

Eye and Tissue Donation in Australia Quarterly Report

January – December 2018 Preliminary Data

Data collected from Australian Eye and Tissue Banks. This report supersedes any quarterly interim summaries previously released for 2018.

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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

\mathbf{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.



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.



- 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 2018 corneal transplantation numbers to previous years published.

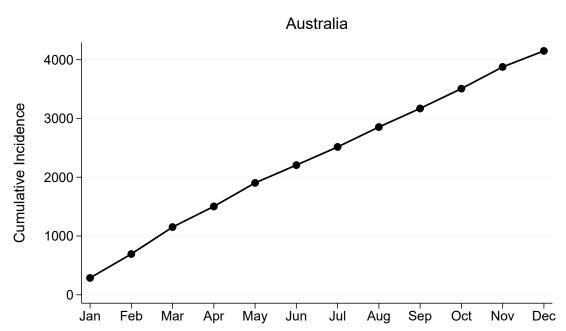
It is acknowledged that service provision in the living tissue donation sector by BAA and associated member banks occurs in addition to the Australian Organ and Tissue Authority's (OTA) "national reform programme to improve organ and tissue donation and transplantation outcomes in Australia".

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, 2018

Total Unique	Tissue Donors	by Jurisdi	iction of Retri	ieval and Month,	2018
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	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
QLD	35	73	76	55	52	51	27	27	33	31	36	23	519
NSW	155	236	252	195	232	170	193	206	191	200	219	174	2423
ACT	0	0	2	0	1	0	1	0	1	0	0	0	5
VIC	25	19	43	33	41	29	35	38	37	38	36	28	402
TAS	2	8	5	1	6	0	0	0	1	5	8	0	36
\mathbf{SA}	26	14	24	14	15	9	9	14	10	11	12	8	166
NT	0	0	0	0	0	0	0	1	0	0	0	0	1
WA	44	57	56	53	54	43	44	53	43	52	58	40	597
AUSTRALIA	287	407	458	351	401	302	309	339	316	337	369	273	4149

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
QLD	28	63	70	47	41	38	21	22	26	19	28	16	419
NSW	141	225	239	182	225	157	182	199	181	192	212	168	2303
ACT	0	0	0	0	0	0	0	0	0	0	0	0	0
VIC	15	14	31	28	30	21	34	32	32	36	30	20	323
TAS	0	$\overline{7}$	5	1	6	0	0	0	0	5	8	0	32
SA	24	13	24	13	15	8	9	13	8	10	11	$\overline{7}$	155
NT	0	0	0	0	0	0	0	0	0	0	0	0	0
WA	42	54	53	53	54	43	43	53	38	51	55	39	578
AUSTRALIA	250	376	422	324	371	267	289	319	285	313	344	250	3810

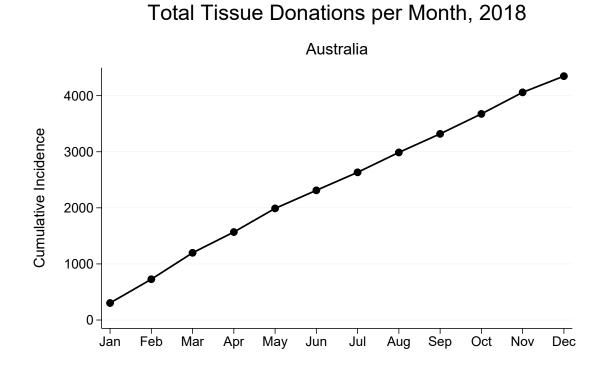
Living Unique Tissue Donors by Jurisdiction of Retrieval and Month, 2018

Deceased Unique Tissue Donors by Jurisdiction of Retrieval and Month, 2018

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
QLD	7	10	6	8	11	13	6	5	7	12	8	7	100
NSW	14	11	13	13	7	13	11	7	10	8	$\overline{7}$	6	120
ACT	0	0	2	0	1	0	1	0	1	0	0	0	5
VIC	10	5	12	5	11	8	1	6	5	2	6	8	79
TAS	2	1	0	0	0	0	0	0	1	0	0	0	4
SA	2	1	0	1	0	1	0	1	2	1	1	1	11
NT	0	0	0	0	0	0	0	1	0	0	0	0	1
WA	2	3	3	0	0	0	1	0	5	1	3	1	19
AUSTRALIA	37	31	36	27	30	35	20	20	31	24	25	23	339



Tissue Donations (ms, cv, sk, pi)



