Organ Donation New Zealand ANNUAL REPORT 2023





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 2023.

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.

Published July 2024

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

THE YEAR **IN REVIEW**



A HISTORY OF ORGAN DONATION AND **TRANSPLANTATION IN NEW ZEALAND**

ODNZ ACTIVITIES





DONATION **STORIES**



DATA

ORGAN DONATION NEW ZEALAND ANNUAL REPORT 2023

CONTENTS

ORGAN DONATION NEW ZEALAND (ODNZ)

| 6 |
|----|
| 8 |
| 9 |
| 10 |
| 11 |
| |

ODNZ ACTIVITIES

| Donor Family Support | 12 |
|-----------------------|----|
| | |
| Education | 12 |
| NZBS 25th Anniversary | 15 |
| Communication | 16 |
| | |
| | |

ORGAN DONATION STORY

ORGAN AND TISSUE DONATION

| Number of Deceased Organ Donors in New Zealand | 18 |
|--|----|
| Deceased Donation by Year | 19 |
| Cause of Donor Death by Year | 19 |
| Age of Deceased Donors by Year | 19 |
| Age and Gender of Deceased Donors | 20 |
| Ethnicity of Deceased Donors | 20 |
| Organs and Tissues Donated by Deceased Donors and Transplanted | 21 |
| Organs from New Zealand Deceased Donors Transplanted in Australia | 21 |
| Organs from Australian Deceased Donors Transplanted in New Zealand | 21 |
| Summary Data from ICU Donation Audit Database | 22 |
| Summary Data from ODNZ Donor Database | 22 |
| | |

ORGAN RECIPIENT STORY

ORGAN TRANSPLANTATION IN NEW ZEALAND

| Kidney Transplantation by Year and Donor Type | 24 |
|---|----|
| Heart and Lung Transplantation by Year | 24 |
| Liver Transplantation by Year | 25 |
| Pancreas Transplantation by Year | 25 |
| Multiple Organ Transplants by Year | 25 |
| | |
| TISSUE DONATION STORY | 26 |

TISSUE-ONLY DONATION

| Deceased Tissue-Only Donation Facilitated by ODNZ | 27 |
|---|----|
| Total Deceased Tissue Donation in New Zealand by Year | 27 |

17

23

Organ Donation New Zealand THE YEAR IN REVIEW



2023 was a year of highs and remarkable growth for ODNZ, as we emerged from the shadow of the pandemic. After several years adapting to virtual interactions, we rejoiced in the return of faceto-face gatherings, fostering connections and collaborations that propelled our mission forward.

Throughout the year, the ODNZ team has had the privilege of connecting with a range of communities via media channels and various hui. This has allowed us to share our key message: "have donation conversations with your whānau and let them know what you would want if you were in a situation where donation after death might be possible".

It's these kinds of conversations that make donation decisions easier and more meaningful for whānau at a difficult time.

As such, we'd like to acknowledge and cherish all those who have made the choice to donate, and especially their whānau who honour that generous choice at a time of immense grief.

It is also important to recognise the input and support of donation hospital staff and other healthcare professionals. It is these frontline staff who initiate the conversation about organ donation, a conversation that remains as vital as ever. Their skills and expertise allow a donor's whānau to make a decision that is right for them and their loved one.

As a result of this tireless work and incredible donor generosity, we had 64 deceased organ donors and 57 tissue donors in 2023.

Events

Over the past few years, the loss of in-person interaction was keenly felt within our team. Therefore, hosting three major face-to-face events in 2023 was a welcome relief. For the first time in three years, we held an inperson training event – our first two-day ODNZ Symposium in Auckland. This event brought together our donation link teams from across the country, providing a platform for networking, education, and collaborative discussions on collected data.

We were also particularly proud of the two Thanksgiving services, held in Christchurch and Auckland. These were heartfelt and meaningful events, that offered a safe space to donor families, recipients, and health professionals working in donation or transplantation, to share their stories.

During the Thanksgiving services, transplant recipients lit candles in acknowledgment of their donors and whānau, while the donor whānau were presented with cyclamen plants, symbolising growth and remembrance.

The Auckland event marked our largest gathering yet, with more than 700 attendees, while the Christchurch event was smaller and more intimate, taking place at the Christchurch Transitional Cathedral.

New Tech and New Guidelines

Over the last 12 months we have worked closely and collaboratively with transplant services to increase the scope of our donations. One particularly important change was the removal of the age limit for donation after circulatory death (DCD).

A key factor influencing this change was the introduction of state-of-the-art perfusion machines. By providing oxygenation to donated organs, these machines allow more time for the transplant teams to manage and assess, and can also provide more time for organ transportation where needed.

New Zealand Blood Service and ODNZ

In 2023, ODNZ celebrated its third year as part of the New Zealand Blood Service (NZBS). The benefits of this relationship are plentiful, and we enjoy being part of a bigger team with the resources to assist us in our projects, staffing and strategic development. The mutually beneficial bond continues to grow stronger, and we're excited to widen our reach and visibility under the NZBS umbrella.

