

# Seroprevalence of SARS-CoV-2-specific antibodies among Australian blood donors: Supplementary materials

26 July 2022

## Purpose of this document

The Australian COVID-19 Serosurveillance Network is conducting a series of regular serological surveys during 2022 among Australian blood donors (aged 18 years and over) to estimate SARS-CoV-2 seroprevalence following vaccine roll out and SARS-CoV-2 circulation throughout Australia. The surveys are being conducted every 13 weeks (approximately) with two serosurvey rounds completed to date:

- [Round 1: 23 February – 3 March 2022](#)
- [Round 2: 9 June – 18 June 2022](#)
- Round 3: Scheduled for September 2022
- Round 4: Scheduled for December 2022

This document contains information on survey populations at each round and all results in table format.

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## 1. Anti-spike protein seroprevalence

**Table 1.** Crude SARS-CoV-2 anti-spike protein seroprevalence among Australian blood donors by jurisdiction, age group and sex, 23 February – 3 March 2022 (Round 1)

	<b>Overall</b> n/N (%; 95% CI)	<b>Victoria</b> n/N (%; 95% CI)	<b>NSW</b> n/N (%; 95% CI)	<b>Queensland</b> n/N (%; 95% CI)	<b>WA</b> n/N (%; 95% CI)	<b>SA</b> n/N (%; 95% CI)	<b>Tasmania</b> n/N (%; 95% CI)	<b>NT</b> n/N (%; 95% CI)	<b>ACT</b> n/N (%; 95% CI)
<b>Overall</b>	5089/5185 (98.1; 97.7–98.5)	1086/1099 (98.8; 98.0–99.4)	1136/1155 (98.4; 97.4–99.0)	1095/1135 (96.5; 95.2–97.5)	983/999 (98.4; 97.4–99.1)	202/205 (98.5; 95.8–99.7)	214/216 (99.1; 96.7–99.9)	196/199 (98.5; 95.7–99.7)	177/177 (100; 97.9–100)
<b>Age group (years)</b>									
18–29	1147/1160 (98.9; 98.1–99.4)	228/228 (100; 98.4–100)	257/260 (98.8; 96.7–99.8)	288/292 (98.6; 96.5–99.6)	205/210 (97.6; 94.5–99.2)	37/38 (97.4; 86.2–99.9)	30/30 (100; 88.4–100)	51/51 (100; 93.0–100)	51/51 (100; 93.0–100)
30–39	973/993 (98.0; 96.9–98.8)	196/200 (98.0; 95.0–99.5)	233/235 (99.1; 97.0–99.9)	207/215 (96.3; 92.8–98.4)	199/203 (98.0; 95.0–99.5)	25/26 (96.2; 80.4–99.9)	39/39 (100; 91.0–100)	49/50 (98.0; 89.4–99.9)	25/25 (100; 86.3–100)
40–49	871/895 (97.3; 96.0–98.3)	201/202 (99.5; 97.3–100)	193/202 (95.5; 91.7–97.9)	182/190 (95.8; 91.9–98.2)	183/187 (97.9; 94.6–99.4)	25/25 (100; 86.3–100)	32/33 (97.0; 84.2–99.9)	18/19 (94.7; 74.0–99.9)	37/37 (100; 90.5–100)
50–59	951/972 (97.8; 96.7–98.7)	218/223 (97.8; 94.8–99.3)	188/189 (99.5; 97.1–100)	198/211 (93.8; 89.7–96.7)	183/184 (99.5; 97.0–100)	49/49 (100; 92.7–100)	49/50 (98.0; 89.4–99.9)	38/38 (100; 90.7–100)	28/28 (100; 87.7–100)
60–69	838/852 (98.4; 97.3–99.1)	180/183 (98.4; 95.3–99.7)	190/192 (99.0; 96.3–99.9)	163/168 (97.0; 93.2–99.0)	153/155 (98.7; 95.4–99.8)	51/52 (98.1; 89.7–100)	46/46 (100; 92.3–100)	33/34 (97.1; 84.7–99.9)	22/22 (100; 84.6–100)
70–89	309/313 (98.7; 96.8–99.7)	63/63 (100; 94.3–100)	75/77 (97.4; 90.9–99.7)	57/59 (96.6; 88.3–99.6)	60/60 (100; 94.0–100)	15/15 (100; 78.2–100)	18/18 (100; 81.5–100)	7/7 (100; 59.0–100)	14/14 (100; 76.8–100)
<b>Sex</b>									
Male	2955/3017 (97.9; 97.4–98.4)	625/634 (98.6; 97.3–99.3)	635/646 (98.3; 97.0–99.1)	667/696 (95.8; 94.1–97.2)	604/611 (98.9; 97.7–99.5)	123/126 (97.6; 93.2–99.5)	102/104 (98.1; 93.2–99.8)	103/104 (99.0; 94.8–100)	96/96 (100; 96.2–100)
Female	2134/2168 (98.4; 97.8–98.9)	461/465 (99.1; 97.8–99.8)	501/509 (98.4; 96.9–99.3)	428/439 (97.5; 95.6–98.7)	379/388 (97.7; 95.6–98.9)	79/79 (100; 95.4–100)	112/112 (100; 96.8–100)	93/95 (97.9; 92.6–99.7)	81/81 (100; 95.5–100)

