



SECTION 10

Eye and Tissue Donation and Transplantation

This section summarises data on eye and tissue donation activity and transplant outcomes in 2024. The data presented here is provided by eye and tissue banks across Australia, in conjunction with data collected within the solid organ donation sector.

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EYE AND TISSUE REPORTING

The collaboration between the Australian Organ and Tissue Authority (OTA), jurisdictional eye and tissue banks and the ANZOD Registry continues to strengthen the national reporting of tissue data. Reported datasets and analyses produced by the Registry inform the discussions held by health care professionals, policy makers, consumers and individual agencies to optimise every potential donation opportunity and to increase access to life-transforming transplantation for Australians - See more at: <https://www.donatelife.gov.au/about-us>.

SUGGESTED CITATION

H Opdam, C Davies, K Marshall, G Irish, 29th Report, Section 10: Eye and Tissue Donation and Transplantation. Australia and New Zealand Organ Donation Registry, Adelaide, Australia. 2025. Available at: <https://www.anzdata.org.au/anzod/publications-2/annual-reports/>

EYE AND TISSUE BANKS

Eye and tissue banks across Australia collect data on donations of eye, cardiovascular, musculoskeletal, skin, pancreas islets, and amnion tissues. The following summary outlines the uses of these tissue donations.

Musculoskeletal

These include bone, tendon, and ligament donations, which are used in knee and hip replacements, reconstructive orthopaedic surgery following trauma or disease, spinal deformities, and in preventing limb loss after tumour removal. A single musculoskeletal donation can benefit multiple recipients, significantly enhancing their quality of life.

Cardiovascular Tissue

Donations include heart valves, pericardium, and thoracic aorta. Heart valves are essential for regulating blood flow to and from the heart. The pericardium is used in neurosurgery and for vascular repair, similar to the thoracic aorta.

Skin

Donated skin is vital for saving lives and improving outcomes for patients with severe burns. When a patient's own skin cannot be used for grafting, donated skin serves as a wound dressing, reducing infection, fluid loss, and pain, promoting wound healing, and minimising scarring. Patients often need multiple grafts for complete healing. Skin grafts are also used to treat wounds from trauma and serious infections.

Eye Tissue

This can restore sight, prevent blindness, and significantly improve an individual's quality of life. Donor eye tissues, including corneal and scleral tissue, are also crucial for advancing research and developing surgical techniques.

Placental Tissue (Amnion)

The amnion, the innermost layer of the placenta, has significant potential in treating wounds and burns. It serves as a protective barrier and is used for various medical applications

Pancreatic Islets

These clusters of cells, derived from a donated pancreas, are transplanted into recipients to treat insulin-dependent Type 1 diabetes, especially in cases where blood glucose levels are difficult to control, leading to hypoglycaemic unawareness.

TISSUE DONORS

Table 10.1 summarises the number of tissue donors by donation pathway and jurisdiction from 2020 to 2024.

Table 10.1
Number of Tissue Donors by Donation Pathway and Jurisdiction 2020-2024

Donation Type	Jurisdiction	2020	2021	2022	2023	2024
Living Donor	NSW	1528 (56.1%)	1603 (53.5%)	1262 (51.1%)	1443 (48.8%)	1647 (51.2%)
	VIC	175 (6.4%)	182 (6.1%)	130 (5.3%)	99 (3.3%)	147 (4.6%)
	QLD	256 (9.4%)	341 (11.4%)	224 (9.1%)	264 (8.9%)	361 (11.2%)
	SA	138 (5.1%)	167 (5.6%)	150 (6.1%)	172 (5.8%)	152 (4.7%)
	WA	619 (22.7%)	701 (23.4%)	706 (28.6%)	979 (33.1%)	912 (28.3%)
	TAS	10 (.4%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)
	NT	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)
	ACT	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)
	AUS	2726 (100%)	2994 (100%)	2472 (100%)	2957 (100%)	3219 (100%)
Deceased Donor	NSW	68 (24.4%)	67 (21.4%)	95 (36.5%)	110 (33.5%)	71 (22.8%)
	VIC	79 (28.3%)	89 (28.4%)	56 (21.5%)	68 (20.7%)	89 (28.5%)
	QLD	99 (35.5%)	133 (42.5%)	81 (31.2%)	115 (35.1%)	117 (37.5%)
	SA	11 (3.9%)	12 (3.8%)	9 (3.5%)	19 (5.8%)	15 (4.8%)
	WA	15 (5.4%)	9 (2.9%)	12 (4.6%)	12 (3.7%)	10 (3.2%)
	TAS	1 (.4%)	2 (.6%)	4 (1.5%)	2 (.6%)	6 (1.9%)
	NT	2 (.7%)	0 (0%)	0 (0%)	1 (.3%)	2 (.6%)
	ACT	4 (1.4%)	1 (.3%)	3 (1.2%)	1 (.3%)	2 (.6%)
	AUS	279 (100%)	313 (100%)	260 (100%)	328 (100%)	312 (100%)
Total Donors	NSW	1596 (53.1%)	1670 (50.5%)	1357 (49.7%)	1553 (47.3%)	1718 (48.7%)
	VIC	254 (8.5%)	271 (8.2%)	186 (6.8%)	167 (5.1%)	236 (6.7%)
	QLD	355 (11.8%)	474 (14.3%)	305 (11.2%)	379 (11.5%)	478 (13.5%)
	SA	149 (5%)	179 (5.4%)	159 (5.8%)	191 (5.8%)	167 (4.7%)
	WA	634 (21.1%)	710 (21.5%)	718 (26.3%)	991 (30.2%)	922 (26.1%)
	TAS	11 (.4%)	2 (.1%)	4 (.1%)	2 (.1%)	6 (.2%)
	NT	2 (.1%)	0 (0%)	0 (0%)	1 (0%)	2 (.1%)
	ACT	4 (.1%)	1 (0%)	3 (.1%)	1 (0%)	2 (.1%)
	AUS	3005 (100%)	3307 (100%)	2732 (100%)	3285 (100%)	3531 (100%)

Figure 10.1 shows the tissue donors per million population (pmp) across each donation pathway from 2020 to 2024. Figure 10.2 shows the tissue donors (pmp) across each jurisdiction from 2020 to 2024.