New Hires

The allocation of \$12 million from the 2022 health budget has allowed us to put in place resources and plans towards advancing the 2017 Ministry of Health strategy: *"Increasing Deceased Organ Donation and Transplantation, A National Strategy"*.

The first significant addition was a new communications advisor, who played a crucial role in spearheading campaigns, including the reinvigoration of "Thank You Day", an event near and dear to our hearts. The campaign garnered excellent media coverage, and a huge thank you must go to the recipients and donor whānau who generously shared their stories which were the heart of the campaign.

We have also welcomed four new donor coordinators and a new medical specialist to our small and dedicated team. These hires have given us the capability to do the things that are important to increase donation numbers, such as raising public awareness and providing education to staff in donation hospitals throughout New Zealand.

Areas for Donation Growth

Tissue donation represents a pivotal area for expanding our donation efforts. Like organ donation, tissue donation presents a wonderful opportunity with life changing and sometimes lifesaving potential.

Tissue donation is an unsung hero in ways which many don't realise. Donated eye tissue can restore sight to those in need, heart valves provide critical solutions for young children facing birth defects, and donor skin is an invaluable dressing for treating severe burns.

As well as supporting the work done by donation link teams throughout Aotearoa, we are also looking to establish a tissue donor coordinator at Te Toka Tumai Auckland Hospital, and are working with the coroners and forensic pathology teams to aid in further identification of possible donation opportunity.

Looking Ahead

Maintaining frequent engagement with our donation link teams and healthcare professionals at every donation hospital in Aotearoa remains vital. Equipping them with the latest information and resources, and fostering a collaborative environment, will keep donation top of mind as they work.

We will continue to investigate how we can improve resources and education for Intensive Care Unit (ICU) staff in donation hospitals so that they, in turn, can best identify and care for donors. If donation is not recognised or offered, or a donor is not able to be cared for, there is no donation. It is therefore essential we ensure our ICU teams are adequately supported, so that, when appropriate, health professionals are able to offer the option of organ and/or tissue donation to whānau of all patients receiving end-of-life care.

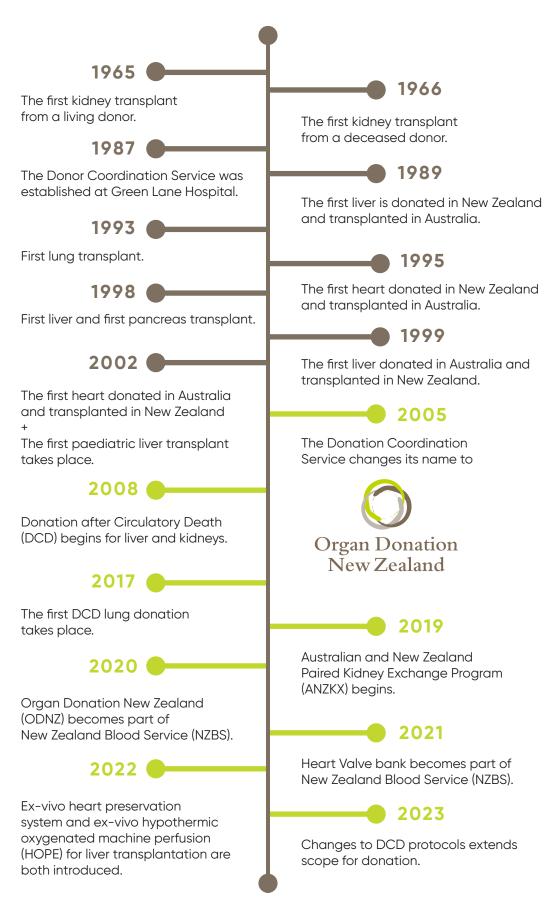
2023 was another pivotal year for our organisation, and the tenacity and resourcefulness demonstrated by our teams and collaborators continued to inspire. As we look ahead to 2024, our mission remains the same: to ensure that every opportunity for donation is recognised and to facilitate the best possible outcome for everyone involved in the donation process.

On behalf of everyone at ODNZ, we would like to extend a heartfelt thank you to all who have joined us on this very special and rewarding journey.

Sue Garland

Donor Coordinator Team Leader **Jo Ritchie** Medical Specialist Clinical Director

A HISTORY OF ORGAN DONATION AND TRANSPLANTATION IN 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.

Our Purpose

"We are committed to providing a respectful and compassionate organ and tissue donation service, enabling life changing transplantation."

Our skilled team of health professionals work with compassion and respect to empower people by providing appropriate knowledge and support.

