Australian Donation and Transplantation Activity Report

2022
We thank all the generous donors and their families who have transformed the lives of people needing a transplant through organ and tissue donation.

We also acknowledge the dedication and commitment of our donation specialist staff and transplantation teams. Transplantation is only possible through the donation of organs and tissues, and its life-changing benefits would not be possible without this shared commitment.
Why is organ and tissue donation important?

For someone who is seriously ill, an organ or tissue transplant can mean the difference between life and death, being healthy or sick, seeing or being blind, or between being active and never walking again. Transplantation enables people to resume an active role in their family, workplace and community.

One organ donor can save the lives of up to 7 people and help many more through eye and tissue donation.

The first 10 years of the national program saw a 122% increase in deceased donation rates, resulting in an 81% increase in people receiving an organ transplant. Since the emergence of COVID-19, the number of donors and people who have received a transplant has dropped by 15%, though there was a small increase in 2022 compared to 2021.

Since the national program first began in 2009

❤️ 5,904 deceased organ donors

🧫 16,748 people have received life-saving organ transplants

Figure 1: Deceased organ donation and transplant recipients 2000–2022
On behalf of the Australian Government’s Organ and Tissue Authority (OTA), I am pleased to present the Australian Donation and Transplantation Activity Report that provides donation and transplantation outcomes for 2022.

Since the establishment of the national program in 2009, our goal every year is to increase organ and tissue donation in Australia so more people can receive a life-changing transplant.

The first 10 years of the national program saw a 122% increase in deceased donation rates, resulting in an 81% increase in people receiving an organ transplant. However, since the emergence of COVID-19, the number of organ donors and people who have received a transplant is down by 15%.

In 2022, Australia saw the highest number of COVID-19 infections and hospitalisations across the pandemic which had wide-ranging impacts on the health system, the health workforce and the community.

Nationally, DonateLife and transplant teams have skilfully managed the critical need for transplantation, against the increased risk of COVID-19 to immunosuppressed transplant recipients and there were early signs of recovery late in the year.

Despite these ongoing challenges, there was an 8% increase in deceased organ donors and a 4% increase in people who received a transplant when compared to 2021.

I couldn’t be prouder of the resilience, teamwork, and leadership of DonateLife teams, who together with transplant teams, worked to navigate a complex and challenging operating environment.

In 2022, the lives of 1,224 Australians were changed when they received an organ transplant. This was only possible thanks to the generosity of 454 deceased organ donors, and their families who said yes to donation. There were also 1,477 deceased eye donors, 276 deceased tissue donors, 224 living kidney donors and 2,472 living tissue donors, who saved or transformed the lives of thousands of Australians.

I acknowledge and sincerely thank every donor for the ultimate gift – giving a chance at a full and long life for those needing a transplant.

The national consent rate for organ donation has continued to be impacted by the pandemic — now at 54% in 2022, down from 59% in 2019. There is no doubt the ongoing impacts of COVID-19 have contributed to this fall in consent, consistent with the experience seen internationally in the sector. A continued focus on clinical practice and exploration of large-scale public awareness initiatives to build support for donation are required to lift consent rates into the future.

Despite 4 in 5 Australians showing support for donation, only 1 in 3 (36%) are registered to be a donor. Registering and telling your family that you want to be a donor means they know what you want, when they are asked at this very emotional and difficult time.

In 2022, 208,861 more Australians joined the Australian Organ Donor Register and showed their support for donation. This is 40% less than in 2021, though results in 2021 were an anomaly, attributed to a record number of Australians registering when they accessed their COVID-19 vaccination certificate through the Express Plus Medicare app.

Over the next 5 years, the 2022-2027 Strategy sets out to return donation and transplantation to pre-pandemic levels of activity. To achieve this, we’ll prioritise building support across the community, optimising opportunities in the clinical sector, and enhancing systems to enable quality outcomes.

It’s such a privilege to lead a program making a real difference to peoples’ lives. I remain focused on providing the leadership to return Australia to pre-pandemic rates and continue to increase so more people have access to a life-changing transplant.

Lucinda Barry AM
Chief Executive Officer
Organ and Tissue Authority
21 February 2023
With around 260 DonateLife donation specialists working across more than 90 hospitals, in addition to 24 transplant units operating across Australia, the commitment to optimising outcomes for patients and their families has been steadfast in 2022.

