

The 12-Week Window: Coronavirus crisis Australia didn't have to have

Salvatore Babones





A catalogue record for this book is available from the National Library of Australia

The 12-Week Window: Coronavirus crisis Australia didn't have to have

Salvatore Babones



Analysis Paper 9

Related Works

Salvatore Babones, *Australia's Export Exposure to China's Coronavirus Epidemic* (February 2020, AP7)

Salvatore Babones, *The China Student Boom and the Risks It Poses to Australian Universities* (August 2019, AP5)

Contents

- Executive Summary 1
- 1. Introduction 2
- 2. Australia’s coronavirus policy timeline 3
- 3. What should a ‘reasonable person’ have thought about the coronavirus, and when?.. 11
- 4. Lessons from the Taiwan response 13
- 5. Conclusions and policy recommendations 15
- Endnotes 17

Executive summary

The coronavirus crisis has wreaked death and economic destruction throughout the world, but it was a crisis that Australia didn't have to have. This paper lays out a detailed weekly timeline of the crucial first 12 weeks of the crisis, from China's first public admission of the disease outbreak on Monday, December 30 to Australia's border closure on Friday, March 20. Those weeks were Australia's window of opportunity for fighting the virus at the border instead of in the community.

Had Australia properly treated the coronavirus as a border security challenge during those 12 weeks, it could have quarantined a limited number of arriving passengers and thus insulated the rest of the country from the worst effects of the pandemic. Instead, Australia treated the introduction of the coronavirus as unavoidable, focusing instead on managing it as public health challenge, using tools like social distancing and the closure of large parts of the Australian economy to isolate 24 million people from the few infected individuals.

By treating the coronavirus as a public health threat instead of as a border security threat, Australia needlessly imposed hundreds of billions of dollars in financial losses on its own population.

In criticising Australia's public health led response, this paper presents evidence that Australia's Chief Medical Officer Brendan Murphy and the Australian Health Protection Principal Committee (AHPPC) he chaired:

- 1) Placed inordinate faith in the highly-politicised advice of the World Health Organization;
- 2) Placed inordinate faith in China's 'transparency and openness';
- 3) Uncritically endorsed the World Health Organization's advice to rely on China (and, later, other countries) to contain the outflow of coronavirus cases instead of taking independent action to control the inflow of cases from China (and, later, the rest of the world);;
- 4) Equated handing out informational pamphlets containing advice on self-isolation with 'quarantines'; and
- 5) Inexplicably failed to issue advice on cruise ship sailings until the end of Week 11 or the beginning of Week 12, by which time it was too late.

Notwithstanding these errors, the prime minister and the National Security Committee of Cabinet (NSC), not the AHPPC, bore ultimate responsibility for ensuring

Australia's border security. This paper presents evidence that in exercising this responsibility, the prime minister and the NSC:

- 1) Made inappropriately firm public commitments to act only on the advice of their health experts (i.e., the AHPPC);
- 2) Counter-productively endorsed the exploitation of loopholes in Australia's travel restrictions, instead of closing them; and
- 3) Failed in the execution of simple border security measures like electronic record-keeping and routine follow-up.

Throughout the crucial first 12 weeks of Australia's coronavirus response, the critical point of failure in the government's border security policymaking occurred at the junction between bureaucratic expertise and political leadership. The research presented in this paper leads to the conclusion that political leaders who sit on the NSC could have — and should have — drawn on their extensive foreign policy experience and contacts to:

- 1) Discount the advice of the WHO not to impose travel restrictions;
- 2) Disregard Chinese propaganda about its success in managing the crisis; and
- 3) Critically evaluate the advice it received from the AHPPC in light of actions being taken by other jurisdictions with which the members of the NSC were presumably in regular communication (e.g., Hong Kong, Singapore, Taiwan, and the United States).

For the first 12 weeks of 2020, the coronavirus crisis was not a public health crisis, but a border security crisis. By treating the coronavirus as a public health crisis right from the beginning, the NSC abrogated too large a portion of its decision-making responsibility. The AHPPC were out of their depth in advising on national security — a policy area that was not really within their area of expertise.

The coronavirus crisis has exposed fault lines in Australia's national security decision-making that should be mended. In any future national security crisis, the NSC and the elected leadership should:

- 1) Limit the role of bureaucratic advice to narrow areas of expert competency;
- 2) Take greater public responsibility for decisions that are, ultimately, political;

- 3) Exercise due skepticism of pronouncements from highly politicised intergovernmental organisations like the WHO and other United Nations specialised agencies; and
- 4) Apply a 'reasonable person' test to policymaking, in the full confidence that the Australian electorate, on the whole, consists of reasonable people.

Australia is one of the oldest, most stable, most successful democracies in the world. Its record of policymaking and policy execution throughout its long history of self-government is vastly superior to that of most of the other member states of the United

Nations and its specialised agencies. Although it is appropriate for Australia to conscientiously take notice of the advice of intergovernmental organisations, it makes no sense for Australia to slavishly follow their dictates.

After China's initial mismanagement and attempted cover-up of the Wuhan outbreak in weeks 1-4 of the coronavirus crisis, it was probably impossible to prevent a near-global pandemic spread of the disease. Nonetheless, at that point it was still possible to prevent the spread of the coronavirus into Australia's general population; however the NSC failed to do this.

1. Introduction

Though the coronavirus crisis has exposed many failures of policy and implementation by Australian governments, we can only expect governments to act on facts they should have known and outcomes they should have foreseen at the time. For example, we now know that the coronavirus may have been spreading in Wuhan as early as November. But if even the Chinese authorities were unaware of this at the time, this fact could not have informed Australian policy-making.¹

Of course, Australia could have been better prepared to handle a crisis but it is difficult to second-guess disaster preparedness. There are many potential disasters that people warn us to guard against, and it is impossible (not to mention wildly uneconomic) to fully and continuously prepare for them all. If Australia had begun pandemic preparedness in the immediate aftermath of the 1918 flu pandemic, it would have been waiting more than 100 years for the preparations to pay off. When the current crisis has passed, no doubt Australia will make extensive preparations against a future coronavirus pandemic. Yet it seems the way of the world that the next crisis will take a form not previously imagined. After all, a crisis foreseen and prepared for is unlikely to then escalate into a crisis.

At a bare minimum, policymakers and the experts who advise them should make decisions during a crisis that pass the 'reasonable person' test of civil tort law in common law legal systems like Australia's. This is the idea that responsible individuals should be expected to exercise a modicum of caution and good sense in making decisions that might affect others. In 1947, American judge Learned Hand introduced a three-part formula for implementing the test in

practical casework. Paraphrasing, he suggested that in making decisions that might affect others, a reasonable person would take into account three key criteria:

- 1) The probability of harm
- 2) The seriousness of the harm
- 3) The cost of taking precautions

For example, the 'reasonable person' test might be applied to Australia's handling of the *Ruby Princess*, which has emerged as the world's deadliest coronavirus-infested cruise ship.² For two months starting February 4, its stablemate the *Diamond Princess* was stranded in Yokohama, Japan with a raging coronavirus epidemic on board that eventually spawned 712 coronavirus cases among its 3711 passengers and crew. The entire world knew of the plight of the *Diamond Princess*, which still has its own line in the league tables of national coronavirus cases. In light of the *Diamond Princess* fiasco, which had riveted global media attention throughout February, it is hard to see how a reasonable person could have allowed the *Ruby Princess* to dock at Circular Quay in central Sydney on March 19 and disembark its passengers directly onto city streets and into mass transit, with no screening or warnings. Experts may legitimately disagree about what should have been done under the circumstances, but it is difficult to argue that a 'reasonable person' would have done nothing.

As of early May, more than 60% of Australia's confirmed coronavirus cases had been contracted overseas.³ Remarkably, nearly one-fifth of them could be traced to cruise ships, 10% to the *Ruby*

Princess alone.⁴ The remainder, of course, must have their ultimate source in arrivals by air. All Australia's cases seem to derive from arrivals that occurred after the danger posed by the coronavirus should have been clear to any reasonable person, with the first case traced to an arrival from Wuhan on January 19.⁵ As the detailed timeline presented in this paper demonstrates, had Australia exercised a level of caution equivalent to that of world coronavirus response leaders like Hong Kong and Taiwan, Australia may have been able to prevent community transmission entirely. Instead, on January 21, the day after China (in effect) admitted that it had been suppressing information about the seriousness of the coronavirus epidemic, Australia's chief medical officer Brendan Murphy issued a statement reiterating that "the risk of transmission in Australia from this novel coronavirus remains low."⁶ That appraisal turned out to be tragically wrong.

In the spirit of the 'reasonable person' test, this paper lays out a weekly coronavirus timeline, summarising what Australian policymakers knew (or should have known) as the crisis unfolded, and comparing their decision-making to that of their peers in the best-informed jurisdictions: Hong Kong, Singapore, and Taiwan. The focus is on border policy, since once the coronavirus had been allowed to start circulating within the country, the key policy questions became epidemiological rather than political. Section 2 lays down a foundation for policy evaluation by presenting

a detailed week-by-week policy timeline comparing what was known about the disease at each time point to Australia's contemporaneous policy response. Section 3 evaluates this timeline against Learned Hand's three criteria to suggest what a 'reasonable person' should have concluded about how to handle coronavirus border security, and when. Section 4 demonstrates that Taiwan's world-class coronavirus response amounted to little more than applying the 'reasonable person' test to an external public health threat.

Any informational advantage that Taiwan had over Australia was important primarily in the first weeks of the crisis, before information about the virus became relevant for Australia; and any pandemic preparedness advantage it had would only have become operative once the virus was already circulating in the country. In fact, Taiwan fought the virus at the border, as any sensible person would have. But instead of following Taiwan's sensible example, Australia took a much more laid-back approach to border security, with health authorities consistently expressing a preference for fighting the coronavirus at home instead of at the border. This approach is exactly what the World Health Organization consistently advised against. The conclusion that emerges in Section 5 is that in future crises, Australia should rely less on advice from intergovernmental organisations that may be tainted by undue influence and more on the good judgment of its own democratically elected political leaders.

2. Australia's coronavirus policy timeline

Although the coronavirus that causes COVID-19 may have been circulating in China as early as November, and the Chinese government itself now says that Chinese doctors first diagnosed the new viral pneumonia on December 27, no one outside China was aware of the existence of a new disease threat until Monday, December 30, 2019.⁷ Counting from that date, it took just 12 weeks for Australia to go from complete ignorance of a possible threat to the near-total ban on foreign travellers that took effect

on March 20.⁸ Those 12 weeks were the crucial period during which Australian governments could make and implement policies to prevent a crisis. However, once the virus was endemic in Australia, its spread could only be managed, not averted, as the rapidly rising case counts in weeks 10-12 illustrate.⁹ The week-by-week chronology of Australia's coronavirus policy timeline detailed below and summarised in Table 1 forms the basis for the policy analyses and conclusions presented in this paper.

Table 1. Timeline of Australia's coronavirus policy response

Week	Week of ...	Australia's policy response	HKG/SGP/TWN policy response	WHO policy advice
1	Dec. 30	None	Temperature screening of passengers from Wuhan; post-arrival monitoring; hospital advisories	Mystery viral pneumonia; no signs of human-to-human transmission; travel restrictions unwarranted
2	Jan. 6	State health departments in NSW and Victoria issue alerts; no federal response	Temperature screening of passengers from Wuhan; post-arrival monitoring; hospital advisories	Coronavirus identified; no signs of human-to-human transmission; travel restrictions unwarranted
3	Jan. 13	Chief Medical Officer Brendan Murphy says 'no cause for alarm' and reaffirms business as usual at airports	HKG and TWN warn of human-to-human transmission of the virus; SGP isolates suspected cases as a precaution	No human-to-human transmission; no cases among health workers; travel restrictions unwarranted
4	Jan. 20	Murphy reiterates 'no risk at the moment'; arriving passengers from China given informational pamphlets	HKG, SGP, and TWN suspend flights to Wuhan; HKG closes schools; TWN bans most travel from China	Admission of human-to-human transmission; reconfirmation of advice against travel restrictions
5	Jan. 27	Bans entry from China	SGP bans travel from China; HKG scales back connections	Declaration of public health emergency; reconfirmation of advice against travel restrictions
6	Feb. 3	Offers "third country route" through which Chinese students (and others) could enter Australia after 14 days	HKG quarantines all travelers from China; TWN bans remaining travel from China; HKG and TWN ban cruise ships	Travel bans increase "fear and stigma", are not "evidence-based", have "little public health benefit"
7	Feb. 10	Education minister Dan Tehan endorses "third country route" for Chinese students		Admission that travel restrictions "may have a public health rationale" but must be short in duration
8	Feb. 17	Phased relaxation of China travel restrictions, beginning with Year 11 and 12 students		
9	Feb. 24	AHPPC warns of pandemic, still recommends "staged return" of Chinese students; government travel ban on Iran		Travel restrictions to be used "only for a few days, to rapidly implement effective preparedness measures"
10	Mar. 2	AHPPC advocates no further travel restrictions; government imposes travel ban on South Korea		
11	Mar. 9	Government imposes travel ban on Italy; AHPPC to discuss cruise ships in the context of bans on mass gatherings		Declares "pandemic",
12	Mar. 16	Cruise ship ban; Ruby Princess fiasco; international travel ban	HKG/SGP/TWN ban foreigners	

Week 1: week of Monday, December 30 (coronavirus yet to reach Australia)

The first news the world outside China had about an "undiagnosed pneumonia" in Wuhan was an email bulletin sent at a minute before midnight US eastern standard time on Monday, December 30 from the Program for Monitoring Emerging Diseases (ProMED) of the International Society for Infectious Diseases.¹⁰ That morning in China, the *Hubei Daily News* had carried the brief report 'Wuhan Municipal Health Commission announces pneumonia outbreak'.¹¹ The article reassured readers that "so far, the investigation has found no obvious person-to-person transmission, and no infections of medical personnel." The news was picked up by Reuters, which issued a bulletin late on New Year's Eve, noting that "Wuhan Central Hospital ... declined to comment" on the reports.¹²

Shortly after the holiday break, on January 3, virologist Ian Mackay posted the first public Australian analysis of the "viral pneumonia cluster in Wuhan", urging caution and a wait-and-see approach.¹³ Also that day, the BBC ran an unsigned news article that appears to have been the first truly global news story about the Wuhan mystery pneumonia, accompanied by commentary from BBC health reporter Philippa Roxby, who presciently raised fears of a Chinese cover-up like the one that exacerbated

the seriousness of the 2002-2003 SARS epidemic. The article included the ominous information that "Wuhan police said eight people had been punished for "publishing or forwarding false information on the internet without verification".¹⁴ Importantly, the BBC further reported that the Wuhan Health Commission issued a statement saying that there had been "no human-to-human transmission" of the mystery virus.

