



---

# ANNUAL REPORT 2025

Living Kidney Donation

# CONTENTS

Summary and Highlights	3
Suggested Citation	3
Living Kidney Donors	4
Living Donor Characteristics	9
Timing of Living Kidney Donor Transplantation	10

## SUMMARY AND HIGHLIGHTS

This report describes the trends and characteristics in living kidney donation in Australia and New Zealand. The data for this chapter come from the Australia and New Zealand Living Kidney Donor (ANZLKD) Registry. Much more information about living kidney donors in Australia and New Zealand can be found on the ANZLKD website, [www.anzorr.org.au/registries/anzlkd](http://www.anzorr.org.au/registries/anzlkd).

The number of living kidney donations in Australia and New Zealand was stable in 2024. Activity has largely recovered from the COVID-19 downturn but shows little net growth compared with pre-pandemic levels. In 2024, Australia performed 253 living donor kidney transplants, representing 24% of all transplants, a proportion which is unchanged since 2021 (Table 1). Over the same period, New Zealand performed 83 living donor transplants, accounting for 42% of all transplants (Table 1).

Living donor characteristics showed minimal change. The mean living donor age in Australia between 2020-2024 was 51.6 years ( $\pm 10.9$ ), essentially unchanged from 2015-2019, while living donors in New Zealand remained younger at 46.3 years ( $\pm 11.8$ ) (Table 4). Sex distribution was stable, with females comprising 57% of donors in both countries (Table 4). The proportion of obese living donors declined modestly in the most recent period, with donors of BMI  $\geq 30$  falling in both Australia (17.1% in 2020-2024 vs 18.6% in 2015-2019) and New Zealand (19.8% vs 25.2%) compared with the previous period (Table 4).

The distribution of living donor transplantation across recipient age groups shifted. Living kidney donor transplants made up a smaller share of total transplants for recipients aged  $\leq 24$  years in 2021-2024 than in 2017-2020 (Figures 1.1, 1.2). This may reflect changes to the deceased donor allocation system that increased priority for recipients  $< 18$  years. Conversely recipients aged  $> 45$  years had an increased proportion of their transplants being from living donors (Figures 1.1, 1.2).

Patterns in donor-recipient relationships remained stable. In 2024, 46% of Australian donors and 45% of New Zealand donors were genetically related to their recipient (Figures 4.1, 4.2). Spousal, partner and friend donation continued to represent a major component of emotionally related donation (Table 2). Kidney-exchange-based transplantation continued to expand. After the Australian paired kidney exchange program evolved into the trans-Tasman ANZKX program in 2019, the number of exchange donors increased, particularly in Australia, rising from 29 in 2020 to 65 in 2024 (Table 2.1). ANZKX donors accounted for 26% of living kidney donations in Australia in 2024 and 19% of donations in New Zealand.

ABO-incompatible transplantation remained a small but important contributor to living donor transplant activity. In 2024, Australia performed 31 ABO-incompatible living donor transplant (12% of all living donor transplants), and New Zealand performed 7 (8%) (Table 3). These levels have remained essentially stable for a decade (Table 3).

In Australia, 36% of all living donor transplants in 2024 were pre-emptive, while 32% occurred after  $\geq 12$  months of dialysis (Table 5). New Zealand showed a similar pattern, with 38% pre-emptive and 30% following  $\geq 12$  months of dialysis (Table 5). These proportions have remained effectively unchanged over recent years, indicating a plateau in pre-emptive transplantation.

Overall, living donor activity in Australia and New Zealand remained stable in 2024, with consistent patterns across key measures as described above.

## SUGGESTED CITATION

M Wyld, C Davies, N Boudville, S Chadban, P Clayton, M Collins, C Etherton, D Forcey, F Kholmurodova, A Mallawaarachichi, K Marshall, S McDonald, G Irish. 1st Report: Living Kidney Donation. Australia and New Zealand Living Kidney Donation Registry, Adelaide, Australia. 2025. Available at: [www.anzorr.org.au](http://www.anzorr.org.au)

# LIVING KIDNEY DONORS

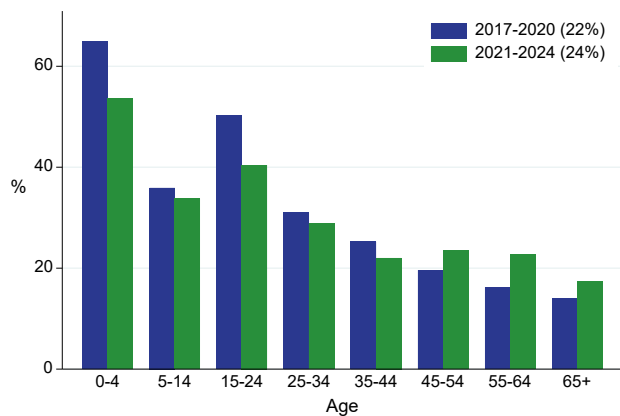
There were 253 living donor kidney transplants performed in 2024 in Australia, representing 24% of all transplant operations (Table 1). In New Zealand, the 83 living donor transplants in 2024 represented 42% of all transplants.

