

Australian Eye and Tissue Data

Analysis of 2014 eye and tissue data collected from Australian Eye and Tissue Banks and supersedes any quarterly interim summaries released during 2014.

2014 Year End Report May 19, 2015

Contents

Acknowledgements	1
Glossary of Terms	2
Counting Methodology –	4
Notes	5
Eye Donor Data 2014 - Quarter 1	6
Eye Donor Data 2014 - Quarter 2	6
Eye Donor Data 2014 - Quarter 3	7
Eye Donor Data 2014 - Quarter 4	7
Eye Donor Data 2014 - January 1 st to December 31 st	8
Number of Eye Tissue Graft Transplants 2014 - Quarter 1	9
Number of Eye Tissue Graft Transplants 2014 - Quarter 2	9
Number of Eye Tissue Graft Transplants 2014 - Quarter 3	10
Number of Eye Tissue Graft Transplants 2014 - Quarter 4	10
Number of Eye Tissue Graft Transplants 2014 – January 1 st to December 31 st	10
Tissue Donation Data 2014 - Quarter 1	12
Tissue Donation Data 2014 - Quarter 2	12
Tissue Donation Data 2014 - Quarter 3	13
Tissue Donation Data 2014 - Quarter 4	13

Tissue Donation Data 2014 – January 1 st to December 31 st	13
Notified Tissue Graft Transplants 2014 - Quarter 1	15
Notified Tissue Graft Transplants 2014 - Quarter 2	15
Notified Tissue Graft Transplants 2014 - Quarter 3	16
Notified Tissue Graft Transplants 2014 - Quarter 4	16
Notified Tissue Graft Transplants 2014 - January 1 st to December 31 st	16
Notified Tissue Transplant Recipients 2014 - Quarter 1	17
Notified Tissue Transplant Recipients 2014 - Quarter 2	18
Notified Tissue Transplant Recipients 2014 - Quarter 3	19
Notified Tissue Transplant Recipients 2014 - Quarter 4	19
Notified Tissue Transplant Recipients 2014 - January 1 st to December 31 st	20

Acknowledgements -

The following Eye and Tissue Banks contributed data:

ACT - ACT Bone Bank

NSW - Australian Biotechnologies

- 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 and Tissue Bank Victoria
- Lions Eye Donation Service

WA - Lions Eye Bank of WA

- PlusLife (Perth Bone and Tissue Bank)
- Royal Perth Heart Valve Bank

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

-1-

Glossary of Terms -

Cardiovascular tissue (cv) – Includes, but not limited to, heart valves, pericardium and annexed vessels.

Cornea – The cornea is the transparent anterior tissue of the eyeball consisting of many layers.

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.

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.

Donation event -

- a) A single retrieval event, within a calendar day, where a living donor can donate one or more musculoskeletal or cardiovascular tissues.
- b) 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.

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.

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.

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.

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.

Eye tissue graft transplants – Corneal or scleral tissue transplanted into an eye tissue recipient within the reporting time period.

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).

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.

Musculoskeletal tissue (ms) – Includes, but not limited to, bone, cartilage and tendon retrieved from areas such as the pelvis, arm and leg.

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.

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.

Sclera unit – A unit of the protective outer layer of the eyeball, used for transplantation during ocular surgery.

Skin tissue (sk) – Includes, but not limited to, split thickness skin (epidermis and upper part of the dermis), of varying size.

Tissue transplant event -

- a) 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.
- b) 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.

Unique donor – A deceased or living donor who donates one or more tissue(s) during a single donation event.

Counting Methodology -

Each tissue & eye bank uses a Minimum Data Set Template (MDS) to provide to ANZOD 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 2014 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".

ANZOD 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 transplantation but not yet notified as transplanted to the distributing tissue bank.