Yet at the time of these early reports, Hong Kong, Singapore, and Taiwan had already begun health screening of passengers arriving from Wuhan. Already on December 31, the *South China Morning Post* reported that Hong Kong had implemented "temperature screenings at every border checkpoint, including the city's international airport and high-speed railway station."¹⁵ Hospitals had notified "frontline medical staff" to be on the lookout for cases of pneumonia or acute respiratory illness accompanied by fever, and to check on patients' travel histories for potential links to Wuhan. By January 2, Hong Kong was intensively screening all travellers from Wuhan, despite World Health Organization advice that there was no need for precautions.¹⁶ Taiwan also began intensive screening of all passengers from Wuhan and post-arrival monitoring of those with fevers on New Year's Eve.¹⁷ Singapore issued a health advisory and started screening of passengers from Wuhan on January 3.¹⁸

On Sunday, January 5, the World Health Organization (WHO) finally issued its first bulletin on the new virus.¹⁹ The WHO reported that the Chinese government had notified it on December 31 of 'cases of pneumonia of unknown etiology'. The bulletin relayed Chinese assurances that "no evidence of significant human-to-human transmission and no health care worker infections have been reported." Chinese authorities later admitted that the first doctor to diagnose the new viral pneumonia, on December 27, considered the disease "probably infectious", that from December 29, medical staff attending patients with the disease were ordered to wear face masks, and that by December 30, patients with the disease were being quarantined.²⁰ It is not currently known whether or not the WHO had access to this information at the time. In an implicit snub to Hong Kong and Taiwan, the January 5 WHO bulletin concluded with a statement that the "WHO advises against the application of any travel or trade restrictions on China."

Week 2: week of Monday, January 6 (coronavirus yet to reach Australia)

The first Australian mainstream media report of the "mysterious lung infection" in Wuhan appeared on page 23 of the *Sydney Morning Herald* for January 6, in a short bulletin picked up from the Bloomberg wire service.²¹ Throughout week 2, the *SMH* continued to run brief wire service reports about the virus, although other Australian news outlets would not start covering it until week 4. Thus by week 2, the Australian government should have been well-aware of the situation in Wuhan, including the fact that experts in Singapore were "frustrated that scientists in China were not allowed to speak" about the virus.²² At the beginning of week 2, Hong Kong had already raised its public health threat level to 'serious' (one short of 'emergency'), and stores were selling out of surgical masks.²³ On January 8, Chinese researchers confirmed that the mystery pneumonia was in fact caused by a 'novel coronavirus'.²⁴

Throughout week 2, Western media reports reinforced the misperception that the Wuhan coronavirus was not transmissible from human to human, by quoting medical experts who were simply repeating false information coming from China via the WHO. Reading week 2 articles with hindsight, it is clear that Chinese press releases were the ultimate sources for all opinions that the coronavirus was not infectious. For example, on January 9, Reuters passed along WHO guidance originating in Chinese assurances that the coronavirus "does not appear to pass easily from person to person."²⁵ The WHO itself repeated its advice against "any specific measures for travellers" and "against the application of any travel or trade restrictions on China."²⁶ The public may have been lulled by this into a false sense of security by these statements, but public health authorities should not have been.

On January 10, the WHO for the first time released a full-length document offering explicit advice about international travel restrictions in relation to the novel coronavirus.²⁷ It reassured the world that "preliminary investigation suggests that there is no significant human-to-human transmission, and no infections among health care workers have occurred." In fact, at this time the now-famous whistleblower Dr Li Wenliang had already contracted the coronavirus from one of his patients.²⁸ It is currently unknown whether or not the WHO was aware of this or if other Wuhan health workers had also been infected, although as an ophthalmologist, Dr Li would hardly have been on the coronavirus front line. The WHO merely recommended that "travellers with symptoms of acute respiratory infection should practice cough etiquette", advising that "entry screening offers little benefit." It explicitly advised "against the application of any travel or trade restrictions on China."

In Australia, the federal authorities had nothing to say about the coronavirus in week 2, but both the New South Wales²⁹ and Victorian³⁰ health departments issued infectious disease alerts on January 10, citing a US Centers for Disease Control advisory notice.³¹ Both alerts recommended that suspected coronavirus patients be fitted with surgical masks and, if possible, isolated in a private room with negative pressure ventilation. They recommended that attending health staff wear P2/N95 respirators. The United States itself issued a travel alert for Wuhan on January 11.³² Hong Kong, Singapore, and Taiwan were all screening passengers from Wuhan with temperature checks and health questionnaires.

On Sunday, January 12, the WHO closed week 2 with a statement unambiguously expressing its full satisfaction with the Chinese coronavirus response.³³ It began:

On 11 and 12 January 2020, WHO received further detailed information from the National Health Commission about the outbreak.

WHO is reassured of the quality of the ongoing investigations and the response measures implemented in Wuhan, and the commitment to share information regularly.

The evidence is highly suggestive that the outbreak is associated with exposures in one seafood market in Wuhan. The market was closed on 1 January 2020. At this stage, there is no infection among healthcare workers, and no clear evidence of human to human transmission. The Chinese authorities continue their work of intensive surveillance and follow up measures, as well as further epidemiological investigations.

The statement went on to repeat the WHO's advice against taking any measures to protect against the novel coronavirus.

Week 3: week of Monday, January 13 (coronavirus yet to reach Australia)

Week 3 opened on January 13 with the WHO reporting a suspected coronavirus case in Thailand, the first outside China.³⁴ The next day, the WHO confirmed the case, noting that although the patient was from Wuhan, she had not shopped at the notorious seafood market that was hypothesised to be the source of the virus.³⁵ It reiterated that "China has not reported any cases of infection among healthcare workers or contacts of the cases" previously identified. It went further, noting that China had reported no new cases at all since January 3. On January 17, the virus popped up in Japan, in a man who had traveled to Wuhan and been in contact with a person with pneumonia, but who also had not visited the seafood market.³⁶ By this point, the seafood market had been closed for more than two weeks. Again, the WHO relayed unquestioningly China's claim of no new infections and no healthcare worker cases.

Notwithstanding the WHO assurances, the United States began airport screening on January 17.³⁷ The SMH carried a wire service report on the event, which noted that this was only the second time in history that the US had conducted airport infectious disease screening (the first was during the 2014 Ebola outbreak).³⁸ This apparently prompted the first public response from Australia's chief medical officer (CMO), Brendan Murphy, who on January 18 reassured Australians that there was "no current need" for enhanced airport screening and "no current need for any travel advisory in Australia, which is consistent with recommendations from the World Health Organization."³⁹ Despite the precautions advised by the NSW and Victoria health departments the previous week, he stressed that "there have been no cases of infection in the several hundred healthcare workers who have been exposed to the patients in China."

By the end of week 3, Hong Kong, Indonesia, Malaysia, the Philippines, Singapore, South Korea, Taiwan, Thailand, and the United States were all ignoring the WHO's advice and actively screening passengers arriving from Wuhan.⁴⁰ Both Hong Kong⁴¹ and Taiwan⁴² had warned hospitals of the likelihood of human-to-human transmission of the novel coronavirus. Singapore reported several suspected cases in people who had not visited the Wuhan seafood market at the center of the outbreak, treating them in isolation as a precaution against infection.⁴³ Despite assurances from the WHO, much of Asia was on high alert against the spread of the novel coronavirus.

Nonetheless, on Sunday, January 19, Australia's CMO Brendan Murphy issued a formal statement reassuring Australians that "there is no cause for alarm."⁴⁴ He noted that "Australia has well established mechanisms to respond to ill travellers at points of entry" and "airlines must report passengers on board showing signs of an infectious disease, including fever,

sweats or chills." He reiterated that there was "no clear evidence of human to human transmission" and that there had been no reported cases among health workers in China. He endorsed the WHO position "[against] any travel advisory for China, or additional measures at airports beyond our established mechanisms." For Australian airports, it was to be business as usual.

Week 4: week of Monday, January 20 (new cases in Australia: 4)

The very next day, Monday, January 20, China admitted (in effect) that it had been deceiving the world, reporting 139 new cases of coronavirus in Wuhan, Beijing, and Shenzhen.⁴⁵ Incredibly, the Chinese Communist Party's international mouthpiece newspaper, the *Global Times*, editorialised (in an article since scrubbed from its website) that:

In the early days of SARS, reports were delayed and covered up. That kind of thing must not happen again in China.⁴⁶

Nonetheless, on January 21, Australian CMO Brendan Murphy issued a statement reaffirming that "the risk of transmission in Australia from this novel coronavirus remains low."⁴⁷ In response to the emerging news from China, he said that Australia would be "undertaking evidence based, proportionate additional border measures", which applied only to the three-times-a-week flight from Wuhan to Sydney. These were:

All passengers on these direct flights will receive information about the virus on arrival requesting that they identify themselves to biosecurity officers at the airport if they are unwell. If they have symptoms of an infectious disease they will be assessed by NSW Health.

Additional information will be displayed at all major international ports around Australia, with instructions on what to do if travellers have symptoms or if symptoms develop.

Murphy reaffirmed in a press conference on January 21 that "there is no need for alarm, and the risk to the Australian public from this novel virus remains relatively low."⁴⁸ Seemingly casting aside the explosive news from China the day before that the number of cases was much larger than it had previously admitted, he continued to express the view that "we're still not entirely sure whether they have all been derived from Wuhan or whether ... there has been transmission in any place other than Wuhan." Asked on January 22 about China's level of cooperation, he said on national radio that China was "being open; they're being transparent ... I think it's a wonderful transparency and openness that we're now seeing with China."⁴⁹

That same day, Singapore announced an expansion of airport temperature screening to all passengers

arriving from China, with those arriving from Wuhan with pneumonia being subject to mandatory hospital isolation.⁵⁰ Singapore's only airline serving Wuhan, the budget carrier Scoot, suspended service on January 23.⁵¹ Also on January 23, Taiwan's flag carrier, China Airlines, suspended all flights from Wuhan.⁵² On January 25, Hong Kong suspended all travel from Wuhan (air and rail), and closed schools to limit the potential spread of the disease in the territory itself.⁵³ The next day, Taiwan banned most Chinese citizens from entry, though with limited exceptions designed to accommodate many Taiwanese families' and businesses' close ties with the mainland.⁵⁴ Those remaining exceptions were eventually removed on February 6.⁵⁵

On January 22 and 23, the WHO held emergency meetings to formulate its new coronavirus response. Remarkably, the WHO Emergency Committee determined that the coronavirus did not represent a Public Health Emergency of International Concern.⁵⁶ The committee resolved that China should "continue to share full data on all cases" (as if it had been doing so all along), while other countries should "demonstrate solidarity and cooperation." The WHO reiterated its advice against international travel restrictions, or "any specific health measures for travellers." This, despite encouraging China to implement "screening at domestic airports, railway stations, and long-distance bus stations." Bizarrely, the WHO also recommended that China conduct "exit screening at international airports and ports" even as it advised other countries not to screen passengers arriving from China.