**Table 2.** Crude SARS-CoV-2 anti-spike protein seroprevalence among Australian blood donors, by jurisdiction, age group and sex, 9 June – 18 June 2022 (Round 2)

	<b>Overall</b> n/N (%; 95% CI)	<b>Victoria</b> n/N (%; 95% CI)	<b>NSW</b> n/N (%; 95% CI)	<b>Queensland</b> n/N (%; 95% CI)	<b>WA</b> n/N (%; 95% CI)	<b>SA</b> n/N (%; 95% CI)	<b>Tasmania</b> n/N (%; 95% CI)	<b>NT</b> n/N (%; 95% CI)	<b>ACT</b> n/N (%; 95% CI)
<b>Overall</b>	5086/5139 (99.0; 98.7–99.2)	1028/1035 (99.3; 98.6–99.7)	1214/1226 (99.0; 98.3–99.5)	1128/1226 (98.5; 97.6–99.1)	971/982 (98.9; 98.0–99.4)	209/210 (99.5; 97.4–100)	199/203 (98.0; 95.0–99.5)	173/174 (99.4; 96.8–100)	164/164 (100; 97.8–100)
<b>Age group (years)</b>									
18–29	1122/ 1127 (99.6; 99.0–99.9)	236/ 237 (99.6; 97.7–100)	304/ 305 (99.7; 96.7–99.8)	253/254 (99.6; 97.8–100)	190/191 (99.5; 97.1–100)	36/36 (100; 90.3–100)	26/27 (96.3; 91.0–99.9)	36/36 (100; 93.0–100)	41/41 (100; 91.4–100)
30–39	1046/ 1056 (99.1; 98.3–99.5)	214/ 214 (100; 98.3–100)	243/248 (98.0; 95.4–99.3)	230/233 (98.7; 96.3–99.7)	211/213 (99.1; 96.6–99.9)	40/40 (100; 91.2–100)	40/40 (100; 91.2–100)	41/41 (100; 91.4–100)	27/27 (100; 87.2–100)
40–49	903/ 914 (98.8; 97.9–99.4)	166/ 167 (99.4; 96.7–100)	203/203 (100; 98.2–100)	191/195 (97.9; 94.8–99.4)	198/202 (98.0; 95.0–99.5)	35/35 (100; 90.0–100)	29/31 (93.6; 78.6–99.2)	46/46 (100; 92.3–100)	35/35 (100; 90.0–100)
50–59	982/ 993 (98.9; 98.0–99.4)	199/ 203 (98.0; 95.0–99.5)	209/211 (99.1; 96.6–100)	244/244 (100; 98.5–100)	196/198 (99.0; 96.4–99.9)	39/40 (97.5; 86.6–99.9)	39/40 (97.5; 86.8–99.9)	23/24 (95.8; 78.9–99.9)	33/33 (100; 89.4–100)
60–69	772/ 781 (98.8; 97.8–99.5)	168/ 169 (99.4; 96.7–100.0)	197/198 (99.5; 97.2–100)	151/158 (95.6; 91.1–98.2)	128/128 (100; 97.2–100)	37/37 (100; 90.5–100)	48/48 (100; 92.6–100)	20/20 (100; 83.2–100)	23/23 (100; 85.2–100)
70–89	261/ 268 (97.4; 94.7–98.9)	45/45 (100; 92.1–100)	58/61 (95.1; 86.3–99.5)	59/61 (96.7; 88.7–99.6)	60/60 (96.0; 86.3–99.5)	22/22 (100; 84.6–100)	17/17 (100; 80.5–100)	7/7 (100; 59.0–100)	5/5 (100; 47.8–100)
<b>Sex</b>									
Male	2839/2876 (98.7; 98.2–99.1)	556/561 (99.1; 97.9–99.7)	657/667 (98.5; 97.3–99.3)	656/670 (97.9; 96.5–98.9)	569/574 (99.1; 98.0–99.7)	114/115 (99.1; 95.3–100)	110/112 (98.2; 93.7–99.8)	92/92 (100; 96.1–100)	85/85 (100; 95.8–100)
Female	2247/2263 (99.3; 98.9–99.6)	472/474 (99.6; 98.5–99.9)	557/559 (99.6; 98.7–100)	472/475 (99.4; 98.2–99.9)	402/408 (98.5; 96.8–99.5)	95/95 (100; 96.2–100)	89/91 (97.8; 92.3–99.7)	81/82 (98.8; 93.4–100)	79/79 (100; 95.4–100)

## 2. Anti-nucleocapsid protein seroprevalence

**Table 3.** Crude SARS-CoV-2 anti-nucleocapsid protein seroprevalence among Australian blood donors, by jurisdiction, age group and sex, 23 February – 3 March 2022 (Round 1)

