



## SECTION 9

### Deceased Donor Pancreas Donation

#### SUMMARY

*This section summarises pancreas donation activity from deceased donors in 2021 compared with previous years. The rate of pancreas transplantation in 2021 was 1.4 pmp in Australia and 1.2 pmp in New Zealand.*

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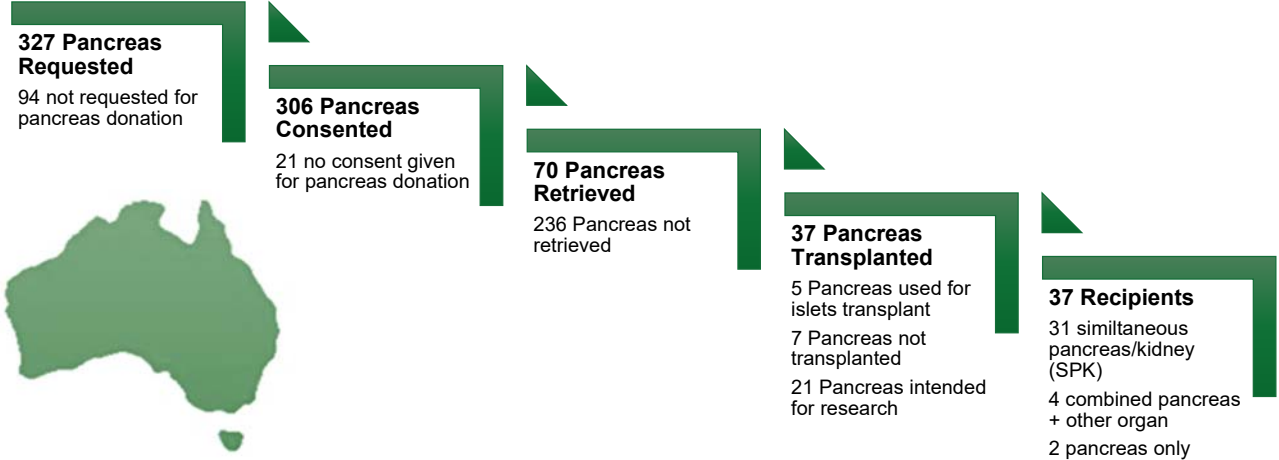
## Suggested Citation

ANZOD Registry. 2022 Annual Report, Section 9: Deceased Donor Pancreas Donation. Australia and New Zealand Dialysis and Transplant Registry, Adelaide, Australia. 2022. Available at: [www.anzdata.org.au](http://www.anzdata.org.au)

# Pancreas Donation

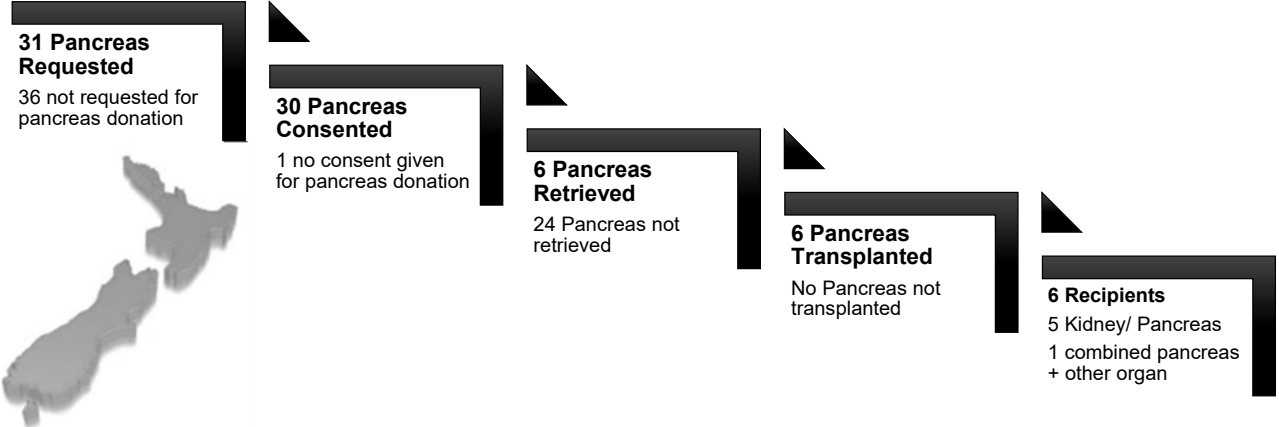
In Australia, there were 37 pancreas transplants in 2021, 35 pancreas were transplanted simultaneously with another organ resulting in 31 simultaneous pancreas/kidney transplant recipients, one combined pancreas/liver recipient, one combined pancreas/intestine recipient, one combined pancreas/liver/intestine recipient and one combined pancreas/kidney/liver recipient. There were two pancreas only transplants. The rate of pancreas transplants in 2021 was 1.4 per million population (pmp) compared to 1.8pmp in 2020. Figure 9.1.1 shows the outcomes of requests for pancreas donation by country for 2021.

