

Chapter 5

Kidney Donation in Australia and New Zealand



2016
Annual Report
Data to 31-Dec-2015

KIDNEY DONATION

In Australia, there were 703 kidney transplant recipients in 2015. Of the 703 kidney transplant procedures performed, there were 9 double adult kidney recipients, six enbloc kidney recipients, 43 combined kidney/pancreas recipients, nine kidney/liver recipients, two kidney/heart recipients and one kidney/intestine recipient.

In New Zealand, there were 73 kidney recipients including two combined kidney/pancreas and two combined kidney/liver transplant procedures and 0 double/enbloc kidney transplants.

Figures 5.1 to 5.5 show the outcomes of requests for kidney donation, the number of kidney transplants by donation pathway and the number of kidney recipients by jurisdiction, in Australia and New Zealand respectively. In particular Figure 5.3 shows an increase in DCD kidneys from 2006 to 2015, and DBD kidneys from 2010 to 2015 in Australia.

Figure 5.1

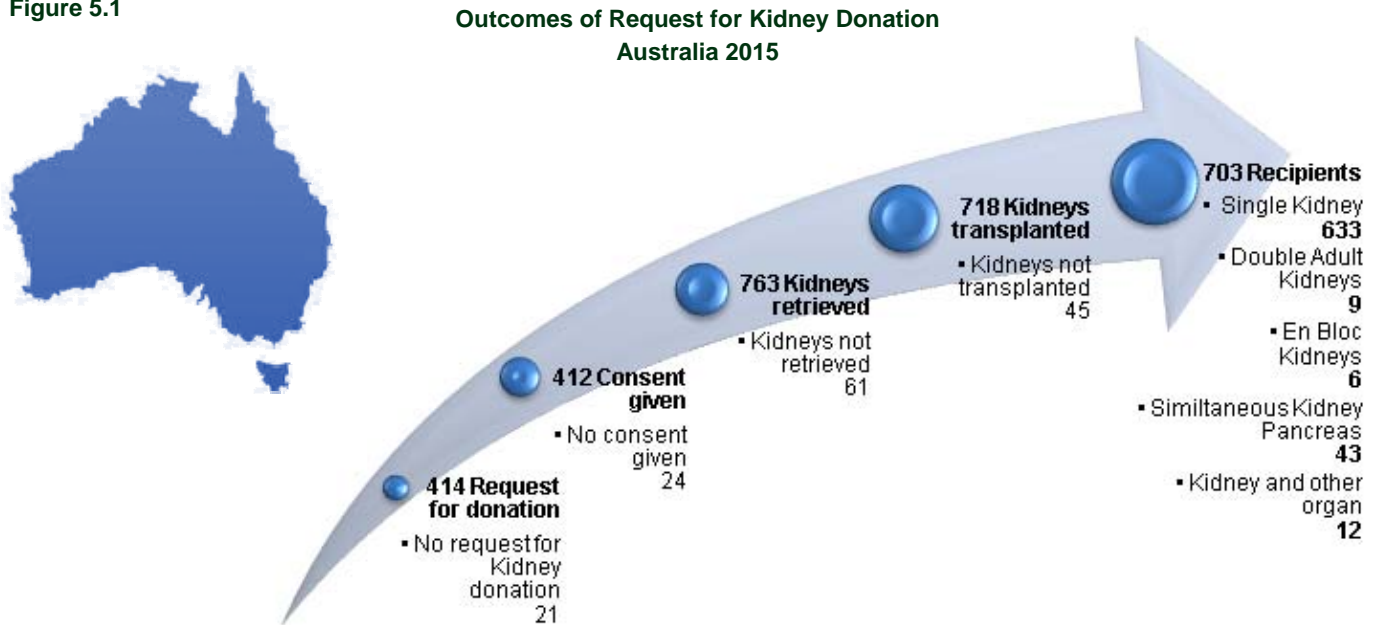
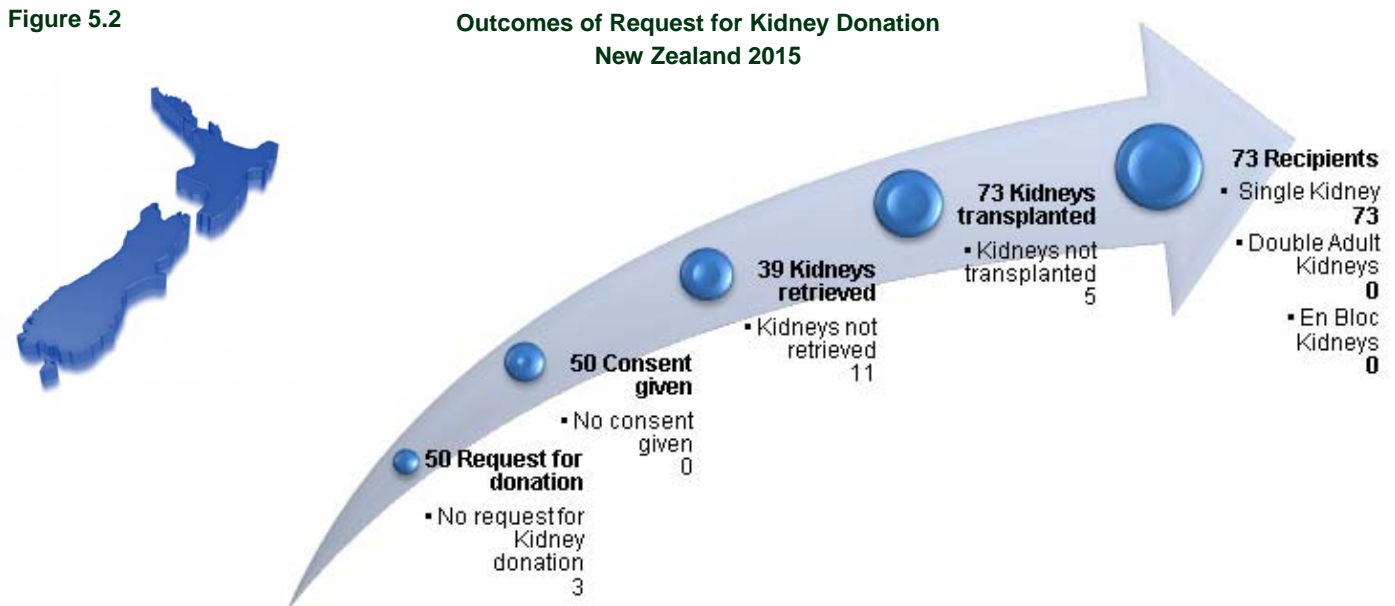


