



SECTION 7

Deceased Donor Heart Donation

SUMMARY

This section summarises heart donation activity from deceased donors in 2019, compared with previous years. The rate of hearts transplanted in 2019 was 4.5 pmp in Australia, and 3.5 pmp in New Zealand

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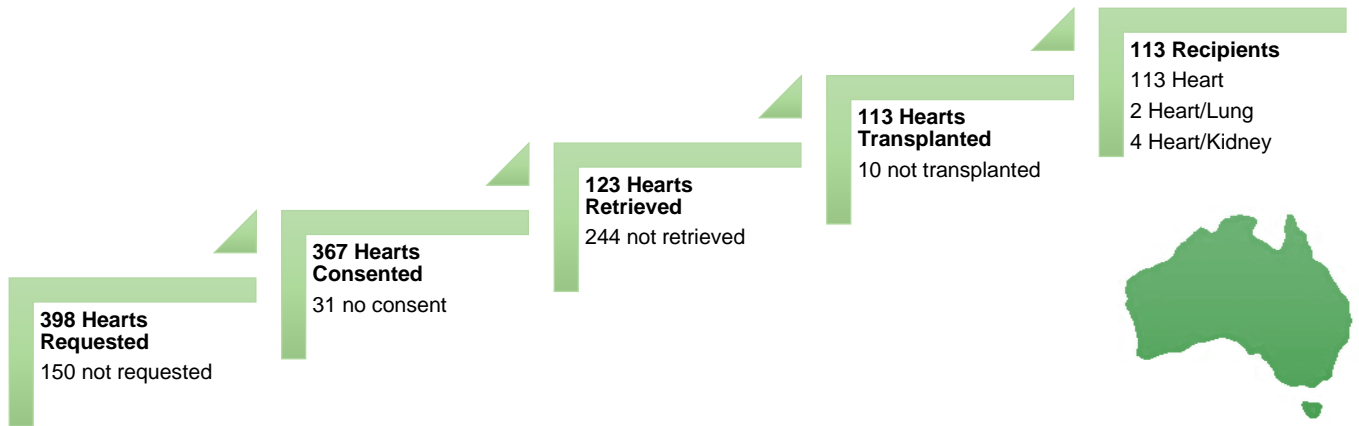
ANZOD Registry. 2020 Annual Report, Section 7: Deceased Donor Heart Donation. Australia and New Zealand Dialysis and Transplant Registry, Adelaide, Australia. 2020. Available at: www.anzdata.org.au

Heart Donation

Of the 548 deceased organ donors in 2019 in Australia 123 (22.4%) had a heart retrieved. From these heart donors there were 113 heart transplant recipients (4.5 pmp). Of these 113 heart transplant recipients, 2 received heart/double lung transplants and 4 received a combined heart/kidney transplant.

Figure 7 below shows the outcomes of requests for heart donation in Australia and New Zealand for 2019.

Figure 7.1.1 Outcomes of Request for Heart Donation from Actual Donors in Australia 2019



In New Zealand there were 49 donors (66.2%) who consented to heart donation in 2019. From these consented donors, 17 hearts were retrieved and 17 recipients received a heart transplant (3.5 pmp). This was a decrease of -10.5% in the total number of heart transplants, compared with 19 in 2018.

Figure 7.1.2 Outcomes of Request for Heart Donation from Actual Donors in New Zealand 2019

