



SECTION 7

Deceased Donor Heart Donation

This section summarises heart donation activity from deceased donors in 2017, compared with previous years.

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Suggested citation

ANZOD Registry. 2018 Annual Report, Section 7: Deceased Donor Heart Donation. Australia and New Zealand Dialysis and Transplant Registry, Adelaide, Australia. 2018. Available at:

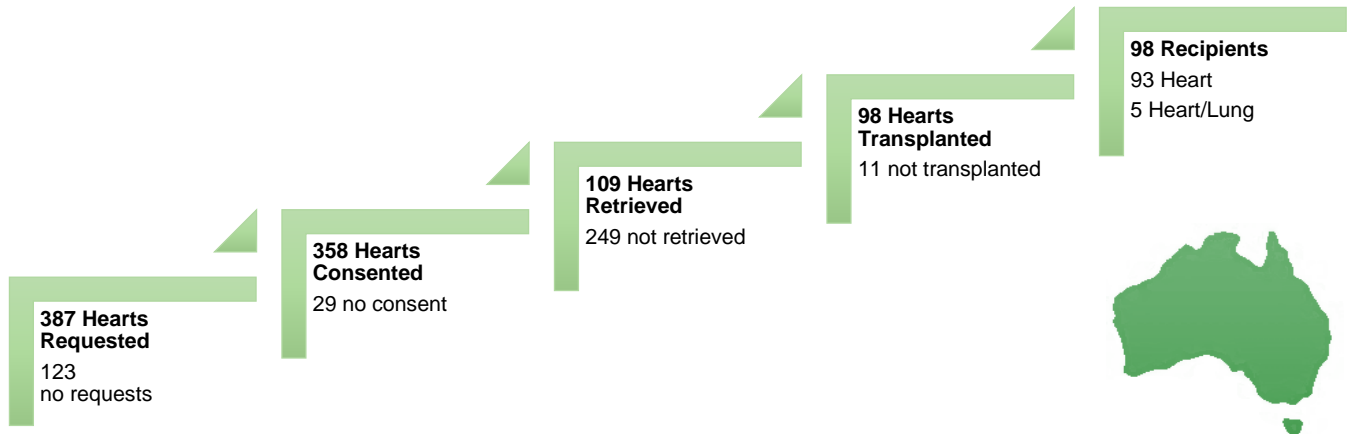
<http://www.anzdata.org.au>

Heart Donation

Of the 510 deceased organ donors in 2017 in Australia, 109 (21.4%) had heart retrieved. From these heart donors there were 98 heart transplant recipients (4.0 pmp). Of these 98 heart transplant recipients, five received heart/double lung transplants and one received a combined heart/kidney transplant.

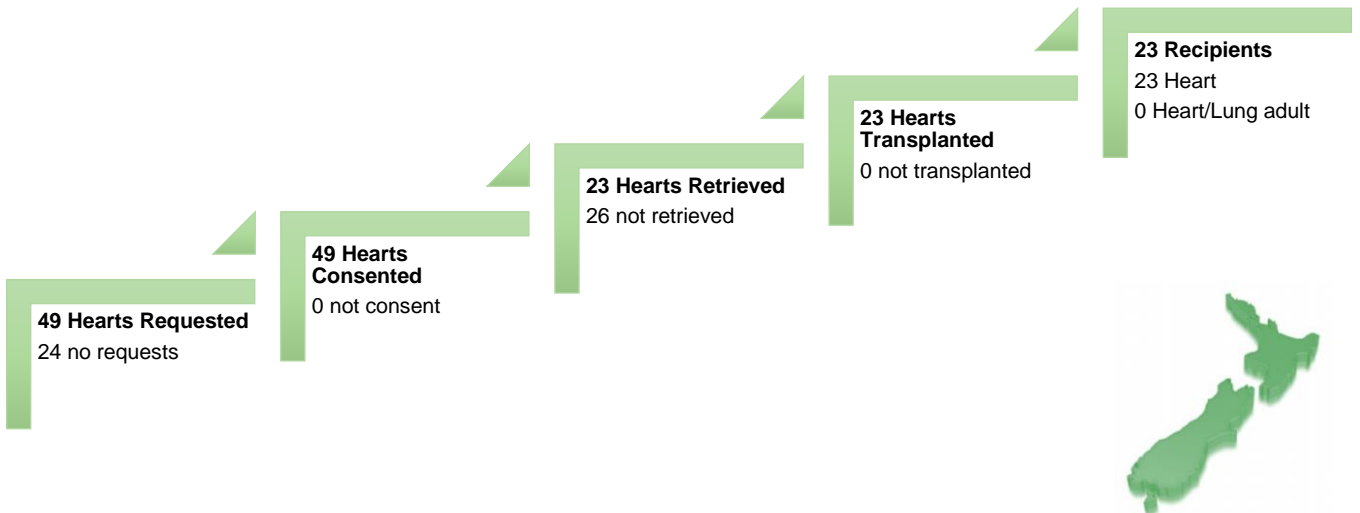
Figures 7.1 and 7.2 show the outcomes of requests for heart donation in Australia and New Zealand for 2017 respectively.