By the end of week 4, China was taking the coronavirus very seriously. China's Bureau of Disease Prevention and Control started calling the disease "highly infectious", just days after claiming that there was no evidence of human-to-human transmission.⁵⁷ The Chinese government cut off travel to and within Wuhan and 16 nearby cities, and banned private vehicles from the roads.⁵⁸ Nonetheless, due to China's mismanagement of the crisis and delays in taking action, some 5 million people left Wuhan before the lockdown took effect.⁵⁹ At the end of the week, China's president Xi Jinping called the situation "grave", with Beijing admitting that the coronavirus had spread to 29 provinces.⁶⁰

Meanwhile, the first cases of coronavirus were detected in Australia. Australia's response at this time was to raise the travel advisory for Wuhan to 'do not travel' and provide information pamphlets to passengers arriving from other parts of China.⁶¹ Brendan Murphy reiterated at his January 26 press conference that "there is no risk at the moment" to the Australian public, and suggested that China's actions in week 4 had actually lowered the risk of the virus spreading to Australia.⁶² Murphy held to the line that "we don't really have good data on the infectivity or how high the risk of human-to-human

transmissions is", despite the fact that by this date even the Chinese government had acknowledged the 'highly infectious' nature of the virus, quarantining some 50 million people in response. Regarding the tracing of people who were known to have been exposed to coronavirus while flying to Australia, Murphy explained that the government's strategy for locating them was to use the handwritten addresses they gave on the paper landing cards on arrival in Australia.

Week 5: week of Monday, January 27 (new cases in Australia: 8)

Week 5 started with Australian federal authorities continuing to downplay the seriousness of the threat posed by the coronavirus. On January 27, Brendan Murphy reiterated that "we have no evidence there's a risk to the Australian public."⁶³ He again claimed that "we don't know of any proven evidence of human to human transmission outside of the Hubei province."⁶⁴ The Australian Health Protection Principal Committee (AHPPC), consisting of Australian CMO Brendan Murphy and the eight state and territory Chief Health Officers, even rejected Chinese warnings that the coronavirus could be spread during its incubation period, before symptoms emerged.⁶⁵ Nonetheless, the AHPPC characterised Australia's policy stance at the time as "highly precautionary."⁶⁶

On January 30, the WHO reconvened its Emergency Committee and at last declared the coronavirus a Public Health Emergency of International Concern.⁶⁷ Nonetheless, the committee continued to advise against "any travel or trade restriction." The next day, in responding to the WHO pronouncement, Murphy once again emphasised that "there has been very limited and isolated incidents of human-to-human transmission outside of China."⁶⁸ Incredibly, he claimed that Australia was "one of the most forward leaning countries in terms of our public health response." He once again characterised Australia's coronavirus response as "very, very proactive." Crucially, citing WHO advice, Murphy said that the APHCC "does not recommend banning direct flights from China, as it's not a public health measure." As he explained on January 31:

The World Health Organization strongly recommends that country - nations do not ban flights from China because unless you lockdown exit from the country, *banning flights, direct flights, doesn't stop people coming from China.* They could come from all sorts of other ports and at least we know who is coming from China and we can meet and do very intensive border measures for those flights. The airlines that have stopped flying from China around the world, a couple of them have done so for commercial reasons. No country in the world has suggested this. It seems likely that China is increasingly blocking export of its residents, so they are

reducing tour groups coming out of China and if the outbreak in provinces other than Hubei, which is now completely locked down, increase, *I believe they will stop exits from China which is a more effective way.* So at the moment, our Health Protection Principal Committee does not recommend banning direct flights from China, as it's not a public health measure.⁶⁹ [emphasis added]

That day, both Singapore⁷⁰ and the United States⁷¹ announced China travel bans similar to the one that would soon be implemented in Australia, while Italy⁷² and Israel⁷³ instead chose to simply ban all flights from China. British Airways and many other international airlines had already suspended all or most flights from China.⁷⁴ Hong Kong suspended most rail and ferry links to the mainland effective January 30, and halved the number of flight connections to China.⁷⁵ Chinese economists warned that the coronavirus would shave a full percentage point off China's quarterly economic growth in the "most optimistic scenario" and that unemployment was likely to hit a record high.⁷⁶

On February 1, less than 24 hours after arguing that travel bans were not effective public health measures, Australia's APHCC abruptly reversed course, advising the government in an uncharacteristically brief statement to "deny entry to Australia to people who have left or transited through mainland China from 1 February 2020, with the exception of Australian citizens, permanent residents and their immediate family and air crews."⁷⁷ It did not cite 'sustained' transmission outside Wuhan as the justification. Instead, it inexplicably noted "the increasing (but still relatively small) number of cases in provinces outside Hubei Province."⁷⁸ Hours later, the National Security Committee of Cabinet (NSC), acting on this "new and urgent information" from the AHPPC, decided that "foreign nationals (excluding permanent residents) who are in mainland China from today forward, will not be allowed to enter Australia for 14 days from the time they have left or transited through mainland China."

Somewhat straining credulity, Australian health minister Greg Hunt stated at a press conference on February 2 that between January 31 and February 1, the AHPPC switched from a unanimous consensus that such travel restrictions were unwarranted to a unanimous consensus that they were, and that the NSC only acted in response to the advice of the AHPPC.⁷⁹ Murphy claimed the seemingly abrupt reversal was really only a 'corollary' of a simple change in definitions. Up until January 31, Australia's definition of 'potentially infected people' was limited to people from Hubei province, the province of which Wuhan is the capital and chief city. On February 1, on his advice, the AHPPC 'broadened' that definition "to include anyone who has been in mainland China who has relevant symptoms." The new definition

thus called for a wider travel ban, despite the fact that Murphy and the AHPPC had repeatedly advised against the imposition of any travel bans.

Week 6: week of Monday, February 3 (new cases in Australia: 3)

The first concerns about coronavirus and cruise ships were raised in week 6, with a false alarm on the *Costa Smeralda* sailing off the coast of Italy.⁸⁰ On February 3, the Philippines became the first country to ban cruise ship arrivals from China, Hong Kong, and Macau.⁸¹ The *Diamond Princess* cruise ship saga began the next day, when the first reports emerged that 10 passengers had tested positive for the coronavirus.⁸² The screening of the entire ship had been prompted when a passenger tested positive after disembarking in Hong Kong. While the ship was en route to its next destination, Yokohama (the main port for Tokyo), Japanese officials boarded *Diamond Princess* and conducted the tests. Upon arrival in Yokohama on February 1, the ship was quarantined pending test results. On February 4, Japan announced the positive cases and quarantined the entire ship for an additional two weeks. As it turned out, the *Diamond Princess* would remain quarantined in port for the rest of the month.

In response to the *Diamond Princess* outbreak, both Hong Kong⁸³ and Taiwan⁸⁴ closed their borders to cruise ships from February 6. The next day, the Japanese government also politely 'asked' its port operators not to allow cruise ships to dock.⁸⁵ The *Super Star Aquarius*, carrying mostly Taiwanese passengers, was accordingly denied entry to Okinawa and forced to return to its home port of Keelung, just north of Taipei. Taiwan's authorities made a special exception to allow it to dock, but immediately quarantined the entire ship while coronavirus tests were conducted — despite there being no reports of coronavirus-like illnesses.⁸⁶ Taiwan only allowed the passengers to disembark after the tests came back clear.

Meanwhile, with the southern hemisphere academic year due to start in late February, Australia's China entry ban caught an estimated 105,800 Chinese tertiary students offshore, unable to take up their places at Australian institutions.⁸⁷ Phil Honeywood, CEO of the industry group International Education Association of Australia, immediately warned of the risk to international education's '\$39 billion a year' contribution to the Australian economy.⁸⁸ Some commentators called for an easing of travel restrictions for Chinese students, citing the more relaxed approach of competing countries like Canada and the United Kingdom.⁸⁹ Honeywood ironically warned of "a danger that competitor destinations [will] make mileage out of Australia's special difficulties" when their academic years began in September.

Apparently seeking to support the Australian higher education sector, the federal Department of Education, Skills and Employment helpfully advised Chinese students as early as February 8 that they could in principle enter Australia via third countries, subject to a 14-day waiting period.⁹⁰ The document has since been scrubbed from the internet, but the ABC reported that it contained the specific example:

A student leaves mainland China on 3 Feb 2020 and goes to Malaysia. Provided the student does not return to mainland China they could enter Australia on 17 Feb 2020.⁹¹

This advice opened up the notorious 'third country' route, through which more than 31,000 Chinese students ultimately entered Australia between the imposition of the China entry ban on February 1 and the closure of Australia's international borders on March 20.⁹² Phil Honeywood called this figure "definitely encouraging", while Australian Border Force commissioner Michael Outram said he was "delighted" that students "did what we wanted them to do" and "were fully compliant with our policy intent."

In the middle of week 6, Hong Kong began quarantining (not self-isolation, but supervised quarantine) all travellers arriving from mainland China.⁹³ This was despite WHO director-general Tedros Adhanom condemning 22 countries on February 4 for "increasing fear and stigma, with little public health benefit" by imposing travel restrictions in response to the coronavirus epidemic.⁹⁴ The WHO continued to advise against travel restrictions throughout week 6, characterising them as being not being 'evidence-based'.⁹⁵ The Chinese government repeatedly quoted Tedros in its propaganda assault on other countries' China travel restrictions.⁹⁶

Week 7: week of Monday, February 10 (new cases in Australia: 0)

On February 11, the WHO finally admitted that travel restrictions:

...may have a public health rationale at the beginning of the containment phase of an outbreak, as they may allow affected countries to implement sustained response measures, and non-affected countries to gain time to initiate and implement effective preparedness measures.⁹⁷

It insisted, however, that such restrictions "need to be short in duration, proportionate to the public health risks, and be reconsidered regularly as the situation evolves."

On February 13, Australia's AHPPC reconfirmed its advice that the government should restrict travel from China, but it remained silent about the increasingly popular 'third country' route.⁹⁸ Federal education minister Dan Tehan confirmed that it was "perfectly within the guidelines."⁹⁹ The Education Consultants

Association of Australia conducted a survey to demonstrate that if Chinese students were excluded from Australia for the first semester of 2020, they would "enrol in another country", preferably the United Kingdom or Canada.¹⁰⁰ Anecdotal reports proliferated of Chinese students transiting Thailand for 14 days en route to Australia.¹⁰¹ Thailand faced strong pressure, both from the Chinese government and from its own struggling tourism operators, to maintain its 14-day visa on arrival for Chinese tourists, despite the spread of coronavirus to Thailand.¹⁰²

Week 8: week of Monday, February 17 (new cases in Australia: 5)

With East Asian ports closed, international cruise operators began redeploying excess capacity to the Australian market at the beginning of Week 8.¹⁰³ At least three large ships and many smaller ones either opened new routes from Australia or extended itineraries in Australian waters. Australian governments must have been aware of these plans, since they required advance port approvals.

Meanwhile it was reported in the Australian media that Chinese travel companies were offering package tours specifically tailored to meet Australia's 'third country' rule, with students offered the option of transiting via Thailand or Dubai.¹⁰⁴ Western Sydney University became the first Australian university to explicitly endorse the 'third country' route, offering to "pay each student arriving in Australia through a third county \$1500 AUD to help cover the cost of airfares and 14 days' accommodation."¹⁰⁵ Notably, the \$1500 was only payable if the student successfully made it to Australia; students detained in transit were not eligible. The ANU and University of Melbourne would later follow Western Sydney's lead, offering the much larger sums of \$5000 and \$7500, respectively.¹⁰⁶

On February 19, the AHPPC proposed that Australia begin the process of relaxing its China travel restrictions.¹⁰⁷ It specifically suggested allowing the entry of "Year 11 and 12 secondary school students from mainland China (excluding Hubei province)." It went on to suggest that "if current epidemiology is maintained ... there is a case for government to consider ... a temporary relaxation of the travel restrictions to allow entry to a larger number of tertiary students", assuming that they would agree to 'self-isolate' once in Australia. The AHPPC offered no rationale as to why it believed that teenagers were the safest group to experiment with, but the government quickly acted on the AHPPC opening. In a joint press release, health minister Greg Hunt, education minister Dan Tehan, Victorian education minister James Merlino, and CMO Brendan Murphy announced that 760 Chinese students and their guardians would be allowed to travel directly to Australia subject to 'self-isolation' (not quarantine).¹⁰⁸ The ministers said that the decision was made "with the safety of Australians as the number one priority."

Week 9: week of Monday, February 24 (new cases in Australia: 8)

In its February 24 statement, the AHPPC noted “further increases in case numbers” in China and a “growing concern about community transmission in a number of countries.”¹⁰⁹ It expressed concerns about rising coronavirus case counts in South Korea, Japan, Italy, Iran, Hong Kong, and Singapore, and worried that cases were being underreported in Vietnam, Cambodia, and Indonesia. It went so far as to say that “AHPPC believes that these international developments increase significantly the risk of a COVID-19 pandemic.” Nonetheless, it recommended two days later that “consideration be given to a staged return of specified cohorts of Chinese students from mainland China (excluding Hubei province).”¹¹⁰ Despite noting that “rapidly increasing numbers of cases of COVID-19 have been reported in South Korea, Italy, and Iran”, the AHPPC concluded that “extending travel bans to restrict travel from multiple countries is not likely to be feasible or effective in the medium term.” It did not specify what it meant by ‘medium term’.

