

EXCHANGE OF ORGANS

The number of organs that were sent and received between Australian States and New Zealand in 2004 and 2003 is shown in Figure 46.

A balance is maintained between Australian regions for the allocation of kidneys. For this purpose Victoria/Tasmania, South Australia/Northern Territory

and New South Wales/Australian Capital Territory (ACT) are considered Regions.

This is achieved by the National Organ Matching System (NOMS) in which all Australian States participate. There is no monitoring of State balance for the allocation of other organs.

Figure 46

Exchange of Organs Between States and New Zealand 2004 (2003)									
	Exchange	Kidneys	Liver +	Heart	Heart/ Lung *	Lungs *	Pancreas	Islets	Total
Queensland	Sent	8 (11)	5 (12)	8 (7)	0 (2)	12 (22)	2 (5)	0 (0)	35 (59)
	Received	7 (7)	7 (8)	6 (4)	1 (0)	20 (5)	0 (0)	0 (0)	41 (24)
New South Wales	Sent	13 (12)	4 (4)	4 (2)	0 (0)	12 (4)	1 (0)	0 (0)	34 (22)
	Received	36 (36)	22 (14)	12 (6)	0 (1)	16 (29)	11 (7)	1 (2)	98 (95)
ACT	Sent	12 (16)	5 (3)	3 (2)	0 (1)	6 (4)	1 (1)	0 (1)	27 (28)
Victoria	Sent	10 (8)	9 (8)	2 (0)	0 (0)	0 (2)	3 (1)	1 (0)	25 (19)
	Received	15 (13)	11 (9)	12 (12)	0 (2)	41 (38)	2 (1)	0 (0)	81 (75)
Tasmania	Sent	3 (3)	1 (2)	0 (2)	0 (0)	4 (2)	1 (1)	0 (0)	9 (10)
South Australia	Sent	17 (6)	14 (8)	10 (6)	1 (0)	26 (12)	5 (0)	0 (1)	73 (33)
	Received	11 (10)	3 (3)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	14 (13)
Northern Territory	Sent	2 (2)	1 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	3 (2)
Western Australia	Sent	6 (10)	6 (4)	2 (2)	0 (0)	13 (13)	0 (0)	0 (0)	27 (29)
	Received	3 (2)	2 (4)	1 (2)	0 (0)	0 (0)	0 (0)	0 (0)	6 (8)
New Zealand	Sent	1 (0)	7 (5)	2 (3)	0 (0)	4 (13)	0 (0)	0 (0)	14 (21)
	Received	0 (0)	7 (8)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	7 (8)
+ Number of recipients of livers *Total number of lungs (not recipients) and includes two lungs from Heart/Lung transplants									

Figure 47

Summary of Organs Transplanted in Australia from New Zealand Donors 1989 - 2004					
Year	Kidneys	Liver +	Heart	Lungs *	Total
1989	0	1	0	0	1
1990	0	7	0	0	7
1991	0	11	0	0	11
1992	3	24	0	0	27
1993	0	16	0	0	16
1994	4	21	0	2	27
1995	0	21	5	9	35
1996	1	23	1	4	29
1997	2	22	2	2	28
1998	4	16	3	8	31
1999	2	7	1	2	12
2000	0	7	0	4	11
2001	0	2	0	4	6
2002	0	5	2	8	15
2003	0	5	3	13	21
2004	1	7	2	4	14
Total	17	195	19	60	291
+ Number of recipients of livers * Total number of lungs (not recipients)					

New Zealand organs are sent to Australia when there are no compatible recipients in New Zealand.

Liver transplantation commenced in New Zealand in February 1998, prior to this time, all livers were sent to Australia.

KIDNEY DONATION

Figure 48 shows the number of Australian and New Zealand patients waiting for a kidney transplant and the number of cadaveric transplants performed for each year from 2000-2004.

Figure 48

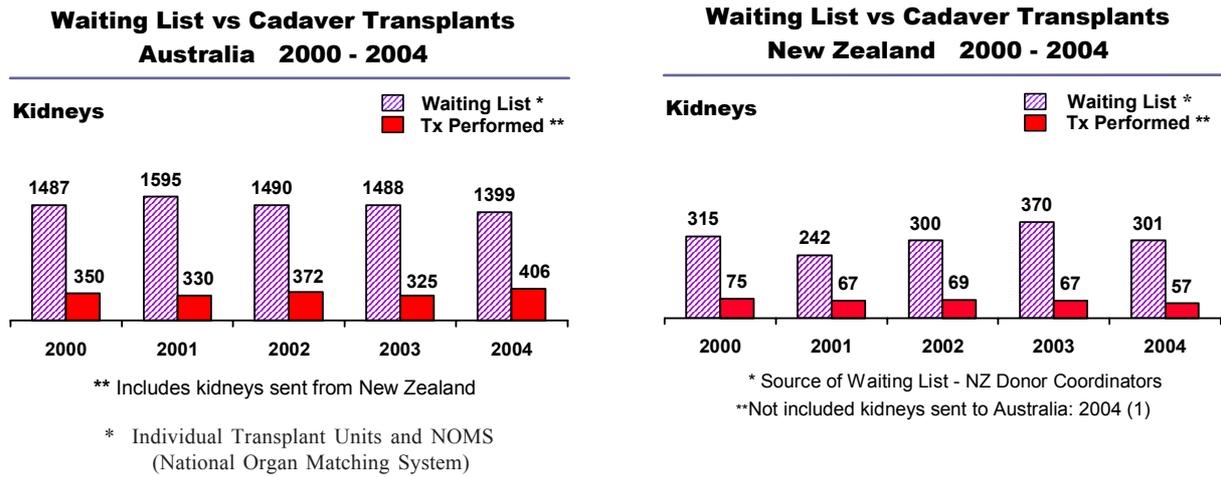
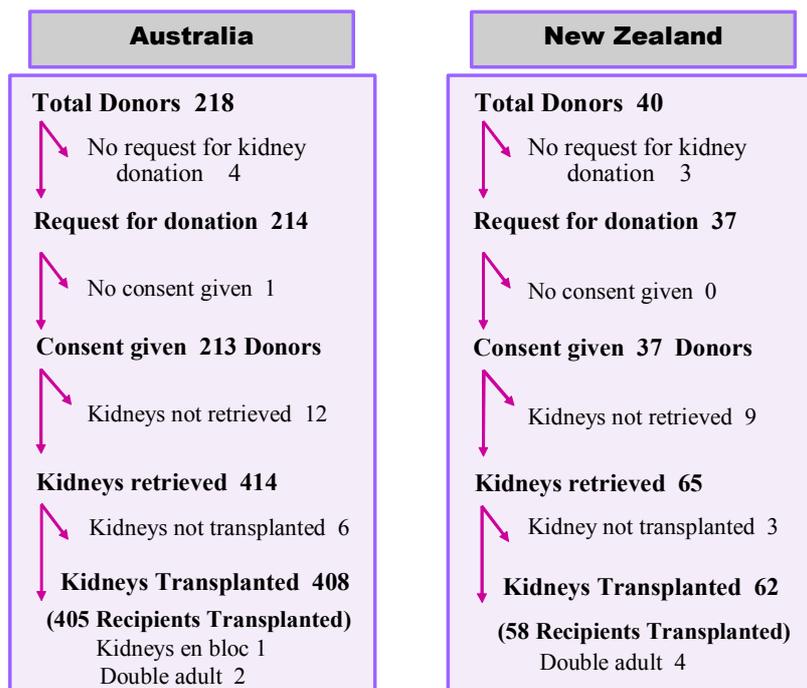


Figure 49

Outcome of Request for Kidney Donation 2004



Refer to Appendices for reasons kidneys were not requested, not retrieved and not transplanted

Figure 50

Age of Donors Providing Transplanted Kidneys 2000 - 2004

	Year	Age Groups										Total
		00-04	05-14	15-24	25-34	35-44	45-54	55-64	65-74	75-84	85-94	
Australia	2000	2 (3)	10	30	24	28	42	34 (1x)	11	1	0	182
	2001	0 (0)	16	32	25	22	44	19	11	1 (x)	0	170
	2002	3 (2)	14 (2)	44	17	31	42	30	11 (1x)	1	0	193
	2003	2 (2)	10	32 (1*)	15	26	39	28	9 (2x)	5	1	167
	2004	0	5 (1)	40	30	23	50	39	15 (2x)	4	0	206
New Zealand	2000	0	2	9	4	6	12	6	1	0	0	40
	2001	0	0	9	2	7	7	8	1	0	0	34
	2002	0	3	5	2	11	10	3	1	0	0	35
	2003	0	2	11	4	8	3	6	0	1 (1x)	0	35
	2004	0	0	8	4	3	6	9 (2x)	1 (1x)	1 (1x)	0	32

() En-Bloc Kidneys * Horseshoe Kidney (Adult) x Double Adult

Figure 51

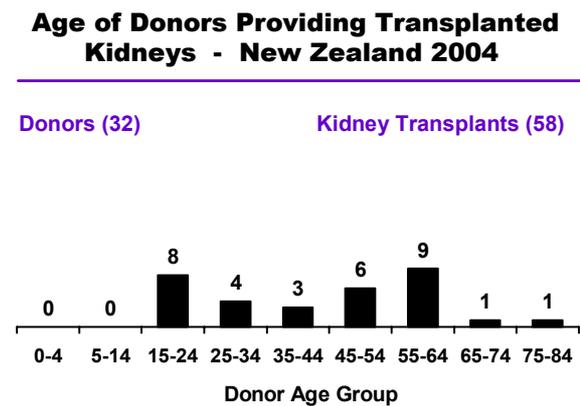
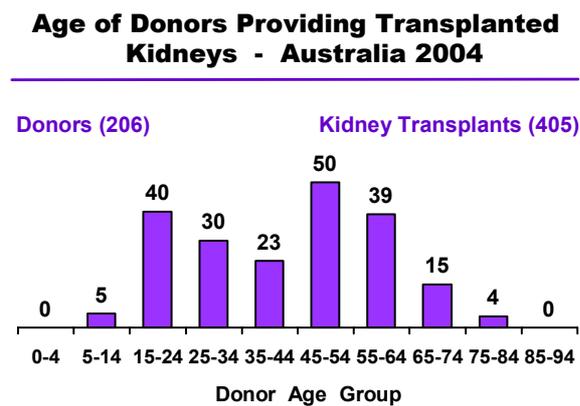


Figure 52

Cadaver Kidney Transplants by Transplant State Australia and New Zealand 2003 - 2004

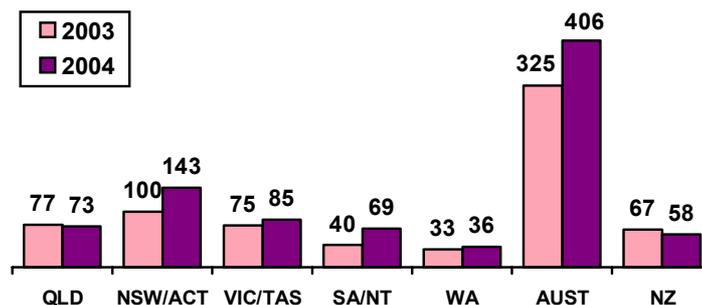


Figure 53

Regional Outcome of Requests for Kidney Donation 1989 - 2004										
	QLD	NSW	ACT	VIC	TAS	SA	NT	WA	AUST	NZ**
Total Donors	643	1066	73	784	52	412	31	254	3175	463
Requested	641	996	73	693	51	404	30	252	3140	459
Consented	641	993	73	692	51	404	30	252	3136	459
Retrieved	1250	1905	141	1346	102	771	60	488	6063	886
Transplanted *	1215	1848	136	1284	93	731	57	466	5830	842
	(10) (1x)	(7) (1x)	(1)	(6) (1x)	(2)	(5) (8x)		(5) (2x)	(36) (13x)	(3) (5x)
* Recipients () En bloc (x) Double Adult										
** New Zealand 1993 - 2004										

KIDNEY PERFUSION METHODS

Where kidneys were perfused with only one solution, HTK (58%), Ross (25%) and Hartman's and UW (both 8%) were the solutions used in Australia in 2004. UW was used for 97% of kidneys in New Zealand (fig 54).

