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Supplementary Material

Patient demographics and psychotropic medication prescribing in Australian general practices: pre- and during COVID-19 pandemic

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Table S1: Demographic characteristics associated with prescribing psychotropic medications (antidepressant, antipsychotics, anxiolytics and hypnotics and sedatives) at general practice in NSW and Victoria, 2018-2022.

Variable	Antidepressant	Antipsychotics	Anxiolytics	Hypnotics and sedatives
	IRR* (95% CI)	IRR (95% CI)	IRR (95% CI)	IRR (95% CI)
Sex of Patient				
Female	Ref			
Male	0.95 (0.94, 0.97)	1.02 (0.99, 1.04)	1.01 (0.99, 1.04)	0.97 (0.96, 0.99)
Age category				
20-39	Ref			
40-59	1.07 (1.05, 1.08)	0.96 (0.94, 0.99)	1.01 (0.98, 1.04)	1.01 (0.99, 1.03)
60+	1.54 (1.51, 1.56)	1.34 (1.30, 1.38)	1.41 (1.36, 1.45)	1.46 (1.43, 1.50)
SES				
High	Ref			
High-mid	1.08 (1.06, 1.10)	1.12 (1.08, 1.17)	1.16 (1.12, 1.21)	1.11 (1.08, 1.14)
Mid	1.24 (1.18, 1.30)	1.37 (1.24, 1.52)	1.36 (1.23, 1.51)	1.24 (1.15, 1.34)
Low-mid	1.09 (1.06, 1.12)	1.15 (1.09, 1.21)	1.14 (1.07, 1.20)	1.14 (1.09, 1.18)
Low	1.14 (1.10, 1.18)	1.27 (1.20, 1.36)	1.12 (1.04, 1.21)	1.14 (1.07, 1.20)
State				
NSW	Ref			
Victoria	0.98 (0.95, 1.01)	0.99 (0.95, 1.06)	0.94 (0.89, 0.99)	0.97 (0.93, 1.01)
Region				
Metropolitan	Ref			
Regional	1.02 (0.99, 1.04)	1.06 (1.01, 1.10)	1.02 (0.98, 1.06)	1.06 (1.03, 1.10)
Year of first prescription				
2018	Ref			
2019	1.03 (1.01, 1.04)	1.02 (0.99, 1.05)	1.11 (1.07, 1.14)	1.03 (1.01, 1.05)
2020	1.29 (1.27, 1.32)	1.40 (1.35, 1.45)	1.46 (1.40, 1.52)	1.38 (1.34, 1.42)
2021	1.77 (1.73, 1.81)	2 (1.89, 2.08)	2.09 (1.99, 2.20)	1.90 (1.84, 1.97)
2022	3.55 (3.44, 3.65)	4.48 (4.40, 4.78)	4.79 (4.48, 5.12)	4.60 (4.38, 4.82)

*IRR estimate for each variable is adjusted for the rest of variables in the table; IRR = Incidence Risk ratio; Ref = Reference category; SES = Socio-Economic Status