On February 29, despite noting “evidence that suggests that the COVID-19 outbreak in Iran may be one of the largest outside of the Hubei province in China”, the AHPPC recommended against further travel restrictions, making clear that it “does not support the further widespread application of travel restrictions to an increasing number of countries that have community transmission.”¹¹¹ It did, however, acknowledge that “preventing entry to Australia for travellers from Iran ... could be considered by government.” The government immediately cut off travel from Iran, beginning March 1.¹¹²

Also on February 29, the WHO clarified its firm advice that travel restrictions should be applied “only for a few days, to rapidly implement effective preparedness measures.”¹¹³

Week 10: week of Monday, March 2 (new cases in Australia: 52)

On March 4, the AHPPC made a dedicated statement of its position on international travel restrictions.¹¹⁴ It recommended:

- (1) that the Government direct primary focus toward domestic containment and preparedness for COVID-19, alongside (2) maintaining enhanced border measures and travel restrictions at their current level for a further 7 days.

It flatly stated that “border measures can no longer prevent importation of COVID-19 and [the AHPPC] does not support the further widespread application

of travel restrictions to the large number of countries that have community transmission.” It mirrored official WHO advice in stating that “Australia’s border measures have helped to delay entry of the virus and buy time for health sector and societal preparedness” while explicitly advising against their extension to other countries. The AHPPC instead advocated a public health response centered on ‘self-isolation’. The government ignored this advice, slapping travel restrictions on South Korea the very next day.¹¹⁵ It also mandated ‘advanced screening’ for travellers from Italy.

Despite two Formula One racing teams being based in northern Italy, the Victorian and federal governments confirmed that the Australian Grand Prix scheduled for March 15 in Melbourne would be allowed to go ahead as planned.¹¹⁶ Apparently recognising the difficulties that self-isolation requirements might pose for racing teams, the federal government repeatedly revised its advice for travellers arriving from Italy.¹¹⁷ In the end, it settled on ‘enhanced screening’, consisting of a series of ‘mandatory questions at check-in’ before departure for Australia.¹¹⁸

As Australia continued to debate the Chinese students and whether travel bans work, the ill-fated *Ruby Princess* departed Sydney on March 8 for a 13-night cruise around New Zealand with nearly 4000 people on board.

Week 11: week of Monday, March 9 (new cases in Australia: 217)

Again acting against AHPPC advice, on March 11 the Morrison government restricted travel from Italy.¹¹⁹ The same day, WHO director-general Tedros Adhanom finally declared the coronavirus a pandemic.¹²⁰

The Australian Grand Prix was cancelled on March 12, after three members of the US/UK Haas team and one member of the UK McLaren team tested positive for the coronavirus, leading to McLaren withdrawing.¹²¹

At a March 14 press conference, Australian CMO Brendan Murphy was asked if Australia’s ban on mass gatherings of more than 500 people would be applied to cruise ships. He answered that “the AHPPC will discuss the implications of this this afternoon”.¹²² He gave no indication that the AHPPC had previously even discussed the spread of coronavirus on cruise ships. Specifically, he said that:

My understanding is most of the cruise ship companies are now cancelling or reducing dramatically. I suspect cruise ships, the cruise ship industry will go into some significant abeyance anyway, but we will discuss at this afternoon.

Week 12: week of Monday, March 16 (new cases in Australia: 1056)

Week 12 opened with an announcement from Prime Minister Scott Morrison that cruise ships sailing or stopping at foreign ports would no longer be allowed to dock in Australia.¹²³ Four cruise ships already at sea carrying mainly Australian passengers were exempted from the ban.¹²⁴ One of these was the *Ruby Princess*, which docked at Circular Quay on March 19, releasing its 2647 passengers directly onto Sydney's streets and public transport, with many heading for onward flights. The controversy over who was responsible for giving the 'all clear' is too well-known to need repeating; and a criminal investigation is ongoing.

At least 37 ships were reportedly affected by Australia's cruise ship ban, including the *Artania*, marooned for several weeks off the coast of Western Australia with several coronavirus cases onboard.¹²⁵

On March 18, the AHPPC finally capitulated on travel bans.¹²⁶ In a bizarre statement, it:

noted that there is no longer a strong basis for having travel restrictions on only four countries and that Government should consider aligning these restrictions with the risk. This could involve consideration of lifting all travel restrictions ... or consideration of the imposition of restrictions on all countries.

On March 18, the prime minister instructed Australians not to travel overseas.¹²⁷ On March 19, he announced that "Australia is closing its borders to all non-citizens and non-residents", effective March 20.¹²⁸ Australia would later announce quarantine provisions for international arrivals, effective March 29.¹²⁹

Taiwan¹³⁰ closed its borders to non-residents on March 19, Singapore¹³¹ on March 24, and Hong Kong¹³² on March 25. Most other countries also followed suit in week 12.¹³³ At time of writing, the WHO maintains its February 29 advice against the imposition of travel restrictions.

3. What should a 'reasonable person' have thought about the coronavirus, and when?

Politicians and policymakers must make difficult judgments under conditions of imperfect information, and thus it is unfair to second-guess their decisions with the benefit of hindsight. Hence, for proper policy evaluation it is important to conduct an exercise like that undertaken in Section 2. The week-by-week timeline of publicly available information assembled in Section 2 from official press releases and major media reports reminds us of what any reasonably well-informed individual would have known about the coronavirus crisis as it evolved. Government experts might be expected to have known more, but the 'reasonable person' would have known at least this much. Some of the key facts any reasonable person should have known as the crisis unfolded are summarised in Table 2, broken down by Learned Hand's three criteria of the probability of harm, the seriousness of the harm, and the cost of taking precautions.

Viewed from a policy standpoint, Learned Hand's 'reasonable person' test asks:

- 1) What was the probability that the coronavirus would cause harm should it be allowed into Australia?
- 2) How serious was that harm was likely to prove? and

- 3) What would be the cost (to the government and to society) of taking precautions against the coronavirus?

With hindsight, we know the harm inflicted by the coronavirus includes thousands infected, at least 100 dead, a sharp recession, and hundreds of billions of dollars in government remediation, but that could not have been known at the outset, and may not even have been clear in week 12. Yet a reasonable person should have concluded by the end of week 5 that the probability and seriousness of the harm likely to be caused by the introduction of the coronavirus beyond the border 'in depth' (checkpoints plus supervised quarantines) outweighed the costs of imposing targeted and progressively tightened travel restrictions.

It seems clear from Table 2 that by week 2, the Australian government should have been aware of the possibility of harm from the coronavirus should it be allowed into Australia. At this point, both the NSW and Victoria state health authorities had issued infectious disease alerts. In week 3, multiple jurisdictions outside China had concluded that human-to-human transmission of the coronavirus was probable, and China reported its first death from the virus. In week 4, China publicly admitted the transmissibility and deadliness of the virus, reporting dozens of deaths

Table 2. Timeline of public coronavirus knowledge about the probability of harm, the seriousness of the harm, and the cost of taking precautions

Week	Week of ...	Probability of harm	Seriousness of the harm	Cost of taking precautions
1	Dec. 30	HKG, SGP, and TWN considered high enough to warrant screening, although the WHO did not	All sources agreed that the Wuhan pneumonia was serious, but it was not known to be deadly or infectious	HKG/SGP/TWN start airport temperature screening
2	Jan. 6	HKG, SGP, TWN, NSW, VIC issue alerts, though WHO maintains no transmission	No known deaths; no known human-to-human transmission	Continued airport screening
3	Jan. 13	HKG/SGP/TWN report evidence of human-to-human transmission, though WHO maintains no transmission	First known death; US CDC implements airport screening for only the second time in history	SGP starts hospital isolation of suspected cases
4	Jan. 20	China admits wide spread, calls disease 'highly infectious'	China locks down 50 million people	HKG/SGP/TWN implement Wuhan travel bans, case isolation, widespread airport screening
5	Jan. 27	WHO declares 'Public Health Emergency of International Concern'; high probability of harm no longer in doubt	China expects 1 point fall in GDP, record unemployment; high seriousness of harm no longer in doubt	AUS/SGP implement China-wide travel bans; Asian cruise industry starts to close
6	Feb. 3	Diamond Princess quarantined in Yokohama with rapid spread of coronavirus		HKG/TWN ban cruise ships, travel from China; AUS academic year jeopardized for Chinese students
7	Feb. 10			Increased warnings about the costs of lost Chinese student revenue
8	Feb. 17			Last chance to prevent a coronavirus outbreak in Australia by suspending travel and cruise ships
9	Feb. 24			AUS bans travel from Iran
10	Mar. 2			AUS bans travel from South Korea
11	Mar. 9			AUS bans travel from Italy
12	Mar. 16			AUS bans cruise ships

and instituting a mass quarantine of 50 million people. By week 5, when the WHO declared the coronavirus a 'Public Health Emergency of International Concern', no one could retain any doubts as to the harmfulness of the coronavirus. Any reasonable person should have concluded by week 5 that the probability of harm from the coronavirus was very high.

Table 2 suggests it may have taken longer for the first concerns to be raised about the potential seriousness of the harm that might be caused should the coronavirus be allowed to spread into Australia. China's obfuscation could not hide the infectiousness of the coronavirus for very long, as it quickly spread to neighboring countries, but it was not immediately obvious how disruptive the coronavirus would turn out to be, whether for hospital systems or for the wider economy. In week 3, the United States Centers for Disease Control became sufficiently concerned to implement airport screening for only the second time in its history, placing its concern over the coronavirus on the level of its concern over Ebola in 2014. That should have rung alarm bells, but it was not conclusive. However, China's week 4 decision to quarantine Wuhan and surrounding areas should have made it clear that Beijing, at least, thought the level of the harm was so serious that it was worth almost any cost to prevent the virus from spreading

to the rest of the country. In week 5, Chinese state economists predicted the coronavirus would cost the country at least one percentage point of GDP. Any reasonable person should have concluded by week 5 that the seriousness of the harm that would result from a coronavirus epidemic was very high.

That leaves only the cost of taking precautions to be considered. The cost of simple precautions like airport temperature screening is very low. Although these measures are of questionable effectiveness, they were considered useful enough to be implemented by Hong Kong, Singapore, and Taiwan as early as week 1. Hospital isolation (as opposed to self-isolation) of suspected cases is more expensive, and was only implemented in Singapore in week 3. In that week, Australia was still conducting business as usual at ports and airports, with no screening at all. Hong Kong, Singapore, and Taiwan all restricted travel from Wuhan in week 4. This was the first truly costly international step taken in response to the coronavirus crisis. However, in week 5 Australia took the very costly step of banning all travel from China.

This was clearly the most costly early action taken by Australia in its efforts to keep the coronavirus at bay. Australia's extraordinarily high reliance on Chinese students and tourists made this step more costly for Australia than for most other countries; but given

the severity of the coronavirus outbreak in China at the time, it was probably inevitable that Australia would have implemented such a ban at some point. The largest cost resulting from the travel ban was the exclusion of more than 100,000 Chinese students, but since the whole point of the travel ban was to prevent travel from China, it made no sense for Australia to delay this step.

At the end of week 5, Australia's policy decisions seem to have lined up well with the probability and likely seriousness of harm from the coronavirus as it was understood at the time. Prior to week 5, Australia was perhaps mildly complacent, but the complacency was within the limits of reasonable judgment, as revealed in the actions of other well-informed countries. In week 5, Australian policymaking caught up with coronavirus reality. Had Australia continued, after week 5, to ratchet up its precautions as the crisis developed, it might have avoided the worst of the economic damage later wrought by the coronavirus.

Instead, Australia proceeded over the next three weeks to progressively loosen its safeguards against the introduction of coronavirus. In week 6, it advertised the 'third country' route for Chinese students as a way around its travel restrictions; in week 7, the education minister publicly endorsed it; in week 8, Australian universities even started subsidising it. Also in week 8, cruise lines publicly announced redeployments of ships to the Australian market. Australian governments must have been aware of these plans even earlier, since they required port approvals. The Australian government said nothing to discourage this, despite widespread public attention being paid to the problem of coronavirus outbreaks on cruise ships. Thus even as knowledge of the harmfulness of the coronavirus solidified over the course of weeks 6-8, Australia's policy response weakened.

The imposition of more aggressive air travel bans in weeks 6-8 may or may not have been warranted (other countries did not impose them), but the

economic cost to Australia of banning cruise ships in week 6 (as most of Asia did) would have been slight. So, too, would the costs of more intrusive airport screening. Even with a Public Health Emergency of International Concern on its hands, the government continued to rely on handwritten landing cards for post-arrival tracing; East Asian countries had public health personnel with computer tablets interview arriving passengers and record their information electronically. And although Hong Kong, Singapore, and Taiwan all quarantined suspected coronavirus cases, Australia relied on self-isolation, which in several cases was notoriously flouted by non-cooperative individuals.¹³⁴

After week 5, it was not yet known exactly what path the coronavirus might take into Australia, but by simultaneously loosening travel restrictions on China, relying on health advisory handouts as a substitute for airport screening, and welcoming Asia's surplus cruise ship capacity, the country was taking unwise and unwarranted risks. Having already sacrificed much of its tourism and international education industries to the cause of coronavirus prevention, it made no sense for Australia to choose a risky (instead of a cautious) path after week 5, since by then the major costs associated with travel restrictions had already been incurred. Any reasonable person should have concluded after week 5 that the marginal costs of further precautions against the introduction of coronavirus were low compared to the risks posed by the coronavirus itself.