UW was used as the second perfusion solution in 89%, Ross in 11% and HTK in <1% of cases in Australia (fig 55).

Figure 54

Kidney Perfusion with Only One Solution 2000 - 2004										
	Australia					New Zealand				
	2000	2001	2002	2003	2004	2000	2001	2002	2003	2004
Ross	26	26	14	12	6	2	4	2	0	2
UW	8	4	4	10	2	78	64	66	72	61
Collins	0	2	0	0	0	0	0	0	0	0
HTK	0	0	0	8	14	0	0	0	0	0
Hartman's	0	0	0	0	2	2	0	0	0	0
Total	34	32	18	30	24	82	68	68	72	63

Figure 55

Second Perfusion Solution - Kidneys 2000 - 2004										
	Australia					New Zealand				
	2000	2001	2002	2003	2004	2000	2001	2002	2003	2004
Ross	7	52	54	37	42	0	0	0	0	0
UW	313	256	296	267	344	0	0	2	1	2
Collins	16	4	8	6	0	0	0	0	0	0
Hartmans	0	0	4	0	0	0	0	0	0	0
HTK	0	0	0	0	2	0	0	0	0	0
Total	336	312	362	310	388	0	0	2	1	2

REASONS KIDNEYS WERE UNUSABLE

KIDNEY BIOPSY AT RETRIEVAL

There were 33 donors (16%) who had a biopsy taken of the kidneys at retrieval in 2004 in Australia and 15 donors (45%) in New Zealand.

Since 2000, there have been 13% (126) biopsies from 934 kidney donors in Australia and 30% (54) from 181 kidney donors in New Zealand.

The reasons for kidneys that were unusable and the donor age are shown in Figures 56 and 57.

Figure 56						
Reasons Kidneys were Unusable 2000 - 2004						
		2000	2001	2002	2003	2004
Australia	Renal disease in donor	10	8	2	5	2
	Cancer in donor	2	0	0	2	2
	Anatomical	0	1	0	10	0
	Surgical	2	3	1	1	1
	Trauma	2	0	0	2	0
	Courier Failure	0	1	0	0	0
	Surgeons not available	0	0	0	0	1
	Total	16	13	3	10	6
New Zealand	Renal Disease in Donor	6	1	1	3	3
	Cancer in Donor	0	0	0	2	0
	Surgical	1	0	0	1	0
	Trauma	0	0	0	0	0
	Donor Unstable	0	0	0	0	0
	Total	7	1	1	6	3

Figure 57											
Donor Age of Unusable Kidneys 2000 - 2004											
		Age Groups									Total
Year		00-04	05-14	15-24	25-34	35-44	45-54	55-64	65-74	75-84	
Australia	2000	0	0	1	0	1	1	5	2	0	10
	2001	0	0	1	0	1	2	5	1	0	10
	2002	0	0	0	0	1	0	0	2	0	3
	2003	0	0	3	0	0	2	1	4	0	10
	2004	0	1	0	0	0	2	1	0	2	6
New Zealand	2000	0	1	0	1	1	0	3	0	0	6
	2001	0	0	0	0	0	0	0	1	0	1
	2002	0	0	0	0	0	0	1	0	0	1
	2003	0	1	2	0	0	0	1	2	0	6
	2004	0	0	0	1	0	0	2	0	0	3

DONOR KIDNEY FUNCTION

TERMINAL LEVELS OF SERUM CREATININE AND UREA

AUSTRALIA

In 2004, 9% of Australian donors had a terminal serum creatinine concentration of ≥ 125 $\mu\text{mol/L}$ and 13% had a terminal serum urea concentration of ≥ 9 mmol/L .

NEW ZEALAND

There were 6% of donors with a terminal serum creatinine concentration of ≥ 125 $\mu\text{mol/L}$ and 6% had a terminal serum urea concentration of ≥ 9 mmol/L .

Figure 58

Terminal Serum Creatinine Levels 2000 - 2004										
Creatinine ($\mu\text{mol/l}$)	Australia					New Zealand				
	2000	2001	2002	2003	2004	2000	2001	2002	2003	2004
00-99	77%	74%	76%	75%	72%	79%	78%	80%	82%	75%
100-124	11%	17%	12%	12%	14%	15%	16%	7%	9%	19%
125-149	3%	1%	4%	3%	5%	0%	3%	13%	3%	0%
150-174	4%	2%	3%	4%	1.5%	3%	0%	0%	6%	3%
175-199	1%	2%	1%	1%	1.5%	3%	0%	0%	0%	0%
200-224	0%	1%	2%	1%	1%	0%	0%	0%	0%	3%
225-249	<1%	<1%	<1%	1%	2%	0%	0%	0%	0%	0%
> 250	3%	2%	<1%	3%	3%	0%	3%	0%	0%	0%

Figure 59

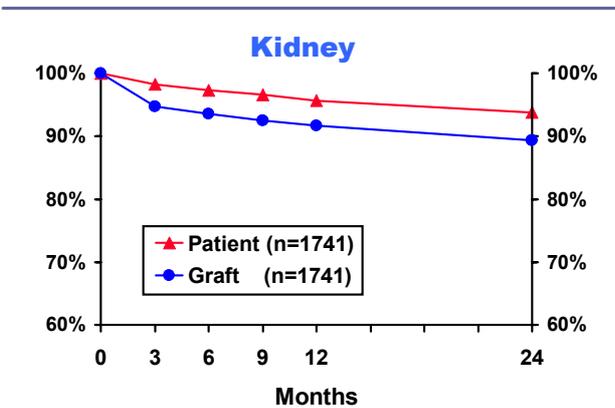
Terminal Serum Urea Levels 2000 - 2004										
Urea (mmol/l)	Australia					New Zealand				
	2000	2001	2002	2003	2004	2000	2001	2002	2003	2004
00-04	54%	51%	57%	49%	52%	54%	59%	50%	52%	38%
05-08	34%	38%	33%	37%	35%	44%	38%	43%	34%	56%
09-12	7%	9%	5%	11%	8%	2%	3%	7%	3%	6%
13-16	3%	2%	2%	1%	3%	0%	0%	0%	3%	0%
> 16	2%	<1%	2%	2%	2%	0%	0%	0%	3%	0%

KIDNEY TRANSPLANT OUTCOME

Figure 60 shows the patient and graft outcome for kidney transplants performed over the preceding five years in Australia and New Zealand.

Figure 60

**Primary Cadaver Patient and Graft Survival
Australia 1998 - 2003**



**Primary Cadaver Patient and Graft Survival
New Zealand 1998 - 2003**

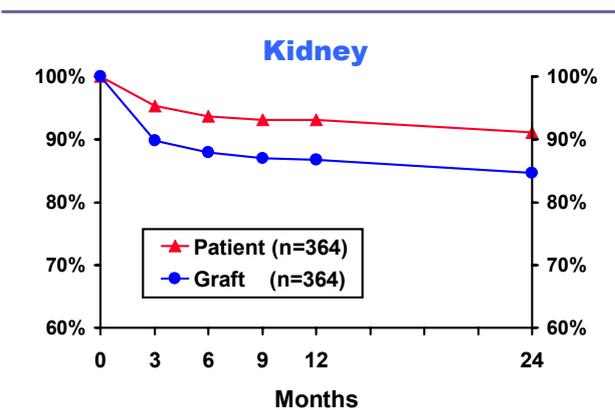
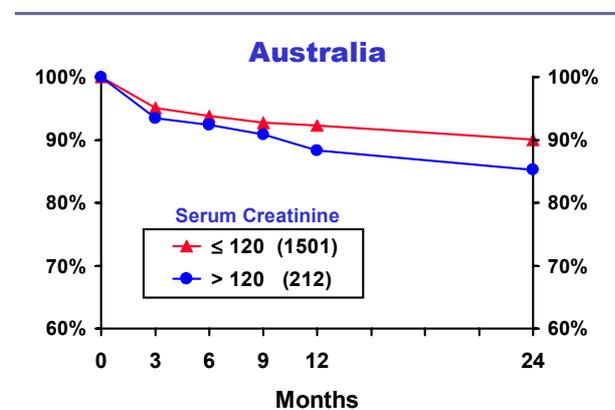


Figure 61

**Primary Cadaver Kidney Graft Survival
Terminal Serum Creatinine 1998 - 2003**



This data has been provided by the ANZDATA (Australia and New Zealand Dialysis and Transplant Registry) and further information on kidney transplant outcome is available from their website - www.anzdata.org.au

LIVER DONATION

There were 213 liver transplants performed in 2004, 177 livers (including one liver cells) in Australia and 36 in New Zealand.

Seven livers were donated from Australia and transplanted into New Zealand recipients and seven livers donated from New Zealand were transplanted into Australian recipients.

There were 164 Australian donors, who provided 176 recipients with transplanted livers and one recipient with liver cells and 35 New Zealand donors provided livers for 36 recipients.