Figure 7.1 Outcomes of Request for Heart Donation from Actual Donors in Australia 2016



In New Zealand, there were 49 donors (67.1%) who consented to heart donation. From these consented donors, 23 hearts were retrieved and transplanted in 2017 (4.8 pmp). This was an increase of 109.1% in the total number of heart transplants compared with 2016 (11).

Figure 7.2 Outcomes of Request for Heart Donation from Actual Donors in New Zealand 2016



Figures 7.3 and 7.4 show the number of hearts transplanted by donation pathway and the number of heart recipients by jurisdiction.

Figure 7.3.1 - Hearts Transplanted by Donation Pathway Australia 1998-2017

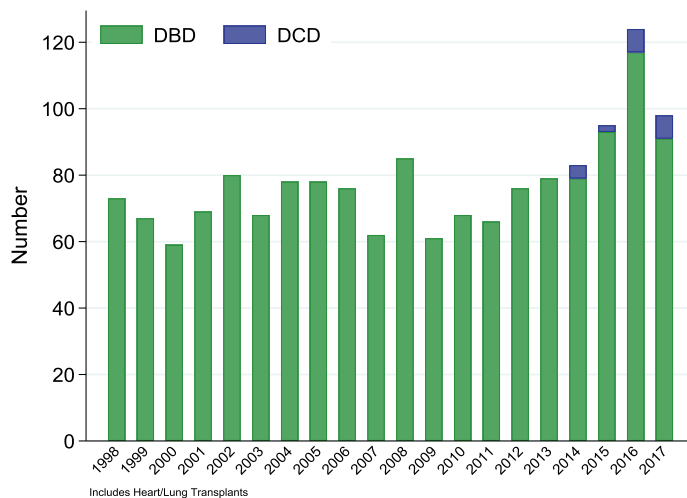


Figure 7.3.2 - Hearts Transplanted by Donation Pathway New Zealand 1998-2017

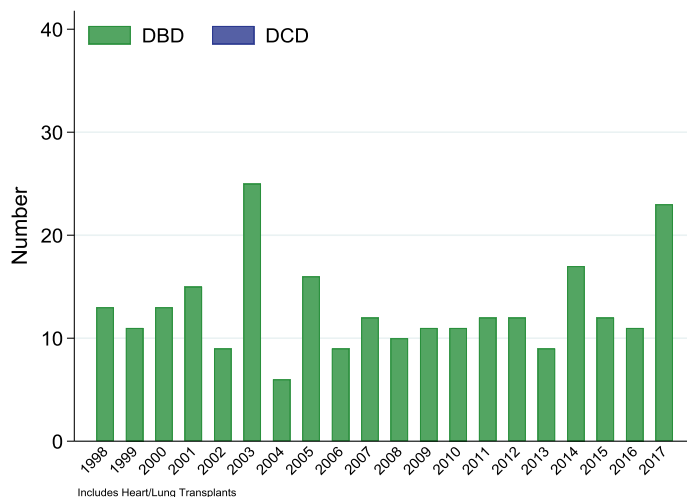
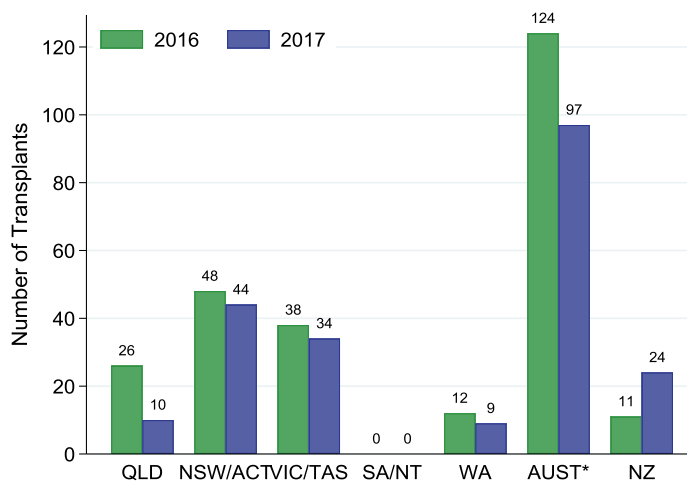


