

Supplementary file 1

Table 1. A snapshot of countries that adopted the aggressive containment strategy in the first year of the COVID-19 pandemic

Countries	Case-based		Population-based		Border control		Risk communication and community engagement
	Interventions	Surging public health capacity	Interventions	Socioeconomic support	Interventions	Supportive measures	
China	<p><u>Testing:</u> Population testing was carried out in Wuhan and later in cities where clusters were identified.</p> <p><u>Contact tracing:</u> All cases were traced. Staff from the county and district level Centres of Disease Control and Prevention (CDC) should complete contact tracing within 24 hours after receiving the reports of suspected or confirmed cases.</p> <p><u>Isolation:</u> All confirmed cases and their close contacts were isolated in designated hospitals or quarantine facilities.</p>	<p>Approaches to expand testing capacity included building public testing laboratories, decentralizing testing services to private laboratories, ramping up production of test kits, and providing training to technicians.</p> <p>Hotels were recruited by the government and transformed into isolation facilities.</p>	<p><u>Lockdown:</u> lockdown was imposed in Wuhan from January 23 to April 8, 2020.</p> <p><u>Mask wearing:</u> face masks were mandatory during the outbreak in Wuhan. After community transmission was contained, people were recommended to wear masks in crowded and closed places.</p> <p><u>School measures:</u> In-person school was suspended in early February 2020, with a new online semester beginning for students to continue their education remotely.</p>	<p><u>Economic support to businesses:</u> Preferential subsidies were provided to businesses providing epidemic prevention and control supplies, and small business loans were provided to those who lost their jobs or income during the pandemic.</p> <p><u>Relief for households:</u> Flexibility in debt payment including mortgages and student loans was implemented. Poverty subsidy increased from March to June 2020, and the process to receive unemployment subsidies was simplified.</p>	<p><u>Travel restrictions:</u> Travel restrictions were imposed to ban all foreigners from entry, and later eased. Foreigners from low-risk countries were allowed for entry.</p> <p><u>Testing:</u> all arriving travellers were required proof of negative PCR and antibody tests. Testing at ports of entry was also mandatory for all travelers.</p> <p><u>Quarantine requirements:</u> All arriving travellers were required to serve 14 days quarantine at government designated facilities.</p>	<p>All travelers needed to obtain a health code before departure by submitting their test results through a mobile app.</p> <p>Surveillance testing of workers at ports of entry, air and maritime crew members, and workers at quarantine facilities was conducted on a regular basis.</p>	<p>Community workers and volunteers were deployed for community-based work, such as educating residents about COVID-19 prevention and control measures, providing information on nearby quarantine and testing sites, and distributing food and necessities to residents in need.</p> <p>Public campaigns about COVID-19 control strategies were repeatedly played on the state media. Educational information on COVID-19 was also shared through traditional and social media.</p>

	<p><u>Surveillance:</u> China expanded the surveillance coverage by taking an active surveillance approach.</p>						
New Zealand	<p><u>Testing:</u> Testing performed for all symptomatic individuals or people who were identified as being in close contact with a positive case.</p> <p><u>Contact tracing:</u> Contact tracing was carried out at regional level by the 12 Public Health Units for all confirmed cases.</p> <p><u>Isolation:</u> All positive cases were isolated in designated quarantine facilities. People who have been in close contact with a confirmed or probable case of COVID-19 need to self-isolate for 14 days from the last</p>	<p>Testing services were decentralized to private and regional laboratories.</p> <p>In May 2020, the Ministry of Health (MOH) created a contact tracing smartphone app called NZ COVID Tracer that allows people to scan a QR code at businesses they visit in order to document their location and time of their visit.</p>	<p><u>Lockdown:</u> A national lockdown was imposed from March to May 2020.</p> <p><u>Mask wearing:</u> The government did not recommend face masks until in October 2020, based on the evolving epidemic situation and evidence.</p> <p><u>School measures:</u> Closure of all educational institutes and early childhood education centres effective March 23, 2020, with the exception of essential workers who had until March 25, 2020 to find alternate arrangements for their children.</p>	<p><u>Economic support to businesses:</u> The Business Finance Guarantee Scheme for small and medium sized enterprises provided bank loans with 80% government risk guarantee. an easily accessible government funded wage subsidy for businesses that was passed on to employees. Tax measures were also enacted.</p> <p><u>Relief for households:</u> Support for mortgage deferment and rent freezes.</p>	<p><u>Travel restrictions:</u> Government announced temporary restrictions on travel from China in February 2020. Border closed for all travellers except for citizens and residents in March 2020.</p> <p><u>Testing:</u> Travelers were screened for COVID-19 symptoms (temperature) at the airport. Travelers with symptoms or waiting for the results of a test are sent to quarantine facilities and the others are sent to isolation facilities.</p> <p><u>Quarantine requirements:</u> New Zealand established</p>	<p>Workers at quarantine facilities and ports of entry were required to be tested on a regular basis since August 2020. Mandatory weekly testing of higher-risk workers to all airports and seaports extended to pilots, stevedores and airside government officials in September 2020.</p>	<p>Information regarding the viral infection and the protective measures was shared via MOH's website and briefed in regular press conference by the Prime Minister.</p> <p>The All-Blacks rugby players, television personalities, and actors spread awareness to their social media followers.</p>