Figure 10.1
Tissue Donors (pmp) by Donation Pathway, 2020-2024

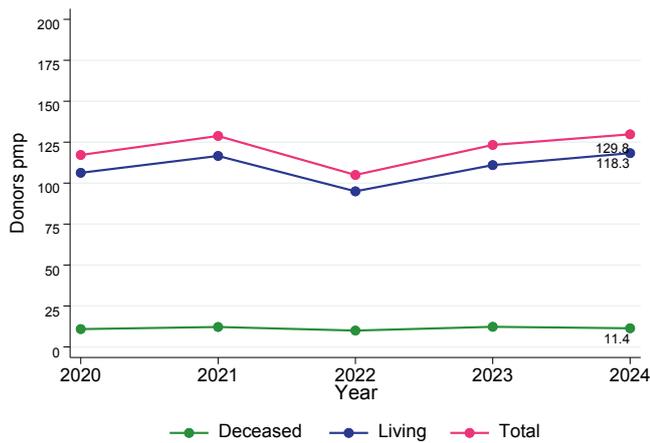
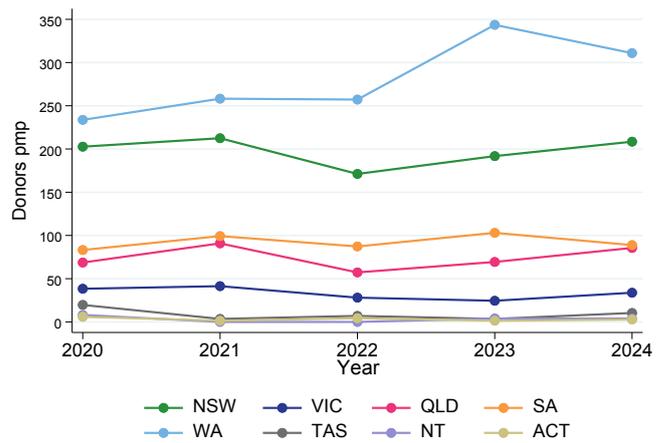


Figure 10.2
Tissue Donors (pmp) by Jurisdiction, 2020-2024



TISSUE DONOR CHARACTERISTICS

Tissue donor characteristics between 2020 and 2024 are described in Table 10.2.

Table 10.2
Tissue Donor Characteristics Profile, 2020-2024

Donor Profile	2020	2021	2022	2023	2024
Gender					
Female	1488 (49.5%)	1740 (52.6%)	1369 (50.1%)	1738 (52.9%)	1837 (52%)
Male	1517 (50.5%)	1567 (47.4%)	1363 (49.9%)	1547 (47.1%)	1693 (48%)
Age					
<50y	352 (11.7%)	410 (12.4%)	327 (12%)	415 (12.6%)	420 (11.9%)
50-59y	651 (21.7%)	673 (20.4%)	562 (20.6%)	655 (19.9%)	714 (20.2%)
60-69y	1017 (33.8%)	1164 (35.2%)	927 (33.9%)	1095 (33.3%)	1238 (35.1%)
70-79y	774 (25.8%)	811 (24.5%)	701 (25.7%)	875 (26.6%)	884 (25%)
80y+	211 (7%)	249 (7.5%)	215 (7.9%)	245 (7.5%)	274 (7.8%)

Figure 10.3 shows the tissue donors (pmp), across age ranges from 2020 to 2024.

Figure 10.4 shows the number of tissue donors, by age range and donation type from 2020 to 2024.

Figure 10.3
Tissue Donors (pmp) by Age Range, 2020-2024

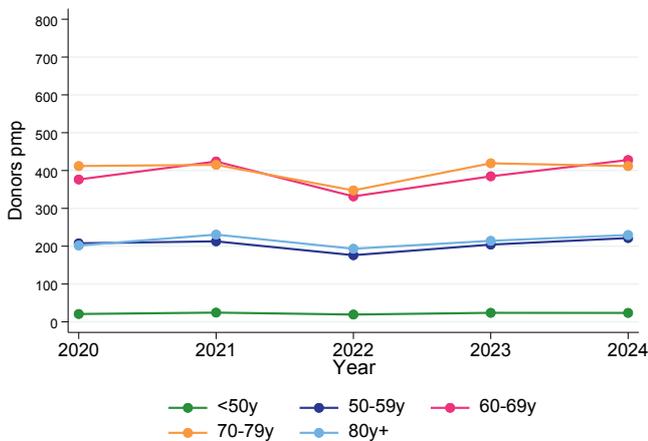
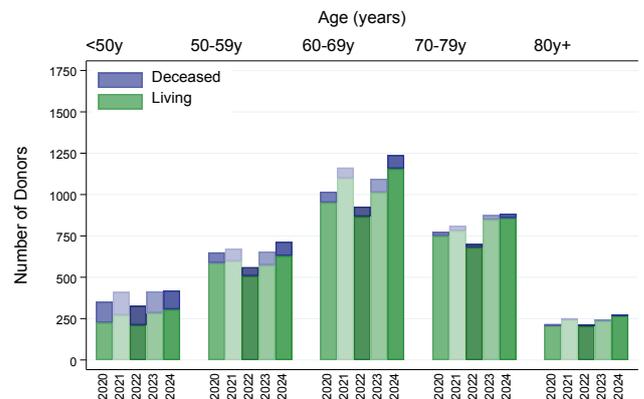


