

## 2008

### SUMMARY - AUSTRALIA

1. In 2008 there were: 259 donors, 12.1 donors per million population [dpmp] with 461 kidneys (including one en bloc and one double adult), (459 recipients), 179 livers (195 recipients), 85 hearts (including five heart/lungs), 218 lungs (98 double, five heart/lungs and twelve single lungs), 32 pancreas and eleven pancreas islets transplanted into recipients. In addition there were 207 corneas, 53 sets of heart valves and 23 bone donations from these donors.
2. In 2008 there were 23 donations after cardiac death (DCD). Ten of these donations occurred in New South Wales, five in Queensland, three in both Victoria and South Australia and two in the Australian Capital Territory (ACT).
3. The highest donor rate was in South Australia [27 dpmp], followed by Tasmania [16 dpmp], the Northern Territory [14 dpmp], Western Australia and Victoria [13 dpmp], Queensland [11 dpmp], the Australian Capital Territory (ACT) [9 dpmp] and New South Wales [8 dpmp].
4. The mean age of donors was 44.7 years, median 46.2 years with a range of 1.3 - 82.3 years.
5. In 2008, the major cause of death in 49% of donors was (CVA) cerebrovascular accident, while road trauma caused 12% of all donor deaths.
6. Donors with a known occupation (62%) were classified as students, pre-school, white and blue collar, management, professional, small business owner, primary industry and tradesperson. An additional 11% were retired, 7% unemployed, 5% home duties, 3% had a disability and 12% were unknown.  
The majority of donors were Caucasoid and their religion was recorded as Christian.
7. Authority for organ donation was sought in 63% of cases by the Intensive Care Clinician or Registrar, volunteered by the family in 84 (32%) and by the Donor Coordinator in 2% of cases.  
Coronial inquiries were required in 46% of all donors.
8. The donation of more than one organ occurred in 83% of donors. The average number of organs transplanted per donor was 3.4.
9. The consent rate for specific organs were 100% of kidneys, 99% livers, 96% hearts, 98% lungs and 98% pancreas.
10. In 2008, from donors where organs had been retrieved, 97% of kidneys, 95% of livers, 93% of hearts, 98% of lungs and 40% of pancreas (32 pancreas and eleven pancreas islets) were actually transplanted.
11. Nine livers were sent to New Zealand in 2008.

### SUMMARY - NEW ZEALAND

1. In 2008 there were: 31 donors, 7.2 donors per million population [dpmp], which resulted in 53 kidneys (53 recipients), 23 livers (24 recipients), ten hearts, 28 lungs (14 double lungs) and four pancreas being transplanted into recipients. In addition 30 corneas and eight sets of heart valves were sent to the tissue bank. There was no bone donation.
2. There were two donation after cardiac death (DCD) donors.
3. The mean age of donors was 42.7 years and median 44.4 years, with an age range of 12.0 - 67.6 years.
4. Cerebrovascular accident (CVA) was the major cause of death in 71% of donors, while road trauma caused 6% of deaths in 2008.
5. Forty two percent of donors with a known occupation were classified as students, white and blue collar workers, professional, primary industry, tradesperson, or management. An additional 42% were unknown and 16% (five donors) were retired, home duties or had a disability.  
Twenty seven donors (87%) were Caucasoid, three were Maori and one donor was a Pacific Person.  
The religion was unknown for 90% of donors.
6. Authority for organ donation was sought in 61% of cases by the Intensive Care Clinician or Registrar and volunteered in eight (26%) of cases.  
Coronial inquiries were required in 39% of donors.
7. The donation of more than one organ occurred in 81% of donors. The average number of organs transplanted per donor was 3.4.
8. The consent rate for specific organs were 100% of kidneys, 100% of livers, 100% of hearts, 100% of lungs and 100% of pancreas.
9. In 2008, from donors where organs had been retrieved, 90% of kidneys, 96% of livers, 100% of hearts, 100% of lungs and 100% of pancreas were actually transplanted.
10. New Zealand has provided 21 kidneys, 218 livers, 28 hearts and 82 lungs to the Australian Transplant programs since 1989.
11. Two livers, two hearts and four lungs were sent from New Zealand to Australia in 2008.

## ORGAN DONORS IN AUSTRALIA AND NEW ZEALAND

**Figure 1**

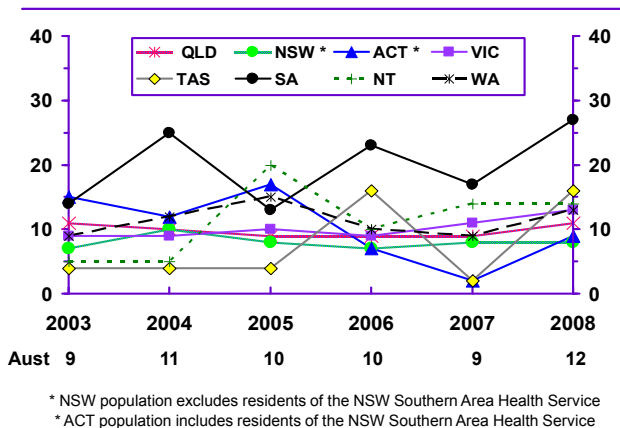
<b>Number of Donors** by Retrieval State<sup>x</sup> 2003 - 2008</b>					
<b>( ) Donors Per Million</b>					
	2004	2005	2006	2007	2008
Queensland	39 (10)	35 (9)	36 (9)	39 (9)	48 (11)
New South Wales + *	63 (10+) (9*)	54 (8+) (8*)	49 (7+) (7*)	53 (8+) (8*)	57 (8+) (8*)
ACT + *	6 (12+) (19*)	9 (17+) (28*)	4 (7+) (12*)	1 (2+) (3*)	5 (9+) (14.5*)
Victoria	45 (9)	50 (10)	46 <sup>x</sup> (9)	55 (11)	67 (13)
Tasmania	2 (4)	2 (4)	8 (16)	1 (2)	8 (16)
South Australia	39 (25)	20 (13)	36 (23)	27 (17)	43 (27)
Northern Territory	1 (5)	4 (20)	2 (10)	3 (14)	3 (14)
Western Australia	23 (12)	30 (15)	21 (10)	19 (9)	28 (13)
<b>Australia</b>	<b>218 (11)</b>	<b>204 (10)</b>	<b>202 (10)</b>	<b>198 (9)</b>	<b>259 (12)</b>
<b>New Zealand</b>	<b>40 (10)</b>	<b>29 (7)</b>	<b>25 (6)</b>	<b>38 (9)</b>	<b>31 (7)</b>

<sup>x</sup> Refers to donors retrieved by retrieval State (ie Albury-NSW donors retrieved by Victoria)  
<sup>+</sup> NSW population excludes residents of the NSW Southern Area Health Service (included in ACT population)  
<sup>\*</sup> NSW population includes residents of the NSW Southern Area Health Service (excluded from ACT population)  
 Medical services from the ACT service the NSW Southern Area Health Region. Population data—June 2008 ABS 3101.0

**\*\*** This figure relates to the number of donors for whom the retrieval operation commenced for the purpose of transplantation. It includes donors who may have been deemed medically unsuitable at the time of surgery or after removal of organs.

**Figure 2**

**Number of Donors Per Million Population  
Australian States 2003 - 2008**



Donor figures for Australia for 2008 include four donors who went to the operating theatre but organs were not retrieved. Two donors had infections, one was found to have social risk factors and one had organs that were medically unsuitable.

Donor (dpmp) figures in Australia improved from 9-11 (dpmp) during the past five years, to 12 (dpmp) in 2008.

All New Zealand donors had organs retrieved.

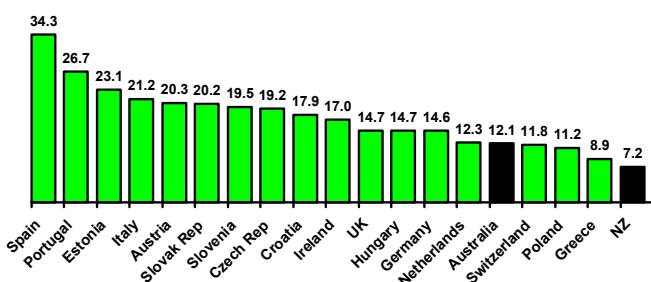
In 2008 there was a range between the States of eight donors per million population (dpmp) in New South Wales to 27 dpmp in South Australia.

The ACT had 14.5 dpmp when the NSW Southern Area Health Service population was excluded.

**Figure 3**

**International Donor Statistics 2008**

**Donors PMP**



Source: IRODaT (International Registry of Organ Donation and Transplantation)

Figure 3 shows the number of donors per million population (dpmp) of Australia and New Zealand compared to other Countries.

Note that the international definition of an organ donor is used for these comparisons (i.e. at least one organ is transplanted from that donor). This definition differs to that used in Figure 1 above.

Data for 2008 was not available for the USA, Canada and some European countries at the time of publication.

**Figure 4**

<b>Waiting List for Organs by Transplant Region 01-Jan-2009</b>							
<b>Organs</b>	<b>QLD</b>	<b>NSW/ACT</b>	<b>VIC/TAS</b>	<b>SA/NT</b>	<b>WA</b>	<b>AUST</b>	<b>NZ</b>
Kidney	139	682	346	62	69	<b>1298</b>	<b>570</b>
Liver	30	43	49	10	4	<b>136</b>	<b>24</b>
Heart	6	21	12	-	5	<b>44</b>	<b>7</b>
Heart / Lung	-	2	3	-	-	<b>5</b>	<b>-</b>
Lung	14	32	45	-	5	<b>96</b>	<b>4</b>
Pancreas / Kidney	-	19	12	-	-	<b>31</b>	<b>5</b>
Pancreas Only	-	4	0	-	-	<b>4</b>	<b>-</b>
Pancreas Islets	-	6	3	2	-	<b>11</b>	<b>-</b>
<b>Total</b>	<b>189</b>	<b>809</b>	<b>470</b>	<b>74</b>	<b>83</b>	<b>1625</b>	<b>610</b>

Data provided by NOMS (National Organ Matching System),  
National Liver, ANZ Cardiothoracic and Pancreas Registries  
Dr John Kanellis and A/Prof Francesco Ierino (Pancreas-Victoria)  
The New Zealand Donor Coordinators

