

Organ Donation New Zealand

ANNUAL

REPORT

2021





Organ and tissue donation - the gift of life

The ODNZ logo consists of three interlacing circles. These represent the three key participants in the organ donation story - the donor, the family of the donor and the transplant recipient.

The 'life circles' indicate the connection all three participants have with each other - the donor's gift of an organ or tissue, the family, who gave permission for this process to occur in a time of incredible emotional stress, and the recipient who receives the organ or tissue because of this generosity.

It is an emotional time for all concerned, and they will be linked through this intimate process forever. Yet the donor/family never meet the recipient or know each other's identities, hence the life circles never quite meet.

The stylized strokes of the three circle elements also represent the cycle of all living things, there is a beginning and an end, and in the context of organ and tissue donation, a life can be renewed from the ending of another.

Through death comes the gift of life.

About the Report

This report outlines the activities of Organ Donation New Zealand (ODNZ) and provides an authoritative account of organ and tissue donation and transplantation activity in New Zealand during 2021. It is intended to be a valuable source of information for health professionals involved in organ and tissue donation and transplantation, as well as for the community.

We gratefully acknowledge the New Zealand transplant units and tissue banks for providing data included in this report.

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Organ Donation New Zealand

PO Box 99431

Newmarket

Auckland 1149

Email: contactus@donor.co.nz

Phone: 0800 4 DONOR (0800 436 667)

Organ and tissue donation referrals (24 hour): 09 630 0935

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THE YEAR IN REVIEW



The ODNZ team is always in awe of the graciousness and generosity of grieving whānau who consider the option of organ and tissue donation for a relative who is dying or who has died.

Donation comes out of human tragedy; this is often one of the most difficult times for whānau, made even more difficult by recent pandemic restrictions on hospital visiting and travel. Over the past year, many end-of-life discussions about organ and tissue donation have had to be carried out over the phone or in virtual meetings, reducing the opportunity for human connection that comes from face-to-face meetings. Health professionals in ICUs and Emergency Departments have adapted to this challenge with extreme skill, care and compassion.

I have been continuously impressed by the resourcefulness and resilience of the ODNZ team, ODNZ Link nurses and doctors, and the wider ICU and Operating Theatre (OT) teams throughout New Zealand, who have continued to provide an excellent service. They have worked hard to optimise every organ and tissue donation opportunity, despite many challenges.

ODNZ is fortunate to be supported by many other dedicated teams, including the transplant units, tissue banks, the coronial services, pathology services, infectious disease teams, radiologists and many more who give their time and advice to provide the best outcome for recipients.

Challenges, posed by the COVID-19 pandemic, for Auckland donor surgical teams visiting donor hospitals throughout New Zealand, have been met with collaboration and flexibility from all involved. The donor hospitals have worked hard to support this, and continued to warmly welcome and care for the surgical teams.

We acknowledge the support of New Zealand Blood Service (NZBS) who have continued to offer exceptional work in donor blood testing and tissue banking, and also welcomed ODNZ into their organisation over the last year. Although we have retained the ODNZ brand, we are now truly a part of NZBS.

Organ donation is a rare occurrence with less than 2% of deaths in New Zealand occurring in a situation where organ donation might be possible. In 2021 there were 66 people who donated organs following death. This enabled 191 recipients to receive life-saving kidney, liver, lung, heart or pancreas transplants. Many more people received tissue transplants (cornea, sclera, heart valves and skin) from these donors.

Of these 66 deceased organ donors, 60 donated following brain death (DBD, where the brain has died but the heart has not yet stopped) and 6 were donors after circulatory death (DCD, after the heart has stopped).

There were eight patients who were unable to donate organs for various reasons, however three of these patients were able to donate tissues for transplantation. An additional 52 tissue-only donations were facilitated from people who died in a hospital, hospice or at home.

There is further potential to increase the number of DCD and tissue donations. ODNZ continues to work with donor hospitals to provide education and training in DCD donation. There are now 10 hospitals in New Zealand able to facilitate DCD and ODNZ is working with another five hospitals on their DCD implementation.

In line with many other countries, including Australia, United Kingdom and the United States, ODNZ is committed to promoting routine referral of all patients approaching end of life in intensive care and emergency departments. This ensures all situations where organ and tissue donation might be possible are recognised and, where appropriate, discussed with whānau with compassion, respect, knowledge and skill.

ODNZ is also actively promoting tissue donation with healthcare teams caring for those at the end of life, to ensure that tissue donation is offered in all appropriate situations.

Care of the donor whānau is at the forefront of the work that we do at ODNZ. Much of this support starts at the ICU bed side and is continued via phone, email, letters and thanksgiving events. Sadly, we had to cancel the thanksgiving services in 2021. Work is underway to look at options for a virtual service in 2022, in the event of ongoing restrictions or risks due to COVID-19.

ODNZ continues to provide organ and tissue donation education for health professionals throughout New Zealand. We were fortunate to be able to travel and hold many face-to-face meetings in 2021. However, several of our usual study days and workshops were adapted to virtual formats and these were well received.

Looking forward to 2022, ODNZ will meet any ongoing challenges and adapt our work to ensure that every opportunity for donation is recognised. We will continue to collaborate with many others to promote organ and tissue donation and to ensure the best outcome for donors, their whānau, transplant recipients, and all staff involved in the donation process.

