

Report on Eye and Tissue Donation in Australia 2017 Year End Report

Data collected from Australian Eye and Tissue Banks. This report supersedes any quarterly interim summaries previously released for 2017.

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Eye and Tissue Donation Registry

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Explanatory notes

Acknowledgements

The following Eye and Tissue Banks contributed data:

NSW:

- Australian Tissue Donation Network
- Hunter New England Bone Bank
- Lions NSW Eye Bank
- NSW Bone Bank
- Rachel Forster Bone Bank
- Sydney Heart Valve Bank

QLD:

- QLD Eye Bank
- QLD Bone Bank
- QLD Heart Valve Bank

SA:

- Eye Bank of SA
- SA Tissue Bank

VIC:

- Barwon Health Bone Bank Geelong
- Donor Tissue Bank of Victoria
- Lions Eye Donation Service

WA:

- Lions Eye Bank of WA
- PlusLife (Perth Bone and Tissue Bank)

Special acknowledgement to the Biotherapeutics Association of Australasia (BAA) and the Eye Bank Association of Australia and New Zealand (EBAANZ) for their comments.

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Eye and Tissue Donation Registry

Definitions

- 1 Cardiovascular tissue (cv) Includes, but not limited to, heart valves, pericardium and annexed vessels.
- 2 Cornea The cornea is the transparent anterior tissue of the eyeball consisting of many layers.
- 3 Deceased solid organ and tissue donation Identifies a donation event where one or more solid organs and tissues are retrieved from a deceased donor. Data has been crosschecked with the solid organ and tissue sector to ensure the donor has met the deceased solid organ and tissue donation criteria.
- 4 Deceased tissue donation Identifies a donation event where one or more tissues are retrieved from a deceased donor and can comprise of musculoskeletal, cardiovascular, skin or eye tissue.
- 5 Donation event
 - A single retrieval event, within a calendar day, where a living donor can donate one or more musculoskeletal
 or cardiovascular tissues.
 - Retrieval from deceased donors of solid organ, tissue and/or eyes that may occur on differing days but after the donor declaration of death date.
- 6 Eye only donor A deceased donor where eye only retrieval has taken place. A donor is counted as an eye only donor if 2 whole eyes, 2 corneas only, one eye or one cornea only is retrieved. Outcomes of donated eye tissue are not limited to transplantation.
- 7 Eye and solid organ (and tissue) donor A deceased donor where eye and solid organ retrieval has taken place. These donors may or may not have donated an additional tissue(s) e.g. musculoskeletal, cardiovascular or skin. Data has been crosschecked with the solid organ and tissue sector to confirm the donation event and donor classification.
- 8 Eye and tissue only donor A deceased donor where eye and an additional tissue(s) e.g. musculoskeletal, cardiovascular or skin has taken place. Data has been crosschecked with the tissue sector to confirm the donation event and donor classification.
- 9 Eye tissue donation Unless otherwise specified all donors undergo retrieval of both whole eyes or both corneas. This means the number of eye tissue donations can be calculated by doubling the amount of total eye donors.
- 10 Eye tissue graft transplants Corneal or scleral tissue transplanted into an eye tissue recipient within the reporting time period.
- 11 Eye tissue recipient Unless otherwise specified the number of eye tissue recipients is equal to the number of eye tissue graft transplants (consistent with EBAANZ).
- 12 Living tissue donation Identifies a donation event where one or more tissues are retrieved from a living donor. Living tissue is vastly comprised of donated femoral heads (bone) retrieved during hip replacement surgery. A living musculoskeletal donor can donate one femoral head during one donation event, two femoral heads during one donation event or one femoral head during two separate donation events.
- 13 Musculoskeletal tissue (ms) Includes, but not limited to, bone, cartilage and tendon retrieved from areas such as the pelvis, arm and leg.
- 14 Notified tissue graft transplants Number of tissue grafts supplied and confirmed by the hospital to the distributing tissue bank to have been transplanted. One tissue graft recipient may receive multiple graft transplants.
- 15 Notified tissue graft recipients The number of tissue graft recipients, confirmed by the hospital to the distributing bank, who receive one or more graft transplants during a single tissue transplant event.
- 16 Pancreas islet (pi) a multicellular structure within the pancreas that maintains normal blood glucose level within the body.
- 17 Sclera unit A unit of the protective outer layer of the eyeball, used for transplantation during ocular surgery.
- 18 Skin tissue (sk) Includes, but not limited to, split thickness skin (epidermis and upper part of the dermis), of varying size.