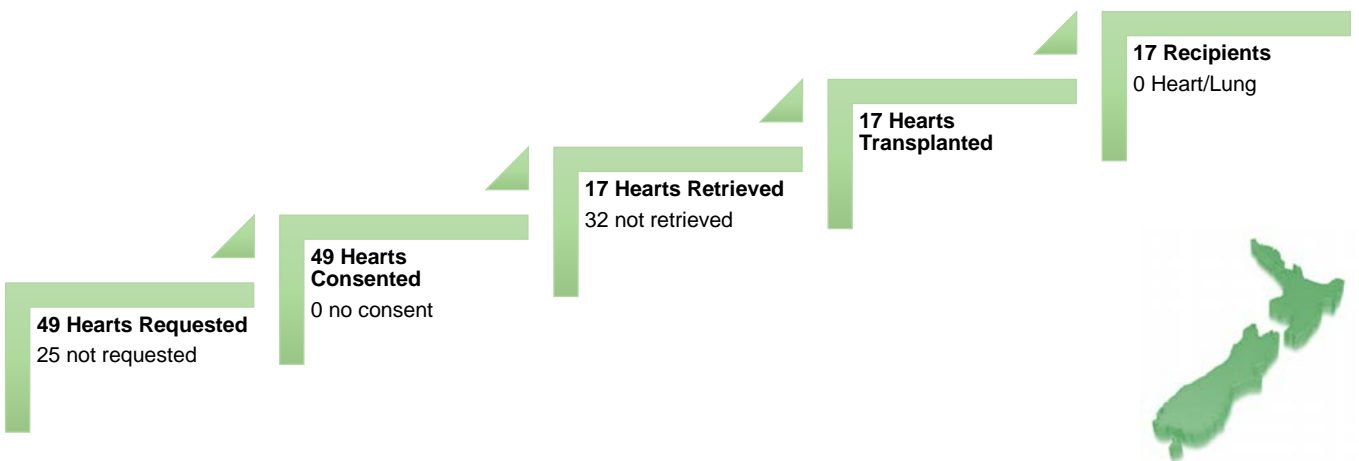


Figure 7.2 below shows the number of hearts transplanted by donation pathway in Australia and New Zealand, and Figure 7.3 shows the number of heart recipients in Australia and New Zealand by State/Territory/Country.

Figure 7.2.1 - Hearts Transplanted by Donation Pathway Australia 1998-2019

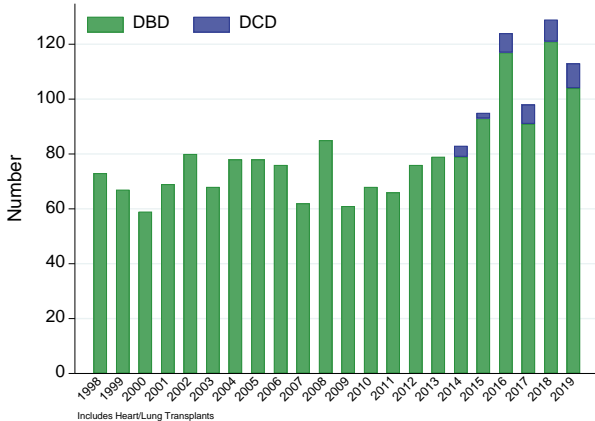


Figure 7.2.2 - Hearts Transplanted by Donation Pathway New Zealand 1998-2019

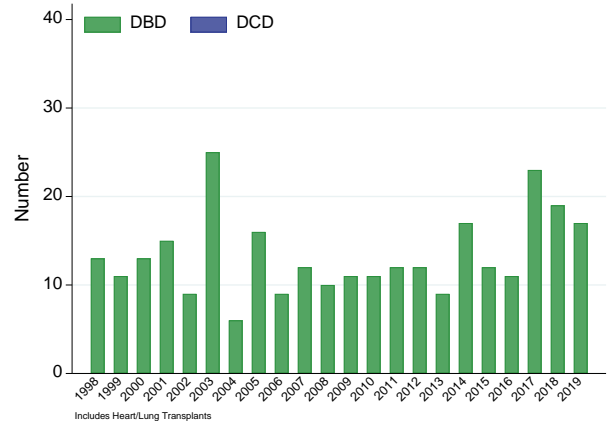
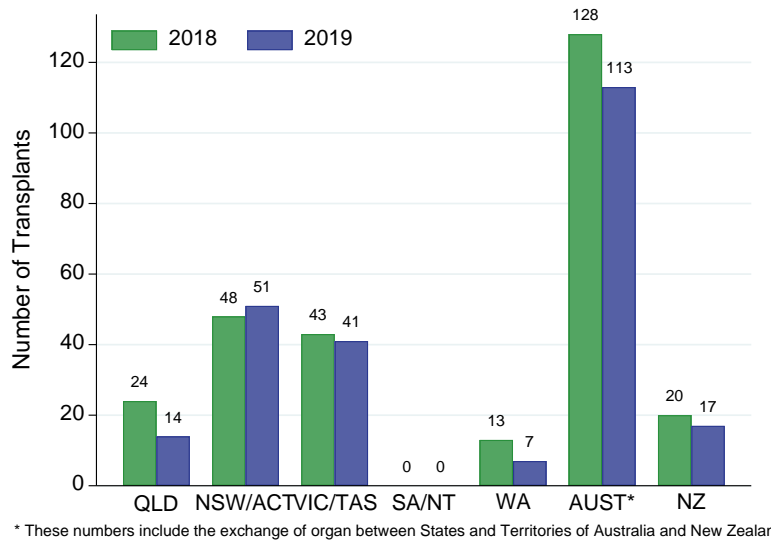


Figure 7.3 - Deceased Donor Heart Transplant Recipients*, by State/Territory/Country, Australia and New Zealand, 2018-2019



Age of Heart Donors

The age distribution of donors providing retrieved hearts for Australia and New Zealand is shown below in Figure 7.4.