In doing this we commit to the following values:

- Striving for Excellence | Kia tau ki te Tihi
- Teamwork | Te Mahi Ngātahi
- Integrity and Respect | Te Pono me Te Tika
- Open Communication | Te Whakawhitiwhiti Whakaaro i Runga i te Māharahara
- Safety for All | Te Haumaru Hoki te Katoa

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

The ODNZ donor coordinator team consists of Sue Garland (Team Lead), Annette Flanagan (Deputy Team Lead), Lisa Craig, Sharon Skinner, Owen Chesbrough, Leigh Travers, Rosie Stewart and Jen Calius.

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 programme, 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.

Medical Specialists

The medical specialists, who are also intensive care specialists, provided 24hour support and advice on all aspects of the donation process for the donor coordinators and health professionals. Jo Ritchie (Clinical Director), Laura Bainbridge, Jonathan Casement, Kim Grayson (Wellington), Tobias Merz and Alex Kazemi are employed part time as ODNZ medical specialists. Debra Chalmers (Hawke's Bay) and Myles Smith (Dunedin), assisted with on-call in 2023.

Administration

Emma Watts is the ODNZ team administrator. She supports the team by streamlining internal processes, assisting with reports, event management and travel coordination.







Lisa Craig

Annette Flanagan



Sue Garland





Sharon Skinner

Owen Chesbrough

Leigh Travers

Rosie Stewart



Jen Calius







Dr Laura Bainbridge



Dr Joanne Ritchie

Dr Kim Grayson



Dr Tobias Mertz



Dr Alex Kazemi



Emma Watts



Dr Jonathan Casement





DONATION LINK TEAMS

The donation link teams in donor hospitals consist of Intensive Care Unit (ICU) donation link nurses and doctors, and Operating Theatre (OT) donation link nurses. They are the local experts and liaison for organ and tissue donation for their hospital and help facilitate donations.

The Ministry of Health funds part-time ICU medical and nursing staff in donation link roles and is responsible for these contracts. We feel privileged to work with the link teams and in 2023 we welcomed 13 new staff to these roles.

" Being a link nurse is a rewarding role and being able to guide whānau through the donation process is an honour. As nurses we are able to make an immeasurable difference to how whānau and staff experience donation. We were fortunate our unit enabled us through professional development funding to attend the Organ Donation Congress and this was supported by ODNZ. There was a focus on new donation and transplantation technologies such as normothermic regional perfusion (NRP) which is practiced in some overseas countries and was interesting to hear more about this. We are fortunate and grateful to work in an environment where patients and whānau are at the forefront of everything we do."

Cherie Watts, Donation Link Nurse, Wellington Hospital ICU



International Society for Organ Donation and Procurement (ISODP) Conference in Las Vegas: From left to right: Sharon Skinner (ODNZ Donor Coordinator), Markus Schamm (Liver Transplant Surgeon), Alex Maxwell (Wellington ICU Donation Link Nurse), Colin Barnes (Wellington Senior Medical Officer (SMO)), Cherie Watts (Wellington ICU Donation Link Nurse) and Jonathan Casement (ODNZ SMO).

ODNZ ACTIVITIES

DONOR FAMILY SUPPORT

The ODNZ 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.

Thanksgiving services are held to respectfully acknowledge the generosity of whānau 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 donation and transplantation are invited to these services. Services in May 2023 were held at the Holy Trinity Cathedral in Auckland and the Christchurch Transitional Cathedral. 2024 will see Thanksgiving services in Auckland, Wellington and Dunedin.

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.

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.

Donation Link Nurse Induction Day

This introductory workshop for all new ICU and OT donation 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 2023 study days, half day workshops and educational sessions were held in the following hospitals:

- Auckland Department of Critical Care Medicine (DCCM)
- Auckland Cardiothoracic and Vascular Intensive Care Unit (CVICU)
- Auckland Paediatric Intensive Care Unit (PICU)
- Middlemore
- Wellington
- Christchurch

- Dunedin
- Tauranga
- Hawke's Bay
- Nelson
- Palmerston North
- Hutt

Site visits were also held at North Shore, DCCM, Middlemore, Waikato, Hutt, and Wellington ICUs.

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

New Zealand Donation Awareness Course (NZDAC)

The NZDAC was designed to inform staff involved in any stage of donation about the donation process in New Zealand. Our aims are to raise awareness about what is possible and who benefits from donation.

We discuss challenges that teams may face and potential solutions. The session on the tikanga of donation is always extremely well received. We also have lectures on the how a donation is organised, supporting the physiology of donors, legal considerations and donation after circulatory death (DCD).

This course is essential for anyone who has conversations with families of potential donors. It is designed to complement the Family Donor Conversation workshops by ensuring those discussing donation have a good understanding of the entire process.

In 2023 the NZDAC was run in June and October and was offered in person and online.

"The session on Tikanga Māori was great."

Participant evaluation showed 100% of attendees would recommend the course to colleagues.

Core Family Donation Workshop

Every person, or family of a person dying, in a situation where donation might be possible, has the right to make their own donation decision. This is a fundamental part of end-of-life care. Providing information and support is essential to ensure this is a fully informed and enduring decision.

