

## Supplementary Material

### Appendix 1. Sampling frame and area descriptors of responding pharmacies

State/ Territory	ACT	NSW	NT	QLD	SA	TAS	VIC	WA	Not listed *	Total
Pharmacies invited, n (%)	41	598	30	422	254	117	537	150	-	2149
Responses received, n (%)	9 (22.0)	80 (13.4)	5 (16.7)	84 (19.9)	43 (16.9)	32 (27.4)	80 (14.0)	33 (22.0)	1	366
DPA, n (%)	6 (66.7)	24 (30.0)	5 (100)	21 (25.0)	20 (47.6)	24 (75.0)	25 (31.3)	9 (27.3)	1 (100)	134 (34.6)
Location IRSD	85.7 <sup>a</sup> (11.5)	44.2 <sup>a</sup> (31.3)	40.0 <sup>b</sup> (15- 69)	43.9 <sup>a</sup> (30.7)	34 <sup>b</sup> (15- 74)	31.0 <sup>a</sup> (22.0)	54.8 <sup>a</sup> (30.4)	51.5 <sup>b</sup> (30- 83)	-	46.27 <sup>a</sup> (31.3)
Rural or remote location, n (%)	1 (11.1)	27 (33.8)	1 (20.0)	21 (25.0)	20 (47.5)	12 (37.5)	19 (23.8)	6 (18.2)	-	105 (28.8)

ACT=Australian Capital Territory; NSW= New South Wales; NT= Northern Territory;

QLD=Queensland' SA=South Australia; TAS=Tasmania; VIC=Victoria; WA= Western Australia;

DPA=Distribution Priority Area, indicating the lack of supply of general practitioners within localities;

IRSD=Index of Relative Socioeconomic Disadvantage percentile, where 1=highest relative disadvantage and 100=lowest relative disadvantage

\*Identification number on completed survey illegible – removed by the respondent

<sup>a</sup>mean (standard deviation)

<sup>b</sup>median (interquartile range)

## Appendix 2. Comparison of respondent characteristics with demographics characteristics of registered, practicing pharmacists in Australia

	Sample (n=366)	National	$\chi^2$ (df), p
Sector <sup>a</sup>			
Community pharmacy	366 (100)	16,174 (64.3)	-
Other	-	8965 (35.7)	
Gender <sup>b</sup>			0.2 (1), 0.7
Woman	228 (63.2)	21481 (63.0)	
Man	128 (35.5)	12631 (37.0)	
Age <sup>b</sup>			14.1 (3), 0.003
<30	111 (31.4)	7936 (23.3)	
30-39	120 (34.0)	12674 (37.2)	
40-49	51 (14.5)	6259 (18.3)	
50+	71 (20.1)	7243 (21.2)	
State <sup>b</sup>			75.8 (7), <0.001
ACT	9 (2.5)	699 (2.0)	
NSW	80 (21.9)	10245 (30.0)	
NT	5 (1.4)	279 (0.8)	
QLD	84 (23.0)	6885 (20.2)	
SA	43 (11.7)	2430 (7.1)	
TAS	32 (8.7)	888 (2.6)	
VIC	80 (21.9)	8770 (25.7)	
WA	33 (9.0)	3710 (10.9)	
Location <sup>a</sup>			76.2 (3), <0.001
Metropolitan	215 (58.9)	19460 (77.4)	
Regional	45 (12.3)	2123 (8.4)	
Rural	95 (26.0)	3251 (12.9)	
Remote	10 (2.7)	304 (1.2)	

National data includes practicing registered pharmacists working across pharmacy sectors.

<sup>a</sup>National data (2018),[25] n=25138

<sup>b</sup>National data (2021) obtained from Pharmacy Board of Australia Registrant Data 2021,[15] n=34112

### Appendix 3. Knowledge test results comparing the odds of correct versus incorrect/unsure responses

	Correct, n (%)	Incorrect/unsure, n (%)	Total n	Odds correct (95%CI) <sup>a</sup>
The contraceptive injection should be administered every 6 months [Correct answer is "False"]	306 (85.47)	52 (14.53)	358	5.88 (4.39-7.90) <sup>a</sup>
The IUD is a safe and appropriate contraceptive choice for teenagers according to the World Health Organization Medical Eligibility for Contraceptive Use [Correct answer is "True"]	145 (40.62)	212 (59.38)	357	0.68 (0.55-0.84) <sup>a</sup>
The contraceptive implant (Implanon NXT) is not covered by a health care card and may cost around \$120 [correct answer is "False"]	337 (94.40)	20 (5.60)	357	16.85 (10.73-26.45) <sup>a</sup>
The levonorgestrel IUD (e.g. Mirena) may cause periods to be heavier and last longer, whereas the Copper IUD may cause periods to be shorter and lighter or for there to be no bleeding at all [Correct answer is "False"]	210 (60.85)	139 (39.15)	355	1.55 (1.25-1.92) <sup>a</sup>
In Australia, Mirena is approved for use for up to 5 years [Correct answer is "True"]	311 (87.11)	46 (12.89)	357	6.76 (4.96-9.21) <sup>a</sup>
The 'real-world' effectiveness of the combined oral contraceptive pill is typically less than an IUD [correct answer is "True"]	221 (62.07)	135 (37.92)	356	1.64 (1.32-2.03) <sup>a</sup>
Drospirenone-containing combined contraceptives are associated with a greater risk of venous thrombotic events than levonorgestrel-containing combined contraceptives [correct answer is "True"]	221 (63.14)	129 (36.86)	356	1.73 (1.38-2.13) <sup>a</sup>

<sup>a</sup>p<0.001

IUD=Intrauterine device