

2004

SUMMARY - AUSTRALIA

1. In 2004 there were: 218 donors (10.8 donors per million population [dpmp]) with 408 kidneys (including one en bloc and two double adult), (405 recipients), 164 livers (177 recipients), 78 hearts (including six heart/lungs), 185 lungs (81 double, six heart/lungs and eleven single lungs), 28 pancreas and three pancreas islets transplanted into recipients. In addition there were 194 corneas, 36 heart valves and 16 bone donations which were sent to the tissue bank.
2. The highest donor rate was in South Australia (25 dpmp), followed by the Australian Capital Territory (ACT) and Western Australia (12 dpmp), New South Wales and Queensland (10 dpmp), Victoria (9 dpmp), the Northern Territory (5 dpmp) and Tasmania (4 dpmp).
3. The mean age of donors was 43.2 years, median 46.6 years with an age range of 1.12 - 80.5 years.
4. The major cause of death was cerebrovascular accident (CVA) in 53%. Road trauma caused 15% of all donor deaths.
5. Fifty three percent of donors with a known occupation were classified as student, white and blue collar, tradesperson and professional worker. An additional 11% were retired and 15% unknown. The majority of donors were Caucasoid and their religion was recorded as Christian.
6. Authority for organ donation was sought in 59% of cases by the Intensive Care Unit Clinician, the Donor Coordinator in 21% and volunteered by the family in 20% of cases.
Coronial inquiries were required in 50% of all donors.
7. The donation of more than one organ occurred in 85% of donors. The average number of organs transplanted from each donor was 3.6.
8. The consent rates for specific organs were: kidneys 97%, livers 99.5%, hearts 92%, lungs 96% and pancreas 98%.
9. In 2004, from donors where organs had been retrieved, 98.5% of kidneys, 96% of livers, 93% of hearts, 100% of lungs and 47% of pancreas (28 pancreas and three pancreas islets) were actually transplanted.
10. Seven livers were sent from Australia to New Zealand in 2004.

SUMMARY - NEW ZEALAND

1. In 2004 there were: 40 donors (9.8 dpmp), which resulted in 62 kidneys (including four double adult), (58 recipients), 35 livers (36 recipients), six hearts, 22 lungs (10 double and two single lungs) and two pancreas being transplanted into recipients. In addition 32 corneas and 21 heart valves were sent to the tissue bank. There were no bone donations.
2. The mean age of donors was 43.0 years and median 46.1 years, with an age range of 1.15 - 78.2 years.
3. The major cause of death was cerebrovascular accident (CVA) in 50% of donors, followed by road trauma and non road trauma, both 17.5%.
4. Thirty eight percent of donors with a known occupation were classified as students, blue collar workers, tradespersons, management, small business owners and primary industry workers. Four donors (10%) were retired. Twenty donors (50%) were unknown. The majority of donors were Caucasoid. The religion was unknown for 80% of donors.
5. Authority for organ donation was sought in 78% of cases by the Intensive Care Clinician and volunteered by the family in eight (20%) of cases.
Coronial inquiries were required in 43% of all donors.
6. The donation of more than one organ occurred in 87% of donors. The average number of organs transplanted per donor was 2.8.
7. The consent rate for specific organs were 100% of kidneys, 100% livers, 100% hearts, 100% lungs and 100% pancreas.
8. In 2004, from donors where organs had been retrieved, 95% of kidneys, 100% of livers, 86% of hearts, 100% of lungs and 100% of pancreas were actually transplanted.
9. New Zealand has provided 17 kidneys, 195 livers, 19 hearts and 60 lungs to the Australian Transplant Programmes since 1989.
10. Seven livers, two hearts, four lungs and one kidney were sent from New Zealand to Australia in 2004.

ORGAN DONORS IN AUSTRALIA AND NEW ZEALAND

Figure 1

Number of Donors 2000 - 2004 **					
	2000	2001	2002	2003	2004
Queensland	37 (10)	48 (13)	44 (12)	40 (11)	39 (10)
New South Wales + *	55 (9+) (8*)	47 (7+) (7*)	55 (9+) (8*)	46 (7+) (7*)	63 (10+) (9*)
ACT + *	5 (10+) (16*)	7 (14+) (22*)	6 (12+) (19*)	8 (15+) (25*)	6 (12+) (19*)
Victoria	44 (9)	40 (8)	47 (10)	42 (9)	45 (9)
Tasmania	1 (2)	3 (6)	6 (13)	2 (4)	2 (4)
South Australia	30 (20)	25 (17)	31 (20)	22 (14)	39 (25)
Northern Territory	2 (10)	2 (10)	2 (10)	1 (5)	1 (5)
Western Australia	22 (12)	13 (7)	15 (8)	18 (9)	23 (12)
Australia	196 (10)	185 (10)	206 (10)	179 (9)	218 (11)
New Zealand	41 (11)	37 (10)	38 (10)	40 (10)	40 (10)

() Donors Per Million of Population

+ NSW population excludes residents of the NSW Southern Area Health Service (included in ACT population)

* NSW population includes residents of the NSW Southern Area Health Service (excluded from ACT population)

Medical services in the ACT service the NSW Southern Area Health Region

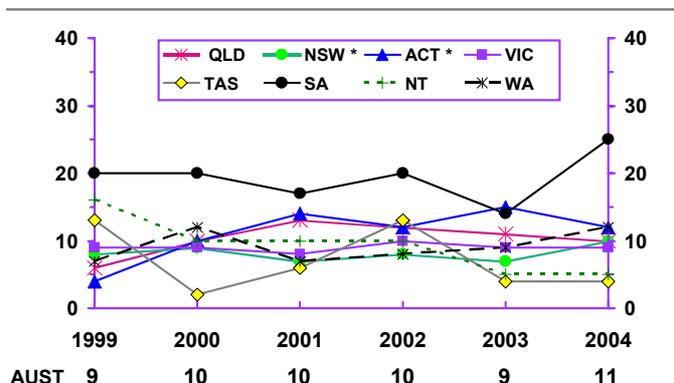
Population data - June 2004 ABS 3101.0

Refer to Appendix for the number of donors by State and Hospital and population

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

Figure 2

Number of Donors in Australia 1999 - 2004 Per Million Population



* NSW population excludes residents of the NSW Southern Area Health Service
 * ACT population includes residents of the NSW Southern Area Health Service

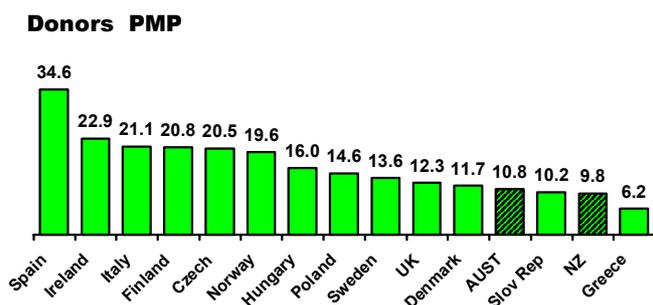
Donor figures for 2004 include three donors who went to the operating theatre but organs were not retrieved.

One New South Wales donor had positive serology and the liver was found to be diseased, one South Australian donor had an intra-abdominal infection and one Western Australian donor's organs were medically unsuitable on biopsy.

In 2004 there was a range between the States of four donors per million population (dpmp) in Tasmania to 25 dpmp in South Australia.