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Eye and Tissue Donation Registry

19 Tissue transplant event

- A single tissue transplant event occurs when a tissue graft recipient receives 1 or more tissue grafts on a single occasion. This will be counted as one tissue graft recipient, one tissue transplant event.
- If a tissue graft recipient receives 1 or more tissue grafts during multiple tissue transplant events, this will be counted as one tissue graft recipient for each tissue transplant event.
- 20 Unique donor A deceased or living donor who donates one or more tissue(s) during a single donation event.

Counting Methodology

Each tissue and eye bank uses a Minimum Data Set Template (MDS) to provide the Registry de-identified donor information for each tissue type, as well as aggregate data for reporting of notified tissue graft transplants and notified tissue graft recipients.

Data received undergoes reconciliation and cross checking between the solid organ sector (ANZOD), the eye sector (participating eye banks) and the tissue sector (participating tissue banks) to ensure accuracy at the time of reporting.

Notes

According to EBAANZ, since the end of 2011, the number of corneal transplants in Australia each year has exceeded the number of new patients requiring transplants each year. This means the current demand for corneal transplants in Australia is being met and should be noted when comparing 2017 corneal transplantation numbers to previous years published.

It is acknowledged that service provision in the living tissue donation sector by BAA and associated member banks occurs in addition to the Australian Organ and Tissue Authority's (OTA) "national reform programme to improve organ and tissue donation and transplantation outcomes in Australia".

The Registry declares:

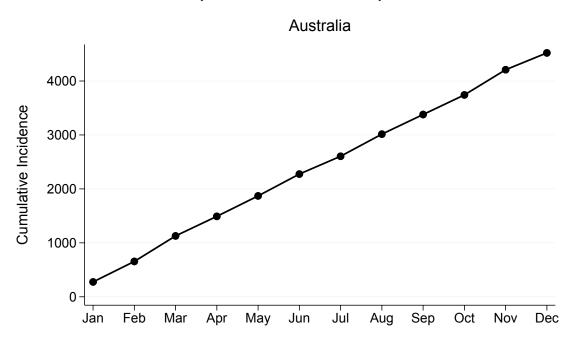
- All donations of eye tissue have come from deceased donors.
- Eye donors include those who have donated 2 whole eyes, 2 corneas or one whole eye or one cornea.
- Eye donations are not limited to the outcome of transplantation.
- Eye and Tissue Graft Transplants and Transplant Recipient data includes transplant events that have occurred in a different jurisdiction to where the tissue was donated.
- Graft Transplants and Transplant Recipient data may or may not be a direct outcome of tissue donations reported for the quarter, as tissue can be stored for a period of time before the graft is transplanted.
- Outcome data does not capture tissue that has been supplied for transplant but not yet notified as transplanted to the distributing tissue bank.



Tissue Donors, Donation, Implantation and Recipients

Unique Tissue Donors (ms, cv, sk, pi)

Total Unique Tissue Donors per Month, 2017



Total Unique Tissue Donors by Jurisdiction of Retrieval and Month, 2017

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
QLD	64	69	84	72	76	79	63	88	74	66	75	59	869
NSW	89	204	243	172	172	212	151	206	178	204	265	152	2248
ACT	1	2	1	0	1	0	0	1	0	0	0	0	6
VIC	31	24	43	36	39	39	31	29	35	31	44	20	402
TAS	7	0	5	0	6	4	0	9	11	0	11	17	7 0
SA	31	32	34	37	27	30	26	18	15	10	21	21	302
NT	0	0	0	0	0	1	0	0	0	0	0	0	1
WA	52	49	63	46	58	40	59	59	51	52	51	43	623
AUSTRALIA	275	380	473	363	379	405	330	410	364	363	467	312	4521