Twenty eight transplants were performed using the “split” liver technique [transplanting one liver into two recipients]

- * 12 Royal Prince Alfred Hospital, NSW
- * 10 New Children’s Hospital, NSW
- * 1 Princess Alexandra Hospital, Qld
- * 2 Royal Children’s Hospital, Victoria
- * 1 Austin and Repatriation Hospital -Victoria

- * 2 Auckland Hospital, New Zealand

Figure 62

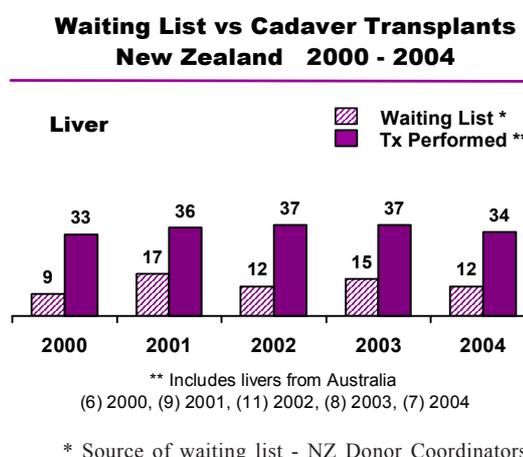
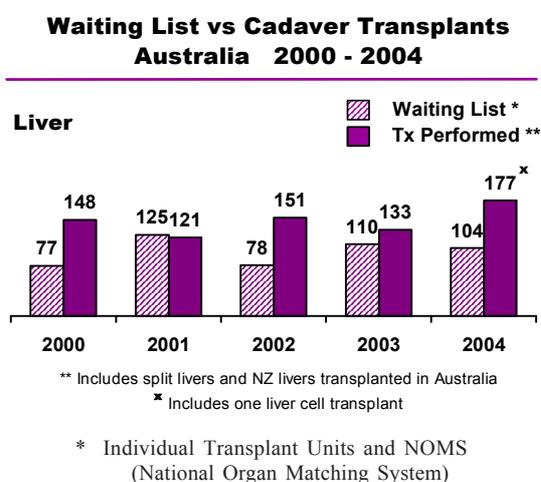
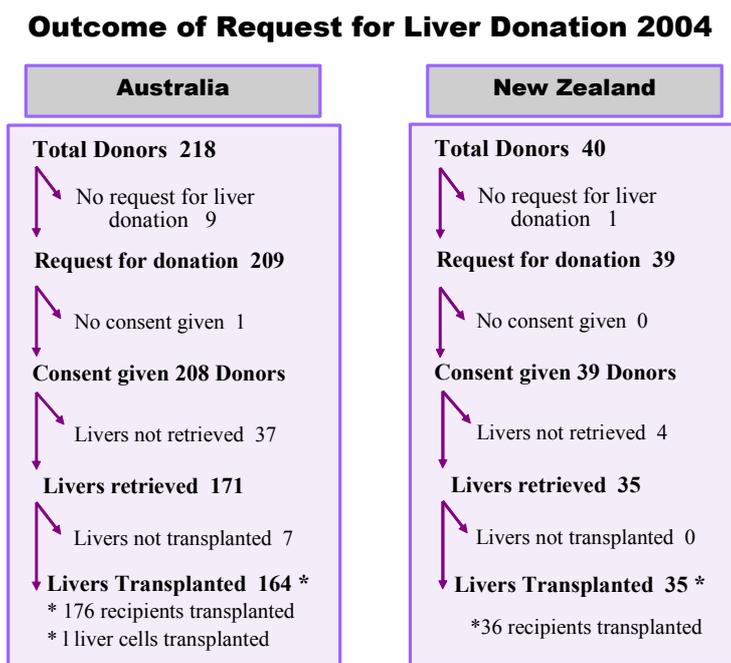


Figure 63



* Includes split livers and number of recipients

Recipients transplanted, refers to outcome of livers donated in Australia or New Zealand

Refer to Appendices for reasons livers were not requested, not retrieved and not transplanted

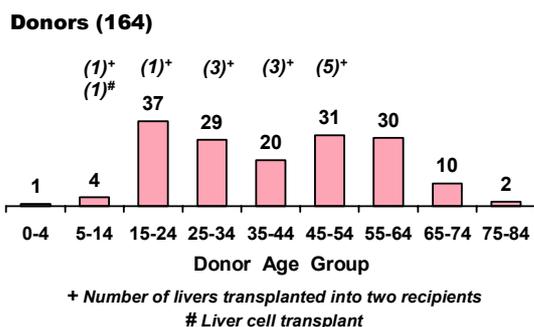
Figure 64

Age of Donors Providing Transplanted Livers 2000 - 2004											
Year	Age Groups									Total	
	00-04	05-14	15-24	25-34	35-44	45-54	55-64	65-74	75-84		
Australia	2000	2	7	26 (1+)	22	25 (1+)	31 (2+)	21	7 (1+)	1	142
	2001	0	14 (1*)	29 (1*)	18 (1*)	14 (2*)	28 (1+)	15	8	1	127
	2002	5	11 (1+) (1*)	39 (4+)	14 (1+)	28	27 (3+) (1*)	17	6	1	148
	2003	2	8	30 (3+)	9 (1+)	20 (1+)	32 (2+)	16 (1+)	6	5 (1*)	128
	2004	1	4 (1+) (1#)	37 (1+) (2*)	29 (3+)	20 (3+)	31 (5+)	30	10	2	164
New Zealand	2000	0	1	8	4	5	11	4	1	0	34
	2001	0	0	7	2	6	8	5	1	0	29
	2002	0	3 (1*)	5 (1+) (1*)	2	9	7	3	1	0	30
	2003	0	1	11 (1+)	4 (1+) (1*)	8 (1+)	1	5	0	1	31
	2004	1	0	9	4	3 (1+) (1*)	5	11	1	1	35

+ One liver transplanted into two recipients
 * One liver split and used for one patient only
 # Liver cells transplanted

Figure 65

Age of Donors Providing Transplanted Livers - Australia 2004



Age of Donors Providing Transplanted Livers - New Zealand 2004

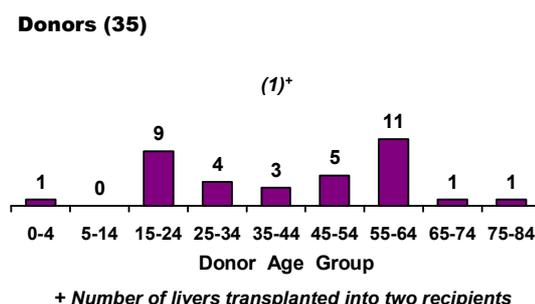
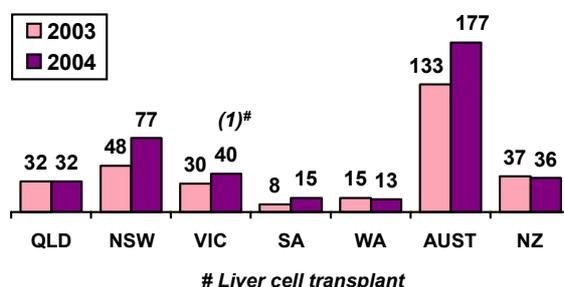


Figure 66

Liver Transplants by Transplant State Australia and New Zealand 2003 - 2004



PERFUSION OF LIVERS

Australia

University of Wisconsin (UW) solution was used as the final perfusion for 94% of all livers. The initial flush solution was either Ross, Hartman's, Saline or HTK Solution. There were only two livers initially perfused with UW.

New Zealand

University of Wisconsin solution only was used for 34 of the 35 livers retrieved. One liver had an initial flush with Saline.

Figure 67

Regional Outcome of Requests for Liver Donation 1989 - 2004										
	QLD	NSW	ACT	VIC	TAS	SA	NT	WA	AUST	NZ**
Total Donors	643	1066	73	784	52	412	31	254	3175	463
Requested	633	917	70	630	45	361	26	221	2903	405
Consented	623	896	66	608	42	351	26	212	2824	402
Retrieved	480	616	49	425	35	255	17	151	2028	334
Transplanted *	499	624	51	381	33	245	16	147	1996	324

* Refers to number of recipients - use of split liver and liver cells
** New Zealand 1993 - 2004

REASONS LIVERS WERE UNUSABLE AFTER RETRIEVAL

The liver is only retrieved when a compatible recipient has been identified. Figure 68 shows reasons the liver was not able to be transplanted into the identified recipient.

The use of the liver (and other organs) for research purposes requires specific permission from the most senior available next of kin.

Figure 68

Reasons Livers were Unusable 2000 - 2004						
		2000	2001	2002	2003	2004
Australia	Biopsy - Fatty Disease	3	4	3	3	2
	Anatomical	0	1	1	0	0
	Research	0	1	2	2	0
	Cancer in Donor	1	0	0	0	1
	Recipient Issue	0	0	1	1	3
	Total	4	6	8	7	7
New Zealand	Biopsy - Fatty	2	1	0	2	0
	Cancer in Donor	0	0	0	1	0
	Recipient Issue	0	0	1	0	0
Total	2	1	1	3	0	

Figure 69

Donor Age of Unusable Livers 2000 - 2004											
		Age Groups									Total
Year	00-04	05-14	15-24	25-34	35-44	45-54	55-64	65-74	75-84		
Australia	2000	0	0	0	0	1	1	2	0	0	4
	2001	0	1	1	0	1	2	1	0	0	6
	2002	0	0	1	0	1	3	3	0	0	8
	2003	0	0	0	1	2	0	1	2	1	7
	2004	0	0	0	0	0	2	3	1	1	7
New Zealand	2000	0	0	0	0	1	0	1	0	0	2
	2001	0	0	0	0	0	0	0	1	0	1
	2002	0	0	0	0	1	0	0	0	0	1
	2003	0	0	0	0	0	2	0	1	0	3
	2004	0	0	0	0	0	0	0	0	0	0

DONOR LIVER FUNCTION

The results of the serum tests for liver function for 171 Australian and 35 New Zealand donors in 2004, who had livers retrieved, is shown below.

There were 77% (131 donors) in Australia and 29% (ten donors) in New Zealand who had all five tests performed. Figure 70 shows the number of donors whose liver function was above the normal range.

Figure 70

Number of Donors with Liver Function Tests above Normal Range 2004

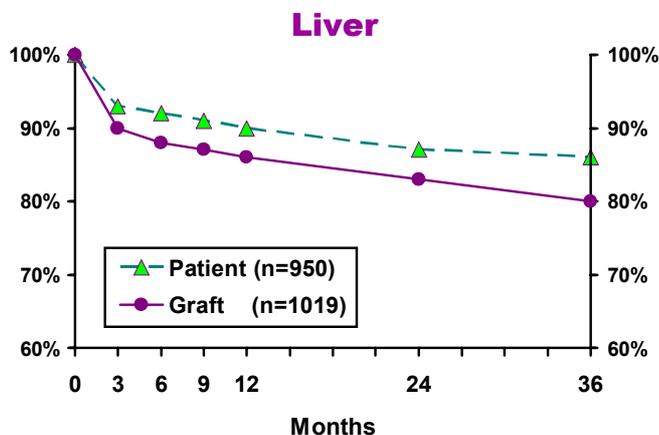
Liver Function Tests	Australia			New Zealand		
	Donors with value recorded *	Above Normal	Maximum recorded 1989-2004	Donors with value recorded *	Above Normal	Maximum recorded 1993-2004
Alanine Transaminase ALT > 40 u/L	171	52 (30%)	1240 (1240) x	29	13 (45%)	293 (275) x
Aspartate Transaminase AST > 40 u/L	138	70 (51%)	1480 (1480)	18	12 (67%)	461 (147)
Gamma Glutamol Transferase GGT > 60 u/L	167	25 (15%)	750 (148)	16	4 (25%)	226 (195)
Alkaline Phosphatase > 116 u/L	165	11 (7%)	317 (231)	35	2 (6%)	264 (181)
Total Bilirubin > 20 umol/L	170	20 (12%)	114 (58)	34	2 (6%)	57 (53)

* Not all donors have all tests
x (2004) Maximum

LIVER TRANSPLANT OUTCOME

Figure 71

Cadaver Patient and Graft Survival Australia 1998 - 2003



Source: Australia and New Zealand Liver Transplant Registry

CARDIO-THORACIC ORGAN DONATION

AUSTRALIA

In 2004 Australia performed 74 heart transplants, six heart/lung, 82 double and 13 single lung transplants.