	<p>date of contact with the case while they were considered infectious; in some cases, they may be able to quarantine in a facility (E.g., if a dependent is a confirmed case).</p> <p><u>Surveillance:</u> The country strengthened its surveillance system by implementing active and sentinel surveillance.</p>				<p>a compulsory “managed isolation” program whereby all inbound travellers (restricted to citizens and residents) had to pre-book an appointment for 14 days of isolation on arrival in New Zealand in a government run service that utilises hotels.</p>		
<p>Singapore</p>	<p><u>Testing:</u> in addition to people with symptoms, testing was compulsory for close contacts of confirmed cases.</p> <p><u>Contact tracing:</u> All confirmed cases were traced. The operation led by the Ministry of Health and aided by contact tracing teams at the hospitals, the Singapore Armed Forces, and the Police Force.</p>	<p>Digital contact tracing tool called SafeEntry was developed. People were required to scan a QR code at businesses they visited in order to document their location and time of their visit since May 2020.</p> <p>A digital system for contact tracing called TraceTogether was later deployed by the government to strengthen contact tracing effort.</p>	<p><u>Lockdown:</u> Partial lockdown, called “circuit breaker”, was implemented from April 7 to June 1, 2020.</p> <p><u>Mask wearing:</u> Singapore at first advised face masks only for sick people. As evidence on asymptomatic transmission emerged, face masking was made mandatory in the public.</p>	<p><u>Food security:</u> Measures emphasized supply chain connectivity and continuity.</p> <p><u>Economic support to businesses:</u> Financial support was provided to impacted businesses including loan support and payment deferrals, increased bankruptcy thresholds, and job growth incentives. Leave of absence</p>	<p><u>Travel restrictions:</u> Travel ban from China came into effect in January 2020, and later extended to other high-risk countries, such as Italy, Spain, and Germany, in March 2020.</p> <p><u>Testing:</u> It was compulsory for all incoming travelers entering Singapore to be tested for COVID-19 since June 2020.</p> <p><u>Quarantine requirements:</u> All</p>	<p>Pre-trip health and travel history declarations needed to be submitted online by all arriving travelers.</p> <p>All travelers were required to install the TraceTogether App, a digital contact tracing tool.</p> <p>Surveillance testing was required for workers at ports of entry, flight and maritime crew members, and workers at quarantine facilities.</p>	<p>The government recruited volunteers to educate seniors and concurrently distribute telecommunications equipment, hand sanitizers, and disinfectants to promote preventive measures in the community.</p>

	<p><u>Isolation:</u> Positive cases were admitted to Community Care Facilities or designated hospitals for isolation and treatment. A Quarantine Order was issued to close contacts of confirmed COVID-19 cases. Spot checks were carried out to ensure adherence.</p> <p><u>Surveillance:</u> Active surveillance in high-risk groups was carried out in complementary to passive case reporting by healthcare facilities and laboratories.</p>			<p>allowances were provided for those serving quarantine orders.</p> <p><u>Relief for households:</u> A variety of support measures were enacted including cash payments, employment programs, deferments on loan payments (such as property loans), and livelihood support to vulnerable sectors.</p>	<p>travelers were required to serve 14 days quarantine at home or designated facilities.</p>		
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Table 2. A snapshot of countries that adopted the suppression strategy in the first year of the COVID-19 pandemic.