Figure 3

International Donor Statistics 2004



Sources: http://www.scandiaintransplant.org/tx_newsletter2004.htm
<http://www.msc.es/profesional/trasplantes/estadisticas/>
<http://tpm.org/registry/>

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.

DONORS PER THOUSAND DEATHS

Historically the comparison of organ donation rates between states and countries has been based upon donors per million population (dmpm).

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 (fig 4 and 5).

Australian data on deaths for 2004 is not available until August of 2005. New Zealand 2004 data was also not available.

Figure 4

Donors per Million Population and Donors per Thousand Deaths () Australian States - Australia and New Zealand 1998 - 2003														
Year	QLD	NSW *	ACT *	VIC	TAS	SA	NT	WA	AUST	NZ				
1998	12 (1.8)	10 (1.4)	4 (1.6)	9 (1.2)	0 (0.0)	24 (3.0)	16 (3.6)	7 (1.2)	10 (1.5)	12 (1.8)				
1999	6 (0.9)	8 (1.0)	4 (1.5)	9 (1.3)	13 (1.6)	20 (2.7)	16 (3.5)	7 (1.2)	9 (1.3)	10 (1.4)				
2000	10 (1.7)	8 (1.2)	16 (3.9)	9 (1.4)	2 (0.3)	20 (2.5)	10 (2.2)	12 (2.1)	10 (1.5)	11 (1.5)				
2001	13 (2.1)	7 (1.1)	22 (4.9)	8 (1.2)	6 (0.8)	17 (2.1)	10 (2.3)	7 (1.2)	10 (1.4)	10 (1.3)				
2002	12 (1.9)	8 (1.2)	19 (4.6)	10 (1.4)	13 (1.5)	20 (2.7)	10 (2.4)	8 (1.3)	10 (1.6)	10 (1.3)				
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)	9 (1.3)	10 (1.4)				

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

The number of actual donors is compared to the number of deaths that are aged less than 65 years (fig 5). The age of less than 65 years was selected as being representative of the majority of the potential donor pool.

Figure 5

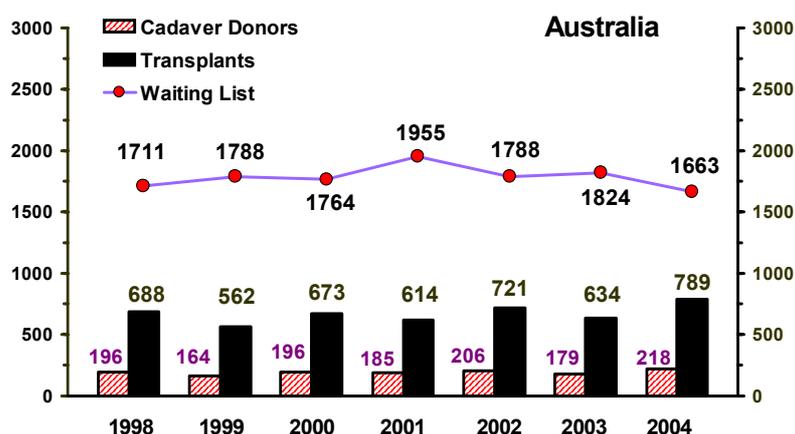
Donors per Thousand Deaths Aged less than 65 years 1998 - 2003 () represents % of total deaths aged less than 65 years										
Year	QLD	NSW	ACT	VIC	TAS	SA	NT	WA	AUST	NZ
1998	7.3 (25%)	6.5 (22%)	5.5 (22%)	6.1 (21%)	0.0 (21%)	15.2 (20%)	5.2 (67%)	4.9 (25%)	6.9 (22%)	7.2 (24%)
1999	3.7 (24%)	4.9 (22%)	5.5 (27%)	5.7 (22%)	7.6 (21%)	13.9 (19%)	5.8 (62%)	4.9 (25%)	5.7 (23%)	6.0 (23%)
2000	7.1 (23%)	5.6 (21%)	15.1 (26%)	6.8 (20%)	1.3 (21%)	13.1 (19%)	3.4 (65%)	8.4 (25%)	7.1 (22%)	6.6 (22%)
2001	8.7 (24%)	5.1 (21%)	17.2 (29%)	6.3 (20%)	3.8 (21%)	11.4 (19%)	3.7 (62%)	5.0 (24%)	6.7 (22%)	5.9 (22%)
2002	8.3 (22%)	5.5 (20%)	20.9 (22%)	7.2 (19%)	7.8 (20%)	14.1 (18%)	3.8 (63%)	5.7 (22%)	7.4 (20%)	6.0 (22%)
2003	6.7 (23%)	4.5 (20%)	14.5 (25%)	5.6 (19%)	2.4 (20%)	7.6 (19%)	1.7 (63%)	6.9 (23%)	5.7 (21%)	5.9 (23%)

Figure 6

Number of Cadaveric Donors and Solid Organ Transplants and Patients on the Waiting List 1998 - 2004

Figure 6 shows the number of donors, transplants, and patients on the waiting list from 1998 to 2004.

Solid organ recipients transplanted in Australia from donors from Australia or New Zealand.



DONOR POSTCODES

The Registry commenced the collection of donor residential postcodes in 1998.

In the last four years (2001-2004) there have been ten donors from overseas. There was only one donor from overseas in 2004.

In 2004, Queensland had two donors from New South Wales; New South Wales had two from Victoria and one from overseas and Victoria had one from the Northern Territory.

DONOR PROFILE

Age and Gender Distribution

In Australia in 2004, 10% (22 donors) 65 years or older and 3% (six donors) were aged 75 years or older. The oldest donor was 80.5 years (fig 7).

The mean age for donors in Australia increased to 43.2 years in 2004 from 42.7 years in 2003. The mean age for Australian mainland States ranged from 34.6 years in Tasmania to 47.8 years in New South Wales. The Northern Territory had one donor aged 59.5 years (fig 8).

The median age for Australia increased from 45.5 years in 2003 to 46.6 years in 2004. The age range was between 13.5 months and 80.5 years.

In New Zealand in 2004 the mean age increased to 43 years from 38 years in 2003 and the median age to 46.1 years from 39.7 years previously. Four donors (10%) were aged 65 years or older. The age range was 13.8 months to 78.2 years.

The gender distribution by Australian States and New Zealand is shown in Figure 9.

Figures 10 and 11 show donors according to age and gender in Australia and New Zealand for the years 2002-2004.