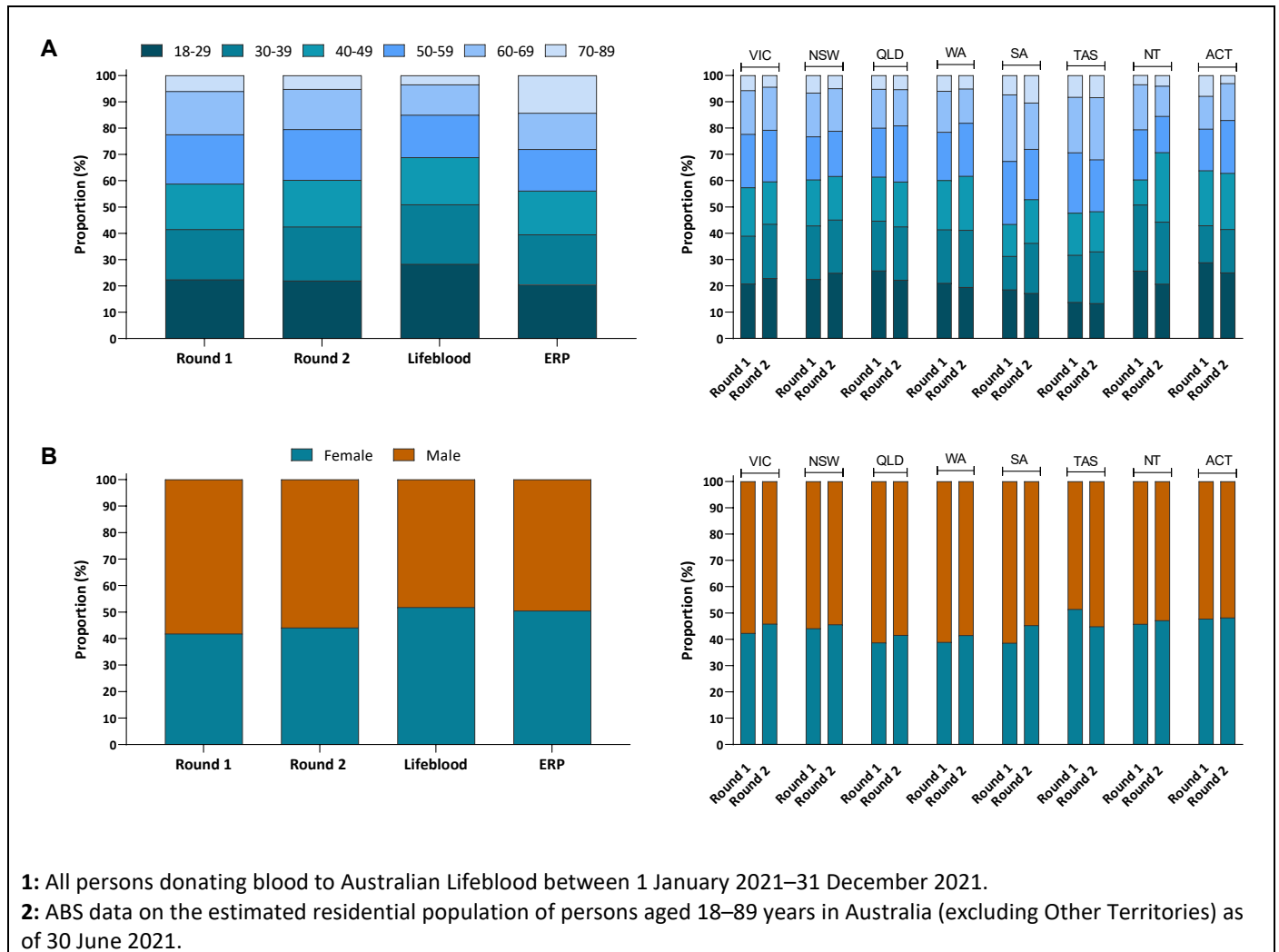
	<b>Overall</b> n/N (%; 95% CI)	<b>Victoria</b> n/N (%; 95% CI)	<b>NSW</b> n/N (%; 95% CI)	<b>Queensland</b> n/N (%; 95% CI)	<b>WA</b> n/N (%; 95% CI)	<b>SA</b> n/N (%; 95% CI)	<b>Tasmania</b> n/N (%; 95% CI)	<b>NT</b> n/N (%; 95% CI)	<b>ACT</b> n/N (%; 95% CI)
<b>Overall</b>	881/5185 (17.0; 16.0–18.0)	248/1099 (22.6; 20.1–25.2)	247/1155 (21.4; 19.1–23.9)	293/1135 (25.8; 23.3–28.5)	5/999 (0.5; 0.2–1.2)	21/205 (10.2; 6.5–15.2)	13/216 (6.0; 3.2–10.1)	29/199 (14.6; 10.0–20.3)	25/177 (14.1; 9.4–20.1)
<b>Age group (years)</b>									
18–29	315/1160 (27.2; 24.6–29.8)	78/228 (34.2; 28.1–40.8)	74/260 (28.5; 23.1–34.4)	123/292 (42.1; 36.4–48.0)	2/210 (1.0; 0.1–3.4)	8/38 (21.1; 9.6–37.3)	7/30 (23.3; 9.9–42.3)	11/51 (21.6; 11.3–35.3)	12/51 (23.5; 12.8–37.5)
30–39	215/993 (21.7; 19.1–24.3)	50/200 (25.0; 19.2–31.6)	72/235 (30.6; 24.8–37.0)	64/215 (29.8; 23.7–36.4)	2/203 (1.0; 0.1–3.5)	3/26 (11.5; 2.4–30.2)	3/39 (7.7; 1.6–20.9)	16/50 (32.0; 19.5–46.7)	5/25 (20.0; 6.8–40.7)
40–49	144/895 (16.1; 13.7–18.7)	42/202 (20.8; 15.4–27.0)	48/202 (23.8; 18.1–30.2)	45/190 (23.7; 17.8–30.4)	1/187 (0.5; 0–2.9)	3/25 (12.0; 2.5–31.2)	0/33 (0; 0–10.6)	0/19 (0; 0–17.6)	5/37 (13.5; 4.5–28.8)
50–59	116/972 (11.9; 10.0–14.1)	41/223 (18.4; 13.5–24.1)	30/189 (15.9; 11.0–21.9)	36/211 (17.1; 12.2–22.8)	0/184 (0; 0–2.0)	4/49 (8.2; 2.3–19.6)	2/50 (4.0; 0.5–13.7)	1/38 (2.6; 0.1–13.8)	2/28 (7.1; 0.9–22.8)
60–69	71/852 (8.3; 6.6–10.4)	30/183 (16.4; 11.3–22.6)	19/192 (9.9; 6.1–15.0)	19/168 (11.3; 6.9–17.1)	0/155 (0; 0–2.4)	1/52 (1.9; 2.3–19.6)	0/46 (0; 0–7.7)	1/34 (2.9; 0.1–15.3)	1/22 (4.5; 0.1–22.8)
70–89	20/313 (6.4; 3.9–9.7)	7/63 (11.1; 4.6–21.6)	4/77 (5.2; 1.4–12.8)	6/59 (10.2; 3.8–20.8)	0/60 (0; 0–6.0)	2/15 (13.3; 1.7–40.5)	1/18 (5.6; 0.1–27.3)	0/7 (0; 0–41.0)	0/14 (0; 0–23.2)
<b>Sex</b>									
Male	499/3017 (16.5; 15.2–17.9)	143/634 (22.6; 19.4–26.0)	134/646 (20.7; 17.7–24.1)	170/696 (24.4; 21.3–27.8)	4/611 (0.7; 0.2–1.7)	13/126 (10.3; 5.6–17.0)	4/104 (3.8; 1.1–9.6)	14/104 (13.5; 7.6–21.6)	17/96 (17.7; 10.7–26.8)
Female	382/2168 (17.6; 16.0–19.3)	105/465 (22.6; 18.9–26.7)	113/509 (22.2; 18.7–26.1)	123/439 (28.0; 23.9–32.5)	1/388 (0.3; 0–1.4)	8/79 (10.1; 4.5–19.0)	9/112 (8.0; 3.7–14.7)	15/95 (15.8; 9.1–24.7)	8/81 (9.9; 4.4–18.5)