Countries	Case-based		Population-based		Border control		Risk communication and community engagement
	Interventions	Surging public health capacity	Interventions	Socioeconomic support	Interventions	Supportive measures	
Argentina	<p><u>Testing:</u> Proactive testing was carried out particularly in vulnerable communities, as the Detectar program launched in May 2020.</p> <p><u>Contact tracing:</u> The Detectar program, launched in May 2020, is a unified national protocol for proactive case detection and contact tracing in communities. Contact tracing was conducted by teams of volunteers, or reassigned personnel, as well as by primary care teams, or through specific field operations.</p> <p><u>Isolation:</u> All confirmed cases were admitted to hospitals. Contacts</p>	<p>In March, the Ministry of Health started delivery of 35,000 reagents to expand testing to 21 laboratories for diagnosis in all 24 jurisdictions in an effort to decentralize test processing. Testing services were decentralized to private laboratories in April 2020.</p>	<p><u>Lockdown:</u> A national lockdown was implemented from March 20 2020, with exemptions for people providing essential services. Lockdown was eased in August 2020.</p> <p><u>Mask wearing:</u> face masks were mandatory in public spaces and transport in April 2020. Those who did not comply would be fined.</p> <p><u>School and workplace measures:</u> Schools closed on March 16, 2020, with the availability of online classes contingent upon a facility's capacity to provide it. Government designated COVID-19 as an</p>	<p><u>Food security:</u> Efforts focused on price ceilings for staple food products and to ensure an adequate supply chain.</p> <p><u>Economic support to businesses:</u> Loan support was provided to small and medium-sized enterprises and workers were protected from job dismissal.</p> <p><u>Relief for households:</u> The government prohibited basic public service companies (such as electrical energy, water, gas, mobile telephones, internet and TV cable) from suspending their services due to lack of payment for up to three periods of payment. Housing</p>	<p><u>Travel restrictions:</u> Suspension of flights from high-risk countries implemented March 12 2020, followed by a 15-day ban on entry by non-resident foreigners effective on March 16, 2020. The borders were closed to all foreigners as of the end of 2020.</p> <p><u>Testing:</u> A negative COVID-19 test taken within 72 hours before travel was required for all travellers.</p> <p><u>Quarantine:</u> The Argentine Government required all people arriving in Argentina from high-risk countries to self-isolate for 14 days following their arrival. Travelers</p>	<p>The Argentine Government launched a COVID-19 mobile app in March 2020. The app aims to detect new cases of infection, by asking users a series of questions regarding symptoms. All people arriving to Argentina were required to download it. Later versions allowed for transit permits to be issued through the platform.</p>	<p>Government launched outreach campaigns on the risks of COVID-19 and importance of complying with public health measures.</p>

	of confirmed cases were subjected to 14 days of home isolation. The health of isolated people was checked and monitored by the health authorities.		occupational hazard, allowing essential workers to be compensated in case of infection.	support was also provided, including a ban on foreclosures and evictions.	must self-isolate independently. There are no designated places for people with no self-isolation plans.		
Uganda	<p><u>Testing:</u> People with COVID-19 symptoms were required to be tested.</p> <p><u>Isolation:</u> Isolation was prescribed by the physician for a minimum of 14 days at home after the onset of symptoms. Auto-isolation applied to people who have COVID-19 but whose infection was not confirmed and those who had close contacts with confirmed cases. They were required to stay at home for 7 days.</p>	Testing was scaled up and decentralized to regional laboratories. The Ministry of Health carried out modifications to existing laboratory to make them appropriate for testing COVID-19. The government secured testing kits by bulk purchasing.	<p><u>Lockdown:</u> A lockdown was imposed in Uganda at the end of March 2020. The government started easing lockdown in July 2020.</p> <p><u>Mask wearing:</u> Mask wearing became mandatory in public in May 2020.</p> <p><u>School and workplace measures:</u> All educational institutions were closed in March 2020. National Examinations Board developed home study materials to facilitate continuity of learning during the lockdown period. The</p>	<p><u>Food security:</u> The federal government put in place a food distribution program through dedicated channels managed by the current administration.</p> <p><u>Economic support to businesses:</u> A mixture of government and external financing was mobilized to support businesses and sectors impacted by the pandemic. The Central Bank also enacted debt relief and reduced lending rates.</p>	<p><u>Travel restrictions:</u> Borders closed in March 2020, except for cargo and other goods.</p> <p><u>Quarantine:</u> All travelers were quarantined on arrival in country for 14 days. Travelers from high-risk countries were quarantined at government designated facilities.</p>	<p>Surveillance and screening at all the 53 ports of entry.</p> <p>The Ministry of Health recruited accommodation to quarantine travelers and suspected cases.</p>	Ministry of health facilitated community engagement and risk communication in physical communities, such as villages, places of worship, and virtual communities. Stakeholders worked with existing community structures to build voluntary action networks.