Figure 10.4
Number of Donors by Age Range and Donor Pathway, 2020-2024



TISSUE DONATION

Figure 10.5
Donations by Donation Pathway: Overall Australia, 2020-2024

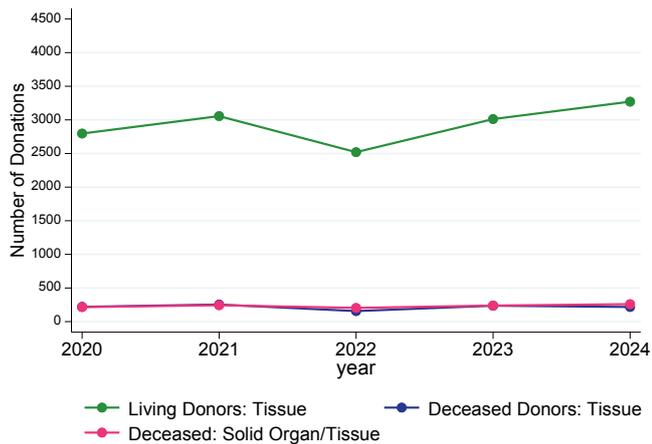


Figure 10.6
Total Tissue Donations (pmp) by Jurisdiction, 2020-2024

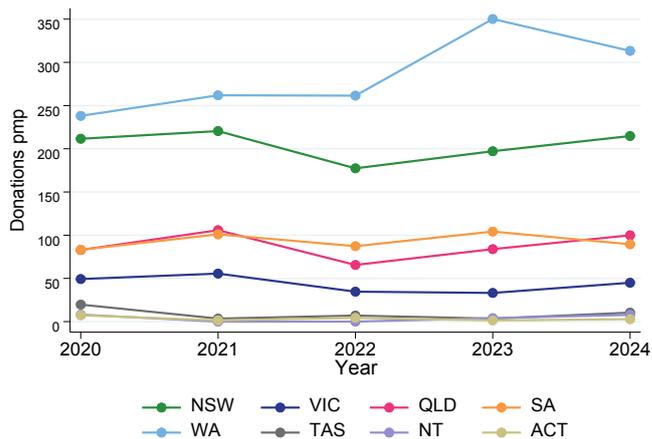


Table 10.3 shows the total number and percentage of tissue donations, by donation pathway and jurisdiction from 2020 to 2024.

Table 10.3
Number of Tissue Donations by Donor Type and Jurisdiction 2020-2024

Donation Type	Jurisdiction	2020	2021	2022	2023	2024
Living Donor Donations	NSW	1584 (56.6%)	1650 (54%)	1298 (51.5%)	1476 (49%)	1687 (51.6%)
	VIC	175 (6.3%)	182 (6%)	130 (5.2%)	100 (3.3%)	147 (4.5%)
	QLD	259 (9.3%)	345 (11.3%)	224 (8.9%)	267 (8.9%)	366 (11.2%)
	SA	138 (4.9%)	168 (5.5%)	150 (6%)	172 (5.7%)	152 (4.6%)
	WA	631 (22.6%)	711 (23.3%)	718 (28.5%)	997 (33.1%)	919 (28.1%)
	TAS	10 (.4%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)
	NT	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)
	ACT	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)
	AUS	2797 (100%)	3056 (100%)	2520 (100%)	3012 (100%)	3271 (100%)
Deceased Donor Donations	NSW	82 (18.8%)	83 (16.7%)	108 (29.9%)	121 (25.4%)	83 (17.4%)
	VIC	151 (34.6%)	182 (36.5%)	100 (27.7%)	126 (26.5%)	167 (34.9%)
	QLD	169 (38.8%)	207 (41.6%)	125 (34.6%)	191 (40.1%)	192 (40.2%)
	SA	11 (2.5%)	14 (2.8%)	9 (2.5%)	21 (4.4%)	16 (3.3%)
	WA	15 (3.4%)	9 (1.8%)	12 (3.3%)	13 (2.7%)	10 (2.1%)
	TAS	1 (.2%)	2 (.4%)	4 (1.1%)	2 (.4%)	6 (1.3%)
	NT	2 (.5%)	0 (0%)	0 (0%)	1 (.2%)	2 (.4%)
	ACT	5 (1.1%)	1 (.2%)	3 (.8%)	1 (.2%)	2 (.4%)
	AUS	436 (100%)	498 (100%)	361 (100%)	476 (100%)	478 (100%)
Total Donations	NSW	1666 (51.5%)	1733 (48.8%)	1406 (48.8%)	1597 (45.8%)	1770 (47.2%)
	VIC	326 (10.1%)	364 (10.2%)	230 (8%)	226 (6.5%)	314 (8.4%)
	QLD	428 (13.2%)	552 (15.5%)	349 (12.1%)	458 (13.1%)	558 (14.9%)
	SA	149 (4.6%)	182 (5.1%)	159 (5.5%)	193 (5.5%)	168 (4.5%)
	WA	646 (20%)	720 (20.3%)	730 (25.3%)	1010 (29%)	929 (24.8%)
	TAS	11 (.3%)	2 (.1%)	4 (.1%)	2 (.1%)	6 (.2%)
	NT	2 (.1%)	0 (0%)	0 (0%)	1 (0%)	2 (.1%)
	ACT	5 (.2%)	1 (0%)	3 (.1%)	1 (0%)	2 (.1%)
	AUS	3233 (100%)	3554 (100%)	2881 (100%)	3488 (100%)	3749 (100%)

Figure 10.7
Tissue Donations (pmp) from Living Donors by Jurisdiction, 2020-2024

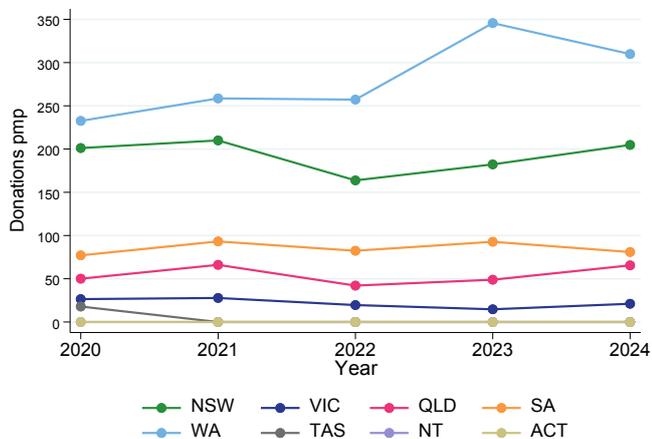


Table 10.4 shows the breakdown of donation from living donors by tissue type and jurisdiction.

Table 10.4
Tissue Donations from Living Donors by Tissue Type and Jurisdiction, 2024

Jurisdiction	Musculoskeletal	Cardiovascular	Amnion	Total
NSW	1584	26	77	1687
VIC	143	4	0	147
QLD	366	0	0	366
SA	152	0	0	152
WA	919	0	0	919
TAS	0	0	0	0
NT	0	0	0	0
ACT	0	0	0	0
AUS	3164	30	77	3271

Figures 10.8 and 10.9 show the breakdown of deceased tissue only and solid organ and tissue donation, by jurisdiction, for the period 2020 to 2024.