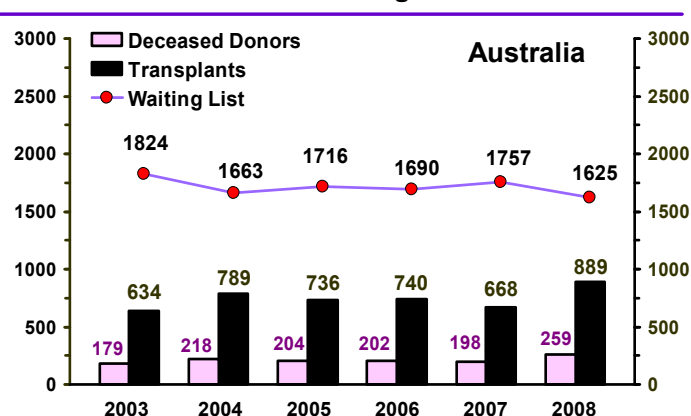
**Figure 5**

<b>Transplanted Organs Donated in Australia and New Zealand by State of Transplantation 2008</b>							
<b>Organs</b>	<b>QLD</b>	<b>NSW</b>	<b>VIC</b>	<b>SA</b>	<b>WA</b>	<b>AUST</b>	<b>NZ</b>
Kidneys (Total)	136	243	246	110	77	<b>812</b>	<b>121</b>
Deceased Donor	92	129	130	69	39	<b>459</b>	<b>53</b>
Live Donor * Per Million [ ]	44 (32%) [10]	114 (47%) [16]	116 (47%) [20]	41 (37%) [23]	38 (49%) [18]	<b>353 (43%) [17]</b>	<b>68 (56%) [16]</b>
Liver (Recipients)	34	56	48	24	26	<b>188</b>	<b>31</b>
Live Donor +	-	3	-	-	-	<b>3</b>	<b>7</b>
Heart	8	27	34	-	13	<b>82</b>	<b>8</b>
Domino #	-	-	-	-	-	<b>-</b>	<b>-</b>
Heart / Lung	-	1	3	-	1	<b>5</b>	<b>-</b>
Lung (Recipients)	14 double 1 single	40 double 3 single	40 double 4 single	-	6 double 4 single	<b>100 double 12 single</b>	<b>12 double 0 single</b>
Pancreas / Kidney	-	20	12	-	-	<b>32</b>	<b>4</b>
Pancreas Only	-	-	-	-	-	<b>-</b>	<b>-</b>
Pancreas Islets	-	5	6	-	-	<b>11</b>	<b>-</b>
<b>Total</b>	<b>193</b>	<b>398</b>	<b>393</b>	<b>134</b>	<b>127</b>	<b>1245</b>	<b>183</b>

\* Living Kidney Donor Registry (Anzdata)    + National Liver Registry    # ANZ Cardiothoracic Registry

**Figure 6**

**Number of Deceased Donors Solid Organ Transplants and Patients on the Waiting List 2003 - 2008**



The number of donors, transplants, and patients on the waiting list from 2003 to 2008.

Transplants includes those from donor organs from Australia and New Zealand.

## DONORS PER THOUSAND DEATHS

Historically the comparison of organ donation rates between states and countries has been based upon donors per million population (dpmp). However, using the number of deaths and therefore the ability of a deceased person to be a donor as the denominator may be a more reasonable way of comparing donation rates shown in Figures 7 and 8.

*Australian data on deaths for 2008 is not available until August of 2009.  
New Zealand 2008 data was also not available.*

**Figure 7**

<b>Donors per Million Population and Donors per Thousand Deaths ( ) Australian States - Australia and New Zealand 2003 - 2007</b>										
Year	QLD	NSW *	ACT *	VIC	TAS	SA	NT	WA	AUST	NZ
2003	11 (1.6)	7 (0.9)	25 (5.8)	9 (1.2)	4 (0.5)	14 (1.8)	5 (1.1)	9 (1.6)	<b>9 (1.3)</b>	<b>10 (1.4)</b>
2004	10 (1.6)	9 (1.4)	19 (4.2)	9 (1.4)	4 (0.5)	25 (3.4)	5 (1.1)	12 (2.1)	<b>11 (1.6)</b>	<b>10 (1.4)</b>
2005	9 (1.5)	8 (1.2)	28 (6.0)	10 (1.5)	4 (0.5)	13 (1.7)	20 (4.1)	15 (2.6)	<b>10 (1.6)</b>	<b>7 (1.1)</b>
2006	9 (1.5)	7 (1.1)	12 (2.7)	9 (1.3)	16 (2.0)	23 (3.0)	10 (2.1)	10 (1.8)	<b>10 (1.5)</b>	<b>9 (0.9)</b>
2007	9 (1.5)	8 (1.1)	3 (0.6)	11 (1.6)	2 (0.2)	17 (2.1)	14 (3.0)	9 (1.5)	<b>9 (1.4)</b>	<b>9 (1.3)</b>

\* Donors per million population refers to the NSW and the ACT actual population  
Data for deaths in the NSW Southern Area Health Service was not available

**Figure 8**

<b>Donors per Thousand Deaths Aged &lt; 75 years 2003 - 2007 ( ) Represents % of Total Deaths Aged &lt; 75 years *</b>										
Year	QLD	NSW	ACT	VIC	TAS	SA	NT	WA	AUST	NZ
2003	4.1 (40%)	2.5 (37%)	8.3 (42%)	3.5 (36%)	1.3 (38%)	5.0 (34%)	1.5 (76%)	3.9 (40%)	<b>3.4 (38%)</b>	<b>3.4 (40%)</b>
2004	4.0 (39%)	3.7 (35%)	10.1 (42%)	3.7 (34%)	1.4 (36%)	9.8 (34%)	1.4 (78%)	4.8 (40%)	<b>4.3 (37%)</b>	<b>3.4 (48%)</b>
2005	3.6 (39%)	3.2 (36%)	16.5 (36%)	4.4 (35%)	1.3 (37%)	4.8 (34%)	5.1 (78%)	6.3 (39%)	<b>4.1 (37%)</b>	<b>2.7 (40%)</b>
2006	3.8 (38%)	2.9 (34%)	7.0 (38%)	4.0 (33%)	5.6 (36%)	9.0 (32%)	2.8 (76%)	4.6 (39%)	<b>4.1 (36%)</b>	<b>2.3 (39%)</b>
2007	3.9 (38%)	3.0 (34%)	1.6 (40%)	4.9 (33%)	0.6 (35%)	5.9 (32%)	3.9 (77%)	3.9 (39%)	<b>4.0 (35%)</b>	<b>3.4 (38%)</b>

\* The number of actual donors is compared to the number of deaths that are aged less than 75 years (Figure 8)  
Australian Bureau of Statistics - Deaths 3302.0 and Statistics NZ

## DONOR POSTCODES

In the last five years (2004-2008) there have been 13 deceased donors from overseas in Australia and four in New Zealand. There were five donors from overseas in 2008, two in Queensland and one each in New South Wales, South Australia and the Northern Territory. There were none in New Zealand.

**Figure 9**

<b>Location of Postcodes of Deceased Donors 2004 - 2008</b>										
Postcode	QLD	NSW	ACT	VIC	TAS	SA	NT	WA	AUST	
Metropolitan	97 (49%)	196 (71%)	19 (76%)	184 (70%)	0 (0%)	117 (71%)	0 (0%)	78 (64%)	691 (64%)	
Inner Regional	49 (25%)	59 (21%)	5 (20%)	61 (23%)	10 (48%)	25 (15%)	0 (0%)	15 (12%)	224 (21%)	
Outer Regional	38 (19%)	16 (6%)	1 (4%)	16 (6%)	8 (38%)	11 (7%)	6 (46%)	13 (11%)	109 (10%)	
Rural	9 (5%)	2 (1%)	0 (0%)	1 (<1%)	3 (14%)	10 (6%)	6 (46%)	13 (11%)	44 (4%)	
Overseas	4 (2%)	4 (1%)	0 (0%)	0 (0%)	0 (0%)	2 (1%)	1 (8%)	2 (2%)	13 (1%)	
<b>Total</b>	<b>197</b>	<b>277</b>	<b>25</b>	<b>262</b>	<b>21</b>	<b>165</b>	<b>13</b>	<b>121</b>	<b>1081</b>	

## DONOR PROFILE

### AGE AND GENDER DISTRIBUTION

In Australia in 2008, 13% (33 donors) were 65 years or older and 3% (eight donors) were aged 75 years or older. The oldest donor was 82.3 years and the youngest 15.5 months (1.3 years) (Figure 11).

Donor gender in each State, Australia and New Zealand is shown in five year cohorts in Figure 10.

The mean age for donors in Australia in 2008, was 44.7 years, the highest since records began in 1989. The mean age in 1989 was 32.4 years and the age range was between 16.5 months and 69.5 years.

The mean age for Australian States ranged from 35.5 years in Tasmania to 55.6 years in the Northern Territory.

The median age for Australia in 2008 was 46.2 years, higher than the previous three years.

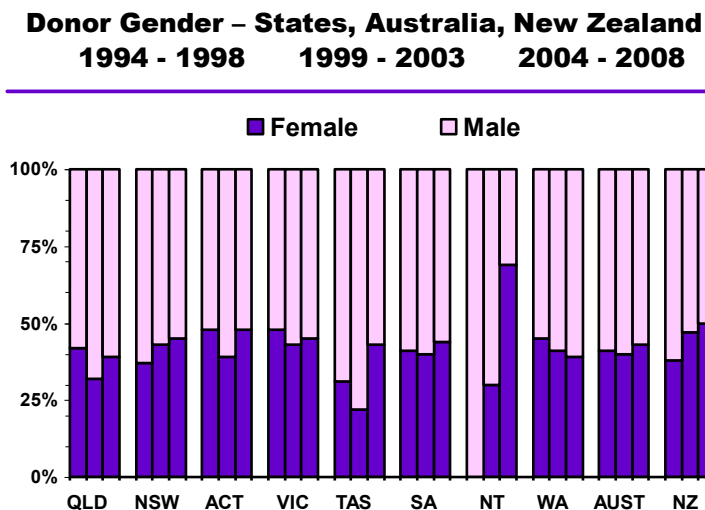
In Australian States the median age ranged from 40.1 years in Queensland to 54.7 years in Western Australia. If the smaller States and Territories are included, the range was 30.7 years in Tasmania to 60.8 years in the Northern Territory.

The mean and median age for donors from 1991 to 2008 for each State are shown in three year cohorts in Figures 12 and 13.

In New Zealand the mean age decreased from 46.6 years in 2007 to 42.7 years in 2008. The median age also decreased from 48.8 years to 44.4 years. Two donors were over 65 years of age and none over 75 years. The age range was between 12 years and 67.6 years.

Figure 14 shows donors according to age and gender in Australia and New Zealand for the years 2000-2002, 2003-2005 and 2006-2008.

