days” (Bangkok Post).	Bangkok government orders a ban on alcohol sales from April 10-20. The stated objective is to prevent people partying in large groups in their homes.
10/04/2020	Number of new cases continues to decline.		
11/04/2020	Another decline in the number of new cases indicates that the draconian government measures could be working.		Foreign tourists unable to leave Thailand because of travel restrictions and whose visas expired after March 26 can stay until April 30.
12/04/2020	33 new cases reported, down from 45 the previous day.	“33 new COVID-19 cases point to declining trend in Thailand” (Nation Thailand).	
13/04/2020	New cases fall to 28 in the last 24 hours.	“Man Jumps to Death at the End of Quarantine” (Bangkok Post).	
14/04/2020	New cases in the last 24 hours increase from 28 to 34, although this will turn out to be a slight blip in the declining trend.	“Slight increase in COVID-19 cases shows ‘we cannot ease restrictions yet’” (Nation Thailand).	Department of Corrections suspends the sentences of 8,000 inmates to ease overcrowding in prisons. Government says that although the number of infections is declining, Thailand cannot afford to drop its guard and ease restrictions yet.
15/04/2020	Number of new cases in the last 24 hours falls to 30.		
16/04/2020			Inbound flight ban extended to April 30.
17/04/2020		“Rate of Infection Continues to Slow” (Bangkok Post).	
18/04/2020	29 of Thailand’s 76 provinces have now not seen a new case for two weeks.	“29 provinces free from COVID-19 for two weeks” (Nation Thailand). “Thailand’s COVID-19 mortality rate among lowest in the world” (Nation Thailand).	

THAILAND (Table 1c - continued)

Date	Events	Headlines	Government action
19/04/2020		"32 more COVID-19 cases point to situation stabilising in Thailand" (Nation Thailand).	The prime minister sends an open letter to Thailand's 20 richest men, requesting their assistance to fight the epidemic. Part of the letter reads: "I do not ask for donations or handouts, all I ask is to send me details of projects that you are ready to carry out. I also ask that those projects should reach all groups of Thai people and all parts of the country, as well as help them in any aspect of their lives in a tangible way. "I also welcome suggestions as to how the government can help or facilitate those projects so they succeed. I would be highly thankful if you could send me the details by next week".
20/04/2020			
21/04/2020		"Prayut Signals Easing of Lockdown" (Bangkok Post). "Jobless Queue for Food in Bangkok" (Bangkok Post).	The prime minister indicates that lockdown measures may be eased as the number of new cases continues to decline.
22/04/2020			
23/04/2020		"Lockdown Pain Worse Than Virus?" (Bangkok Post).	
24/04/2020			
25/04/2020	42 illegal migrant workers in the south of Thailand test positive, making today the highest new tally of infections since April 9.		
26/04/2020		"15 new cases point to major gains in battle against COVID-19" (Nation Thailand).	Government extends State of Emergency and curfew until May 31. Commerce Ministry announces agreement with participating food retailers to discount 3,025 consumer products by up to 68 percent until June 30. Incoming flight ban extended until May 31.
27/04/2020			
28/04/2020		"New COVID-19 cases drop to 7" (Nation Thailand).	
29/04/2020			
30/04/2020	Death toll remains at 54 for the third day running, with 2,954 total infections.		

UNITED KINGDOM (Table 1d)

Date	Events	Headlines	Government action
20/01/2020	First US coronavirus case reported in Washington state. One week earlier, on 13 January, Thailand had reported the first case of coronavirus outside China.		Department of Health and Social Care (DHSC) and Public Health England (PHE) raise the risk level from "very low" to "low". Heathrow Airport tightens surveillance on flights to Wuhan, and attempts to trace 2000 people who had flown into the UK from Wuhan over the last 14 days.
21/01/2020			
22/01/2020			
23/01/2020	Chinese city of Wuhan placed under quarantine.		