While Australia’s healthcare system experienced signs of recovery from the impacts of COVID-19 in 2022, it is not yet back to pre-pandemic levels of activity in the donation and transplantation sector. I’m proud of the genuine collaboration during another challenging year.

Organ and tissue donation and transplantation is a complex process with many elements and interdependencies. As the healthcare sector continued to be under stress, it was no surprise the program remained impacted.

There were staff shortages, pressures on intensive care units (ICU), hospital visitor restrictions affecting the family experience at end-of-life, challenges for patients accessing appointments and tests required for transplant wait-listing, difficulties with scheduling surgery and dialysis service, and the vulnerability of immunosuppressed transplant patients, influencing the balance of risk when deciding whether to proceed with transplantation impacted services that needed to be taken into account. These factors influenced decision-making and access to donation and transplantation throughout the year.

In Australia, like the rest of the world, the need for transplantation exceeds the availability of donor organs. Currently, there are around 1800 Australians on the organ transplant waitlist, and a further 14,000 people on dialysis, many of whom could benefit from a kidney transplant. Yet very few people will get the chance to be an organ donor. It usually follows a sudden and unexpected death in an ICU or Emergency Department (ED).

While around 80,000 people die in Australian hospitals each year, only around 2% can be considered for organ donation – in 2022 this was only 1400 people.

For this reason, it’s vital every donation opportunity is identified, and consent rates increase. Australia has a best-practice Clinical Practice Improvement Program in hospitals that focus on all patients approaching end-of-life within ICUs and EDs being routinely notified to the local DonateLife agency for advice on donation feasibility, so that no donation opportunities are missed.

Consent rates are also higher when a donation specialist nurse is involved in supporting families when being asked about donation. We continue to focus on best practice in hospitals including making sure families have access to accurate information and expert support from a DonateLife nurse at all times when donation is discussed.

Throughout the year, we worked together with the transplant sector as part of the National COVID-19 Rapid Response Taskforce, staying up to date on international evidence and emerging data to keep clinical guidelines current.

In 2022, there were also advancements in the functionality of OrganMatch, a state-of-the-art system for matching donor organs with transplant candidates. This includes the addition of a donation portal and incorporation of the Australia and New Zealand Kidney Paired Kidney Exchange (ANZKX) organ matches. Trans-Tasman kidney exchanges also recommenced for the ANZKX with the program facilitating 42 transplants from living donors.

I have every confidence that, with the skill and commitment of everyone involved across the donation and transplantation sectors, the coming years will see recovery of activity to pre-pandemic levels and further growth beyond this.

A/Professor Helen Opdam
National Medical Director
Organ and Tissue Authority
21 February 2023
## 2022 data at a glance

<table>
<thead>
<tr>
<th>Deceased organ donation and transplantation</th>
<th>Difference to 2021</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Deceased organ donors</strong></td>
<td>+8%</td>
</tr>
<tr>
<td>454</td>
<td></td>
</tr>
<tr>
<td><strong>Organ transplant recipients</strong></td>
<td>+4%</td>
</tr>
<tr>
<td>1,224</td>
<td></td>
</tr>
<tr>
<td><strong>Families consented to donation</strong></td>
<td>-2%</td>
</tr>
<tr>
<td>54%</td>
<td></td>
</tr>
<tr>
<td><strong>Eligible Australians are registered to be a donor</strong></td>
<td>+2%</td>
</tr>
<tr>
<td>7.5 million</td>
<td></td>
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</table>

<table>
<thead>
<tr>
<th>Living organ donation and transplantation</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Living organ donors</strong></td>
<td>+10%</td>
</tr>
<tr>
<td>224</td>
<td></td>
</tr>
<tr>
<td><strong>Including donors through the ANZKX program</strong></td>
<td>+11%</td>
</tr>
<tr>
<td>42</td>
<td></td>
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</table>

<table>
<thead>
<tr>
<th>Eye and tissue donation and transplantation</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Deceased eye donors</strong></td>
<td>+0.3%</td>
</tr>
<tr>
<td>1,477</td>
<td></td>
</tr>
<tr>
<td><strong>Deceased tissue donors</strong></td>
<td>-12%</td>
</tr>
<tr>
<td>276</td>
<td></td>
</tr>
<tr>
<td><strong>Corneal transplant recipients</strong></td>
<td>-3%</td>
</tr>
<tr>
<td>2,340</td>
<td></td>
</tr>
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</table>
### State and territory overview