The core Family Donor Conversation (cFDC) workshop is a two-day interactive course designed to teach the best practices for discussing organ donation at a time of enormous grief and loss. One of the main focuses is on how to support families through this process.

Completion of the cFDC is a requirement for all doctors who are to become intensive care specialists in Australasia.

The cFDC workshop was held in Auckland on 27 and 28 July 2023. It was facilitated by Dr Steve Philpott and Bernie Dwyer from Donate Life Australia and Dr Laura Bainbridge from ODNZ.

The workshop was attended by 10 ICU doctors and 20 donation link nurses.

"Great workshop and a lot of transferable communications skills and knowledge that can be trialled in the area of my work not limited to end of life and organ donation."

"I have learnt so much in such an encouraging environment."

Practical Family Donor Conversation Workshop

On 26 July 2023 the practical Family Donor Conversation (pFDC) workshop was run for the second time in New Zealand.

This one-day workshop expands on the skills learnt at the cFDC and provides specialist knowledge for having conversations with families about donation. Attendees participate in challenging scenarios that are thoroughly debriefed.

The workshop was attended by ODNZ staff, senior ICU donation link nurses and intensivists, from several New Zealand ICUs.

Attendees provided very positive feedback about the realism of the scenarios and having the opportunity to develop their practice in a safe, supportive environment.



The next core and practical FDC workshops are planned for May 2024.

ICU Donation Audit Meeting

The ICU donation audit meeting and the link nurse workshop has been replaced by a two-day ODNZ symposium, bringing link teams together from ICUs and OTs around New Zealand. Our first face-to-face meeting was held in Auckland in April 2023. It was a wonderful chance to network and share ideas to advance donation after a break of almost three years due to COVID restrictions.

In November 2023 we also held a half-day national donation link team meeting online and in person at the National Office of the New Zealand Blood service. At these meetings the ODNZ team presents recently collected donation data to ICU staff throughout New Zealand, highlighting changes and differences in practice. Regional knowledge and experiences are also shared with colleagues across the country.

Donation After Circulatory Death (DCD)

DCD accreditation was completed at CVICU Auckland City Hospital and Tauranga Hospital.

Extensive work with the transplant teams was completed in August to broaden the scope and remove the age limit for DCD. This work led to donations that previously would not have occurred. It has also helped to raise the awareness and profile of DCD with the aim of increasing referrals.

ODNZ App

The ODNZ app continued to be a valuable resource for health professionals working in ICUs, OTs and emergency departments (EDs) throughout New Zealand. It provides instant access to organ and tissue donation guidelines and documentation, along with the ability to directly contact ODNZ. During 2023 work was undertaken to migrate the app to a web-based platform with greater availability, accessibility and ability to update content as needed. This migration went live in early 2024.

NZBS 25th Anniversary Celebrations

In August 2023 we were delighted to be hosted by Their Excellencies, Governor-General of New Zealand, The Rt Hon Dame Cindy Kiro GNZM, QSO and her husband Dr Richard Davies, for an evening reception marking 25 years of New Zealand Blood Service. It was a touching and poignant night, bringing together donors, recipients, and a number of New Zealand Blood Service staff who have worked for NZBS since its 1998 inception.



Pictured: ODNZ Team Lead Sue Garland (left) and Wikitoria Smith (second left), mother of organ donor Clifford Tuhi Thompson, meet NZBS Board of Directors Chair Fiona Pimm (second from right) and NZBS Chief Executive Sam Cliffe.

COMMUNICATION

Public Awareness

Thank You Day

Donating organs and tissues is an incredible act of kindness that can transform lives. On Thursday 30 November 2023, organ donation recipients and the ODNZ team came together to say a heartfelt "thank you" to donors, their families and whānau, and all those involved in donation across the country.

Our nationwide campaign consisted of media coverage, radio, online and social media activity. We had excellent media pick up, with recipients and donor whānau sharing their stories with Breakfast TV, Whakaata Māori (Māori Television), Radio New Zealand, Newstalk ZB, Woman's Day, the Herald and Stuff amongst numerous others outlets.

A nationwide radio ad also ran on the day, alongside targeted digital and online advertising.

Thank You Day 2023



World Kidney Day

To help raise awareness of kidney donation and support World Kidney Day on Thursday 9 March 2023, we introduced a campaign using our digital and social channels to help spread the word and encourage people to have the conversation about organ and tissue donation with their loved ones.

Kidney recipient Anna Maharaj (pictured right) generously shared her story with national media to help us raise awareness.



ORGAN DONATION STORY

Donation helps keep Marcus' memory alive

He aroha mauroa, e kore koe e warewaretia

With his generous, kind-hearted nature, Marcus Gardiner (Ngāti Wehi Wehi, Ngāti Pareraukawa) touched a lot of lives in his 40 years. He continued to do so even in his death.