The first perfusion fluid of choice for heart lung bloc retrieval was crystalloid cardioplegia. The second perfusion fluid varied from blood based pneumoplegia, eurocollins solution, St Thomas solution and Perfadex.

ECG and Echocardiogram

Seventy six percent (64 heart donors) had a normal ECG. Sixty nine percent (58 heart donors) had an echocardiogram.

NEW ZEALAND

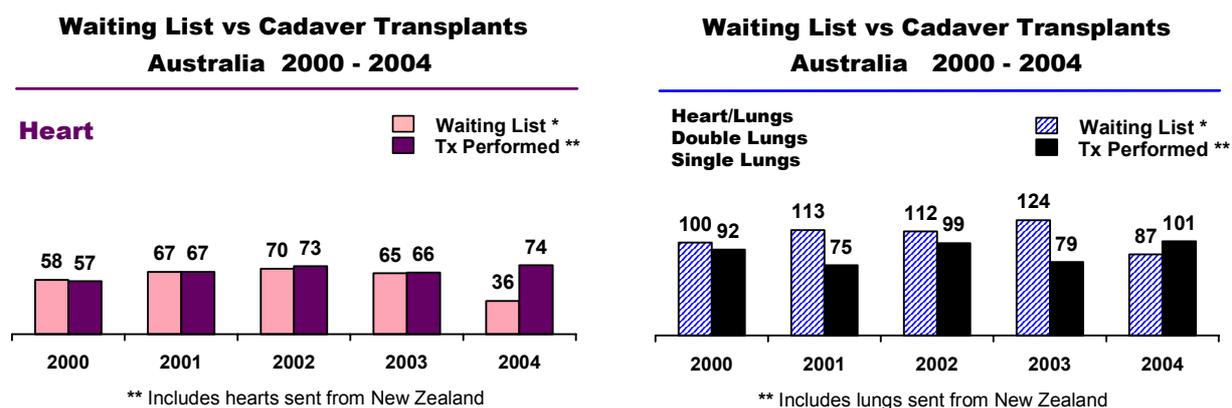
New Zealand performed four heart and nine double lung transplants in 2004. Two hearts, one double and two single lungs were sent to Australia for transplantation.

The first perfusion fluid for heart lung bloc retrieval was crystalloid cardioplegia and the second was blood based pneumoplegia.

ECG and Echocardiogram

All seven heart donors had a normal ECG and all had an echocardiogram.

Figure 72



* Individual Transplant Units, the Cardiothoracic Registry and NOMS (National Organ Matching System)

Figure 73

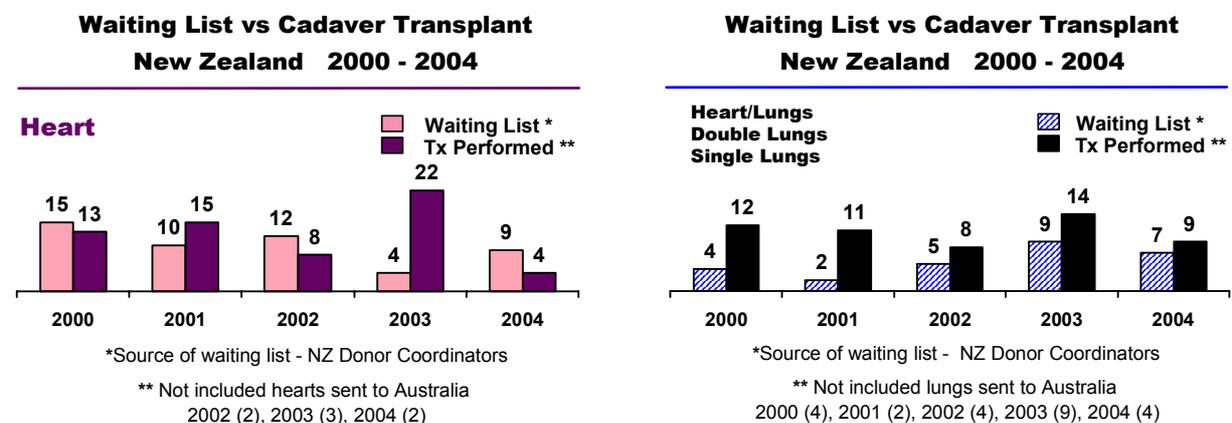
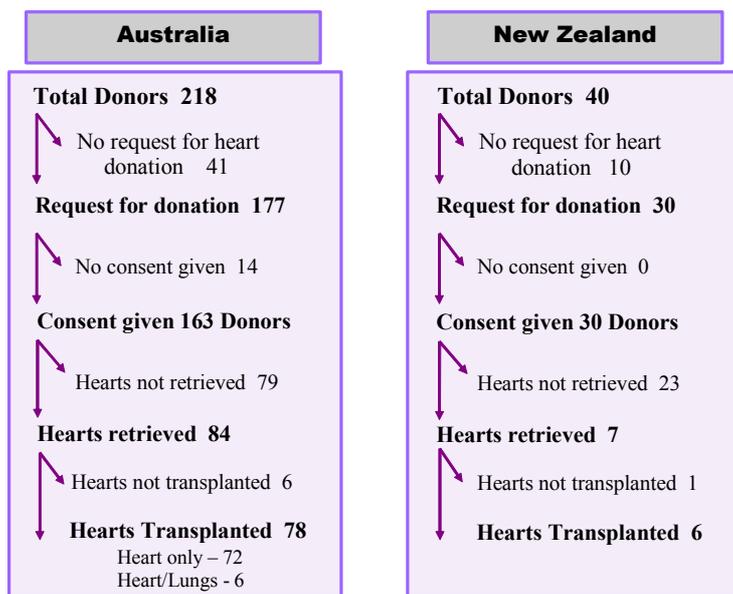


Figure 74

Outcome of Request for Heart Donation 2004



Refer to Appendices for reasons hearts were not requested, not retrieved and not transplanted.

Figure 75

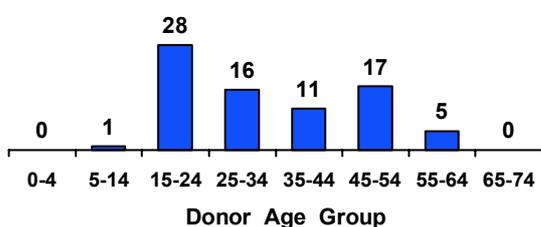
Age of Donors Providing Transplanted Hearts 2000 - 2004

	Year	Age Groups								Total
		00-04	05-14	15-24	25-34	35-44	45-54	55-64	65-74	
Australia	2000	0	1	17	15	11	12	3	0	59
	2001	0	5	22	10	12	18	2	0	69
	2002	1	8	29	10	15	14	3	0	80
	2003	0	3	21	8	17	17	2	0	68
	2004	0	1	28	16	11	17	5	0	78
New Zealand	2000	0	0	4	4	2	3	0	0	13
	2001	0	0	5	2	3	3	2	0	15
	2002	0	1	1	0	4	2	1	0	9
	2003	0	2	8	3	6	3	3	0	25
	2004	0	0	3	1	1	0	1	0	6

Figure 76

Age of Donors Providing Transplanted Hearts - Australia 2004

Donors (78)



Age of Donors Providing Transplanted Hearts - New Zealand 2004

Donors (6)

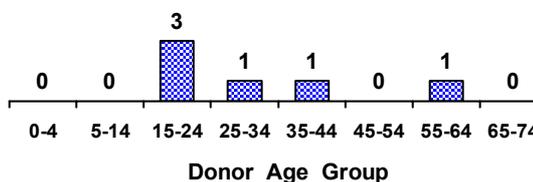


Figure 77

**Heart Transplants by Transplant State
Australia and New Zealand 2003 - 2004**

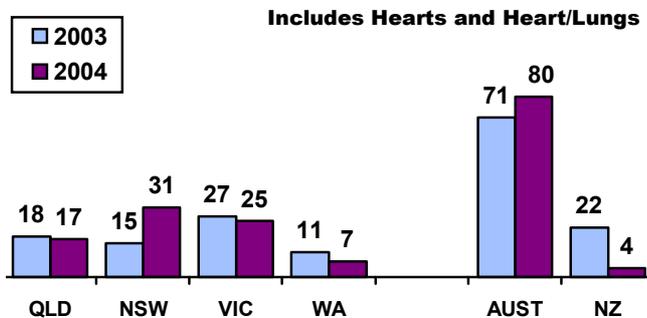


Figure 78

**Heart and Lung Transplant Recipients
By Transplant Country 1999 - 2004**

Heart/Lung		1999	2000	2001	2002	2003	2004
Australia	Heart	66	57	67	73	66	74
	Heart/lung	2	2	2	8	5	6
	Double lung	42	65	47	66	58	82
	Single left lung	13	12	10	12	9	7
	Single right lung	12	13	16	13	7	6
	Total	135	149	142	172	145	175
New Zealand	Heart	10	13	15	8	22	4
	Heart/lung	0	0	0	0	0	0
	Double lung	7	10	9	5	10	9
	Single left lung	0	0	1	1	2	0
	Single right lung	0	2	1	2	2	0
	Total	17	25	26	16	36	13

Figure 79

Regional Outcome of Requests for Heart Donation 1989 - 2004

	QLD	NSW	ACT	VIC	TAS	SA	NT	WA	AUST	NZ *
Total Donors	643	1006	73	784	52	412	31	254	3175	463
Requested	607	846	65	604	46	310	25	199	2702	373
Consented	576	794	60	571	44	299	24	181	2549	364
Retrieved	322	461	43	338	31	163	11	104	1473	153
Transplanted	320	453	42	319	30	159	11	100	1434	152

* New Zealand 1993 - 2004
Includes Hearts only , Heart/Lungs and Heart /(L) Lung

HEART VALVE DONATION

The aortic, pulmonary and mitral valves can often be viable for transplantation when the whole heart is not suitable. Heart valves can be stored for up to five years.

This data relates only to heart valves retrieved from organ donors.