**Table 9.1.1 Outcomes of Request for Pancreas Donation from Actual Donors for Australia 2021**



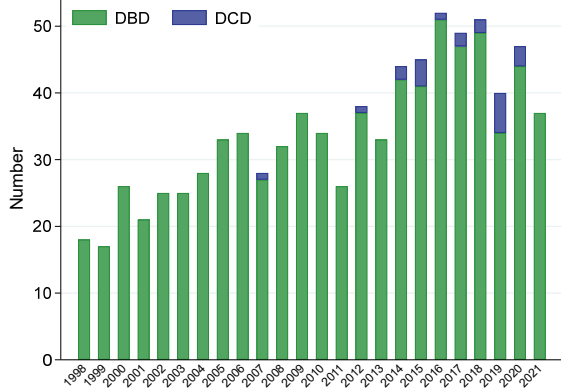
In New Zealand, there were 6 pancreas transplants (1.2pmp) in 2021. Six pancreas were transplanted simultaneously with another organ resulting in 5 simultaneous pancreas/kidney transplant recipients and 1 combined pancreas/liver recipient. The number of pancreas transplant recipients (6) in 2021 was higher than in 2020 (3). Figure 9.1.2 shows the outcomes of requests for pancreas donation in New Zealand for 2021.

**Table 9.1.2 Outcomes of Request for Pancreas Donation from Actual Donors for New Zealand 2021**

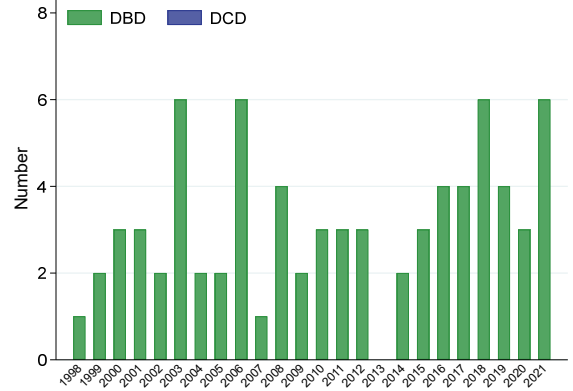


Figures 9.2 and 9.3 show the number of pancreas recipients by donation pathway and transplant region.