A dad to three kids, Marcus was fit and active, and was out playing rugby the Saturday before he became ill.

"He loved his rugby," mum Susan says. "He was a staunch All Blacks supporter and really passionate about the game."

Susan and Marcus were always in regular contact, so when he called one Tuesday morning back in 2022, she wasn't initially alarmed.

But that changed when Marcus said he was in Waikato hospital awaiting emergency surgery for a small brain bleed. Although the initial surgery was successful, sadly, Marcus suffered a second, fatal bleed a week later.

It was then Marcus' parents were asked about donation and after a lengthy discussion they initially decided against it.

"As Māori we're taught that you come in this world whole, you go out whole," Susan explains.

But Susan's sister Dolly reminded her of a kōrero about donation they'd had years earlier.

"Dolly's boy and Marcus were in the lounge listening to us talk about it, and Marcus came out and said, 'Mum I'm a donor. If I've got anything worth giving and it's going to save someone else's life, why not?'



Marcus Gardiner

Marcus' three children, Shauna (left), Regan (centre) and Chloe (right)

"When my sister Dolly reminded me of that, I felt, there was no way I could say no."

Susan and her whānau held a karakia before the donation surgery.

"Then this bit makes me cry every time I think of it," says Susan. "The surgeon asked me to introduce him to Marcus. He took Marcus' hand and shook it, and said 'It's a pleasure to meet you.' It just blew me away, how he treated my son with such dignity and respect and compassion."

After the surgery, a short service was held in the Waikato for those who couldn't make the tangi at Ngāti Wehi Wehi Marae in Horowhenua.

"I was overwhelmed by all the people. The kōrero they gave made me realise how loved and respected he was, and how he touched other people's lives that I didn't know about."

During the drive back to the marae, Susan had a phone call to say Marcus' heart, kidneys, and liver had been successfully transplanted.

"Marcus would be so happy to know his organs are helping other people. And that helps me and the family. It keeps his memory alive. I tell anybody and everybody about the beauty of what Marcus did, and the healing it's brought our family.

"People do not lose any mana in donating their organs. I think it enhances their mana. To think, whoever gets those organs get to live life, it's amazing. It really is life-changing in every way."

Ka kite anō tāua

ORGAN AND TISSUE DONATION

Table 1: Number of Deceased Organ Donors in New Zealand

In 2023, 64 deceased organ donors from ICUs in 13 donor hospitals donated organs (and tissues) for transplantation. Of these, 54 donated following brain death (DBD) and 10 donated following circulatory death (DCD).

There were also five Intended Organ Donors where organ donation did not proceed. Two 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 | 2019 | 2020 | 2021 | 2022 | 2023 |
|------------------------|---------|--------|--------|---------|--------|
| Auckland City CVICU | 0 | 0 | 3 [1] | 1 | 0 |
| Auckland City DCCM | 11 [1] | 11 | 15 [1] | 14 | 11[4] |
| Christchurch | 17 [5] | 9 [1] | 12 [1] | 13 [5] | 10 |
| Dunedin | 10 [3] | 5 [1] | 7 | 2 | 5[1] |
| Gisborne | 0 | 0 | 1 | 0 | 0 |
| Grey Base | 0 | 0 | 0 | 0 | 0 |
| Hawke's Bay | 3 | 1 | 2 | 1 | 3 |
| Hutt | 0 | 2 | 0 | 0 | 0 |
| Middlemore | 3 [1] | 4 [2] | 4 [1] | 5 [1] | 7[1] |
| Nelson | 3 [1] | 1 | 2 [1] | 0 | 4 |
| North Shore | 2 | 1 | 1 | 3 [2] | 3 |
| Palmerston North | 0 | 0 | 0 | 1 | 1 |
| Rotorua | 1 | 2 | 1 | 3 [1] | 1 |
| Southland | 0 | 2 | 0 | 0 | 0 |
| Starship Children's | 1 | 1 [1] | 1 | 0 | 0 |
| Taranaki Base | 2 | 1 | 1 | 0 | 0 |
| Tauranga | 4 | 1 | 1 | 3 | 3[1] |
| Timaru | 0 | 0 | 0 | 1 | 0 |
| Waikato | 5 [1] | 11 [2] | 3 | 5 [1] | 4[2] |
| Wairau | 0 | 0 | 0 | 0 | 0 |
| Whanganui | 0 | 0 | 0 | 0 | 1 |
| Wellington | 11 [1] | 12 [1] | 11 [1] | 11 | 11[1] |
| Whakatāne | 1 | 0 | 0 | 0 | 0 |
| Whangārei | 0 | 0 | 1 | 0 | 0 |
| Total number of donors | | | | | |
| Note: [] DCD donors | 74 [13] | 64 [8] | 66 [6] | 63 [10] | 64[10] |