Figure 80

Outcome of Request for Heart Valve Donation 2004

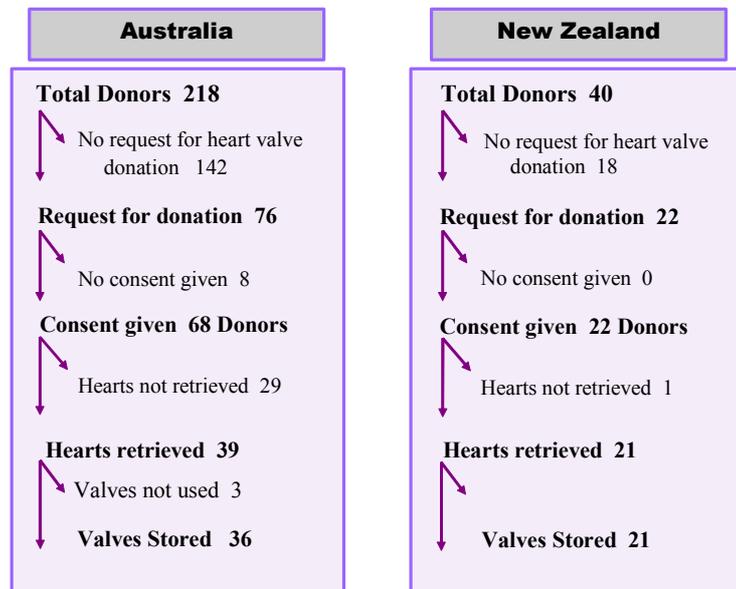


Figure 81

Age of Heart Valve Donors 2000 - 2004

Year	Age Groups									Total	
	00-04	05-14	15-24	25-34	35-44	45-54	55-64	65-74	75-84		
Australia	2000	0	4	6	4	14	17	8	0	0	53
	2001	0	7	3	8	2	13	7	0	0	40
	2002	2	4	8	4	11	15	10	0	0	54
	2003	1	2	7	4	4	11	8	0	1	38
	2004	0	3	3	6	4	13	7	0	0	36
New Zealand	2000	0	1	3	0	3	8	4	0	0	19
	2001	0	0	2	1	3	4	3	0	0	13
	2002	0	2	1	2	6	7	2	0	0	20
	2003	0	0	4	1	4	0	0	0	0	9
	2004	0	0	4	3	3	3	8	0	0	21

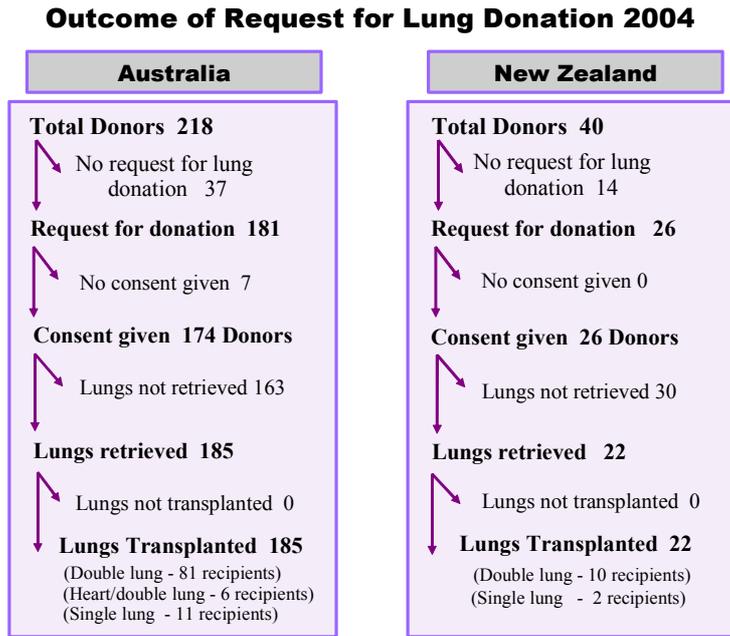
Figure 82

Regional Outcome of Requests for Heart Valve Donation 1989 - 2004

	QLD	NSW	ACT	VIC	TAS	SA	NT	WA	AUST	NZ *
Total Donors	643	1006	73	784	52	412	31	254	3175	463
Requested	220	216	13	123	6	76	3	58	715	206
Consented	212	213	12	118	6	76	3	55	695	203
Retrieved	184	169	12	82	5	58	1	49	560	191
Transplanted or Stored	182	159	12	81	5	56	1	49	544	190

* New Zealand 1993 - 2004

Figure 83



Refer to Appendices for reasons lungs were not requested, not retrieved and not transplanted.

Australia

In 2004, 24 (25%) of 95 lung donors were from the 15-24 year age group and eleven (11.5%) from the 55-64 year age group.

New Zealand

There were three (27%) of eleven lung donors from the 15-24 year age group and six (54%) from the 55-64 year age group.

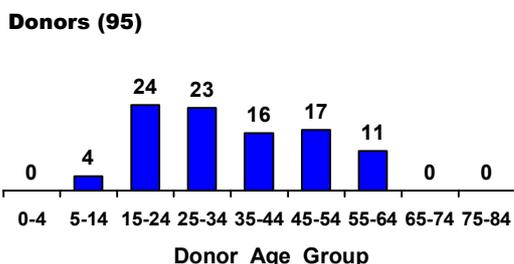
Figure 84

Age of Donors Providing Transplanted Lungs 2000 - 2004

	Year	Age Groups									Total
		00-04	05-14	15-24	25-34	35-44	45-54	55-64	65-74	75-84	
Australia	2000	0	2	19	14	16	17	11	0	0	79
	2001	0	6	16	11	9	22	1	0	0	65
	2002	0	6	27	7	19	17	9	0	0	85
	2003	0	2	20	7	12	15	10	0	1	67
	2004	0	4	24	23	16	17	11	0	0	95
New Zealand	2000	0	0	2	2	2	8	0	0	0	14
	2001	0	0	3	0	2	4	3	0	0	12
	2002	0	0	0	0	8	2	2	0	0	12
	2003	0	1	5	3	8	0	2	0	0	19
	2004	0	0	3	1	1	0	6	0	0	11

Figure 85

Age of Donors Providing Transplanted Lungs - Australia 2004



Age of Donors Providing Transplanted Lungs - New Zealand 2004

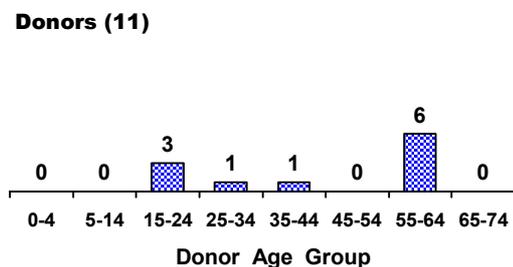
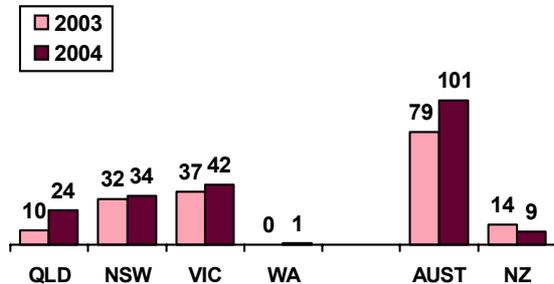
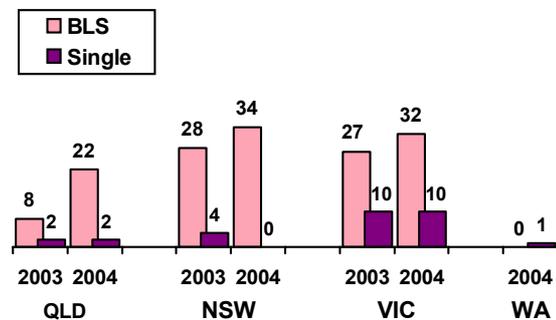


Figure 86**Lung Transplant Recipients 2003 - 2004
by Transplant State - Australia and NZ****Bilateral Sequential (Double) and Single Lung Transplants by State 2003 - 2004****Figure 87****Regional Outcome of Requests for Lung Donation 1989 - 2004**

	QLD	NSW	ACT	VIC	TAS	SA	NT	WA	AUST	NZ**
Total Donors	643	1006	73	784	52	412	31	254	3175	463
Requested	576	811	65	551	42	267	24	170	2506	305
Consented	539	761	59	521	40	255	23	158	2356	300
Retrieved x	359	623	55	434	44	238	24	140	1917	112
Transplanted x	332	600	54	396	44	226	23	136	1811	207

x Number of Lungs
(Includes Heart/Double Lungs and Heart/Single (L) Lung)

** New Zealand 1993 -2004

DONOR LUNG FUNCTION

In 2004, 47 Australian lung donors (49%) and 11 New Zealand lung donors (100%) had a bronchoscopy.

There were seven lung donors in Australia who had chest trauma: these included pneumothorax (3), contusions (2) and chest drains (2). New Zealand had two donors with pneumothorax.

Australia

The arterial blood gases were taken on 100% oxygen and PEEP of 5 cm. Eight donors had a PEEP >5 cm. The results from 87 lung donors in 2004 show 14% (12) to be acidotic (pH <7.35) and 24% (21) to be alkalotic (pH >7.45).

Oxygenation measured as PaO₂ ranged from 150-674 mmHg with a median of 466 mmHg.

PaCO₂ ranged from 22.5-52.0 mmHg with a median of 39.0 mmHg.

New Zealand

The arterial blood gas results from eleven lung donors in 2004 shows 18 % (2) to be acidotic (pH <7.35), 9% (1) to be alkalotic (pH >7.45) and 18% (2) were not recorded.

Oxygenation measured as PaO₂ ranged from 298-602 mmHg with a median of 444 mmHg.

PaCO₂ ranged from 6.5-50.0 mmHg with a median of 36.8 mmHg.

SPECIAL REPORT

FROM THE AUSTRALIA AND NEW ZEALAND CARDIOTHORACIC ORGAN TRANSPLANT REGISTRY

Contributed by

Associate Professor Anne Keogh (Director) and Mr Ross Pettersson (Data Manager)

of The Australia and New Zealand Cardiothoracic Organ Transplant Registry

For further information contact Ross Pettersson (RPettersson@stvincents.com.au)

Figure 88 Australia and NZ				
Number of All Transplants By year 1984 - 2003 (Grand Total of all Transplants = 2662)				
Year	Heart	Heart- Lung	Single Lung	Bilateral Lung
1984	14	-	-	-
1985	19	-	-	-
1986	32	1	-	-
1987	30	1	-	-
1988	56	2	-	-
1989	93	14	-	-
1990	103	12	5	-
1991	103	19	18	-
1992	115	18	27	3
1993	114	13	24	33
1994	104	13	26	44
1995	108	13	28	43
1996	103	7	32	42
1997	105	4	43	43
1998	82	4	38	50
1999	75	2	27	47
2000	70	2	28	73
2001	82	1	29	55
2002	82	9	29	70
2003	90	5	20	66
Total	1579	140	375	568

Combined Heart / Kidney transplants = 23
Domino transplants = 38
Retransplants = 15
Heterotopic Transplants = 10

Figure 89 Australia and NZ					
Mean Recipient Age at Transplant All Hearts 1984 - 2003 (n = Number of Patients)					
Year	n	Mean	Std Dev +-	Median	Minimum- Maximum
1984	14	33	15	39	11-51
1985	19	39	13	38	10-54
1986	32	40	13	43	11-57
1987	30	41	12	46	13-56
1988	56	41	14	45	4-63
1989	93	42	14	46	1-65
1990	103	43	15	47	6-65
1991	103	47	14	52	1-64
1992	115	45	15	51	4-66
1993	114	46	14	51	6-65
1994	104	47	13	50	1-66
1995	108	46	16	50	2-68
1996	103	48	13	53	10-64
1997	105	46	14	50	9-66
1998	82	46	15	51	1-64
1999	75	47	15	53	2-67
2000	70	49	13	53	12-66
2001	80	45	15	49	2-64
2002	82	45	18	52	7-70
2003	88	45	15	47	1-67

Figure 90 Australia and NZ					
All Hearts - Mean Ischaemic Time 1984 - 2003					
Year	n	Mean	Std Dev +-	Median	Minimum- Maximum
1984	14	74	16	70	54-108
1985	19	114	41	95	53-183
1986	32	136	47	133	80-235
1987	30	151	45	155	60-260
1988	56	152	44	158	78-240
1989	93	150	57	147	39-311
1990	103	165	74	144	54-441
1991	103	178	80	163	55-390
1992	115	183	76	164	52-420
1993	114	207	82	198	41-446
1994	104	193	75	190	75-445
1995	108	208	98	186	42-465
1996	103	201	79	177	60-405
1997	105	211	90	194	60-454
1998	82	240	103	213	74-612
1999	75	236	101	244	43-447
2000	70	247	89	242	102-516
2001	80	265	102	253	186-338
2002	82	237	79	224	107-443
2003	88	258	90	268	176-323

Mean ischaemic time has lengthened gradually to a current mean of 258 minutes, but even so, ischaemic time in itself, does not impact on survival results.