**Figure 10**



**Figure 11**

<b>Age of Male and Female Donors 2000 - 2008</b>								
	Year	Mean (years)			Median (years)			Range in Years
		All	Female	Male	All	Female	Male	
<b>Aust</b>	2000	41.1	42.6	40.0	44.1	45.1	44.0	0.4 - 77.9
	2001	40.0	43.1	38.3	42.9	47.3	39.9	6.4 - 77.4
	2002	38.7	39.4	38.3	40.8	42.1	40.2	0.01 - 78.8
	2003	42.7	46.4	40.1	45.5	48.4	42.5	0.96 - 85.3
	2004	43.2	44.0	42.7	46.6	47.4	44.1	1.12 - 80.5
	2005	42.8	46.8	39.3	45.3	50.0	40.5	0.6 - 79.5
	2006	43.3	45.5	41.3	45.3	48.0	44.1	1.3 - 78.2
	2007	43.4	46.0	41.3	45.2	49.6	42.0	0.7 - 80.4
2008	44.7	47.6	42.7	46.2	48.3	44.0	1.3 - 82.3	
<b>NZ</b>	2000	39.7	38.3	40.9	42.6	42.6	42.2	5.5 - 68.5
	2001	41.1	44.7	37.7	42.6	48.1	35.2	16.6 - 68.9
	2002	40.3	38.5	42.1	42.6	42.0	45.8	7.7 - 66.7
	2003	38.0	35.6	39.4	39.7	40.3	39.0	13.0 - 75.1
	2004	43.0	43.4	42.7	46.1	47.7	43.4	1.15 - 78.2
	2005	45.3	47.1	43.9	48.6	48.6	45.4	17.4 - 64.4
	2006	36.5	41.6	33.2	35.4	38.4	30.0	11.6 - 69.4
	2007	46.6	47.4	45.3	48.8	49.1	48.4	11.9 - 71.6
2008	42.7	49.5	34.6	44.4	50.5	31.2	12.0 - 67.6	

**Figure 12**

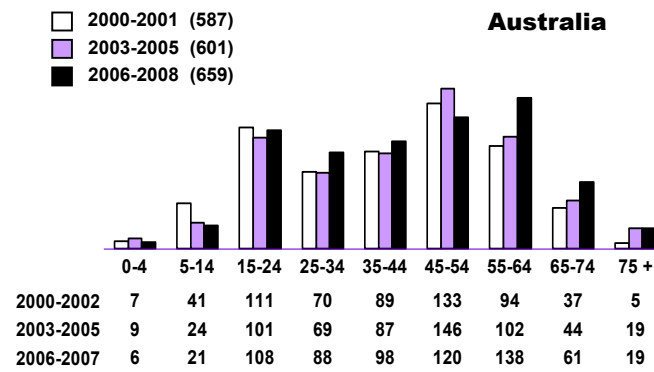
<b>Australian States Mean Age of Donors</b>								
Years	QLD	NSW	ACT	VIC	TAS	SA	NT	WA
1991 - 1993	32.4	38.2	34.7	38.7	24.5	37.8	29.5	32.4
1994 - 1996	32.1	38.4	40.2	40.3	31.9	37.7	36.7	38.8
1997 - 1999	37.3	41.5	47.1	42.4	37.0	40.0	34.1	33.7
2000 - 2002	38.5	40.7	32.7	43.6	41.2	39.9	42.5	33.6
2003 - 2005	40.6	46.1	42.0	44.2	22.9	41.0	39.4	41.2
2006 - 2008	38.3	45.2	45.0	43.1	36.1	48.8	52.0	45.8

**Figure 13**

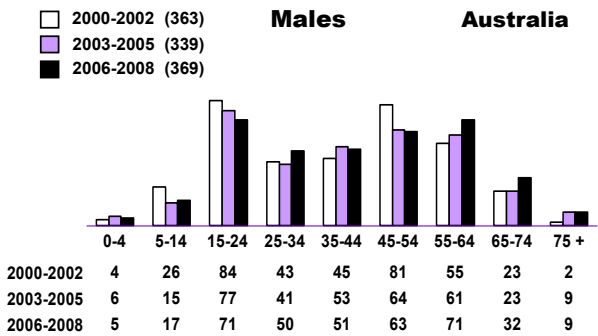
<b>Australian States Median Age of Donors</b>								
Years	QLD	NSW	ACT	VIC	TAS	SA	NT	WA
1991 - 1993	32.5	39.6	33.6	38.6	25.1	38.9	28.5	32.7
1994 - 1996	30.7	37.9	40.2	41.7	29.1	38.2	34.8	39.4
1997 - 1999	39.8	44.7	47.9	45.9	39.1	42.8	32.8	32.5
2000 - 2002	40.3	42.8	35.1	47.8	48.5	45.1	47.4	32.3
2003 - 2005	43.6	47.9	43.1	47.5	21.7	42.5	48.0	41.7
2006 - 2008	40.7	48.2	48.8	45.2	33.3	52.3	54.7	49.4

**Figure 14**

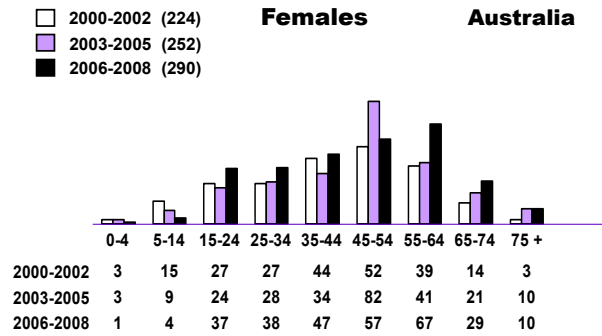
**Age Group of Deceased Donors**



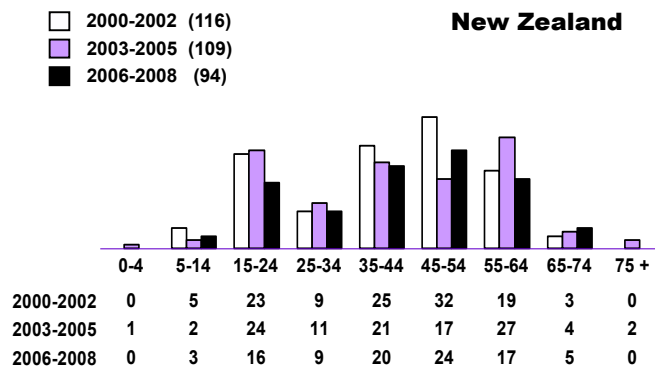
**Age and Gender Distribution of Donors**



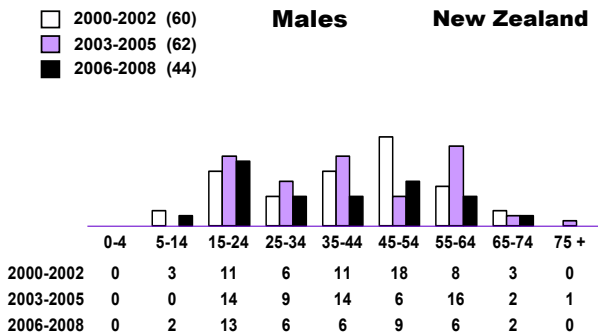
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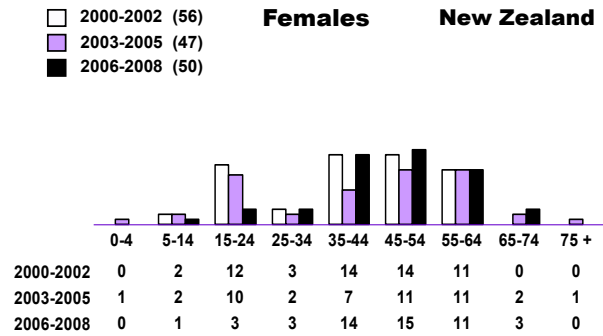
**Age Group of Deceased Donors**



**Age and Gender Distribution of Donors**



**Age and Gender Distribution of Donors**



### CAUSE OF DEATH - ALL DONORS

Figure 15 shows the cause of death for all organ donors in Australia since 1989 and for New Zealand since 1993.

In Australia and New Zealand, road trauma continues to be a reducing cause of death while cerebrovascular accident (CVA) has been steadily increasing in Australia since 1989, although in New Zealand figures have remained relatively steady.

In the period 2002-2008, CVA accounted for 53% of donor deaths and road trauma 16%.

Figure 16 shows the cause of death by percentage in Australia and each Australian State from 2002 to 2008, and New Zealand from 2003 to 2008.

Figure 17 shows detailed cause of death by gender in Australia and New Zealand for 2008.

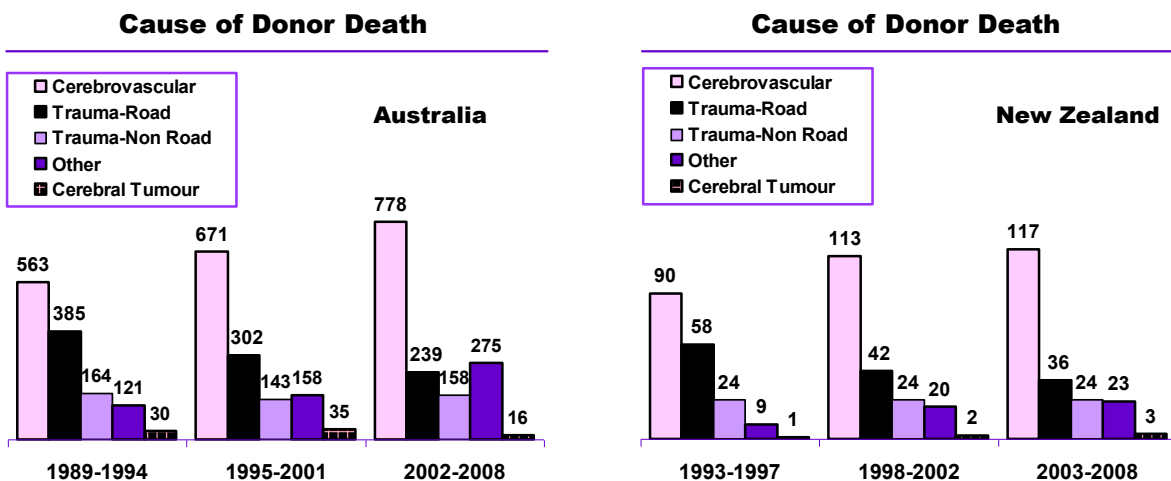
Figure 18 shows that CVA is the main cause of death in donors 55 years and older, 71% in Australia and 100% in New Zealand, whereas in the 15-34 year age group, trauma accounted for 48% of all deaths in Australia and 50% in New Zealand in 2008.

The cause of death by age group is shown in Figure 19 for each Australian State for 2008.

Figure 20 shows the cause of donor death in each Australian State and New Zealand each year from 2001-2008.

Figures 21-23 show the occupation, ethnic origin and religious denomination of donors in Australia and New Zealand for 2003-2008.