**Table 4.** Crude SARS-CoV-2 anti-nucleocapsid protein seroprevalence among Australian blood donors, by jurisdiction, age group and sex, 9 June – 18 June 2022 (Round 2)

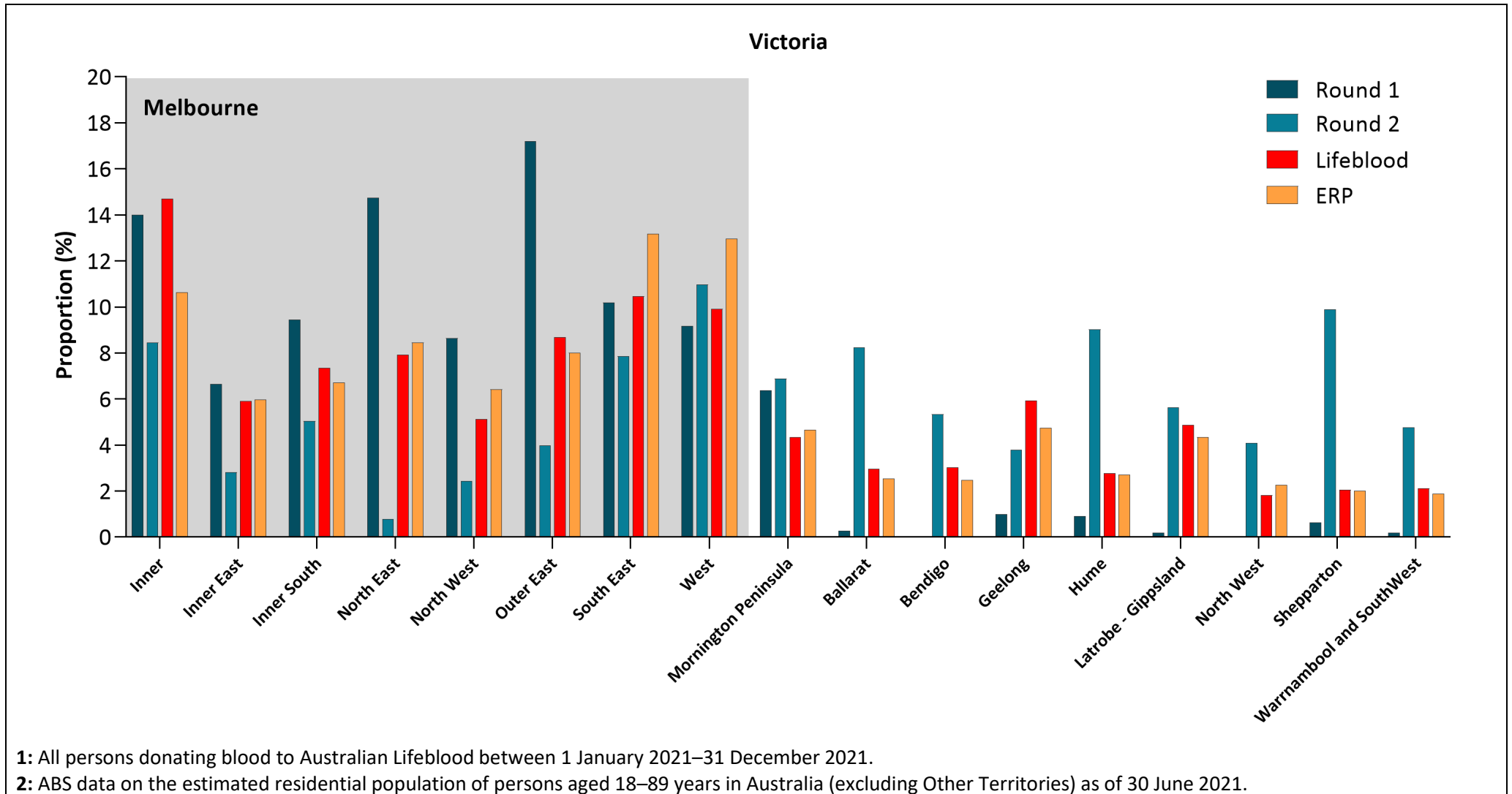
	<b>Overall</b> n/N (%; 95% CI)	<b>Victoria</b> n/N (%; 95% CI)	<b>NSW</b> n/N (%; 95% CI)	<b>Queensland</b> n/N (%; 95% CI)	<b>WA</b> n/N (%; 95% CI)	<b>SA</b> n/N (%; 95% CI)	<b>Tasmania</b> n/N (%; 95% CI)	<b>NT</b> n/N (%; 95% CI)	<b>ACT</b> n/N (%; 95% CI)
<b>Overall</b>	2375/5139 (46.2; 44.8–47.6)	513/ 1,035 (49.6; 46.5–52.7)	611/1226 (49.8; 47.0–52.7)	560/1145 (48.9; 46.0–51.8)	368/982 (37.5; 34.4–40.6)	88/210 (41.9; 35.2–48.9)	81/203 (39.9; 33.1–47.0)	80/174 (46.0; 38.4–53.7)	74/164 (45.1; 37.4–53.1)
<b>Age group (years)</b>									
18–29	695/ 1127 (61.7; 58.8–64.5)	164/237 (69.2; 62.9–75.0)	196/ 305 (64.3; 58.6–69.6)	161/254 (63.4; 57.1–69.3)	91/191 (47.6; 40.4–55.0)	19/36 (52.8; 35.5–69.6)	16/27 (59.3; 38.8–77.6)	27/36 (75.0; 57.8–87.9)	21/41 (51.2; 35.1–67.1)
30–39	555/1056 (52.6; 49.5–55.6)	122/214 (57.0; 50.1–63.7)	133/248 (53.6; 47.2–60.0)	128/233 (54.9; 48.3–61.4)	97/213 (45.5; 38.7–52.5)	23/40 (57.5; 40.9–73.0)	23/40 (57.5; 40.9–73.0)	17/41 (41.5; 26.3–57.9)	12/27 (44.4; 25.5–64.7)