Eye and Tissue Donation Registry

Living Unique Tissue Donors by Jurisdiction of Retrieval and Month, 2017

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
QLD	48	58	69	64	63	69	55	77	58	58	67	56	742
NSW	81	193	230	164	164	200	144	192	173	197	257	144	2139
ACT	0	0	0	0	0	0	0	0	0	0	0	0	0
VIC	23	21	35	28	31	28	27	19	28	24	29	16	309
TAS	7	0	5	0	6	4	0	8	11	0	10	16	67
SA	29	31	33	36	25	30	26	17	14	10	20	21	292
NT	0	0	0	0	0	0	0	0	0	0	0	0	0
WA	52	49	61	46	58	40	57	58	48	49	49	41	608
AUSTRALIA	240	352	433	338	347	371	309	371	332	338	432	294	4157

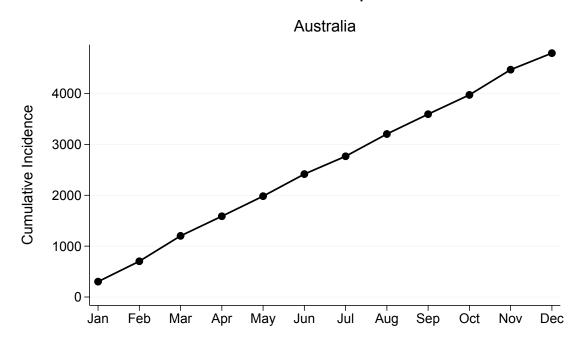
Deceased Unique Tissue Donors by Jurisdiction of Retrieval and Month, 2017

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
QLD	16	11	15	8	13	10	8	11	16	8	8	3	127
NSW	8	11	13	8	8	12	7	14	5	7	8	8	109
ACT	1	2	1	0	1	0	0	1	0	0	0	0	6
VIC	8	3	8	8	8	11	4	10	7	7	15	4	93
TAS	0	0	0	0	0	0	0	1	0	0	1	1	3
SA	2	1	1	1	2	0	0	1	1	0	1	0	10
NT	0	0	0	0	0	1	0	0	0	0	0	0	1
WA	0	0	2	0	0	0	2	1	3	3	2	2	15
AUSTRALIA	35	28	40	25	32	34	21	39	32	25	35	18	364



Tissue Donations (ms, cv, sk, pi)

Total Tissue Donations per Month, 2017



Total Tissue Donations by Jurisdiction of Retrieval and Month, 2017

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
QLD	81	78	97	81	81	91	74	103	88	69	87	62	992
NSW	93	210	252	177	178	221	159	210	183	208	271	155	2317
ACT	1	2	1	0	1	0	0	1	0	0	0	0	6
VIC	37	28	47	45	43	46	32	33	42	38	54	26	471
TAS	7	0	5	0	6	4	0	9	11	0	11	18	7 1
SA	31	32	34	37	27	30	26	18	15	10	21	21	302
NT	0	0	0	0	0	1	0	0	0	0	0	0	1
WA	52	51	63	46	59	41	59	64	51	54	52	43	635
AUSTRALIA	302	401	499	386	395	434	350	438	390	379	496	325	4795



Living Tissue Donations by Jurisdiction of Retrieval and Month, 2017

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
QLD	52	58	71	66	64	72	57	79	58	59	71	56	763
NSW	84	196	238	168	169	209	152	196	177	201	261	146	2197
ACT	0	0	0	0	0	0	0	0	0	0	0	0	0
VIC	23	21	35	28	31	28	27	19	28	24	29	16	309
TAS	7	0	5	0	6	4	0	8	11	0	10	17	68
SA	29	31	33	36	25	30	26	17	14	10	20	21	292
NT	0	0	0	0	0	0	0	0	0	0	0	0	0
WA	52	51	61	46	59	41	57	63	48	51	49	41	619
AUSTRALIA	247	357	443	344	354	384	319	382	336	345	440	297	4248

Living Tissue Donations by Jurisdiction of Retrieval and Type, 2017

	Musculoskeletal	Cardiovascular
QLD	763	0
NSW	2183	14
VIC	307	2
TAS	68	0
SA	292	0
WA	619	0
AUSTRALIA	4232	16