Figure 5.2



KIDNEY DONATION

Figure 5.3 Kidneys Transplanted by Donation Pathway
Australia 1998-2015

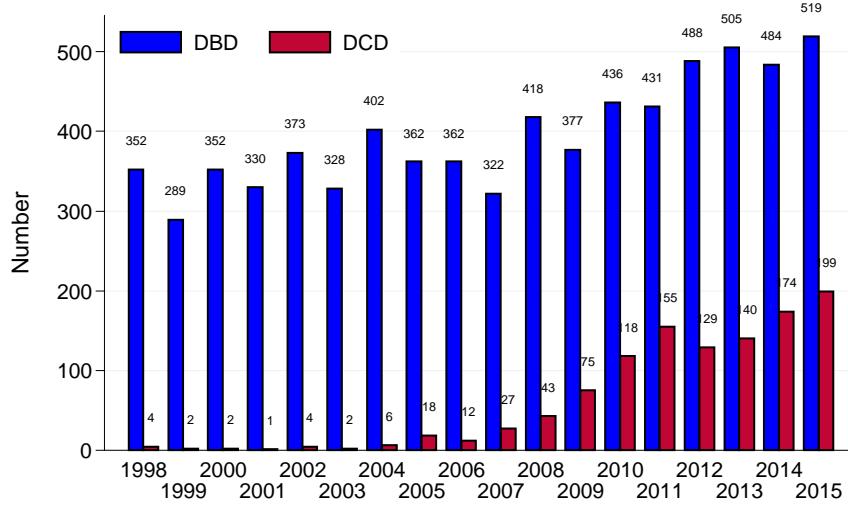


Figure 5.4 Kidneys Transplanted by Donation Pathway
New Zealand 1998-2015

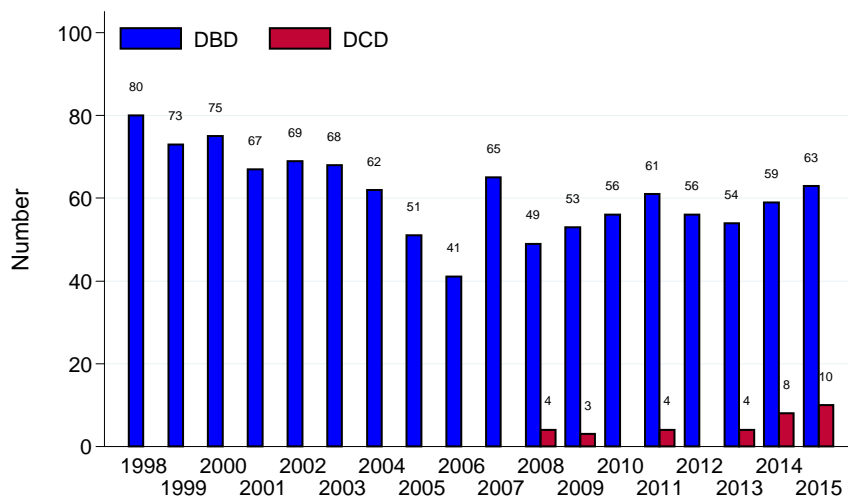
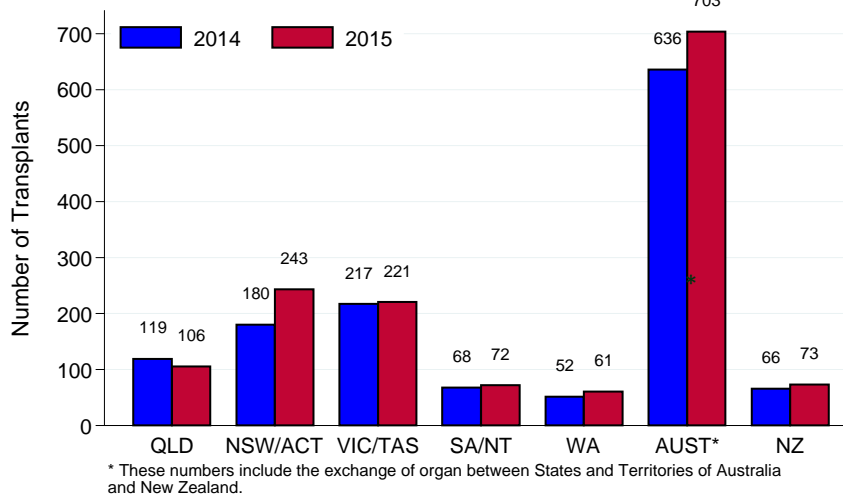


Figure 5.5 Deceased Donor Kidney Transplant Recipients*
by Transplant State, Australia and New Zealand, 2014-2015



KIDNEY DONATION

KIDNEY DONORS

The age distribution of donors providing transplanted kidneys for Australia and New Zealand is shown in Figures 5.6 and 5.7 respectively.