Eye Donor Data 2014 - Quarter 1

	Eye Only Donors	Eye and Tissue Only Donors	Eye and Solid Organ and Tissue Donors	TOTAL EYE DONORS
QLD	62	1	6	69
VIC	30	6	16	52
ACT	8	0	1	9
WA	21	0	2	23
SA	20	0	2	22
NSW	94	7	13	114
TAS	2	0	0	2
AUSTRALIA	237	14	40	291

Eye Donor Data 2014 - Quarter 2

	Eye Only Donors	Eye and Tissue Only Donors	Eye, Solid Organ and Tissue Donors	TOTAL EYE DONORS
QLD	53	8	7	68
VIC	38	6	17	61
ACT	9	0	0	9
WA	23	1	7	31
SA	31	0	1	32
NSW	80	7	4	91
TAS	3	0	1	4
AUSTRALIA	237	22	37	296

Eye Donor Data 2014 - Quarter 3

	Eye Only Donors	Eye and Tissue Only Donors	Eye and Solid Organ and Tissue Donors	TOTAL EYE DONORS
QLD	60	13	7	80
VIC	34	11	10	55
ACT	10	0	2	12
WA	16	0	4	20
SA	34	0	2	36
NSW	77	6	13	96
TAS	1	0	3	4
AUSTRALIA	232	30	41	303

Eye Donor Data 2014 –Quarter 4

	Eye Only Donors	Eye and Tissue Only Donors	Eye, Solid Organ and Tissue Donors	TOTAL EYE DONORS
QLD	70	11	5	86
VIC	26	9	19	54
ACT	7	0	4	11
WA	14	1	1	16
SA	24	1	3	28
NSW	60	8	7	75
TAS	1	0	1	2
AUSTRALIA	202	30	40	272

Eye Donor Data 2014 - January $\mathbf{1}^{st}$ to December $\mathbf{3}\mathbf{1}^{st}$

	Eye Only Donors	Eye and Tissue Only Donors	Eye, Solid Organ and Tissue Donors	TOTAL EYE DONORS
QLD	245	33	25	303
VIC	128	32	62	222
ACT	34	0	7	41
WA	74	2	14	90
SA	109	1	8	118
NSW	311	28	37	376
TAS	7	0	5	12
AUSTRALIA	908	96	158	1162

	Tissue	Total Notified	
	Corneas	Sclera Units	Graft Transplants
QLD	112	23	135
VIC	85	35	120
ACT	4	1	5
WA	41	47	88
SA	31	7	38
NSW	159	52	211
TAS	7	2	9
AUSTRALIA	439	167	606

Number of Eye Tissue Graft Transplants 2014 - Quarter 2

	Tissue	Total Notified	
	Corneas	Sclera Units	Graft Transplants
QLD	92	22	114
VIC	96	40	136
ACT	3	4	7
WA	59	28	87
SA	43	8	51
NSW	171	65	236
TAS	4	5	9
AUSTRALIA	468	172	640

Number of Eye Tissue Graft Transplants 2014 - Quarter $\bf 3$

	Tissue	Total Notified	
	Corneas	Sclera Units	Graft Transplants
QLD	138	31	169
VIC	97	38	135
ACT	5	0	5
WA	40	48	88
SA	54	7	61
NSW	163	55	218
TAS	8	3	11
AUSTRALIA	505	182	687

Number of Eye Tissue Graft Transplants 2014 - Quarter $\bf 4$

	Tissue	Total Notified	
	Corneas	Sclera Units	Graft Transplants
QLD	148	26	174
VIC	87	44	131
ACT	2	2	4
WA	40	36	76
SA	44	8	52
NSW	157	56	213
TAS	7	8	15
AUSTRALIA	485	180	665

Number of Eye Tissue Graft Transplants 2014 – January 1^{st} to December 31^{st}

	Tissue	Туре	Total Notified
	Corneas	Sclera Units	Graft Transplants
QLD	490	102	592
VIC	365	157	522
ACT	14	7	21
WA	180	159	339
SA	172	30	202
NSW	650	228	878
TAS	26	18	44
AUSTRALIA	1897	701	2598

Tissue Donation Data 2014 - Quarter 1

	No. of Unique	Living	tissue	only		ecease sue oi			ased S and T		TO	TOTALS		Total Tissue	
	Tissue Donors	ms	cv	sk	ms	cv	sk	ms	cv	sk	ms	cv	sk	Donations	
QLD ^	269	239	0	0	19	6	19	8	7	9	266	13	28	307	
VIC	202	179	0	0	4	4	14	2	7	2	185	11	16	212	
ACT	1	0	0	0	0	0	0	0	1	0	0	1	0	1	
WA	172	172	0	0	0	0	0	0	0	0	172	0	0	172	
SA	72	70	0	0	0	0	0	0	3	0	70	3	0	73	
NSW	294	271	3	0	8	4	0	5	7	0	284	14	0	298	
AUSTRALIA	1010	931	3	0	31	14	33	15	25	11	977	42	44	1063	

[^] Queensland data includes eleven donations of musculoskeletal tissue from living donors from Tasmania and a donation of cardiovascular tissue from a deceased solid organ/tissue donor from Northern Territory.

