

# **SECTION 7**

#### **Deceased Donor Heart Donation**

This section summarises heart donation activity from deceased donors in 2024, compared with previous years. The rate of heart transplant procedures in 2024 was 3.9 pmp in Australia, and 3.2 pmp in New Zealand.

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#### **EXECUTIVE SUMMARY**

Every organ donor provides a precious opportunity for the chance of an improved quality of life and survival through transplantation. It is important to understand the donation and transplant outcomes including the specific organs consented for donation, the organs retrieved and whether they were transplanted or not (non-utilised). This section provides information about the outcomes for heart donation and transplantation from deceased actual organ donors.

#### **SUGGESTED CITATION**

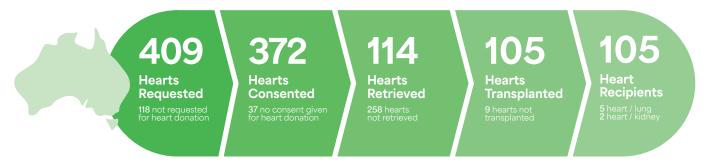
H Opdam, C Davies, K Marshall, G Irish, 29th Report, Section 7: Deceased Donor Heart Donation. Australia and New Zealand Organ Donation Registry, Adelaide, Australia. 2025. Available at: https://www.anzdata.org.au/anzod/publications-2/annual-reports/

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#### **HEART DONATION**

Of the 527 deceased actual organ donors in 2024 in Australia, 114 (21.6%) had the heart retrieved. From these heart donors, there were 105 heart transplant recipients (3.9 pmp). Of these 105 heart transplant recipients, five received heart/double lung transplants and two received combined heart/kidney transplants. Figure 7.1.1 shows the outcomes of requests for heart donation in Australia for 2024.

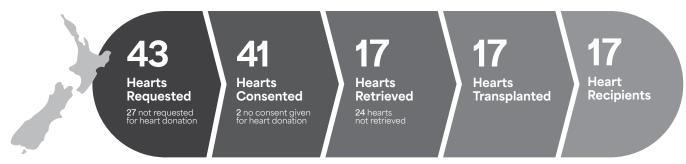
Figure 7.1.1
Outcomes of requests for heart donation in Australia - 2024



In New Zealand, there were 41 donors (58.6%) with consented for heart donation. From these consented donors, 17 hearts were retrieved and 17 recipients received a heart transplant in 2024 (3.2 pmp). This was an increase of 6.2% in the total number of heart transplants compared with 2023 (16). Figure 7.1.2 shows the outcomes of requests for heart donation in New Zealand for 2024.

Figure 7.1.2

Outcomes of requests for heart donation in New Zealand - 2024



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Figures 7.2 and 7.3 show the number of hearts transplanted by donation pathway and the number of heart recipients by jurisdiction.

Figure 7.2.1 Hearts Transplanted by Donation Pathway Australia 1998-2024

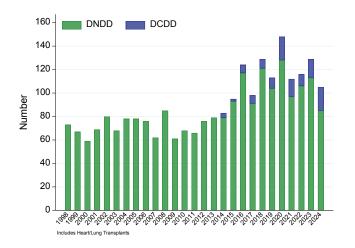


Figure 7.2.2 Hearts Transplanted by Donation Pathway New Zealand 1998-2024

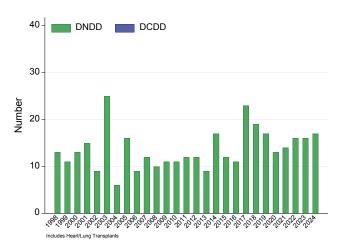
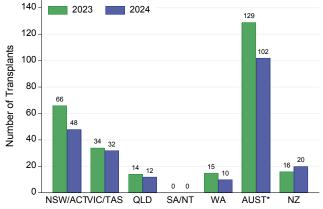


Figure 7.3

Deceased Donor Heart Transplant Recipients\* by Transplant Region, Australia and New Zealand, 2023–2024^



\* These numbers include the exchange of organ between States and Territories of Australia and New Zealar ^Year of donation.

# **AGE OF HEART DONORS**

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

Figure 7.4.1 Age of Donors Providing Retrieved Hearts Australia 2024

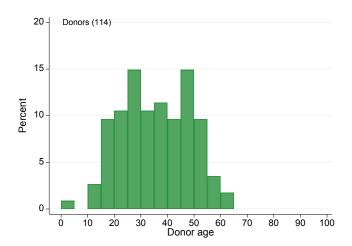
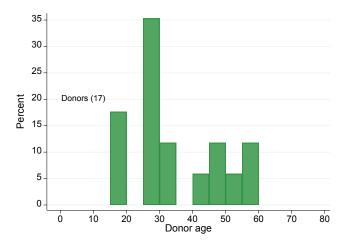


Figure 7.4.2 Age of Donors Providing Retrieved Hearts New Zealand 2024



### **DONOR HEART FUNCTION**

In Australia, 79 (69.3%) donors with hearts retrieved had a normal electrocardiogram (ECG) and 98 (86.0%) 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 the heart was not retrieved for organ transplantation are presented in Table 7.1.