UNITED KINGDOM (Table 1d - continued)

Date	Events	Headlines	Government action
24/01/2020		“Growing fears over virus as tests begin in Britain” (Times). “Chinese cities in lock-down as coronavirus sparks global alarm” (Financial Times). “Coronavirus warning as first UK cases feared” (Daily Telegraph).	
25/01/2020	Death toll hits 41 as doctor dies from virus in China.	“Britain braces for the spread of coronavirus” (Independent). “Global push to contain spread of the coronavirus” (Guardian).	
26/01/2020			
27/01/2020		“Experts fear 100,000 may have new virus worldwide” (Guardian).	
28/01/2020	Hundreds of UK residents evacuated from Wuhan arrive back in Britain facing two weeks of quarantine. British Airways suspends all flights to Beijing and Shanghai.		
29/01/2020			
30/01/2020	WHO declares global health emergency.		
31/01/2020	WHO declares virus outbreak an “international emergency”. Two Chinese nationals from the same family, in York, England, become the first diagnosed with virus in the UK.		
01/02/2020			
02/02/2020			
03/02/2020			
04/02/2020		“‘Get out if you can’ - the warning to 30,000 Britons still in China” (Guardian).	The Foreign Office tells Britons to leave China if possible.
05/02/2020	A man in Brighton becomes the third infection diagnosed in the UK.		
06/02/2020			UK Chief Medical Officers expand the number of countries where a history of previous travel associated with flu-like symptoms in the previous 14 days would require self-isolation.
07/02/2020		“Coronavirus fears rise as first Briton tests positive” (Guardian).	
08/02/2020			
09/02/2020			
10/02/2020			Secretary of State for Health and Social Care, Matt Hancock, announces the Health Protection (Coronavirus) Regulations 2020, to give public health professionals “strengthened power”.
11/02/2020		“Coronavirus: Brighton GP Practice Closes After Staff Member Tests Positive” (BBC). “Coronavirus cases double as ‘spreader’ fears grow” (Independent).	
12/02/2020	First case diagnosed in London brings the UK total to nine.		
13/02/2020	Tokyo Olympics organisers strongly reject claims that the 2020 games will be cancelled.		
14/02/2020			
15/02/2020	China death toll passes 1,500.		
16/02/2020		“Millions to be told ‘stay at home’ if coronavirus spreads” (Sunday Telegraph).	
17/02/2020			
18/02/2020			
19/02/2020			
20/02/2020	Retailers warn of supply shortages due to factory closures in China.	“Stores fear empty shelves as coronavirus crisis hits supplies” (The Times).	
21/02/2020			
22/02/2020			
23/02/2020	Four British evacuees from the cruise ship Diamond Princess test positive for virus.	“Coronavirus: Four new UK cases among ship evacuees” (BBC).	

UNITED KINGDOM (Table 1d - continued)