**Table 1**  
**Living Donor Transplants (% of All Transplants) by Country 2019-2024**

Country	2020	2020	2021	2022	2023	2024
Australia	238 (22%)	181 (20%)	202 (24%)	225 (24%)	258 (24%)	253 (24%)
New Zealand	91 (41%)	87 (47%)	85 (45%)	70 (40%)	74 (42%)	83 (42%)

The living donor percentage of transplants in Australia and New Zealand is shown in Figure 1 by recipient age groups for the years 2017-2020 to 2021-2024. For most age groups in both countries, living donors made up a smaller proportion of all transplants in 2021-2024 compared with 2017-2020.

**Figure 1.1**  
**Living Donor Percentage of Transplants - Australia - Stratified by Age of Recipient, 2017-2020 vs 2021-2024**



**Figure 1.2**  
**Living Donor Percentage of Transplants - New Zealand - Stratified by Age of Recipient, 2017-2020 vs 2021-2024**

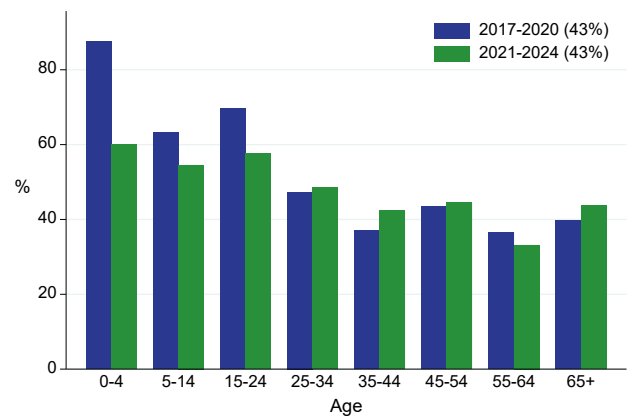


Figure 2 shows the living donor percentage of transplants for recipients by transplant region.

**Figure 2**  
**Living Donor Percentage of Transplants by Transplant Region - 2017-2020 vs 2021-2024**

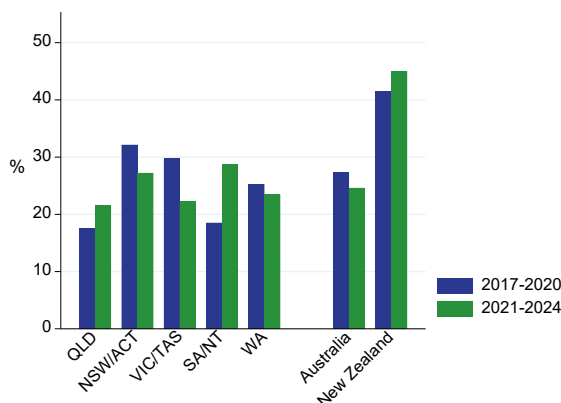
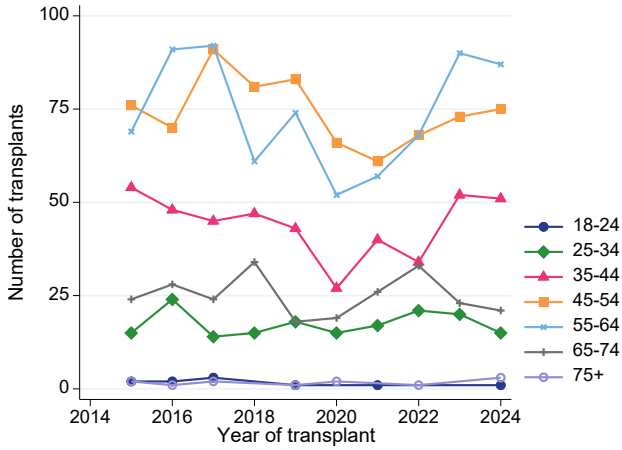
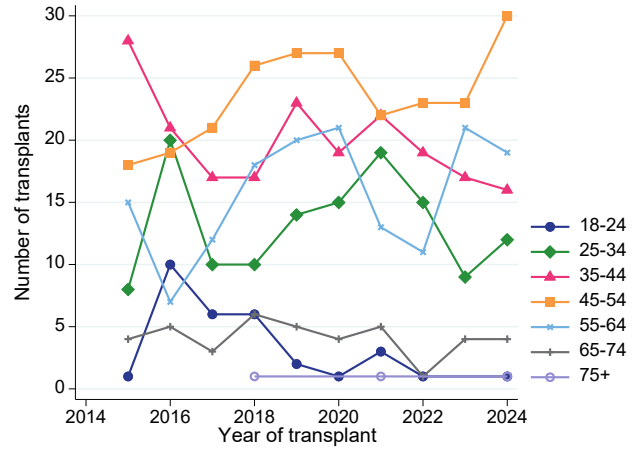


