Supplementary Table 1. Summary of public health and social measures in New Zealand, and New South Wales and Western Australia, Australia, 2020–2021

Level/stage	Brief description
New Zealand ¹	
International border restrictions	New Zealand closed its border to non-residents on 19 March 2020. Between 14 March and 9 April 2020, all overseas arrivals were required to self-isolate for 14 days. From 9 April 2020, returning residents were required to enter mandatory government-managed 14-day quarantine. A two-way travel bubble was opened with Australia from 19 April to 22 June 2021, and the Cook Islands from 19 May to 17 August 2021.
	Emphasis on hand hygiene and self-isolating if sick
Alert Level 1 (Level 1)	 The use of the COVID-19 tracing app was encouraged; Businesses and schools operated as usual, with display of quick response (QR) codes to facilitate contact tracing; No restrictions on domestic travel; and No restrictions on gatherings.
	Emphasis on physical distancing and the use of masks on public transport
Alert Level 2 (Level 2)	 Physical distancing, 2 m in public places and 1 m in contained environments (e.g. schools and workplaces); Businesses and schools were open, subject to public health guidance (e.g. physical distancing and record-keeping); Gatherings were restricted to a maximum of 100 people; Sports and recreational activities were allowed, subject to gathering restrictions and physical distancing requirements; and Masks were required on public transport and aircrafts (but not on inter-island ferries); children under 12 years, people with medical reasons, school buses, taxis and rideshare services were exempt from mask requirements.
Alert Level 3 (Level 3)	 Emphasis on limiting movement, encouraging people to stay at home and within household bubbles People were required to stay within their immediate household bubble; Schools (years 1 to 10) and early childhood education centres were open, with reduced capacity; People were encouraged to work from home, if possible; Businesses involving close personal contact were closed unless they were an essential service; Physical distancing, 2 m in public places and 1 m in contained environments (e.g. schools and workplaces); Public venues were closed;
	 Masks were recommended whenever people were outside their homes; children under 12 years and people with medical reasons were exempt from mask requirements; Gatherings were restricted to a maximum of 10 people and subject to physical distancing requirements; and Interregional travel was limited. Emphasis on lockdown, people were instructed to stay at home unless they were essential
Alert Level 4 (Level 4)	 Recreation was allowed in the local area close to their home, subject to physical distancing requirements; Travel was severely limited; All gatherings were cancelled and public venues closed; Businesses and schools were closed, except for essential services; and Health-care services were reprioritized (e.g. elective surgery was cancelled).

Level/stage	Brief description
New South Wales, Aust	traliaª
International border restrictions	Australia closed its border to non-citizens/permanent residents on 20 March 2020. Between 20 and 28 March 2020, all overseas arrivals were required to self-isolate for 14 days. From 28 March 2020, returning citizens and permanent residents were required to enter mandatory government-managed 14-day quarantine. ² From 1 November 2021, people arriving in New South Wales (NSW) were no longer required to quarantine, as long as they (i) had a COVID-19 test after arrival; AND (ii) provided proof of full COVID-19 vaccination, as recognized by the Therapeutic Goods Administration. ³ People arriving in NSW from overseas who were not fully vaccinated were required to quarantine for 14 days at government-managed facilities. ³
Stage 1	Emphasis on physical distancing
(Level 1) ^{4,5}	 Physical distancing requirement of 1 person per 2 m² (with exceptions); Gatherings were restricted to: households – up to 50 visitors; outdoor public gatherings – up to 100 people; events – up to 5000 people, subject to physical distancing requirements; outdoor major recreation facilities (e.g. stadiums) – 100% capacity, subject to physical distancing requirements; indoor major recreation facilities – 75% seated capacity or physical distancing requirement (whichever was greater); weddings and funerals – no cap on number of persons, subject to premises' restrictions; Hospitality was open, subject to physical distancing requirements; a COVID-19 hygiene safety marshal was required for venues of more than 50 patrons; Group gym and dance classes were limited to 50 people and 1 person per 4 m²; Schools were open, restrictions recommended for music ensembles, graduations and formals; The international border was closed to non-citizens/permanent residents, mandatory quarantine for all arrivals, except people arriving from New Zealand (as of 16 October 2020); and
	Emphasis on physical distancing and interregional travel restrictions
Stage 2 (Level 2) ²	 Gatherings were restricted to: households – up to 5 visitors; outdoors – up to 10 people; religious gatherings/places of worship – up to 10 worshippers; weddings – up to 10 guests; funerals – up to 20 mourners indoors or 30 mourners outdoors; Group gym and dance classes were limited to 20 persons and 1 person per 4 m²; The international border was closed to non-citizens/permanent residents; mandatory quarantine for all arrivals; and The interstate border was open; all arrivals were required to complete a declaration form and isolate for 14 days if they had been in an area of concern.
	Stage 3 (Level 3) restrictions were in place for parts of the state
	Start date End date Restrictions limited to
Stage 3	20 December 2020 28 January 2021 Greater Sydney
()	5 May 2021 18 May 2021 Greater Sydney, Blue Mountains and Wollongong
(Level 3) ^{6,7}	23 June 2021 9 July 2021 Greater Sydney, Blue Mountains, Central Coast, Wollongong and Shellharbour