Tissue Donation Data 2014 - Quarter 2

	No. of Unique	Livi	ing tiss only	sue		ecease sue oi		Dece Organ	ased S and T		TOTALS		Total - Tissue	
	Tissue Donors	ms	cv	sk	ms	cv	sk	ms	cv	sk	ms	cv	sk	Donations
QLD ^	262	235	0	0	21	5	19	8	4	8	264	9	27	300
VIC *	215	189	0	0	6	3	12	6	10	5	201	13	17	231
ACT	0	0	0	0	0	0	0	0	0	0	0	0	0	0
WA	147	142	0	0	2	0	0	3	2	0	147	2	0	149
SA	67	67	0	0	0	0	0	0	0	0	67	0	0	67
NSW	323	309	2	0	8	1	0	2	5	0	319	8	0	327
AUSTRALIA	1014	942	2	0	37	9	31	19	21	13	998	32	44	1074

[^] Queensland data includes twelve donations of musculoskeletal tissue from living donors from Tasmania.

- 12 -

^{*} Victoria data includes two donations of musculoskeletal tissue from living donors from Tasmania.

Tissue Donation Data 2014 - Quarter 3

	No. of Unique Living tissue only		only	Deceased Tissue only		Deceased Solid Organ and Tissue		TO	OTALS		Total Tissue			
	Tissue Donors	ms	cv	sk	ms	cv	sk	ms	cv	sk	ms	cv	sk	Donations
QLD ^	254	222	0	0	18	11	17	7	4	7	247	15	24	286
VIC	196	181	0	0	10	9	13	1	1	1	192	10	14	216
ACT	1	0	0	0	0	1	0	0	0	0	0	1	0	1
WA	161	159	0	0	1	0	0	2	0	0	162	0	0	162
SA	59	59	0	0	0	0	0	0	1	0	59	1	0	60
NSW	361	339	5	0	6	2	0	5	9	0	350	16	0	366
AUSTRALIA	1032	960	5	0	35	23	30	15	15	8	1010	43	38	1091

[^] Queensland data includes a donation of cardiovascular tissue from a deceased solid organ/tissue donor from Northern Territory and nine donations of musculoskeletal tissue from living donors from Tasmania.

Tissue Donation Data 2014 - Quarter 4

	No. of Unique	Living	tissue	only	Deceased Deceased Solid Tissue only Organ and Tissue		TOTALS			Total Tissue				
	Tissue Donors	ms	cv	sk	ms	cv	sk	ms	cv	sk	ms	cv	sk	Donations
QLD ^	191	162	0	0	20	7	19	4	6	4	186	13	23	222
VIC	180	159	2	0	7	4	9	7	7	7	173	13	16	202
ACT	1	0	0	0	0	0	0	0	1	0	0	1	0	1
WA	148	147	0	0	1	2	0	0	0	0	148	2	0	150
SA	63	62	0	0	0	0	0	0	1	0	62	1	0	63
NSW	341	324	5	0	10	1	0	2	8	0	336	14	0	350
AUSTRALIA	924	854	7	0	38	14	28	13	23	11	905	44	39	988

[^] Queensland data includes two donations of musculoskeletal tissue from living donors from Tasmania.

Tissue Donation Data 2014 – January 1st to December 31st

	No. of Unique	Living	tissue	only		ecease ssue oi			ased S and T		TO	OTALS		Total Tissue
	Tissue Donors	ms	cv	sk	ms	cv	sk	ms	cv	sk	ms	cv	sk	Donations
QLD ^	976	858	0	0	78	29	74	27	21	28	963	50	102	1115
VIC *	793	708	2	0	27	20	48	16	25	15	751	47	63	861
ACT	3	0	0	0	0	1	0	0	2	0	0	3	0	3
WA	628	620	0	0	4	2	0	5	2	0	629	4	0	633
SA	261	258	0	0	0	0	0	0	5	0	258	5	0	263
NSW	1319	1243	15	0	32	8	0	14	29	0	1289	52	0	1341
AUSTRALIA	3980	3687	17	0	141	60	122	62	84	43	3890	161	165	4216

[^] Queensland data includes two donations of cardiovascular tissue from deceased solid organ/tissue donors from Northern Territory and thirty four donations of musculoskeletal tissue from living donors from Tasmania.