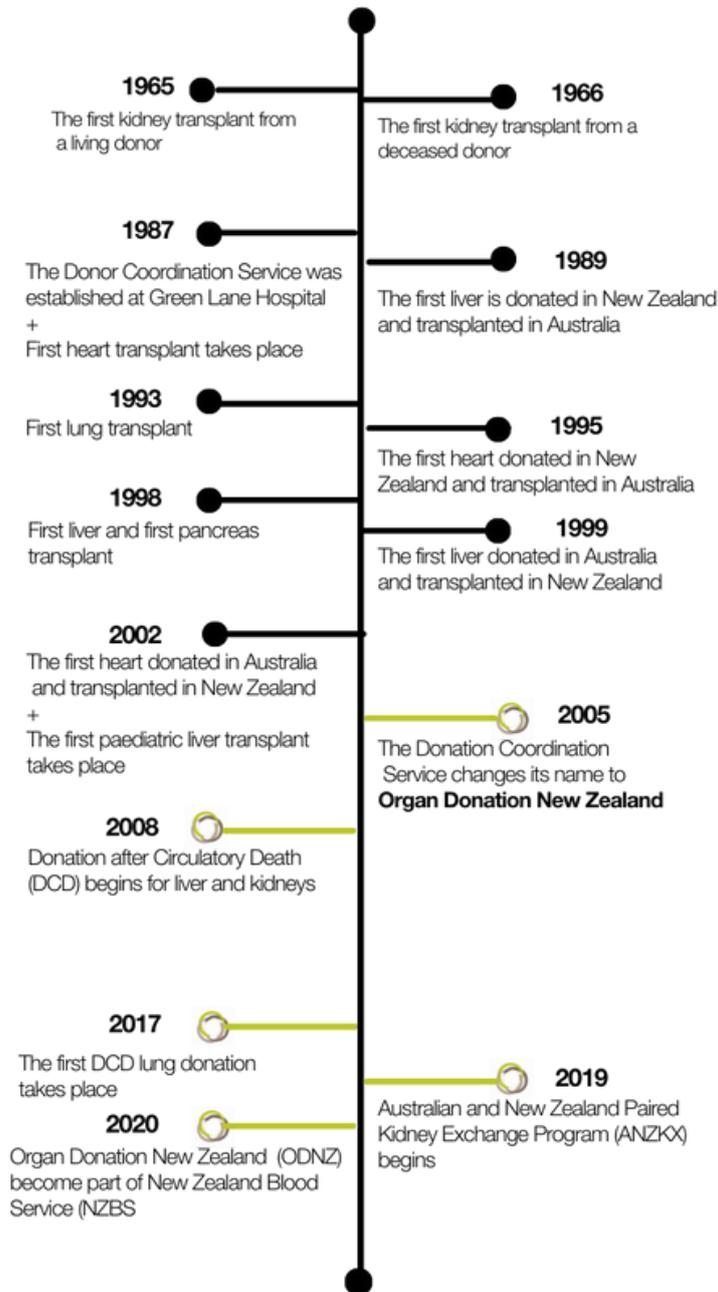
To all donor whānau, thank you will never be enough.

Ngā mihi nui,
Jo

DR JOANNE RITCHIE

MEDICAL SPECIALIST
ODNZ CLINICAL LEAD

A history of organ donation and transplantation in New Zealand



ORGAN DONATION NEW ZEALAND

About Organ Donation New Zealand

Organ Donation New Zealand (ODNZ) is the national service for deceased organ and tissue donation. It was established in 1987 when heart transplantation began, and the service was managed by the Auckland District Health Board (ADHB).

Originally named the 'Transplant Donor Coordination Service', the organisation changed its name to Organ Donation New Zealand in 2005. Today, ODNZ is managed by New Zealand Blood Service (NZBS) and is situated in the NZBS National Office in Auckland.

ODNZ coordinates organ and tissue donation from deceased donors in New Zealand and the donor coordinators provide information and ongoing support for families who have generously agreed to organ and tissue donation.

ODNZ works with health professionals in donor hospitals to ensure that processes for deceased donation are nationally consistent and of the highest medical, ethical and legal standards.

ODNZ's Guiding Principles:

- Every opportunity for deceased organ donation should be recognised by ICU staff and every family should have donation discussed with them by a health care professional with compassion, respect and appropriate knowledge and skill. Donation should be discussed with all families irrespective of whether the word 'donor' is on the driver licence.
- The process of organ donation must accord with good medical practice, ethical standards, and the law. The Human Tissue Act (2008) requires consent before organs or tissue may be removed from a deceased person for transplantation.
- The family's decision about donation should always be respected. All donors come out of human tragedy and donation by the family is voluntary.

STAFFING

Donor Coordinators

Janice Langlands (Team Leader), Mary O'Donnell, Lauren Sprenger, Sue Garland, Annette Flanagan and Lisa Craig are the ODNZ donor coordinators. They were joined by Sharon Skinner in November 2021.

The donor coordinators are nurse specialists who provide a 24-hour consultation, advice and support service for health professionals involved in organ and tissue donation. They coordinate organ and tissue donations throughout New Zealand for transplant services in New Zealand and Australia and tissue banks in New Zealand. The donor coordinators also provide an extensive education program, which includes workshops, study days and education sessions for health professionals at hospitals throughout New Zealand, as well as for medical students and the public.



Janice Langlands



Mary O'Donnell



Lauren Sprenger



Sue Garland



Annette Flanagan



Lisa Craig



Sharon Skinner

Medical Specialists

Doctors Jo Ritchie (National Clinical Lead), Laura Bainbridge and Jonathan Casement are employed part-time as the ODNZ medical specialists. Doctors Kim Grayson, Tobias Mertz, Deborah Chalmers and Myles Smith, assisted with medical specialist on-call in 2021. The medical specialists, who are also intensive care specialists, provide a 24-hour support and advice on all aspects of the donation process for the donor coordinators and health professionals.



