

# Australian Eye and Tissue Data

Midyear report of 2015 eye and tissue data collected from Australian Eye and Tissue Banks. This report supersedes any quarterly interim summaries previously released for 2015.

2015 Midyear Report September 14, 2015

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#### **Acknowledgements -**

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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

- Eye Bank of SA 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.

#### **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.

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## **Counting Methodology -**

Each tissue and eye bank uses a Minimum Data Set Template (MDS) to provide 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 2015 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 transplant but not yet notified as transplanted to the distributing tissue bank.

## Eye Donor Data 2015 - Quarter 1

	Eye Only Donors	Eye and Tissue Only Donors	Eye and Solid Organ and Tissue Donors	TOTAL EYE DONORS
QLD	74	10	6	90
VIC	25	6	24	55
ACT	4	0	6	10
WA	16	1	2	19
SA	20	0	3	23
NSW	94	5	11	110
TAS	1	0	0	1
AUSTRALIA	234	22	52	308

## Eye Donor Data 2015 - Quarter 2

	Eye Only Donors	Eye and Tissue Only Donors	Eye, Solid Organ and Tissue Donors	TOTAL EYE DONORS
QLD	74	21	5	100
VIC	46	13	10	69
ACT	12	0	1	13
WA	22	1	3	26
SA	26	0	1	27
NSW	77	8	15	100
TAS	1	0	0	1
AUSTRALIA	258	43	35	336

# Eye Donor Data 2015 - January $\mathbf{1}^{\text{st}}$ to June $\mathbf{30}^{\text{th}}$

	Eye Only Donors	Eye and Tissue Only Donors	Eye, Solid Organ and Tissue Donors	TOTAL EYE DONORS
QLD	148	31	11	190
VIC	71	19	34	124
ACT	16	0	7	23
WA	38	2	5	45
SA	46	0	4	50
NSW	171	13	26	210
TAS	2	0	0	2
AUSTRALIA	492	65	87	644

	Tissue	Туре	Total Notified
	Corneas	Sclera Units	Graft Transplants
QLD	161	26	187
VIC	87	35	122
ACT	8	1	9
WA	39	36	75
SA	37	5	42
NSW	158	46	204
NT	NT 4		4
TAS	7	1	8
AUSTRALIA	501	150	651

## Number of Eye Tissue Graft Transplants 2015 - Quarter 2

	Tissue	Туре	Total Notified
	Corneas	Sclera Units	Graft Transplants
QLD	175	39	214
VIC	101	39	140
ACT	7	2	9
WA	54	41	95
SA	43	2	45
NSW	187	50	237
TAS	4	6	10
AUSTRALIA	571	179	750

# Number of Eye Tissue Graft Transplants 2015 – January $1^{\text{st}}$ to June $30^{\text{th}}$

	Tissue	Туре	Total Notified
	Corneas	Sclera Units	Graft Transplants
QLD	336	65	401
VIC	188	74	262
ACT	15	3	18
WA	93	77	170
SA	80	7	87
NSW	345	96	441
NT	4	0	4
TAS	11	7	18
AUSTRALIA	1072	329	1401

#### Tissue Donation Data 2015 - Quarter 1

	No. of Unique Living tissue only		only	Deceased Tissue only			Deceased Solid Organ and Tissue			TOTALS			Total Tissue	
	Tissue Donors	ms	cv	sk	ms	cv	sk	ms	cv	sk	ms	cv	sk	Donations
QLD ^	173	140	0	0	22	4	21	7	5	8	169	9	29	207
VIC	171	144	1	0	7	6	10	8	8	11	159	15	21	195
WA	149	146	0	0	1	1	0	1	0	0	148	1	0	149
SA	45	44	0	0	0	0	0	0	1	0	44	1	0	45
NSW*	299	286	3	0	5	1	0	7	7	0	298	11	0	309
AUSTRALIA	837	760	4	0	35	12	31	23	21	19	818	37	50	905

<sup>^</sup> Queensland data includes eight donations of musculoskeletal tissue from living donors from