Figure 5.6

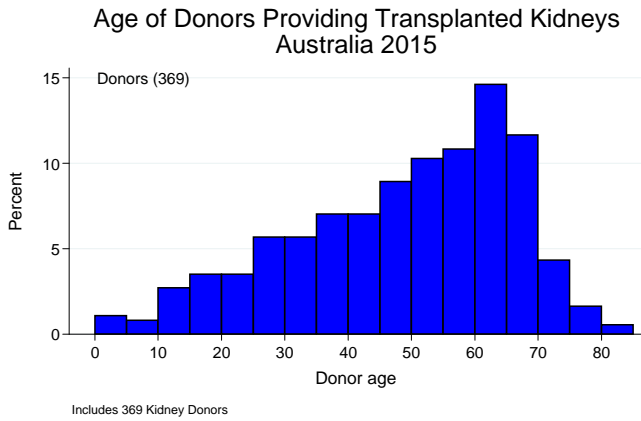
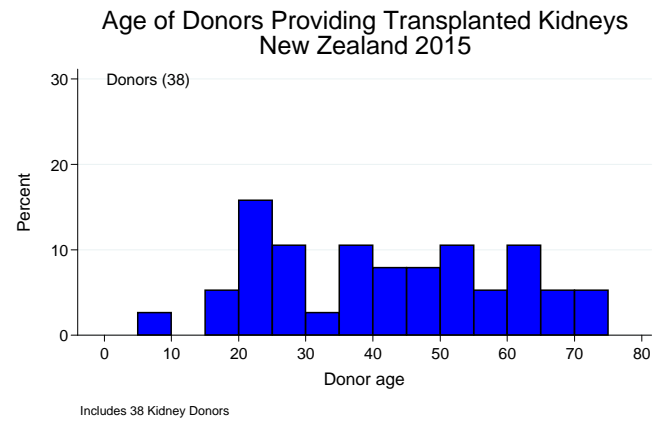


Figure 5.7



DONOR KIDNEY FUNCTION

Table 5.1

Terminal Serum Creatinine Levels 2011-2015						
Country	Creatinine (µmol/L)	2011	2012	2013	2014	2015
Australia	00-99	76%	75%	79%	77%	71%
	100-124	11%	9%	7%	7%	7%
	125-149	5%	5%	4%	4%	5%
	150-174	3%	2%	3%	2%	3%
	175-199	1%	2%	2%	1%	3%
	200-224	1%	1%	1%	2%	1%
	225-249	1%	1%	0%	0%	1%
	>= 250	2%	4%	4%	5%	9%
New Zealand	00-99	81%	87%	81%	83%	88%
	100-124	9%	10%	6%	15%	10%
	125-149	6%	3%	6%	-	2%
	150-174	-	-	3%	-	-
	175-199	-	-	-	2%	-
	200-224	3%	-	-	-	-
	225-249	-	-	3%	-	-
	>= 250	-	-	-	-	-

KIDNEY DONATION

KIDNEYS NOT RETRIEVED

In 2015, there were 61 kidneys not retrieved from Australian donors and 22 not retrieved from New Zealand donors. For Australia, the main reason was due to the kidney not being medically suitable (46), followed by no suitable recipient for the kidney (13). In New Zealand, there were 14 non-retrieved kidneys due to not being medically suitable and eight due to trauma to the organ.

Table 5.2

Reasons Kidney Not Retrieved, 2015		
Reason	Australia	New Zealand
Logistics	2	0
Not Medically Suitable	46	14
Surgically Unsuitable	0	0
Trauma to Organ	0	8
No Suitable Recipients	13	0
Age of Donor	0	0
Total	61	22

KIDNEYS RETRIEVED AND NOT UTILISED

The reasons why kidneys were not utilised for organ transplantation is presented in Table 5.2.

Table 5.3

Reasons Kidneys Retrieved and Not Utilised for Organ Transplantation in Australia (New Zealand) 2011 - 2015						
Year	Logistics	Not Medically Suitable	Not Surgically Suitable	No Suitable Recipients	Other	Total
2011	1 (0)	9 (0)	3 (0)	4 (1)	2 (0)	19 (1)
2012	0 (0)	9 (1)	7 (0)	2 (0)	1 (0)	19 (1)
2013	3 (0)	32 (3)	7 (0)	3 (0)	1 (0)	46 (3)
2014	0 (0)	32 (6)	3 (1)	5 (0)	2 (0)	42 (7)
2015	0 (0)	38 (4)	3 (1)	2 (0)	2 (0)	45 (5)

Figures 5.8 and 5.9 show the non-utilisation rate of retrieved kidneys – the proportion of kidneys that were retrieved for the purpose of solid organ transplantation, but not ultimately transplanted into a recipient (either due to an absence of suitable recipients, or the kidney being found to be medically or surgically unsuitable after retrieval).