Figure 7.4 - Deceased Donor Heart Transplant Recipients* by Transplant State, Australia and New Zealand, 2016-2017



* These numbers include the exchange of organ between States and Territories of Australia and New Zealand

Age of Heart Donors

The age distribution of donors providing retrieved hearts for Australia and New Zealand is shown in Figure 7.5.

Figure 7.5.1 - Age of Donors Providing Retrieved Hearts Australia 2017

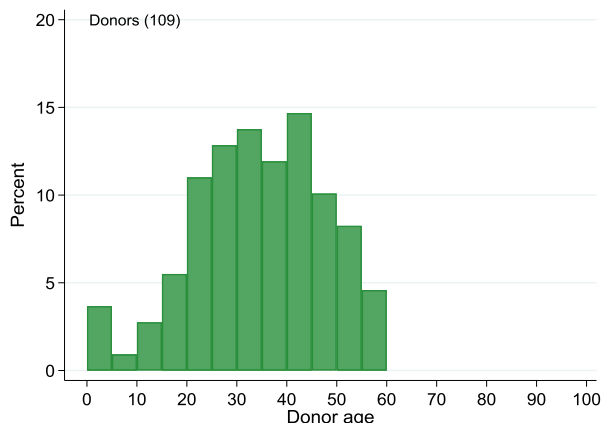
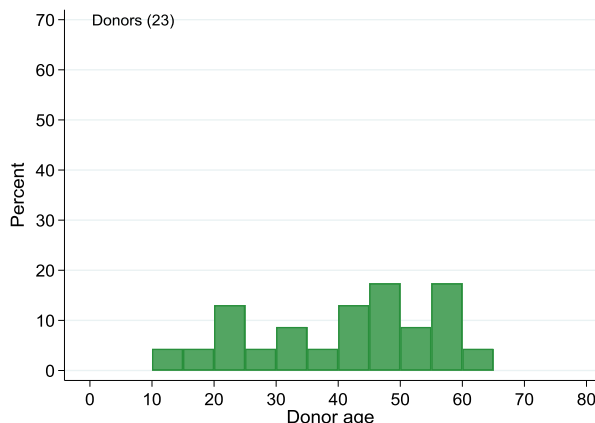


Figure 7.5.2 - Age of Donors Providing Retrieved Hearts New Zealand 2017



Donor Heart Function

In Australia, 80 (73.4%) donors with hearts retrieved had a normal ECG and 90 (82.6%) had a normal echocardiogram, prior to heart donation. In New Zealand, 21 out of the 23 heart donors had a normal ECG and 22 had a normal echocardiogram.

Hearts Not Retrieved

In 2017, there were 249 hearts not retrieved from Australian donors and 26 not retrieved from New Zealand donors.

For Australia, the main reason was due to the heart not being medically suitable (120), followed by the age of the donor (56). In New Zealand, there were 18 non-retrieved hearts due to not being medically suitable and 4 due to no suitable recipient for the heart.

Table 7.1 Reasons for Heart Not Retrieved 2017

Reason	Australia	New Zealand
Logistics	9	1
Not Medically Suitable	120	18
Surgically Unsuitable	0	0
Trauma to Organ	2	2
No Suitable Recipients	43	4
Age of Donor	56	0
DCD Donor	8	1
Consent Withdrawn	7	0
Others	4	0
Total	249	26

Hearts Retrieved and Not Utilised for Transplantation

Table 7.2 tabulates the reasons hearts were not used after retrieval for the purpose of transplantation since 2013.

Table 7.2 Reasons Heart Retrieved & Not Utilised for Transplantation, Australia (New Zealand) 2013 – 2017

Reason	2013	2014	2015	2016	2017
Logistics	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
Not Medically Suitable	0 (0)	2 (0)	4 (0)	0 (0)	8 (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)	1 (0)	0 (0)	0 (0)
Recipient Issue	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
Research	12 (0)	5 (0)	1 (0)	1 (0)	0 (0)
Other	0 (0)	0 (0)	2 (0)	0 (0)	3 (0)
Total	13 (0)	7 (0)	8 (0)	1 (0)	11 (0)

Figure 7.6 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 (either due to an absence of suitable recipients, or the heart being found to be medically or surgically unsuitable after retrieval).