Figure 10.8
Tissue Donations from Deceased Donors by Jurisdiction, 2020-2024

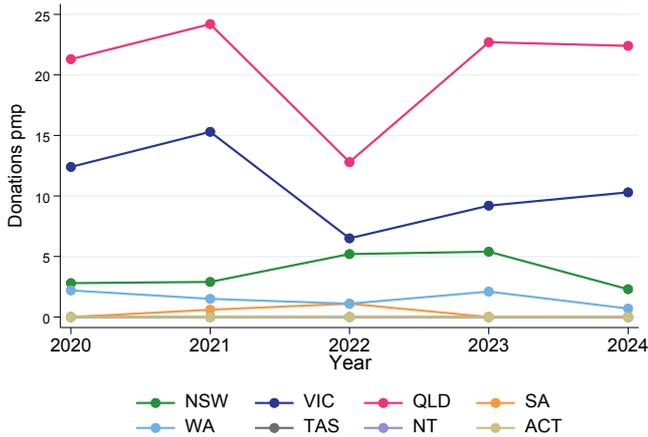


Figure 10.9
Solid Organ and Tissue Donations (pmp) from Deceased Donors by Jurisdiction, 2020-2024

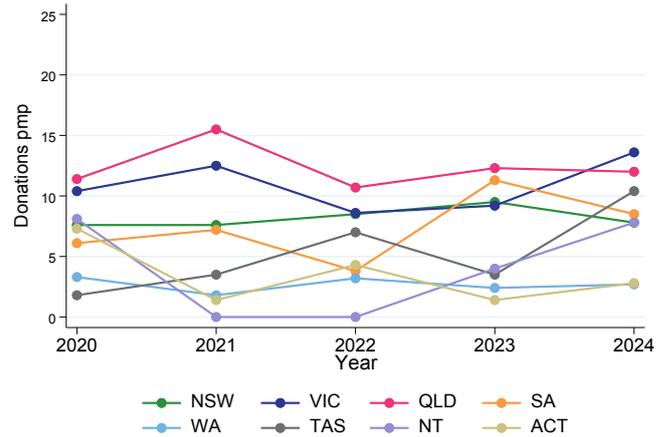


Table 10.5 shows the breakdown of donation from deceased donors by tissue type, donation sector and jurisdiction.

Table 10.5
Tissue Donations (pmp) from Deceased Donors by Jurisdiction and Donation Sector, 2024

	Tissue Only Sector				Solid Organ/Tissue Sector				Tissue Total			
	ms	cv	skin	pi	ms	cv	skin	pi	ms	cv	skin	pi
NSW	18	1	0	0	19	45	0	0	37	46	0	0
VIC	23	15	34	0	27	35	33	0	50	50	67	0
QLD	64	0	61	0	21	26	20	0	85	26	81	0
SA	0	0	0	0	0	15	0	1	0	15	0	1
WA	2	0	0	0	8	0	0	0	10	0	0	0
TAS	0	0	0	0	0	5	0	1	0	5	0	1
NT	0	0	0	0	0	2	0	0	0	2	0	0
ACT	0	0	0	0	0	2	0	0	0	2	0	0
AUS	107	16	95	0	75	130	53	2	182	146	148	2

ms = musculoskeletal tissue | cv = cardiovascular tissue | pi = pancreas islets

TYPE OF TISSUE DONATION

Tissue Donations are reported by donation pathway for musculoskeletal, cardiovascular, skin and pancreas islet tissue.

MUSCULOSKELETAL DONATION

Figures 10.10 and 10.11 show the number of musculoskeletal tissue donations by jurisdiction (2020 to 2024) from living and deceased donors.

Figure 10.10
Musculoskeletal Tissue Donations (pmp) from Living Donors by Jurisdiction, 2020-2024

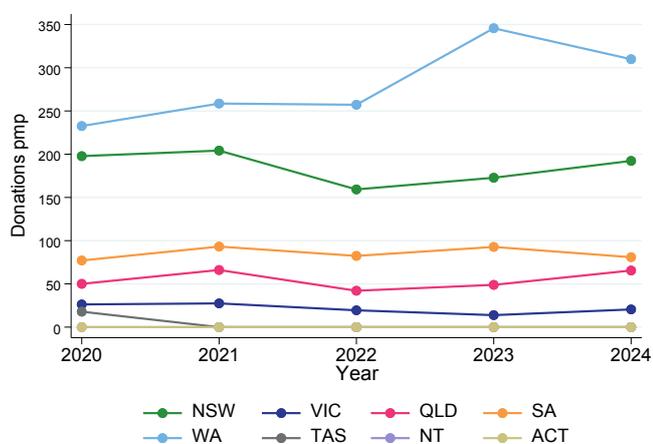
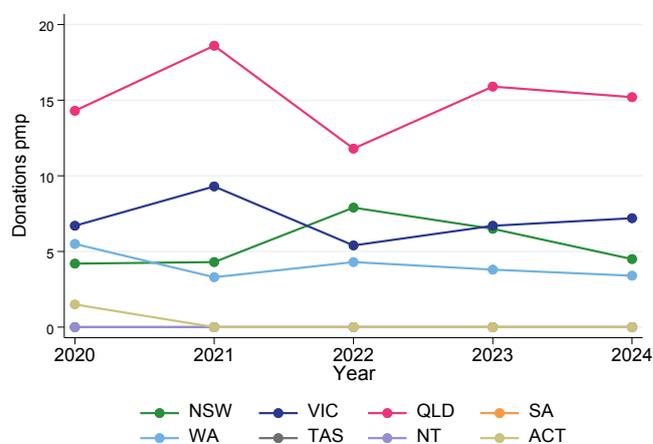


Figure 10.11
Musculoskeletal Tissue Donations (pmp) from Deceased Donors by Jurisdiction, 2020-2024



CARDIOVASCULAR DONATION

Figures 10.12 and 10.13 show the breakdown cardiovascular tissue donation by jurisdiction (2020 to 2024) from living and deceased donors.