^{*} Victoria data includes two donations of musculoskeletal tissue from living donors from Tasmania.

Notified Tissue Graft Transplants 2014 - Quarter 1

	Tis	sue Type	e	Total Notified Graft
	ms cv sk		Transplants	
QLD	446	21	3	470
VIC	105	2	67	174
ACT	18	0	0	18
WA	193	1	0	194
SA	35	0	0	35
NSW	1122	28	0	1150
AUSTRALIA	1919	52	70	2041

Notified Tissue Graft Transplants 2014 - Quarter 2

	Tis	sue Typ	е	Total Notified Graft
	ms cv sk		Transplants	
QLD	518	17	253	788
VIC	113	3	59	175
ACT	20	0	0	20
WA	192	2	0	194
SA	36	0	0	36
NSW	1028	23	0	1051
AUSTRALIA	1907	45	312	2264

Notified Tissue Graft Transplants 2014 - Quarter 3

	Tis	sue Typ	e	Total Notified
	ms cv		sk	Graft Transplants
QLD	491	33	480	1004
VIC	102	0	83	185
ACT	9	0	0	9
WA	189	0	0	189
SA	48	0	0	48
NSW	964	22	0	986
AUSTRALIA	1803	55	563	2421

Notified Tissue Graft Transplants 2014 – Quarter 4

	Tis	sue Typ	е	Total Notified Graft
	ms cv sk		Transplants	
QLD	461	15	208	684
VIC	94	5	226	325
ACT	3	0	0	3
WA	184	0	0	184
SA	45	0	0	45
NSW	1072	32	0	1104
AUSTRALIA	1859	52	434	2345

Notified Tissue Graft Transplants 2014 - January 1^{st} to December 31^{st}

	Ti	ssue Typ	e	Total Notified Graft	
	ms	cv	Transplants		
QLD	1916	86	944	2946	
VIC	414	10	435	859	
ACT	50	0	0	50	
WA	758	3	0	761	
SA	164	0	0	164	
NSW	4186	105	0	4291	
AUSTRALIA	7488	204	1379	9071	

Notified Tissue Transplant Recipients 2014 - Quarter 1

	Tis	sue Type	е	Total Notified
	ms	cv	sk	Recipients
QLD	334	21	1	356
VIC	86	2	3	91
ACT	16	0	0	16
WA	121	1	0	122
SA	24	0	0	24
NSW	579	28	0	607
AUSTRALIA	1160	52	4	1216

Notified Tissue Transplant Recipients 2014 - Quarter 2

	Tis	sue Type	e	Total Notified
	ms	cv	sk	Recipients
QLD	410	17	32	459
VIC	89	3	4	96
ACT	19	0	0	19
WA	134	2	0	136
SA	31	0	0	31
NSW	800	23	0	823
AUSTRALIA	1483	45	36	1564

Notified Tissue Transplant Recipients 2014 - Quarter 3

	Tissue Type			Total Notified
	ms	cv	sk	Recipients
QLD	384	33	32	449
VIC	85	0	8	93
ACT	9	0	0	9
WA	129	0	0	129
SA	31	0	0	31
NSW	751	22	0	773
AUSTRALIA	1389	55	40	1484

Notified Tissue Transplant Recipients 2014 – Quarter 4

	Tissue Type			Total Notified
	ms	cv	sk	Recipients
QLD	357	15	7	379
VIC	78	5	16	99
ACT	3	0	0	3
WA	120	0	0	120
SA	23	0	0	23
NSW	634	31	0	665
AUSTRALIA	1215	51	23	1289

Notified Tissue Transplant Recipients 2014 - January 1^{st} to December 31^{st}

	Tissue Type			Total Notified
	ms	cv	sk	Recipients
QLD	1485	86	72	1643
VIC	338	10	31	379
ACT	47	0	0	47
WA	504	3	0	507
SA	109	0	0	109
NSW	2764	104	0	2868
AUSTRALIA	5247	203	103	5553