Dr Joanne Ritchie



Dr Jonathan Casement



Dr Laura Bainbridge

Communications and Administration

Rebecca Oliver, communications advisor, is responsible for providing information to health professionals, media and the public. Leeny Gin is the ODNZ team administrator and her role includes organising travel and education.



Rebecca Oliver



Leeny Gin

Donation Link Teams

The Donation Link teams in donor hospitals consist of ICU Donation Link nurses and doctors and OT Donation Link nurses. They are the local experts and liaison for organ and tissue donation for their hospital and help facilitate organ and tissue donations.

The Ministry of Health funds part-time ICU medical and nursing staff in Donation Link roles and is responsible for these contracts.

"The ODNZ Operating Theatre Link nurse is a very special and unique role which we take immense pride in. It is a true privilege to be involved with caring for the patients and working with the inspiring team of health professionals who make organ donation happen"

ODNZ ACTIVITIES

Donor Family Support

The donor coordinators provide information and support for donor families both before and after organ and tissue donation. This includes the offer of items of remembrance such as handprints and locks of hair, providing general information about the outcome of their donation and facilitating anonymous communication between transplant recipients and donor families and vice versa.

Thanksgiving Services are held to respectfully acknowledge the generosity of families who have donated organs and tissues following the death of a family member. Families of donors, recipients and their families, and health professionals involved in both organ and tissue donation and transplantation are invited to these services. Unfortunately, the services were cancelled again in 2021 due to the COVID-19 pandemic. Work is underway to offer a virtual option in 2022 if onsite services are not able to occur due to travel and event restrictions, or if there is a risk to participants.

Education

ODNZ provides an extensive organ and tissue donation education program for health professionals throughout New Zealand. This ranges from short educational sessions to full day workshops and includes the following:

Organ and Tissue Donation Study Day

This general study day held at hospitals around New Zealand, is for health professionals to gain an insight into organ and tissue donation and transplantation, the donation process, address common myths and misconceptions and share donor family and recipient stories.

Education continued

Donation Link Nurse Induction Day

This introductory workshop for all new ICU and OT Link nurses provides an overview of ODNZ and the organ and tissue donation process. It is an opportunity for the nurses to network with colleagues from other hospitals, to develop a richer understanding and knowledge of their roles and to share experiences and resources.

Advanced Study Day

These workshops are for experienced ICU nurses to increase their awareness of patients who could potentially donate, to provide a better understanding of the donation process and the roles of the health professionals involved and to improve knowledge and skills in the conversations with families and colleagues.

In 2021 study days, half day workshops and educational sessions were held in the following hospitals:

- Auckland CVICU
- Auckland DCCM
- Auckland PICU
- North Shore
- Middlemore
- Tauranga
- Rotorua
- Taranaki
- Masterton
- Wellington
- Hutt
- Dunedin

The donor coordinators also provided short educational sessions for health professionals in other hospital wards and departments, at hospices and for nursing students and postgraduate nurses at Unitec, as well as for University of Auckland medical students.

New Zealand Donation Awareness Course (NZDAC)

Conversations about organ and tissue donation are now considered part of standard end of life practice. However, the delivery of this discussion requires education and training.

The NZ Donation Awareness Course (NZDAC) was developed by ODNZ after a need was recognised for a NZ designed course to discuss, educate and raise awareness about the donation process in NZ and to develop knowledge of the cultural, legal, and logistical considerations that are specific to NZ.

The NZDAC was held online in December 2021 due to the COVID-19 pandemic. Despite this, 100% of participants said they would recommend the course.

Education continued

Core Donation Family Workshop (cFDC)

This workshop gives ICU doctors and nurses an opportunity to practice, discuss and receive feedback on how to have donation conversations with families in a compassionate and respectful manner.

To complete training as an Intensive Care Specialist with the College of Intensive Care Medicine (CICM), medical trainees are required to complete an approved donor awareness course. The core Family Donor workshop (cFDC), delivered by educators from Donate Life Australia, is an approved course that ODNZ have facilitated in Auckland for many years. However, due to COVID-19 travel restrictions the cFDC was not able to be held for the last two years.

In December 2021 the Australian course facilitators were able to offer a half-day video linked abridged FDC course. However this did not meet the requirement for a college approved course. ODNZ applied to CICM to have the NZDAC, combined with the abridged course, accepted as official intensive care training. We are delighted that the course met the College's criteria and that the importance of covering NZ specific topics was acknowledged.

"I found this really interesting and helpful and I am looking forward to doing the full 2-day course!"

"The session on Tikanga Māori was excellent. It will be so helpful for donation situations going forward."

ICU Donation Audit Meeting

ICU Donation Audit meetings were not able to be held in person during 2021. ODNZ was able to reinstate an abridged virtual meeting in May 2021, which was then extended to a half day virtual meeting in November 2021.

These meetings are held to present recent data collected, highlighting changes and differences in practice. Regional knowledge and experiences are shared with colleagues throughout New Zealand.

The two 2021 meetings were attended online by ODNZ ICU Link teams throughout New Zealand. In November, ODNZ extended the invitation to Operating Theatre Link nurses.

Donation After Circulatory Death (DCD) Implementation

DCD accreditation was completed at Rotorua Hospital in 2021. Work continues with education and protocol development at Taranaki Hospital, Auckland City Hospital CVICU/Level 4 OR, North Shore Hospital, Whangarei Hospital and Tauranga Hospital.

Education continued

Māori Health Education

Two hui were held in Rotorua to discuss organ donation; one was held at Rotorua hospital, the other at Te Wānanga o Aotearoa College. The events were organised by the Rotorua ICU Link team, Dr Ulrike Buehner, Andrea Colby and Justine Sinclair, along with their colleagues Doctors Ari Waaka and Tawa Hunter. The health professionals and Janice Langlands, ODNZ donor coordinator, spoke about the donation process and discussed some common myths and misconceptions. Donor family member John Short and heart recipient Wiremu Keepa shared their personal stories.