Figure 3 shows the number of living donors in Australia and New Zealand for the years 2015-2024 by donor age.

**Figure 3.1**  
**Living Kidney Donor Age - Australia 2015-2024**

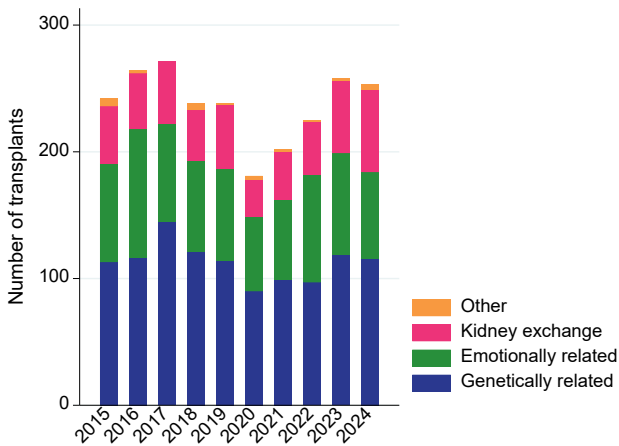


**Figure 3.2**  
**Living Kidney Donor Age - New Zealand 2015-2024**



The total number of living donor transplants in Australia and New Zealand are shown in Figure 4. The proportion of genetically related donors was 46% (116 donors) in 2024 in Australia. In New Zealand 37 donors (45%) were genetically related to their recipient.

**Figure 4.1**  
**Source of Living Kidney Donor - Australia 2015-2024**



**Figure 4.2**  
**Source of Living Kidney Donor - New Zealand 2015-2024**

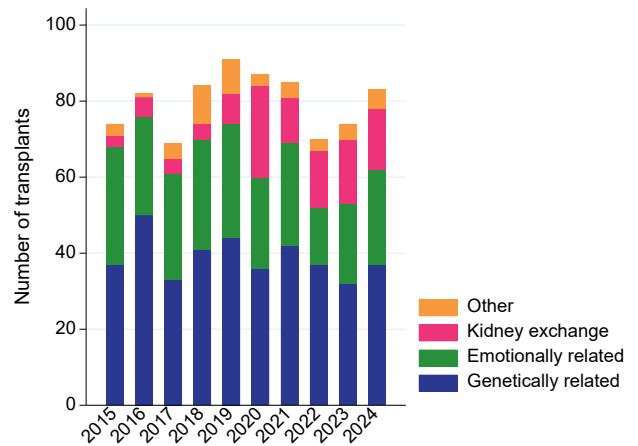


Table 2 provides details of the relationships between donors and recipients over 2020-2024 for Australia and New Zealand.