Deceased Donation by Year 2013-2023

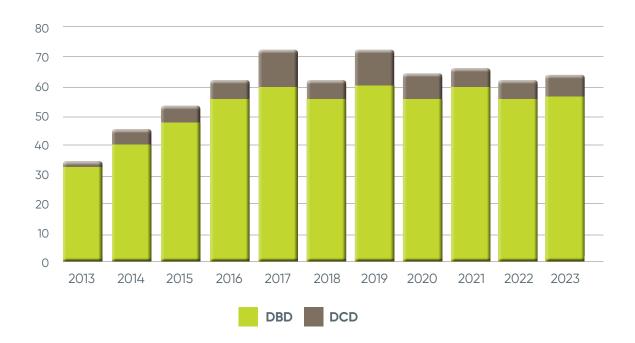


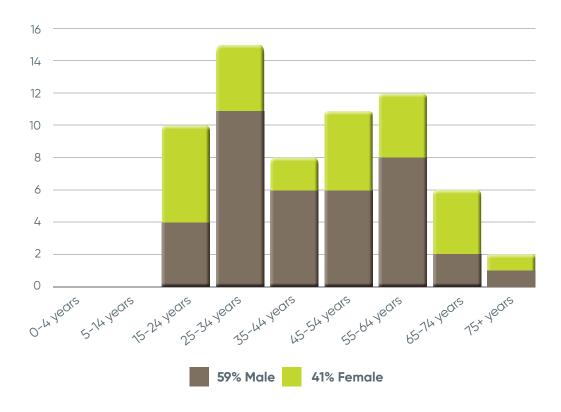
Table 2: Cause of Donor Death by Year

| | 2019 | 2020 | 2021 | 2022 | 2023 |
|--------------------------|------|------|------|------|------|
| Intracranial haemorrhage | 24 | 23 | 29 | 28 | 17 |
| Cerebral infarct | 2 | 6 | 5 | 3 | 4 |
| Trauma (road) | 10 | 10 | 8 | 7 | 2 |
| Trauma (other) | 11 | 5 | 10 | 9 | 11 |
| Hypoxia-anoxia | 18 | 18 | 11 | 12 | 25 |
| Other | 9 | 2 | 3 | 4 | 5 |
| Total | 74 | 64 | 66 | 63 | 64 |

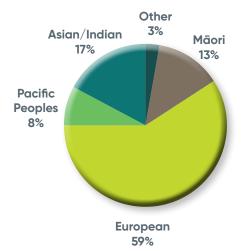
Table 3: Age of Deceased Donors by Year

| | 2019 | 2020 | 2021 | 2022 | 2023 |
|--------|------|------|------|------|------|
| Mean | 47.4 | 46.7 | 44.6 | 46.9 | 43.3 |
| Median | 50.1 | 52.5 | 49.8 | 46.7 | 44 |
| Min | 13.8 | 10.2 | 1.2 | 14.5 | 16 |
| Max | 82.9 | 81 | 78.8 | 78.8 | 77 |

Age and Gender of Deceased Donors 2023



Ethnicity of Deceased Donors 2023



Ethnicity proportions of deceased donors

| | 2019 | 2020 | 2021 | 2022 | 2023 |
|-----------------|------|------|------|------|------|
| Māori | 6 | 5 | 8 | 5 | 8 |
| European | 62 | 51 | 44 | 45 | 38 |
| Pacific Peoples | 3 | 6 | 1 | 3 | 5 |
| Asian/Indian | * | * | 7 | 6 | 11 |
| Other | 3 | 2 | 6 | 4 | 2 |
| Total | 74 | 64 | 66 | 63 | 64 |

Due to previous reporting frameworks donors of Asian/Indian ethnicity were included in "other" prior to 2021.

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

| | 2019 | 2020 | 2021 | 2022 | 2023 |
|--------------------|------|------|------|------|------|
| Kidneys | 133 | 103 | 108 | 110 | 101 |
| Hearts | 17 | 13 | 14 | 16 | 16 |
| Lungs | 26 | 24 | 26 | 16 | 25 |
| Livers | 52 | 42 | 49 | 45 | 55 |
| Pancreas | 4 | 3 | 6 | 5 | 3 |
| Eye tissue | 29 | 39 | 41 | 31 | 32 |
| Heart valve tissue | 15 | 13 | 15 | 14 | 24 |
| Skin | 1 | 8 | 5 | 0 | 5 |

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

In 2023 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.

| | 2019 | 2020 | 2021 | 2022 | 2023 |
|--------|------|-------|-------|-------|------|
| Liver | 6 | 5 [1] | 4 [2] | 2 [1] | 4 |
| Heart | 0 | 0 | 0 | 2 | 1 |
| Lungs | 0 | 2 | 4 | 0 | 2 |
| Kidney | 0 | 0 | 0 | 0 | 0 |