			government issued guidelines that are instructive on employer-employee relationships and how to keep workplaces safe.				
United States	<p><u>Testing:</u> Testing policies varied at the state level. Although testing was initially limited, by October 2020 the Centre of Disease Prevention and Control (CDC) issued guidance encouraging testing for anyone with symptoms referred by their health provider, or that was in close contact with a confirmed case.</p> <p><u>Isolation:</u> There were no national isolation policies put in place. The CDC provided guidance for confirmed cases to isolate at home away from other household members for ten days. No support was identified for isolation facilities</p>	Contact tracing efforts were managed at the state and local levels. Due to high case numbers, the CDC advised that cases within the last six days be prioritized for contact tracing. Capacities for tracing and cooperation from confirmed cases were variable across states.	<p><u>Lockdown:</u> The majority of states enacted stay at home orders at some point in March or April 2020 and most were lifted in May 2020.</p> <p><u>Mask wearing:</u> No federal mandate for mask wearing adopted; however, many states and/or local jurisdictions adopted mask mandates during the pandemic.</p> <p><u>School and workplace measures:</u> Schools and workplace closures were decided at the state and local levels. All but one state closed schools to in-person learning from March to April 2020; many states returned to in-person learning</p>	<p><u>Food security:</u> Eligibility requirements for the Supplemental Nutrition Assistance program were temporarily lifted, and food support to families impacted by school closures was provided. Additionally, the Coronavirus Food Assistance Program supported farmers during COVID-19.</p> <p><u>Economic support to businesses:</u> The federal government's Paycheck Protection program supported employers to pay their employees and business loans were provided by the U.S. Small Business Administration.</p>	<p><u>Travel restrictions:</u> Borders closed to travelers from China in February, followed by Iran, members of the Schengen Area, the UK, Ireland, and Brazil.</p> <p><u>Quarantine:</u> A quarantine policy was enacted for returning American citizens and legal residents traveling from countries that were a part of the travel ban. Guidance from the CDC encouraged a 14-day quarantine for individuals entering the United States.</p>	No specific support measures for border control measures.	There was no clear community engagement enacted at the federal level. Press conferences were provided to communicate updates to the general public.

	<p>and there was no identified enforcement of self-quarantine measures.</p> <p><u>Surveillance:</u> A syndromic surveillance program was launched to support traditional surveillance and COVID-19 response.</p>		<p>in the Fall of 2020, while others continued with hybrid or distance learning approaches. The CDC and the Occupational Safety and Health Administration developed non-binding guidance for workplaces to inform decentralized decision making.</p>	<p><u>Relief for households:</u> Direct cash payments were made to American households meeting certain eligibility requirements. Additional unemployment payments were also provided.</p>			
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Table 3. A snapshot of countries that adopted the mitigation strategy in the first year of the COVID-19 pandemic

Countries	Case-based		Population-based		Border control		Risk communication and community engagement
	Interventions	Surging public health capacity	Interventions	Socioeconomic support	Interventions	Supportive measures	
Sweden	<p><u>Testing:</u> Extensive testing was carried out among healthcare workers in March 2020, and later expanded to high-risk groups, such as the elderly in long-term care homes in April 2020.</p> <p><u>Contact tracing:</u> Sweden implemented contact tracing at the start of the pandemic but abandoned the strategy after a few weeks. Infected cases themselves were responsible for contacting people they might have infected. The drop in cases in October 2020 prompted Sweden to resume contact tracing.</p>	<p>A web-based system was set up to enable individuals to book COVID-19 tests in Stockholm. Self-testing using mouth and nostril swabs and saliva were introduced.</p> <p>The Swedish government assigned the Public Health Agency of Sweden to upscale testing in June 2020.</p>	<p><u>Mask wearing:</u> Face masks were only recommended for confirmed patients and those with COVID-19 symptoms in January 2020. The guidelines were later updated, which recommended face masking in healthcare settings.</p> <p><u>School and workplace measures:</u> Face-to-face teaching in schools for upper secondary and higher education were stopped and distance education was adopted in March 2020. However, schools remained open on the basis that there was no major transmission of COVID-19 observed before end of March 2020.</p>	<p><u>Economic support to businesses:</u> The government provided resources to businesses to support wage costs, sick pay responsibilities, and deferment of social security contributions. Additional capital was provided to improve market liquidity and interest payments were temporarily deferred on guaranteed loans. The government also supported rent subsidies for businesses.</p>	<p><u>Travel restrictions:</u> The government advised against non-essential travels to high-risk countries in March 2020, and gradually closed its borders, allowing only citizens and residents to enter.</p> <p><u>Testing:</u> Sweden did not require a certificate to prove that one is symptom-free before entering.</p> <p><u>Quarantine:</u> Travelers to Sweden were not obligated to quarantine.</p>	<p>No specific support measures for border control measures.</p>	<p>Press conferences by the Public Health Agency and other government authorities were held on a regular basis.</p> <p>Digital platforms and information channels were established to help people with migration background access COVID-19 information.</p> <p>WhatsApp groups in 15 languages on COVID-19 established for migrants, as well as hotlines and other digital platforms for sharing information among migrants.</p>