Donation hui organisers Dr Tawa Hunter, ICU Nurse Justine Sinclair, Dr Ulrike Buehner, Dr Ari Waaka and ICU Nurse Andrea Colby from Rotorua hospital.

Medical Grand Rounds

Jo Ritchie, ODNZ medical specialist, Janice Langlands, ODNZ donor coordinator, and Cherie Watts, Wellington ICU Link nurse, presented at the medical grand round in Wairarapa Hospital. The presentation included an update on organ and tissue donation in New Zealand and addressed some of the common myths about donation.

Education Day for Medical Specialists

An education meeting was held for the medical specialists who provide on-call for ODNZ. This gave our team the opportunity to look at recent changes in donation practice outlined in the Australian and New Zealand Intensive Care Society (ANZICS) documents and to share and discuss donation experiences.

The ODNZ App

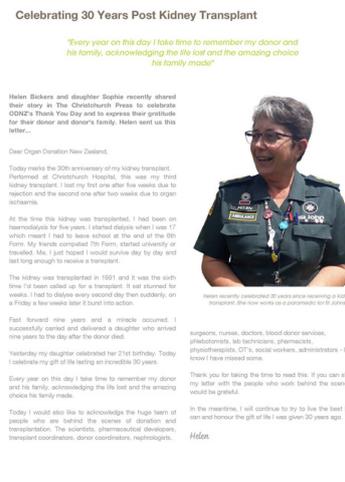
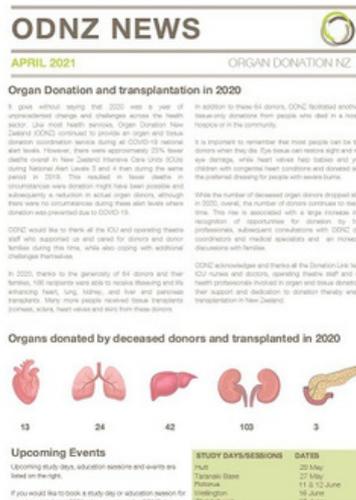
An updated version of the ODNZ mobile app was released in November. The app is a valuable resource for health professionals working in ICUs, operating theatres and emergency departments throughout New Zealand. It provides instant access to organ and tissue donation guidelines and documentation, along with the ability to directly contact ODNZ.

COMMUNICATION

ODNZ Link Nurse Communication

A hard copy newsletter providing news and information for health professionals in donor hospitals was produced by ODNZ in April, July and December 2021. These newsletters featured information about organ and tissue donation and transplantation, along with stories from donor families and transplant recipients.

The Donation Link nurses also received regular e-newsletters keeping them up to date with ODNZ news, education dates, organ donation and transplantation news and links to new extranet content.



Public Awareness

In 2021 ODNZ facilitated a variety of media coverage aimed at educating people about the life-changing nature of organ and tissue transplants and to encourage people to discuss donation with their families. This coverage ranged from radio and television interviews to magazine and newspaper articles.

The ODNZ team also responded to enquiries via the 0800 telephone number (0800 4 DONOR), by email and via the ODNZ website www.donor.co.nz. These enquiries included questions about the donation process and possibility of donating following diagnosis of a particular health condition, age criteria for donation, queries about the meaning of 'Donor' on the New Zealand driver licence, plus requests for information about live donation and body bequests.

ODNZ's 'Have the Conversation' pamphlets and posters were also distributed by transplant recipients, their friends and family and by others wishing to promote organ and tissue donation.

Thank You Day 2021 - Expressing Gratitude for the Gift of Life

Each year the lives of many New Zealanders are transformed by the kindness of families who, at a time of immense personal tragedy, agree to organ and tissue donation.

Thank You Day 2021, held on Sunday 14th November, was an opportunity to acknowledge all deceased donors and donor families who have generously donated organs and tissues, saving or improving the lives of others.

ODNZ released a video featuring the life-changing journey of Jessica van Slooten, a double lung transplant recipient.

Filming the video was made more challenging by the COVID-19 pandemic and Auckland being in Alert Level 4 lockdown. However, the videography team worked remotely with Jessica via Zoom and collated footage taken by Jess's husband at the top of One Tree Hill. The video gave an insight into Jess's diagnosis with a fatal lung disease at the age of 22, her life following the diagnosis and her gratitude to her donor and donor family for receiving a double lung transplant.



Jessica van Slooten celebrating life post double lung transplant by walking up Auckland's One Tree Hill with her husband

Jess also kindly shared her transplant journey on TV3's The AM Show and spoke about Thank You Day, while Helen Bickers, a kidney transplant recipient, and her daughter also shared their transplant journey in several regional newspapers.

Transplant recipients around New Zealand took time out on Thank You Day to remember their donor and donor family and some also shared messages of gratitude on social media and with ODNZ.

“My family and I will always cherish this day and I will honour this beautiful act every single day of my remaining life.

Words will never express my gratitude for being chosen to be guardian of such a precious gift.

Please know that I am well and will use my time to live a full and rewarding life because you allowed me that chance.”

Message from a transplant recipient on Thank You Day 2021

Thank you to the Donation Link nurses, DHB Communications teams and many other supporters for their assistance with sharing the video, recipient stories and messages of gratitude to recognise and remember organ and tissue donors and their families.