Figure 7

Age of Male and Female Donors 1998 - 2004

	Year	Mean (years)			Median (years)			Range in Years
		All	Female	Male	All	Female	Male	
Aust.	1998	40.4	43.8	37.7	43.2	46.2	37.2	0.94 - 73.7
	1999	39.3	43.2	36.4	42.5	47.5	36.2	0.21 - 77.1
	2000	41.1	42.6	40.0	44.1	45.1	43.0	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	44.2	1.12 - 80.5
N.Z.	1998	38.0	45.0	34.5	35.9	50.1	32.5	2.8 - 69.7
	1999	42.7	45.5	39.3	49.0	50.4	40.3	3.1 - 73.2
	2000	39.7	38.3	40.9	42.7	42.7	43.9	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

Figure 8

Australian States Mean Age of Donors 1998 - 2004

	QLD	NSW	ACT	VIC	TAS	SA	NT	WA
1998	35.7	42.7	42.1	43.4	0	40.3	44.7	33.9
1999	40.0	42.4	49.9	40.1	35.8	35.4	24.3	36.5
2000	40.3	40.5	30.3	45.1	63.1	39.0	44.3	39.7
2001	40.3	40.8	35.1	41.4	30.8	43.0	33.4	31.5
2002	34.8	40.8	32.1	44.0	42.7	38.3	49.8	26.5
2003	40.7	42.7	50.2	46.0	14.1	43.1	56.9	38.3
2004	38.2	47.8	46.3	43.2	34.6	41.5	59.5	42.0

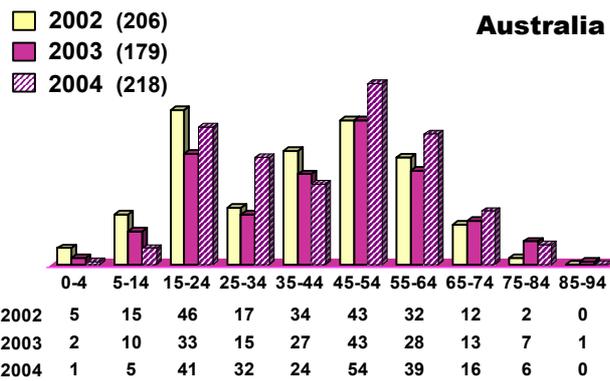
Figure 9

Gender of Donors 1989 - 2004

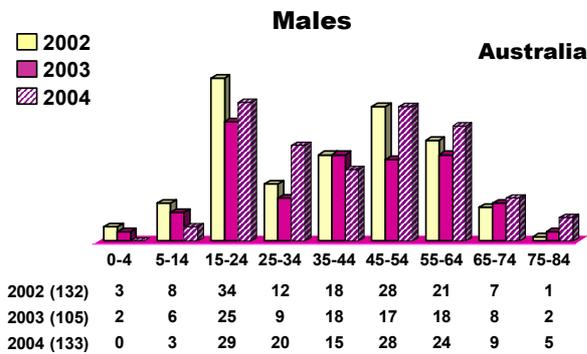
	Male	Female	Total
Queensland	417 (65%)	226 (35%)	643
New South Wales	596 (59%)	410 (41%)	1006
ACT	49 (67%)	24 (33%)	73
Victoria	402 (57%)	302 (43%)	704
Tasmania	37 (71%)	15 (29%)	52
South Australia	243 (59%)	169 (41%)	412
Northern Territory	26 (84%)	5 (16%)	31
Western Australia	147 (58%)	107 (42%)	254
Australia	1917 (60%)	1258 (40%)	3175
New Zealand 1993-2004	260 (56%)	203 (44%)	463

Figure 10

Age Group of Cadaver Donors



Age and Gender Distribution of Donors



Age and Gender Distribution of Donors

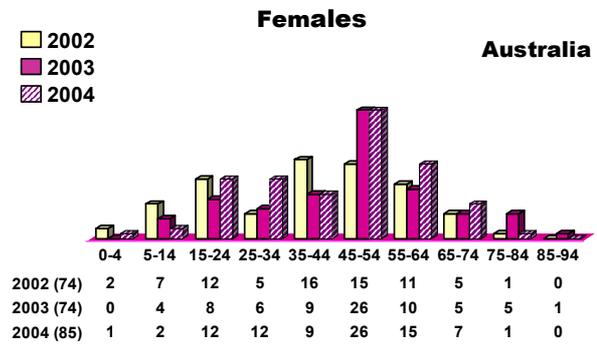
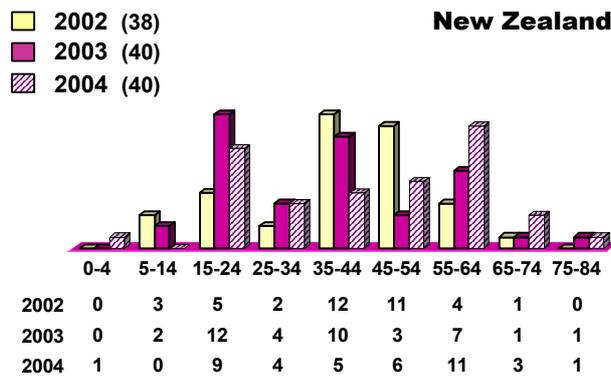
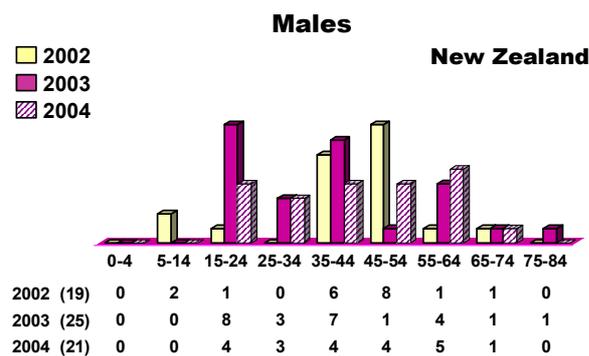


Figure 11

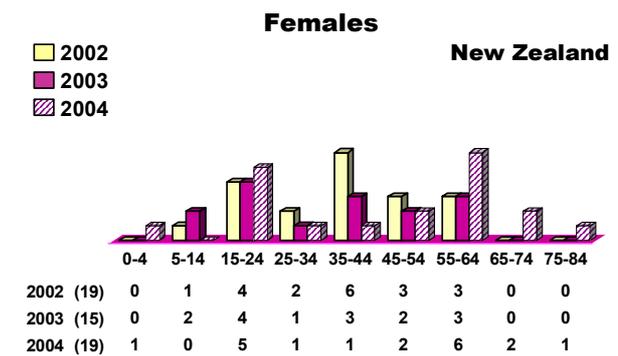
Age Group of Cadaver Donors



Age and Gender Distribution of Donors



Age and Gender Distribution of Donors



CAUSE OF DEATH - ALL DONORS

Figure 12

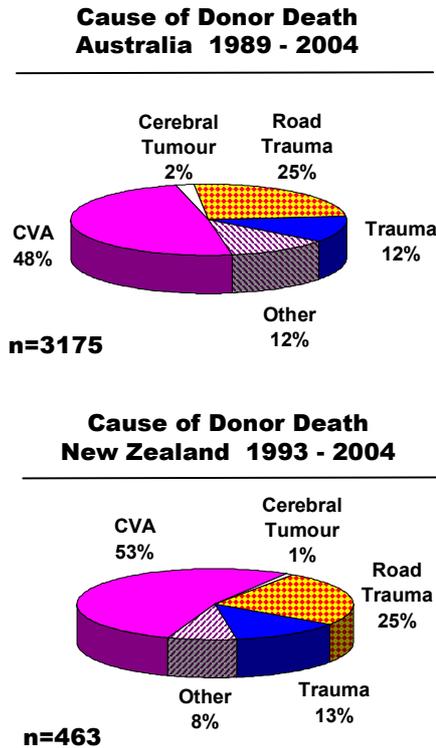


Figure 12 shows the cause of death for all organ donors in Australia since 1989 and for New Zealand since 1993.

The primary cause of death was cerebrovascular accident (CVA), (48% of all Australian donors and 53% of all New Zealand donors).

Figure 13 shows detailed cause of death by gender for 2004.

Figure 14 shows that CVA is the main cause of death in donors 55 years and older, 85% in Australia and 87% in New Zealand, whereas in the 15-34 year age group, trauma accounted for 51% of all deaths in Australia and 62% in New Zealand in 2004.

