

Supplementary Material

What is the impact of successive COVID-19 lockdowns on population mental health? Findings from an Australian natural experiment using health service data

Ali Lakhani^{A,B,*} (PhD, Associate Professor in Public Health) and *Vijaya Sundararajan*^C (MD, Associate Professor in Public Health)

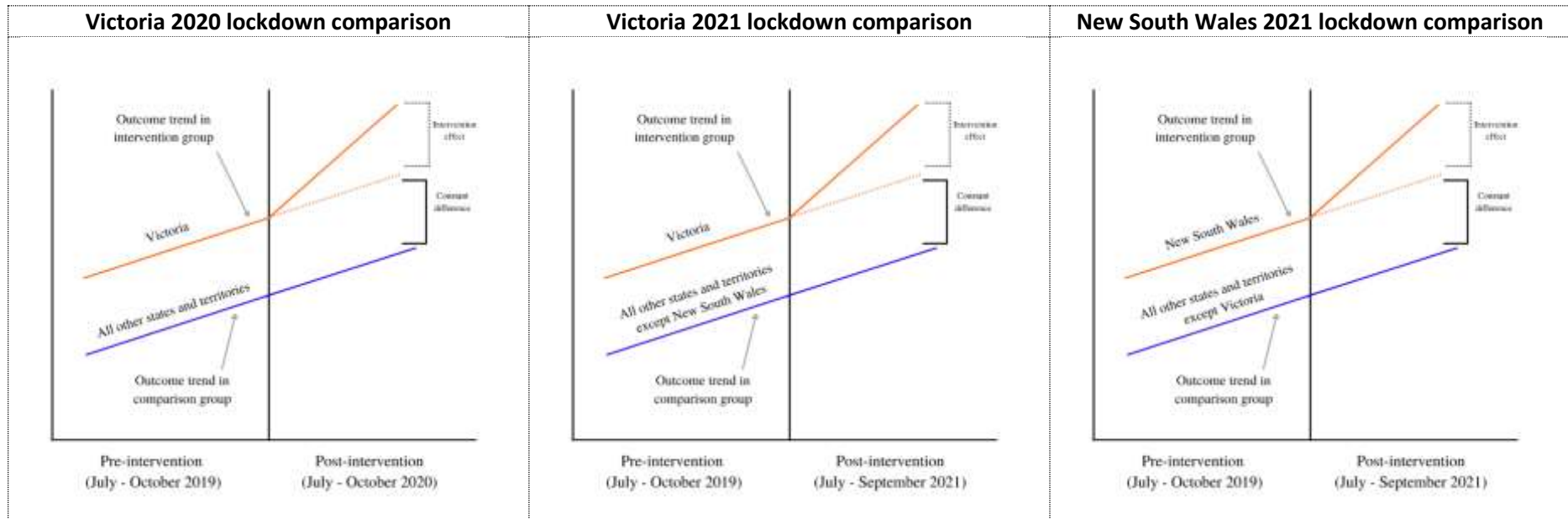
^ASchool of Psychology and Public Health, La Trobe University, 360 Collins Street, Melbourne, Vic 3000, Australia

^BThe Hopkins Centre, Menzies Health Institute Queensland, Griffith University, Logan Campus, University Drive, Meadowbrook, Qld 4131, Australia

^BDepartment of Medicine, St Vincent's Hospital, Melbourne Medical School, University of Melbourne, Regent Street, Fitzroy, Vic 3065, Australia

*Correspondence to: Email: a.lakhani@latrobe.edu.au

Supplemental Figure S1: Lockdown comparisons



Supplemental Table S1: Health services and medicines considered

Provider and Type of Service	Item Code	Scheduled Rebated Amount
General Practitioner Treatment Consultation		
In-person mental health treatment consultation	2713	\$73.95
COVID-19 introduced item: mental health treatment consultation video conference appointment	92115	\$73.95
COVID-19 introduced item: mental health treatment consultation telephone appointment	92127	\$73.95
General Practitioner Preparation of a Mental Health Treatment Plan (between 20 – 40 minutes)		
GP without mental health skills training: in-person attendance	2700	\$55.95
COVID-19 introduced item: video conference appointment with GP without mental health skills training	92112	\$74.60
GP with mental health skills training: in-person attendance	2715	\$71.10
COVID-19 introduced item: video conference appointment with GP with mental health skills training	92116	\$94.75
General Practitioner Preparation of a Mental Health Treatment Plan (at least 40 minutes)		
GP without mental health skills training: in-person attendance	2701	\$82.40
COVID-19 introduced item: video conference appointment with GP without mental health skills training	92113	\$109.85
GP with mental health skills training: in-person attendance	2717	\$104.70
COVID-19 introduced item: video conference appointment with GP with mental health skills training	92117	\$139.55
General Practitioner Mental Health Treatment Plan or Psychiatrist Assessment and Management Plan Review		
In-person attendance	2712	\$55.95
COVID-19 introduced item: video conference appointment	92114	\$74.60
COVID-19 introduced item: telephone appointment	92126	\$74.60
Psychologist Consult (between 20-50 minutes)		
In-person attendance	80100	\$62.00
Videoconference	80101	\$62.00
COVID-19 introduced item: video conference appointment	91169	\$62.00
COVID-19 introduced item: telephone appointment	91183	\$62.00
Psychologist Consult (at least 50 minutes)		
In-person attendance	80110	\$87.45
Videoconference	80111	\$87.45
COVID-19 introduced item: video conference appointment	91170	\$87.45
COVID-19 introduced item: telephone appointment	91184	\$87.45
Clinical Psychologist Consult (between 30-50 minutes)		
In-person attendance	80000	\$87.45
Videoconference	80001	\$87.45
COVID-19 introduced item: video conference appointment	91166	\$87.45
COVID-19 introduced item: telephone appointment	91181	\$87.45
Clinical Psychologist Consult (at least 50 minutes)		
In-person attendance	80010	\$128.40
Videoconference between	80011	\$128.40