<table>
<thead>
<tr>
<th></th>
<th>Deceased organ donors</th>
<th>Transplant recipients</th>
<th>Consent rate</th>
<th>New registrations²</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Australian Capital Territory</strong></td>
<td>10</td>
<td>29</td>
<td>58%</td>
<td>4,980</td>
</tr>
<tr>
<td><strong>New South Wales</strong></td>
<td>122</td>
<td>319</td>
<td>55%</td>
<td>54,769</td>
</tr>
<tr>
<td><strong>Northern Territory</strong></td>
<td>1</td>
<td>2</td>
<td>9%</td>
<td>1,634</td>
</tr>
<tr>
<td><strong>Queensland</strong></td>
<td>77</td>
<td>204</td>
<td>53%</td>
<td>44,165</td>
</tr>
<tr>
<td><strong>South Australia</strong></td>
<td>39</td>
<td>98</td>
<td>60%</td>
<td>27,435</td>
</tr>
<tr>
<td><strong>Tasmania</strong></td>
<td>18</td>
<td>57</td>
<td>87%</td>
<td>4,448</td>
</tr>
<tr>
<td><strong>Victoria</strong></td>
<td>144</td>
<td>371</td>
<td>52%</td>
<td>47,545</td>
</tr>
<tr>
<td><strong>Western Australia</strong></td>
<td>43</td>
<td>144</td>
<td>50%</td>
<td>23,885</td>
</tr>
<tr>
<td><strong>National</strong></td>
<td>454</td>
<td>1,224</td>
<td>54%</td>
<td>208,861</td>
</tr>
</tbody>
</table>

1 Number of recipients from the donors in the relevant state.  
2 New registrations on the Australian Organ Donor Register (AODR).
PART 1

Deceased organ donation and transplantation
## Deceased organ donation and transplantation

<table>
<thead>
<tr>
<th></th>
<th>2022</th>
<th>2021</th>
<th>Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Deceased organ donors</strong></td>
<td>454</td>
<td>421</td>
<td>+8%</td>
</tr>
<tr>
<td><strong>Organ transplant recipients</strong></td>
<td>1,224</td>
<td>1,173</td>
<td>+4%</td>
</tr>
</tbody>
</table>

- In 2022 there was an 8% increase in deceased organ donors and a 4% increase in the number of people who received a transplant when compared to 2021.
- While outcomes did vary across Australia, there were early signs of recovery from the impacts of COVID-19 towards the end of 2022 in some states and territories.
Deceased organ donation and transplant recipients

- The COVID-19 pandemic continued to impact the health system, the health workforce, and the community, causing a decrease in donation and transplantation activity across the last 3 years.
- Staff shortages, pressure in intensive care units, hospital visitor restrictions and personal protective equipment (PPE) impacting family experience and the vulnerability of immunosuppressed patients - to name a few - all need to be skilfully managed by donation and transplantation teams.

- Despite the challenges brought about by the pandemic, 2022 saw an increase in donation and transplantation outcomes compared with 2021.
- This increase points to early signs of recovery from the impacts of COVID-19, achieved towards the end of 2022 in some state and territories.

Figure 2: Deceased organ donors 2009, 2019–2022

Figure 3: Transplant recipients from deceased donors 2009, 2019–2022

Notes
— The number of transplant recipients from deceased donors in Australia includes a small number of recipients from New Zealand who were in urgent need of a life-saving transplant.
— 2009 was the first year of the national program.
— 2019 was one of the highest years for both organ donors and transplant recipients, pre-COVID-19.
Organ donation process

- Very few people can become an organ donor when they die.
- A person must die in a hospital in specific circumstances, in an ICU or ED, as organs need to be functioning well to be considered for transplantation.
- Only around 2% of people who die in Australian hospitals meet the criteria required to be an organ donor.
- In 2022, around 1400 people (of the 80,000 people who died in Australian hospitals) died in a way where organ donation could be considered.
- Requests to families for donation were made in 1300 cases.
- Of this, 701 families said yes to donation in the hospital – representing a national consent rate of 54% – with 454 people becoming organ donors.
- With only a small number of potential donors, increasing consent is critical to increasing our donation rate.
- There are around 1800 Australians waitlisted for a transplant and around 14,000 additional people on dialysis – some of whom may need a kidney transplant.