Figures 18-20 show the occupation, ethnic origin and religious denomination of donors in Australia and New Zealand for 2000-2004.

Figure 13

Cause of Donor Death 2004

Causes of Death	Australia			New Zealand			
	Male	Female	Total	Male	Female	Total	
CVA	Cerebral Infarct	6	5	11	1	0	1
	Intracranial Haemorrhage	36	22	58	3	2	5
	Subarachnoid Haemorrhage	23	23	46	5	9	14
Road Trauma	Cyclist	1	1	2	1	0	1
	Motor Bike Accident	8	2	10	1	0	1
	Motor Vehicle Accident	9	5	14	2	2	4
Other Trauma	Pedestrian	5	1	6	0	1	1
	Fall	7	5	12	5	0	5
	Felony / Crime - Assault	5	0	5	0	0	0
Other	Gunshot	5	0	5	1	0	1
	Other Trauma	3	0	3	1	0	1
	Asthma	0	3	3	0	0	0
	Brain Injury	0	1	1	0	0	0
	Carbon Monoxide	1	0	1	1	1	2
	Cardiac Arrest	10	6	16	0	2	2
	Drowning	2	1	3	0	1	1
	Epilepsy	1	0	1	0	0	0
	Hanging	6	1	7	0	0	0
	Hypovolaemia	0	1	1	0	0	0
	Overdose	0	2	2	0	0	0
	Respiratory Arrest	0	1	1	0	0	0
	Seizure	0	1	1	0	0	0
Smoke Inhalation	0	1	1	0	0	0	
Other	Astrocytoma (Malignant)	0	1	1	0	0	0
	Cerebral Oedema	4	0	4	0	0	0
	Gioblastoma (Malignant)	1	0	1	0	0	0
	Meningitis (diplococci)	0	1	1	0	0	0
	Meningitis (pneumococcal)	0	0	0	0	1	1
Oligodendroglioma (Malignant)	0	1	1	0	0	0	
Total	133	85	218	21	19	40	

Figure 14

Cause of Donor Death Related to Age Group 2004										
	Australia					New Zealand				
	Age Groups				Total	Age Groups				Total
	0-14	15-34	35-54	55 on		0-14	15-34	35-54	55 on	
CVA	1	12	50	52	115	0	2	5	13	20
Trauma (road)	2	24	5	1	32	0	7	0	0	7
Trauma (non-road)	1	13	7	4	25	0	1	4	2	7
Other	2	24	16	4	46	1	3	2	0	6
Total	6	73	78	61	218	1	13	11	15	40

Figure 15

Australian States Cause of Donor Death Related to Age Group 2004						
		Age Groups				Total
		0-14	15-34	35-54	55 on	
Queensland	CVA	0	2	10	6	18
	Trauma (road)	1	7	3	0	11
	Trauma (non-road)	1	4	1	1	7
	Other	0	3	0	0	3
	Total	2	16	14	7	39
NSW	CVA	0	1	17	19	37
	Trauma (road)	1	5	1	1	8
	Trauma (non-road)	0	3	2	0	5
	Other	1	5	4	3	13
	Total	2	14	24	23	63
ACT	CVA	0	0	2	1	3
	Trauma (road)	0	1	0	0	1
	Trauma (non-road)	0	0	2	0	2
	Other	0	0	0	0	0
	Total	0	1	4	1	6
Victoria	CVA	1	5	8	13	27
	Trauma (road)	0	4	0	0	4
	Trauma (non-road)	0	2	2	1	5
	Other	0	6	3	0	9
	Total	1	17	13	14	45
Tasmania	CVA	0	0	1	0	1
	Trauma (road)	0	0	0	0	0
	Trauma (non-road)	0	0	0	0	0
	Other	1	0	0	0	1
	Total	1	0	1	0	2
South Australia	CVA	0	4	7	6	17
	Trauma (road)	0	2	1	0	3
	Trauma (non-road)	0	3	0	0	3
	Other	0	7	8	1	16
	Total	0	16	16	7	39
Northern Territory	CVA	0	0	0	1	1
	Trauma (road)	0	0	0	0	0
	Trauma (non-road)	0	0	0	0	0
	Other	0	0	0	0	0
	Total	0	0	0	1	1
Western Australia	CVA	0	0	5	6	11
	Trauma (road)	0	5	0	0	5
	Trauma (non-road)	0	1	0	2	3
	Other	0	3	1	0	4
	Total	0	9	6	8	23

Figure 16

Cause of Donor Death 1989 - 2004

	QLD	NSW	ACT	VIC	TAS	SA	NT	WA	AUST	NZ *
CVA	43%	52%	48%	54%	48%	45%	29%	45%	49%	53%
Trauma (road)	30%	23%	19%	22%	25%	23%	36%	35%	25%	25%
Trauma (non-road)	16%	12%	16.5%	8%	19%	11%	19%	10%	12%	13%
Other	11%	13%	16.5%	16%	8%	21%	16%	10%	14%	9%

* N.Z. 1993 -2004

Figure 17

Cause of Donor Death 1998 - 2004

		1998	1999	2000	2001	2002	2003	2004
Queensland	CVA	20	12	17	25	21	19	18
	Trauma (road)	9	5	9	12	12	13	11
	Trauma (non-road)	5	1	5	6	6	6	7
	Other	6	2	6	5	5	2	3
	Total	40	20	37	48	44	40	39
NSW	CVA	32	25	27	24	31	24	37
	Trauma (road)	15	8	12	7	8	12	8
	Trauma (non-road)	8	9	9	3	6	4	5
	Other	8	6	7	13	10	6	13
	Total	63	48	55	47	55	46	63
ACT	CVA	2	1	2	3	3	4	3
	Trauma (road)	0	0	2	2	1	2	1
	Trauma (non-road)	0	1	1	0	0	1	2
	Other	0	0	0	2	2	1	0
	Total	2	2	5	7	6	8	6
Victoria	CVA	23	29	27	22	30	28	27
	Trauma (road)	6	7	8	7	10	1	4
	Trauma (non-road)	2	1	2	1	1	4	5
	Other	9	5	7	10	6	9	9
	Total	40	42	44	40	47	42	45
Tasmania	CVA	0	4	1	2	4	0	1
	Trauma (road)	0	2	0	0	1	1	0
	Trauma (non-road)	0	0	0	1	1	1	0
	Other	0	0	0	0	0	0	1
	Total	0	6	1	3	6	2	2
South Australia	CVA	17	13	14	12	13	11	17
	Trauma (road)	6	7	5	7	8	4	3
	Trauma (non-road)	2	3	4	2	1	2	3
	Other	10	7	7	4	9	5	16
	Total	35	30	30	25	31	22	39
Northern Territory	CVA	1	0	1	1	1	1	1
	Trauma (road)	0	2	1	1	0	0	0
	Trauma (non-road)	1	0	0	0	1	0	0
	Other	1	1	0	0	0	0	0
	Total	3	3	2	2	2	1	1
Western Australia	CVA	6	4	13	6	4	7	11
	Trauma (road)	5	6	4	5	6	4	5
	Trauma (non-road)	1	3	1	1	3	6	3
	Other	1	0	4	1	2	1	4
	Total	13	13	22	13	15	18	23
New Zealand	CVA	22	24	24	22	21	20	20
	Trauma (road)	11	8	6	9	8	9	7
	Trauma (non-road)	6	4	5	4	5	7	7
	Hypoxia-Anoxia	1	3	4	0	4	2	6
	Cerebral Tumour	2	0	0	0	0	2	0
	Other	4	0	2	2	0	0	0
	Total	46	39	41	37	38	40	40