Figure 10.12
Cardiovascular Tissue Donations (pmp) from Living Donors by Jurisdiction, 2020-2024

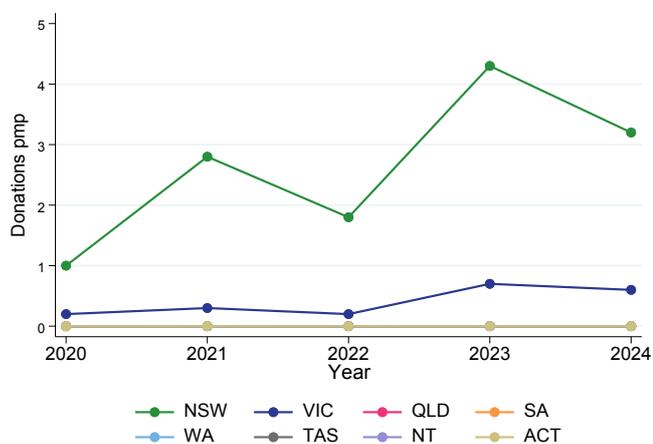
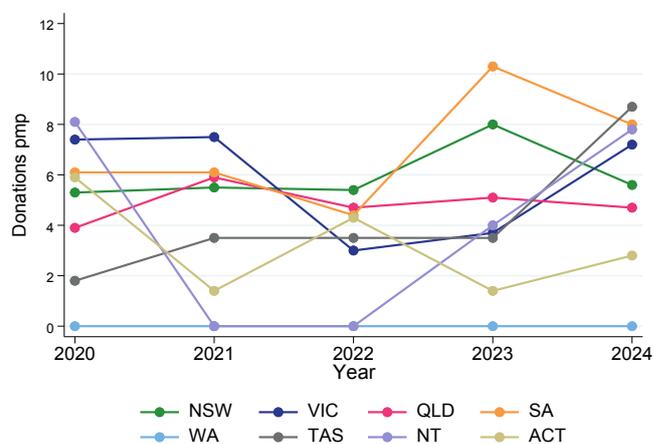


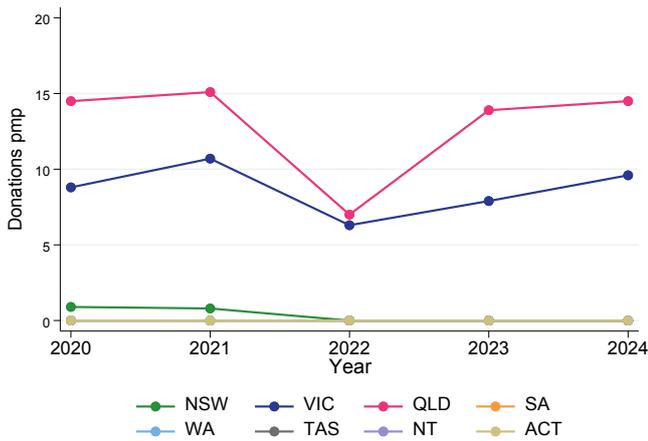
Figure 10.13
Cardiovascular Tissue Donations (pmp) from Deceased Donors by Jurisdiction, 2020-2024



SKIN DONATION

Figure 10.14 shows the breakdown of skin donations by jurisdiction from 2020 to 2024.

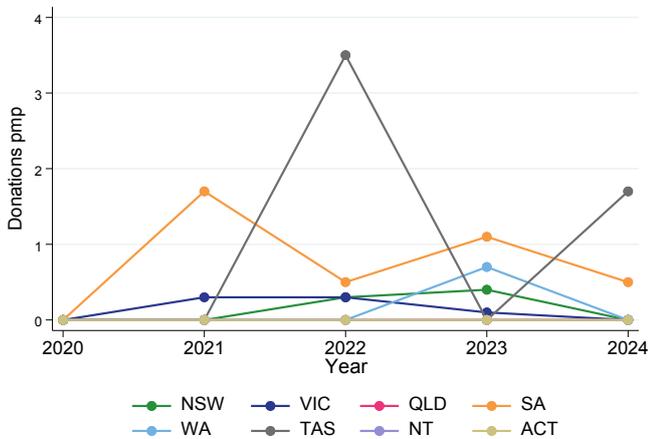
Figure 10.14
Skin Tissue Donations (pmp) from Deceased Donors by Jurisdiction, 2020-2024



PANCREAS ISLET DONATION

Figure 10.15 shows the breakdown of pancreas islet donations by jurisdiction from 2020 to 2024.

Figure 10.15
Pancreas Islet Donations (pmp) from Deceased Donors by Jurisdiction, 2020-2024



OUTCOME OF TISSUE DONATION

Musculoskeletal, cardiovascular, amnion and skin tissue donated for the purpose of transplantation can be stored for a period of time before a transplant occurs. Therefore, the numbers reported for grafts and recipients of tissue, in this section, represent transplantation outcomes for the reporting period only, not the outcome of donations for the reporting period.

A tissue transplant recipient can receive one or more tissue grafts in one or more transplant events. Tissue transplantation counts are reported by tissue banks as the number of notified transplants and notified recipients from tissue retrieved by that tissue bank.

Table 10.6 shows the overall number of notified^{1,2} tissue transplants (grafts) and recipients for 2020-2024.

Table 10.6
Notified Tissue Transplants and Recipients*, 2020-2024

	2020	2021	2022	2023	2024
Transplants	16669	13884	12871	18394	16641
Recipients	10767	9289	7393	9898	8242

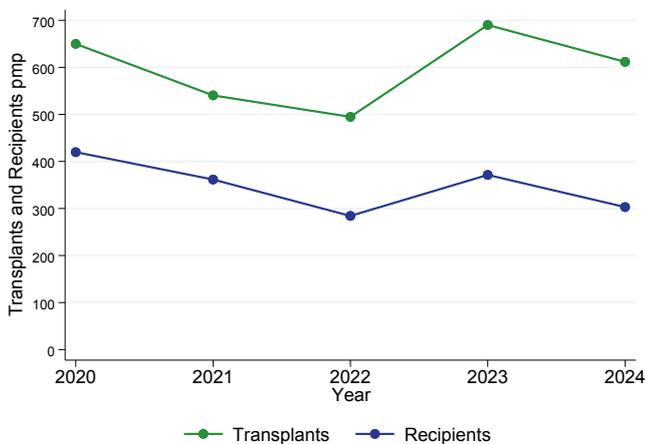
¹ Notified tissue transplant is defined as the 'Number of grafts implanted into recipients, that banks have been notified of.'

² Notified tissue recipient is defined as the 'Number of recipients notified to the bank, who receive one or more graft implants during a single transplant event'.

*Excludes pancreas islet transplants and recipients.

Figure 10.16 shows the number of notified^{1,2} tissue transplants (grafts) and recipients per million population for 2020-2024.

Figure 10.16
Notified Tissue Transplants and Recipients* (pmp), 2020-2024



¹ Notified tissue transplant is defined as the 'Number of grafts implanted into recipients, that banks have been notified of.'

² Notified tissue recipient is defined as the 'Number of recipients notified to the bank, who receive one or more graft implants during a single transplant event'.