Eye and Tissue Donation Registry

Deceased Tissue Donations by Jurisdiction of Retrieval and Month, 2017

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
QLD	29	20	26	15	17	19	17	24	30	10	16	6	229
NSW	9	14	14	9	9	12	7	14	6	7	10	9	120
ACT	1	2	1	0	1	0	0	1	0	0	0	0	6
VIC	14	7	12	17	12	18	5	14	14	14	25	10	$\bf 162$
TAS	0	0	0	0	0	0	0	1	0	0	1	1	3
SA	2	1	1	1	2	0	0	1	1	0	1	0	10
NT	0	0	0	0	0	1	0	0	0	0	0	0	1
WA	0	0	2	0	0	0	2	1	3	3	3	2	16
AUSTRALIA	55	44	56	42	41	50	31	56	54	34	56	28	547

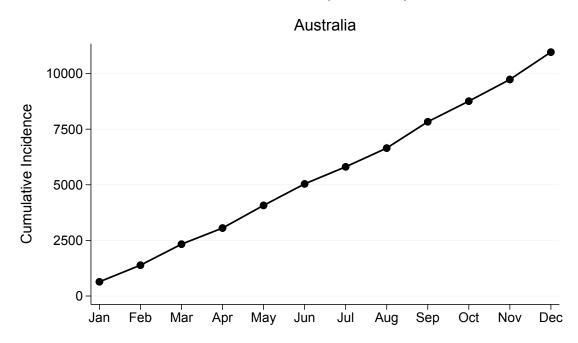
Deceased Tissue Donations by Jurisdiction of Retrieval and Type, 2017

	\mathbf{T}	issue O	nly Secto	r	Solid	Organ/	Tissue S	ector		Tissue	Total	
	ms	cv	skin	pi	ms	cv	skin	pi	ms	cv	skin	pi
QLD	39	19	52	0	38	42	37	2	77	61	89	2
NSW	58	2	0	0	29	29	0	2	87	31	0	2
ACT	0	0	0	0	0	6	0	0	0	6	0	0
VIC	27	23	36	0	21	28	23	4	48	51	59	4
TAS	0	0	0	0	0	3	0	0	0	3	0	0
SA	0	2	0	0	0	8	0	0	0	10	0	0
NT	0	0	0	0	0	1	0	0	0	1	0	0
WA	9	0	0	0	6	0	0	1	15	0	0	1
AUSTRALIA	133	46	88	0	94	117	60	9	227	163	148	9



Notified Tissue Grafts Implanted (ms, cv, sk)

Notified Tissue Grafts Implanted per Month, 2017



Notified Tissue Grafts Implanted by Jurisdiction of Retrieving Bank and Month, 2017

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
QLD	157	103	193	149	194	171	159	196	244	215	210	524	2515
NSW	325	405	601	480	627	544	496	505	798	595	633	612	$\boldsymbol{6621}$
ACT	0	0	0	0	0	0	0	0	0	0	0	0	0
VIC	102	157	67	47	107	177	44	63	82	40	62	32	980
TAS	0	0	0	0	0	0	0	0	0	0	0	0	0
SA	11	7	6	2	9	4	11	6	7	1	11	5	80
NT	0	0	0	0	0	0	0	0	0	0	0	0	0
WA	44	75	77	47	82	70	58	71	53	75	59	56	767
AUSTRALIA	639	747	944	725	1019	966	768	841	1184	926	975	1229	10963

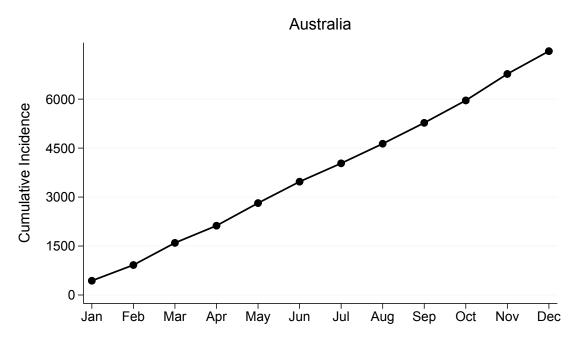
Notified Tissue Grafts Implanted by Jurisdiction of Retrieving Bank and Type, 2017