COVID-19 introduced item: video conference appointment	91167	\$128.40
COVID-19 introduced item: telephone appointment	91182	\$128.40
Medicine Category and Medicine	Item Code	
Antidepressants: Selective serotonin reuptake inhibitors		
CITALOPRAM	08220P 08702B 08703C	
ESCITALOPRAM	08700X 08701Y 08849R 09432K 09433L 09700M 09711D 09712E 09727Y 09728B 10181W	
FLUOXETINE	01434L 01809F 08270G 12256C	
FLUVOXAMINE	08174F 08512B	
PAROXETINE	02242B 09197C	
SERTRALINE	02236Q 02237R 08836C 08837D 12296E 12299H 12305P 12317G	
Anxiolytics and Hypnotics and Sedatives: Benzodiazepine derivatives and related drugs		
ALPRAZOLAM	02130D 02131E 02132F 04109G 04110H 08118G 11186R 11187T 11205R	
BROMAZEPAM	04150K 04151L	

	04152M
DIAZEPAM	02558P 02669L 03161J 03162K 03458B 05071X 05072Y 05073B 05355W 05356X 05357Y 05358B 06033M 06034N
OXAZEPAM	03132W 03133X 03134Y 03135B 05192G 05193H 05371Q 05372R 05373T 05374W
FLUNITRAZEPAM	04213R
MIDAZOLAM	04216X 10178Q
NITRAZEPAM	02723H 02732T 05189D 05359C 05360D
TEMAZEPAM	02088X 02089Y 02105T 02108Y 05221T 05222W 05375X 05376Y
ZOPICLONE	04522B

Supplemental Table S2: Pearson correlation coefficients to test parallel trends assumption

	GP MH Treatment Plan (between 20-40 minutes)	GP MH Treatment Plan (at least 40 minutes)	GP MH Treatment Plan or Psychiatrist Assessment and Management Plan Review	GP MH Consults	Psychologist Consult (between 20-50 minutes)	Psychologist Consult (at least 50 minutes)	Clinical Psychologist Consult (between 30-50 minutes)	Clinical Psychologist Consult (at least 50 minutes)	Antidepressants: Selective serotonin reuptake inhibitors	Anxiolytics, Hypnotics and Sedatives: Benzodiazepine derivatives and related drugs
Victoria and all other states and territories during January 2018 – June 2020 and November 2020 – June 2021										
NSW	.924**	.929**	.942**	.903**	.854**	.933**	.895**	.940**	.927**	.862**
QLD	.876**	.926**	.953**	.904**	.880**	.942**	.890**	.920**	.789**	.743**
SA	.918**	.928**	.939**	.874**	.641**	.912**	.883**	.928**	.796**	.722**
WA	.731**	.856**	.914**	.912**	.880**	.858**	.087	.917**	.786**	.645**
TAS	.920**	.887**	.863**	.767**	.664**	.924**	.740**	.900**	.778**	.634**
ACT	.754**	.862**	.819**	.854**	.661**	.892**	-.063	.865**	.843**	.568**
NT	.545**	.468**	.706**	.673**	.720**	.779**	.753**	.691**	.715**	.728**
New South Wales and all other states and territories during January 2018 – June 2020 and November 2020 – June 2021										
VIC	.924**	.929**	.942**	.903**	.854**	.933**	.895**	.940**	.927**	.862**
QLD	.973**	.959**	.961**	.969**	.839**	.915**	.959**	.942**	.708**	.636**
SA	.959**	.939**	.965**	.930**	.581**	.865**	.857**	.929**	.769**	.693**
WA	.881**	.895**	.950**	.919**	.817**	.942**	.281	.960**	.749**	.587**
TAS	.926**	.900**	.884**	.826**	.729**	.907**	.773**	.906**	.754**	.588**
ACT	.907**	.903**	.918**	.905**	.715**	.875**	.007	.958**	.841**	.461**
NT	.697**	.590**	.789**	.652**	.783**	.863**	.859**	.768**	.636**	.721**