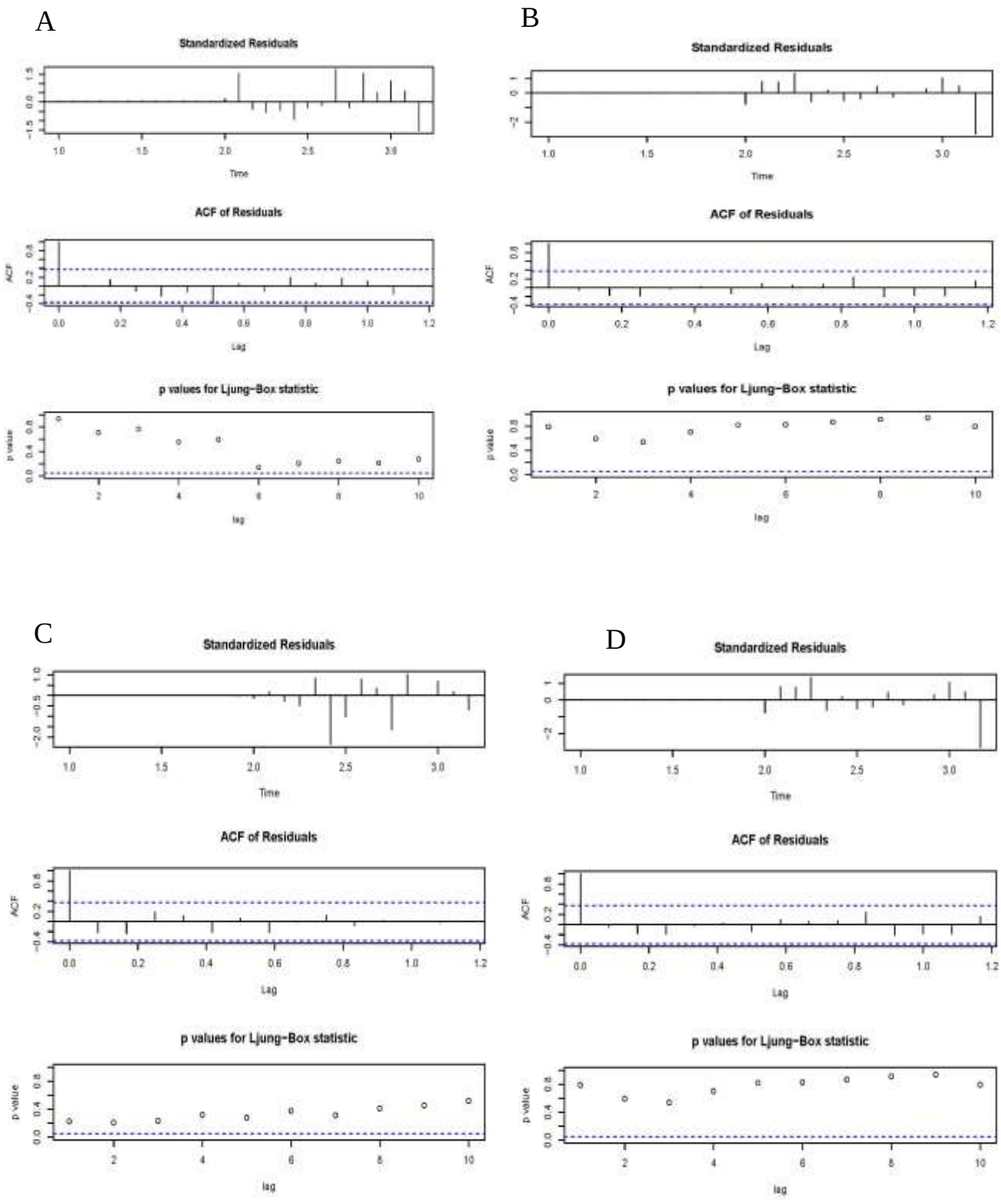
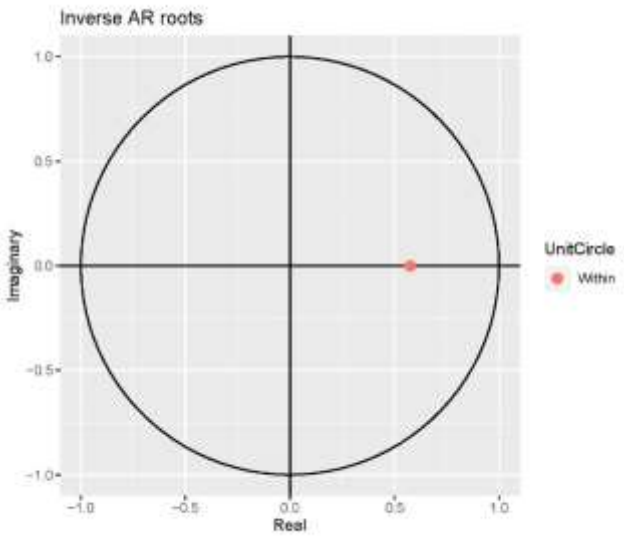


Figure S1a: Residual plots for antidepressant (A), antipsychotics (B), anxiolytics (C) and hypnotics and sedatives (D) SARIMA models: almost all of the residual diagnostic plots stabilised around zero within the blue lines, indicating that the mode fits the data well.