**Figure 15**



**Figure 16**

Cause of Donor Death 2002 - 2008										
	QLD	NSW	ACT	VIC	TAS	SA	NT	WA	AUST	NZ *
CVA	46%	57%	51%	60%	48%	49%	69%	47%	<b>53%</b>	<b>58%</b>
Trauma (road)	23%	15%	21%	12%	14%	13%	19%	21%	<b>16%</b>	<b>18%</b>
Trauma (non-road)	14%	8%	15%	8%	14%	9%	12%	18%	<b>11%</b>	<b>12%</b>
Hypoxia-Anoxia	14%	16%	13%	17%	24%	26%	0%	8%	<b>16%</b>	<b>7%</b>
Cerebral Tumour	1%	1%	0%	<1%	0%	1%	0%	3%	<b>1%</b>	<b>1%</b>
Other	2%	3%	0%	3%	0%	2%	0%	3%	<b>3%</b>	<b>4%</b>

\* NZ 2003 - 2008



**Figure 17**

<b>Cause of Donor Death 2008</b>							
<b>Causes of Death</b>		<b>Australia</b>			<b>New Zealand</b>		
		<b>Male</b>	<b>Female</b>	<b>Total</b>	<b>Male</b>	<b>Female</b>	<b>Total</b>
CVA	Cerebral Infarct	5	12	<b>17</b>	0	1	<b>1</b>
	Intracranial Haemorrhage	31	22	<b>53</b>	2	8	<b>10</b>
	Subarachnoid Haemorrhage	29	30	<b>59</b>	4	7	<b>11</b>
Road Trauma	Cyclist	3	0	<b>3</b>	0	0	<b>0</b>
	Motor Bike Accident	6	1	<b>7</b>	0	0	<b>0</b>
	Motor Vehicle Accident	10	3	<b>13</b>	1	0	<b>1</b>
	Pedestrian	4	1	<b>5</b>	1	0	<b>1</b>
	Other Road Accident	2	0	<b>2</b>	0	0	<b>0</b>
Other Trauma	Fall	7	4	<b>11</b>	2	0	<b>2</b>
	Felony / Crime - Assault	11	2	<b>13</b>	0	0	<b>0</b>
	Gunshot	6	0	<b>6</b>	0	0	<b>0</b>
	Other Accident	3	0	<b>3</b>	1	0	<b>1</b>
Hypoxia Anoxia	?Cardiac Event	1	0	<b>1</b>	0	0	<b>0</b>
	Anaphylaxis	0	1	<b>1</b>	0	0	<b>0</b>
	Aspiration	1	0	<b>1</b>	1	0	<b>1</b>
	Asthma	3	2	<b>5</b>	0	0	<b>0</b>
	Brain Injury	0	1	<b>1</b>	0	0	<b>0</b>
	Carbon Monoxide	0	0	<b>0</b>	1	0	<b>1</b>
	Cardiac Arrest	13	12	<b>25</b>	0	0	<b>0</b>
	Choking	0	0	<b>0</b>	1	0	<b>1</b>
	Drowning	3	0	<b>3</b>	0	0	<b>0</b>
	Electrocution	1	0	<b>1</b>	0	0	<b>0</b>
	Encephalopathy	1	3	<b>4</b>	0	0	<b>0</b>
	Epilepsy	1	0	<b>1</b>	0	0	<b>0</b>
	Hanging	5	1	<b>6</b>	0	0	<b>0</b>
	Iatrogenic	0	1	<b>1</b>	0	0	<b>0</b>
	Overdose	4	2	<b>6</b>	0	1	<b>1</b>
Respiratory Arrest	1	0	<b>1</b>	0	0	<b>0</b>	
Unknown Cause	0	1	<b>1</b>	0	0	<b>0</b>	
Other	Blocked VP Shunt-Hydrocephalus	0	1	<b>1</b>	0	0	<b>0</b>
	Fulminant Liver Failure	0	1	<b>1</b>	0	0	<b>0</b>
	Glioblastoma (Malignant)	0	1	<b>1</b>	0	0	<b>0</b>
	Hypoglycaemia	1	1	<b>2</b>	0	0	<b>0</b>
	Meningitis (Cryptococcal)	1	0	<b>1</b>	0	0	<b>0</b>
	Meningitis (Pseudomonas)	0	1	<b>1</b>	0	0	<b>0</b>
	Spinal Cord Infarct	1	0	<b>1</b>	0	0	<b>0</b>
	Unknown-Coroner Case	0	1	<b>1</b>	0	0	<b>0</b>
<b>Total</b>		<b>154</b>	<b>105</b>	<b>259</b>	<b>14</b>	<b>17</b>	<b>31</b>

**Figure 18**

<b>Cause of Donor Death Related to Age Group 2008</b>										
	<b>Australia</b>					<b>New Zealand</b>				
	<b>Age Groups</b>				<b>Total</b>	<b>Age Groups</b>				<b>Total</b>
	<b>0-14</b>	<b>15-34</b>	<b>35-54</b>	<b>55 on</b>		<b>0-14</b>	<b>15-34</b>	<b>35-54</b>	<b>55 on</b>	
CVA	2	12	51	64	<b>129 (50%)</b>	1	2	13	6	<b>22 (71%)</b>
Trauma (road)	1	22	5	2	<b>30 (12%)</b>	0	2	0	0	<b>2 (6%)</b>
Trauma (non-road)	0	12	11	10	<b>33 (13%)</b>	0	2	1	0	<b>3 (10%)</b>
Hypoxia-Anoxia	5	20	22	11	<b>58 (22%)</b>	0	2	2	0	<b>4 (13%)</b>
Cerebral Tumour	0	0	0	1	<b>1 (&lt;1%)</b>	0	0	0	0	<b>0 (0%)</b>
Other	0	5	1	2	<b>8 (3%)</b>	0	0	0	0	<b>0 (0%)</b>
<b>Total</b>	<b>8</b>	<b>71</b>	<b>90</b>	<b>90</b>	<b>259</b>	<b>1</b>	<b>8</b>	<b>16</b>	<b>6</b>	<b>31</b>

**Figure 19**

<b>Australian States Cause of Death Related to Age Group 2008</b>						
		<b>Age Groups</b>				<b>Total</b>
		<b>0-14</b>	<b>15-34</b>	<b>35-54</b>	<b>55 on</b>	
<b>Queensland</b>	CVA	0	4	9	5	<b>18</b>
	Trauma (road)	0	7	4	0	<b>11</b>
	Trauma (non-road)	0	3	5	0	<b>8</b>
	Other	1	3	3	4	<b>11</b>
	<b>Total</b>	<b>1</b>	<b>17</b>	<b>21</b>	<b>9</b>	<b>48</b>
<b>NSW</b>	CVA	0	3	14	16	<b>33</b>
	Trauma (road)	0	2	0	0	<b>2</b>
	Trauma (non-road)	0	2	0	3	<b>5</b>
	Other	2	7	5	3	<b>17</b>
	<b>Total</b>	<b>2</b>	<b>14</b>	<b>19</b>	<b>22</b>	<b>57</b>
<b>ACT</b>	CVA	0	0	2	1	<b>3</b>
	Trauma (road)	0	0	0	0	<b>0</b>
	Trauma (non-road)	0	1	0	0	<b>1</b>
	Other	1	0	0	0	<b>1</b>
	<b>Total</b>	<b>1</b>	<b>1</b>	<b>2</b>	<b>1</b>	<b>5</b>
<b>Victoria</b>	CVA	1	4	18	15	<b>38</b>
	Trauma (road)	0	5	0	0	<b>5</b>
	Trauma (non-road)	0	2	2	2	<b>6</b>
	Other	0	6	10	2	<b>18</b>
	<b>Total</b>	<b>1</b>	<b>17</b>	<b>30</b>	<b>19</b>	<b>67</b>
<b>Tasmania</b>	CVA	0	0	1	1	<b>2</b>
	Trauma (road)	1	1	0	0	<b>2</b>
	Trauma (non-road)	0	1	0	0	<b>1</b>
	Other	0	2	0	1	<b>3</b>
	<b>Total</b>	<b>1</b>	<b>4</b>	<b>1</b>	<b>2</b>	<b>8</b>
<b>South Australia</b>	CVA	0	0	5	14	<b>19</b>
	Trauma (road)	0	2	0	1	<b>3</b>
	Trauma (non-road)	0	3	2	3	<b>8</b>
	Other	1	6	3	3	<b>13</b>
	<b>Total</b>	<b>1</b>	<b>11</b>	<b>10</b>	<b>21</b>	<b>43</b>
<b>Northern Territory</b>	CVA	0	0	0	2	<b>2</b>
	Trauma (road)	0	1	0	0	<b>1</b>
	Trauma (non-road)	0	0	0	0	<b>0</b>
	Other	0	0	0	0	<b>0</b>
	<b>Total</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>2</b>	<b>3</b>
<b>Western Australia</b>	CVA	1	1	2	10	<b>14</b>
	Trauma (road)	0	4	1	1	<b>6</b>
	Trauma (non-road)	0	0	2	2	<b>4</b>
	Other	0	1	2	1	<b>4</b>
	<b>Total</b>	<b>1</b>	<b>6</b>	<b>7</b>	<b>14</b>	<b>28</b>

**Figure 20**

		<b>Cause of Donor Death 2001 - 2008</b>								
		<b>2001</b>	<b>2002</b>	<b>2003</b>	<b>2004</b>	<b>2005</b>	<b>2006</b>	<b>2007</b>	<b>2008</b>	
<b>Queensland</b>	CVA	25	21	19	18	19	19	16	18	
	Trauma (road)	12	12	13	11	3	8	7	11	
	Trauma (non-road)	6	6	6	7	6	2	5	8	
	Hypoxia-Anoxia	4	3	2	2	6	6	9	11	
	Cerebral Tumour	0	1	0	0	1	0	0	0	
	Other	1	1	0	1	0	1	2	0	
	<b>Total</b>	<b>48</b>	<b>44</b>	<b>40</b>	<b>39</b>	<b>35</b>	<b>36</b>	<b>39</b>	<b>48</b>	
<b>NSW</b>	CVA	25	31	24	37	31	30	28	33	
	Trauma (road)	7	8	12	8	9	10	8	2	
	Trauma (non-road)	3	6	4	5	3	2	6	5	
	Hypoxia-Anoxia	8	7	4	12	8	5	8	15	
	Cerebral Tumour	0	1	0	1	2	0	1	0	
	Other	4	2	2	0	1	3	2	2	
	<b>Total</b>	<b>47</b>	<b>55</b>	<b>46</b>	<b>63</b>	<b>54</b>	<b>50</b>	<b>53</b>	<b>57</b>	
<b>ACT</b>	CVA	3	3	4	3	3	3	1	3	
	Trauma (road)	2	1	2	1	4	0	0	0	
	Trauma (non-road)	0	0	1	2	1	1	0	1	
	Hypoxia-Anoxia	2	2	1	0	1	0	0	1	
	<b>Total</b>	<b>7</b>	<b>6</b>	<b>8</b>	<b>6</b>	<b>9</b>	<b>4</b>	<b>1</b>	<b>5</b>	
<b>Victoria</b>	CVA	22	30	28	27	30	25	31	38	
	Trauma (road)	7	10	1	4	3	8	10	5	
	Trauma (non-road)	1	1	4	5	5	1	5	6	
	Hypoxia-Anoxia	6	4	7	6	10	8	8	16	
	Cerebral Tumour	0	1	0	1	1	0	0	0	
	Other	4	1	2	2	1	3	1	2	
	<b>Total</b>	<b>40</b>	<b>47</b>	<b>42</b>	<b>45</b>	<b>50</b>	<b>45</b>	<b>55</b>	<b>67</b>	
<b>Tasmania</b>	CVA	2	4	0	1	1	5	1	2	
	Trauma (road)	0	1	1	0	0	0	0	2	
	Trauma (non-road)	1	1	1	0	1	0	0	1	
	Hypoxia-Anoxia	0	0	0	1	0	3	0	3	
	<b>Total</b>	<b>3</b>	<b>6</b>	<b>2</b>	<b>2</b>	<b>2</b>	<b>8</b>	<b>1</b>	<b>8</b>	
<b>South Australia</b>	CVA	12	13	11	17	11	19	17	19	
	Trauma (road)	7	8	4	3	5	3	3	3	
	Trauma (non-road)	2	1	2	3	2	1	3	8	
	Hypoxia-Anoxia	4	9	5	16	2	11	4	9	
	Cerebral Tumour	0	0	0	0	0	1	0	1	
	Other	0	0	0	0	0	1	0	3	
	<b>Total</b>	<b>25</b>	<b>31</b>	<b>22</b>	<b>39</b>	<b>20</b>	<b>36</b>	<b>27</b>	<b>43</b>	
<b>Northern Territory</b>	CVA	1	1	1	1	2	2	2	2	
	Trauma (road)	1	0	0	0	2	0	0	1	
	Trauma (non-road)	0	1	0	0	0	0	1	0	
	<b>Total</b>	<b>2</b>	<b>2</b>	<b>1</b>	<b>1</b>	<b>4</b>	<b>2</b>	<b>3</b>	<b>3</b>	
<b>Western Australia</b>	CVA	6	4	7	11	16	13	8	14	
	Trauma (road)	5	6	4	5	6	3	2	6	
	Trauma (non-road)	1	3	6	3	4	3	5	4	
	Hypoxia-Anoxia	1	1	1	3	0	1	4	3	
	Cerebral Tumour	0	0	0	1	2	1	0	0	
	Other	0	1	0	0	2	0	0	1	
	<b>Total</b>	<b>13</b>	<b>15</b>	<b>18</b>	<b>23</b>	<b>30</b>	<b>21</b>	<b>19</b>	<b>28</b>	
<b>New Zealand</b>	CVA	22	21	20	20	17	14	24	22	
	Trauma (road)	9	8	9	7	3	8	7	2	
	Trauma (non-road)	4	5	7	7	3	1	3	3	
	Hypoxia-Anoxia	0	4	2	5	0	2	2	4	
	Cerebral Tumour	0	0	2	0	1	0	0	0	
	Other	2	0	0	1	5	0	2	0	
	<b>Total</b>	<b>37</b>	<b>38</b>	<b>40</b>	<b>40</b>	<b>29</b>	<b>25</b>	<b>38</b>	<b>31</b>	