Date	Events	Headlines	Government action
24/02/2020		“Coronavirus: UK ‘well prepared’ to deal with cases, says government” (BBC).	
25/02/2020			
26/02/2020		“Health advice confusion as virus sweeps across Europe” (Guardian).	
27/02/2020		“Schools and offices urged not to panic about virus” (Daily Telegraph). “Now wash your hands, Britain told in fight against virus” (The Times). “UK warns against mass panic as race to halt outbreak intensifies” (Guardian)	
28/02/2020	First UK death from virus. London’s FTSE share index loses 13% of its value.	“Virus fears wipe 200bn off UK firms’ value” (BBC). “Major events in doubt as virus fears grow” (Daily Telegraph). “Virus ‘may be as damaging to global economy as 2008 crisis’” (Guardian).	
29/02/2020	Paul Cosford, a medical director at Public Health England, says that widespread transmission of virus in the United Kingdom is “highly likely”.	“Outbreak could leave one in ten in hospital” (Daily Telegraph).	The UK Government unveils the Coronavirus Action Plan outlining what the country had done and what it planned to do next.
01/03/2020	First confirmed case in Scotland.	“Government Outlines New Coronavirus ‘Battle Plan’ as UK Cases Climb” (ITV News).	Health secretary Matt Hancock concedes it is inevitable that coronavirus will spread in the UK but was hopeful it could be contained. Says distancing measures will be considered, such as banning public gatherings, cancelling sports events and closing schools.
02/03/2020		“Coronavirus: Widespread Transmission in UK ‘Highly Likely’” (BBC).	
03/03/2020	WHO says world in ‘uncharted territory’.	“PM warns thousands will catch virus across Britain” (Independent). “OECD warns virus threatens to cut global growth in half” (Financial Times).	
04/03/2020	36 new cases brings UK total to 87.	“Virus has biggest UK increase in a single day” (Independent).	
05/03/2020	China death toll passes 3000.	“Government accused of secrecy over virus spread” (Guardian).	
06/03/2020	First UK virus death, a woman in her seventies.	“First coronavirus death in UK” (Guardian). “First UK death from coronavirus as toll rises” (The Times).	Sir Patrick Vallance, the government’s chief scientific advisor, says government is considering extreme measures such as isolation of households.
07/03/2020	Two die and thousands stranded on Grand Princess cruise ship in Florida after 21 cases confirmed.	“Investors rush to bond safety for fear of global recession” (Financial Times).	
08/03/2020	UK sees its largest daily increase in new cases (273).	“Whitehall plans for the worst as virus spreads” (Sunday Times).	Government now anticipates a death toll as high as 100,000.
09/03/2020	Stock markets plunge on global recession fears.		
10/03/2020	WHO declares a pandemic.	“Coronavirus: Health Minister Nadine Dorries Tests Positive” (BBC).	
11/03/2020			Bank of England makes emergency interest rate cut from 0.75% to 0.25%. UK announces its first stimulus, granting tax cuts to retailers, cash to small businesses, sick leave for those self-isolating, a subsidy to cover sick pay, and expanded access to benefits. Cost: US\$37 billion.
12/03/2020	Total cases exceed 500.	“Coronavirus: People With Fever or ‘Continuous’ Cough Told to Self-isolate” (BBC).	UK Chief Medical Officer raises the risk to the UK from moderate to high. The government advises that anyone with a new continuous cough or a fever should self-isolate for seven days. Schools are asked to cancel trips abroad, and people over 70 and those with pre-existing medical conditions are advised to avoid cruises.

UNITED KINGDOM (Table 1d - continued)