Table 7.1
Reasons for Heart Not Retrieved 2024

Reason	Australia	New Zealand
Intraoperative assessment	1	0
Declined in offer process	148	19
Organ not offered - pathway	5	4
Organ not offered - age of donor	42	0
Organ not offered - not medically suitable	50	0
No consent from Coroner	10	0
Organ not offered - no suitable recipients	2	1
Total	256	23

<sup>\*</sup>WCRS-Withdrawal of cardio-respiratory support

# HEARTS RETRIEVED AND NOT UTILISED FOR TRANSPLANTATION

Figure 7.5 shows the non-utilisation rate of retrieved hearts - the proportion of hearts that were retrieved for the purpose of 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). Organ donation for the purpose of research is excluded when calculating a specific organ's non-utilisation rate for transplantation.

In Australia, the non-utilisation rate of hearts was 7.9% in 2024. In New Zealand, the non-utilisation rate of hearts was 0.0% in 2024.

Figure 7.5.1 Non-utilisation Rate of Retrieved Heart -Australia 2020-2024

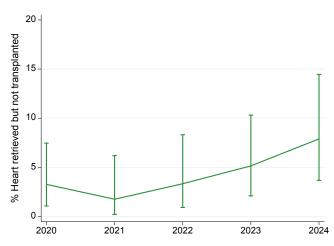


Figure 7.5.2 Non-utilisation Rate of Retrieved Heart -New Zealand 2020-2024

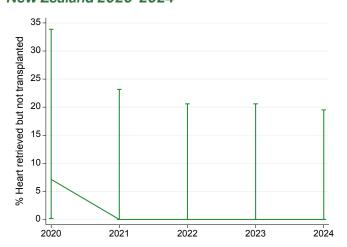


Table 7.2 tabulates the reasons hearts were not used for transplantation after retrieval for that purpose since 2021.

Table 7.2
Reasons Heart Retrieved & Not Utilised for Transplantation, 2021 - 2024

Country	Reason	2021	2022	2023	2024
Australia	Intraoperative assessment	0	2	2	1
	Assessment at transplant unit	1	2	4	5
	Surgical retrieval injury	0	0	1	1
	Other	1	0	0	2
	Total	2	4	7	9
New Zealand	Intraoperative assessment	0	0	0	0
	Assessment at transplant unit	0	0	0	0
	Surgical retrieval injury	0	0	0	0
	Other	0	0	0	0
	Total	0	0	0	0

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# **OUTCOME OF HEART DONATION**

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

Table 7.3.1
Outcome of Request for Heart Donation in Australia, 2020-2024

Outcome of Request	2020	2021	2022	2023	2024
Total Donors	463	421	454	513	527
Heart Requested for Donation	379	345	357	405	409
Heart Not Requested for Donation	84	76	97	108	118
Heart with Consent Given	354	325	330	369	372
Heart with Consent Not Given	25	20	27	36	37
Heart Retrieved	153	117	124	137	114
Heart Not Retrieved	201	208	206	232	258
Heart Transplanted	148	112	116	129	105
Heart Not Used	5	2	4	7	9
Heart Retrieved for Research*	0	3	4	1	0
Recipients Transplanted	148	112	116	129	105
Heart/Double Lung Procedures	6	4	6	3	5
Heart Non-Utilisation Rate	3.3%	1.8%	3.3%	5.1%	7.9%
Heart Utilisation Rate	96.7%	98.2%	96.7%	94.9%	92.1%

<sup>\*</sup>Use for research primary intention of retrieval

Table 7.3.2
Outcome of Request for Heart Donation in New Zealand, 2020-2024

Outcome of Request	2020	2021	2022	2023	2024
Total Donors	64	66	63	64	70
Heart Requested for Donation	46	41	43	51	43
Heart Not Requested for Donation	18	25	20	13	27
Heart with Consent Given	46	41	41	50	41
Heart with Consent Not Given	0	0	2	1	2
Heart Retrieved	15	14	16	16	17
Heart Not Retrieved	31	27	25	34	24
Heart Transplanted	13	14	16	16	17
Heart Not Used	1	0	0	0	0
Heart Retrieved for Research*	1	0	0	0	0
Recipients Transplanted	13	14	16	16	17
Heart Non-Utilisation Rate	7.1%	0.0%	0.0%	0.0%	0.0%
Heart Utilisation Rate	92.9%	100.0%	100.0%	100.0%	100.0%

<sup>\*</sup>Use for research primary intention of retrieval



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