Figure 4: Australia’s potential deceased organ donor population and transplantation outcomes

- Around 80,000 people die in Australian hospitals each year but only around 2% of them can be considered for organ donation.
- In Australia the family is always asked to consent to donation. Requests to families for donation were made in 1,300 cases, with 701 families saying yes.
- Of the 701 consented donors, 454 became donors – 247 did not become donors mainly due to medical and logistical reasons.
- There are around 1,800 Australians waitlisted for a transplant and around 14,000 additional people on dialysis – some of whom may need a kidney transplant.

Sources
4. DonateLife Audit, eruary 2023
5. Deceased organ donation in Australia, Australia and New Zealand Organ Donation Registry, 15 anuary 2023
### Part 1 / Organ donation process

#### Organ transplants from deceased donors by organ type

<table>
<thead>
<tr>
<th>Organ type</th>
<th>2022</th>
<th>2021</th>
<th>Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kidney</td>
<td>713</td>
<td>656</td>
<td>+57</td>
</tr>
<tr>
<td>Liver</td>
<td>260</td>
<td>253</td>
<td>+7</td>
</tr>
<tr>
<td>Lung</td>
<td>142</td>
<td>171</td>
<td>-29</td>
</tr>
<tr>
<td>Heart</td>
<td>117</td>
<td>112</td>
<td>+5</td>
</tr>
<tr>
<td>Pancreas</td>
<td>47</td>
<td>37</td>
<td>+10</td>
</tr>
<tr>
<td>Intestine</td>
<td>2</td>
<td>2</td>
<td>0</td>
</tr>
</tbody>
</table>

- Kidneys make up more than half of organs transplanted, followed by liver, lungs and heart. There were 57 more kidney transplants in 2022 (9% higher than 2021).
- There was also a 3% increase in liver transplants, a 4% increase in heart transplants and a 27% increase in pancreas transplants.
- The number of lung transplants decreased compared with 2021. There were 29 less lung transplants in 2022 (17% lower than 2021).
Part 1 / Organ donation process

Organ transplants from deceased donors by organ type

- The impacts of COVID-19 have been felt throughout the country.
- The transplant sector took precautionary steps and suspended the adult kidney and pancreas transplant programs in early 2020.

Figure 5: Kidney transplants 2018–2022

Figure 6: Pancreas transplants 2018–2022

- Kidney transplant activity has increased significantly in NSW and Victoria in 2022, however this has not been the case in all states.
- Pancreas transplants have also increased in NSW and Victoria in 2022.
Part 1 / Organ donation process

Figure 7: Heart transplants 2018–2022

Figure 8: Lung transplants 2018–2022

Figure 9: Liver transplants 2018–2022

- Heart transplant activity has varied throughout the 2020–2022 period with a high number of heart transplants in NSW in 2020, where St Vincent’s Hospital has a world-leading program transplanting hearts from circulatory death donors.

- There has also been a notable increase in heart transplants in WA in 2022, where the use of ex vivo perfusion machines has meant that donated hearts can now be transported from the eastern states to WA due to longer time viability.

- Lung transplants have declined significantly from pre-pandemic levels across most states with the pandemic presenting ongoing risks to potential lung transplant recipients. 2022 transplant numbers represent a 42% decrease in NSW and a 37% decrease in Victoria compared to 2018.

- Liver transplants have increased in most states compared to 2021 but are still below pre-COVID levels of activity.
Part 1 / Organ donation process

Figure 10: Deceased organ donors by donation pathway 2009, 2019–2022

- There are two pathways to deceased donation:
  - donation after neurological determination of death (DNDD), and
  - donation after circulatory determination of death (DCDD).

- Most donors are from the DNDD pathway. In 2022, 337 deceased organ donors (74%) came from the DNDD pathway, with 117 (26%) from the DCDD pathway.

- There was a 13% increase in the number of donors from the DNDD pathway and a 6% decrease in the number of donors from the DCDD pathway. Typically, DCDD results in a lower number of organs medically suitable for transplantation compared with DNDD.

Figure 11: Deceased organ donation and transplantation rates 2009, 2019–2022

- The national donation target for deceased donation, established in 2009, is 25.0 donors per million population (dpmp).

- The 454 deceased organ donors in 2022 resulted in a national donation rate of 17.5 dpmp, an increase on the rate in 2021 (16.4 dpmp).

- Australia’s dpmp rate has decreased during the pandemic.