Figure 91 Australia and NZ	
Recipient Cause of Death All Hearts 1984 - 2003 (No of Deaths = 581)	
	Total
Transplant Coronary Artery Disease (TxCAD)	111
Infection	92
Acute Rejection	78
Other Malignancy	61
Non-specific Graft Failure	56
PTLD	27
CVA	19
Haemorrhage	12
Other including unspecified	125
19 Sudden Death	
10 TxCAD and Rejection	
9 Multi-organ Failure	
7 Pulmonary Failure	
5 Heart Failure	
5 Cardiac Arrest	
5 Non-compliance	
3 Pancreatitis	
3 Pulmonary Embolism	
3 Renal Failure	
2 Motor Vehicle Accident	
1 Bowel Ischaemia	
1 Bronchomalacia	
1 Hepatic Encephalopathy	
1 Liver Failure	
1 Right Ventricular Failure	
1 Aortic Dissection (Marfan's)	
1 Suicide	
1 Pulmonary Hypertension	
46 Unspecified (no data)	

Figure 92

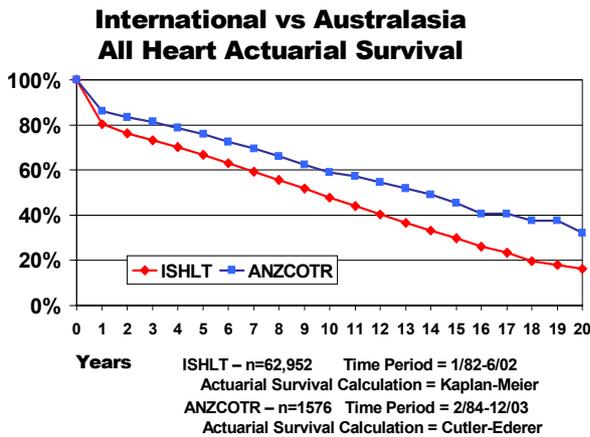


Figure 93

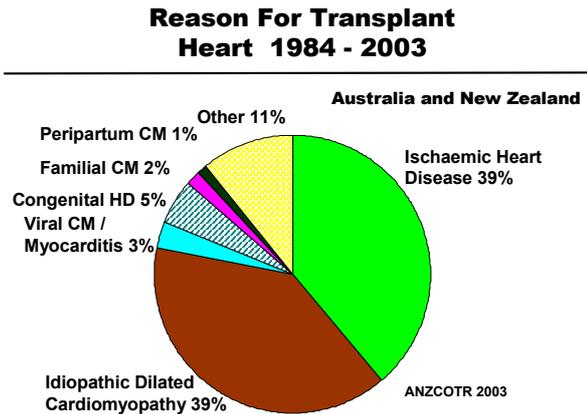


Figure 94

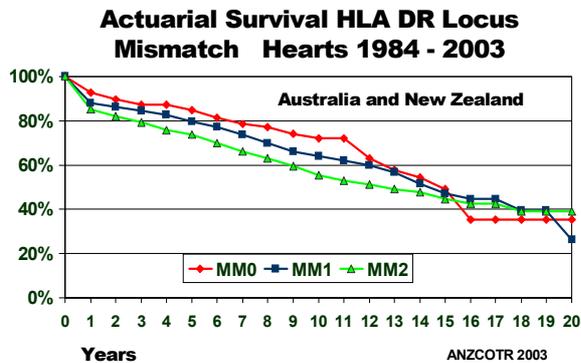
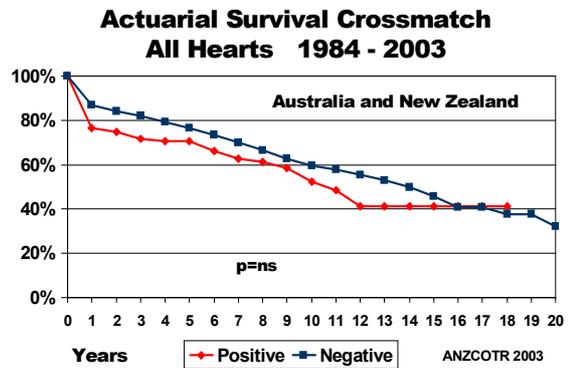
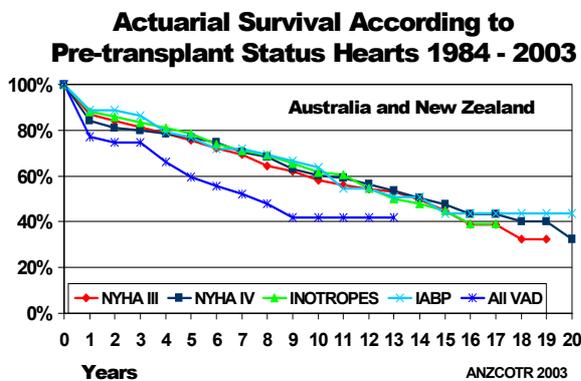


Figure 95



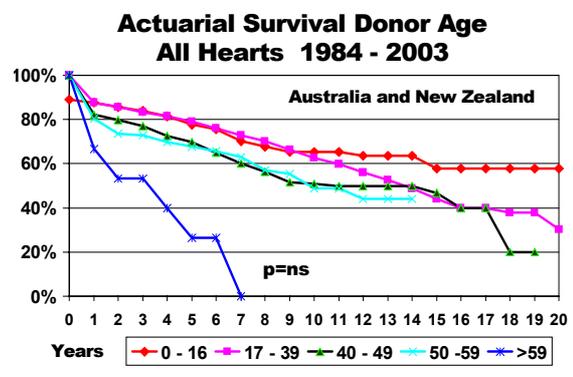
The effect of a positive cross match is not as marked as with other organs. Although in general patients are only transplanted against a mildly positive cross match rather than strongly positive cross matches.

Figure 96



VAD = Ventricular Assist Device

Figure 97



2 of the 10 Cases in the Greater than 59 Years Category are Heterotopic Heart Transplants

ANZCOTR 2003

There was no difference in survival according to recipient age and gender; donor gender, or CMV status, however older donor age does appear to affect results detrimentally.

Figure 98

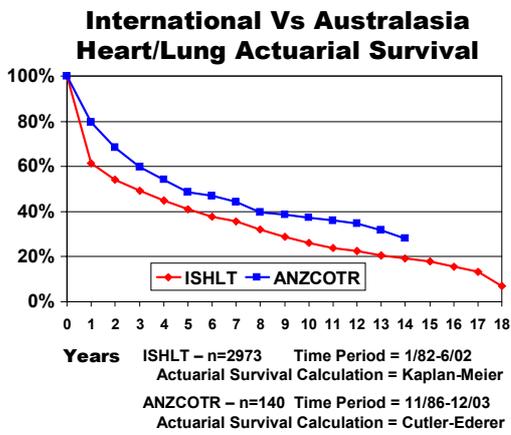


Figure 99

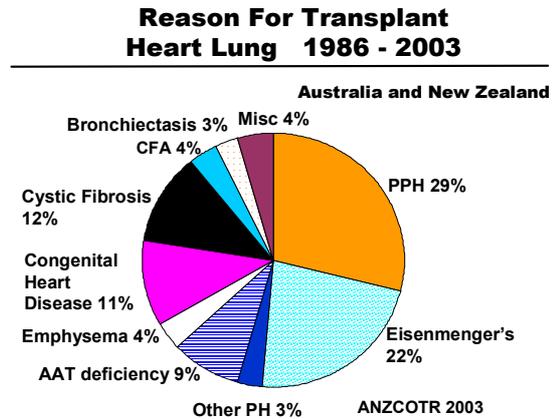


Figure 100

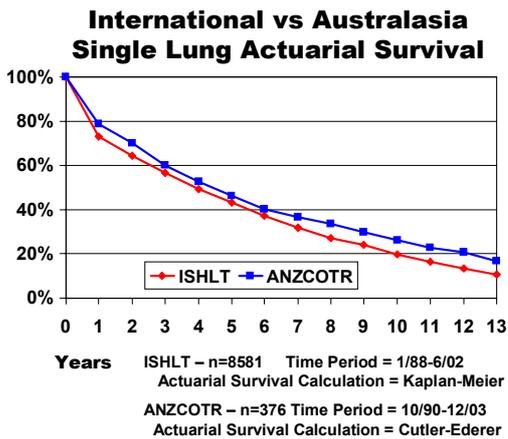


Figure 101

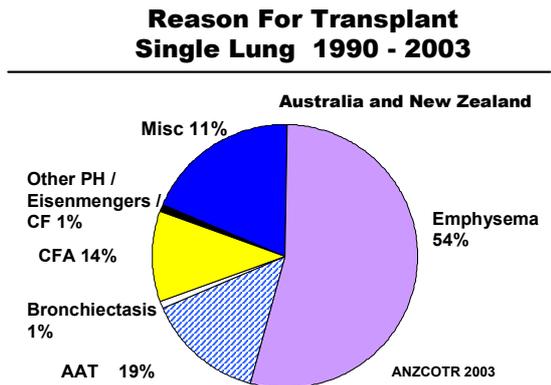


Figure 102

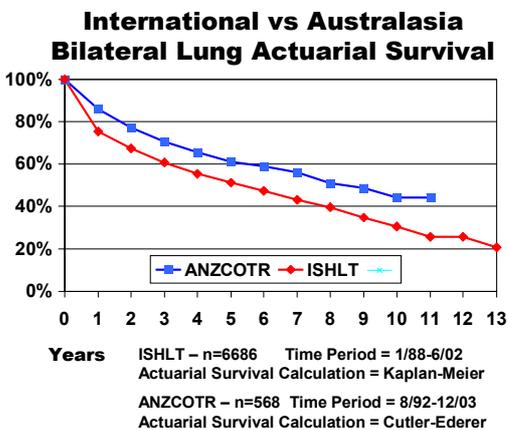


Figure 103

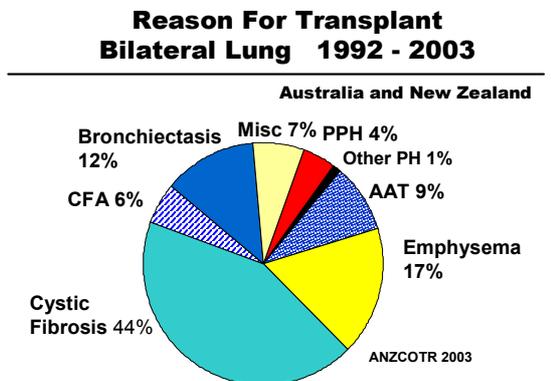


Figure 104 Australia and New Zealand

Mean Recipient Age at Transplant All Lungs 1989 - 2003
(n = Number of Patients)