Please refer to Appendix I (pages 8-12) and Appendix II (pages 4 and 5) for further details of causes of donor death

**Figure 21**

<b>Occupation of Donors 2003 - 2008</b>												
	<b>Australia</b>						<b>New Zealand</b>					
	2003	2004	2005	2006	2007	2008	2003	2004	2005	2006	2007	2008
Blue collar	40	48	41	49	34	53	4	1	1	4	2	1
Home duties	7	15	17	16	14	13	0	1	0	2	1	2
Disability	3	8	10	5	5	8	2	0	1	1	0	3
Management	1	5	0	3	4	6	0	1	0	0	1	1
Other	0	2	2	2	1	1	1	0	0	0	0	0
Pre-school	2	1	7	0	2	1	0	1	0	0	0	0
Primary industry	2	6	2	2	3	6	3	2	0	0	3	1
Professional	11	16	15	15	13	20	1	3	5	1	4	1
Retired	22	25	18	20	24	29	1	4	0	2	1	0
Small business owner	3	1	1	2	4	5	2	1	1	1	0	0
Student	20	19	16	23	19	15	5	4	3	3	3	4
Tradesperson	17	20	8	6	16	19	3	2	0	1	2	1
Unemployed	6	6	6	5	18	17	0	0	0	0	1	0
Unknown	27	13	34	28	20	32	16	20	15	9	16	13
White collar	18	13	27	26	21	34	2	0	3	1	4	4
<b>Total</b>	<b>179</b>	<b>218</b>	<b>204</b>	<b>202</b>	<b>198</b>	<b>259</b>	<b>40</b>	<b>40</b>	<b>29</b>	<b>25</b>	<b>38</b>	<b>31</b>

**Figure 22**

<b>Ethnic Origin of Donors 2003 - 2008</b>												
	<b>Australia</b>						<b>New Zealand</b>					
	2003	2004	2005	2006	2007	2008	2003	2004	2005	2006	2007	2008
Aboriginal	1	2	1	2	1	4	0	0	0	0	0	0
Afrikaans	1	0	0	0	0	0	0	0	0	0	0	0
Arab	0	0	0	0	0	1	0	0	0	0	0	0
Cambodian	0	0	0	0	0	1	0	0	0	0	0	0
Caucasoid	169	208	192	187	190	234	39	35	24	17	37	27
Greek	(0)	(2)	(1)	(1)	(1)	(0)	0	0	0	0	0	0
Italian	(4)	(0)	(1)	(1)	(1)	(0)	0	0	0	0	0	0
Chinese	0	2	2	2	1	3	0	0	0	0	0	0
Columbian	1	0	0	0	0	0	0	0	0	0	0	0
Eurasian	1	0	0	0	0	0	0	0	0	0	0	0
Filipino	0	1	0	1	0	3	0	1	0	0	0	0
Indian	1	2	3	2	0	2	0	0	1	1	0	0
Japanese	0	0	0	1	0	0	0	0	0	0	0	0
Korean	0	0	0	0	1	1	0	0	2	0	1	0
Malay	0	0	0	3	0	4	0	0	1	0	0	0
Maori	3	0	0	0	1	0	0	3	0	7	0	3
Mauritian	0	0	1	1	0	0	0	0	0	0	0	0
Nigerian	0	0	0	0	1	0	0	0	0	0	0	0
Pacific People	1	0	1	0	2	0	1	1	0	0	0	1
Papua New Guinea	0	0	0	0	0	1	0	0	0	0	0	0
Peruvian	0	0	0	0	1	0	0	0	0	0	0	0
Sri Lankan	0	1	2	0	0	1	0	0	0	0	0	0
Thai	0	0	0	1	0	0	0	0	0	0	0	0
Unknown	0	0	0	1	0	0	0	0	1	0	0	0
Vietnamese	1	2	2	1	0	4	0	0	0	0	0	0
<b>Total</b>	<b>179</b>	<b>218</b>	<b>204</b>	<b>202</b>	<b>198</b>	<b>259</b>	<b>40</b>	<b>40</b>	<b>29</b>	<b>25</b>	<b>38</b>	<b>31</b>

**Figure 23**

<b>Religious Denomination of Donors 2003 - 2008</b>												
	<b>Australia</b>						<b>New Zealand</b>					
	2003	2004	2005	2006	2007	2008	2003	2004	2005	2006	2007	2008
Bahai	0	0	0	0	0	0	0	1	0	0	0	0
Buddhist	1	0	3	1	0	3	0	0	0	0	0	0
Christian	75	92	72	92	59	47	3	7	6	2	3	3
Jehovah's Witness	0	2	0	0	0	0	0	0	0	0	0	0
Jewish	0	1	0	0	0	0	0	0	0	0	0	0
Hindu	0	3	3	2	0	2	0	0	1	1	0	0
Muslim	2	0	0	0	0	0	0	0	0	0	0	0
No religion	20	16	37	28	21	17	0	0	0	0	0	0
Sikh	0	0	0	0	0	1	0	0	0	0	0	0
Unknown	81	104	89	79	118	189	37	32	22	22	35	28
<b>Total</b>	<b>179</b>	<b>218</b>	<b>204</b>	<b>202</b>	<b>198</b>	<b>259</b>	<b>40</b>	<b>40</b>	<b>29</b>	<b>25</b>	<b>38</b>	<b>31</b>

## INTENDED DONORS

An intended donor is a person for whom consent has been given or volunteered, but for various reasons the donor does not proceed to the operating theatre.

(These numbers are **not** included in the donor numbers in Figure 1).

**Figure 24**

Intended Donors 2003 - 2008										
	QLD	NSW	ACT	VIC	TAS	SA	NT	WA	AUST	NZ
2003	0	2	0	3	0	0	0	1	<b>6</b>	<b>0</b>
2004	3	6	0	4	0	1	0	0	<b>14</b>	<b>0</b>
2005	3	2	0	0	1	1	0	0	<b>7</b>	<b>0</b>
2006	1	6	0	2	0	2	0	1	<b>12</b>	<b>0</b>
2007	0	6	1	5	0	3	0	0	<b>15</b>	<b>0</b>
2008	4	9	2	2	0	2	0	0	<b>19</b>	<b>1</b>

**Figure 25**

Reasons Why Donation Did Not Proceed 2003 - 2008	
Year	Australia
<b>2003</b>	Cardiac Arrest (2) Coronial refusal Hepatitis B surface antigen and core antibody positive Hepatitis C antibody positive - No suitable recipients High risk behaviour
<b>2004</b>	Cardiac arrest Coronial refusal Deterioration of renal function and unstable donor Family refusal prior to donation Hepatitis B surface antigen and core antibody positive Hepatitis C antibody positive (2) High risk behaviour (2) Past history of malignancy (2) Suspected malignancy (2)
<b>2005</b>	DCD potential donors - did not proceed to cardiac standstill (2) Disease of organs and infection Family refusal prior to donation Parainfluenza3 virus Past history of malignancy
<b>2006</b>	DCD potential donors - did not proceed to cardiac standstill (4) Disease of organs and infection (3) Past history of malignancy (2) Consent withdrawn Hepatitis B surface antigen and core antibody positive
<b>2007</b>	DCD potential donors - did not proceed to cardiac standstill (3) DCD - Lung protocol only. Lungs medically unsuitable (3) DCD - Past history of malignancy DCD - Medically unsuitable Coronial refusal <b>Found to have refused on driver's licence</b> Hepatitis C positive - no suitable recipients High risk behaviour Organs medically unsuitable Past history of malignancy
<b>2008</b>	Authority not obtained Consent withdrawn DCD potential donors - did not proceed to cardiac standstill (10) DCD - Infection Disease of organs - No suitable recipient High risk behaviour (2) Hepatitis C positive - Medically unsuitable Positive serology (2) <b>New Zealand</b> No suitable recipients (AB blood group) (1)

## DONATION AFTER CARDIAC DEATH DONORS

### Australia

The majority of organs are donated by heart-beating brain dead patients.

After a heart-beating donor is certified brain dead, they remain on the ventilator and the removal of organs may occur many hours later.

Donation after cardiac death (DCD) donors are defined as patients who are certified dead using the criterion of irreversible cessation of circulation.

As soon as cardiac death is confirmed the retrieval procedure is commenced in order to minimize warm ischaemic time.

In 2005 there was an increase in the number of DCD donors to nine. Eight of these donations occurred in New South Wales.

In 2006 there were a further eight DCD donors; four in New South Wales, three in South Australia and one in Victoria. The first multiorgan DCD was performed in South Australia in 2006.