- The transplantation rate was 47.1 transplant recipients per million population (trpmp) in 2022, an increase on 2021 (45.7 trpmp).
Figure 12: Deceased organ donors and donation rates by state and territory in 2022

- State and territory outcomes in 2022 continued to demonstrate variation, with donation rates ranging from 4.0 dpmp to 31.5 dpmp.

- Tasmania exceeded the national target (25 dpmp) with a donation rate of 31.5 dpmp.
Figure 13: Deceased organ donation rates by state and territory 2009, 2019–2022

Note: The relatively small populations of the Northern Territory, the Australian Capital Territory and Tasmania can result in substantial fluctuations in outcomes and donation rates from year to year.
In Australia, families of potential donors are always asked to consent to their family member becoming a donor in hospital.

Our national consent rate dropped 2% to 54% in 2022.

In 2022 there continued to be impacts in the hospital environment due to the COVID-19 pandemic, including hospital visitor restrictions impacting families, requirements for family and staff to wear PPE and ongoing staffing impacts. Even in such challenging circumstances, many families were still motivated to donate and help others through donation.

Increasing the consent rate within the small number of potential donors is critical to further growth in donation.

In 2022, of the 701 consented donors, 454 proceeded to donation. 247 did not proceed to donation, mainly due to medical and logistical reasons.

**Figure 14: Consented donors**

701 consented donors

- 247 did not proceed to donation

= 454 proceeded to donation

**Figure 15: Consent rates by state and territory in 2022**

- National: 54%
- Queensland: 53%
- New South Wales: 55%
- Australian Capital Territory: 58%
- Victoria: 52%
- Tasmania: 87%
- South Australia: 60%
- Western Australia: 50%
- Northern Territory: 9%
The impact of donation specialists on consent

Figure 16: The importance of involving a donation specialist nurse in discussions with families

<table>
<thead>
<tr>
<th>Year</th>
<th>Donation Specialist Nurse</th>
<th>Consent Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>2022</td>
<td>6/10</td>
<td>80%</td>
</tr>
<tr>
<td>2021</td>
<td>2/10</td>
<td>77%</td>
</tr>
</tbody>
</table>

- A donation specialist nurse was involved in 80% of family conversations about donation compared with 77% in 2021.

- There are around 260 donation specialist nurses, doctors and support staff covering around 90 hospitals across Australia.
- The donation specialists work with hospital critical care teams to ensure that, when appropriate, the opportunity for organ donation is offered to families.
- A key factor to increasing consent is having donation raised by a donation specialist nurse and providing families with high-quality information and care during the donation process.
- In 2022, 56% of Australian families agreed to donate when they were supported by a donation specialist nurse. This dropped to 23% when there was no donation specialist nurse involved.
Part 1 / Registration rates

The impact of registration on consent

- In 2022, 82% of families agreed to donation when their family member was registered to donate on the Australian Organ Donor Register (AODR).
- Consent for donation was given in 63% of cases when the family knew their family member wanted to be a donor.
- Consent dropped to only 39% of families agreeing to donation when the family member was not registered, and the family was unaware if they wanted to be a donor.
- While 4 in 5 Australians support organ and tissue donation, approximately 1 in 3 (36%) are registered to be a donor on the AODR.
- South Australia has the highest registration rate (72%).
- South Australia is the only state where individuals can register to be a donor via their driver’s licence.
- Consideration of organ and tissue donation comes at an intensely emotional time for families, usually associated with the unexpected death of their family member.
- When donation is a possibility, it helps when families know if they wanted to be a donor.

<table>
<thead>
<tr>
<th>Registration rates</th>
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<tbody>
<tr>
<td>8/10</td>
</tr>
<tr>
<td>6/10</td>
</tr>
<tr>
<td>4/10</td>
</tr>
</tbody>
</table>

| families gave consent for donation when their family member was a registered donor |
| families gave consent for donation when they knew their family member wanted to be a donor |
| families gave consent for donation when their family member was not registered and the family was not aware |

<table>
<thead>
<tr>
<th>2022</th>
<th>2021</th>
<th>Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td>New registrations</td>
<td>New registrations</td>
<td></td>
</tr>
<tr>
<td>208,861</td>
<td>349,947</td>
<td>-40%</td>
</tr>
</tbody>
</table>