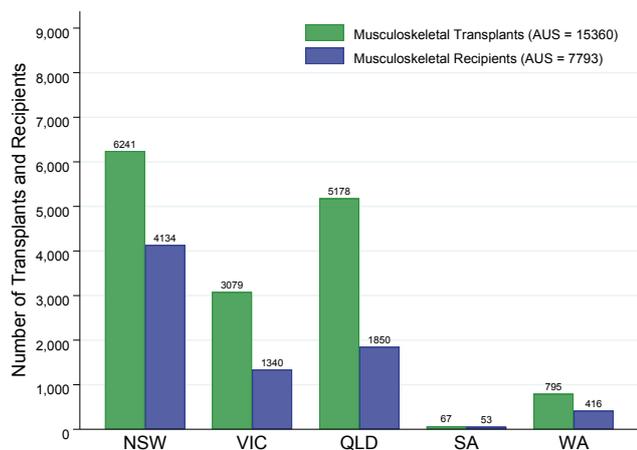
* Excludes pancreas islet transplants and recipients.

OUTCOME OF TISSUE DONATION BY TISSUE TYPE

The following graphs represent the outcome of tissue donation by tissue type and the number of recipients who received tissue graft transplant by tissue type. (Figures 10.17 to Figure 10.20)

Figure 10.17 shows the number of notified^{1,2} musculoskeletal tissue transplants and recipients by jurisdiction of retrieval for 2024.

Figure 10.17
Number of Notified Musculoskeletal Transplants and Recipients by Jurisdiction of Retrieval, 2024

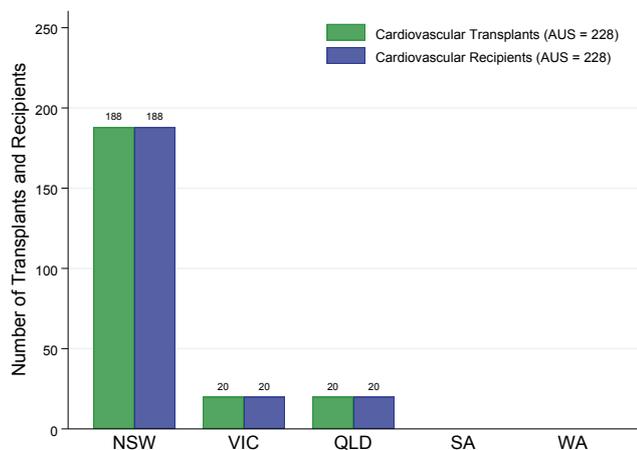


¹ Notified tissue transplant is defined as the 'Number of grafts implanted into recipients, that banks have been notified of'.

² Notified tissue recipient is defined as the 'Number of recipients notified to the bank, who receive one or more graft implants during a single transplant event'.

Figure 10.18 shows the number of notified^{1,2} cardiovascular tissue transplants and recipients by jurisdiction of retrieval for 2024.

Figure 10.18
Number of Notified Cardiovascular Transplants and Recipients by Jurisdiction of Retrieval, 2024

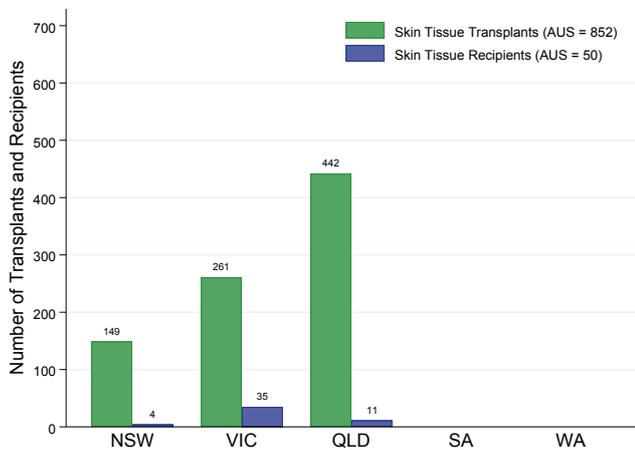


¹ Notified tissue transplant is defined as the 'Number of grafts implanted into recipients, that banks have been notified of'.

² Notified tissue recipient is defined as the 'Number of recipients notified to the bank, who receive one or more graft implants during a single transplant event'.

Figure 10.19 shows the number of notified^{1,2} skin tissue transplants and recipients by jurisdiction of retrieval for 2024.

Figure 10.19
Number of Notified Skin Tissue Transplants and Recipients by Jurisdiction of Retrieval, 2024

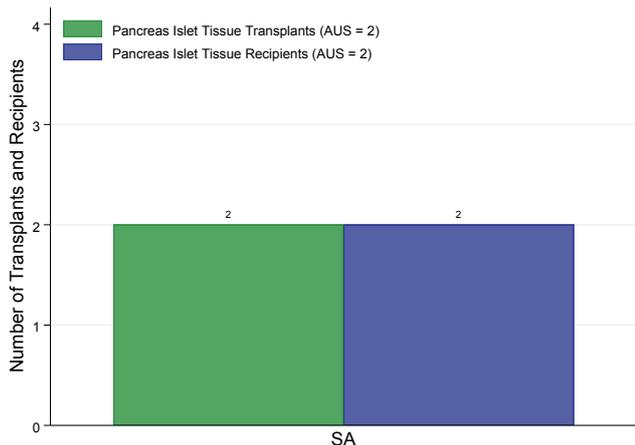


¹ Notified tissue transplant is defined as the 'Number of grafts implanted into recipients, that banks have been notified of'.

² Notified tissue recipient is defined as the 'Number of recipients notified to the bank, who receive one or more graft implants during a single transplant event'.

In Australia, there are three pancreas islets transplanting units (Westmead in New South Wales, Monash in Victoria and Royal Adelaide Hospital in South Australia). Figure 10.20 shows the number of notified^{1,2} pancreas islet transplants and recipients by jurisdiction of transplant for 2024.

Figure 10.20
Number of Pancreas Islet Tissue Transplants and Recipients by Jurisdiction of Transplant, 2024



¹ Notified tissue transplant is defined as the 'Number of grafts implanted into recipients, that banks have been notified of'.

² Notified tissue recipient is defined as the 'Number of recipients notified to the bank, who receive one or more graft implants during a single transplant event'.

EYE DONORS

The total numbers reported in this section may include duplicate counts of donors that are also multi-organ and tissue donors or multi-tissue donors, where the donor coordination was performed by another donation agency. Where there is no eye bank in a jurisdiction, eye donation is managed from a satellite jurisdiction. This data is provided from Australian eye banks. Table 10.7 shows the total number of eye donors by jurisdiction from 2020 to 2024.