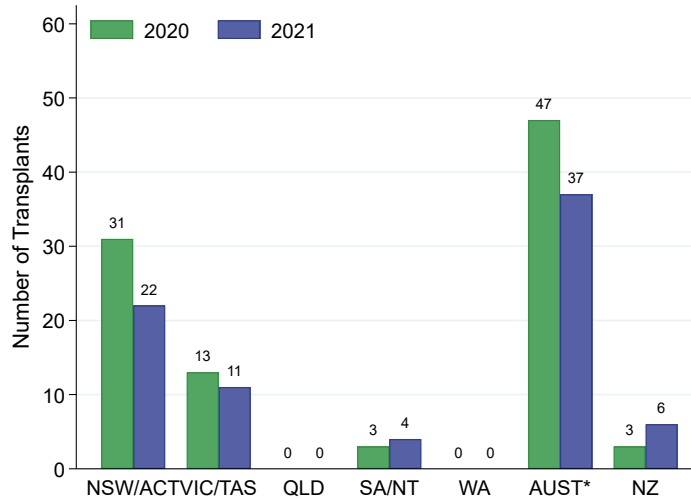
**Figure 9.2.1 - Recipients of Whole Pancreas Transplant by Donation Pathway, Australia 1998-2021**



**Figure 9.2.2 - Recipients of Whole Pancreas Transplant by Donation Pathway, New Zealand 1998-2021**



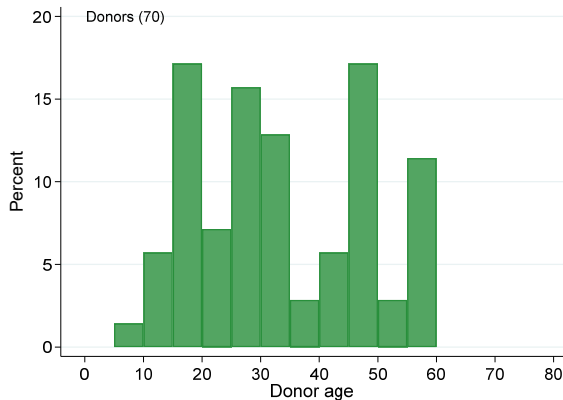
**Figure 9.3 - Deceased Donor Pancreas Transplant Recipients\* by Transplant Region, Australia and New Zealand, 2020-2021**



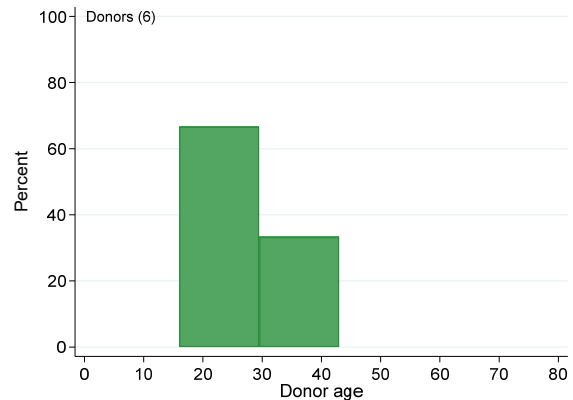
## Age of Pancreas Donors

The age distribution of donors providing retrieved pancreas for Australia and New Zealand is shown in Figure 9.4.

**Figure 9.4.1 - Age of Donors Providing Retrieved Pancreas Australia 2021**



**Figure 9.4.2 - Age of Donors Providing Retrieved Pancreas New Zealand 2021**



# Donor Pancreas Function

Tests for pancreas function of deceased donors include blood sugar levels, serum amylase and serum lipase tests.

## Australia

In Australia, of the 347 donors in 2021 with a measurement taken, 81.8% had blood sugar levels greater than 8mmol/L. Of those 66 donors with pancreas retrieved and a measurement taken, 80.3% had blood sugar levels greater than 8mmol/L.

Of the 264 donors with a measurement taken, 86.0% had normal amylase levels or lipase less than 80 U/L. Of the 64 donors with pancreas retrieved and a measurement taken, 95.3% had normal amylase levels or lipase less than 80 U/L.

## New Zealand

In New Zealand, of the 9 donors in 2021 with a measurement taken, 77.8% had blood sugar levels greater than 8mmol/L. Of those 5 donors with pancreas retrieved and a measurement taken, 83.3% had blood sugar levels greater than 8mmol/L.

Of the 7 donors with a measurement taken, 85.7% had normal amylase levels or lipase less than 80 U/L. Of the 5 donors with pancreas retrieved and a measurement taken, 100.0% had normal amylase levels or lipase less than 80 U/L.