Figure 18

Occupation of Donors 2000 - 2004

	Australia					New Zealand				
	2000	2001	2002	2003	2004	2000	2001	2002	2003	2004
Blue collar	39	38	35	40	48	3	1	4	4	1
Home duties	17	11	8	7	15	3	5	2	0	1
Invalid pensioner	4	6	9	3	8	0	0	3	2	0
Management	4	0	6	1	5	1	2	1	0	1
Other	2	3	3	0	2	0	0	0	1	0
Pre-school	4	0	5	2	1	0	0	0	0	1
Primary industry	7	3	3	2	6	3	2	1	3	2
Professional	9	9	18	11	16	0	4	4	1	3
Retired	23	16	17	22	25	2	0	1	1	4
Small business owner	2	1	2	3	1	1	0	0	2	1
Student	21	27	34	20	19	7	3	5	5	4
Tradesperson	8	13	17	17	20	2	0	3	3	2
Unemployed	6	11	7	6	6	1	0	1	0	0
Unknown	40	24	34	27	33	14	15	7	16	20
White collar	10	23	8	18	13	4	5	6	2	0
Total	196	185	206	179	218	41	37	38	40	40

Figure 19

Ethnic Origin of Donors 2000 - 2004

	Australia					New Zealand				
	2000	2001	2002	2003	2004	2000	2001	2002	2003	2004
Aboriginal	1	2	0	1	2	0	0	0	0	0
Afrikaans	0	0	0	1	0	0	0	0	0	0
Caucasoid	184	172	197	169	208	38	34	33	39	35
Greek	(0)	(1)	(4)	(0)	(2)	0	0	0	0	0
Italian	(3)	(0)	(1)	(4)	(0)	0	0	0	0	0
Chinese	2	2	2	0	2	0	2	0	0	0
Columbian	0	0	0	1	0	0	0	0	0	0
Eurasian	0	0	0	1	0	0	0	0	0	0
Filipino	2	1	1	0	1	0	0	0	0	1
Indian	2	2	2	1	2	0	0	1	0	0
Japanese	1	0	0	0	0	0	0	0	0	0
Korean	1	0	0	0	0	0	0	0	0	0
Malay	0	2	0	0	0	0	0	0	0	0
Maori	0	1	0	3	0	3	1	3	0	3
Mauritian	0	1	0	0	0	0	0	0	0	0
Pacific Islander	1	0	1	1	0	0	0	1	1	1
Sri Lankan	1	2	1	0	1	0	0	0	0	0
Vietnamese	1	0	2	1	2	0	0	0	0	0
Total	196	185	206	179	218	41	37	38	40	40

Figure 20

Religious Denomination of Donors 2000 - 2004

	Australia					New Zealand				
	2000	2001	2002	2003	2004	2000	2001	2002	2003	2004
Bahai	0	0	0	0	0	0	0	0	0	1
Buddhist	2	1	1	1	0	0	0	0	0	0
Christian	110	89	87	75	92	9	2	5	3	7
Jehovahs Witness	1	0	1	0	2	0	0	0	0	0
Jewish	0	0	0	0	1	0	0	0	0	0
Druid	0	0	1	0	0	0	0	0	0	0
Hindu	1	0	0	0	3	0	0	1	0	0
Muslim	0	0	0	2	0	0	0	0	0	0
Ratna	0	0	0	0	0	1	0	0	0	0
Shinto	1	0	0	0	0	0	0	0	0	0
No religion	20	20	24	20	16	2	4	0	0	0
Unknown	61	75	92	81	104	29	31	32	37	32
Total	196	185	206	179	218	41	37	38	40	40

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 21										
Intended Donors 1998 - 2004										
	QLD	NSW	ACT	VIC	TAS	SA	NT	WA	AUST	NZ
1998	0	3	0	0	0	2	0	0	5	2
1999	1	4	0	0	0	0	0	0	5	1
2000	0	1	0	0	0	0	1	0	2	1
2001	1	6	1	0	0	2	0	0	10	0
2002	0	3	0	1	0	3	0	1	8	0
2003	0	2	0	3	0	0	0	1	6	0
2004	3	6	0	4	0	1	0	0	14	0

Figure 22		
Reasons Why Donation Did Not Proceed 1998 - 2004		
Year	Australia	New Zealand
1998	Hepatitis C antibody positive (2) Hepatitis B surface antigen and core antibody positive History of melanoma Reassessment of medical history, then deemed medically unfit	Hepatitis C antibody positive Coroner withdrew permission
1999	Cardiac Arrest Hepatitis C antibody positive Hepatitis B surface antigen and core antibody positive Hepatitis B core antibody positive and other risk factors Infection detected in operating room	Permission withdrawn
2000	Late decline of offer by Transplant Unit Malignant cerebral tumour detected	Unstable donor
2001	Cardiac Arrest Hepatitis C antibody positive (3) HTLV1 positive Disease of organ Rapid rise in creatinine Coronial refusal Hepatitis B core antibody Later withdrawal by Transplant Unit	
2002	Hepatitis C antibody positive Coronial refusal (2) Cardiac arrest in operating theatre Potential non-heart beating donor - criteria not met Surgical team not available High risk behaviour - Hepatitis C antibody positive Risk factors Creutzfeldt-Jacob Disease	
2003	Cardiac Arrest Coronial refusal Hepatitis B surface antigen and core antibody positive Hepatitis C antibody positive - No suitable recipients High risk behaviour Hypotension and cardiac arrest	
2004	Cardiac standstill 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) Reassessment of medical history, then deemed medically unfit	

NON HEART-BEATING DONORS

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.

A non-heart-beating donor is defined as a patient who is 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 ischaemia time.

Figure 23

Non Heart-Beating Donors 1989 - 2004

	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	1
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	1	0	0	0	0	1	0	2	1
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	1	0	1	4	0
Total	2	15	0	3	0	8	2	1	31	3

CARDIOPULMONARY RESUSCITATION

Cardiopulmonary resuscitation is recorded for events leading up to the admission and hospital stay for the patient, prior to organ donation (fig 24 and 25).