	Musculoskeletal	Cardiovascular	Skin
QLD	1801	86	628
NSW	6509	112	0
VIC	489	40	451
SA	80	0	0
WA	767	0	0
AUSTRALIA	9646	238	1079



Notified Tissue Graft Recipients (ms, cv, sk)

Notified Tissue Graft Recipients per Month, 2017



Notified Tissue Graft Recipients by Jurisdiction of Retrieving Bank and Month, 2017

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
QLD	129	81	165	118	155	141	124	144	123	114	209	133	1636
NSW	234	315	420	337	439	413	357	357	435	485	504	502	4798
ACT	0	0	0	0	0	0	0	0	0	0	0	0	0
VIC	43	34	43	38	48	54	37	49	46	40	50	27	509
TAS	0	0	0	0	0	0	0	0	0	0	0	0	0
SA	9	6	5	2	6	4	7	6	4	1	7	3	60
NT	0	0	0	0	0	0	0	0	0	0	0	0	0
WA	22	46	45	31	45	44	37	44	32	46	41	34	467
AUSTRALIA	437	482	678	526	693	656	562	600	640	686	811	699	7470

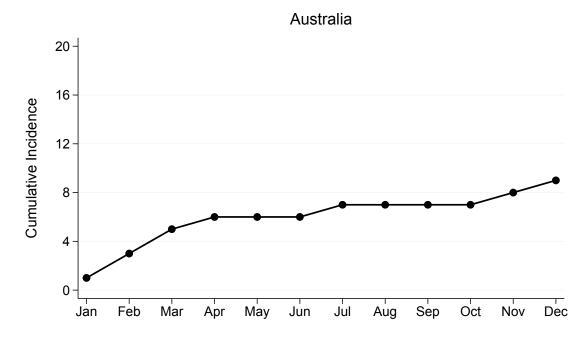
Notified Tissue Graft Recipients by Jurisdiction of Retrieving Bank and Type, 2017

	Musculoskeletal	Cardiovascular	Skin
QLD	1519	81	36
NSW	4688	110	0
VIC	427	40	42
SA	60	0	0
WA	467	0	0
AUSTRALIA	7161	231	78



Pancreas Islet Graft Recipients

Pancreas Islet Recipients per Month, 2017



Pancreas Islet Graft Recipients by Transplant Jurisdiction and Month, 2017

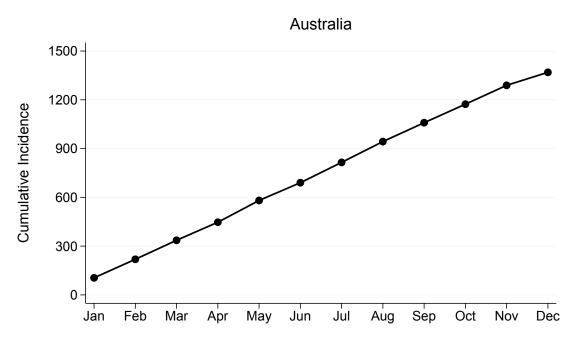
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
QLD	0	0	0	0	0	0	0	0	0	0	0	0	0
NSW	1	2	1	1	0	0	1	0	0	0	1	0	7
ACT	0	0	0	0	0	0	0	0	0	0	0	0	0
VIC	0	0	1	0	0	0	0	0	0	0	0	1	2
TAS	0	0	0	0	0	0	0	0	0	0	0	0	0
SA	0	0	0	0	0	0	0	0	0	0	0	0	0
NT	0	0	0	0	0	0	0	0	0	0	0	0	0
WA	0	0	0	0	0	0	0	0	0	0	0	0	0
AUSTRALIA	1	2	2	1	0	0	1	0	0	0	1	1	9