ORGAN AND TISSUE DONATION

Table 1: Number of Deceased Organ Donors in New Zealand

In 2021, 66 deceased organ donors from ICUs in 16 donor hospitals donated organs (and tissues) for transplantation. Of these, 60 donated following brain death (DBD) and six donated following circulatory death (DCD).

There were also eight Intended Organ Donors where organ donation did not proceed. Three of these Intended Organ Donors donated tissues for transplantation. These numbers are not included in the table below.

This does not include tissue-only donors (eyes, heart valves and skin).

Hospital	2017	2018	2019	2020	2021
Auckland City CVICU	0	0	0	0	3[1]
Auckland City DCCM	21[5]	11[1]	11[1]	11	15[1]
Christchurch	11[1]	12[1]	17[5]	9[1]	12[1]
Dunedin	7[1]	4	10[3]	5[1]	7
Gisborne	0	0	0	0	1
Grey Base	0	1	0	0	0
Hawke's Bay	2	2	3	1	2
Hutt	0	0	0	2	0
Middlemore	4[3]	6[3]	3[1]	4[2]	4[1]
Nelson	1	3	3[1]	1	2[1]
North Shore	3	2	2	1	1
Palmerston North	0	2	0	0	0
Rotorua	1	1	1	2	1
Southland	3	1	0	2	0
Starship Children's	0	0	1	1[1]	1
Taranaki Base	1	0	2	1	1
Tauranga	0	0	4	1	1
Timaru	0	2	0	0	0
Waikato	9[2]	5[2]	5[1]	11[2]	3
Wairau	0	0	0	0	0
Whanganui	1	0	0	0	0
Wellington	6	9[1]	11[1]	12[1]	11[1]
Whakatane	1	0	1	0	0
Whangarei	2	1	0	0	1
Total number of donors	73[12]	62[8]	74[13]	64[8]	66[6]

Note: [] DCD donors

Graph 1: Deceased Organ Donation by Year 2012 - 2021
Donation after Brain Death (DBD) and Donation after Circulatory Death (DCD)