- In 2022, there were 208,861 new registrations on the AODR, 40% less than 2021 (349,947). 2021 was an anomaly for new registrations attributed to a record number of Australians registering when accessing their COVID-19 vaccination certificates through the Express Plus Medicare app.
- Despite the challenges of COVID-19, 208,861 people registered to be a donor and showed their support for donation.
- There are close to 7.5 million people registered on the AODR, a 2% increase compared to 2021. This is 36% of the eligible Australian population (i.e. aged 16 or over).
**Part 1 / Registration rates**

*Figure 17: Percentage of population aged 16 and over registered on the AODR in 2022*

![Map showing registration rates by state and territory in 2022]

- **National**: 36%
- **Queensland**: 31%
- **Northern Territory**: 16%
- **Western Australia**: 38%
- **South Australia**: 72%
- **New South Wales**: 42%
- **Australian Capital Territory**: 27%
- **Tasmania**: 48%

*Figure 17: New registrations by state and territory in 2022*

<table>
<thead>
<tr>
<th>Year</th>
<th>NSW</th>
<th>VIC</th>
<th>QLD</th>
<th>SA</th>
<th>WA</th>
<th>TAS</th>
<th>NT</th>
<th>ACT</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>2022</td>
<td>54,769</td>
<td>47,545</td>
<td>44,165</td>
<td>27,435</td>
<td>23,885</td>
<td>4,448</td>
<td>1,634</td>
<td>4,980</td>
<td>208,861</td>
</tr>
<tr>
<td>2021</td>
<td>110,331</td>
<td>88,278</td>
<td>73,736</td>
<td>31,244</td>
<td>26,362</td>
<td>7,516</td>
<td>2,616</td>
<td>9,864</td>
<td>349,947</td>
</tr>
<tr>
<td>2020</td>
<td>45,683</td>
<td>47,274</td>
<td>39,814</td>
<td>27,857</td>
<td>16,474</td>
<td>3,602</td>
<td>1,352</td>
<td>4,600</td>
<td>186,656</td>
</tr>
<tr>
<td>2019</td>
<td>54,025</td>
<td>55,974</td>
<td>48,878</td>
<td>32,175</td>
<td>19,612</td>
<td>4,723</td>
<td>1,519</td>
<td>4,735</td>
<td>221,641</td>
</tr>
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</table>
PART 2

Living organ donation and transplantation
Living organ donation and transplantation

224 living organ donors = 182 living organ donors facilitated by individual transplant units + 42 living organ donors through the ANZKX program

- A living organ donor is someone who donates a kidney, or on rare occasions a partial liver, to another person. Receiving an organ from a living donor offers an alternative to waiting on the national transplant waitlist for an organ from a deceased donor.

- There were 224 living donors in 2022. This result is 10% higher than the 2021 outcome of 203, and approaching the 2019 outcome of 239 donors, prior to the disruptions to the sector resulting from responses to the COVID-19 pandemic in recent years.

- Living kidney donation and transplantation is most often directly from a relative or close friend (directed donation).

- For some patients who are eligible for a kidney transplant and have a living donor who is willing but unable to donate directly because of an incompatible blood or tissue type, donation and transplantation is facilitated through the Australian and New Zealand Paired Kidney Exchange (ANZKX) program.

- The 224 living kidney donors in 2022 included 42 through the ANZKX program. This was 11% higher compared to 2021 (38).

Figure 18: Living donors 2010, 2019–2022

Figure 19: Living donation by state and territory in 2022

Note: Living donations from ACT, NT and TAS take place in other states.
PART 3

Eye and tissue donation and transplantation
Deceased organ, eye and tissue donors

- Each year the lives of thousands of Australians are saved and transformed through the transplantation of donated tissues, including eye tissue.
- The tissues that can be transplanted include heart valves and other heart tissue, bone, tendons, ligaments, skin and parts of the eye such as the cornea and sclera.
- Unlike organs, many more people can become eye and tissue donors as these can be donated following death outside of hospital, and tissue can be stored for longer periods of time.
- State tissue banks across Australia collect tissue from deceased and living donors, process and store these tissues and then distribute them to clinicians for transplantation and other surgical uses.
- Due to the cancellation of semi-elective and elective surgeries during the COVID-19 pandemic, the number of eye and tissue donations decreased as the surgeries needed to do these transplants were not taking place.
- Of the 454 deceased organ donors in 2022, 221 also donated eye and/or other tissue.
- People can donate any combination of organ, eye and tissue.