^a NSW restrictions changed throughout 2020 and 2021. Stage 1 restrictions are from 24 December 2020; Stage 2 restrictions are from 1 June 2020; Stage 3 restrictions are from 22 July 2021.

Level/stage	Brief description
	Emphasis on restricting movement, people instructed to stay at home
	□ Schools encouraged learning from home, with schools open for those who required it;
	 The use of the COVID-19 tracing app was mandatory from September 2021; No home visitors were allowed (exemptions apply);
	 Maximum of two people could attend outdoor gatherings (including exercise); Workers could not leave their homes without reasonable excuses; working from home was
Stage 3	encouraged, unless not reasonably practicable; carpooling with non-household members was not allowed (exceptions apply);
otage o	□ Non-critical retail outlets were closed (exceptions apply);
(Level 4) ⁷	 Entertainment facilities, indoor recreation facilities, hospitality venues and places of worship were closed (exceptions apply);
	 Masks were compulsory in indoor non-residential areas, on public transport and at certain outdoor gatherings;
	 The international border was closed to non-citizens/permanent residents, with mandatory quarantine for all arrivals;
	□ The interstate border was open; all arrivals were required to complete a declaration form and isolate for 14 days if they had been in an area of concern; and
	 Interregional travel was restricted (exemptions apply).
Western Australia, Australi	
International border	Australia closed its border to non-citizens/permanent residents on 20 March 2020. Between 20
restrictions	and 28 March 2020, all overseas arrivals were required to self-isolate for 14 days. ² From 28 March 2020, returning citizens and permanent residents were required to enter mandatory government-managed 14-day quarantine. ²
	Emphasis on restricting interregional travel
	 Interregional travel with 200 remote Indigenous communities was restricted on 19 March 2020;
	Interstate arrivals were restricted or required 14-day self-isolation from 22 March 2020; prior to arrival, travellers had to declare all travel for the last 14 days and adhere to the highest risk classification:
	 very low-risk jurisdictions – arrivals were required to complete an entry pass and undergo health airport screening;
Phase 5	 low-risk jurisdictions – arrivals were required to self-isolate for 14 days on arrival and present for COVID-19 testing as required;
(No level) ⁷	 medium-risk jurisdictions – entry into Western Australia was not permitted without an exemption (permitted travellers were required to self-isolate for 14 days, present for COVID-19 testing as required and provide proof of a negative COVID-19 PCR test result on a sample taken in the 72 hours prior to departure);
	 high- and extreme-risk jurisdictions – entry into Western Australia was not permitted without an exemption (permitted travellers were required to present for frequent COVID-19 PCR testing, provide proof of at least one COVID-19 vaccine dose (where eligible) and undergo 14-day hotel quarantine);
	□ No physical distancing requirement; and
	□ All venues could operate at 100% capacity.
	Emphasis on physical distancing and restricting interregional travel
	 Physical distancing requirement of 1 person per 2 m² (exemptions apply);
	□ Gatherings were restricted to:
	 all events permitted, excluding large festivals;
	 outdoor major recreation facilities (e.g. stadiums) – 50–75% capacity, subject to physical distancing requirements;
Phase 4	Interstate arrivals were restricted; prior to arrival, travellers must declare all travel for the last 14 days and adhere to the highest risk classification:
(Level 1) ^{4,6}	 very low-risk jurisdictions – arrivals were required to complete an entry pass and undergo health airport screening;
	 low-risk jurisdictions – arrivals were required to self-isolate for 14 days on arrival and present for COVID-19 testing as required;
	medium-, high- and extreme-risk jurisdictions – entry into Western Australia was not
	permitted without an exemption; and