In Australia, the non-utilisation rate of Hearts has increased from 0.8% in 2016 to 10.09% in 2017.

In New Zealand, all hearts retrieved for transplantation have been successfully transplanted.

Figure 7.6.1 - Non-utilisation Rate of Retrieved Heart - Australia 2013-2017

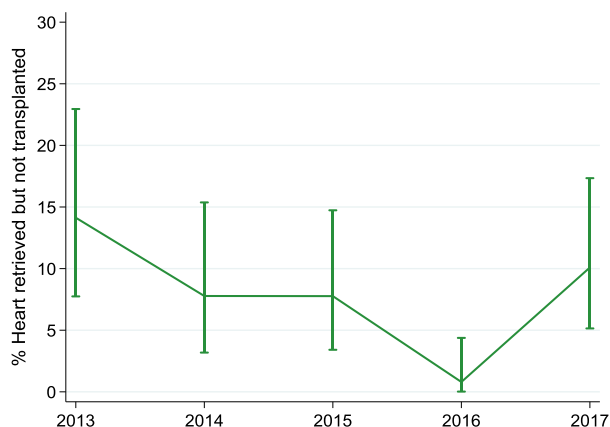
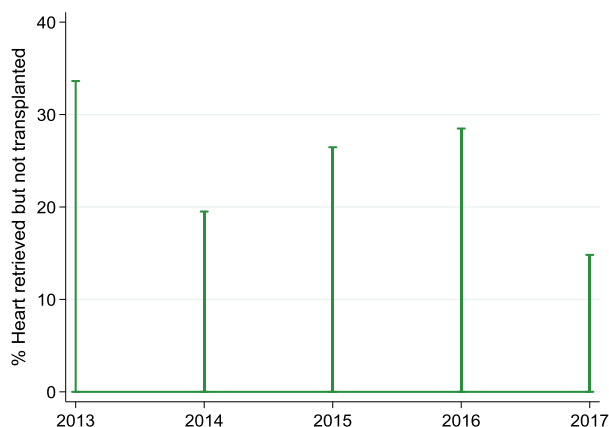


Figure 7.6.2 - Non-utilisation Rate of Retrieved Heart - New Zealand 2013-2017



Outcome of Heart Donation

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

Table 7.3.1 Outcome of Request for Heart Donation in Australia, 2013-2017

Outcome of Request	2013	2014	2015	2016	2017
Total Donors	391	378	435	503	510
Heart Requested for Donation	270	279	306	393	387
Heart Not Requested for Donation	121	99	129	110	123
Heart with Consent Given	257	249	281	370	358
Heart with Consent Not Given	13	30	25	23	29
Heart Retrieved	92	90	103	125	109
Heart Not Retrieved	165	159	178	245	249
Heart Transplanted	79	83	95	124	98
Heart Not Used for Transplantation	13	7	8	1	11
Recipients Transplanted	79	83	95	124	98
Heart/Double Lung Procedures	2	4	2	7	5
Heart Non-Utilisation Rate	14.13%	7.78%	7.77%	0.80%	10.09%
Heart Utilised Rate	85.87%	92.22%	92.23%	99.20%	89.91%

Table 7.3.2 Outcome of Request for Heart Donation in New Zealand, 2013-2017

Outcome of Request	2013	2014	2015	2016	2017
Total Donors	36	46	53	61	73
Heart Requested for Donation	20	29	40	50	49
Heart Not Requested for Donation	16	17	13	11	24
Heart with Consent Given	19	27	39	50	49
Heart with Consent Not Given	1	2	1	0	0
Heart Retrieved	9	17	12	11	23
Heart Not Retrieved	10	10	27	39	26
Heart Transplanted	9	17	12	11	23
Heart Not Used for Transplantation	0	0	0	0	0
Recipients Transplanted	9	17	12	11	23
Heart/Double Lung Procedures	0	1	0	0	0
Heart Non-Utilisation Rate	0.00%	0.00%	0.00%	0.00%	0.00%
Heart Utilised Rate	100.00%	100.00%	100.00%	100.00%	100.00%