**Table 2.1**  
**Living Kidney Donor Relationship to Recipient, Australia 2020-2024**

Donor source	2020	2021	2022	2023	2024
<b>Total</b>	<b>181</b>	<b>202</b>	<b>225</b>	<b>258</b>	<b>253</b>
<b>Genetically Related Total</b>	<b>90</b>	<b>99</b>	<b>97</b>	<b>119</b>	<b>116</b>
Sister	12	22	17	27	29
Brother	21	15	20	18	26
Mother	30	36	20	27	32
Father	14	19	23	23	16
Monozygotic (Identical Twin Girl)	0	0	1	0	0
Monozygotic (Identical Twin Boy)	0	0	0	0	1
Daughter	3	3	4	6	1
Son	5	2	3	5	4
Grandmother	0	0	1	1	0
Cousin	2	0	4	7	1
Niece	0	0	0	1	1
Nephew	1	0	0	1	0
Aunt	1	2	1	2	2
Uncle	1	0	3	1	2
Other related (Genetically - Specify)	0	0	0	0	1
<b>Emotionally Related Total</b>	<b>59</b>	<b>63</b>	<b>85</b>	<b>80</b>	<b>68</b>
Wife	28	25	43	35	30
Husband	12	8	15	15	8
Partner	11	8	6	10	12
Fiance / Fiancee	0	0	1	1	0
Mother-in-law	0	0	2	0	1
Father-in-law	0	0	0	1	0
Stepmother	0	0	0	0	1
Stepfather	0	0	0	1	0
Stepsister	0	0	0	0	0
Sister-in-law	0	1	0	2	1
Brother-in-law	1	2	0	3	2
Daughter-in-law	0	0	0	0	0
Son-in-law	0	2	1	2	0
Stepdaughter	0	0	0	0	0
Stepson	0	0	1	0	0
Friend	6	16	15	9	13
Other emotionally related	1	1	1	1	0
<b>Kidney Exchange Total</b>	<b>29</b>	<b>38</b>	<b>42</b>	<b>57</b>	<b>65</b>
Directed kidney exchange	26	36	34	52	59
Non-directed, kidney exchange	3	2	8	5	6
<b>Other Unrelated Total</b>	<b>3</b>	<b>2</b>	<b>1</b>	<b>2</b>	<b>4</b>
Non-directed, waiting list	2	2	1	2	2
Pathological	1	0	0	0	0
Other unrelated (Specify)	0	0	0	0	2

**Table 2.2**  
**Living Kidney Donor Relationship to Recipient, New Zealand 2020-2024**

Donor source	2020	2021	2022	2023	2024
<b>Total</b>	<b>87</b>	<b>85</b>	<b>70</b>	<b>74</b>	<b>83</b>
<b>Genetically Related Total</b>	<b>36</b>	<b>42</b>	<b>37</b>	<b>32</b>	<b>37</b>
Sister	5	8	4	9	7
Brother	7	10	10	4	5
Mother	6	7	6	8	3
Father	7	4	4	3	9
Monozygotic (Identical Twin Girl)	1	0	0	0	0
Monozygotic (Identical Twin Boy)	0	0	0	0	1
Daughter	5	3	6	3	4
Son	2	10	3	1	3
Grandmother	0	0	0	0	0
Cousin	1	0	2	1	2
Niece	0	0	0	2	1
Nephew	1	0	0	0	0
Aunt	1	0	1	1	2
Uncle	0	0	1	0	0
Other related (Genetically - Specify)	0	0	0	0	0
<b>Emotionally Related Total</b>	<b>24</b>	<b>27</b>	<b>15</b>	<b>21</b>	<b>25</b>
Wife	11	6	1	7	12
Husband	0	3	1	1	1
Partner	4	3	2	3	1
Fiance / Fiancee	0	0	0	0	0
Mother-in-law	0	0	1	0	0
Father-in-law	0	1	0	0	1
Stepmother	0	0	0	0	0
Stepfather	1	0	0	0	1
Stepsister	1	0	0	0	0
Sister-in-law	1	2	0	0	1
Brother-in-law	0	0	0	1	1
Daughter-in-law	0	0	1	0	0
Son-in-law	0	0	0	0	0
Stepdaughter	0	1	0	0	0
Stepson	0	1	0	0	0
Friend	5	9	6	9	7
Other emotionally related	1	1	3	0	0
<b>Kidney Exchange Total</b>	<b>24</b>	<b>12</b>	<b>15</b>	<b>17</b>	<b>16</b>
Directed kidney exchange	21	9	12	12	16
Non-directed, kidney exchange	3	3	3	5	0
<b>Other Unrelated Total</b>	<b>3</b>	<b>4</b>	<b>3</b>	<b>4</b>	<b>5</b>
Non-directed, waiting list	3	4	3	4	5
Pathological	0	0	0	0	0
Other unrelated (Specify)	0	0	0	0	0

Table 3 shows the number of ABO incompatible living donor transplants performed in each country over the last 10 years.

**Table 3**  
**Living Donor Transplant Numbers by Blood Group Status 2015-2024**

Country	Year	Compatible	Incompatible	Unknown
Australia	2015	201	27	14
	2016	208	48	8
	2017	226	45	0
	2018	196	41	1
	2019	211	27	0
	2020	150	27	4
	2021	180	22	0
	2022	194	31	0
	2023	221	36	1
	2024	222	31	0
New Zealand	2015	65	9	0
	2016	76	6	0
	2017	55	14	0
	2018	73	11	0
	2019	74	17	0
	2020	81	6	0
	2021	76	9	0
	2022	65	5	0
	2023	67	7	0
	2024	76	7	0

# LIVING DONOR CHARACTERISTICS

Table 4 shows the clinical characteristics of living kidney donors over 2015-2024.