As things turned out, Australia's window of opportunity to prevent a coronavirus outbreak within the country extended roughly to the end of week 8. As late as March 1 (the end of week 9), Australia was still detecting single digits of coronavirus cases every week, though it should be remembered that most of these cases would have been caught in the previous week. By the time Australia imposed blanket global travel restrictions in week 12, it was four weeks too late.

4. Lessons from the Taiwan response

Looking at Taiwan shows what 'could have been', had Australia continued tightening its border response after week 5. Taiwan is an island of 24 million people that has extraordinarily close ties to China, with at least 400,000 people working in China — and probably many more, since this represents only the registered number.¹³⁵ Like Australia, Taiwan has a high level of export dependence on China, tied to China's by densely overlapping production networks. To put things into perspective, 10.7 million passengers flew directly between Taiwan and China (excluding Hong

Kong and Macao) in 2019,¹³⁶ compared with 3.3 million flying between Australia and China.¹³⁷ Even these figures understate the Taiwan-China connection; because for geopolitical reasons, direct flights between Taiwan and China are limited, and many passengers must fly via Hong Kong instead.

Nonetheless, Taiwan has experienced a small fraction of the coronavirus caseload of Australia, despite the need to repatriate hundreds of thousands of its citizens from China.

Notably, Taiwan is not a member of the World Health Organization; nor even an observer, having been excluded from observer status since 2016 at China's behest. Thus Taiwan had little incentive to respect WHO exhortations not to impose travel restrictions. Taiwan (along with Hong Kong and Singapore) started to screen passengers arriving from Wuhan in week 1, and suspended the entry of Wuhan residents in week 4. It started electronic monitoring of self-isolated individuals in week 5, using a government-issued mobile phone that people in this soft quarantine were expected to carry on them at all times. Stiff fines applied for people found breaking the rules. In week 6, Taiwan banned cruise ships and all entry by Chinese citizens. In week 7, it extended its travel ban to Hong Kong citizens and started requiring all arriving passengers to fill out a detailed health information form, with stiff penalties for incorrect information. Further details on these and other measures can be found in a March 3 'viewpoint' paper published by American and Taiwanese academics in the *Journal of the American Medical Association*.¹³⁸

With the exception of the initial rapid response screening on December 31, none of these measures required special knowledge of the situation inside China. To the contrary: all the later border interventions would likely have been mandated by the 'reasonable person' test. In week 4, knowing that China itself had locked down Wuhan and surrounding areas and prohibited people living in these areas from traveling to the rest of China, what reasonable person would have supported continued air travel from Wuhan? In week 5, knowing that China considered the coronavirus to be 'highly infectious', what reasonable person would have opposed monitored quarantines of those suspected of being sick? In week 6, knowing that a single person had infected hundreds of others on the *Diamond Princess* in a matter of days, what reasonable person would have allowed cruise ships to continue operating? In week 7 (or even earlier), knowing that the coronavirus had become a global pandemic in all but name, what reasonable person would oppose the introduction of detailed health declarations at international airports?

Nor were Taiwan's aggressive border interventions in weeks 4-6 particularly informed by its experience in responding to the 2002-2003 outbreak of severe acute respiratory syndrome (SARS). Taiwan's post-SARS reforms focused on improved communication in order to prevent panic buying and improve public trust in government advice.¹³⁹ In fact, one of the main criticisms of Taiwan's SARS response was that it unnecessarily quarantined too *many* arriving travellers — not too few. The key shortcoming revealed by SARS in Taiwan's public health system was poor hospital infection control.¹⁴⁰ The much-vaunted improvements in Taiwan's infectious disease preparedness, including the establishment of a Communicable Disease Control Medical Network, merely brought Taiwan up to the level of other developed countries like Australia.¹⁴¹

Taiwan's coronavirus success rests squarely on its policy of stopping the virus at the border, not on the improvements in internal infectious disease control it made post-SARS.

Taiwan's world-leading coronavirus border response may have been conditioned on its skepticism toward China and the WHO. Taiwan may also have had inside knowledge about China's coronavirus deceptions and a world-class level of infectious disease preparedness. But its success in preventing the introduction of the coronavirus depended only on the taking of common-sense precautions. It is likely that any 'reasonable person', acting in the sense that that term is used in the common law, would have arrived at the same policies at roughly the same time. If the coronavirus were a tort, national health authorities that did not recommend the basic precautions outlined in the previous paragraph would be found negligent. Every island country could have followed Taiwan's course. Having Taiwan as an example and knowing of Taiwan's inside knowledge and world-class preparedness, there is even less excuse for other countries not to have followed it with no more than a brief delay.

In contrast to Taiwan, Australia was slow to screen international travellers, lackadaisical in its self-isolation procedures, and irresponsible in its management of the cruise industry. Comparing Australia's policy timeline to that of Taiwan and other East Asian countries, Australia's coronavirus border security response was:

- Week 1: entirely absent, despite warnings from Hong Kong, Singapore, and Taiwan
- Week 2: among the most proactive outside East Asia
- Weeks 3-4: extraordinarily complacent
- Week 5: cautious and proactive
- Weeks 6-10: remarkably complacent
- Weeks 11-12: lagging but catching up with reality

The key factor differentiating Taiwan's successful coronavirus response from Australia's mediocre one was the degree of trust placed in the WHO. Brendan Murphy and the AHPPC trusted WHO advice, implicitly and explicitly, up to the very end. They placed their faith in the WHO above the opportunity for independent policymaking and even the common sense of the 'reasonable person' test. Had the government continued to rely on the logic of the AHPPC's border security advice, Australia would today be the only major jurisdiction in the world with no coronavirus-related travel restrictions. The WHO still recommends against travel restrictions, despite the fact that even China (which unequivocally condemned travel restrictions throughout weeks 1-12) announced its own global travel ban on March 26, just one week after Australia.¹⁴²

5. Conclusions and policy recommendations

Australians will (and should) debate the effectiveness of their country's coronavirus response for years to come. Viewed from the relative safety of May, 2020, it appears that Australia has avoided much of the human suffering visited upon most other countries — but at enormous economic costs. We will probably never know whether or not those costs were reasonable, avoidable, or worth paying: though not imponderable, these questions may be unanswerable. What we can do is dispassionately evaluate the quality of the advice given by Australian public officials based on their own contemporaneous statements and the information available to them at the time. It is unfair to judge government officials based on what we know now, but it is perfectly reasonable to evaluate them based on what they should have known then. It is certainly appropriate to judge the wisdom of their own on-the-record statements.

Based on these criteria, it seems apparent that in their approach to coronavirus border security, Australia's Chief Medical Officer Brendan Murphy and the Australian Health Protection Principal Committee he chaired:

- 1) Placed inordinate faith in the highly-politicised advice of the World Health Organization;
- 2) Placed inordinate faith in China's 'transparency and openness';
- 3) Uncritically endorsed the World Health Organization's advice to rely on China (and, later, other countries) to contain the outflow of coronavirus cases instead of taking independent action to control the inflow of cases from China (and, later, the rest of the world);
- 4) Equated handing out information pamphlets containing advice on self-isolation with 'quarantines'; and
- 5) Inexplicably failed to issue advice on cruise ship sailings until the end of week 11 or the beginning of week 12, by which time it was too late.

Prof Murphy and the AHPPC recommended that Australia keep its borders open, not because there was no evidence of sustained human-to-human transmission of the coronavirus, but because the AHPPC believed it would be more effective to rely on China to impose exit restrictions than for Australia to take measures to protect itself. Taking into consideration the fact that the National Security Committee of Cabinet necessarily relied on the AHPPC as its main source of health policy advice, the NSC showed good sense in taking remedial action to staunch the flow of coronavirus cases into Australia in week 5 (the China travel ban) and then repeatedly in weeks 9-12 (travel and cruise ship bans). These

actions were apparently taken against the advice — and certainly against the spirit of the advice — of the AHPPC.

The prime minister and the NSC, not the AHPPC, bore ultimate responsibility for Australia's coronavirus response. The AHPPC claims on its website to be the government's 'key decision making committee for health emergencies', but this is not technically correct.¹⁴³ The AHPPC is, in formal terms, a committee established under the Council of Australian Governments (COAG) to provide advice to COAG's Health Ministerial Advisory Council.¹⁴⁴ It is entirely appropriate for the AHPPC to offer expert public health advice and recommendations, and in this crisis situation perhaps even to offer it directly to the NSC; but it is not the role of the AHPPC to set policy. The AHPPC does not even purport to offer advice on border security. The government early on identified the coronavirus as a national security matter to be handled by the NSC, which has primary responsibility for border protection policy. In executing this responsibility, the prime minister and the NSC:

- 1) Made inappropriately firm public commitments to act only on the advice of their health experts (i.e., the AHPPC);
- 2) Counter-productively endorsed the exploitation of loopholes in Australia's travel restrictions, instead of closing them; and
- 3) Failed in the execution of simple border security measures like electronic record-keeping and routine follow-up.

Throughout the first 12 weeks of Australia's coronavirus response, the critical point of failure in the government's border security policymaking occurred at the junction between bureaucratic expertise and political leadership. It is perfectly natural that there should have been internal disagreements between political decision-makers and their bureaucratic advisors, even as they maintained that political decisions were in all cases being guided by expert advice. It is perhaps less appropriate that political decision-makers and their bureaucratic advisors presented a veneer of unanimity to the public, since that tended to limit the scope for proper criticism and public policy debate. It was entirely ill-advised for the political leadership to have relied on bureaucrats to guide their actual decisions as heavily as they did. The bureaucrats of the AHPPC may have been ill-prepared to critically evaluate the highly politicised advice of the WHO and the thoroughly propagandistic statements coming out of China, but the NSC was not.

The political leaders who sit on the NSC could have — and should have — drawn on their extensive foreign policy experience and contacts to:

- 1) Discount the advice of the WHO not to impose travel restrictions;
- 2) Disregard Chinese propaganda about its success in managing the crisis; and
- 3) Critically evaluate the advice it received from the AHPPC in light of actions being taken by other jurisdictions with which the members of the NSC were presumably in regular communication (e.g., Hong Kong, Singapore, Taiwan, and the United States).

For the first 12 weeks of 2020, the coronavirus crisis was not a health crisis, but a border security crisis. Doubtless once the virus had been imported into the general population, public health measures became all important. But for those crucial first 12 weeks, the coronavirus was an overseas threat that could and should have been managed at the border 'in depth' —including in this term not only the airport and cruise ship terminals but also protective instruments applied at the border: mandatory health screening, electronic arrival records, and (when called for) supervised quarantines.

By treating the coronavirus as a public health crisis right from the beginning, the NSC abrogated too large a portion of its decision-making responsibility. The AHPPC were, quite clearly, out of their depth in advising on national security, a policy area that was not really within their area of expertise.

No one can predict what form Australia's next national security crisis will take. After all, if the next crisis could be anticipated, it would hopefully be averted before it turned into a crisis. But the coronavirus crisis has exposed fault lines in Australia's national security decision-making that can and should be mended. In any future national security crisis, the NSC and the elected leadership at large should:

- 1) Limit the role of bureaucratic advice to narrow areas of expert competency;

- 2) Take greater public responsibility for decisions that are, ultimately, political;
- 3) Exercise due skepticism of pronouncements from highly politicised intergovernmental organisations like the WHO and other United Nations specialised agencies; and
- 4) Apply a 'reasonable person' test to policymaking, in the full confidence that the Australian electorate, on the whole, consists of reasonable people.

Australia is one of the oldest, most stable, most successful democracies in the world. Its record of policymaking and policy execution throughout its long history of self-government is vastly superior to that of most of the other member states of the United Nations and its specialised agencies. Although it is appropriate for Australia to conscientiously take notice of the advice of intergovernmental organisations, it makes no sense for Australia to slavishly follow their dictates.

After China's initial mismanagement and attempted cover-up of the Wuhan outbreak in weeks 1-4 of the coronavirus crisis, it was probably impossible to prevent a near-global pandemic spread of the disease. Nonetheless, at that point it was still possible to prevent the spread of the coronavirus into Australia's general population. The NSC failed to do this, and responsibility must ultimately rest with them. But they failed to do so because of their over-reliance on expert advice and unwillingness to take political responsibility until it was too late. Had the prime minister and the NSC put more trust in their own good judgment (and that of the Australian electorate to support them), they would likely have avoided the economic catastrophe that followed week 12. By passing the buck to the bureaucrats, they inadvertently cost the country hundreds of billions of dollars, and needlessly risked thousands of Australian lives.

