



7.13 Organ and tissue donation

Organ and tissue donation involves retrieving organs and tissue from suitable donors to transplant into a recipient. There are two types of donation: deceased (after brain or cardiac death) and living.

- Organs that can be donated from deceased donors include the heart, lungs, liver, kidneys and pancreas.
- Living donors can donate a kidney or, in rare cases, partial liver.
- Tissues that can be donated include bone, tendons, ligaments, skin, and selected parts of the eye.

Depending on individual circumstances, more than one organ and/or tissue may be donated by one person; therefore the number of recipients will exceed the number of donors in any given year.

Few people die in a way that makes organ donation possible—in fact, only around 1–2% (around 1,100 in 2016) of people who die in hospital each year are suitable to become organ donors (OTA 2017a). When a person dies and donation is a possibility, the family's permission is sought.

People aged 16 and over who wish to become donors can join the Australian Organ Donor Register at <www.donatelife.gov.au>, which is checked when the potential for donation arises. While the majority of Australians are willing to become donors (67%), only 34% are registered (OTA 2017a; Social Research Centre 2017, cited in OTA 2017b). Registration is important as 9 in 10 families agree to donation if their loved one was a registered donor and the family has prior knowledge of the donation decision.

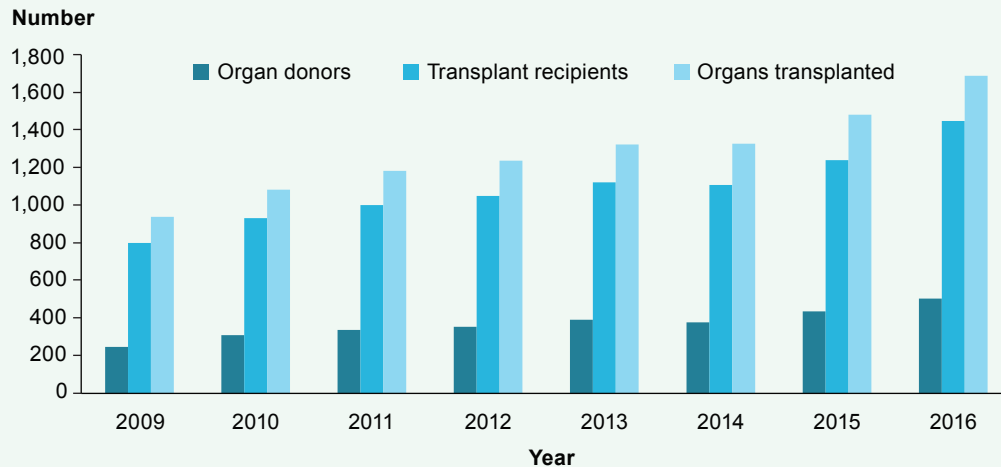
Most kidneys and parts of liver transplanted from living organ donors are from donors genetically or emotionally related to the recipient. However, there are also donors through the Australian Paired Kidney Exchange Program. This program identifies matches for patients who are eligible for a kidney transplant, and have a living donor who is willing but unable to donate because of an incompatible blood or tissue type.

Organ donation

In 2016, the number of deceased organ donors was the highest since national recording of organ donation began in 2009. In 2016, there were 503 deceased organ donors—more than double the number in 2009 (247). Between 2009 and 2016, the number of recipients increased from 799 to 1,447 (Figure 7.13.1). In 2016, there were 267 living organ donors who donated their kidney (265) or part of their liver (2) (OTA 2017a).



Figure 7.13.1: National deceased organ donations and transplants, 2009 to 2016



Sources: OTA 2016, 2017a; Table S7.13.1.

Tissue donation

In 2016, there were 4,291 donors of tissue, including musculoskeletal, skin and cardiovascular tissue, excluding eyes. Of these, 424 were deceased donors, who gave 650 tissue donations. This was almost double the 327 tissue donations in 2012, the year national reporting on tissue donation began.

The 3,867 living tissue donors, who gave 3,923 tissue donations, excluding eyes, were mainly patients undergoing joint replacement surgery.

There were 1,281 deceased eye donors in 2016—an increase of 39% since 2009 (922) (OTA 2016a, 2017a).

Transplants

Consistent with the growth in organ donation, the overall number of organs transplanted from deceased donors increased by 80%, from 938 organs in 2009 to 1,687 in 2016 (Figure 7.13.1). In 2016, kidneys were the organ most often transplanted from deceased donors (841), followed by liver (283) (OTA 2017a).

Organs transplanted from deceased donors, 2016



Kidney **841**



Lungs **386**



Liver **283**



Heart **124**



Pancreas **52**

One intestinal transplant is not included.



In 2016, there were 2,085 corneal transplants, with all requests for eye tissue transplantation being met; transplant rates remained relatively consistent since 2012. There were 7,468 other tissue transplant recipients, most (95% or 7,073) of whom received musculoskeletal tissue. The number of tissue transplant recipients more than doubled from 3,691 in 2013 to 7,468 in 2016 (OTA 2017a).

Organ transplant waiting list

At the start of 2016, there were 1,480 patients listed on solid organ transplant waiting lists. A further 1,609 new patients were listed during that year. Of the total number of wait listed patients in 2016:

- 1,447 received a transplant from a deceased donor
- 38 received a transplant from a living donor
- 259 were removed from the list for various reasons
- 35 died while on the waiting list (ANZDATA 2017).

What is missing from the picture?

The AIHW's National Hospital Morbidity Database has information available on procedures, patient diagnoses and other information for most deceased donations, all live donations and all transplants. Further work could be undertaken to understand how these data could complement the Organ and Tissue Authority's reported data.

Where do I go for more information?

More information on organ and tissue donation, including signing up to the Australian Organ Donor Register is available at <www.donatelife.gov.au>.

Some information on selected outcomes for organ transplants is available at the Australia and New Zealand dialysis and transplant registry.

References

ANZDATA (Australia and New Zealand Dialysis and Transplant Registry) 2017. Australia and New Zealand Dialysis and Transplant Registry annual report. Section 12: organ waiting list. Adelaide: ANZDATA. Viewed 19 February 2018, <http://www.anzdata.org.au/anzod/ANZODReport/2017/c12_waitinglist_v1.0_20171116.pdf>.

OTA (Organ and Tissue Authority) 2016. Australian donation and transplantation activity report 2015. Canberra: OTA. Viewed 29 November, 2017, <<http://www.donatelife.gov.au/sites/default/files/Australian%20Donation%20and%20Transplantation%20Activity%20Report%202015.pdf>>.

OTA 2017a. Australian donation and transplantation activity report 2016. Canberra: OTA. Viewed 22 November 2017, <<http://www.donatelife.gov.au/sites/default/files/Australian%20Donation%20and%20Transplantation%20Activity%20Report%202016.pdf>>.

OTA 2017b. Donation facts and statistics. Canberra: OTA. Viewed 22 November 2017, <<http://www.donatelife.gov.au/sites/default/files/Facts%20and%20Stats%20Fact%20Sheet%20-Feb%202017.pdf>>.