Figure 7.4.1 - Age of Donors Providing Retrieved Hearts Australia 2019

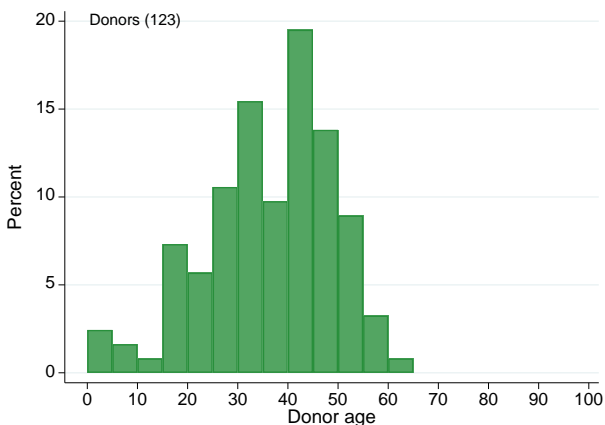
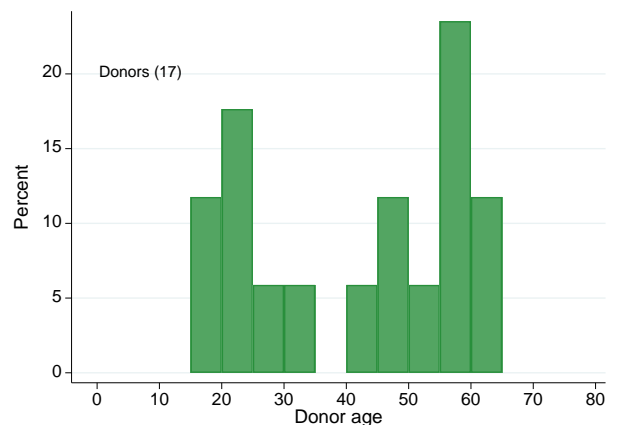


Figure 7.4.2 - Age of Donors Providing Retrieved Hearts New Zealand 2019



Donor Heart Function

In Australia 102 (82.9%) donors with hearts retrieved had a normal ECG, and 110 (89.4%) had a normal echocardiogram prior to heart donation. In New Zealand 17 out of the 17 heart donors had a normal ECG, and 17 had a normal echocardiogram.

Hearts Not Retrieved

The reasons why a heart was not retrieved for organ transplantation are presented below in Table 7.1

Table 7.1 Reasons for Heart Not Retrieved in Australia and New Zealand 2019

Reason	Australia	New Zealand
Logistics	8	2
Not Medically Suitable	123	14
Surgically Unsuitable	1	0
Trauma to Organ	3	0
No Suitable Recipients	40	8
Age of Donor	50	2
DCD Donor	9	4
Consent Withdrawn	10	2
Others	0	0
Total	244	32

Figure 7.5 below shows the non-utilisation rate of retrieved hearts – the proportion of hearts that were retrieved for the purpose of solid organ transplantation, but not ultimately transplanted into a recipient. This could be due to an absence of suitable recipients, or the heart being found to be medically or surgically unsuitable after retrieval.

Note: Organ donation for the purpose of research is excluded when calculating a specific organ's non-utilisation rate for transplantation.