Year	Heart-Lung Transplant				Single Lung Transplant				Bilateral Sequential Single Lung Tx			
	n	Mean	Std Dev	Min Max	n	Mean	Std Dev	Min Max	n	Mean	Std Dev	Min Max
1989	32		12	11-46								
1990	37		10	20-51	48	5		42-55				
1991	34		11	19-46	46	8		32-57				
1992	31		12	15-49	46	7		26-57	3	34	17	19-52
1993	31		13	12-48	51	3		46-57	33	34	13	19-56
1994	32		10	14-46	49	6		30-57	44	36	10	19-54
1995	38		11	24-52	51	7		22-59	43	35	13	16-60
1996	26		6	18-37	54	6		30-60	42	39	14	13-60
1997	36		9	23-42	51	6		35-62	43	37	14	14-61
1998	4	26	14	13-43	38	51	9	30-65	50	38	14	14-60
1999	2	38		22-53	27	55	7	37-64	47	36	13	15-62
2000	2	34		22-46	28	55	6	39-65	73	40	13	14-63
2001	1	40		40	29	56	9	32-69	55	38	14	13-60
2002	9	35	10	22-49	29	57	5	43-66	70	39	14	14-65
2003	5	36	18	13-55	21	57	7	42-66	65	41	15	17-64

Figure 105

Actuarial Survival All Lung Transplants 1986 - 2003

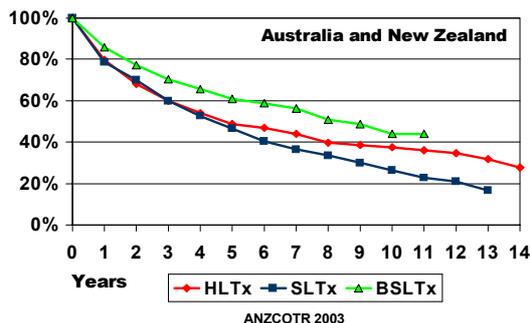


Figure 106

Actuarial Survival CMV Status All Lungs 1986 - 2003

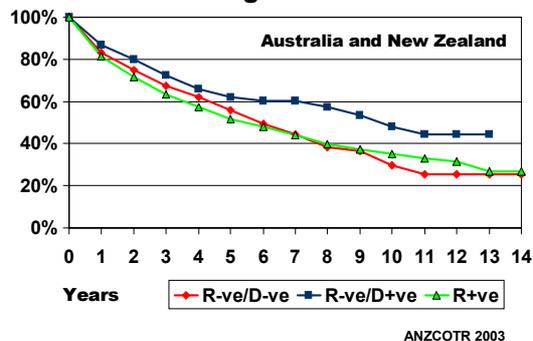


Figure 107 Australia and New Zealand

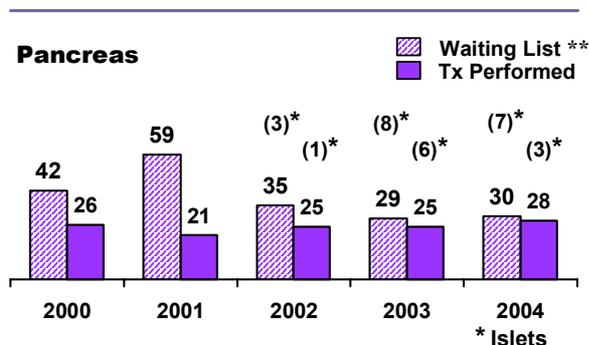
Cause of Death All Lungs 1986 - 2003
(No of Deaths = 503)

	All Lungs	<90 days Post Tx	>90 days Post Tx
Bronchiolitis Obliterans	138		138 (35.4%)
Infection	115	39 (34.5%)	76 (19.5%)
Pulmonary Failure	42	12 (10.6%)	30 (7.7%)
NSGF	21		
Non Lymphoid Malignancy			15 (3.8%)
Other Malignancy	15		
Haemorrhage	15	6 (5.3%)	9 (2.3%)
Acute Rejection	13	2 (1.8%)	11 (2.8%)
Graft Atherosclerosis			4 (1.0%)
PTLD	13	1 (0.9%)	12 (3.1%)
CVA	13	7 (6.2%)	6 (1.5%)
TxCAD (GA)	4		
Miscellaneous and No Data		33 (29.2%)	81 (20.8%)
Non Specific Graft Failure		13 (11.5%)	8 (2.1%)
Other including unspecified	114		
13 Multi-organ Failure			
8 Sudden Death (Cause Unknown)			
7 Renal Failure			
3 Pancreatitis			
3 Tracheal Bronchial Dehiscence			
2 Sputum Plug-Respiratory Arrest			
2 Bowel Infarction			
2 Myocardial Infarction			
1 Re-perfusion Injury			
1 Chondromalacia			
1 Dissecting Abdominal Aortic Aneurysm			
1 Large Bowel Perforation			
1 Broncho-mediastinal Fistula			
1 Air Embolus			
1 ABO Incompatibility			
1 Suicide			
1 Metabolic Problem			
1 Pulmonary Embolism			
1 Heart Failure (RT)			
1 Thrombo Embolic Disease			
1 Thrombotic Thrombocytopenia			
61 Unspecified (no data)			
Total	503	113	390

PANCREAS DONATION

Figure 108

Waiting List vs Cadaver Transplants Australia 2000 - 2004



** NOMS (National Organ Matching System) and the National Pancreas Registry

There were 23 combined kidney/pancreas transplants performed in 2004: fifteen at Westmead Hospital, NSW and eight at Monash Medical Centre, Victoria.

Five pancreas only transplants were performed at Westmead in 2004.

There were two combined kidney/pancreas transplants performed in Auckland in New Zealand in 2004.

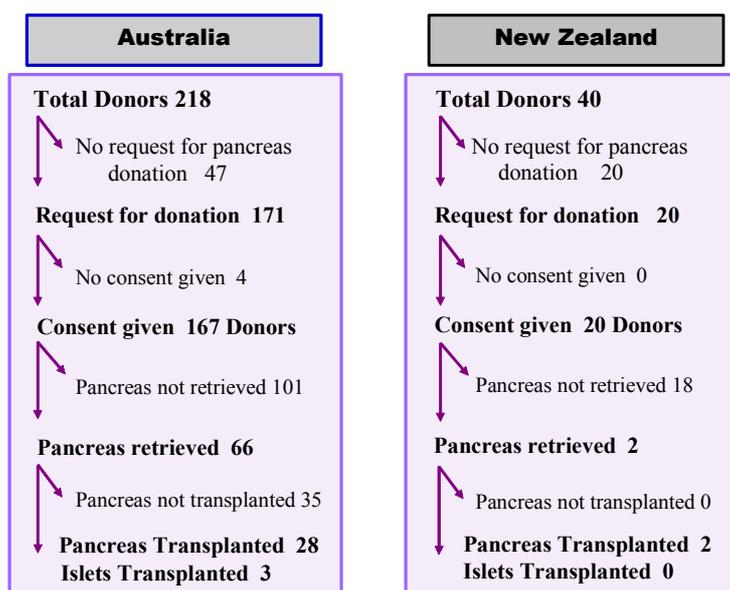
Figure 109

Waiting List		
Numbers of Patients on Waiting List	AUST	NZ
* Number of Patients with Diabetes Type 1 on dialysis (March 2004)	215	45
Patients < 45 years of age	169	38
Patients < 55 years of age	205	44
Number of Patients on Kidney Transplant Waiting List	1399	301
Number of Patients on Kidney Pancreas Transplant Waiting List	30	4
Number of patients on Islet Transplant Waiting List	7	0

Reference: * ANZDATA Registry

Figure 110

Outcome of Request for Pancreas Donation 2004



Refer to Appendices for reasons pancreas were not requested, not retrieved and not transplanted.

Figure 111

Age of Donors Providing Transplanted Pancreas 2000 - 2004

	Year	Age Groups							Total
		00-04	05-14	15-24	25-34	35-44	45-54	55-64	
Australia	2000	0	0	9	9	6	2	0	26
	2001	0	2	10	3	5	1	0	21
	2002	0	1	14	6	2	2	0	25
	2003	0	0	14	4	7	0	0	25
	2004	0	1	11	6	9	1	0	28
New Zealand	2000	0	0	3	0	0	0	0	3
	2001	0	0	1	0	2	0	0	3
	2002	0	0	1	0	0	1	0	2
	2003	0	0	3	2	1	0	0	6
	2004	0	0	1	0	1	0	0	2

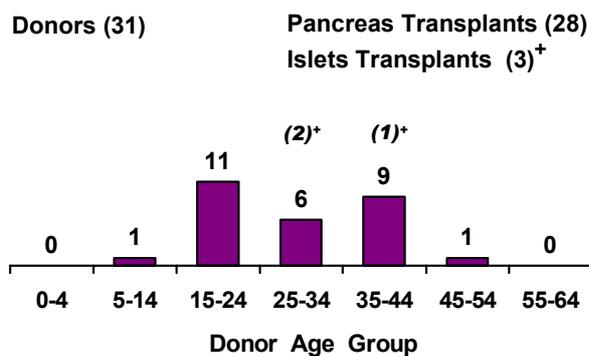
Figure 112

Age of Donors Providing Transplanted Islets 2002 - 2004

	Year	Age Groups							Total
		00-04	05-14	15-24	25-34	35-44	45-54	55-64	
Australia	2002	0	0	0	1	0	0	0	1
	2003	0	0	1	0	3	0	0	6
	2004	0	0	0	2	0	1	0	3

Figure 113

Age of Donors Providing Transplanted Pancreas and Islets - Australia 2004

**Figure 114**

Regional Outcome of Requests for Pancreas Donation 1989 - 2004

	QLD	NSW	ACT	VIC	TAS	SA	NT	WA	AUST	NZ**
Total Donors	643	1006	73	784	52	412	31	254	3175	463
Requested	534	781	65	386	22	128	7	84	2007	200
Consented	471	739	60	357	19	108	7	63	1824	193
Retrieved	24	209	18	141	8	27	0	47	474	28
Transplanted	18	140	10	67	7	19	0	0	261	19
Pancreas Islets	0	7	1	1	0	1	0	0	10	0

**** New Zealand 1993 - 2004**

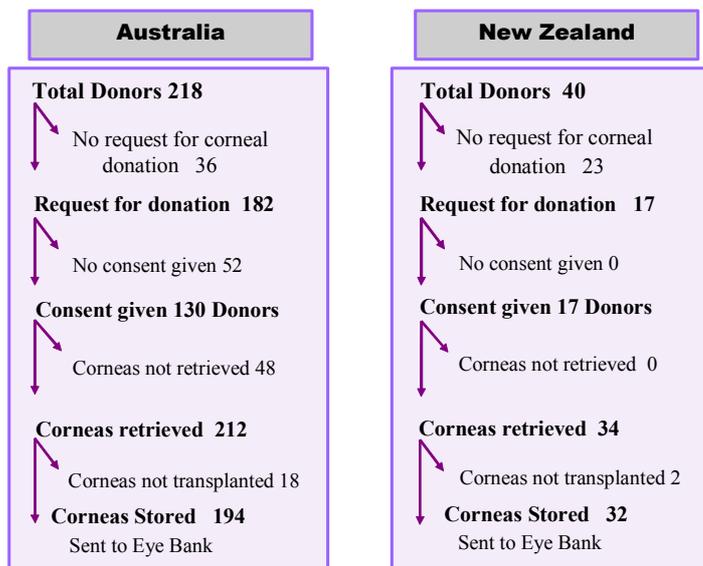
CORNEAL DONATION

This section refers only to corneas donated from solid organ donors. It does not include any cases of cornea only donation. Full data is available from

The Australian Corneal Graft Registry (Editors K.A. Williams, S.M. Muehlberg, C. Bartlett and D.J. Coster), Flinders Medical Centre, Bedford Park 5042, South Australia.