Figure 24

Cardiopulmonary Resuscitation 2000 - 2004

	Australia					New Zealand				
	2000	2001	2002	2003	2004	2000	2001	2002	2003	2004
Yes	44	44	48	39	65	6	4	10	6	12
No	152	140	157	140	153	35	33	28	34	28
Unknown	0	1	1	0	0	0	0	0	0	0
Total	196	185	206	179	218	41	37	38	40	40

Figure 25

Australian States Cardiopulmonary Resuscitation 2004 (2003)

	QLD	NSW	ACT	VIC	TAS	SA	NT	WA
Yes	5 (5)	13 (14)	0 (3)	14 (9)	1 (0)	24 (7)	1 (0)	7 (1)
No	34 (35)	50 (32)	6 (5)	31 (33)	1 (2)	15 (15)	0 (1)	16 (17)
Total	39 (40)	63 (46)	6 (8)	45 (42)	2 (2)	39 (22)	1 (1)	23 (18)

VIROLOGY SCREENING

Figure 26

Cytomegalovirus (CMV) Status of Donors 2000 - 2004										
	Australia					New Zealand				
	2000	2001	2002	2003	2004	2000	2001	2002	2003	2004
Positive	128	132	131	111	151	24	19	18	26	26
Negative	68	53	75	68	66	17	18	20	14	14
Not done	0	0	0	0	1	0	0	0	0	0
Total	196	185	206	179	218	41	37	38	40	40

Figure 27

Epstein-Barr Virus (EBV) Status of Donors 2000 - 2004										
	Australia					New Zealand				
	2000	2001	2002	2003	2004	2000	2001	2002	2003	2004
Positive	50	61	94	96	122	2	0	5	24	19
Negative	16	21	31	21	19	2	1	0	9	3
Not done	130	103	94	62	77	37	36	33	7	18
Total	196	185	206	179	218	41	37	38	40	40

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

HEPATITIS B SURFACE ANTIGEN

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

HEPATITIS B CORE ANTIBODY

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

A positive result was recorded for 5% (10) of Australian donors and 8% (3) of New Zealand donors in 2004.

From the ten Australian donors there were eighteen kidneys, six livers, five hearts and three double lungs transplanted. One donor was found to have a diseased liver in theatre and no other organs were retrieved.

From the three New Zealand donors, four kidneys, two livers, one heart, two double lungs and one pancreas were transplanted.

HEPATITIS C ANTIBODY

There were three positive Hepatitis C donors in Australia in 2004 and none in New Zealand.

Four kidneys were transplanted from two of the donors, one which was also Hepatitis B core antibody positive. The third donor was also Hepatitis B core antibody positive and was found to have a diseased liver in theatre and no other organs were retrieved.

MEDICAL CONDITION OF DONORS

Information related to diabetes, hypertension and smoking has been collected since 1993. Cancer data collection commenced on 1st January 2002.

DIABETES

There were six Type 1 (insulin dependent) and six Type 2 diabetic donors in Australia in 2004. There was one Type 2 donor in New Zealand.

The six Type 1 diabetic donors provided eleven kidneys, two livers and four double lungs, while the Type 2 diabetic donors provided eleven kidneys and one liver.

The one Type 2 donor in New Zealand was found to have disease of the kidneys and liver at retrieval. Only the cornea were retrieved and stored.

HYPERTENSION

A past history of hypertension was recorded in 23% (50 donors) in Australia and 22.5% (9 donors) in New Zealand in 2004 (fig 28 and 29).

These donors provided Australia with 90 kidneys, 29 livers, four hearts, one heart/lung, twelve double and one single lung, two pancreas and two pancreas islets for transplantation.

In New Zealand, fourteen kidneys, six livers and three double lungs were transplanted.

SMOKING

In 2004, 41% (90) of Australian donors were recorded as current smokers and 21% (46) as former smokers, while in New Zealand, 32.5% (13) were reported as current and 7.5% (3) as former.

CANCER IN DONOR

Australia (six donors) New Zealand (none)

- * three brain tumours - (astrocytoma, glioblastoma and oligodendroglioma)
- * one phaeochromocytoma of the (L) adrenal
- * one unknown type of the cervix (diagnosed 1970)
- * one unknown type of the prostate (diagnosed 2002)

Nine kidneys, two livers, one heart, two double lungs and two pancreas were transplanted from these donors. Eight cornea and one heart valve were stored.

Figure 28

Donor Diabetes, Hypertension, Smoking and Cancer 2000 - 2004

		2000	2001	2002	2003	2004
Australia		(n=196)	(n=185)	(n=206)	(n=179)	(n=218)
	Diabetes Type 1	2 (1%)	4 (2%)	2 (1%)	1 (<1%)	6 (3%)
	Diabetes Type 2	3 (1.5%)	7 (4%)	5 (2%)	4 (2%)	6 (3%)
	Hypertension	42 (21%)	31 (17%)	28 (14%)	37 (21%)	50 (23%)
	Unknown	4 (2%)	5 (3%)	3 (1.5%)	3 (2%)	7 (3%)
	Smoking					
	Current	73 (37%)	71 (38%)	89 (43%)	82 (46%)	90 (41%)
	Former	26 (13%)	21 (11%)	30 (15%)	29 (16%)	46 (21%)
	Unknown	2 (1%)	3 (2%)	5 (2%)	1 (<1%)	2 (<1%)
	Cancer *			5 (2%)	9 (5%)	6 (3%)
New Zealand		(n=41)	(n=37)	(n=38)	(n=40)	(n=40)
	Diabetes Type 1	1 (2%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)
	Diabetes Type 2	0 (0%)	0 (0%)	0 (0%)	0 (0%)	1 (2.5%)
	Hypertension	3 (7%)	3 (8%)	6 (16%)	5 (12.5%)	9 (22.5%)
	Unknown	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)
	Smoking					
	Current	19 (46%)	10 (27%)	16 (42%)	17 (43%)	13 (32.5%)
	Former	2 (5%)	4 (11%)	2 (5%)	2 (5%)	3 (7.5%)
	Unknown	0 (0%)	1 (3%)	1 (3%)	0 (0%)	0 (0%)
	Cancer *			1 (3%)	2 (2%)	0 (0%)

* Cancer data collected from 1st January 2002

Figure 29

Medical Condition of Donors by Australian States 2004 (2003)

	QLD	NSW	ACT	VIC	TAS	SA	NT	WA
Diabetes Type 1	1 (1)	2 (0)	0 (0)	1 (0)	1 (0)	1 (0)	0 (0)	0 (0)
Diabetes Type 2	1 (0)	0 (2)	0 (0)	2 (0)	0 (0)	2 (1)	0 (0)	1 (1)
Hypertension	7 (3)	16 (11)	2 (3)	12 (10)	0 (0)	8 (4)	0 (0)	5 (6)
Smoking Current	12 (20)	34 (24)	3 (2)	18 (16)	0 (1)	15 (8)	1 (1)	7 (10)
Cancer *	1 (2)	2 (2)	0 (0)	2 (4)	0 (0)	0 (1)	0 (0)	1 (0)

* Cancer data collected from 1st January 2002

DONOR WEIGHT

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

In 2004 there were five donors in Australia and one donor in New Zealand who weighed less than 40 kilograms (fig 30).

Figure 30

Donor Weight 2000 - 2004												
	Years	Kilograms										Total
		0-19	20-29	30-39	40-49	50-59	60-69	70-79	80-89	90-99	100 +	
Australia	2000	3	4	2	6	23	34	51	41	22	10	196
	2001	0	5	3	6	18	27	47	43	27	9	185
	2002	5	3	4	4	17	40	51	41	28	13	206
	2003	2	2	2	7	12	27	43	46	23	15	179
	2004	1	1	3	1	21	34	59	41	32	24	217
New Zealand	2000	1	0	0	0	2	11	16	8	2	1	41
	2001	0	0	0	0	2	10	8	9	6	1	36
	2002	0	0	3	1	2	8	7	8	4	5	38
	2003	0	0	0	2	5	4	7	14	6	2	40
	2004	1	0	0	1	1	12	8	12	3	2	40

BLOOD GROUP OF DONORS

The distribution of blood groups in the general population

	Australia	New Zealand
O	49%	46%
A	39%	40%
B	9%	10%
AB	3%	4%

** Reference: Australian Red Cross and Auckland Regional Blood Centre

Figure 31

Blood Group of Donors 2000 - 2004						
		2000	2001	2002	2003	2004
Australia	O	90 (46%)	89 (48%)	99 (48%)	95 (53%)	98 (45%)
	A	89 (45%)	66 (36%)	85 (41%)	63 (35%)	86 (39%)
	B	12 (6%)	23 (12%)	18 (9%)	17 (9%)	23 (11%)
	AB	5 (3%)	7 (4%)	4 (2%)	4 (2%)	11 (5%)
	Total	196	185	206	179	218
New Zealand	O	19 (46%)	23 (62%)	14 (37%)	16 (40%)	15 (38%)
	A	20 (49%)	9 (24%)	21 (55%)	21 (53%)	15 (38%)
	B	2 (5%)	4 (11%)	3 (8%)	3 (7%)	9 (22%)
	AB	0 (0%)	1 (3%)	0 (0%)	0 (0%)	1 (2%)
	Total	41	37	38	40	40

DONOR INTENTION

Figures 32 and 33 show whether the donor had recorded an intention to donate through a signed driver's licence.