Date	Events	Headlines	Government action
13/03/2020	First death in Scotland. Many sporting fixtures, including the London Marathon, the Six Nations Wales vs Scotland fixture, and all Premier League and EFL football games are postponed. The 2020 UK local elections are postponed for a year. Justin Trudeau's wife tests positive. Global shortage of test kits.	"PM: many more families will lose their loved ones" (Guardian) "Coronavirus: UK deaths double in 24 hours" (BBC). "Traumatic day on global markets spurs central banks to step up actions" (Financial Times). "Up to 10,000 infected but PM resists shut-down calls" (Independent).	
14/03/2020	Total cases exceeds 1000. Scotland reports its first death. Total number of deaths increases from 10 to 21 in the last 24 hours.	"Mass gatherings banned as PM forced into u-turn" (Guardian).	The government bans mass gatherings from the beginning of next week.
15/03/2020	Global shortage of test kits; nations limit exports. UK death toll doubles to 21.	"Death toll leaps - and forces Johnson to act" (Sunday Times).	Health Secretary Matt Hancock says that within the coming weeks everyone in the UK over the age of 70 would be asked to stay home for an lengthy period.
16/03/2020	First death in Wales. A second MP, Kate Osborne, tests positive after a period of self-isolation. Imperial College London issues its Report 9: estimates 510,000 deaths in UK and 2.2 million in the US in the absence of mitigation strategies.	"Labour MP Kate Osborne Tests Positive for Coronavirus" (Evening Standard). "Banks act to save world economy from pandemic" (The Times). "Virus 'may last a year and put 8m in NHS hospitals'" (Guardian).	PM advises everyone in the UK against "non-essential" travel and contact with others; suggests people should avoid pubs, clubs and theatres, and work from home if possible. Pregnant women, people over the age of 70 and those with certain health conditions are urged to consider the advice "particularly important", and would be asked to self-isolate within days. A second member of parliament tests positive.
17/03/2020	Simon Wolfson, CEO of leading British fashion chain Next, says the British high street is facing a crisis "unprecedented in living memory". New cases continue to climb and the death toll reaches 34.	"NHS to Postpone Millions of Operations to Tackle Coronavirus" (The Guardian). "UK Unveils 330 Billion Lifeline for Firms Hit by Coronavirus" (Reuters). "Britain in Lockdown" (The Times). "Life put on hold" (Daily Telegraph). "Global stocks take fresh pummelling as Fed action fails to calm investors" (Financial Times).	NHS England announces that all non-urgent operations in England would be postponed from 15 April. Chancellor Rishi Sunak announces a £350 billion bailout package that includes 330bn in loan guarantees for businesses affected by the pandemic. The government also provides a 3.2million emergency support package to help rough sleepers into accommodation.
18/03/2020		"350 bn bailout launched to save Britain's economy" (The Times).	PM announces that all schools in the UK were to close on Friday to everyone except those whose parents have important jobs that they can't do from home.
19/03/2020	First death in Northern Ireland.	"Queen Flees London With Corgis in Fear of Coronavirus as Capital Prepares for Lockdown" (BBC). "Exams cancelled at virus forces schools to shut down" (The Times).	The interest rate is cut to 0.10%. The Ministry of Defence announces the formation of the COVID Support Force, enabling the military to support public services and civilian authorities in tackling the outbreak. Two military operations announced: Operation Rescript, which focuses on the outbreak in the United Kingdom; and Operation Broadshare, which focuses on British military activities overseas.
20/03/2020	Number of new cases continues to escalate, reaching 714.	"UK Pubs and Restaurants Told to Shut in Virus Fight" (Express). "Queen urges country to be strong in face of virus" (The Times).	PM requests the closure of pubs, restaurants, gyms, entertainment venues, museums and galleries. The government announces a Coronavirus Job Retention Scheme, offering grants to companies to pay 80% of staff wages each month up to a total of £2,500 per person, if companies kept staff on their payroll. The scheme would cover three months wages and would be backdated to the start of March.
21/03/2020	Virus cases climb across Asia Pacific as lockdowns in US widen.	"Britain shuts down" (Guardian).	
22/03/2020	"Next" is the latest retailer to announce it is temporarily closing stores due to the pandemic. With 700 stores closing it predicts a 1bn loss in revenue due to virus. 18-year-old dies of virus.	"Coronavirus: Follow Virus Advice or 'Tougher Measures' Likely, Says PM" (BBC).	

UNITED KINGDOM (Table 1d - continued)