40–49	434/914 (47.5; 44.2–50.8)	72/167 (43.1; 35.5–51.0)	112/203 (55.2; 48.1–62.1)	90/195 (46.2; 39.0–53.4)	90/202 (44.6; 37.6–51.7)	15/35 (42.9; 26.3–60.6)	15/31 (48.4; 30.2–66.9)	19/46 (41.3; 27.0–56.8)	21/35 (60.0; 42.1–76.1)
50–59	386/993 (38.9; 35.8–42.0)	84/203 (41.4; 34.5–48.5)	89/211 (42.2; 35.4–49.2)	103/244 (42.2; 35.9–48.7)	62/198 (31.3; 24.9–38.3)	18/40 (45.0; 29.3–61.5)	12/40 (30.0; 16.6–46.5)	8/24 (33.3; 15.6–55.3)	10/33 (30.3; 15.6–48.7)
60–69	236/781 (30.2; 27.0–33.6)	61/169 (36.1; 28.9–43.8)	60/198 (30.3; 24.0–37.2)	58/158 (36.7; 29.2–44.7)	23/128 (18.0; 11.7–25.7)	6/37 (16.2; 6.2–32.0)	11/48 (22.9; 12.0–37.3)	8/20 (40.0; 19.1–63.9)	9/23 (39.1; 19.7–61.5)
70–89	69/268 (25.7; 20.6–31.4)	10/45 (22.2; 11.2–37.1)	21/61 (34.4; 47.0–47.7)	20/61 (32.8; 21.3–46.0)	5/60 (10.0; 3.3–21.8)	7/22 (31.8; 13.9–54.9)	4/17 (23.5; 6.8–49.9)	1/7 (14.3; 0.4–57.9)	1/5 (20.0; 0.5–71.6)
<b>Sex</b>									
Male	1270/2876 (44.2; 42.3–46.0)	269/561 (48.0; 43.7–52.2)	320/667 (48.0; 44.1–51.8)	303/670 (45.2; 41.1–49.1)	208/574 (36.2; 32.3–44.1)	44/115 (38.2; 29.4–47.8)	43/112 (38.4; 29.4–48.1)	45/92 (48.9; 38.3–59.6)	38/85 (44.7; 33.9–55.9)
Female	1105/2263 (48.8; 46.8–50.9)	244/474 (51.5; 46.9–56.1)	291/559 (52.1; 47.8–56.3)	257/475 (54.1; 49.5–58.7)	160/408 (39.2; 34.5–44.1)	44/95 (46.3; 36.0–56.9)	38/91 (41.8; 31.5–52.6)	35/82 (42.7; 31.8–54.1)	36/79 (45.6; 34.3–57.2)