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Level/stage	Brief description
Phase 3 (Level 2) ⁴	 Emphasis on physical distancing and interregional travel restrictions Gatherings were restricted to: indoor – up to 100 people, subject to physical distancing requirements; religious gatherings/places – at 100% capacity; outdoor major events (e.g. stadiums) – up to 500 people, subject to physical distancing requirements and an approved COVID-19 event plan; All businesses open, subject to physical distancing requirements and maintenance of a contact register; Removal of restrictions for gym and dance classes, along with full-contact sport and training; The interstate border was closed until 14 November 2020, after which interstate border restrictions applied; prior to arrival, travellers were required to declare all of their travel in the last 14 days before arrival, and adhere to the highest risk classification: very low-risk jurisdictions – arrivals were required to complete an entry pass and undergo health airport screening; low-risk jurisdictions – arrivals were required to self-isolate for 14 days on arrival and present for COVID-19 testing as required; medium-, high- and extreme-risk jurisdictions – entry into Western Australia was not permitted without an exemption; and
	 Interregional travel with 200 remote Indigenous communities closed to non-residents. Emphasis on physical distancing and restricting movement
Phase 1 & 2 (Level 3)	 Phase 2, 18 May to 6 June 2020² Physical distancing requirement of 1 person per 4 m² (exemptions apply); Gatherings were restricted to: indoor – up to 20 people; religious gatherings/places – up to 20 people; weddings and funerals – up to 20 people indoors and 30 people outdoors; Most businesses open, subject to physical distancing requirements and capacity limits; Gyms were limited to 20 people, with minimal equipment sharing allowed; Non-contact sports and training limited to 20 people; Dine-in venues, restaurants, bars and pubs were allowed to reopen, with a 20-person capacity limit; and Interregional travel with 200 remote Indigenous communities closed to non-residents (from 29 May 2020). Phase 1, 27 April to 18 May 2020 ² Non-work gatherings restricted up to 10 people; Schools reopened; Gatherings of up to 10 people; and The interstate border was closed and interregional travel prohibited, except for essential services.
Severe restrictions (Level 4) ^{8–10}	Emphasis on restricting movement, people instructed to stay at home School holidays were extended and/or students were encouraged to study from home; Restaurants and cafes were open for takeaway only; Elective surgeries were cancelled; Gatherings limited to two people, excluding household members; Stay-at-home orders were in place, with people encouraged to work remotely from home; Entertainment facilities, indoor recreation facilities, hospitality venues and places of worship were closed; and The interstate border was closed and interregional travel was prohibited, except for essential services. Start date End date Restrictions limited to 1 February 2021 6 February 2021 Lockdown in Perth, Peel and South West regions 23 April 2021 27 April 2021 Lockdown in Perth and Peel regions 29 June 2021 2 July 2021 Lockdown in Perth and Peel regions

Supplementary references

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