Total Tissue Donations by Jurisdiction of Retrieval and Month, 2018

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
QLD	38	79	77	64	58	55	32	34	40	38	41	28	584
NSW	158	240	258	200	238	177	199	211	197	206	226	182	2492
ACT	0	0	2	0	1	0	1	0	1	0	0	0	5
VIC	34	26	49	37	50	38	36	42	39	42	39	31	463
TAS	2	8	5	1	6	0	0	0	1	5	8	0	36
SA	26	14	24	14	15	9	9	14	10	11	12	8	166
NT	0	0	0	0	0	0	0	1	0	0	0	0	1
WA	45	57	56	54	54	43	44	53	43	54	58	40	601
AUSTRALIA	303	424	471	370	422	322	321	355	331	356	384	289	4348



	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
QLD	28	63	71	50	42	39	22	25	26	20	28	17	431
NSW	143	228	244	186	231	161	186	203	187	198	218	172	2357
ACT	0	0	0	0	0	0	0	0	0	0	0	0	0
VIC	15	14	31	28	30	21	34	32	32	37	30	20	324
TAS	0	7	5	1	6	0	0	0	0	5	8	0	32
SA	24	13	24	13	15	8	9	13	8	10	11	$\overline{7}$	155
NT	0	0	0	0	0	0	0	0	0	0	0	0	0
WA	43	54	53	54	54	43	43	53	38	53	55	39	582
AUSTRALIA	253	379	428	332	378	272	294	326	291	323	350	255	3881

Living Tissue Donations by Jurisdiction of Retrieval and Month, 2018

Living Tissue Donations by Jurisdiction of Retrieval and Type, 2018

	Cardiovascular	Musculoskeletal
QLD	0	431
NSW	8	2349
ACT	0	0
VIC	0	324
TAS	0	32
SA	0	155
NT	0	0
WA	0	582
AUSTRALIA	8	3873



	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
QLD	10	16	6	14	16	16	10	9	14	18	13	11	153
NSW	15	12	14	14	7	16	13	8	10	8	8	10	135
ACT	0	0	2	0	1	0	1	0	1	0	0	0	5
VIC	19	12	18	9	20	17	2	10	7	5	9	11	139
TAS	2	1	0	0	0	0	0	0	1	0	0	0	4
SA	2	1	0	1	0	1	0	1	2	1	1	1	11
NT	0	0	0	0	0	0	0	1	0	0	0	0	1
WA	2	3	3	0	0	0	1	0	5	1	3	1	19
AUSTRALIA	50	45	43	38	44	50	27	29	40	33	34	34	467

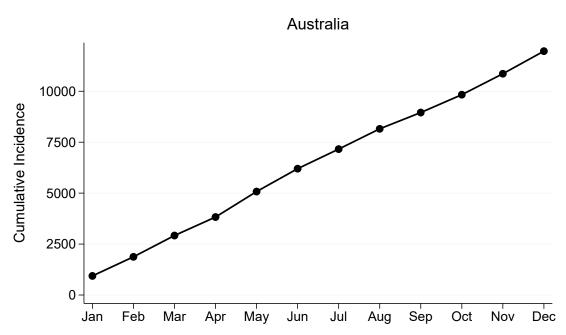
Deceased Tissue Donations by Jurisdiction of Retrieval and Month, 2018

Deceased Tissue Donations by Jurisdiction of Retrieval and Type, 2018

	Solid	Organ/	Tissue S	ector	Tissue Only Sector Tissue Total							
	cv	ms	$_{\rm skin}$	pi	cv	ms	$_{\rm skin}$	pi	cv	ms	skin	pi
QLD	24	39	23	1	1	34	31	0	25	73	54	1
NSW	35	28	2	5	4	57	4	0	39	85	6	5
ACT	2	0	0	1	0	2	0	0	2	2	0	1
VIC	24	35	35	5	6	14	20	0	30	49	55	5
TAS	4	0	0	0	0	0	0	0	4	0	0	0
SA	9	0	0	2	0	0	0	0	9	0	0	2
NT	1	0	0	0	0	0	0	0	1	0	0	0
WA	0	13	0	0	0	6	0	0	0	19	0	0
AUSTRALIA	99	115	60	14	11	113	55	0	110	228	115	14



Notified Tissue Grafts Implanted (ms, cv, sk)