Figure 5.8

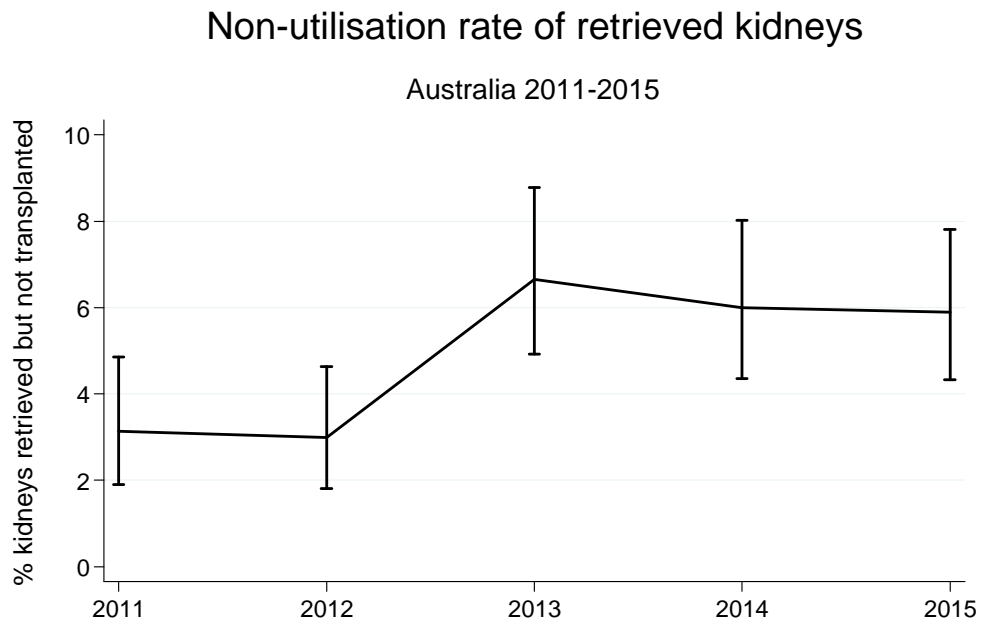
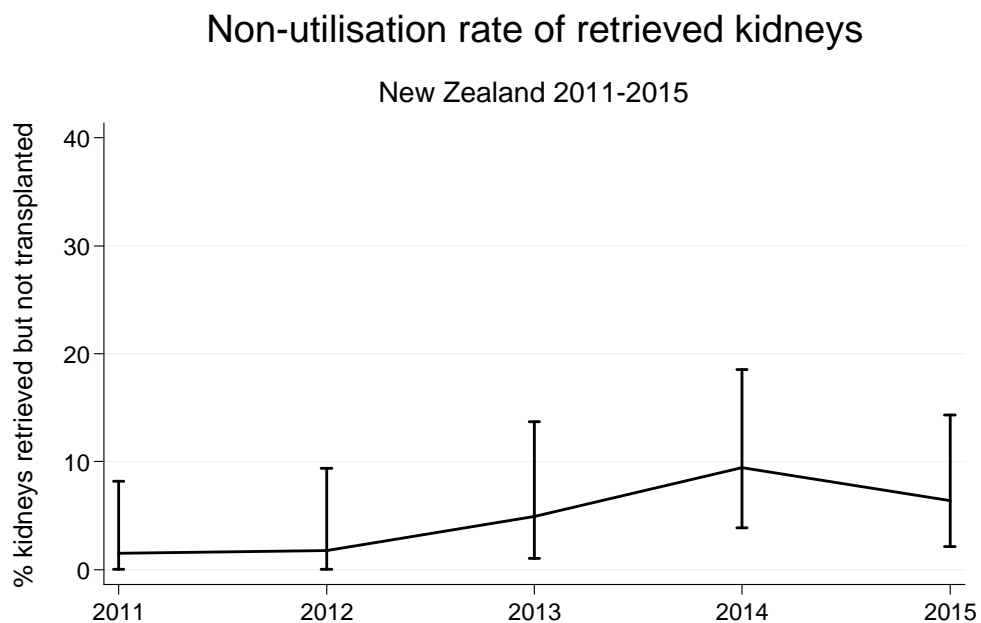