[] Split livers

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

| | 2019 | 2020 | 2021 | 2022 | 2023 |
|--------|------|------|------|-------|------|
| Liver | 4 | 7 | 3 | 6 [2] | 2 |
| Heart | 0 | 0 | 0 | 1 | 1 |
| Lungs | 0 | 0 | 0 | 0 | 2 |
| Kidney | 0 | 0 | 0 | 0 | 0 |

[] Split livers

Table 7: Summary Data from ICU Donation Audit Database

| | 2019 | 2020 | 2021 | 2022 | 2023 |
|---|------|------|------|------|------|
| All deaths in ICU | 1362 | 1189 | 1215 | 1398 | 1448 |
| Deaths ventilated in ICU with severe brain damage | 471 | 417 | 421 | 457 | 471 |
| Possibly brain dead ¹ | 182 | 185 | 188 | 202 | 181 |
| Possibly brain dead ¹ and organ donation formally discussed with family by health professionals | 115 | 121 | 117 | 127 | 131 |
| Possibly brain dead ¹ and organ donation formally discussed with family by health professionals and family agreed to donation | 68 | 63 | 63 | 56 | 64 |
| Possibly brain dead ¹ and tested | 101 | 97 | 100 | 104 | 110 |
| Possibly brain dead ¹ and tested and determined to be brain dead | 100 | 95 | 98 | 96 | 102 |
| Potential donation after withdrawal of therapy (WOT) ² | 216 | 194 | 194 | 227 | 241 |
| WOT ² in a DCD accredited hospital ³ | 153 | 154 | 152 | 175 | 222 |
| WOT ² in a DCD accredited hospital ³ formally discussed with family by health professionals | 49 | 47 | 49 | 66 | 86 |
| WOT ² in a DCD accredited hospital ³ formally discussed with family by health professionals and family agreed to donation | 16 | 9 | 17 | 16 | 14 |

1. Possibly brain dead: Fixed dilated pupils and no apparent brain stem 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: North Shore, Auckland City (DDCM), Auckland City (CVICU), Starship Children's, Middlemore, Waikato, Rotorua, Hawke's Bay, Wellington, Nelson, Christchurch, Dunedin, Whangarei, Tauranga, Taranaki.

Table 8: Summary Data from ODNZ Donor Database

| | 2019 | 2020 | 2021 | 2022 | 2023 |
|--|------|------|------|------|------|
| Telephone discussions about potential organ donation | 246 | 226 | 203 | 225 | 235 |
| DBD donors | 61 | 56 | 60 | 53 | 54 |
| DCD donors | 13 | 8 | 6 | 10 | 10 |
| Total donors | 74 | 64 | 66 | 63 | 64 |

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.

ORGAN RECIPIENT STORY

Family eternally grateful that twins still have their mum

A year ago Bernie McDougall's life was hanging in the balance. Following multiple cardiac arrests, the 49-year-old was in the ICU, on a breathing machine, with doctors unable to stabilise her life-threatening heart rhythms.

For more than a decade the mum to twin girls had been living with a rare auto-immune condition called cardiac sarcoidosis. Over time it had caused increasing heart failure, a condition where the heart stops pumping properly.

Six months earlier Bernie had been approved for a heart transplant but was still too fit to need it. That day she was placed on the list. However, with Bernie now in a coma, the need for a donor heart was extremely urgent.

With a matching organ often taking months to find, the prospects looked bleak.

"Then about 11 o'clock I got a call. And this was the miracle of it all," Bernie's husband, Matt Townsend, recalls. "It was the cardiologist, and he said, 'you won't believe this, but we have a donor and they're a really good match'."

Even with the miracle heart however, the nightmare journey wasn't over for the family. After complications during the 10-hour surgery, Bernie was placed in an induced coma and Matt was told to prepare for the worst.

A difficult conversation with the twins followed, but the girls refused to give up hope.



"They were incredible," says Matt. "They said, 'Mum's still here. And we're going to assume that she's going to be okay. That's the way that we want to think about this'."

Bernie proved to be the fighter her daughters knew her to be. After nearly two weeks in the coma, a further two weeks in ICU, and two months in transplant recovery unit Hearty Towers, Bernie finally made it home.

The family is eternally grateful for the incredible gift of donation they received.

"My girls still have a mum. They need me and I get to be here for them," says Bernie. "That's the biggest thing."

Matt adds, "It's just such an incredible gift. It's such an important thing for people to want to do and an incredible thing to be able to receive. And the fact it happened that night, it's just amazing."