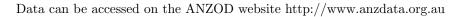


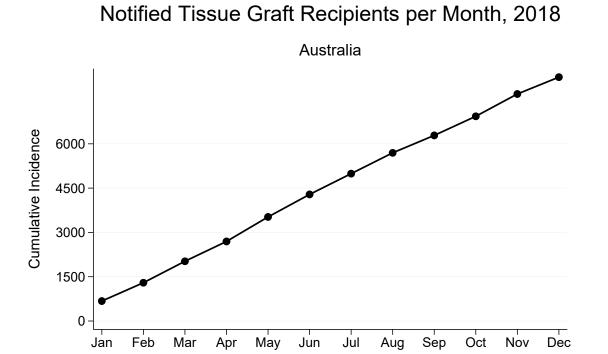
Notified Tissue Grafts Implanted per Month, 2018

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
QLD	227	133	192	190	132	245	136	145	95	220	192	397	2304
NSW	550	652	712	601	838	730	666	660	583	505	702	538	7737
ACT	0	0	0	0	0	0	0	0	0	0	0	0	0
VIC	78	96	72	65	187	75	99	93	52	71	73	101	1062
TAS	0	0	0	0	0	0	0	0	0	0	0	0	0
SA	17	6	2	3	10	19	1	19	6	10	2	10	105
NT	0	0	0	0	0	0	0	0	0	0	0	0	0
WA	65	50	67	48	85	53	59	78	64	70	59	63	761
AUSTRALIA	937	937	1045	907	1252	1122	961	995	800	876	1028	1109	11969

Notified Tissue Grafts Implanted by Jurisdiction of Retrieving Bank and Type, 2018

	Cardiovascular	Musculoskeletal	Skin
QLD	7	1724	573
NSW	195	7542	0
ACT	0	0	0
VIC	34	519	509
SA	0	105	0
WA	0	761	0
AUSTRALIA	236	10651	1082





Notified Tissue Graft Recipients (ms, cv, sk)

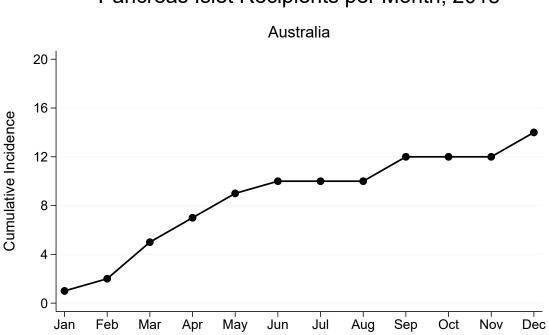
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
QLD	92	99	123	116	114	146	111	116	77	170	144	112	1420
NSW	500	439	519	470	608	526	507	492	440	389	527	385	5802
ACT	0	0	0	0	0	0	0	0	0	0	0	0	0
VIC	35	45	45	55	55	55	50	41	41	42	44	30	538
TAS	0	0	0	0	0	0	0	0	0	0	0	0	0
SA	10	6	2	3	5	9	1	10	4	5	1	6	62
NT	0	0	0	0	0	0	0	0	0	0	0	0	0
WA	39	31	38	27	48	27	34	46	28	41	40	37	436
AUSTRALIA	676	620	727	671	830	763	703	705	590	647	756	570	8258

Notified Tissue Graft Recipients by Jurisdiction of Retrieving Bank and Type, 2018

	Cardiovascular	Musculoskeletal	\mathbf{Skin}
QLD	7	1370	43
NSW	193	5609	0
ACT	0	0	0
VIC	34	463	41
SA	0	62	0
WA	0	436	0
AUSTRALIA	234	7940	84



Pancreas Islet Graft Recipients



Pancreas Islet Recipients per Month, 2018

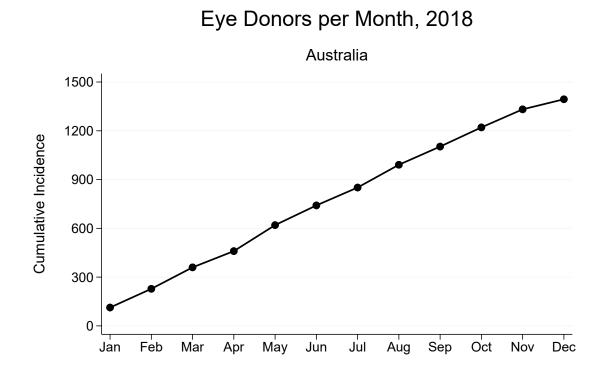
Pancreas Islet Graft Recipients by Transplant Jurisdiction and Month, 2018

	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	0	0	3	0	1	0	0	0	2	0	0	0	6
ACT	0	0	0	0	0	0	0	0	0	0	0	0	0
VIC	1	1	0	1	1	1	0	0	0	0	0	2	7
TAS	0	0	0	0	0	0	0	0	0	0	0	0	0
SA	0	0	0	1	0	0	0	0	0	0	0	0	1
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	1	3	2	2	1	0	0	2	0	0	2	14