Endnotes

- 1 Josephine Ma, 'Coronavirus: China's first confirmed Covid-19 case traced back to November 17', *South China Morning Post*, March 13, 2020: <https://www.scmp.com/news/china/society/article/3074991/coronavirus-chinas-first-confirmed-covid-19-case-traced-back>
- 2 Fiona Carruthers and Hannah Wootton, 'Ruby Princess is the most deadly virus ship', *Australian Financial Review*, April 8, 2020: <https://www.afr.com/companies/tourism/ruby-princess-is-the-most-deadly-cruise-ship-20200403-p54gwa>
- 3 Unsigned, 'Coronavirus (COVID-19) at a glance', Australian Government, Department of Health, May 8, 2020: <https://www.health.gov.au/resources/publications/coronavirus-covid-19-at-a-glance>
- 4 Paige Cockburn, 'How the coronavirus pandemic would look in Australia if Ruby Princess had never docked', *ABC News*, April 23, 2020: <https://www.abc.net.au/news/2020-04-23/coronavirus-across-australia-if-ruby-princess-never-docked/12172314>
- 5 Greg Hunt, 'First confirmed case of novel coronavirus in Australia', Australian Government, Department of Health, January 25, 2020: <https://www.health.gov.au/ministers/the-hon-greg-hunt-mp/media/first-confirmed-case-of-novel-coronavirus-in-australia>
- 6 Brendan Murphy, 'Novel coronavirus update', Australian Government, Department of Health, January 21, 2020: <https://www.health.gov.au/news/novel-coronavirus-update>
- 7 Yao Yuan, Ma Yujie, Zhou Jialu, and Hou Wenkun, 'Chinese doctor recalls first encounter with mysterious virus', *Xinhua*, April 16, 2020: http://www.xinhuanet.com/english/2020-04/16/c_138982435.htm
- 8 Brett Worthington and Jack Snape, 'Australia blocks arrival of all non-citizens, non-residents in expanded coronavirus travel ban', *ABC News*, March 19, 2020: <https://www.abc.net.au/news/2020-03-19/coronavirus-non-resident-travel-ban-australia/12071640>
- 9 The weekly case counts used in this paper are taken from: Juliette O'Brien, 'Coronavirus (COVID-19) in Australia', *covid19data.com.au*, undated [retrieved May 20, 2020]: <https://infogram.com/1p0lp9vmnqd3n9te63x3q090ketnx57evn5?live>
- 10 Unsigned, 'Undiagnosed pneumonia - China (HU): RFI [request for information]', *ProMED-mail*, December 30, 2020: <https://promedmail.org/promed-post/?id=6864153>
- 11 YU Jinyi, 'Wuhan Municipal Health Commission announces pneumonia outbreak', *Hubei Daily News*, December 31, 2019: https://epaper.hubeidaily.net/pc/content/202001/01/content_15040.html
- 12 Beijing Monitoring Desk, 'Chinese officials investigate cause of pneumonia outbreak in Wuhan', *Reuters*, December 31, 2019: <https://www.reuters.com/article/us-china-health-pneumonia/chinese-officials-investigate-cause-of-pneumonia-outbreak-in-wuhan-idUSKBN1YZ0GP>
- 13 Ian Mackay, 'Viral pneumonia cluster in Wuhan, central China: 44 cases and counting', *Virology Down Under*, January 3, 2020: <https://virologydownunder.com/viral-pneumonia-cluster-in-wuhan-central-china-44-cases-and-counting/>
- 14 Unsigned, 'China pneumonia outbreak: Mystery virus probed in Wuhan', *BBC News*, January 3, 2020: <https://www.bbc.com/news/world-asia-china-50984025>
- 15 Mandy Zuo, Lilian Cheng, Alice Yan, and Cannix Yau, 'Hong Kong takes emergency measures as mystery "pneumonia" infects dozens in China's Wuhan city', *South China Morning Post*, December 31, 2019: <https://www.scmp.com/news/china/politics/article/3044050/mystery-illness-hits-chinas-wuhan-city-nearly-30-hospitalised>
- 16 Linda Lew and Elizabeth Cheung, 'Wuhan pneumonia: Hong Kong patients who visited Chinese city no longer showing signs of fever, with two discharged from hospital', *South China Morning Post*, January 2, 2020: <https://www.scmp.com/news/china/society/article/3044367/families-wuhan-pneumonia-patients-say-they-are-being-kept-dark>
- 17 Huang Tzu-ti, 'Passenger from China's Wuhan develops fever amid pneumonia fears', *Taiwan News*, January 2, 2020: <https://www.taiwannews.com.tw/en/news/3848765>
- 18 Unsigned, 'Precautionary measures in response to severe pneumonia cases in Wuhan, China', *Singapore Ministry of Foreign Affairs*, January 3, 2020: https://www.mfa.gov.sg/Overseas-Mission/Beijing/Consular-Services/Consular-Updates/2020/01/Con_20200103
- 19 Unsigned, 'Pneumonia of unknown cause - China', *World Health Organization*, January 5, 2020: <https://www.who.int/csr/don/05-january-2020-pneumonia-of-unkown-cause-china/en/>
- 20 Yao Yuan, Ma Yujie, Zhou Jialu, and Hou Wenkun, 'Chinese doctor recalls first encounter with mysterious virus', *Xinhua*, April 16, 2020: http://www.xinhuanet.com/english/2020-04/16/c_138982435.htm
- 21 Jason Gale, 'World Health Organisation to monitor China's mysterious infection outbreak', *Sydney Morning Herald*, January 5, 2020 [but printed in the next day's paper]: <https://www.smh.com.au/world/asia/world-health-organisation-to-monitor-mysterious-china-infection-outbreak-20200105-p53p07.html>

- 22 Sui-Lee Wee and Vivian Wang, 'China Grapples With Mystery Pneumonia-Like Illness', New York Times, January 6, 2020: <https://www.nytimes.com/2020/01/06/world/asia/china-SARS-pneumonia-like.html>
- 23 Ibid.
- 24 Sui-Lee Wee and Donald G. McNeil, Jr., 'China Identifies New Virus Causing Pneumonia-Like Illness', New York Times, January 8, 2020: <https://www.nytimes.com/2020/01/08/health/china-pneumonia-outbreak-virus.html>
- 25 Kate Kelland and Se Young Lee, 'WHO says new virus may have caused China pneumonia outbreak', Reuters, January 9, 2020: <https://www.reuters.com/article/us-china-virus-who/china-pneumonia-outbreak-may-be-linked-to-new-virus-who-idUSKBN1Z7304>
- 26 Unsigned, 'WHO Statement regarding cluster of pneumonia cases in Wuhan, China', World Health Organization, January 9, 2020: <https://www.who.int/china/news/detail/09-01-2020-who-statement-regarding-cluster-of-pneumonia-cases-in-wuhan-china>
- 27 Unsigned, 'WHO advice for international travel and trade in relation to the outbreak of pneumonia caused by a new coronavirus in China', World Health Organization, January 10, 2020: <https://www.who.int/news-room/articles-detail/who-advice-for-international-travel-and-trade-in-relation-to-the-outbreak-of-pneumonia-caused-by-a-new-coronavirus-in-china>
- 28 Unsigned, 'Li Wenliang: Coronavirus kills Chinese whistleblower doctor', BBC News, February 7, 2020: <https://www.bbc.com/news/world-asia-china-51403795>
- 29 Christine Selvey, 'Novel Coronavirus identified Wuhan City, China', Health Protection NSW, January 10, 2020: <https://www.health.nsw.gov.au/Infectious/alerts/Documents/2020/novel-cov-hosp-alert-20200110.pdf>
- 30 Brett Sutton, 'Pneumonia cluster in Wuhan, China', health.vic, January 10, 2020: <https://www2.health.vic.gov.au/about/news-and-events/healthalerts/pneumonia-cluster-china>
- 31 Now deleted.
- 32 Eric Baculinao, 'China reports first death from outbreak of mystery virus', NBC News, January 12, 2020: <https://www.nbcnews.com/news/world/china-reports-first-death-outbreak-mystery-virus-n1114051>
- 33 Unsigned, 'Novel coronavirus - China', World Health Organization, January 12, 2020: <https://www.who.int/csr/don/12-january-2020-novel-coronavirus-china/en/>
- 34 Unsigned, 'WHO statement on novel coronavirus in Thailand', World Health Organization, January 13, 2020: <https://www.who.int/news-room/detail/13-01-2020-who-statement-on-novel-coronavirus-in-thailand>
- 35 Unsigned, 'Novel Coronavirus - Thailand (ex-China)', World Health Organization, January 14, 2020: <https://www.who.int/csr/don/14-january-2020-novel-coronavirus-thailand-ex-china/en/>
- 36 Unsigned, 'Novel Coronavirus - Japan (ex-China)', World Health Organization, January 17, 2020: <https://www.who.int/csr/don/17-january-2020-novel-coronavirus-japan-ex-china/en/>
- 37 Unsigned, 'Public health screening to begin at 3 U.S. airports for 2019 novel coronavirus ("2019-nCoV")', US Centers for Disease Control, January 17, 2020: <https://www.cdc.gov/media/releases/2020/p0117-coronavirus-screening.html>
- 38 Mike Stobbe, 'Passengers from China to be screened for new illness in US airports', Sydney Morning Herald, January 18, 2020: <https://www.smh.com.au/world/north-america/passengers-from-china-to-be-screened-for-new-illness-in-us-airports-20200118-p53skq.html>
- 39 Calla Wahlquist, 'Coronavirus: Australia's top health official says there is 'no current need' to enhance airport screening', The Guardian, January 18, 2020: <https://www.theguardian.com/australia-news/2020/jan/18/coronavirus-australias-top-health-official-says-there-is-no-current-need-to-enhance-airport-screening>
- 40 Unsigned, 'Coronavirus: What airport measures are in place to detect sick passengers?', The Guardian, January 18, 2020: <https://www.theguardian.com/world/2020/jan/18/coronavirus-what-airport-measures-are-in-place-to-detect-for-sick-passengers>
- 41 Zoe Low, 'China coronavirus: Hong Kong public health experts call for stepped up prevention measures as suspected cases reported in Shenzhen and Shanghai', South China Morning Post, January 19, 2020: <https://www.scmp.com/news/hong-kong/health-environment/article/3046735/china-coronavirus-hong-kong-public-health-experts>
- 42 Lee I-chia, 'New coronavirus spread between married couple', Taipei Times, January 16, 2020: <http://www.taipeitimes.com/News/taiwan/archives/2020/01/16/2003729339>
- 43 Clara Chong, '2 more suspected Wuhan virus cases in Singapore; both isolated as precaution', Straits Times, January 17, 2020: <https://www.straitstimes.com/singapore/2-more-suspected-wuhan-virus-cases-detected-in-singapore-both-isolated-as-precaution>
- 44 Brendan Murphy, 'Chief Medical Officer's statement on novel coronavirus', Australian Government, Department of Health, January 19, 2020: <https://www.health.gov.au/news/chief-medical-officers-statement-on-novel-coronavirus>
- 45 Unsigned, 'Update information on the novel coronavirus', World Health Organization, January 20, 2020: <https://www.who.int/thailand/news/detail/20-01-2020-update-information-on-the-novel-coronavirus>