In 2004, 24% of Australian and 25% of New Zealand organ donors had a signed driver's licence, similar to 2003.

Figure 34 shows the number of donors enrolled on the Australian Organ Donation Register, which commenced in 2000.

Figure 32

Driver's Licence Status 2000 - 2004										
Intention Known	Australia					New Zealand				
	2000	2001	2002	2003	2004	2000	2001	2002	2003	2004
Yes	67 (34%)	48 (26%)	62 (30%)	42 (23%)	53 (24%)	9 (22%)	9 (24%)	10 (26%)	10 (25%)	10 (25%)
No	59	38	40	40	36	0	0	1	0	0
Student / Not Applicable	21	23	34	16	24	5	1	4	2	6
Unknown	49	76	70	81	105	27	27	23	28	24
Total	196	185	206	179	218	41	37	38	40	40

Figure 33

Australian States 2004 (2003) Driver's Licence Status								
Intention Known	QLD	NSW	ACT	VIC	TAS	SA	NT	WA
Yes	21 (23)	9 (10)	0 (0)	2 (1)	0 (0)	11 (6)	0 (0)	10 (2)
No	3 (3)	1 (2)	0 (0)	12 (20)	0 (0)	12 (6)	0 (0)	8 (8)
Student / Not Applicable	4 (1)	8 (2)	0 (2)	5 (5)	1 (1)	3 (3)	0 (0)	3 (2)
Unknown	11 (13)	45 (32)	6 (6)	26 (16)	1 (1)	13 (7)	1 (0)	2 (6)
Total	39 (40)	63 (46)	6 (8)	45 (42)	2 (2)	39 (22)	1 (1)	23 (18)

Figure 34

Donors for 2004 (2003) Enrolled in the Australian Organ Donor Registry									
	QLD	NSW	ACT	VIC	TAS	SA	NT	WA	AUST
Yes	6 (3)	1 (0)	0 (1)	7 (5)	1 (1)	7 (6)	0 (0)	12 (6)	34 (22)
Not Registered	17 (7)	2 (1)	0 (1)	38 (29)	1 (0)	12 (9)	0 (1)	11 (11)	81 (59)
Not Accessed	16 (30)	59 (45)	6 (6)	0 (8)	0 (1)	20 (7)	1 (0)	0 (1)	102 (98)
Not Applicable	0 (0)	1 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	1 (0)
Total	39 (40)	63 (46)	6 (8)	45 (42)	2 (2)	39 (22)	1 (1)	23 (18)	218 (179)

AUTHORITY SOUGHT FOR ORGAN DONATION

The predominant group in requesting authority for organ donation in 2004 were the Intensive Care Clinicians and Registrars, (59%) in Australia and (78%) New Zealand (fig 35).

In Australia authority for organ donation was sought by donor coordinators 21% of the time. See figure 35 for individual state and territory statistics.

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

In 2004, 20% of families volunteered authority for organ donation in Australia, compared to 12% in 2003 (fig 36).

Twenty percent volunteered authority in New Zealand in 2004 compared to 28% the previous year.

Figure 35

Authority to Donate 2000 - 2004										
	Australia					New Zealand				
	2000	2001	2002	2003	2004	2000	2001	2002	2003	2004
ICU Clinician/Registrar	120	112	123	106	128	35	31	25	26	31
Renal Physician/Registrar	0	0	0	0	0	1	2	0	0	0
Emergency Consultant/Registrar	0	1	3	0	2	0	0	0	0	0
Other Physicians/Anaesthetist	0	0	0	0	0	3	3	0	2	0
Donor Coordinator	34	24	50	48	45	0	0	0	0	0
Volunteered	39	45	28	22	43	2	0	9	11	8
Nursing Staff	3	2	2	2	0	0	1	4	1	1
Social Worker	0	0	0	1	0	0	0	0	0	0
Other	0	1	0	0	0	0	0	0	0	0
Total	196	185	206	179	218	41	37	38	40	40

Figure 36

Authority to Donate 2004 (2003)									
	QLD	NSW	ACT	VIC	TAS	SA	NT	WA	
ICU Clinician/Registrar	11 (18)	47 (34)	5 (7)	25 (16)	2 (2)	29 (18)	1 (1)	8 (10)	
Donor Coordinator	18 (15)	11 (9)	1 (0)	14 (23)	0 (0)	0 (0)	0 (0)	1 (1)	
Volunteered	10 (6)	4 (3)	0 (1)	5 (2)	0 (0)	10 (3)	0 (0)	14 (7)	
Nursing Staff	0 (1)	0 (0)	0 (0)	0 (1)	0 (0)	0 (0)	0 (0)	0 (0)	
Emergency Physician	0 (0)	1 (0)	0 (0)	1 (0)	0 (0)	0 (1)	0 (0)	0 (0)	
Total	39 (40)	63 (46)	6 (8)	45 (42)	2 (2)	39 (22)	1 (1)	23 (18)	

DIRECT CONTACT WITH DONOR COORDINATOR

There were four families (2%) in Australia with which the Donor Coordinator had no contact, compared to 22 families (55%) in New Zealand in 2004.

Figure 37

Direct Contact with Donor Coordinator 2004										
	QLD	NSW	ACT	VIC	TAS	SA	NT	WA	AUST	NZ
Face to Face	38 (97%)	58 (92%)	6 (100%)	38 (84%)	0 (0%)	35 (90%)	1 (100%)	23 (100%)	199 (91%)	18 (45%)
Telephone	1 (3%)	3 (5%)	0 (0%)	7 (6%)	2 (100%)	2 (5%)	0 (0%)	0 (0%)	15 (7%)	0 (0%)
None	0 (0%)	2 (3%)	0 (0%)	0 (0%)	0 (0%)	2 (5%)	0 (0%)	0 (0%)	4 (2%)	22 (55%)
Total	39	63	6	45	2	39	1	23	218	40

CORONER'S CASES

In Australia, 50% of donors in 2004 were subject to Coronerial inquiry, similar to 2003.

In New Zealand it was 43% for 2004, compared to 53% in 2003.