Eye Donors and Transplants

Eye Donors



Eye Donors by Jurisdiction of Retrieval and Month, 2018

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
QLD	32	32	42	31	55	41	34	42	34	24	32	19	418
NSW	30	35	38	28	41	35	35	51	36	44	32	12	417
ACT	2	5	4	3	4	4	2	0	2	0	4	2	32
VIC	27	25	32	16	34	19	21	28	20	22	23	15	$\boldsymbol{282}$
TAS	1	1	0	0	0	0	0	0	1	1	0	1	5
SA	7	$\overline{7}$	5	11	14	11	9	11	9	12	9	6	111
NT	0	0	0	0	0	0	0	0	0	0	0	0	0
WA	14	10	11	11	12	11	9	8	10	15	11	7	129
AUSTRALIA	113	115	132	100	160	121	110	140	112	118	111	62	1394

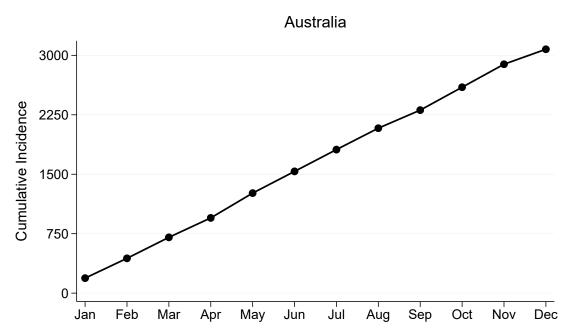


Eye Donors by Jurisdiction of Retrieval	l and Type, 2018
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	Eye Only Donors	Eye and Solid Organ	Eye and Tissue	Eye, Solid Organ and
		Only Donors	Only Donors	Tissue Donors
QLD	349	5	31	33
NSW	306	15	55	41
ACT	23	4	0	5
VIC	178	52	17	35
TAS	0	3	0	2
SA	93	12	2	4
WA	106	6	7	10
AUSTRALIA	1055	97	112	130



Notified Eye Tissue Graft Transplants



Total Eye Tissue Graft Transplants per Month, 2018

Total Eye Tissue Graft Transplants by Jurisdiction of Retrieving Bank and Month, 2018

-	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
QLD	61	65	77	65	87	72	69	79	65	80	61	44	825
NSW	43	79	87	73	108	85	95	86	73	94	91	50	964
ACT	3	2	3	1	0	0	3	4	2	2	2	1	23
VIC	45	53	44	47	65	56	50	55	47	60	67	45	634
TAS	0	3	1	4	3	2	8	2	0	0	6	6	35
SA	11	14	12	18	21	24	21	0	18	25	24	17	205
NT	0	0	3	0	0	0	0	2	0	2	0	0	7
WA	26	34	38	37	29	35	29	42	23	26	39	26	384
AUSTRALIA	189	250	265	245	313	274	275	270	228	289	290	189	3077

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
QLD	52	56	64	58	77	64	61	65	52	69	49	40	707
NSW	23	57	60	55	77	58	66	64	61	61	72	38	692
ACT	2	1	2	1	0	0	2	3	0	1	2	0	14
VIC	32	36	38	34	44	37	34	39	32	39	40	24	429
TAS	0	0	1	4	2	1	6	1	0	0	4	2	21
SA	2	11	8	18	21	21	19	0	13	20	18	14	165
NT	0	0	3	0	0	0	0	2	0	2	0	0	7
WA	17	18	22	22	19	20	13	18	13	19	26	16	223
AUSTRALIA	128	179	198	192	240	201	201	192	171	211	211	134	2258

Cornea Graft Transplants by Jurisdiction of Retrieving Bank and Month, 2018

Sclera Unit Graft Transplants by Jurisdiction of Retrieving Bank and Month, 2018

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
QLD	9	9	13	7	10	8	8	14	13	11	12	4	118
NSW	20	22	27	18	31	27	29	22	12	33	19	12	272
ACT	1	1	1	0	0	0	1	1	2	1	0	1	9
VIC	13	17	6	13	21	19	16	16	15	21	27	21	205
TAS	0	3	0	0	1	1	2	1	0	0	2	4	14
SA	9	3	4	0	0	3	2	0	5	5	6	3	40
\mathbf{NT}	0	0	0	0	0	0	0	0	0	0	0	0	0
WA	9	16	16	15	10	15	16	24	10	7	13	10	161
AUSTRALIA	61	71	67	53	73	73	74	78	57	7 8	79	55	819