Figure 20: Overlap of deceased organ, eye and tissue donors in 2022

![Diagram showing the overlap of deceased organ, eye and tissue donors in 2022](image-url)
Figure 21: Deceased eye and tissue donors by state and territory in 2022

National

Eye donors

1,477

Tissue donors

276

Queensland

485

83

Northern Territory*

Western Australia

160

12

South Australia

138

9

New South Wales

407

105

Victoria

263

60

Tasmania

15

4

Australian Capital Territory

9

3

*Eye and tissue donation is not undertaken in the Northern Territory.
In 2022 there were 1,477 deceased eye donors. This is a 0.3% increase in the number of eye donors compared with 2021 (1,472).

There were 2,340 corneal transplants in 2022, a 3% decrease compared with 2021 (2,413).

Since 2009, more than 28,500 Australians have received a corneal transplant.

Eye donation and transplantation has remained consistent over the past 3 years despite the impacts of COVID-19. For the most part, donation meets demand in this sector.
Tissue donation and transplantation

2022

2,748 = 2,472 + 276

- In 2022 there were 2,748 tissue donors which is a 17% decrease compared with 2021 (3,307).
- The 276 deceased tissue donors is 12% less than 2021 (313).

Figure 24: Deceased tissue donations 2013, 2019–2022

- The 276 deceased tissue donors in 2022 resulted in 361 tissue donations (some donate multiple tissue). This represents a 27% decrease in tissue donations compared with 2021 (497).
- There were 174 musculoskeletal, 101 cardiovascular, 79 skin and 7 pancreas islets deceased tissue donations in 2022.

Note: National tissue donation and transplantation data was first reported in 2013.
Part 3 / Tissue donation and transplantation

**Figure 25: Living tissue donations 2013, 2019–2022**

- The 2,472 living tissue donors in 2022 resulted in 2,520 living tissue donations, predominantly from patients undergoing joint replacement surgery who donate their femoral head. The number of living tissue donations is 18% lower than 2021 (3,056).
- The pandemic has impacted elective surgeries including joint replacement surgery resulting in a decrease in living tissue donations.

**Figure 26: Tissue transplant recipients 2013, 2019–2022**

- In 2022 there were 7,407 reported tissue transplant recipients from both living and deceased donors. This is a 20% decrease on 2021 (9,303).
- The tissue transplant recipients included 6,843 recipients of musculoskeletal tissue, 228 recipients of cardiovascular tissue, 230 recipients of amnion tissue, 109 recipients of skin tissue and 7 pancreas islets recipients in 2022.
## Acronyms

<table>
<thead>
<tr>
<th>Acronym</th>
<th>Description</th>
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<tbody>
<tr>
<td>ANZDATA</td>
<td>Australia and New Zealand Dialysis and Transplant Registry</td>
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<tr>
<td>ANZKX</td>
<td>Australian and New Zealand Paired Kidney Exchange program</td>
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<td>ANZLITR</td>
<td>Australia and New Zealand Liver and Intestinal Transplant Registry</td>
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<tr>
<td>ANZOD</td>
<td>Australia and New Zealand Organ Donation Registry</td>
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<td>AODR</td>
<td>Australian Organ Donor Register</td>
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<tr>
<td>DNDD</td>
<td>Donation after neurological determination of death</td>
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<td>DCDD</td>
<td>Donation after circulatory determination of death</td>
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<td>dpmp</td>
<td>Donors per million population</td>
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<tr>
<td>ED</td>
<td>Emergency Department</td>
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<tr>
<td>ICU</td>
<td>Intensive Care Unit</td>
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<tr>
<td>PPE</td>
<td>Personal protective equipment</td>
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<td>trpmp</td>
<td>Transplant recipients per million population</td>
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References

Deceased organ donation and transplantation
Australia and New Zealand Organ Donation (ANZOD) Registry (January 2023)
Australian Institute of Health and Welfare 2021 Admitted patient care 2020-21 (Released 03/06/2022).
DonateLife Audit, February 2023.
Deceased organ donation in Australia, Australia and New Zealand Organ Donation Registry, January 2023.

Living kidney donation
Australia and New Zealand Dialysis and Transplant (ANZDATA) Registry (January 2023)

Australian Organ Donor Register
Services Australia (January 2023)

Consent data
Australian Organ and Tissue Donation and Transplantation Authority DonateLife Audit (February 2023)

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