**Table 4**  
**Living Donor Clinical Characteristics 2015-2024**

Factor	Australia		New Zealand	
	2015-2019	2020-2024	2015-2019	2020-2024
<b>N</b>	<b>1244</b>	<b>1118</b>	<b>400</b>	<b>399</b>
<b>Age (years), mean (SD)</b>	51.3 (10.9)	51.6 (10.9)	44.9 (12.6)	46.3 (11.8)
<b>Hypertension</b>	363 (29.2%)	353 (31.6%)	43 (10.8%)	58 (14.5%)
<b>Gender</b>				
Female	714 (57.4%)	635 (56.8%)	235 (58.8%)	227 (56.9%)
Male	530 (42.6%)	483 (43.2%)	165 (41.2%)	172 (43.1%)
<b>Ethnicity</b>				
First Nations Australian	2 (0.2%)	6 (0.5%)	-	-
Māori New Zealander	-	-	45 (11.2%)	50 (12.5%)
Other	1202 (96.6%)	1066 (95.3%)	354 (88.5%)	346 (86.7%)
Not reported	40 (3.2%)	46 (4.1%)	1 (0.2%)	3 (0.8%)
<b>Body mass index (kg/m<sup>2</sup>)</b>				
<18.5	9 (0.7%)	7 (0.6%)	1 (0.2%)	0 (0.0%)
18.5-24.9	382 (30.7%)	393 (35.2%)	121 (30.2%)	133 (33.3%)
25-29.9	576 (46.3%)	493 (44.1%)	176 (44.0%)	182 (45.6%)
≥30	231 (18.6%)	191 (17.1%)	101 (25.2%)	79 (19.8%)
Not reported	46 (3.7%)	34 (3.0%)	1 (0.2%)	5 (1.3%)
<b>Glycaemic status</b>				
Normal	1140 (91.6%)	1026 (91.8%)	396 (99.0%)	389 (97.5%)
Impaired fasting glucose	18 (1.4%)	18 (1.6%)	0 (0.0%)	2 (0.5%)
Impaired glucose tolerance	30 (2.4%)	21 (1.9%)	0 (0.0%)	0 (0.0%)
Diabetic	7 (0.6%)	6 (0.5%)	0 (0.0%)	1 (0.3%)
Not reported	49 (3.9%)	47 (4.2%)	4 (1.0%)	7 (1.8%)
<b>Cigarette Smoking</b>				
Never	782 (62.9%)	710 (63.5%)	245 (61.3%)	260 (65.2%)
Former	377 (30.3%)	318 (28.4%)	111 (27.8%)	101 (25.3%)
Current	21 (1.7%)	20 (1.8%)	38 (9.5%)	22 (5.5%)
Not reported	64 (5.1%)	70 (6.3%)	6 (1.5%)	16 (4.0%)

# TIMING OF LIVING KIDNEY DONOR TRANSPLANTATION

The timing of primary living donor transplants relative to the start of dialysis is shown in Table 5.

The proportion of all primary living donor transplants performed pre-emptively in Australia in 2024 was 36%. 32% of recipients had received dialysis treatment for twelve months or longer prior to a first living donor graft.

The proportion of pre-emptive primary living donor transplants in New Zealand in 2024 was 38%, 30% received dialysis for twelve months or longer prior to being transplanted.

**Table 5**  
**Timing of Living Kidney Donor Transplants 2020-2024**

Country	Timing of transplant	2020	2021	2022	2023	2024
Australia	Pre-emptive	65 (39%)	74 (42%)	82 (41%)	85 (36%)	83 (36%)
	<1 month post dialysis	7 (4%)	2 (1%)	4 (2%)	2 (1%)	2 (1%)
	1 month to <6 months post dialysis	20 (12%)	20 (11%)	28 (14%)	26 (11%)	37 (16%)
	6 months to <1 year post dialysis	27 (16%)	29 (16%)	27 (13%)	34 (14%)	32 (14%)
	≥1 year post dialysis	48 (29%)	52 (29%)	61 (30%)	88 (37%)	74 (32%)
New Zealand	Pre-emptive	35 (44%)	34 (44%)	20 (31%)	20 (31%)	30 (38%)
	<1 month post dialysis	1 (1%)	-	1 (2%)	1 (2%)	2 (2%)
	1 month to <6 months post dialysis	3 (4%)	12 (16%)	5 (8%)	8 (12%)	8 (10%)
	6 months to <1 year post dialysis	9 (11%)	7 (9%)	9 (14%)	13 (20%)	16 (20%)
	≥1 year post dialysis	32 (40%)	24 (31%)	30 (46%)	22 (34%)	24 (30%)