Figure 7.5.1 - Non-utilisation Rate of Retrieved Hearts - Australia 2015-2019

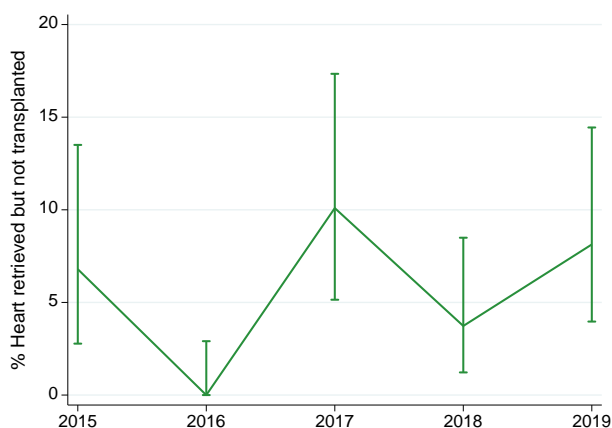
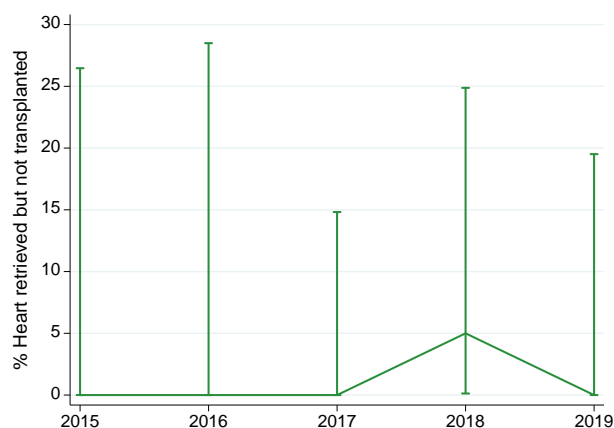


Figure 7.5.2 - Non-utilisation Rate of Retrieved Hearts - New Zealand 2015-2019



In Australia the non-utilisation rate of hearts was 8.1% in 2019, and in New Zealand the non-utilisation rate of hearts was 0.0% in 2019.

Hearts Retrieved and Not Utilised for Transplantation

Table 7.2 tabulates the reasons hearts were not used for transplantation after retrieval for that purpose in Australia and New Zealand since 2015.

Table 7.2 Reasons Hearts were Retrieved & Not Utilised for Transplantation Australia and New Zealand 2015 – 2019

Reason	2015	2016	2017	2018	2019
Logistics	0 (0)	0 (0)	0 (0)	1 (1)	0 (0)
Not Medically Suitable	4 (0)	0 (0)	8 (0)	4 (0)	10 (0)
Not Surgically Suitable	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
Trauma to Organ	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
No Suitable Recipients	1 (0)	0 (0)	0 (0)	0 (0)	0 (0)
Recipient Issue	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
Other	2 (0)	0 (0)	3 (0)	0 (0)	0 (0)
Total	7 (0)	0 (0)	11 (0)	5 (1)	10 (0)

Outcome of Heart Donation

The outcome of heart donation activity in Australia and New Zealand throughout the donation pathway is shown below in table 7.3.

Table 7.3.1 Outcome of Request for Heart Donation in Australia, 2015-2019

Outcome of Request	2015	2016	2017	2018	2019
Total Donors	435	503	510	554	548
Heart Requested for Donation	306	393	387	421	398
Heart Not Requested for Donation	129	110	123	133	150
Heart with Consent Given	281	370	358	390	367
Heart with Consent Not Given	25	23	29	31	31
Heart Retrieved	103	125	109	134	123
Heart Not Retrieved	178	245	249	256	244
Heart Transplanted	95	124	98	129	113
Heart Not Used	7	0	11	5	10
Heart Retrieved for Research and Not for Transplantation	1	1	0	0	0
Recipients Transplanted	95	124	98	129	113
Heart/Double Lung Procedures	2	7	5	7	3
Heart Non-Utilisation Rate	6.8%	0.0%	10.1%	3.7%	8.1%
Heart Utilisation Rate	92.2%	99.2%	89.9%	96.3%	91.9%

Table 7.3.2 Outcome of Request for Heart Donation in New Zealand, 2015-2019

Outcome of Request	2015	2016	2017	2018	2019
Total Donors	53	61	73	62	74
Heart Requested for Donation	40	50	49	42	49
Heart Not Requested for Donation	13	11	24	20	25
Heart with Consent Given	39	50	49	41	49
Heart with Consent Not Given	1	0	0	1	0
Heart Retrieved	12	11	23	20	17
Heart Not Retrieved	27	39	26	21	32
Heart Transplanted	12	11	23	19	17
Heart Not Used	0	0	0	1	0
Heart Retrieved for Research and Not for Transplantation	0	0	0	0	0
Recipients Transplanted	12	11	23	19	17
Heart Non-Utilisation Rate	0.0%	0.0%	0.0%	5.0%	0.0%
Heart Utilisation Rate	100.0%	100.0%	100.0%	95.0%	100.0%