- 46 Yanan Wang and Ken Moritsugu, 'Human-to-human transmission confirmed in China coronavirus', Associated Press, January 20, 2020: <https://apnews.com/14d7dcffa205d9022fa9ea593bb2a8c5>
- 47 Brendan Murphy, 'Novel coronavirus update', Australian Government, Department of Health, January 21, 2020: <https://www.health.gov.au/news/novel-coronavirus-update>
- 48 Brendan Murphy, 'Chief Medical Officer's media conference about novel coronavirus', Australian Government, Department of Health, January 21, 2020: <https://www.health.gov.au/news/chief-medical-officers-media-conference-about-novel-coronavirus>
- 49 Brendan Murphy, 'Chief Medical Officer's interview on Radio National about novel coronavirus', Australian Government, Department of Health, January 22, 2020: <https://www.health.gov.au/news/chief-medical-officers-interview-on-radio-national-about-novel-coronavirus>
- 50 Unsigned, 'China coronavirus: All travellers from China to undergo temperature screening at Singapore's Changi Airport', South China Morning Post, January 20, 2020: <https://www.scmp.com/news/asia/southeast-asia/article/3046904/china-coronavirus-all-travellers-china-undergo-temperature>
- 51 Unsigned, 'Singapore's Scoot cancels flight to China's Wuhan over virus outbreak', Reuters, January 23, 2020: <https://www.reuters.com/article/us-china-health-singapore/singapores-scoot-cancels-flight-to-chinas-wuhan-over-virus-outbreak-idUSKBN1ZM0GN>
- 52 Unsigned, 'Taiwan's China Airlines suspends flights to Wuhan', Reuters, January 23, 2020: <https://www.reuters.com/article/us-china-health-china-airlines/taiwans-china-airlines-suspends-flights-to-wuhan-idUSKBN1ZM0FT>
- 53 Felix Tam and Jessie Pang, 'Hong Kong leader declares virus emergency, halts official visits to mainland China', Reuters, January 25, 2020: <https://www.reuters.com/article/us-china-health-hongkong/hong-kong-leader-declares-virus-emergency-halts-official-visits-to-mainland-china-idUSKBN1Z00B7>
- 54 Unsigned, 'Taiwan further tightens restrictions on China visitors due to virus', Reuters, January 26, 2020: <https://www.reuters.com/article/china-health-taiwan/taiwan-further-tightens-restrictions-on-china-visitors-due-to-virus-idINKBN1ZP0A2>
- 55 Unsigned, 'Taiwan to suspend entry for Chinese citizens to control virus', Reuters, February 5, 2020: <https://www.reuters.com/article/us-china-health-taiwan/taiwan-to-suspend-entry-for-chinese-citizens-to-control-virus-idUSKBN1ZZ0QA>
- 56 Unsigned, 'Statement on the meeting of the International Health Regulations (2005) Emergency Committee regarding the outbreak of novel coronavirus (2019-nCoV)', World Health Organization, January 23, 2020: [https://www.who.int/news-room/detail/23-01-2020-statement-on-the-meeting-of-the-international-health-regulations-\(2005\)-emergency-committee-regarding-the-outbreak-of-novel-coronavirus-\(2019-ncov\)](https://www.who.int/news-room/detail/23-01-2020-statement-on-the-meeting-of-the-international-health-regulations-(2005)-emergency-committee-regarding-the-outbreak-of-novel-coronavirus-(2019-ncov))
- 57 Amy Cheng, Emily Feng, Scott Neuman, and Bill Chappell, 'Newly identified coronavirus has killed 17 people, Chinese health officials say', NPR News, January 22, 2020: <https://www.npr.org/sections/goatsandsoda/2020/01/22/798383170/newly-identified-coronavirus-has-killed-17-people-chinese-health-officials-say>
- 58 Unsigned, 'Coronavirus death toll rises to 56 as Chinese President Xi Jinping warns of "grave" threat', ABC News, January 26, 2020: <https://www.abc.net.au/news/2020-01-26/coronavirus-toll-rises-as-xi-jinping-warns-of-grave-threat/11901246>
- 59 Josephine Ma and Zhuang Pinghui, '5 million left Wuhan before lockdown, 1,000 new coronavirus cases expected in city', South China Morning Post, January 26, 2020: <https://www.scmp.com/news/china/society/article/3047720/chinese-premier-li-keqiang-head-coronavirus-crisis-team-outbreak>
- 60 Rebecca Ratcliffe and Wu Pei Lin, 'Coronavirus spread accelerating in China, says Xi Jinping', The Guardian, January 26, 2020: <https://www.theguardian.com/science/2020/jan/25/coronavirus-puts-50m-people-in-china-under-lunar-new-year-lockdown>
- 61 Greg Hunt, 'Update on novel coronavirus in Australia', Australian Government, Department of Health, January 26, 2020: <https://www.health.gov.au/ministers/the-hon-greg-hunt-mp/media/update-on-novel-coronavirus-in-australia>
- 62 Brendan Murphy, 'Chief Medical Officer's update on novel coronavirus', Australian Government, Department of Health, January 26, 2020: <https://www.health.gov.au/news/chief-medical-officers-update-on-novel-coronavirus>
- 63 Brendan Murphy, 'Chief Medical Officer's update on novel coronavirus', Australian Government, Department of Health, January 27, 2020: <https://www.health.gov.au/news/chief-medical-officers-update-on-novel-coronavirus-0>
- 64 Brendan Murphy, 'Chief Medical Officer on ABC News Breakfast about novel coronavirus', Australian Government, Department of Health, January 27, 2020: <https://www.health.gov.au/news/chief-medical-officer-on-abc-news-breakfast-about-novel-coronavirus>
- 65 Doug Hendrie, 'WHO raises coronavirus risk level', newsGP, January 28, 2020: <https://www1.racgp.org.au/newsgp/clinical/who-raises-coronavirus-risk-level>
- 66 AHPPC, 'Australian Health Protection Principal Committee (AHPPC) statement on novel coronavirus on 29 January 2020', Australian Government, Department of Health, January 29, 2020: <https://www.health.gov.au/news/>

- australian-health-protection-principal-committee-ahppc-statement-on-novel-coronavirus-on-29-january-2020-0
- 67 Unsigned, 'Statement on the second meeting of the International Health Regulations (2005) Emergency Committee regarding the outbreak of novel coronavirus (2019-nCoV)', World Health Organization, January 30, 2020: [https://www.who.int/news-room/detail/30-01-2020-statement-on-the-second-meeting-of-the-international-health-regulations-\(2005\)-emergency-committee-regarding-the-outbreak-of-novel-coronavirus-\(2019-ncov\)](https://www.who.int/news-room/detail/30-01-2020-statement-on-the-second-meeting-of-the-international-health-regulations-(2005)-emergency-committee-regarding-the-outbreak-of-novel-coronavirus-(2019-ncov))
 - 68 Greg Hunt, 'Press conference at Parliament House about novel coronavirus', Australian Government, Department of Health, January 31, 2020: <https://www.health.gov.au/ministers/the-hon-greg-hunt-mp/media/press-conference-at-parliament-house-about-novel-coronavirus-0>
 - 69 Greg Hunt, 'Press conference at Parliament House about novel coronavirus', Australian Government, Department of Health, January 31, 2020: <https://www.health.gov.au/ministers/the-hon-greg-hunt-mp/media/press-conference-at-parliament-house-about-novel-coronavirus-0>
 - 70 Aradhana Aravindan, 'Singapore bans China travelers to keep out coronavirus', Reuters, January 31, 2020: <https://www.reuters.com/article/us-china-health-singapore/singapore-bans-china-travelers-to-keep-out-coronavirus-idUSKBN1ZU1A0>
 - 71 Donald Trump, 'Proclamation on suspension of entry as immigrants and nonimmigrants of persons who pose a risk of transmitting 2019 novel coronavirus', The White House, January 31, 2020: <https://www.whitehouse.gov/presidential-actions/proclamation-suspension-entry-immigrants-nonimmigrants-persons-pose-risk-transmitting-2019-novel-coronavirus/>
 - 72 Unsigned, 'Coronavirus: Italy and Israel ban all flights from China', Aerospace Technology, January 31, 2020: <https://www.aerospace-technology.com/news/italy-israel-ban-flights-china/>
 - 73 Ibid.
 - 74 Unsigned, 'Airlines cancel flights to China to limit spread of coronavirus', Aerospace Technology, January 29, 2020: <https://www.aerospace-technology.com/news/airlines-cancel-flights-to-china-to-limit-spread-of-coronavirus/>
 - 75 Jessie Pang and Felix Tam, 'Hong Kong suspends some rail, ferry links with China mainland to curb virus spread', Reuters, January 28, 2020: <https://www.reuters.com/article/us-china-health-hongkong/hong-kong-suspends-some-rail-ferry-links-with-china-mainland-to-curb-virus-spread-idUSKBN1ZROVC>
 - 76 Laura He, 'The coronavirus could cost China's economy \$60 billion this quarter. Beijing will have to act fast to avert a bigger hit', CNN Business, January 31, 2020: <https://edition.cnn.com/2020/01/31/economy/china-economy-coronavirus/index.html>
 - 77 AHPPC, 'Australian Health Protection Principal Committee (AHPPC) novel coronavirus statement on 1 February 2020', Australian Government, Department of Health, February 1, 2020: <https://www.health.gov.au/news/australian-health-protection-principal-committee-ahppc-novel-coronavirus-statement-on-1-february-2020-0>
 - 78 Scott Morrison, 'Updated travel advice to protect Australians from the novel coronavirus', Prime Minister of Australia, February 1, 2020: <https://www.pm.gov.au/media/updated-travel-advice-protect-australians-novel-coronavirus>
 - 79 Unsigned, 'Press conference at Parliament House about novel coronavirus', Australian Government, Department of Health, February 2, 2020: <https://www.health.gov.au/news/press-conference-at-parliament-house-about-novel-coronavirus>
 - 80 Unsigned, '6,000, including 27 Aussies in lockdown on Costa ship as coronavirus declared "global emergency"', Cruise Passenger, January 30, 2020: <https://cruisepassenger.com.au/coronavirus-thousands-of-cruisers-affected/>
 - 81 Unsigned, 'Westerdam cruise ship stuck in South China Sea because of Philippines coronavirus ban', ABC Radio Adelaide, February 3, 2020: <https://www.abc.net.au/news/2020-02-03/adelaide-couple-stuck-on-cruise-ship-refused-entry-to-manila/11923620>
 - 82 Unsigned, '10 People Test Positive for Coronavirus Aboard Diamond Princess', The Maritime Executive, February 4, 2020: <https://www.maritime-executive.com/article/10-people-test-positive-for-coronavirus-aboard-diamond-princess>
 - 83 Unsigned, 'Coronavirus: Hong Kong closes cruise terminals and quarantines Chinese travellers', Ship Technology, February 6, 2020: <https://www.ship-technology.com/news/hong-kong-close-cruise-terminals/>
 - 84 Unsigned, 'Taiwan coronavirus cases rise to 16, self-isolation for returnees', Kyodo News, February 6, 2020: <https://english.kyodonews.net/news/2020/02/b4a747fdd193-urgent-taiwan-imposes-total-ban-on-travelers-from-mainland-china-over-virus.html>
 - 85 Unsigned, 'Japan, fearing pathogen, calls on cruise ships to stay away', Asahi Shimbun, February 7, 2020: <http://www.asahi.com/ajw/articles/13108790>
 - 86 Unsigned, 'Passengers on Taiwan cruise ship test negative for coronavirus', Taiwan News, February 8, 2020: <https://www.taiwannews.com.tw/en/news/3873436>
 - 87 Melissa Clarke, 'Coronavirus travel ban sees Chinese students miss start of university, Australian tertiary education sector scrambling', ABC News, February 4, 2020: <https://www.abc>

- net.au/news/2020-02-04/coronavirus-scare-sees-chinese-students-miss-university/11929948
- 88 Anna Patty, 'International student market faces \$8 billion hit from coronavirus travel ban', Sydney Morning Herald, February 3, 2020: <https://www.smh.com.au/national/international-student-market-faces-8-billion-hit-from-coronavirus-travel-ban-20200202-p53wxq.html>
 - 89 Jill Rowbotham and Tim Dodd, 'Coronavirus: Rival nations go easy on Chinese students', The Australian, February 6, 2020: <https://www.theaustralian.com.au/higher-education/coronavirus-rival-nations-go-easy-on-chinese-students/news-story/bc66bf492ee8e36ccda1238a46c67ba7>
 - 90 Unsigned, 'Ministry of Education announces 14-day period for returning to Australia from a third country; the latest recommendations and risks!', Australian Grace International Student Migration, February 10, 2020: <https://rank.aoweibang.com/item/aE5yQV/>
 - 91 Jason Fang and Iris Zhao, 'Coronavirus ban sees students head for third countries to see out quarantine period', ABC News, February 12, 2020: <https://www.abc.net.au/news/2020-02-12/coronavirus-international-students-travel-through-third-country/11954618>
 - 92 Fergus Hunter, 'Over 30,000 Chinese students have arrived in Australia since travel ban started', Sydney Morning Herald, March 12, 2020: <https://www.smh.com.au/politics/federal/over-30-000-chinese-students-have-arrived-in-australia-since-travel-ban-started-20200312-p549fm.html>
 - 93 Tony Cheung and Gary Cheung, 'Coronavirus: Hong Kong to quarantine all travellers entering from mainland China for 14 days as city's leader invokes special powers', South China Morning Post, February 5, 2020: <https://www.scmp.com/news/hong-kong/politics/article/3049102/coronavirus-hong-kong-government-extend-work-home>
 - 94 Tedros Adhanom, 'WHO Director-General's opening remarks at the technical briefing on 2019 novel coronavirus', World Health Organization, February 4, 2020: <https://www.who.int/dg/speeches/detail/who-director-general-s-opening-remarks-at-the-technical-briefing-on-2019-novel-coronavirus>
 - 95 Natasha Robinson, 'Coronavirus: high cost of travel ban not worth it, says WHO chief', The Australian, February 4, 2020: <https://www.theaustralian.com.au/nation/politics/coronavirus-high-cost-of-travel-ban-not-worth-it-says-who-chief/news-story/6ceb2324e92bc2cb468c87dd4c227c77>
 - 96 Ai Heping, 'WHO chief says widespread travel bans not needed to beat virus', China Daily, February 4, 2020: <https://www.chinadaily.com.cn/a/202002/04/WS5e38858ea3101282172748a9.html>
 - 97 Unsigned, 'Key considerations for repatriation and quarantine of travellers in relation to the outbreak of novel coronavirus 2019-nCoV', World Health Organization, February 11, 2020: <https://www.who.int/news-room/articles-detail/key-considerations-for-repatriation-and-quarantine-of-travellers-in-relation-to-the-outbreak-of-novel-coronavirus-2019-ncov>
 - 98 Unsigned, 'Australian Health Protection Principal Committee (AHPPC) resolution on travel restrictions and coronavirus (COVID-19) 13 February 2020', Australian Government, Department of Health, February 13, 2020: <https://www.health.gov.au/news/australian-health-protection-principal-committee-ahppc-resolution-on-travel-restrictions-and-coronavirus-covid-19-13-february-2020>
 - 99 Jade Macmillan, 'As COVID-19 coronavirus fears persist, what implications does the China travel ban have for Australia?', ABC News, February 14, 2020: <https://www.abc.net.au/news/2020-02-14/coronavirus-covid-19-travel-ban-extension-implications/11964266>
 - 100 Nick Baker, 'Australia could lose a third of Chinese international students if travel ban continues, survey finds', SBS News, February 14, 2020: <https://www.sbs.com.au/news/australia-could-lose-a-third-of-chinese-international-students-if-travel-ban-continues-survey-finds>
 - 101 John Power, 'Chinese students stranded by Australia's travel ban can head back to class, via a third country', South China Morning Post, February 16, 2020: <https://www.scmp.com/week-asia/politics/article/3050742/chinese-students-stranded-australias-travel-ban-can-head-back>
 - 102 Masayuki Yuda, 'Thailand keeps doors open to Chinese tourists', Nikkei Asian Review, February 10, 2020: <https://asia.nikkei.com/Spotlight/Coronavirus/Thailand-keeps-doors-open-to-Chinese-tourists>
 - 103 Katherine Lawrey, 'Cruise ships and coronavirus: Cancelled cruises and redeployed ships', Traveler, February 19, 2020: <https://www.traveller.com.au/cruise-ships-and-coronavirus-cancelled-cruises-and-redeployed-ships-h1lwn1>
 - 104 Will Glasgow and Heidi Han, 'Coronavirus: Travel deals get students around virus ban', The Australian, February 20, 2020: <https://www.theaustralian.com.au/nation/politics/travel-deals-get-students-around-coronavirus-ban/news-story/298ba8d0b5c88c9851f27f0ccb2b4c80>
 - 105 Will Glasgow and Heidi Han, 'Western Sydney University pays \$1500 to Chinese students to help beat travel ban', The Australian, February 20, 2020: <https://www.theaustralian.com.au/higher-education/western-sydney-university-pays-1500-to-chinese-students-to-help-beat-travel-ban/news-story/ea1a5bdf383fcf90ca47a2307f9fe0af>
 - 106 Saheli Roy Choudhury, 'Australia universities let Chinese students get around a travel ban. Critics warn it could spread the coronavirus',

