Australia's Response to SARS-CoV-2

WORKING PAPER: AUSTRALIAN COVID-19 POLICY AND ITS IMPACT ON THE ECONOMY AND HEALTHCARE SECTOR: THE NEED FOR AN ECONOMIC RESPONSE PLAN.

HIGGINSON, S., MILOVANOVIC, K., MOY, N., SAVAGE, D., WALL, L., GILLESPIE, J. & PAOLUCCI F.

Australian Response

Initial response was governed by the existing Australian Health Management Plan for Pandemic Influenza (AHMPPI).

- Individual plans for state and territory
- Epidemiological information was collected separately

From this: Australian Health Sector Emergency Response Plan for Novel Coronavirus (COVID-19).

- Objectives:
 - \circ $\:$ Identify/characterise virus and determine clinical severity in Australian context
 - Minimise transmissibility, morbidity, mortality
 - Minimise burden on health system
 - Inform, engage and empower public.

Swift implementation of classifying SARS-CoV-2 as a reportable disease (Biosecurity Act 2015)

Implementation of country based border closures and country

Policy Response

Centralised and de-centralised response system

Federal response -

- staggered and then full border closure.
- gatherings restricted, eventually prohibited

State response -

- internal border closure and movement restrictions
- school closure
- working from home recommendations
- enforcement of restrictions

Dominant Policy Response to COVID-19 & Cases in Australia



Daily Cases — Daily ICU

Healthcare: System & Response

Mixed system:

- Majority public: subsidised (fee-for-service) and funded via tax
- Governance: state based
- Expenditure 9.3% of GDP

Preparation informed by clinical care pathways modelling

• Predicted increased ICU demand

Potential capacity would not meet expected demand, additional steps taken to suspend elective surgeries.

Experienced shortages in testing and PPE supplies.

State/Territory	Existing ICU beds	Total potential bed capacity (excl. existing)	Potential increase in supply (%)	Current availability per 100,000 population (June 2019)	Potential availability per 100,000 population (June 2019)
ACT	52	179	344	10.3	54.1
NSW	854	1725	202	10.8	31.9
NT	24	23	96	8.9	19.1
QLD	376	515	137	8.1	17.4
SA	193	155	80	8.9	19.9
TAS	51	113	222	9.4	30.7
VIC	499	1166	234	7.2	25.2
WA	179	382	213	6.2	21.4
Total	2228	4258	191	9.4	25.6

Testing, Tracing & Treatment

Two types of tests: Nucleic Acid (RT-PCR) & Serology test.

Strict testing criteria of recent travel and set of symptoms. Once testing supply increased this was
extended to vulnerable groups and eventually anyone with symptoms.

Tracing was decentralised to the state health departments and conducted manually

• COVIDSafe app was implemented but uptake was so low that manual tracing still dominates.

Treatment of non-COVID-19 patients transitioned into Teleheath; made possible by the inclusion of more telehealth services to the subsidised Medicare scheme.

• Regulations have not kept up with the adjustments

Increased funding dedicated to treatment and vaccine development for COVID-19.

Economic response

Attempt to limit the lockdown scope by allowing some industries to still operate. First business and employment stimulus package (AUD\$17.6 bn) announced 12 March.

Focus on *JobKeeper* and *JobSeeker* initiatives:

- Retention of current employees
- Additional support for the unemployed

Additional business and household support includes:

- Tax relief
- Early access to superannuation
- Asset write-off

Intervention from the Reserve Bank of Australia

• Interest rate adjustments, purchasing bonds, interventions for deposit-taking institutions.

Health system impact

Number of cases have not exceeded the capacity of healthcare system.

Border closures reduced overseas transmission (2/3 of known cases). Effect of internal border measures unknown.

Contact tracing was effective, high levels of compliance. COVIDSafe app obsolete due to low numbers.

Mandated self-isolation for internal cases, with mandatory government controlled quarantine for new arrivals.

Utilisation of private system into public, was costed to public funds – rather than utilising existing payment systems.

Economic impact

Despite additional fiscal and monetary measures, the March quarter showed a 0.3% contraction in GDP.

Estimated lockdown cost of \$1.4 billion a week.

Overall household consumption went down, despite increases in retail spending. Service sector was severely weakened by social distancing policies.

Expected unemployment rate of 10% by RBA

- Grattan institute 14-26% as a result of lockdown.
- Women were more affected by unemployment



Recommendations

Health system performed well but the economy suffered significantly.

In addition to the Health Pandemic Response Plan, an economic response plan should be developed.