### 3. Demographic characteristics of study populations

**Figure S1.** Distribution of demographic characteristics among samples collected in Round 1 and Round 2 compared with the broader blood donor population<sup>1</sup> and Estimated Residential Population (ERP)<sup>2</sup>, by age group (A) and sex (B) for each jurisdiction

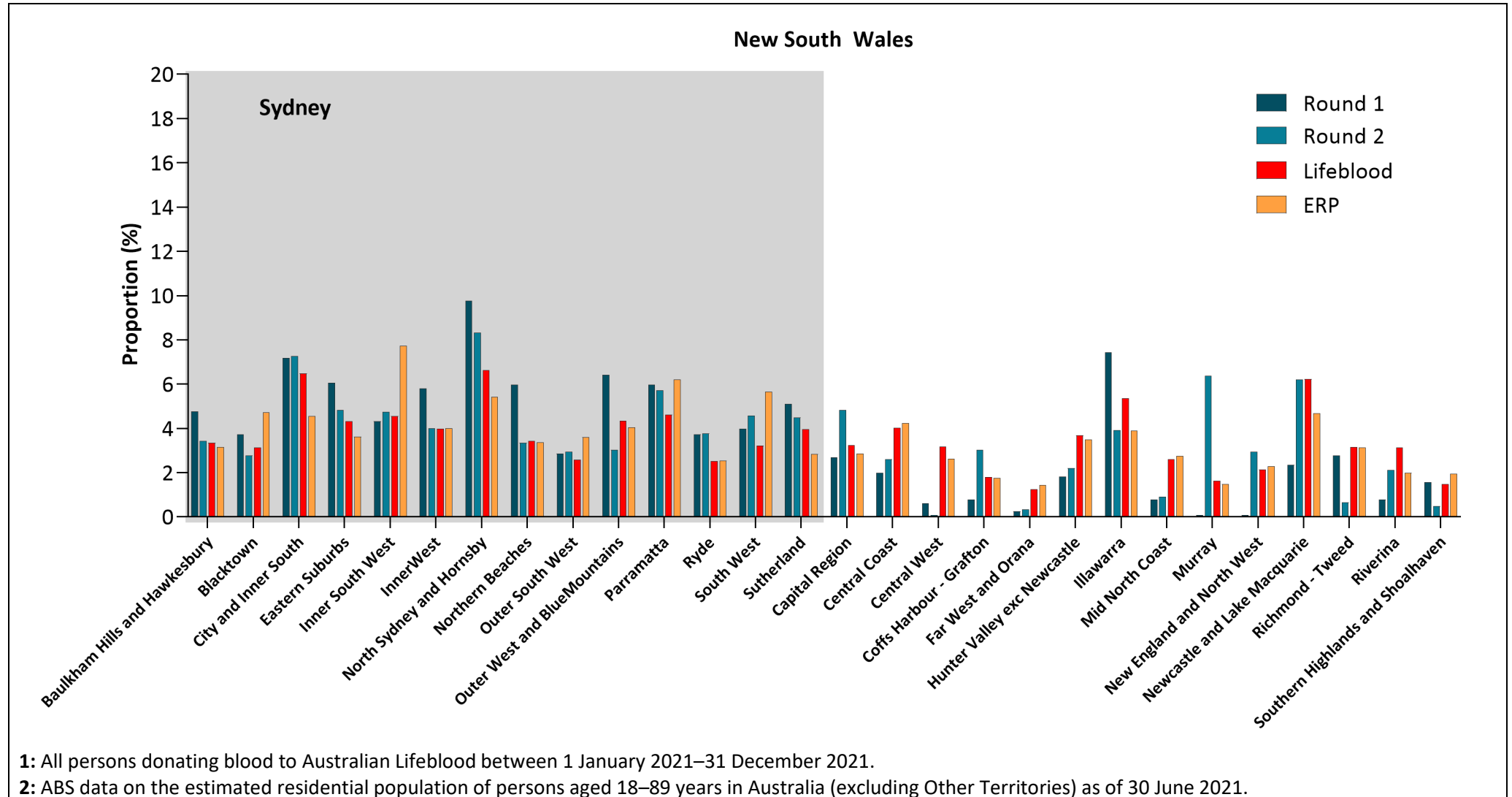


**Figure S2.** Distribution of demographic characteristics by Statistical Area Level 4 (SA4) in Victoria compared with the broader blood donor population<sup>1</sup> and Estimated Residential Population (ERP)<sup>2</sup>