- CNBC, March 5, 2020: <https://www.cnb.com/2020/03/05/coronavirus-australia-let-chinese-students-circumvent-travel-ban.html>
- 107 AHPPC, 'Australian Health Protection Principal Committee (AHPPC) recommendation on travel restrictions and coronavirus (COVID-19) 19 February 2020', Australian Government, Department of Health, February 19, 2020: <https://www.health.gov.au/news/australian-health-protection-principal-committee-ahppc-recommendation-on-travel-restrictions-and-coronavirus-covid-19-19-february-2020>
- 108 Greg Hunt, 'Facilitating Chinese-based students to attend Year 11 and 12', Australian Government, Department of Health, February 22, 2020: <https://www.health.gov.au/ministers/the-hon-greg-hunt-mp/media/facilitating-chinese-based-students-to-attend-year-11-and-12>
- 109 AHPPC, 'Australian Health Protection Principal Committee (AHPPC) statement on coronavirus (COVID-19) 24 February 2020', Australian Government, Department of Health, February 24, 2020: <https://www.health.gov.au/news/australian-health-protection-principal-committee-ahppc-statement-on-coronavirus-covid-19-24-february-2020>
- 110 AHPPC, 'Australian Health Protection Principal Committee (AHPPC) statement on coronavirus (COVID-19) 26 February 2020', Australian Government, Department of Health, February 26, 2020: <https://www.health.gov.au/news/australian-health-protection-principal-committee-ahppc-statement-on-coronavirus-covid-19-26-february-2020>
- 111 AHPPC, 'Australian Health Protection Principal Committee (AHPPC) coronavirus (COVID-19) statement on 29 February 2020', Australian Government, Department of Health, February 29, 2020: <https://www.health.gov.au/news/australian-health-protection-principal-committee-ahppc-coronavirus-covid-19-statement-on-29-february-2020-0>
- 112 Greg Hunt, 'Press conference about coronavirus (COVID-19) with the Chief Medical Officer', Australian Government, Department of Health, February 29, 2020: <https://www.health.gov.au/ministers/the-hon-greg-hunt-mp/media/press-conference-about-coronavirus-covid-19-with-the-chief-medical-officer>
- 113 Unsigned, 'Updated WHO recommendations for international traffic in relation to COVID-19 outbreak', World Health Organization, February 29, 2020: <https://www.who.int/news-room/articles-detail/updated-who-recommendations-for-international-traffic-in-relation-to-covid-19-outbreak>
- 114 AHPPC, 'Australian Health Protection Principal Committee (AHPPC) coronavirus (COVID-19) statement on 4 March 2020', Australian Government, Department of Health, March 4, 2020: <https://www.health.gov.au/news/australian-health-protection-principal-committee-ahppc-coronavirus-covid-19-statement-on-4-march-2020-0>
- 115 Brett Worthington, ABC News, 'South Korea added to Australia's coronavirus travel ban list, restrictions for travellers from Italy', ABC News, March 5, 2020: <https://www.abc.net.au/news/2020-03-05/coronavirus-travel-ban-korea-italy-china-iran/12027348>
- 116 Unsigned, 'Show balance in deciding if coronavirus means events must be cancelled', The Age, March 3, 2020: <https://www.theage.com.au/national/victoria/show-balance-in-deciding-if-coronavirus-means-events-must-be-cancelled-20200303-p5469i.html>
- 117 Eryk Bagshaw, 'Morrison says Formula One had no impact on exempting Italy from travel ban', Sydney Morning Herald, March 6, 2020: <https://www.smh.com.au/politics/federal/morrison-says-formula-one-had-no-impact-on-exempting-italy-from-travel-ban-20200306-p54718.html>
- 118 Rebecca Urban, 'Coronavirus: Grand Prix on track to start', The Australian, March 8, 2020: <https://www.theaustralian.com.au/nation/coronavirus-grand-prix-on-track-to-start/news-story/6a350d2cb5a8400f66765c7bce895f6e>
- 119 Brett Worthington, 'Italy added to Australia's coronavirus travel ban alongside China, Iran, South Korea', ABC News, March 11, 2020: <https://www.abc.net.au/news/2020-03-11/coronavirus-australian-travel-ban-extended-to-italy/12045064>
- 120 Tedros Adhanom, 'WHO Director-General's opening remarks at the media briefing on COVID-19 - 11 March 2020', World Health Organization, March 11, 2020: <https://www.who.int/dg/speeches/detail/who-director-general-s-opening-remarks-at-the-media-briefing-on-covid-19---11-march-2020>
- 121 Adam Cooper, 'Three F1 teams were willing to practice for cancelled Australian GP', Autosport, March 12, 2020: <https://www.autosport.com/f1/news/148644/three-teams-were-willing-to-practice-in-australia>
- 122 Brendan Murphy, 'Chief Medical Officer's press conference about COVID-19', Australian Government, Department of Health, March 14, 2020: <https://www.health.gov.au/news/chief-medical-officers-press-conference-about-covid-19-0>
- 123 Scott Morrison, 'Coronavirus measures endorsed by National Cabinet', Australian Government, Prime Minister of Australia, March 16, 2020: <https://www.pm.gov.au/media/coronavirus-measures-endorsed-national-cabinet>
- 124 Jane Norman, 'Four cruise ships given special permission to dock in Australia despite 30-day coronavirus ban', ABC News, March 21, 2020:

- <https://www.abc.net.au/news/2020-03-21/coronavirus-four-cruise-ships-dock-australia-national-ban/12077824>
- 125 Fiona Carruthers and Mark Ludlow, 'Thirty-seven cruise ships hit by Australian ban', Australian Financial Review, March 17, 2020: <https://www.afr.com/companies/tourism/thirty-seven-cruise-ships-stranded-in-australian-waters-20200317-p54ayt>
 - 126 AHPPC, 'Australian Health Protection Principal Committee (AHPPC) coronavirus (COVID-19) statement regarding travel restrictions on 18 March 2020', Australian Government, Department of Health, March 18, 2020: <https://www.health.gov.au/news/australian-health-protection-principal-committee-ahppc-coronavirus-covid-19-statement-regarding-travel-restrictions-on-18-march-2020-0>
 - 127 Scott Morrison, 'Press Conference - Australian Parliament House, ACT', Prime Minister of Australia, March 18, 2020: <https://www.pm.gov.au/media/press-conference-australian-parliament-house-act-9>
 - 128 Scott Morrison, 'Border Restrictions', Prime Minister of Australia, March 19, 2020: <https://www.pm.gov.au/media/border-restrictions>
 - 129 Scott Morrison, 'Press Conference - Australian Parliament House, ACT', Prime Minister of Australia, March 27, 2020: <https://www.pm.gov.au/media/press-conference-australian-parliament-house-act-270320>
 - 130 Yimou Lee, 'Taiwan to ban entry for many foreigners in coronavirus fight', Reuters, March 18, 2020: <https://www.reuters.com/article/us-health-coronavirus-taiwan-ban/taiwan-to-ban-entry-for-many-foreigners-in-coronavirus-fight-idUSKBN2150BQ>
 - 131 Toh Ting Wei, 'Coronavirus: All short-term visitors barred from entering or transiting in Singapore from Monday, 11.59pm', Straits Times, March 22, 2020: <https://www.straitstimes.com/singapore/health/coronavirus-all-short-term-visitors-barred-from-entering-and-transiting-in>
 - 132 Iain Marlow and Natalie Lung, 'Hong Kong Bans Non-Residents, Says Bars Can't Serve Alcohol', Bloomberg, March 23, 2020: <https://www.bloomberg.com/news/articles/2020-03-23/hong-kong-bans-all-non-resident-arrivals-for-14-days>
 - 133 Unsigned, 'Coronavirus: Travel restrictions, border shutdowns by country', Al Jazeera, May 8, 2020: <https://www.aljazeera.com/news/2020/03/coronavirus-travel-restrictions-border-shutdowns-country-200318091505922.html>
 - 134 Cameron Houston, 'Wealthy couple return from skiing with coronavirus then do not self-isolate', The Age, March 25, 2020: <https://www.theage.com.au/national/victoria/wealthy-couple-return-from-skiing-with-coronavirus-then-do-not-self-isolate-20200325-p54du5.html>
 - 135 Unsigned, 'Number of Taiwanese working in China hits 10-year low', Taiwan News, December 18, 2019: <https://www.taiwannews.com.tw/en/news/3839550>
 - 136 Unsigned, 'Traffic of civil aviation by international, domestic and cross-strait lines', Civil Aeronautics Administration, R.O.C., April 27, 2020: <https://www.caa.gov.tw/Article.aspx?a=2833&lang=2>
 - 137 Unsigned, 'International airline activity - time series', Australian Government, BITRE, May 1, 2020: https://www.bitre.gov.au/publications/ongoing/international_airline_activity-time_series
 - 138 C. Jason Wang, Chun Y. Ng, and Robert H. Brook, 'Response to COVID-19 in Taiwan: Big data analytics, new technology, and proactive testing', Journal of the American Medical Association, March 3, 2020: <https://jamanetwork.com/journals/jama/fullarticle/2762689>
 - 139 Yu-Chen Hsu, Yu-Ling Chen, Han-Ning Wei, Yu-Wen Yang, and Ying-Hwei Chen, 'Risk and outbreak communication: Lessons from Taiwan's experiences in the post-SARS era', Health Security, April 1, 2017: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5404243/>
 - 140 Unsigned, 'Emerging infectious diseases: Asian SARS outbreak challenged international and national responses', United States General Accounting Office, April 28, 2004: <https://www.gao.gov/products/GAO-04-564>
 - 141 Hui-Yun Kao, Hai-Yun Ko, Peng Guo, Chang-Hsun Chen, and Su-Mei Chou, 'Taiwan's experience in hospital preparedness and response for emerging infectious diseases', Health Security, March 1, 2017: <https://europepmc.org/article/pmc/pmc5404255>
 - 142 Keith Bradsher, 'To slow virus, China bars entry by almost all foreigners', New York Times, March 26, 2020: <https://www.nytimes.com/2020/03/26/world/asia/china-virus-travel-ban.html>
 - 143 Unsigned, 'Australian Health Protection Principal Committee (AHPPC)', Australian Government, Department of Health, undated [retrieved May 18, 2020]: <https://www.health.gov.au/committees-and-groups/australian-health-protection-principal-committee-ahppc>
 - 144 Unsigned, 'Australian Health Protection Principal Committee', Australian Government, Directory, undated [retrieved May 18, 2020]: <https://www.directory.gov.au/portfolios/health/department-health/australian-health-protection-principal-committee>

About the Author



Salvatore Babones

Salvatore Babones is an Adjunct Scholar at the Centre for Independent Studies and an Associate Professor at the University of Sydney. An expert on globalisation and China, he is an elected member of the National Committee on US-China Relations. He has authored two previous CIS Analysis Papers: *The China Student Boom and the Risks It Poses to Australian Universities* (August, 2019) and *Australia's Export Exposure to China's Coronavirus Epidemic* (February, 2020).



Analysis Paper 9 (AP9) • ISSN: 2209-3753 (Online) 2209-3745 (Print) • ISBN: 978-1-925744-58-3

Published June 2020 by the Centre for Independent Studies Limited. Views expressed are those of the authors and do not necessarily reflect the views of the Centre's staff, advisors, directors or officers.

© Centre for Independent Studies (ABN 15 001 495 012)

This publication is available from the Centre for Independent Studies. Visit [cis.org.au](https://www.cis.org.au)