Fiscal packages should be extended to visa holders and short-term casuals to aid hardest hit sectors.

Technology should be harnessed, creating a network response to expedite data sharing amongst local, state and national decision-makers.

Non-urgent surgeries be reinstated once there is clear evidence of containment or mitigation.

Development of education practices to increase engagement and accessibility for online/offcampus delivery.

COVID-19: Policy Response in New Zealand

FROM THE WORKING PAPER: COMPARING THE COVID-19 PANDEMIC IN GREECE, ICELAND, NEW ZEALAND AND SINGAPORE. FOUDA, A., MAHMOUDI, N., MOY, N. & PAOLUCCI, F.

Overview of COVID-19

Declared COVID-19 free June 8

Confirmed 1,178 cases

- 22 associated deaths (all aged > 50)
- $\,\circ\,$ 22 new cases from overseas

International (545) and community based (630) transmissions

Recent are all overseas transmissions

Additional information: DHB, ethnicity, age, gender, number hospitalised and in ICU.

16 clusters, 4 in Aged Care.



Preparation, Delay & Containment

Existing New Zealand Influenza Pandemic Plan

• The objective was "To minimise deaths, serious illness and serious disruption to communities and the economy arising from an influenza pandemic."

Use of Four Stage Alert system:

- COVID-19 Alert Level 4: Lockdown
- COVID-19 Alert Level 3: Restrict
- COVID-19 Alert Level 2: Reduce
- COVID-19 Alert Level 1: Prepare

Then the COVID-19 Health and Disability System Response Plan

- Objective to eradicate local transmission of the virus
 - This strategies provides the greatest protection to vulnerable groups and lowest loss of life through the minimisation of cases

Policy Response

Border closures to specific at risk nations, then self-isolation and quarantine required for all visitors progressing to borders closed to all non-residents and citizens of New Zealand.

Daily briefings by Health Minister or Prime Minister.

Announced a \$NZD 12.1bn economic support package.

- Targeting industry and employment, welfare and health.
- Further support packages were released for different industries

Rapid movement from Alert level 2, 3 and 4.



Health System Response

Creation of a COVID-19 information online resource

 Links to current status of COVID-19 cases, advice for the public, healthcare and various sectors, news and media updates

Increased funding for health resources, staffing, tele-communication, healthline.

- Increased funds construction: adjustments to buildings (new or existing); additional rooms etc.
- ICU capacity in May 358 beds to 550 beds in June

Non-essential services and elective surgeries were postponed or shifted to the private sector

Registration for those willing to help or re-enter the healthcare workforce

Conducting a health and wellbeing survey

Testing Strategy

Several types of testing available:

Sputum, nasal or serology tests

Initial testing was restricted to those with symptoms and travel history

Part of the surveillance plan ensured equitable access to testing for all

 Required DHBs to monitor testing levels in at risk groups and communities with potentially low access.

Used mobile testing units to reach vulnerable groups.



Technology

NZ COVID Tracer App introduced nationally using QR codes

• Some regions worked with tech companies to implement QR based apps to assist with local tracing.

Encouraged uptake of telehealth

Dedicated website for COVID-19 response with resources supplied by the government, in addition to the section of the Ministry of Health

- Government newsletter
- WhatsApp channel
- Resources for telehealth

Technology focused on businesses and employment

- Helpline for businesses advice on alert levels, available support and link to resources
- Online recruitment tool link businesses with potential employees.

Economic Impact

GDP: NZD\$314 billion (USD\$201 bn)

• -1.6% in Q1 of 2020

Unemployment increased by 0.2% to 4.2% for March quarter

Consumer confidence dropped by 37.3 in April from 122.1 in February, rising to 104.5 in June

Excluding supermarkets and consumable sectors, the number of transactions in retail sectors has dropped. Household spending declined 0.3%

Tourism industry has been significantly impacted by border measures, while construction has been the hardest hit declining 4.1%

As containment measures increased, the value of the market indices decreased and the number of individuals seeking government assistance increased.

Considerations

Clear communication on the strategy against COVID-19 seemed key in ensuring behavioural compliance with the Alert restrictions.

- Technology may have played a role in the populaces COVID-19 health literacy
- This may have influenced the compliance to restrictions
- The contact tracing effects are not yet known, however increased use is likely to be beneficial if community transmission occurs again.

Border closures and quarantine measures are effective in mitigating the spread of the virus and help control low number of cases.

Quick responses and short lockdowns have not mitigated the economic impacts.