#### Tissue Donation Data 2015 - Quarter 2

	No. of Unique	Livi	Living tissue only			Deceased Deceased Solid Tissue only Organ and Tissue  TOTALS Total Tissue					TOTALS			
	Tissue Donors	ms	cv	sk	ms	cv	sk	ms	cv	sk	ms	cv	sk	Donations
QLD ^	168	137	0	0	23	6	20	4	3	5	164	9	25	198
VIC	186	159	1	0	11	10	16	4	2	3	174	13	19	206
WA	140	141	0	0	1	0	0	2	1	0	144	1	0	145
SA	90	87	0	0	0	1	0	0	2	0	87	3	0	90
NSW	298	272	4	0	9	3	0	8	10	0	289	17	0	306
AUSTRALIA	882	796	5	0	44	20	36	18	18	8	858	43	44	945

<sup>^</sup> Queensland data includes five donations of musculoskeletal tissue from living donors from Tasmania.

<sup>\*</sup> NSW data includes a donation of cardiovascular tissue from a deceased solid organ/tissue donor from ACT.

## Tissue Donation Data 2015 – January 1 $^{\text{st}}$ to June 30 $^{\text{th}}$

	No. of Unique	Living	Living tissue only			Deceased Deceased Solid Tissue only Organ and Tissue Total Tissue					TOTALS		Total Tissue	
	Tissue Donors	ms	cv	sk	ms	cv	sk	ms	cv	sk	ms	cv	sk	Donations
QLD ^	341	277	0	0	45	10	41	11	8	13	333	18	54	405
VIC	357	303	2	0	18	16	26	12	10	14	333	28	40	401
WA	289	287	0	0	2	1	0	3	1	0	292	2	0	294
SA	135	131	0	0	0	1	0	0	3	0	131	4	0	135
NSW *	597	558	7	0	14	4	0	15	17	0	587	28	0	615
AUSTRALIA	1719	1556	9	0	79	32	67	41	39	27	1676	80	94	1850

<sup>^</sup> Queensland data includes thirteen donations of musculoskeletal tissue from living donors from Tasmania.

<sup>\*</sup> NSW data includes a donation of cardiovascular tissue from a deceased solid organ/tissue donor from ACT.

## Notified Tissue Graft Transplants 2015 - Quarter ${\bf 1}$

	Tis	sue Typ	е	Total Notified Graft
	ms	cv	sk	Transplants
QLD	453	12	125	590
VIC	99	7	49	155
WA	174 0		0	174
SA	36	0	0	36
NSW	1178 25		0	1203
AUSTRALIA	1940	44	174	2158

# Notified Tissue Graft Transplants 2015 - Quarter 2

	Tis	sue Typ	Total Notified	
	ms	ms cv		Graft Transplants
QLD	440	9	294	743
VIC	112	16	150	278
WA	201	0	0	201
SA	26	0	0	26
NSW	<b>ISW</b> 1374 24		0	1398
AUSTRALIA	2153	49	444	2646

# Notified Tissue Graft Transplants 2015 - January $1^{\text{st}}$ to June $30^{\text{th}}$

	Tissue Type			Total Notified Graft
	ms	cv	sk	Transplants
QLD	893	21	419	1333
VIC	211	23	199	433
WA	375	0	0	375
SA	62	0	0	62
NSW	2552	49	0	2601
AUSTRALIA	4093	93	618	4804

## Notified Tissue Transplant Recipients 2015 - Quarter ${\bf 1}$

	Tissue Type			Total Notified
	ms	cv	sk	Recipients
QLD	394	12	18	424
VIC	82	7	5	94
WA	124	0	0	124
SA	23	0	0	23
NSW	747	25	0	772
AUSTRALIA	1370	44	23	1437

## Notified Tissue Transplant Recipients 2015 - Quarter 2

	Tissue Type			Total Notified
	ms	cv	sk	Recipients
QLD	388	9	11	408
VIC	101	16	12	129
WA	142	0	0	142
SA	17	0	0	17
NSW	856	24	0	880
AUSTRALIA	1504	49	23	1576

# Notified Tissue Transplant Recipients 2015 - January $1^{\text{st}}$ to June $30^{\text{th}}$

	Tissue Type			Total Notified
	ms	cv	sk	Recipients
QLD	782	21	29	832
VIC	183	23	17	223
WA	266	0	0	266
SA	40	0	0	40
NSW	1603	49	0	1652
AUSTRALIA	2874	93	46	3013