In 2007 there were 19 DCD donors; eight in New South Wales, nine in Victoria and two in South Australia.

Six of these DCD donors had two or more organs retrieved and transplanted (two kidneys=one organ).

In 2008 there were 23 DCD donors; ten in New South Wales, five in Queensland, three each in South Australia and Victoria and two in the Australian Capital Territory (ACT). Nine donors had two or more organs retrieved and transplanted, a further twelve donors had two kidneys and one donor had a single kidney transplanted.

Only one of the 23 donors in 2008 did not have any organs transplanted or sent to the Tissue Bank due to Hepatitis C infection and disease of the liver and pancreas.

Causes of death in 2008 were CVA (12), road trauma (4) and hypoxia-anoxia (7). Mean age was 42 years and age range 14 years to 65 years.

The total since 1989 is 89 donors for Australia and four donors for New Zealand, as shown in Figure 26.

The number and type of organs transplanted or sent to the Tissue Bank from 1989-2008 is shown for each State in Figure 27 and for Australia in Figure 28.

There were eleven intended DCD donors during 2008; ten did not proceed to cardiac standstill and one had an infection.

### New Zealand

There were two DCD donors in New Zealand in 2008. Two kidneys were transplanted from each donor.

**Figure 26**

Donation after Cardiac Death Donors 1989 - 2008										
	QLD	NSW	ACT	VIC	TAS	SA	NT	WA	Aust	NZ
1989	0	0	0	1	0	1	0	0	2	-
1990	0	2	0	0	0	1	0	0	3	-
1991	0	2	0	0	0	0	0	0	2	-
1992	0	1	0	0	0	0	0	0	1	-
1993	0	0	0	0	0	0	0	0	0	0
1994	0	0	0	0	0	1	0	0	1	1
1995	0	3	0	1	0	0	0	0	4	0
1996	1	1	0	0	0	0	0	0	2	0
1997	0	2	0	0	0	1	0	0	3	1
1998	0	0	0	0	0	2	0	0	2	0
1999	1	0	0	0	0	0	0	0	1	0
2000	0	0	0	0	0	0	1	0	1	0
2001	0	1	0	1	0	0	0	0	2	0
2002	0	0	0	0	0	1	1	0	2	0
2003	0	1	0	0	0	0	0	0	1	0
2004	0	2	0	0	0	0	0	1	3	0
2005	0	8	0	0	0	1	0	0	9	0
2006	0	4	0	1	0	3	0	0	8	0
2007	0	8	0	9	0	2	0	0	19	0
2008	5	10	2	3	0	3	0	0	23	2
<b>Total</b>	<b>7</b>	<b>45</b>	<b>2</b>	<b>16</b>	<b>0</b>	<b>16</b>	<b>2</b>	<b>1</b>	<b>89</b>	<b>4</b>

**Figure 27**

<b>Donation After Cardiac Death Donors 1989 - 2008 Organs Transplanted or Sent to Tissue Bank in Australia</b>																					
<b>Donor State</b>	<b>89</b>	<b>90</b>	<b>91</b>	<b>92</b>	<b>93</b>	<b>94</b>	<b>95</b>	<b>96</b>	<b>97</b>	<b>98</b>	<b>99</b>	<b>00</b>	<b>01</b>	<b>02</b>	<b>03</b>	<b>04</b>	<b>05</b>	<b>06</b>	<b>07</b>	<b>08</b>	<b>Total</b>
<b>Queensland</b>																					
Kidneys	0	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	0	0	10	14
Cornea	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	2
Bone	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2
Heart Valves	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	3	5
<b>Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>5</b>	<b>0</b>	<b>0</b>	<b>3</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>15</b>	<b>23</b>
<b>New South Wales</b>																					
Kidneys	0	4	3	2	0	0	5	2	4	0	0	0	0	0	2	4	16	8	13	18	81
Liver	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	2	3
Lungs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	4	6
Cornea	0	2	0	0	0	0	0	2	0	0	0	0	2	0	0	4	10	2	8	8	38
Bone	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
Heart Valves	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	5	3	3	6	19
<b>Total</b>	<b>0</b>	<b>6</b>	<b>3</b>	<b>2</b>	<b>0</b>	<b>0</b>	<b>5</b>	<b>5</b>	<b>5</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>2</b>	<b>0</b>	<b>2</b>	<b>8</b>	<b>31</b>	<b>13</b>	<b>27</b>	<b>39</b>	<b>148</b>
<b>ACT</b>																					
Kidneys	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	4
Lungs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2
Cornea	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2
Heart Valves	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2
<b>Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>10</b>	<b>10</b>
<b>Victoria</b>																					
Kidneys	2	0	0	0	0	0	2	0	0	0	0	0	1	0	0	0	0	0	12	6	23
Liver	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	2	3
Lungs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	5	1	7
Pancreas	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1
Cornea	2	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	2	10	4	20
Bone	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	2
Heart Valves	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	4	1	6
Tissue	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	2
<b>Total</b>	<b>4</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>2</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>4</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>3</b>	<b>35</b>	<b>16</b>	<b>64</b>
<b>South Australia</b>																					
Kidneys	2	0	0	0	0	0	0	0	1	4	0	0	0	2	0	0	2	4	2	5	22
Liver	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	2
Lungs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	2
Cornea	2	2	0	0	0	2	0	0	2	0	0	0	2	0	0	0	2	0	0	0	12
Bone	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0	3
Heart Valves	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	2
<b>Total</b>	<b>5</b>	<b>3</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>3</b>	<b>0</b>	<b>0</b>	<b>3</b>	<b>4</b>	<b>0</b>	<b>0</b>	<b>4</b>	<b>0</b>	<b>0</b>	<b>2</b>	<b>9</b>	<b>5</b>	<b>5</b>	<b>43</b>	
<b>Northern Territory</b>																					
Kidneys	0	0	0	0	0	0	0	0	0	0	0	2	0	2	0	0	0	0	0	0	4
<b>Western Australia</b>																					
Kidneys	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	2
<b>Australian Total</b>	<b>9</b>	<b>9</b>	<b>3</b>	<b>2</b>	<b>0</b>	<b>3</b>	<b>7</b>	<b>10</b>	<b>8</b>	<b>4</b>	<b>3</b>	<b>2</b>	<b>6</b>	<b>6</b>	<b>2</b>	<b>10</b>	<b>33</b>	<b>25</b>	<b>67</b>	<b>85</b>	<b>294</b>

**Figure 28**

<b>Donation after Cardiac Death Donors 1989 - 2008 Organs Transplanted or Sent to Tissue Bank in Australia</b>																					
<b>Organs</b>	<b>89</b>	<b>90</b>	<b>91</b>	<b>92</b>	<b>93</b>	<b>94</b>	<b>95</b>	<b>96</b>	<b>97</b>	<b>98</b>	<b>99</b>	<b>00</b>	<b>01</b>	<b>02</b>	<b>03</b>	<b>04</b>	<b>05</b>	<b>06</b>	<b>07</b>	<b>08</b>	<b>Total</b>
Kidneys	4	4	3	2	0	0	7	4	5	4	2	2	1	4	2	6	18	12	27	43	150
Liver	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	3	4	8
Lungs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	8	7	17
Pancreas	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
Cornea	4	4	0	0	0	2	0	4	2	0	0	0	4	2	0	4	10	6	18	14	74
Bone	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	1	4	8
Heart Valves	0	1	0	0	0	0	0	2	1	0	1	0	1	0	0	0	5	3	8	12	34
Tissue	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	2
<b>Total</b>	<b>9</b>	<b>9</b>	<b>3</b>	<b>2</b>	<b>0</b>	<b>3</b>	<b>7</b>	<b>10</b>	<b>8</b>	<b>4</b>	<b>3</b>	<b>2</b>	<b>6</b>	<b>6</b>	<b>2</b>	<b>10</b>	<b>33</b>	<b>25</b>	<b>67</b>	<b>85</b>	<b>294</b>

## CARDIOPULMONARY RESUSCITATION

Cardiopulmonary resuscitation is recorded for events leading up to the admission and hospital stay for the patient, prior to organ donation (Figures 29 and 30).

**Figure 29**

Cardiopulmonary Resuscitation 2003 - 2008												
	Australia						New Zealand					
	2003	2004	2005	2006	2007	2008	2003	2004	2005	2006	2007	2008
Yes	39	65	47	51	60	83	6	12	6	8	6	11
No	140	153	157	151	137	176	34	28	23	17	32	19
Unknown	0	0	0	0	1	0	0	0	0	0	0	1
<b>Total</b>	<b>179</b>	<b>218</b>	<b>204</b>	<b>202</b>	<b>198</b>	<b>259</b>	<b>40</b>	<b>40</b>	<b>29</b>	<b>25</b>	<b>38</b>	<b>31</b>

**Figure 30**

Australian States Cardiopulmonary Resuscitation 2008 (2007)								
	QLD	NSW	ACT	VIC	TAS	SA	NT	WA
Yes	11 (16)	22 (14)	3 (0)	24 (13)	3 (1)	15 (9)	0 (2)	5 (5)
No	37 (23)	35 (38)	2 (1)	43 (42)	5 (0)	28 (18)	3 (1)	23 (14)
<b>Total</b>	<b>48 (39)</b>	<b>57 (53)</b>	<b>5 (1)</b>	<b>67 (55)</b>	<b>8 (1)</b>	<b>43 (27)</b>	<b>3 (3)</b>	<b>28 (19)</b>

## DONOR WEIGHT

The allocation of heart, lungs and livers are based on the matching of recipient and donor size and weight.

In 2008 there were six donors in Australia and no donors in New Zealand who weighed less than 40 kilograms (Figure 31).