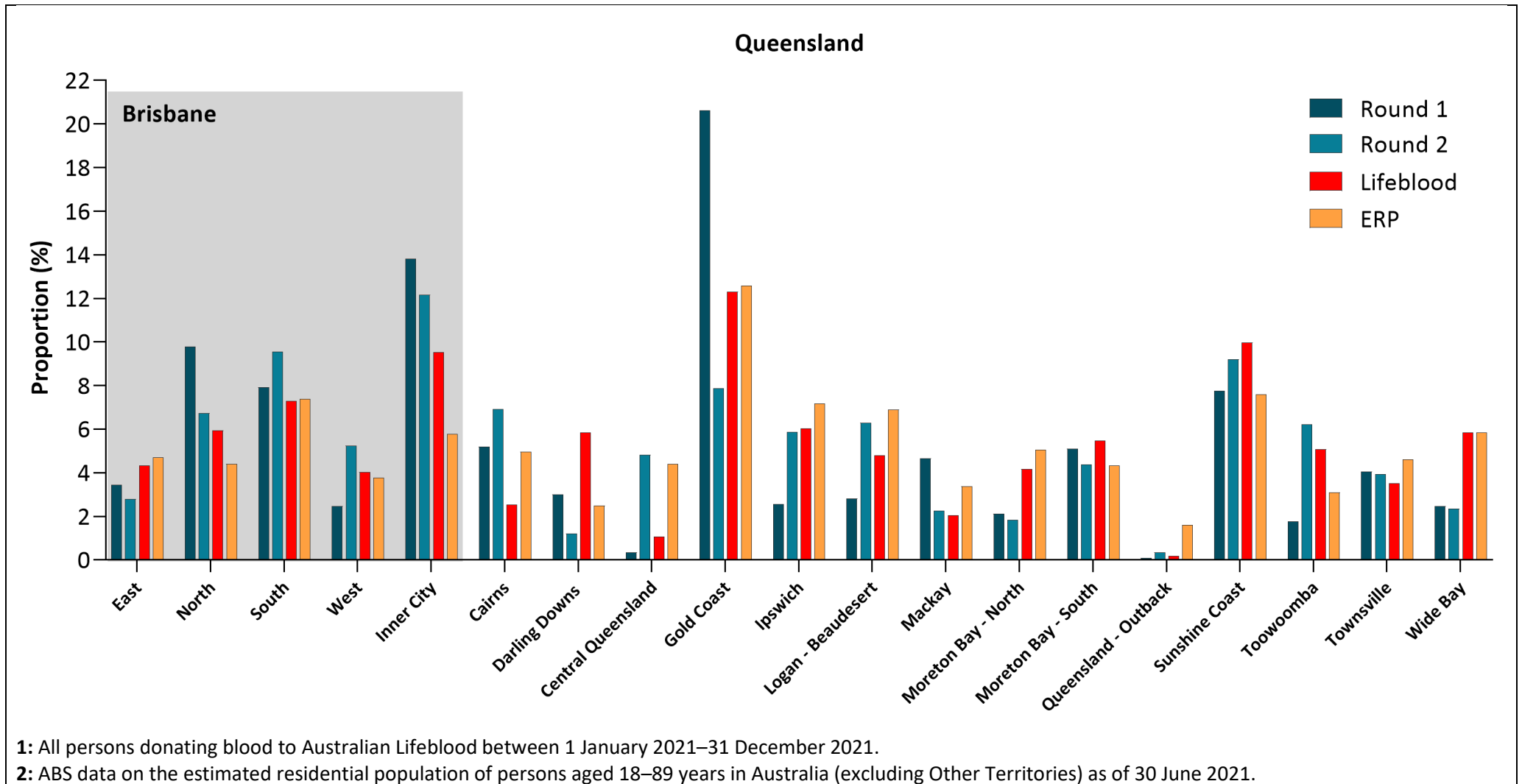




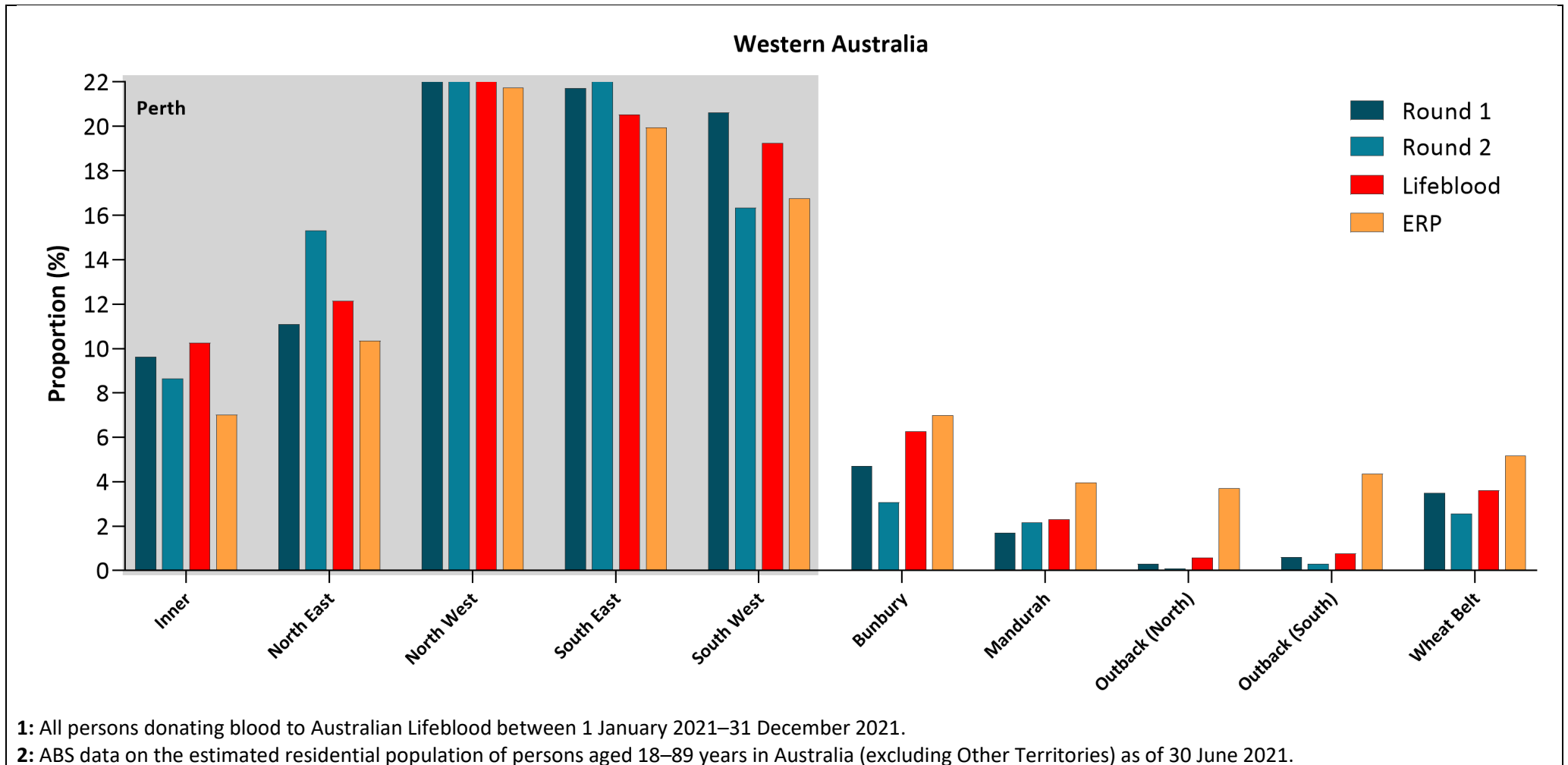
**Figure S3.** Distribution of demographic characteristics by Statistical Area Level 4 (SA4) in New South Wales compared with the broader blood donor population<sup>1</sup> and Estimated Residential Population (ERP)<sup>2</sup>



**Figure S4.** Distribution of demographic characteristics by Statistical Area Level 4 (SA4) in Queensland compared with the broader blood donor population<sup>1</sup> and Estimated Residential Population (ERP)<sup>2</sup>



**Figure S5.** Distribution of demographic characteristics by Statistical Area Level 4 (SA4) in Western Australia compared with the broader blood donor population<sup>1</sup> and Estimated Residential Population (ERP)<sup>2</sup>



**Figure S6.** Distribution of demographic characteristics by Statistical Area Level 4 (SA4) in South Australia (A), Tasmania (B), and Northern Territory (C) compared with the broader blood donor population<sup>1</sup> and Estimated Residential Population (ERP)<sup>2</sup>