Date	Events	Headlines	Government action
23/03/2020		“Curfew threat to stop virus” (The Times). “Johnson’s ultimatum: obey the rules or risk strict lockdown” (Guardian). “Coronavirus: UK Lockdown Could Come ‘Very Soon’ as Emergency Laws Rushed In” (Sky News). “Police Can Issue ‘Unlimited Fines’ to Those Flouting Coronavirus Social Distancing Rules, Says Health Secretary” (ITV).	PM announces that measures to mitigate the virus were to be tightened further, with wide-ranging restrictions made on freedom of movement, enforceable in law, for a “stay at home” period which would last for at least three weeks. The government announces the Coronavirus Business Interruption Loan Scheme for small and medium size businesses and Covid Corporate Financing Facility for large companies.
24/03/2020		“PM: ‘Stay at Home, This is a National Emergency’” (Guardian). “End of Freedom” (Daily Telegraph).	NHS England to establish a temporary critical care hospital. Parliaments at many levels start suspending sessions and/or switching to virtual meetings.
25/03/2020	The first two working NHS doctors die from virus. British diplomat Steven Dick, deputy ambassador to Hungary, dies in Budapest after contracting the virus. Global death toll passes 20,000. Global confirmed cases top 400,000.	“Doctors and Nurses in Threat to Quit Over Safety” (Guardian). “Call For Army of Volunteers” (The Times).	Police to be given the power to use “reasonable force” to enforce CV-19 regulations. NHS launches a volunteer recruitment drive.
26/03/2020	Prince Charles tests positive. 8 PM: national applause for health care workers. US Senate passes massive \$US2.2trn stimulus bill.	“UK COVID-19 Death Toll Reaches 578 After Biggest Recorded Daily Rise” (Guardian). “Nurses Sent to London as Capital Faces ‘Tsunami’ of Virus Patients” (Guardian). “Now Charles is Infected as 21-Year-Old Woman Dies” (Times).	
27/03/2020	PM and Health Secretary Matt Hancock announce they have tested positive for the virus.	“UK Coronavirus Deaths Rise by 181 as Confirmed Cases Near 15,000” (Guardian). “Coronavirus Strikes at the Heart of Government” (ITV).	The Royal Mint announces that it was manufacturing medical visors for medical staff working during the pandemic. The National Police Chiefs’ Council says police had issued their first fines for people breaking lockdown rules. The government announces a support package specifically for the self-employed, promising to pay the UK’s 5 million self-employed and freelance workers up to £2,500 per month during the crisis.
28/03/2020	Fitch downgrades the UK’s government debt rating from AA to AA-, because of virus borrowing, economic decline, and lingering uncertainty over Brexit.	“UK Records Largest Single-day Increase in Coronavirus Deaths to 1,019” (Guardian).	New regulations come into force in Northern Ireland giving authorities the power to force businesses to close and impose fines on them if they refused, as well as on people leaving their homes without a “reasonable excuse”, bringing Northern Ireland into line with the rest of the UK.
29/03/2020	Dr Jenny Harries, England’s deputy chief medical officer, suggests it could be six months before life could return to “normal”. The first NHS nurse dies of virus.		
30/03/2020	The UK’s chief scientific adviser says there were early signs social distancing measures were “making a difference”. Dominic Raab announces an arrangement between the government and major UK airlines to fly home tens of thousands of British nationals who had been stranded abroad by the outbreak.		
31/03/2020		“Police Warned Against ‘Overreach’ in Use of Virus Lockdown Powers” (Guardian).	
01/04/2020	2,000 NHS staff have been tested for virus since the outbreak began.	“UK to Set Up Virtual Parliament During Coronavirus Shutdown” (Guardian).	Health Secretary Matt Hancock announces a “five pillar” plan for testing people for the virus, with the aim of conducting 100,000 tests a day by the end of April.
02/04/2020		“UK Records 569 Coronavirus Fatalities on Deadliest Day So Far” (Guardian).	
03/04/2020			Coronavirus Large Business Interruption Loan Scheme (CLBILS) is announced (later tweaked to include more companies).

UNITED KINGDOM (Table 1d - continued)

Date	Events	Headlines	Government action
04/04/2020	5-year-old dies with virus.		
05/04/2020	Queen Elizabeth II addresses the nation and the wider Commonwealth, saying the UK would succeed in its fight against virus but may have “more still to endure”. Catherine Calderwood, Scotland’s chief medical officer, resigns from her post after it emerged she had been spoken to by police for visiting her second home during lockdown. Boris Johnson admitted to hospital.	“Queen Calls on Nation to Be Strong as Virus Strikes Medics” (Sunday Times).	
06/04/2020	PM Boris Johnson is moved to the intensive care unit at St Thomas’ Hospital in London. Dominic Raab assumes Johnson’s duties.		
07/04/2020		“UK Coronavirus: Raab Hints at Lockdown Extension as Boris Johnson Remains ‘Stable’ in Intensive Care” (Guardian).	
08/04/2020		“Power Vacuum Fears as Johnson Remains in Intensive Care” (Guardian). “Britain Sends Message of Hope to Battling Johnson” (Times).	750m of government spending announced to help small charities.
09/04/2020	Boris Johnson leaves intensive care.		
10/04/2020	Matt Hancock says a “Herculean effort” is being made to ensure daily deliveries of personal protective equipment (PPE) to front-line workers, including the establishment of domestic manufacturing industry to produce the equipment.	“Hundreds Dying of Virus in Care Homes Not Counted in Official Data” (Guardian).	
11/04/2020	The Queen releases an Easter message, the first time she had done so, in which she spoke of hope and said “coronavirus will not overcome us”.	“Social Distancing Could be Indefinite” (Daily Telegraph).	
12/04/2020			
13/04/2020			
14/04/2020	A further twenty attempted arson attacks on mobile phone masts announced to have occurred over the Easter weekend due to a rumour that the 5G network was causing virus.	“Care Homes Catastrophe” (Daily Mail). “Lockdown for Three More Weeks” (Times).	
15/04/2020		“Two Million Could Lose Jobs in Lockdown” (Times). “Biggest Economic Shock in 300 Years” (Daily Telegraph). “UK Economy Could Shrink by 35% in COVID-19 Fallout” (Guardian).	Matt Hancock announces new guidelines that would allow close family members to see dying relatives in order to say goodbye to them. NHS England and the Care Quality Commission begin rolling out tests for care home staff and residents. Arlene Foster, the First Minister of Northern Ireland, extends the period of lockdown in Northern Ireland to 9 May.
16/04/2020	New daily infections are levelling off, indicating that the virus may have peaked in the UK.	“New COVID-19 infections ‘flattening out in Britain” (The Times). “Virus finally ‘reaching the peak” (Daily Telegraph).	Dominic Raab says lockdown restrictions would continue for “at least” another three weeks, and to relax them too early would “risk wasting all the sacrifices and all the progress that has been made”. He set out five conditions that would need to be met before restrictions could be eased, including a ‘sustained and consistent’ fall in the daily death rate.
17/04/2020	Number of new cases increases sharply, from 4,617 to 5,599. Deaths also increase, from 935 to 1,115.	“No end in sight for lockdown” (Daily Telegraph). “Raab points way to ‘light at end of tunnel” (The Times).	
18/04/2020	Scientists at Oxford University prepare to launch government-backed trials of a vaccine, saying they could have a million doses ready by September.	“Public being ‘treated like children’ over lockdown” (The Times). “7,500 feared to have died in care homes” (Daily Telegraph). “NHS staff told ‘wear aprons’ as protective gowns run out” (Guardian).	