	<p><u>Isolation:</u> Anyone with positive antibody test were exempted from quarantine. Close contacts of confirmed cases were required to quarantine.</p> <p><u>Surveillance:</u> The country deployed sentinel surveillance in addition to passive surveillance based on case reporting by healthcare facilities.</p>		<p>Government encouraged individuals to work from home as much as possible.</p>				
<p>United Kingdom</p>	<p><u>Testing:</u> In March 2020, people with symptoms were asked to be isolated without testing. As testing capacity surged in end of April 2020, priority testing was given to healthcare workers and the elderly. Since mid-May 2020, all symptomatic persons were eligible for COVID-19 tests.</p>	<p>Health Secretary announced bulk purchase of antibody tests for COVID-19 in end of March 2020.</p> <p>Testing services decentralized, with support from pharmaceutical and diagnostic companies. Biggest diagnostic laboratory network in British history was launched in April 2020.</p>	<p><u>Lockdown:</u> Lockdown was implemented in end of March 2020, and began to relax in June 2020 as the epidemic curve flattened.</p> <p><u>Mask wearing:</u> Face masking was not recommended until in June 2020, when it was made mandatory on public transport, in hospitals and shops.</p>	<p><u>Food security:</u> Over 1 million food boxes had been delivered to those most at risk through the shielding program.</p> <p><u>Economic support to businesses:</u> Initiatives included interest rate cuts, support for the self-employed, and a furlough scheme.</p>	<p><u>Travel restrictions:</u> The government advised against non-essential travel to China in Jan and February 2020, and further extended to other high-risk countries.</p> <p><u>Testing:</u> no clear guidance on testing requirements for arriving travellers.</p> <p><u>Quarantine:</u> Since June 2020, arriving travelers were required to self-</p>	<p>No specific support measures for border control measures.</p>	<p>Lack of clarity in communication and engagement channels with the community, as well as relief measures that often did not meet the needs of vulnerable populations, in spite of support measures introduced for racialised communities.</p>

	<p><u>Contact tracing:</u> Full contact-tracing abandoned in March 2020, in line with move from contain to delay phase on the assumption that community transmission was already occurring. After the launch of the test and trace program in May 2020, close contacts of confirmed cases were asked to share information via a secured website or through a call with contact tracers.</p> <p><u>Isolation:</u> People with symptoms were asked to self-isolate for 7 days in March 2020. The guideline was later updated so that confirmed cases and their close contacts needed to serve 14 days self-isolation.</p>	<p>COVID-19 contact tracing app that was developed and launched by the National Health Service allows users to scan official NHS QR code posters at businesses, venues and transport hubs for contact tracing purposes.</p> <p>Government announced £300m additional funding for local authorities to support new test and trace services in May 2020.</p>	<p><u>School and workplace measures:</u> Schools, colleges, and nurseries closed from March 20 2020 to June 1 2020. During lockdown, work from home was encouraged. In May 2020, government published guidance for workplaces operating safely.</p>		<p>isolate for 14 days. In July 2020, the government published guidance on travel corridors - the countries where you do not have to self-isolate on arrival if these are the only places you have been to or stopped in during the previous 14 days.</p>		
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	<u>Surveillance:</u> large-scale surveillance studies were carried out in general and vulnerable populations.						
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