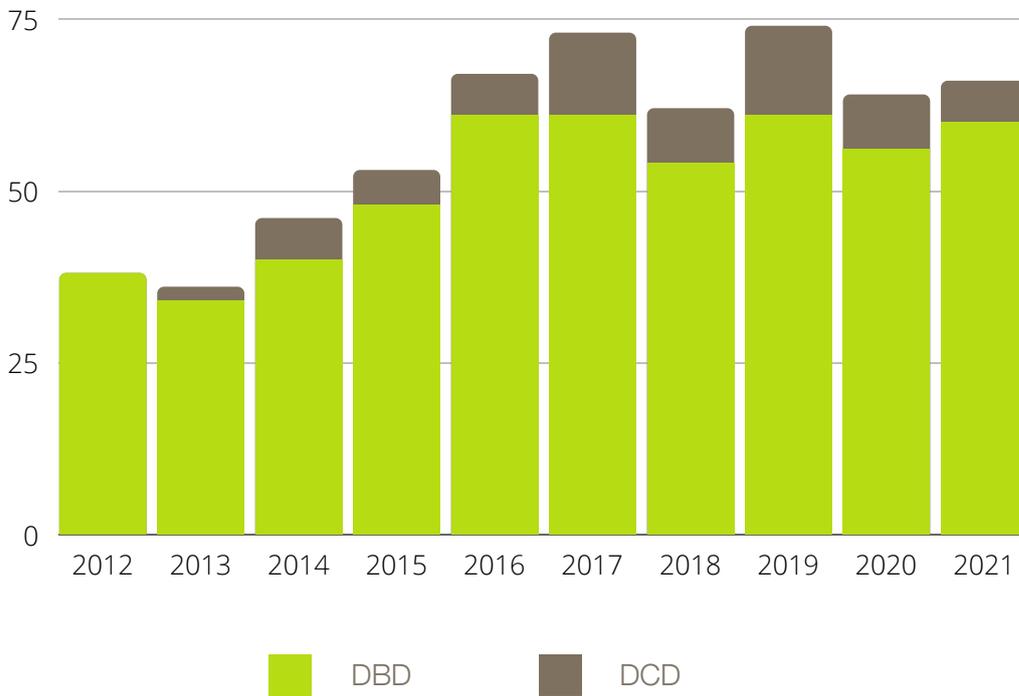


Table 2: Cause of Donor Death by Year

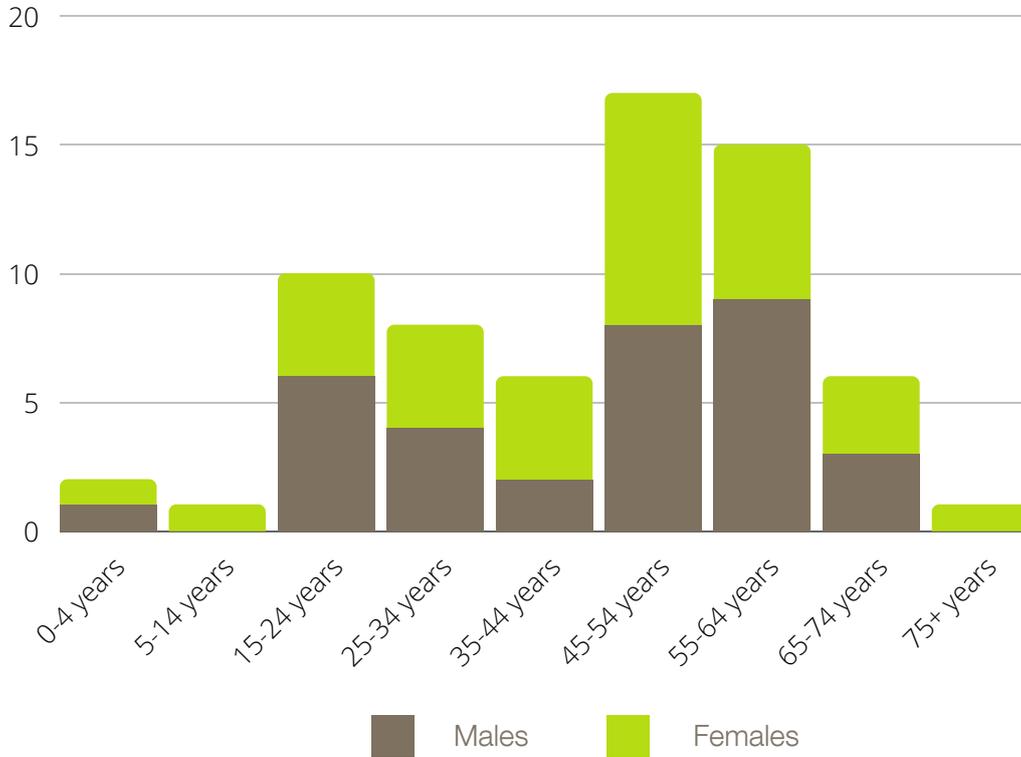
	2017	2018	2019	2020	2021
Intracranial haemorrhage	38	24	24	23	29
Cerebral infarct	6	3	2	6	5
Trauma (road)	6	11	10	10	8
Trauma (other)	4	11	11	5	10
Hypoxia-anoxia	16	9	18	18	11
Other	3	4	9	2	3
Total	73	62	74	64	66

Table 3: Age of Deceased Donors by Year

	2017	2018	2019	2020	2021
Mean	48.8	46.9	47.4	46.7	44.6
Median	51.6	49.0	50.1	52.5	49.8
Minimum	14.3	14.5	13.8	10.2	1.2
Maximum	82.6	81.2	82.9	81.0	78.8

Graph 2: Age and Gender of Deceased Donors in 2021

Of the 66 donors in 2021, 33 (50%) were male and 33 (50%) female.



Graph 3: Ethnicity of Deceased Donors 2021

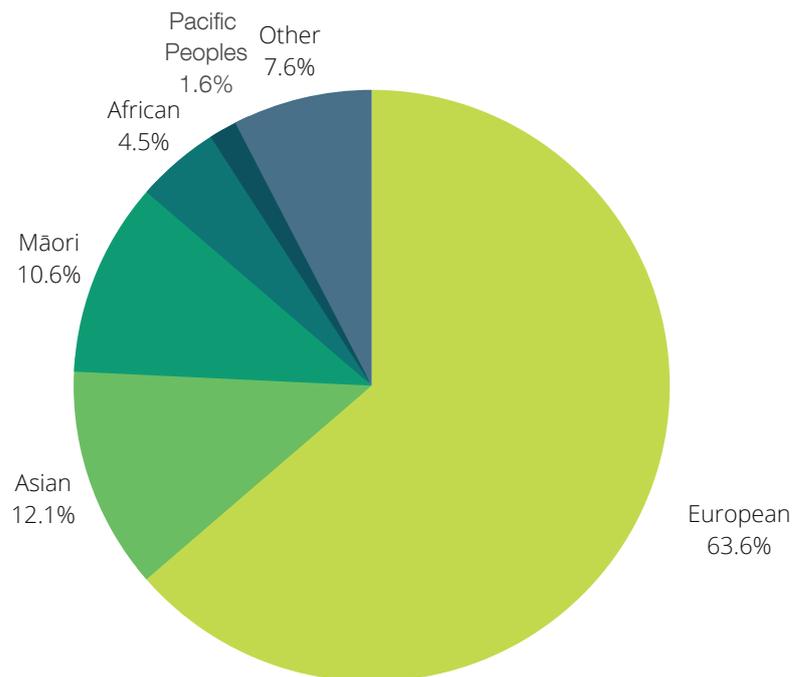


Table 4: Organs and Tissues Donated by Deceased Donors and Transplanted

	2017	2018	2019	2020	2021
Kidneys	121	94	133	103	108
Hearts	23	19	17	13	14
Lungs	23	28	26	24	26
Livers	48	44	52	42	49
Pancreas	4	6	4	3	6
Eye tissue	37	26	29	39	41
Heart valve tissue	20	7	15	13	15
Skin	2	0	1	8	5

Table 5: Organs from New Zealand Deceased Donors Transplanted in Australia

In 2021 some organs from New Zealand donors were transplanted to Australian recipients and vice versa, in accordance with the Transplantation Society of Australia and New Zealand (TSANZ) Clinical Guidelines for Organ Transplantation from Deceased Donors, Version 1.8 – December 2021. These guidelines are available on the TSANZ website www.tsanz.com.au

	2017	2018	2019	2020	2021
Liver	1	6[1]	6	5[1]	4[2]
Heart	0	0	0	0	0
Lungs	3	0	0	2	4
Kidney	0	0	0	0	0

[] Split livers

Table 6: Organs from Australian Deceased Donors Transplanted in New Zealand

	2017	2018	2019	2020	2021
Liver	2[1]	3	4	7	3
Heart	1	1	0	0	0
Lungs	0	0	0	0	0
Kidney	0	0	0	0	0