**Figure 31**

Donor Weight 2003 - 2008												
		Kilograms										Total
		0-19	20-29	30-39	40-49	50-59	60-69	70-79	80-89	90-99	100 +	
Australia	2003	2	2	2	7	12	27	43	46	23	15	<b>179</b>
	2004	1	1	3	1	21	34	59	41	32	24	<b>217</b>
	2005	6	3	2	5	16	35	50	45	23	19	<b>204</b>
	2006	1	4	4	5	10	43	41	50	26	18	<b>202</b>
	2007	3	0	1	3	14	29	46	47	34	21	<b>198</b>
	2008	1	1	4	3	18	33	63	71	30	35	<b>259</b>
New Zealand	2003	0	0	0	2	5	4	7	14	6	2	<b>40</b>
	2004	1	0	0	1	1	12	8	12	3	2	<b>40</b>
	2005	0	0	0	1	0	8	10	4	1	4	<b>28</b>
	2006	0	1	0	0	2	5	6	4	4	3	<b>25</b>
	2007	0	0	1	0	2	8	12	8	5	2	<b>38</b>
	2008	0	0	0	2	2	4	11	6	4	2	<b>31</b>



## VIROLOGY SCREENING

**Figure 32**

<b>Cytomegalovirus (CMV) Status of Donors 2003 - 2008</b>												
	<b>Australia</b>						<b>New Zealand</b>					
	<b>2003</b>	<b>2004</b>	<b>2005</b>	<b>2006</b>	<b>2007</b>	<b>2008</b>	<b>2003</b>	<b>2004</b>	<b>2005</b>	<b>2006</b>	<b>2007</b>	<b>2008</b>
Positive	111	151	152	137	105	167	26	26	16	15	24	15
Negative	68	66	52	65	93	92	14	14	13	10	14	16
Not done	0	1	0	0	0	0	0	0	0	0	0	0
<b>Total</b>	<b>179</b>	<b>218</b>	<b>204</b>	<b>202</b>	<b>198</b>	<b>259</b>	<b>40</b>	<b>40</b>	<b>29</b>	<b>25</b>	<b>38</b>	<b>31</b>

**Figure 33**

<b>Epstein-Barr Virus (EBV) Status of Donors 2003 - 2008</b>												
	<b>Australia</b>						<b>New Zealand</b>					
	<b>2003</b>	<b>2004</b>	<b>2005</b>	<b>2006</b>	<b>2007</b>	<b>2008</b>	<b>2003</b>	<b>2004</b>	<b>2005</b>	<b>2006</b>	<b>2007</b>	<b>2008</b>
Positive	96	128	118	123	132	177	24	19	19	24	33	28
Negative	21	20	21	26	12	20	9	3	2	1	5	3
Not done	62	70	65	53	54	62	7	18	8	0	0	0
<b>Total</b>	<b>179</b>	<b>218</b>	<b>204</b>	<b>202</b>	<b>198</b>	<b>259</b>	<b>40</b>	<b>40</b>	<b>29</b>	<b>25</b>	<b>38</b>	<b>31</b>

Not all Australian States require organ donors to be tested for EBV

**Figure 34**

<b>Hepatitis C Antibody Status of Donors 2003 - 2008</b>												
	<b>Australia</b>						<b>New Zealand</b>					
	<b>2003</b>	<b>2004</b>	<b>2005</b>	<b>2006</b>	<b>2007</b>	<b>2008</b>	<b>2003</b>	<b>2004</b>	<b>2005</b>	<b>2006</b>	<b>2007</b>	<b>2008</b>
Positive	2	3	4	1	4	5	0	0	2	1	1	1
Negative	177	214	200	201	194	254	40	40	27	24	37	30
Not done	0	1	0	0	0	0	0	0	0	0	0	0
<b>Total</b>	<b>179</b>	<b>218</b>	<b>204</b>	<b>202</b>	<b>198</b>	<b>259</b>	<b>40</b>	<b>40</b>	<b>29</b>	<b>25</b>	<b>38</b>	<b>31</b>

### HEPATITIS C ANTIBODY

There were five positive Hepatitis C donors in Australia and one in New Zealand in 2008.

From the five donors, three donated livers and one other, a single kidney. Another, who was a DCD donor, was found to have a liver not suitable for transplantation. One liver and one single kidney donor were also Hepatitis Core Antibody positive.

Two kidneys, a liver, a heart and double lungs were transplanted from a New Zealand donor who was also Hepatitis B Core Antibody positive.

**Figure 35**

<b>Hepatitis B Core Antibody Status of Donors 2003 - 2008</b>												
	<b>Australia</b>						<b>New Zealand</b>					
	<b>2003</b>	<b>2004</b>	<b>2005</b>	<b>2006</b>	<b>2007</b>	<b>2008</b>	<b>2003</b>	<b>2004</b>	<b>2005</b>	<b>2006</b>	<b>2007</b>	<b>2008</b>
Negative	173	207	193	191	191	243	36	37	27	21	33	29
Positive	6	10	11	11	7	16	3	3	2	4	5	2
Not Done	0	1	0	0	0	0	1	0	0	0	0	0
<b>Total</b>	<b>179</b>	<b>218</b>	<b>204</b>	<b>202</b>	<b>198</b>	<b>259</b>	<b>40</b>	<b>40</b>	<b>29</b>	<b>25</b>	<b>38</b>	<b>31</b>

### **HEPATITIS B CORE ANTIBODY**

The Registry commenced collection of Hepatitis B core antibody results in 1998.

A positive result was recorded for 6% (16) of Australian donors and 6% (2) of New Zealand donors in 2008.

From the 16 Australian donors there were 23 kidneys, nine livers, three double lungs and four corneas transplanted.

Two of the 16 were DCD donors (four kidneys). One donor had no organs retrieved due to disease of the liver and pancreas and also social risk factors.

From the two New Zealand donors, four kidneys, one liver, one heart, one double lung and two cornea were transplanted or sent to the Tissue Bank.

### **HEPATITIS B SURFACE ANTIGEN**

Since 1993, all donors in Australia and New Zealand have been negative for Hepatitis B surface antigen, excepting one donor in 2004 who was not tested as their condition deteriorated in theatre and no organs were retrieved.

## MEDICAL CONDITION OF DONORS

### DIABETES

There were five Type 1 and 14 Type 2 diabetic donors in Australia in 2008. There were no Type 1 and one Type 2 diabetic donors in New Zealand.

The five diabetic Type 1 donors provided ten kidneys, five livers, two hearts, three double lungs, four cornea and one set of heart valves, while the 14 Type 2 diabetic donors provided 21 kidneys, nine livers, two double lungs, twelve cornea and three sets of heart valves.

The one diabetic Type 2 donor in New Zealand provided a liver, two cornea and one set of heart valves.

### HYPERTENSION

A past history of hypertension was recorded in 22% (58 donors) in Australia and 19% (six donors) in New Zealand in 2008 (Figure 36).

These donors provided Australia with 85 kidneys, 36 livers, nine hearts, twelve double lungs, two single lungs, two pancreas islets, 52 corneas and ten sets of heart valves for transplantation.

In New Zealand, eight kidneys, three livers, three hearts, two double lungs, eight cornea and one set of heart valves were transplanted.

### SMOKING

In 2008, 44% (115) Australian donors were recorded as current smokers and 20% (53 donors) as former smokers, while in New Zealand, 26% (eight donors) were reported as current and 16% (five donors) as former.

### CANCER IN DONOR

#### Australia (six donors)

- \* two melanomas - neck (1978) and chest (1997)
- \* one glioblastoma - brain (2008)
- \* one renal cell carcinoma - kidney (2008)
- \* one adenocarcinoma - prostate (2008)
- \* one unknown type - vocal chord (1981)

Six kidneys, four livers and six cornea were transplanted from these donors.

One donor was diagnosed at retrieval and no organs were transplanted.

#### New Zealand (one donor)

- \* SCC check mucosa - (2006)

Two kidneys, one liver, two cornea and one set of heart valves were transplanted from this donor.

Figure 36

		2003	2004	2005	2006	2007	2008
<b>Australia</b>	Diabetes Type 1	1 (<1%)	6 (3%)	1 (<1%)	7 (3%)	2 (1%)	5 (2%)
	Diabetes Type 2	4 (2%)	6 (3%)	13 (6%)	11 (5%)	12 (6%)	14 (5%)
	Hypertension	37 (21%)	50 (23%)	46 (23%)	44 (22%)	45 (23%)	58 (22%)
	Unknown	3 (2%)	7 (3%)	3 (1%)	2 (1%)	5 (3%)	3 (1%)
	<b>Smoking</b>						
	Current	82 (46%)	90 (41%)	67 (33%)	77 (38%)	77 (39%)	115 (44%)
	Former	29 (16%)	46 (21%)	34 (17%)	44 (22%)	39 (20%)	53 (20%)
	Unknown	1 (<1%)	2 (<1%)	0 (0%)	0 (0%)	1 (1%)	2 (1%)
	<b>Cancer</b>	9 (5%)	6 (3%)	7 (3%)	3 (1%)	3 (2%)	6 (2%)
	<b>Total Donors</b>	<b>(n=179)</b>	<b>(n=218)</b>	<b>(n=204)</b>	<b>(n=202)</b>	<b>(n=198)</b>	<b>(n=259)</b>
<b>New Zealand</b>	Diabetes Type 1	0 (0%)	0 (0%)	0 (0%)	1 (4%)	1 (3%)	0 (0%)
	Diabetes Type 2	0 (0%)	1 (2.5%)	2 (7%)	1 (4%)	1 (3%)	1 (3%)
	Hypertension	5 (12.5%)	9 (22.5%)	7 (24%)	5 (20%)	9 (24%)	6 (19%)
	<b>Smoking</b>						
	Current	17 (43%)	13 (32.5%)	9 (31%)	8 (32%)	14 (37%)	8 (26%)
	Former	2 (5%)	3 (7.5%)	5 (17%)	3 (12%)	5 (13%)	5 (16%)
	Unknown	0 (0%)	0 (0%)	1 (3%)	0 (0%)	0 (0%)	1 (3%)
	<b>Cancer</b>	2 (2%)	0 (0%)	1 (3%)	0 (0%)	1 (3%)	1 (3%)
	<b>Total Donors</b>	<b>(n=40)</b>	<b>(n=40)</b>	<b>(n=29)</b>	<b>(n=25)</b>	<b>(n=38)</b>	<b>(n=31)</b>

Figure 37

Medical Condition of Donors by Australian States 2008 (2007)								
	QLD	NSW	ACT	VIC	TAS	SA	NT	WA
Diabetes Type 1	1 (1)	0 (0)	0 (0)	2 (1)	0 (0)	2 (0)	0 (0)	0 (0)
Diabetes Type 2	2 (1)	3 (5)	0 (1)	4 (3)	0 (0)	3 (1)	0 (0)	2 (1)
Hypertension	7 (5)	13 (13)	1 (1)	15 (12)	2 (0)	12 (9)	1 (0)	7 (5)
Smoking - Current	25 (16)	19 (16)	2 (0)	33 (23)	4 (0)	20 (12)	1 (2)	11 (8)
Cancer	0 (0)	1 (1)	0 (0)	1 (1)	0 (0)	2 (1)	0 (0)	2 (0)

**Figure 38**

<b>Expanded* Criteria for Kidney Donors 2008 (2007) States, Australia and New Zealand</b>										
<b>Donor Type</b>	<b>QLD</b>	<b>NSW</b>	<b>ACT</b>	<b>VIC</b>	<b>TAS</b>	<b>SA</b>	<b>NT</b>	<b>WA</b>	<b>AUST</b>	<b>NZ</b>
Expanded	5 (4)	18 (17)	0 (1)	19 (12)	2 (0)	17 (11)	2 (1)	11 (5)	74 (51)	4 (9)
Non Expanded	43 (34)	38 (36)	5 (0)	48 (42)	6 (1)	25 (16)	1 (2)	16 (12)	182 (143)	27 (29)
<b>Total</b>	<b>48 (38)</b>	<b>56 (53)</b>	<b>5 (1)</b>	<b>67 (54)</b>	<b>8 (1)</b>	<b>42 (27)</b>	<b>3 (3)</b>	<b>27 (17)</b>	<b>256 (194)</b>	<b>31 (38)</b>

\*An expanded criteria kidney donor as defined in American Journal of Transplantation 2003; 3 (Suppl. 4): 114-125  
i.e. any donor aged  $\geq 60$  years, or any donor aged 50-59, with two of the following three criteria:  
CVA death, or terminal creatinine  $>133$ , or hypertension

## DONOR INTENTION

Figures 39 and 40 show whether the donor had recorded an intention to donate through a signed driver's licence. In 2008, 26% (67) Australian donors and 2% (two) New Zealand organ donors had a signed driver's licence. Figure 41 shows the number of donors enrolled in the Australian Organ Donation Registry, which commenced in 2000.