UNITED KINGDOM (Table 1d - continued)

Date	Events	Headlines	Government action
19/04/2020	David Nabarro, professor of global health at Imperial College, London, says we will have to live with the threat of virus and adapt, as there was no guarantee of a vaccine.	“Don’t bet on vaccine to protect us from covid-19, says world health expert” (Guardian).	
20/04/2020		“PM resists easing of lockdown” (The Times).	Boris Johnson says he is very cautious about easing the lockdown because of the risk of a second wave of the virus.
21/04/2020	Number of new cases and deaths falls for the second consecutive day.	“Ministers warned of exponential rise in fatalities if lockdown eased” (Guardian).	A cabinet split is emerging around easing of lockdown restrictions, with some cabinet members increasingly concerned about the economy while government health advisors warn that premature relaxation of the measures would risk a steep increase in infections.
22/04/2020	Oxford University vaccine trials begin.		
23/04/2020		“Social distancing ‘in place for rest of 2020’” (Independent).	Chief medical officer douses early vaccine hopes and says social distancing measures may have to remain in place for the rest of the year.
24/04/2020			
25/04/2020			
26/04/2020	Number of deaths falls to 338, the lowest level in more than four weeks. Pressure is building on the PM to ease the lockdown.	“Tory grandees tell PM: ‘it’s time to ease the lockdown’” (The Times). “PM returns to face lockdown dilemma as scientists warn over grim virus data” (Observer).	
27/04/2020		“Johnson to ease the lockdown this week” (Daily Telegraph).	The prime minister returns to work.
28/04/2020	Number of new cases continues to decline, now below 4,000 for the first time since April 7.	“No 10 in talks to allay public fears over end to lockdown” (Guardian). “Time to fire up the engines, says PM” (Daily Telegraph).	
29/04/2020	British Airways announces it will cut 12,000 jobs.	“COVID-19 crisis could lead to 18,000 more cancer deaths” (Guardian). “Key rule for lifting the lockdown is softened” (Daily Telegraph).	Government softens its language over relaxation of lockdown, now saying that easing of restrictions measures would be aimed at avoiding a second peak that “overwhelms the NHS”.
30/04/2020	Number of new cases increases sharply again, to 6032. Deaths rise from 674 to 739.	“UK’s death toll becomes third highest in world” (Independent). “Johnson to dash lockdown hopes” (Daily Telegraph).	Prime minister says it is too early for a major easing of the lockdown.