# Pancreas Not Retrieved

In 2021, there were 236 pancreas not retrieved from Australian donors and 24 not retrieved from New Zealand donors. The reasons why pancreas was not retrieved for organ transplantation are presented in Table 9.1.

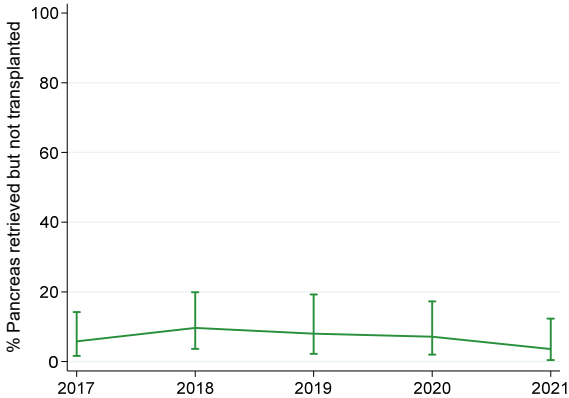
**Table 9.1 Reasons for Pancreas Not Retrieved 2021**

Reason	Australia	New Zealand
Logistics	0	0
Not Medically Suitable	33	5
Surgically Unsuitable	0	0
Trauma to Organ	0	0
No Suitable Recipients	121	7
Age of Donor	56	11
DCD Donor	25	0
Consent Withdrawn	1	1
Others	0	0
<b>Total</b>	<b>236</b>	<b>24</b>

# Pancreas Retrieved and Not Utilised for Transplantation

Figure 9.5 shows the non-utilisation rate of retrieved pancreases – the proportion of pancreases 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 pancreas 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.

**Figure 9.5.1 - Non-utilisation Rate of Pancreas Retrieved for Organ Transplantation - Australia 2017–2021**



**Figure 9.5.2 - Non-utilisation Rate of Pancreas Retrieved for Organ Transplantation - New Zealand 2017–2021**

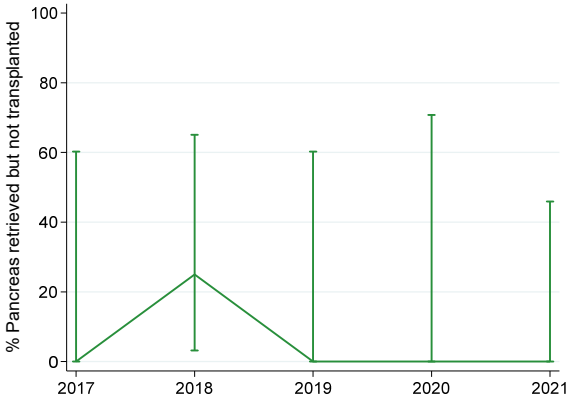


Table 9.2 tabulates the reasons pancreas were not used for transplantation after retrieval for that purpose since 2017.

**Table 9.2 Reasons Pancreas Retrieved & Not Utilised for Transplantation, Australia (New Zealand) 2017 – 2021**

Reason	2017	2018	2019	2020	2021
Logistics	0 (0)	0 (0)	0 (0)	1 (0)	0 (0)
Not Medically Suitable	4 (0)	5 (1)	4 (0)	2 (0)	0 (0)
Not Surgically Suitable	0 (0)	1 (0)	0 (0)	0 (0)	0 (0)
Trauma to Organ	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
No Suitable Recipients	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
Recipient Issue	0 (0)	0 (1)	0 (0)	0 (0)	2 (0)
Insufficient Islets	9 (0)	10 (0)	4 (0)	6 (0)	5 (0)
Others	0 (0)	0 (0)	0 (0)	1 (0)	0 (0)
<b>Total</b>	<b>13 (0)</b>	<b>16 (2)</b>	<b>8 (0)</b>	<b>10 (0)</b>	<b>7 (0)</b>

## Outcome of Pancreas Donation

The outcome of pancreas donation activity in Australia and New Zealand through the donation pathway is shown in table 9.3.