**Figure 39**

<b>Driver's Licence Intention Status 2004 - 2008</b>										
<b>Intention</b>	<b>Australia</b>					<b>New Zealand</b>				
	<b>2004</b>	<b>2005</b>	<b>2006</b>	<b>2007</b>	<b>2008</b>	<b>2004</b>	<b>2005</b>	<b>2006</b>	<b>2007</b>	<b>2008</b>
Yes	53 (24%)	48 (24%)	57 (28%)	68 (34%)	67 (26%)	10 (25%)	4 (14%)	5 (20%)	13 (34%)	2 (6%)
No	36	31	23	50	55	0	1	0	0	1
Age / Not Applicable	24	35	38	35	56	6	1	1	2	2
Unknown	105	90	84	45	81	24	23	19	23	26
<b>Total</b>	<b>218</b>	<b>204</b>	<b>202</b>	<b>198</b>	<b>259</b>	<b>40</b>	<b>29</b>	<b>25</b>	<b>38</b>	<b>31</b>

**Figure 40**

<b>Australian States 2008 (2007) Driver's Licence Intention Status</b>									
<b>Intention</b>	<b>QLD</b>	<b>NSW</b>	<b>ACT</b>	<b>VIC</b>	<b>TAS</b>	<b>SA</b>	<b>NT</b>	<b>WA</b>	
Yes	8 (13)	37 (35)	0 (0)	7 (4)	0 (1)	13 (14)	0 (0)	2 (1)	
No	7 (6)	8 (13)	2 (0)	9 (16)	0 (0)	25 (7)	0 (0)	4 (8)	
Age / Not Applicable	18 (15)	10 (4)	2 (0)	3 (6)	3 (0)	3 (0)	1 (1)	16 (9)	
Unknown	15 (5)	2 (1)	1 (1)	48 (29)	5 (0)	2 (6)	2 (2)	6 (1)	
<b>Total</b>	<b>48 (39)</b>	<b>57 (53)</b>	<b>5 (1)</b>	<b>67 (55)</b>	<b>8 (1)</b>	<b>43 (27)</b>	<b>3 (3)</b>	<b>28 (19)</b>	

**Figure 41**

<b>Donors Enrolled in the Australian Organ Donor Registry 2008 (2007)</b>									
	<b>QLD</b>	<b>NSW</b>	<b>ACT</b>	<b>VIC</b>	<b>TAS</b>	<b>SA</b>	<b>NT</b>	<b>WA</b>	<b>AUST</b>
Yes	11 (14)	22 (25)	0 (0)	12 (10)	1 (0)	13 (9)	2 (1)	13 (6)	<b>74 (65)</b>
Not Registered	30 (18)	30 (24)	4 (1)	53 (44)	6 (1)	28 (6)	0 (1)	14 (12)	<b>165 (107)</b>
Not Accessed	4 (1)	0 (1)	0 (0)	1 (0)	0 (0)	1 (12)	0 (1)	0 (0)	<b>6 (15)</b>
Not Applicable	3 (6)	5 (3)	1 (0)	1 (1)	1 (0)	1 (0)	1 (0)	1 (1)	<b>14 (11)</b>
<b>Total</b>	<b>48 (39)</b>	<b>57 (53)</b>	<b>5 (1)</b>	<b>67 (55)</b>	<b>8 (1)</b>	<b>43 (27)</b>	<b>3 (3)</b>	<b>28 (19)</b>	<b>259 (198)</b>

## AUTHORITY SOUGHT FOR ORGAN DONATION

The predominant group requesting authority for organ donation in 2008 were the Intensive Care Clinicians and Registrars, (63%) in Australia and (61%) in New Zealand shown in Figure 42.

In Australia authority for organ donation was sought by donor coordinators only 2%, similar to 2007 (Figure 42). See Figure 41 for individual State and Territory statistics.

Authority for organ donation was not sought by donor coordinators in New Zealand.

In 2008, 32% of families volunteered authority for organ donation in Australia, compared to 37% in 2007 (Figure 42).

In New Zealand, 26% volunteered authority in 2008 compared to 5% in 2007.

**Figure 42**

Authority to Donate 2004 - 2008										
	Australia					New Zealand				
	2004	2005	2006	2007	2008	2004	2005	2006	2007	2008
ICU Clinician	121	101	117	107	152	29	23	16	33	19
ICU Registrar	7	7	14	11	10	2	1	2	2	0
Emergency Consultant/Registrar	2	1	4	1	6	0	0	0	0	0
Other Physicians/Anaesthetist	0	2	4	2	1	0	1	1	1	2
Donor Coordinator	45	25	17	4	4	0	0	0	0	0
Volunteered by Family	43	66	45	73	84	8	4	6	2	8
Nursing Staff	0	2	1	0	0	1	0	0	0	2
Accident and Emergency Staff	0	0	0	0	2	0	0	0	0	0
<b>Total</b>	<b>218</b>	<b>204</b>	<b>202</b>	<b>198</b>	<b>259</b>	<b>40</b>	<b>29</b>	<b>25</b>	<b>38</b>	<b>31</b>

**Figure 43**

Authority to Donate 2008 (2007)								
	QLD	NSW	ACT	VIC	TAS	SA	NT	WA
ICU Clinician	14 (21)	44 (32)	4 (1)	31 (17)	6 (1)	36 (23)	2 (1)	15 (11)
ICU Registrar	0 (0)	0 (2)	0 (0)	5 (3)	0 (0)	3 (2)	0 (0)	2 (4)
Donor Coordinator	4 (4)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
Volunteered by Family	28 (14)	12 (19)	1 (0)	27 (32)	1 (0)	3 (2)	1 (2)	11 (4)
Emergency/Other Physician	0 (0)	1 (0)	0 (0)	4 (3)	1 (0)	1 (0)	0 (0)	0 (0)
Accident and Emergency Staff	2 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
<b>Total</b>	<b>48 (39)</b>	<b>57 (53)</b>	<b>5 (1)</b>	<b>67 (55)</b>	<b>8 (1)</b>	<b>43 (27)</b>	<b>3 (3)</b>	<b>28 (19)</b>

## DIRECT CONTACT WITH DONOR COORDINATOR

There were two families (1%) in Australia with whom the Donor Coordinator had no contact, compared to eight families (26%) in New Zealand in 2008.

**Figure 44**

Direct Contact with Donor Coordinator 2008										
	QLD	NSW	ACT	VIC	TAS	SA	NT	WA	AUST	NZ
Face to Face	45 (94%)	54 (95%)	5 (100%)	63 (94%)	5 (63%)	41 (95%)	2 (67%)	27 (96%)	<b>242 (93%)</b>	<b>21 (68%)</b>
Telephone	3 (6%)	1 (2%)	0 (0%)	4 (6%)	3 (37%)	2 (5%)	1 (33%)	1 (4%)	<b>15 (6%)</b>	<b>2 (6%)</b>
None	0 (0%)	2 (3%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)	<b>2 (1%)</b>	<b>8 (26%)</b>
<b>Total</b>	<b>48</b>	<b>57</b>	<b>5</b>	<b>67</b>	<b>8</b>	<b>43</b>	<b>3</b>	<b>28</b>	<b>259</b>	<b>31</b>

## CORONER'S CASES

In Australia, 46% of donors in 2008 were subject to Coronerial inquiry, compared to 48% in 2007. In New Zealand it was 39% for 2008, compared to 32% in 2007 and 60% in 2006.

**Figure 45**

Coroner's Cases 2003 - 2008												
	Australia						New Zealand					
	2003	2004	2005	2006	2007	2008	2003	2004	2005	2006	2007	2008
Yes	88	108	97	80	96	120	22	17	9	15	12	12
No	91	110	107	122	102	139	18	23	20	10	26	19
<b>Total</b>	<b>179</b>	<b>218</b>	<b>204</b>	<b>202</b>	<b>198</b>	<b>259</b>	<b>40</b>	<b>40</b>	<b>29</b>	<b>25</b>	<b>38</b>	<b>31</b>

**Figure 46**

Australian States Coroner's Cases 2008 (2007)									
	QLD	NSW	ACT	VIC	TAS	SA	NT	WA	
Yes	28 (19)	21 (23)	3 (1)	29 (30)	3 (0)	20 (12)	1 (1)	15 (10)	
No	20 (20)	36 (30)	2 (0)	38 (25)	5 (1)	23 (15)	2 (2)	13 (9)	
<b>Total</b>	<b>48 (39)</b>	<b>57 (53)</b>	<b>5 (1)</b>	<b>67 (55)</b>	<b>8 (1)</b>	<b>43 (27)</b>	<b>3 (3)</b>	<b>28 (19)</b>	

## SUMMARY - ORGANS REQUESTED, CONSENT GIVEN, RETRIEVED AND TRANSPLANTED

The information relating to the request for organ donation refers only to those patients who become organ donors. If consent was sought and refused, the Registry has no record of these potential donors.

The difference between a request and a consent is a known objection by the donor or family refusal for the specific organ.

Reasons for not requesting organs, not retrieving and not transplanting are documented for all of the specific organs.

For further details see Appendix I for Australia and Appendix II for New Zealand.

Figure 47 shows the outcome of organs requested in 2008 (2007).

**Figure 47**

Outcome Following Request for Organ Donation 2008 (2007)							
		Kidneys	Liver	Heart	Lungs	Pancreas	Stomach/Intestines
<b>Australia</b>	Requested	512 (384)	246 (188)	213 (161)	442 (316)	229 (167)	45 (12)
	Consent Given	510 (384)	244 (186)	204 (148)	434 (294)	225 (158)	35 (11)
	Retrieved	477 (358)	187 (140)	91 (75)	222 (154)	107 (96)	0 (0)
	Recipients Transplanted	459 (342)	195 (147)	85 (62)	218 (150)	+43 (+33)	0 (0)
<b>New Zealand</b>	Requested	62 (74)	29 (38)	29 (33)	52 (64)	22 (26)	0 (0)
	Consent Given	62 (74)	29 (38)	29 (33)	52 (64)	22 (26)	0 (0)
	Retrieved	59 (68)	23 (32)	10 (12)	28 (26)	4 (1)	0 (0)
	Recipients Transplanted	53 (65)	24 (34)	10 (12)	28 (26)	4 (1)	0 (0)
<b>Kidneys and lungs are counted as separate organs</b>							
+ Includes (5) 2007 and (11) 2008 pancreas islet transplants							