A



B

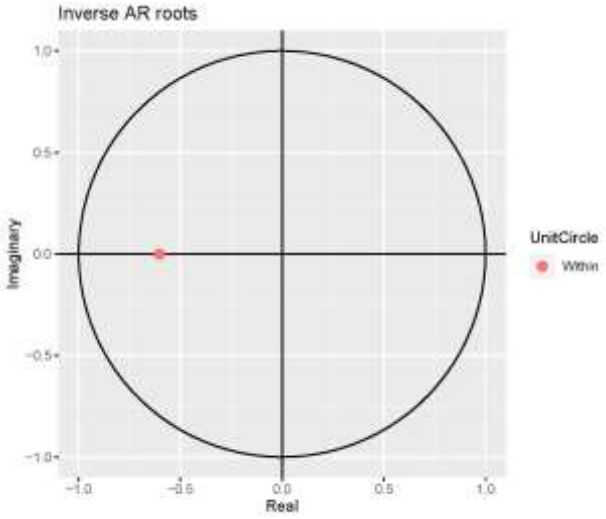


Figure S1b: Inverse AR plots for Antidepressant (A) and Anxiolytics (B) SARIMA model: dots inside the unit circle indicates the model fit to the date:

Note: the inverse AR plot is not generated for the antipsychotics and hypnotics and sedatives models, given the SARIMA model automatically chosen "(0,0,0) (0,1,0) with drift", which suggests that the main features of the data are a constant trend and a repeating seasonal pattern every year, without relying on past values or past forecast errors.

Table S2: SARIMA Model diagnostic statistics: Ljung-Box test > 0.05 indicates the model fits the data.

SARIMA Model	**P-value (Ljung-Box test)**
Antidepressant	0.243
Antipsychotics	0.788
Anxiolytics	0.608
Hypnotics and sedatives	0.634

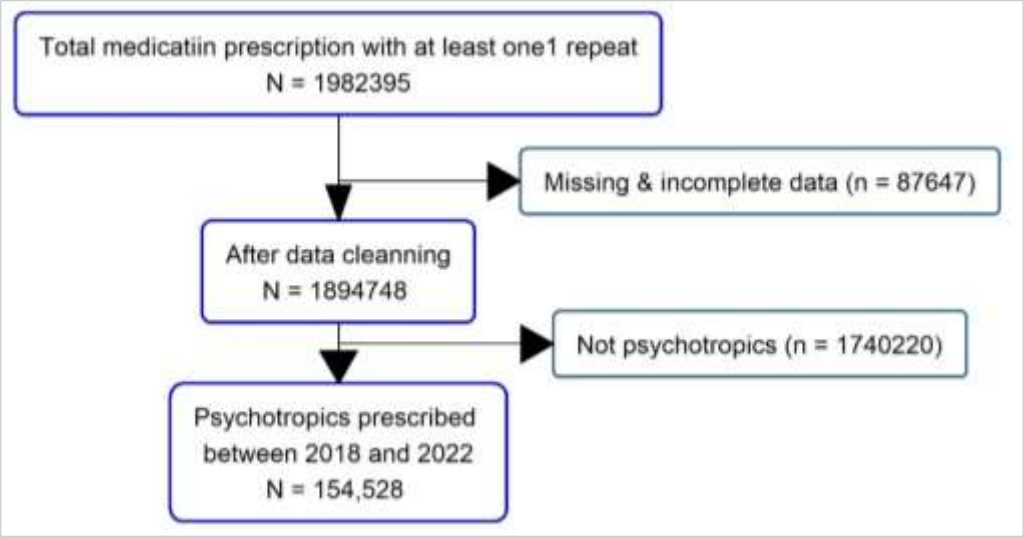


Figure S2: sampling flow chart at general practice in NSW and Victoria, 2018-2022.