Table 9.3.1 Outcome of Request for Pancreas Donation in Australia, 2017–2021

Outcome of Request	2017	2018	2019	2020	2021
<b>Total Donors</b>	510	554	548	463	421
<b>Pancreas Requested for Donation</b>	407	443	407	347	327
Pancreas Not Requested for Donation	103	111	141	116	94
<b>Pancreas with Consent Given</b>	393	416	391	327	306
Pancreas with Consent Not Given	14	27	16	20	21
<b>Pancreas Retrieved</b>	<b>95</b>	<b>96</b>	<b>82</b>	<b>70</b>	<b>70</b>
Pancreas Not Retrieved	298	320	309	257	236
<b>Whole Pancreas Transplanted</b>	<b>49</b>	<b>51</b>	<b>40</b>	<b>47</b>	<b>37</b>
Pancreas Only Transplanted	1	3	2	1	2
Pancreas Transplanted with Other Organ	48	48	38	46	35
Pancreas Islets Transplanted	11	14	16	6	5
Pancreas Not Used	13	16	8	10	7
Pancreas Retrieved for Research and Not for Transplantation	22	15	18	7	21
<b>Whole Pancreas Recipients</b>	<b>49</b>	<b>51</b>	<b>40</b>	<b>47</b>	<b>37</b>
Pancreas Only Recipients	1	3	2	1	2
Pancreas with Other Organ Recipients	48	48	38	46	35
Pancreas Islets Recipients	11	14	16	6	5
<b>Pancreas (including Islets) Non-utilisation Rate</b>	<b>13.7%</b>	<b>16.7%</b>	<b>9.8%</b>	<b>14.3%</b>	<b>10.0%</b>
<b>Pancreas (Whole, no Islets) Utilisation Rate</b>	<b>51.6%</b>	<b>53.1%</b>	<b>48.8%</b>	<b>67.1%</b>	<b>52.9%</b>

Table 9.3.2 Outcome of Request for Pancreas Donation in New Zealand, 2017–2021

Outcome of Request	2017	2018	2019	2020	2021
<b>Total Donors</b>	<b>73</b>	<b>62</b>	<b>74</b>	<b>64</b>	<b>66</b>
<b>Pancreas Requested for Donation</b>	40	44	42	38	31
Pancreas Not Requested for Donation	33	18	32	26	36
<b>Pancreas with Consent Given</b>	40	43	42	38	30
Pancreas with Consent Not Given	0	1	0	0	1
<b>Pancreas Retrieved</b>	<b>4</b>	<b>8</b>	<b>4</b>	<b>3</b>	<b>6</b>
Pancreas Not Retrieved	36	35	38	35	24
<b>Whole Pancreas Transplanted</b>	<b>4</b>	<b>6</b>	<b>4</b>	<b>3</b>	<b>6</b>
Pancreas Only Transplanted	0	0	0	0	0
Pancreas Transplanted with Other Organ	4	6	4	3	6
Pancreas Islets Transplanted	0	0	0	0	0
Pancreas Not Used	0	2	0	0	0
Pancreas Retrieved for Research and Not for Transplantation	0	0	0	0	0
<b>Whole Pancreas Recipients</b>	<b>4</b>	<b>6</b>	<b>4</b>	<b>3</b>	<b>6</b>
Pancreas Only Recipients	0	0	0	0	0
Pancreas with Other Organ Recipients	4	6	4	3	6
Pancreas Islets Recipients	0	0	0	0	0
<b>Pancreas (including Islets) Non-utilisation Rate</b>	<b>0.0%</b>	<b>25.0%</b>	<b>0.0%</b>	<b>0.0%</b>	<b>0.0%</b>
<b>Pancreas (Whole, no Islets) Utilisation Rate</b>	<b>100.0%</b>	<b>75.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>