[] Split livers

Table 7: Summary Data from ICU Donation Audit Database

	2017	2018	2019	2020	2021
All deaths in ICU	1308	1329	1362	1189	1215
Deaths ventilated in ICU with severe brain damage	494	480	471	417	421
Possibly brain dead ¹	195	201	182	185	188
Possibly brain dead ¹ and organ donation formally discussed with family by health professionals	131	132	115	121	117
Possibly brain dead ¹ and organ donation formally discussed with family by health professionals and family agreed to donation	67	63	68	63	63
Possibly brain dead ¹ and tested	113	100	101	97	100
Possibly brain dead ¹ and tested and determined to be brain dead	109	99	100	95	98
Potential donation after withdrawal of therapy (WOT) ²	230	228	216	194	194
WOT ² in a DCD accredited hospital ³	173	169	153	154	152
WOT ² in a DCD accredited hospital ³ formally discussed with family by health professionals	36	37	49	47	49
WOT ² in a DCD accredited hospital ³ formally discussed with family by health professionals and family agreed to donation	15	14	16	9	17

1. Possibly brain dead: Fixed dilated pupils and no apparent brain reflexes just prior to death.

2. Possible donation after Withdrawal of Therapy (WOT): Aged 70 or less and had treatment withdrawn and died in ICU 90 minutes later or less.

3. DCD accredited hospitals: Auckland City (DDCM), Starship Children's, Middlemore, Waikato, Hawke's Bay, Wellington, Nelson, Christchurch and Dunedin. Data from Rotorua Hospital is not included as accreditation occurred part way through 2021.

Table 8: Summary Data from ODNZ Donor Database

	2017	2018	2019	2020	2021
Telephone discussions about potential organ donation	271	230	246	226	203
DBD donors	61	54	61	56	60
DCD donors	12	8	13	8	6
Total donors	73	62	74	64	66

The number of referrals to ODNZ includes some who do not appear in the ICU Donation Audit because, for example, they might have died without ever having been admitted to ICU, or might not have died in ICU.

In Loving Memory

Sally was a beautiful person with the warmest heart

Sally loved her family more than anything. She was a devoted wife and a loving, caring and wonderful mother to their two children. She adored playing with her children and it was not unusual for Sal to have a house full of kids.

Sally was our precious daughter who loved the beach and we would walk together most mornings. She was a much-loved sister and sister-in-law and a doting aunty. She was very close to her cousins and their families, had a very special connection with her 90-year-old grandmother, and all her aunts and uncles were a huge part of her life. Sally's other passion was her work as a gifted and talented beauty therapist which she became interested in from a young age.

Sally was 35 years old when she was admitted to the intensive care unit. The extended family met with doctors and were told that they suspected Sally's injuries had caused fatal brain damage. The news was devastating and we were all in shock. Scans and other tests confirmed their suspicions. We were told Sal's brain was no longer functioning, she was unable to breathe on her own, and that the ventilator would be turned off at a time agreeable to the family.

It was at this time that we as a family were approached about considering organ donation. Sally had donor on her licence which was no surprise to anyone knowing her giving nature. I immediately said yes as I myself only have one kidney and Sal had always said if I need one, I could have one of hers.

Right from the outset we had agreed that all decisions would be made together and for that we are truly grateful. We discussed the pros and cons of the situation, but when it came down to it, we all knew Sal would want to be able to help others.

Once this decision was made, the time seemed to linger forever, it felt like we were prolonging the inevitable, while plans were made, compatible recipients found and organized. This was not an easy time to be honest, there were moments that we wondered if we had made the right decision, putting ourselves through this agony. We reminded ourselves of the good that would come out of the wait and that if just one family didn't have to go through the loss we were feeling, it was worth it.

Sal was surrounded by love and those of us that



were with her at the end, were also surrounded by nursing and medical staff.

The phone call we received the next morning from Annette, donor coordinator from Organ Donation New Zealand, was truly heart-warming. We were on speaker phone so we all heard the news together. We were informed that four recipients had received Sal's organs and all were successfully transplanted.

We were able to talk about the good that had come from something so devastating. Sally would do anything to help someone else and was very generous in her giving to others. We all knew Sal would love the fact she had been able to help others.

I went on to send notes to each of the recipients and they all responded. Hearing of their appreciation gave us comfort and although it cannot be personal for privacy reasons, it seemed a little more so.

Just recently we spoke to Annette and it was once again heart-warming to hear that all four recipients are doing well after several years. We hope they continue to live full lives and make the most of Sally's last precious gift.

We are left with the continuing gift of memories of our beautiful Sally.

Sally's Family

ORGAN TRANSPLANTATION IN NEW ZEALAND

Organ transplantation in New Zealand includes:

- Kidney transplantation (deceased-donor and live-donor)
Auckland City, Starship Children's, Wellington and Christchurch Hospitals
- Liver transplantation (deceased-donor and live-donor)
Auckland City and Starship Children's Hospitals
- Heart transplantation
Auckland City and Starship Children's Hospitals
- Lung transplantation
Auckland City and Starship Children's Hospitals
- Pancreas transplantation
Auckland City Hospital

Data in Tables 9-11 includes all transplants performed in New Zealand (including organs from Australian deceased donors). See Tables 5 and 6 for details of Trans-Tasman organ sharing.

Table 9: Kidney Transplantation by Year and Donor Type

	2017	2018	2019	2020	2021
Recipients, deceased-donor, single kidney	115	97	127	97	96
Recipients, deceased-donor, double kidney	3	1	3	3	6
Live-donor	69	84	91	87	85
Total number of recipients	187	182	221	187	187

Table 10: Heart and Lung Transplantation by Year

	2017	2018	2019	2020	2021
Heart	24	20	17	13	14
Lung	20	28	26[1]	22[4]	26[2]

[1] Single lung transplant

Table 11: Liver Transplantation by Year and Donor Type

	2017	2018	2019	2020	2021
Adult, deceased donor	45	41	48	41	45
Adult, live adult donor	1	0	1	0	0
Child, deceased donor	7	6	6	10	6
Child, live adult donor	2	2	3	3	2
Total	55	49	58	54	53

Table 12: Pancreas Transplantation by Year

	2017	2018	2019	2020	2021
Pancreas	4	6	4	3	6

Table 13: Multiple Organ Transplants by Year

This table does not include the number of recipients of two kidneys or two lungs.