Table 10.7
Number of Eye Donors by Jurisdiction 2020-2024

State	2020	2021	2022	2023	2024
NSW	369	383	407	453	445
VIC	265	300	263	272	290
QLD	419	479	485	522	643
SA	108	147	138	118	65
WA	131	135	160	154	221
TAS	14	16	15	18	18
NT	0	0	0	0	0
ACT	12	12	9	8	10
AUS	1318	1472	1477	1545	1692

Figure 10.21 represents the number of eye donors from each Australian jurisdiction for the reporting period 2020 to 2024. Figure 10.22 represents the number of eye donors by donation pathway from 2020 to 2024.

Figure 10.21
Eye Donors (pmp) by Jurisdiction, 2020-2024

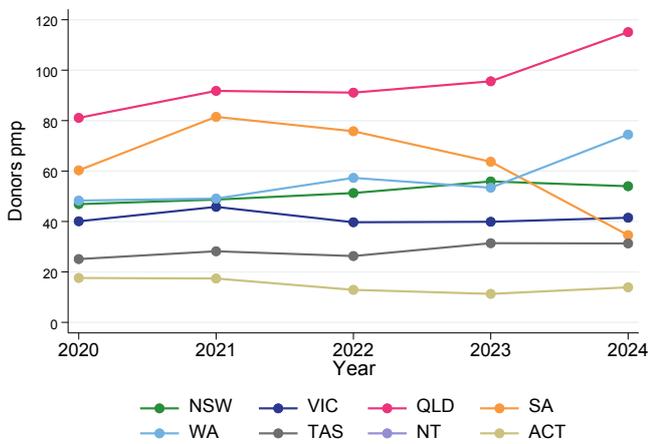
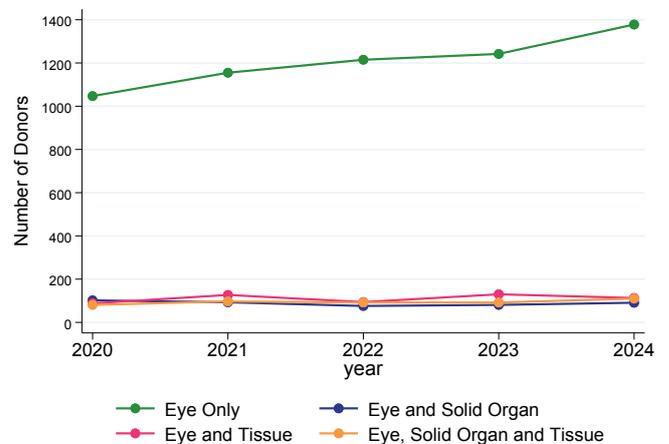


Figure 10.22
Number of Eye Donors by Donation Pathway, Australia, 2020-2024



Figures 10.23 to Figure 10.26 represent the number of donors by donor type and jurisdiction, for 2024.

Figure 10.23
Eye Donors only (pmp) by Jurisdiction, 2020-2024

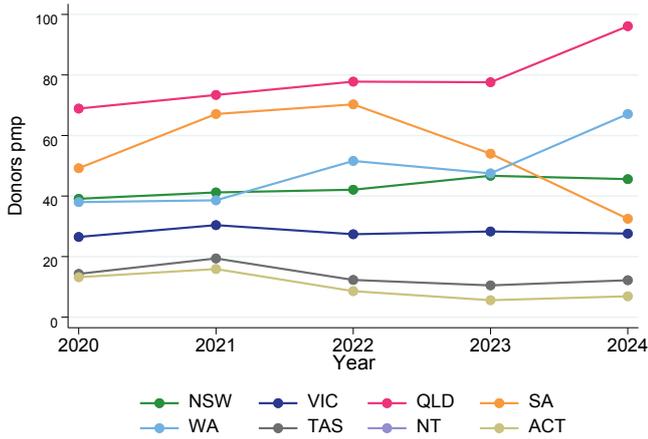


Figure 10.24
Eye and Tissue Donors (pmp) by Jurisdiction, 2020-2024

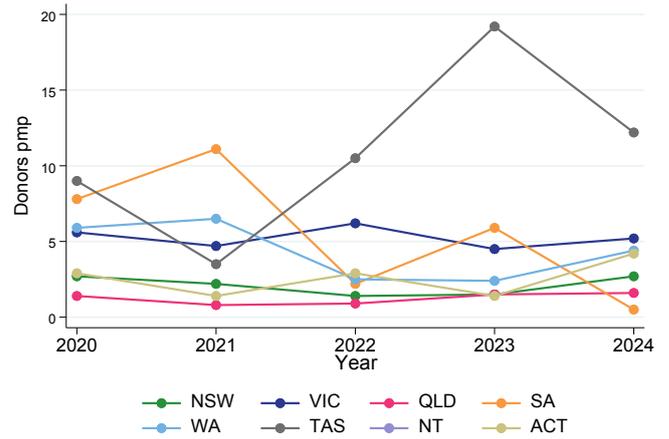


Figure 10.25
Eye and Solid Organ Donors (pmp) by Jurisdiction, 2020-2024

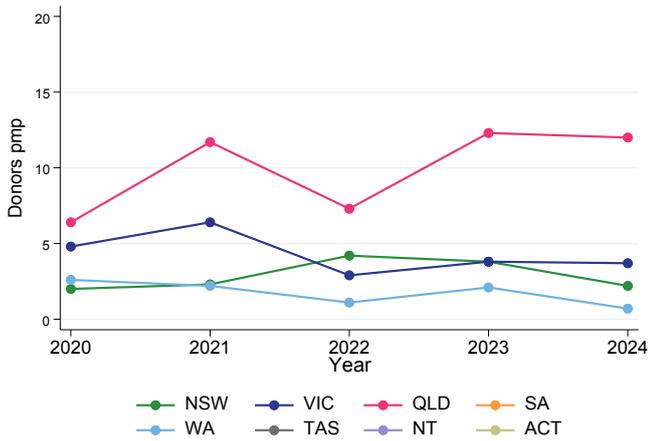
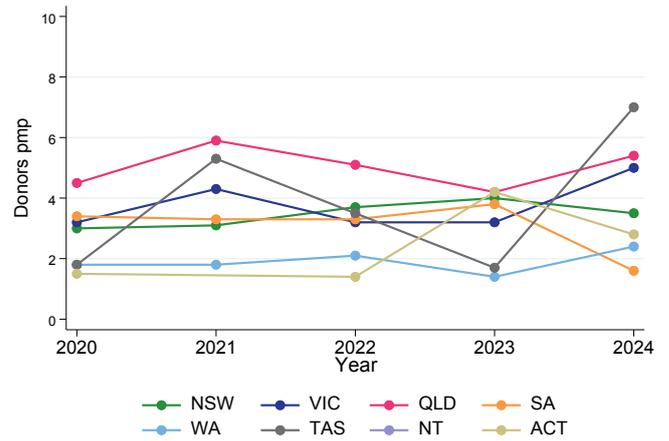