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

| | 2019 | 2020 | 2021 | 2022 | 2023 |
|--|------|------|------|------|------|
| Recipients, deceased donor, single kidney | 127 | 97 | 96 | 100 | 100 |
| Recipients, deceased donor, double kidney | 3 | 3 | 6 | 5 | 1 |
| Live donor | 91 | 87 | 85 | 70 | 76 |
| Total number of recipients | 221 | 187 | 187 | 175 | 177 |

Table 10: Heart and Lung Transplantation by Year

| | 2019 | 2020 | 2021 | 2022 | 2023 |
|-------|--------|--------|--------|--------|-------|
| Heart | 17 | 13 | 14 | 16 | 16 |
| Lung | 26 [1] | 22 [4] | 26 [2] | 16 [1] | 24[8] |

[1] Single lung transplant

Table 11: Liver Transplantation by Year and Donor

| | 2019 | 2020 | 2021 | 2022 | 2023 |
|-------------------------|------|------|------|------|------|
| Adult, deceased donor | 48 | 41 | 45 | 44 | 49 |
| Adult, live adult donor | 1 | 0 | 0 | 1 | 0 |
| Child, deceased donor | 6 | 10 | 6 | 9 | 4 |
| Child, live adult donor | 3 | 3 | 2 | 0 | 2 |
| Total | 58 | 54 | 53 | 54 | 55 |

Table 12: Pancreas Transplantation by Year

| | 2019 | 2020 | 2021 | 2022 | 2023 |
|----------|------|------|------|------|------|
| Pancreas | 4 | 3 | 6 | 5 | 3 |

Table 13: Multiple Organ Transplants by Year

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

| | 2019 | 2020 | 2021 | 2022 | 2023 |
|--------------------------------------|------|------|------|------|------|
| Kidney and pancreas | 4 | 2 | 5 | 4 | 3 |
| Liver and kidney | 0 | 0 | 2 | 1 | 2 |
| Liver and pancreas | 0 | 1 | 1 | 1 | 0 |
| Heart and liver | 0 | 0 | 0 | 0 | 0 |
| Total number of multiple transplants | 4 | 3 | 8 | 6 | 5 |

TISSUE DONATION STORY

'A miracle for someone else'

Lynley and Richard Scott didn't hesitate to donate the heart valves of baby daughter Emma, when she sadly died from a genetic disorder at just 11 weeks-of-age. Although it couldn't cure their grief, the couple knew it could be the miracle that another family was waiting for.

Lynley and Richard were no strangers to genetic disorders. Their first child Andrew was born four years earlier with severe haemophilia, a lifelong genetic blood clotting disorder.

So, when Emma arrived well and without haemophilia, the couple were hugely relieved. But in a cruel twist of fate, a couple of month's later Emma was diagnosed with a rare, but unrelated, genetic condition called Spinal Muscular Atrophy (SMA).

Sadly, her prognosis was poor and when she contracted a chest infection, doctors were unable to save her.

As a nurse who'd previously worked in ICU, Lynley knew that Emma wouldn't be able to donate organs, but she was unaware tissue donation was still an option.

"It was Richard who asked the question about what she could donate, and it was at that point they mentioned heart valves," Lynley explains. "The Organ Donation New Zealand (ODNZ) coordinator explained because the valves were so small, they were so precious. For the child who needed them they were going to be a last resort.



"Nothing could change our grief. But by donating her valves I knew that someone else wasn't going to be in the same position that we were in."

Richard adds, "As parents of a child with haemophilia you're always hoping that there will be a cure or something like a miracle. So we knew that's what we were giving to someone else."

10 months after the donation, Richard and Lynley received a card from ODNZ saying one of Emma's heart valves had been successfully transplanted. News of a second successful transplant arrived a few years later.

The knowledge that Emma's donation saved not one but two children, is something the couple hold dear, and the ODNZ cards have special significance.

"Just the fact that we've still got it after 20 years tells people something," Richard says.

TISSUE-ONLY DONATION

Table 14: Deceased Tissue-Only Donation Facilitated by ODNZ

In 2023 there were 59 deceased tissue-only donors facilitated by ODNZ. Two 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 |
|---------------------------|-----------------------|--------------------|
| Auckland City Hospital | DCCM CVICU PICU | 5 1 1 |
| Christchurch Hospital | ICU | 6 |
| Dunedin Hospital | ICU | 5 |
| Middlemore Hospital | ICU | 2 |
| Nelson Hospital | ICU | 1 |
| North Shore Hospital | ICU | 4 |
| Palmerston North Hospital | Ward | 1 |
| Tauranga Hospital | ICU | 1 |
| Waikato Hospital | ICU Ward | 2 1 |
| Wellington Hospital | ICU Wards | 19 3 |
| Whāngarei Hospital | ICU | 1 |
| Hospices | | 3 |
| Family | | 2 |
| Funeral Directors | | 1 |

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

| Type of tissue | 2019 | 2020 | 2021 | 2022 | 2023 |
|--------------------------|------|------|-------|------|------|
| Skin | 8 | 12** | 8 | 0 | 5 |
| Heart valves | 32 | 28 | 30*** | 24 | 36 |
| Eyes facilitated by ODNZ | 89 | 96 | 88 | 85 | 89 |
| Eyes total **** | 131 | 119 | 110 | 101 | 121 |

*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. ****Includes Eye tissue facilitated by ODNZ, the Eye Bank, and Middlemore Hospital Bereavement Service.

www.donor.co.nz