Eye Donors and Transplants

Eye Donors

Eye Donors per Month, 2017



Eye Donors by Jurisdiction of Retrieval and Month, 2017

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
QLD	32	33	37	28	40	29	31	41	35	37	35	37	415
NSW	30	28	31	33	45	32	39	37	31	29	35	10	380
ACT	6	13	4	6	1	6	3	2	3	1	1	0	46
VIC	21	21	16	24	24	20	27	31	30	25	23	17	279
TAS	2	0	2	3	0	2	1	1	0	1	0	1	13
SA	6	8	10	5	10	7	12	7	7	8	12	7	99
NT	0	0	0	0	0	0	0	0	0	0	0	0	0
WA	8	11	17	12	14	13	12	9	10	13	10	8	137
AUSTRALIA	105	114	117	111	134	109	125	128	116	114	116	80	1369



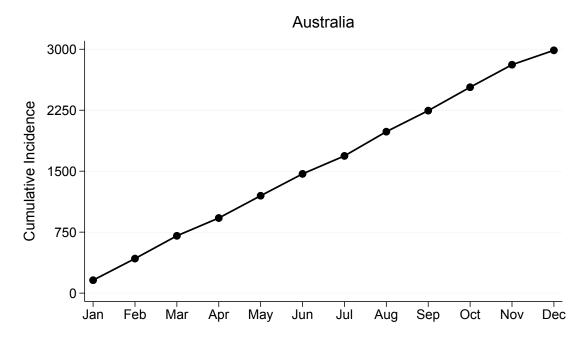
Eye Donors by Jurisdiction of Retrieval and Type, 2017

	Eye Only Donors	Eye and Tissue	Eye and Solid Organ	Eye, Solid Organ and
		Only Donors	Only Donors	Tissue Donors
QLD	325	41	7	42
NSW	283	57	11	29
ACT	39	0	3	4
VIC	177	31	48	23
TAS	5	0	7	1
SA	87	0	10	2
WA	112	8	13	4
AUSTRALIA	1028	137	99	105



Notified Eye Tissue Graft Transplants

Total Eye Tissue Graft Transplants per Month, 2017



Total Eye Tissue Graft Transplants by Jurisdiction of Retrieving Bank and Month, 2017

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
QLD	47	69	74	54	66	61	52	68	66	82	75	47	761
NSW	39	87	88	65	92	97	79	100	83	84	84	54	$\bf 952$
ACT	3	4	3	2	2	4	5	2	2	3	4	0	$\bf 34$
VIC	39	57	54	40	52	55	37	66	54	63	59	39	615
TAS	5	3	4	5	7	4	2	4	6	7	4	5	56
SA	7	15	23	16	20	19	19	18	17	14	18	9	195
NT	0	0	2	0	0	0	0	0	0	0	0	0	2
WA	19	31	32	37	35	29	27	40	31	35	33	23	372
AUSTRALIA	159	266	280	219	274	269	221	298	259	288	277	177	2987



Cornea Graft Transplants by Jurisdiction of Retrieving Bank and Month, 2017

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
QLD	37	59	63	50	58	56	45	58	61	67	62	38	654
NSW	30	64	62	49	66	71	49	70	56	44	57	37	655
ACT	3	2	3	0	2	1	4	0	1	2	3	0	21
VIC	26	41	34	26	29	37	29	47	38	45	38	21	411
TAS	2	2	3	4	4	2	2	1	2	4	3	3	32
SA	6	14	16	8	16	14	17	13	12	12	16	7	151
NT	0	0	2	0	0	0	0	0	0	0	0	0	2
WA	15	19	21	26	25	23	18	20	18	24	26	14	249
AUSTRALIA	119	201	204	163	200	204	164	209	188	198	205	120	2175

Sclera Unit Graft Transplants by Jurisdiction of Retrieving Bank and Month, 2017

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
QLD	10	10	11	4	8	5	7	10	5	15	13	9	107
NSW	9	23	26	16	26	26	30	30	27	40	27	17	297
ACT	0	2	0	2	0	3	1	2	1	1	1	0	13
VIC	13	16	20	14	23	18	8	19	16	18	21	18	204
TAS	3	1	1	1	3	2	0	3	4	3	1	2	${\bf 24}$
SA	1	1	7	8	4	5	2	5	5	2	2	2	44
NT	0	0	0	0	0	0	0	0	0	0	0	0	0
WA	4	12	11	11	10	6	9	20	13	11	7	9	123
AUSTRALIA	40	65	76	56	74	65	57	89	71	90	72	57	812