Figure 10.26
Eye, Tissue and Solid Organ Donors (pmp) by Jurisdiction, 2020-2024



EYE DONOR CHARACTERISTICS

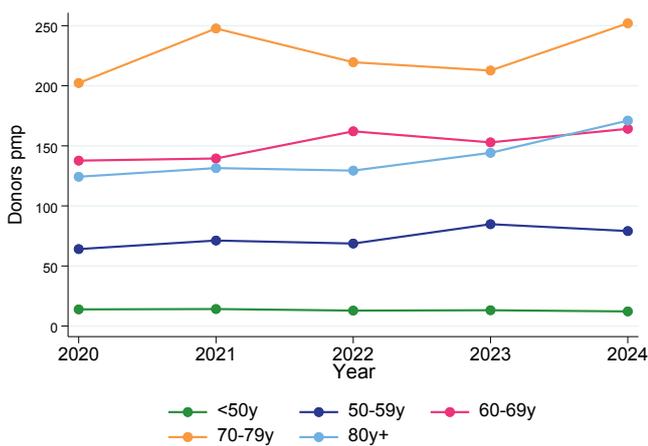
Eye donor characteristics are described in Table 10.8.

Table 10.8
Eye Donor Characteristics Profile, 2020-2024

Donor Profile	2020	2021	2022	2023	2024
Gender					
Female	538 (40.8%)	607 (41.2%)	624 (42.2%)	637 (41.2%)	683 (40.4%)
Male	780 (59.2%)	865 (58.8%)	853 (57.8%)	908 (58.8%)	1009 (59.6%)
Age					
<50y	235 (17.8%)	238 (16.2%)	218 (14.8%)	229 (14.8%)	217 (12.8%)
50-59y	201 (15.3%)	225 (15.3%)	219 (14.8%)	272 (17.6%)	255 (15.1%)
60-69y	372 (28.2%)	383 (26%)	453 (30.7%)	435 (28.2%)	475 (28.1%)
70-79y	380 (28.8%)	484 (32.9%)	443 (30%)	444 (28.7%)	541 (32%)
80y+	130 (9.9%)	142 (9.6%)	144 (9.7%)	165 (10.7%)	204 (12.1%)

Figure 10.27 shows the eye donors (pmp), across age ranges from 2020 to 2024.

Figure 10.27
Eye Donors (pmp) by Age Range, 2020-2024



EYE DONATION OUTCOME

Figures 10.28 and Figure 10.29 show the number of notified corneal transplants and sclera units transplanted by jurisdiction for 2020-2024. Table 10.9 shows the total number of corneas and sclera units transplanted by jurisdiction from 2020 to 2024.

Table 10.9
Number of Corneas and Sclera Units transplanted by Jurisdiction 2020-2024

Eye Tissue Type	Jurisdiction	2020	2021	2022	2023	2024
Corneas Transplanted	NSW	666	654	707	787	614
	VIC	384	424	355	400	446
	QLD	734	806	741	883	1082
	SA	166	190	239	179	104
	WA	270	257	282	256	369
	TAS	33	57	26	38	35
	NT	5	3	6	0	0
	ACT	19	22	15	13	23
	AUS	2277	2413	2371	2556	2673
Sclera Units Transplanted	NSW	257	240	283	246	3
	VIC	221	242	241	239	138
	QLD	128	170	161	208	183
	SA	60	56	39	22	0
	WA	132	139	109	17	13
	TAS	29	26	21	34	28
	NT	31	0	0	1	0
	ACT	12	10	3	10	0
	AUS	870	883	857	777	365

Figure 10.28
Corneas Transplanted (pmp) by Jurisdiction, 2020-2024

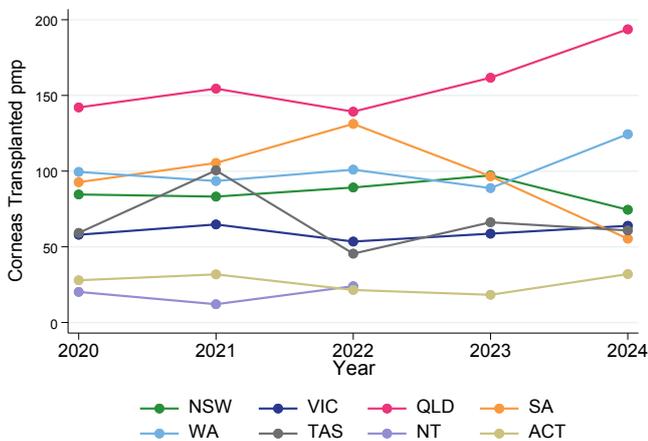
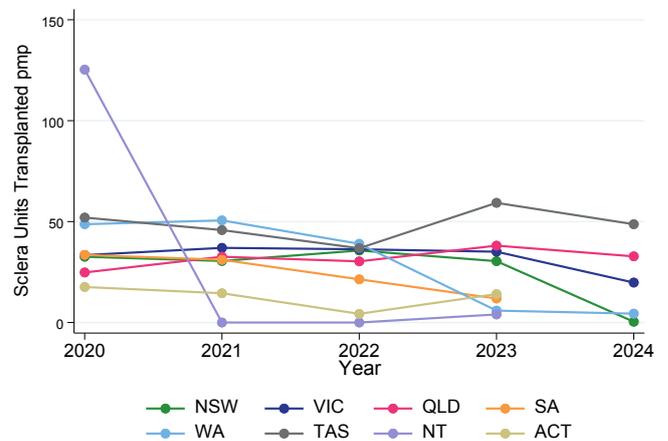


Figure 10.29
Sclera Units Transplanted (pmp) by Jurisdiction, 2020-2024





SECTION 10

Eye and Tissue Donation and Transplantation