Figure 5.9



KIDNEY DONATION

OUTCOME OF KIDNEY DONATION IN AUSTRALIA

Table 5.4.1

Outcome of Request for Kidney Donation, Australia, 2011 - 2015					
Outcome	2011	2012	2013	2014	2015
Total Donors	337	354	391	378	435
Kidneys Requested for Donation	658	690	760	738	828
Kidneys Not Requested for Donation	16	18	22	18	42
Kidneys with Consent Given	656	688	758	738	824
Kidneys with Consent Not Given	18	20	24	18	46
Kidneys Retrieved	605	636	691	700	763
Kidneys Not Retrieved	51	52	67	38	61
Total Kidneys Not Used	19	18	45	42	45
(Left Kidney Not Used)	10	9	23	20	21
(Right Kidney Not Used)	9	9	22	20	22
(Double/Enbloc Kidney Not Used)	0	0	0	2	2
Kidney (L) used for Research	0	0	0	0	0
Kidney (R) used for Research	0	1	1	0	0
Kidney Double/Enbloc used for Research	0	0	0	0	0
Kidneys Transplanted	586	617	645	658	718
Left Kidney Transplanted	277	301	309	309	345
Right Kidney Transplanted	277	296	306	305	343
Double/Enbloc Kidney Transplanted	32	20	30	44	30
Recipient Transplanted	570	607	630	636	703
Double Adult Kidney Procedures	13	8	9	17	9
En Bloc Kidney Procedures	3	2	6	5	6
Kidney Discard Rate	3.14%	2.99%	6.66%	6%	5.90%
Kidney Utilised Rate	96.86%	97.01%	93.34%	94%	94.10%

KIDNEY DONATION

OUTCOME OF KIDNEY DONATION IN NEW ZEALAND

Table 5.4.2

Outcome of Request for Kidney Donation, New Zealand, 2011 - 2015					
Outcome	2011	2012	2013	2014	2015
Total Donors	38	38	36	46	53
Kidneys Requested for Donation	76	74	68	88	100
Kidneys Not Requested for Donation	0	2	4	4	6
Kidneys with Consent Given	76	72	68	88	100
Kidneys with Consent Not Given	0	4	4	4	6
Kidneys Retrieved	66	57	61	74	78
Kidneys Not Retrieved	10	15	7	14	22
Total Kidneys Not Used	1	1	3	7	5
(Left Kidney Not Used)	0	0	1	3	3
(Right Kidney Not Used)	1	1	2	4	2
(Double/Enbloc Kidney Not Used)	0	0	0	0	0
Kidney (L) used for Research	0	0	0	0	0
Kidney (R) used for Research	0	0	0	0	0
Kidney Double/Enbloc used for Research	0	0	0	0	0
Kidneys Transplanted	65	56	58	67	73
Left Kidney Transplanted	29	28	26	33	37
Right Kidney Transplanted	28	28	26	32	36
Double/Enbloc Kidney Transplanted	8	0	6	2	0
Recipient Transplanted	61	56	55	66	73
Double Adult Kidney Procedures	4	0	2	0	0
En Bloc Kidney Procedures	0	0	1	1	0
Kidney Discard Rate	1.52%	1.75%	4.92%	9.46%	6.41%
Kidney Utilised Rate	98.48%	98.25%	95.08%	90.54%	93.59%



Suggested Citation:

ANZOD Registry, 2016 Annual Report, Chapter 5: Kidney Donation. Australia and New Zealand Dialysis and Transplant Registry, Adelaide, Australia. 2016. Available at: <http://www.anzdata.org.au>

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