	2017	2018	2019	2020	2021
Kidney and pancreas	4	6	4	2	5
Liver and kidney	1	2	0	0	2
Liver and pancreas	0	0	0	1	1
Heart and liver	0	1	0	0	0
Total number of multiple transplants	5	9	4	3	8

The Precious Gift of Time

The saying “living life to the fullest” took on a whole new meaning at the age of twelve when my renal failure journey began...

After being diagnosed with SLE (also known as lupus), the battle to save my own kidneys and my life meant endless rounds of chemotherapy, heavy immunosuppression, IV steroids, hospital admissions and care by dedicated medical professionals.

After being so unwell for most of my teenage years, I was lucky enough to have a few years in remission where I attended the University of Waikato and pursued my dream of becoming a teacher. However shortly after my 21st birthday my health declined significantly and I was diagnosed with end-stage renal failure. I was admitted into ICU where I required lifesaving hemodialysis. There aren't any words to accurately describe the fear of the situation or the emotions of grief and loss that I felt when my kidneys failed.

I was in ward 24 at Waikato hospital for almost two years leading up to my transplant, being too sick to leave hospital with endless infections, no energy, shortness of breath and I required numerous operations and on-going blood transfusions. I want to acknowledge the staff at the Waikato Home Dialysis Unit, as their training, support and encouragement allowed me to have a six month period on dialysis at home which gave me more independence.

During this time I had incredible friends who would visit and bring me chocolate brownies. My appetite was poor back then and I needed a feeding tube. However, I could tolerate brownies!

I was put on the transplant waiting list in 2001 and I am forever grateful to the renal team who did everything possible to keep me well while I was on the transplant waiting list. They succeeded and in 2002 I received a kidney from a deceased donor at Auckland Hospital.

My family and I celebrate my transplant anniversary every year, it is bitter sweet. I think about my donor and the additional time I have been so generously given. This gift has enabled me to see my daughter grow into a teenager, to travel the world and to fulfill my passion for teaching.



*"As a transplant recipient I am focused on making my life count and honoring my donor and those who have changed my life.
Life is truly precious"*

My second chance has meant I have married the most incredible, handsome, loving man who is by my side through all the ups and downs of my health journey. The other very important person is our daughter. Without my donated kidney I wouldn't have been around to experience the absolute delight of loving a child and being such a proud Mum.

I have also fulfilled my passion of teaching, working with incredible students and staff. To say this is rewarding is an understatement, teaching children has given me purpose and the sincerity of the profession never ceases to amaze me. I am continuously inspired to reflect on my own practice as a teacher, without my transplant this wouldn't have been possible.

My family and I attend the annual Service of Thanksgiving every year in recognition of those who have given the gift of life to others. It's a very emotional service, my daughter and I light a candle every year to acknowledge and remember the gift, but also the loss for my donor family.

Living would not have been possible without the selfless act of organ donation. Through organ donation we celebrate new life and new beginnings. It's a joyful thing to live, however without the donor, the family and the many health professionals involved at such a fragile time, for those living with a transplant or awaiting a transplant, the path back to health would be much more difficult, if not impossible.

Thank you for taking the time to read my transplant story. I recently celebrated 20 years since my transplant; this was a profound moment for me, a time to reflect back on my journey, through all the highs and lows. I can honestly say I will never waste a single moment of my life.

Nobody knows what the future will bring, however without organ donation I wouldn't be here to share my story.

Anna Maharaj

TISSUE-ONLY DONATION

Table 14: Deceased Tissue-Only Donation Facilitated by ODNZ

In 2021 there were 52 deceased tissue-only donors facilitated by ODNZ. Three of the tissue-only donors were Intended Organ Donors where organ donation did not proceed and tissue donation was facilitated. Tissue donation can include skin, eye and heart valve tissues.

Referred from:	Ward/Unit	Tissue-only Donors
Ashburton Hospital	ED	1
Auckland City Hospital	CVICU	3
	DCCM	5
	Wards 64,72	5
Christchurch Hospital	ICU	5
Dunedin Hospital	ICU	1
Hawke's Bay	ICU	2
Middlemore Hospital	ICU	1
Nelson Hospital	Mapu Ward	1
North Shore Hospital	ICU	2
Palmerston North	ED	1
Starship Children's Hospital	PICU	2
Tauranga Hospital	ICU	1
Wellington Hospital	ICU	6
Whangarei Hospital	ICU	3
	Arohanui Hospice, Palmerston North	1
	Mary Potter Hospice, Wellington	2
Hospices	Totara Hospice, Auckland	1
	Family	6
	Coronial Service	1
Funeral Director		2

The corneal coordinators from the New Zealand National Eye Bank facilitate eye-only donation referred from the Bereavement Team at Middlemore Hospital or directly to their service.

The heart transplant team also coordinates heart valve donation from some explanted hearts of heart transplant recipients.

Table 15: Total Deceased Tissue Donation in New Zealand by Year

Number of Donors	2017	2018	2019	2020	2021
Skin	5[1]	3*	8	12**	8
Heart Valves	34	24	32	28	30***
Eyes	188	145	131	119	110

[1] Living donor

* Skin retrieval not possible from January to July 2018 ** Skin retrieval not possible from August to December 2020

***Heart valve donation was not possible for a seven week period during 2021

www.donor.co.nz