Figure 38

Coroner's Cases 2000 - 2004										
	Australia					New Zealand				
	2000	2001	2002	2003	2004	2000	2001	2002	2003	2004
Yes	93	87	93	88	108	13	17	18	22	17
No	103	98	113	91	110	28	20	20	18	23
Total	196	185	206	179	218	41	37	38	40	40

Figure 39

Australian States Coroner's Cases 2004 (2003)								
	QLD	NSW	ACT	VIC	TAS	SA	NT	WA
Yes	21 (22)	30 (26)	4 (5)	17 (12)	1 (2)	23 (10)	0 (0)	12 (11)
No	18 (18)	33 (20)	2 (3)	28 (30)	1 (0)	16 (12)	1 (1)	11 (7)
Total	39 (40)	63 (46)	6 (8)	45 (42)	2 (2)	39 (22)	1 (1)	23 (18)

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 40 shows the outcome of organs requested in 2004 (2003).

Figure 40

Outcome Following Request for Organ Donation 2004 (2003)						
		Kidneys	Liver	Heart	Lungs	Pancreas
Australia	Requested	428 (358)	209 (175)	177 (156)	362 (316)	171 (143)
	Consent Given	416 (356)	208 (171)	163 (151)	348 (306)	167 (134)
	Retrieved	414 (340)	171 (135)	84 (73)	185 (132)	66 (47)
	Recipients Transplanted	405 (325)	x 177 (136)	78 (68)	185 (129)	+ 31 (+31)
New Zealand	Requested	74 (78)	39 (39)	30 (35)	52 (64)	20 (33)
	Consent Given	74 (78)	39 (39)	30 (35)	52 (64)	20 (33)
	Retrieved	65 (74)	35 (34)	7 (25)	22 (37)	2 (6)
	Recipients Transplanted	58 (67)	36 (34)	6 (25)	22 (37)	2 (6)

Kidneys and lungs are counted as separate organs
 x Includes (1) 2004 Liver Cell Transplant
 + Includes (3) 2004 and (6) 2003, pancreas islet transplants

ORGANS REQUESTED

The requests for specific organs in Australia in 2004 from 218 organ donors were: kidneys 98%, liver 96%, heart 81%, lungs 83% and pancreas 78%.

From the 40 New Zealand donors in 2004, the requests for specific organs were: kidneys 93%, liver 98%, heart 75%, lungs 65% and pancreas 50%.

MULTIPLE ORGAN RETRIEVAL

There were 32 (15%) of the 215 donors who donated solid organs in 2004 in Australia, who had a single organ retrieved (fig 41). Kidney only donation occurred in 29 cases.

New Zealand had five single organ donors in 2004, two donating kidneys and three donating livers.

In Australia and New Zealand respectively, 84% and 87% of donors had two or more organs retrieved for the purposes of transplantation.

Three donors in both Australia and New Zealand went to theatre but no solid organs were retrieved.

Figure 41

Trend to Multiple Organ Retrieval 2000 - 2004

No. of Organs	Australia					New Zealand				
	2000	2001	2002	2003	2004	2000	2001	2002	2003	2004
Single	21%	19%	19%	18%	15%	7%	19%	13.5%	7%	13%
Two	29%	32%	24%	27%	27%	42%	31%	43%	28%	46%
Three	24%	21%	25%	20%	22%	34%	22%	30%	25%	30%
Four	20%	19%	24%	26%	23%	15%	25%	13.5%	35%	11%
Five	6%	9%	8%	9%	12%	2%	3%	0%	5%	0%

Figure 42

State by State Comparison of Multiple Organ Retrieval 2004

No. of Organs	QLD	NSW	ACT	VIC	TAS	SA	NT	WA	AUST	NZ
Single	4 (10%)	8 (13%)	0 (0%)	5 (11%)	0 (0%)	10 (26%)	0 (%)	5 (23%)	32 (15%)	5 (13%)
Two	11 (28%)	19 (31%)	3 (50%)	8 (18%)	0 (0%)	13 (34%)	1 (100%)	4 (18%)	59 (27%)	17 (46%)
Three	12 (31%)	10 (16%)	1 (17%)	11 (24%)	1 (50%)	6 (16%)	0 (%)	7 (32%)	48 (22%)	11 (30%)
Four	10 (26%)	14 (22%)	1 (17%)	13 (29%)	1 (50%)	5 (13%)	0 (%)	6 (27%)	50 (23%)	4 (11%)
Five	2 (5%)	11 (18%)	1 (17%)	8 (18%)	0 (0%)	4 (11%)	0 (%)	0 (0%)	26 (12%)	0 (0%)
Total	39	62	6	45	2	38	1	22	215	37

NB: 2 kidneys = 1 organ, 2 lungs = 1 organ

On occasions when only one kidney is retrieved, this is also defined as one organ.

ORGAN RECIPIENTS TRANSPLANTED

Australia had 3.6 and New Zealand 2.8 organ recipients per donor used for transplantation in 2004. The number of recipients transplanted is used for this calculation, rather than the number of organs.

The Australian Capital Territory (ACT) had the

highest number of organs transplanted, 4.0 per donor, followed by New South Wales 3.8, Queensland and Victoria 3.6, Tasmania 3.5, South Australia 3.3, the Northern Territory 3.0 and Western Australia 3.1.

These figures exclude tissue transplantation.

Figure 43										
Organ Recipients Transplanted per Donor 2004										
	QLD	NSW	ACT	VIC	TAS	SA	NT	WA	AUST	NZ
No. Organs Transplanted	142	243	24	162	7	129	3	73	783	114
No. of Donors	39	63	6	45	2	39	1	23	218	40
Average per Donor	3.6	3.8	4.0	3.6	3.5	3.3	3.0	3.1	3.6	2.8
Double lungs = 1 organ (1 recipient) Two kidneys = 2 organs										

Figure 44										
Organs Transplanted by Donor State in Australia and New Zealand 2004										
Organs Transplanted	QLD	NSW	ACT	VIC	TAS	SA	NT	WA	AUST	NZ
Kidney	74	120	12	80	3	75	2	39	405	58
Liver	29	39	3	33	1	26	1	16	148	33
Liver (Left)	1	10	1	2	0	0	0	1	15	2
Liver (Right)	0	10	1	2	0	0	0	0	13	1
Liver Cells	0	0	0	1	0	0	0	0	1	0
Heart	16	20	3	15	0	10	0	8	72	6
Heart/Lungs	2	3	0	0	0	1	0	0	6	0
Lungs	16	29	3	14	2	12	0	5	81	10
Lung (Left)	1	0	0	3	0	0	0	2	6	1
Lung (Right)	1	0	0	2	0	0	0	2	5	1
Pancreas	2	10	1	9	1	5	0	0	28	2
Pancreas Islets	0	2	0	1	0	0	0	0	3	0
Total	142	243	24	162	7	129	3	73	783	114

Figure 45							
Waiting List by Transplant Centres January 2005							
	QLD	NSW/ACT	VIC/TAS	SA/NT	WA	AUST	NZ x
Kidney +	110	701	404	60	124	1399	301
Liver	27	38	26	4	9	104	12
Heart	9	9	13	0	5	36	9
Heart/Lung	4	3	2	0	0	9	1
Lung	8	20	48	0	2	78	6
Pancreas	0	26	4	0	0	30	4
Pancreas Islets	0	7	0	0	0	7	0
Total	158	804	497	64	140	1663	33
+ Data from NOMS (National Organ Matching System) x Source of NZ data - NZ Donor Coordinators Non Renal Organ data confirmed with Transplant Centres, the Liver, Cardiothoracic and Pancreas Registries							