Quantifying the impact of long COVID on livelihoods and the broader economy

Paula Lorgelly Professor of Health Economics



MEDICAL AND HEALTH SCIENCES BUSINESS SCHOOL





## **Productivity loss**

Productivity is a way to measure economic performance (output per unit)

#### Productivity is New Zealand's biggest economic challenge

Productivity and labour force participation are the key drivers of economic performance, higher wages and higher living standards. With an unemployment rate that is around the lowest in the world the biggest gains in New Zealand's future economic performance will to have to come from productivity growth.

https://www.treasury.govt.nz/information-and-services/nz-economy/productivity



# How does COVID affect productivity?

Missed work/opportunities due to - acute illness

- isolation protocols
- increased caregiving responsibilities
- long COVID

Also productivity impacts with respect to the pandemic response



**MEDICAL AND** 

# **Impact of COVID on US Workforce**



#### Medium case

~587 million days lost in total

~356 million days lost to acute mild or moderate illness

 $\sim$ 111 million days incrementally lost to compliance with isolation recommendations

~83 million days lost to long COVID

~30 million days lost to acute severe illness

~7 million days lost to providing childcare, resulting in missed work or lost productivity



# **Impact of long COVID – US Economy**

David Cutler (Harvard) estimated that the total economic cost of long COVID is \$3.7 trillion; 17% of GDP

(1)Quality of life \$2.195 trillion

(2)Lost earnings of \$997 billion

(3)Medical care spending: \$528 billion

Underestimate as does not include the economic impact of lower productivity



### **Impact on UK Workforce**

Reuschke & Houston (2022) estimate some 80,000 indvdls left the workforce due to long COVID





## **Impact in Australia**

Treasury estimated 31,000 individuals off work in June 2022, 3 million working days

Treasurer: the labor market has been absolutely smashed by Covid, and Long Covid increasingly

Impact Economics and Policy estimate this is an economic cost of \$100 million a week (\$5.2b on an annual basis)

 $\rightarrow$  parliamentary inquiry – watch this space



## What is the evidence for Aotearoa?

Ngā Kawekawe o Mate Korona = \$4578 to \$4620

"significant underestimates likely true productivity losses"

	Te Tangata Whenua	Non-Pacific Tāngata Tiriti
Direct Medical Costs*	\$104	\$155
Additional Costs **	\$491	\$493
Total Personal Costs	\$595	\$648
Primary Care System Costs***	\$820	\$823
Inpatient System Costs	\$57,900	\$55,150
Productivity Losses	\$4,578	\$4,620
Total Costs to Society	\$64,669	\$62,062

Table 20: Summary of average costs per person associated with having COVID-19

\* Direct medical costs are taken from Table 19 above.

\*\* Additional costs are discussed above, and set out in Supplementary Table 18.

\*\*Primary care costs use PHARMAC cost manual for full cost of each service, less average user charge. GP cost is \$80, nurse cost is \$40, assumed telehealth cost is \$60, accident and medical \$110 (Te Pātaka Whaioranga | PHARMAC, 2018).



Reference: 20220229

22 June 2022

Dear

Thank you for your Official Information Act request, received on 15 June 2022. You requested:

any advice or assessment on the impacts of "long covid" on New Zealand (for example, on the economy, the costs of the health or welfare systems, or on unemployment rates).

The Treasury does not hold any information relevant to your request. Therefore, your request is refused under section 18(g)(i) of the Official Information Act – that the information requested is not held by the department and there is no reason to think that transferring the request would yield the information from another source.



Reference: 20220402

11 October 2022



Thank you for your Official Information Act request, received on 20 September 2022. You requested:

Any information produced by the Treasury relating to the impact of Long Covid

This includes, but is not limited to, information related to the economic, fiscal or employment impact of Long Covid

This also includes, but is not limited to, information related to the impact of Long Covid outside of New Zealand (for example any information produced by the Treasury which relates to overseas assessments of the impact of Long Covid overseas).

The Treasury does not hold any information relating to your request. Therefore, your request is refused under section 18(e) of the Official Information Act– the document alleged to contain the information requested does not exist or cannot be found.



## **Other evidence of impact**

Recent US study by NYSIF analysing compensation claims for those who were exposed at work

>year after infection 18% of individuals with long COVID had not returned to work

75% were under 60 years old

Those that had returned to work 40% needed workplace support

At risk of significant financial impacts, disability legislation can protect against discrimination



### **Future impact**

Unemployment  $\rightarrow$  Mental health

Evidence from meta-analyses of longitudinal studies and natural experiments unemployment is not only correlated to distress but also causes it



# Long COVID Registry

Funded via MoH COVID-19 and National Immunisation Programme

Co-I Jenene Crossan

**Objective** to establish a long COVID registry, estimate the clinical, quality of life and economic impacts of long COVID in Aotearoa New Zealand, and provide a means to continually monitor health outcomes and inequities.



ment Scale

#### **MEDICAL AND HEALTH SCIENCES BUSINESS SCHOOL**

community

engagement

Personal **Covid Infection Characteristics** Long Covid Long Covid Care Presentation Age, ethnicity, Infection date, if **Employment** confirmed via test, gender, education, Health use, C19-YRS, other re-infection, clinical history, Whānau and Current/previous diagnostic tests, symptoms, FAS, vaccination insurance Community employment, time medication, MRC Breathlessstatus, region, NHI history, severity of away from work, management, Caring responsness Scale, illness, healthcare productivity, lost CAMs, challenges ibilities, receiving PHQ-9, GAD-7, due to infection accessing GP/ income, benefits informal/ family EQ-5D-5L incl. ACC, Work referral, stigma, care, changes in out of pocket cost and Social Adjust-







MEDICAL AND HEALTH SCIENCES BUSINESS SCHOOL

#### Noho ora mai!

#### paula.lorgelly@auckland.ac.nz