Figure 115

Outcome of Request for Corneal Donation 2004



Refer to Appendices for reasons cornea were not requested, not retrieved and not transplanted.

Figure 116

Age of Corneal Donors 2000 - 2004												
Year	Age Groups										Total	
	00-04	05-14	15-24	25-34	35-44	45-54	55-64	65-74	75-84	85-94		
Australia	2000	0	2	10	10	14	21	23	8	1	0	89
	2001	0	5	11	8	9	29	15	6	2	0	85
	2002	1	4	18	5	16	23	25	6	2	0	100
	2003	0	2	13	4	6	25	12	6	2	1	71
	2004	0	4	13	10	11	31	20	10	1	0	100
New Zealand	2000	0	0	1	0	1	8	0	1	0	0	11
	2001	0	0	3	1	1	3	4	1	0	0	13
	2002	0	0	0	1	6	5	3	0	0	0	15
	2003	0	0	7	1	7	1	3	0	0	0	19
	2004	0	0	5	2	2	2	4	2	0	0	17

Figure 117

Regional Outcome of Requests for Corneal Donation 1989 - 2004										
	QLD	NSW	ACT	VIC	TAS	SA	NT	WA	AUST	NZ**
Total Donors	643	1006	73	784	52	412	31	254	3175	463
Requested	593	883	64	626	36	290	9	195	2696	257
Consented	411	654	37	487	27	180	6	121	1923	201
Retrieved x	605	1222	63	943	47	315	2	228	3425	338
Gone to Eye Bank xx	595	960	48	921	44	303	2	216	3089	332
x Number of Corneas xx Gone to Eye Bank - Transplanted later ** New Zealand 1993 -2004										

BONE DONATION

AUSTRALIA

In Australia in 2004, authority was granted for bone donation from 32 solid organ donors. Retrieval of bone occurred on 16 occasions.

The majority of bone donations are from tissue donors.

NEW ZEALAND

New Zealand did not have any bone donations from solid organ donors in 2004.

Figure 118

Outcome of Request for Bone Donation 2004



Refer to Appendices for reasons bones were not requested, not retrieved and not transplanted.

Figure 119

Age of Bone Donors 2000 - 2004

Year	Age Groups										Total
	00-04	05-14	15-24	25-34	35-44	45-54	55-64	65-74	75-84		
Australia	2000	0	0	0	1	3	8	3	0	1	16
	2001	0	0	0	2	1	7	4	1	0	15
	2002	0	0	2	1	3	1	0	0	0	7
	2003	0	0	4	4	1	3	1	0	0	13
	2004	0	0	6	1	1	6	2	0	0	16
New Zealand	2000	0	1	0	0	0	1	0	0	0	2
	2001	0	0	0	0	0	0	0	0	0	0
	2002	0	0	0	0	2	0	0	0	0	2
	2003	0	0	1	0	1	0	0	0	0	2
	2004	0	0	0	0	0	0	0	0	0	0

Figure 120

Regional Outcome of Bone Donation 1989 - 2004

	QLD	NSW	ACT	VIC	TAS	SA	NT	WA	AUST	NZ**
Total Donors	643	1006	73	784	52	412	31	254	3175	463
Requested	503	76	4	65	4	154	3	119	928	160
Consented	346	56	4	45	2	63	3	69	588	123
Retrieved	138	8	0	12	2	42	0	43	245	36
Transplanted or Stored	135	8	0	6	2	42	0	42	235	36

* New Zealand 1993 -2004

TERMINAL MANAGEMENT

TIME FROM ADMISSION TO BRAIN DEATH

Australia

In 2004, 36% of Australian donors were declared brain death within 23 hours of hospital admission.

The median time for admission to brain death was 33.3 hours.

Ten percent of donors were in hospital for more than five days.

New Zealand

In 2004, 33% of New Zealand donors were declared brain dead within 23 hours of hospital admission.

Time of admission to hospital was unknown in 18% of donors. The median time from admission to brain death was 26.3 hours.

Twelve percent of donors were in hospital for more than five days.

Figure 121

Time from Admission to Brain Death 2000 - 2004												
	Year	Hours								Unknown	Median (hours)	No. of Donors
		0-23	24-47	48-71	72-95	96-119	120-143	144-167	>=168			
Australia	2000	24%	31%	13%	11%	6%	4%	2%	9%	0%	42.9	196
	2001	36%	34%	9%	6%	2%	4%	2%	7%	0%	30.8	185
	2002	39%	28%	16%	4%	4%	2%	1%	6%	0%	30.3	206
	2003	37%	32%	10%	7%	3%	2%	1%	8%	0%	28.6	179
	2004	36%	30%	11%	8%	5%	3%	1%	6%	0%	33.3	218
New Zealand	2000	42%	24%	12%	10%	7%	0%	0%	5%	0%	28.5	41
	2001	59%	27%	5%	3%	3%	0%	0%	3%	0%	21.0	37
	2002	44%	33%	3%	6%	3%	0%	3%	8%	6%	25.6	38
	2003	35%	20%	5%	5%	8%	0%	0%	0%	27%	24.0	40
	2004	33%	25%	10%	0%	2%	2%	2%	8%	18%	26.3	40

Figure 122

Australian States Time from Admission to Brain Death 2004											
States	Hours								Median (hours)	No. of Donors	
	0-23	24-47	48-71	72-95	96-119	120-143	144-167	>=168			
Queensland	28%	33%	10%	8%	3%	8%	0%	10%	40.0	39	
New South Wales	36.5%	32%	9.5%	9.5%	3%	0%	3%	9.5%	32.0	63	
ACT	33%	33%	0%	0%	17%	0%	0%	17%	29.5	6	
Victoria	49%	24%	9%	7%	9%	0%	0%	2%	24.4	45	
Tasmania	50%	50%	0%	0%	0%	0%	0%	0%	25.4	2	
South Australia	36%	23%	18%	10%	5%	3%	0%	5%	37.8	39	
Northern Territory	100%	0%	0%	0%	0%	0%	0%	0%	9.3	1	
Western Australia	22%	39%	9%	9%	9%	9%	3%	0%	37.1	23	

Figure 123

Time from Ventilation to Brain Death 2000 - 2004												
	Year	Hours								Unknown	Median (hours)	No. of Donors
		0-23	24-47	48-71	72-95	96-119	120-143	144-167	>=168			
Australia	2000	26%	35%	12%	11%	6%	4%	<1%	6%	0%	39.2	196
	2001	40%	32%	10%	7%	2%	3%	2%	4%	0%	28.5	185
	2002	38%	31%	16%	4%	3%	1%	1%	5%	<1%	29.3	206
	2003	39%	35%	7%	6%	4%	2%	<1%	12%	0%	27.0	179
	2004	39%	33%	12%	7%	4%	1%	1%	3%	0%	29.7	218
New Zealand	2000	49%	22%	10%	10%	7%	0%	0%	2%	0%	26	41
	2001	65%	24%	3%	3%	3%	0%	0%	2%	0%	17.4	37
	2002	42%	32%	5%	5%	2.5%	2.5%	0%	0%	11%	24.8	38
	2003	43%	18%	2%	5%	5%	2%	0%	0%	25%	21.1	40
	2004	40%	22.5%	7.5%	2.5%	5%	0%	2.5%	5%	15%	25.3	40

TIME FROM BRAIN DEATH TO AORTIC CROSS CLAMP

Australia

Forty five percent of donors had undergone aortic cross clamp within twelve hours of the certification of brain death in 2004.

The median time was 13.5 hours.

New Zealand

In 2004, 82.5% of donors had undergone aortic cross clamp within twelve hours.

The median time was 9.6 hours.

Figure 124

Time from Brain Death to Aortic Cross Clamp 2000 - 2004											
Hours	Australia					New Zealand					
	2000	2001	2002	2003	2004	2000	2001	2002	2003	2004	
<= 6	10%	6%	4%	3%	5%	34%	19%	18%	12.5%	12.5%	
7 - 12	53%	53%	48%	42%	40%	54%	65%	61%	67.5%	70%	
13-18	31%	32%	39%	41%	44%	5%	14%	13%	17.5%	17.5%	
19-24	2%	4%	6%	7%	6%	2%	2%	3%	0%	0%	
> 24	4%	5%	3%	7%	5%	5%	0%	5%	2.5%	0%	
Median Hours	11.6	12.1	12.8	13.4	13.5	9.0	9.5	9.5	9.9	9.6	
Number of Donors	195	183	204	178	214	41	37	38	40	40	
Non-Heart Beating Donors	1	2	2	1	4	0	0	0	0	0	

Figure 125

Australian States Time from Brain Death to Aortic Cross Clamp 2004								
	QLD	NSW	ACT	VIC	TAS	SA	NT	WA
<= 6 hours	3%	2%	0%	2%	0%	18%	0%	0%
7 - 12 hours	61%	38%	33%	24%	0%	53%	0%	32%
13-18 hours	28%	49%	50%	61%	50%	24%	0%	59%
19-24 hours	3%	6%	17%	9%	50%	0%	100%	4.5%
> 24 hours	5%	5%	0%	4%	0%	5%	0%	4.5%
Median Hours	12.1	13.8	17.5	14.1	17.8	10.5	19.4	14.3
Number of Donors	39	61	6	45	2	38	1	22

DONOR MAINTENANCE

DRUGS FOR MAINTENANCE OF THE DONOR (GIVEN IN THE INTENSIVE CARE/CRITICAL CARE UNIT)

Australia

There were 4% (9) of donors who did not require inotropic support in 2004.

Antidiuretic agents (desmopressin/vasopressin) were prescribed to 61% (133) of all donors.

MAP <50 mm Hg

Mean arterial blood pressure (MAP) <50 mm Hg was recorded in 4% (8) of donors in Australia. Two donors had a duration of less than one hour, three one hour and four greater than one hour. Range was fifteen minutes to four hours.

New Zealand

In 2004 there was one donor who did not require inotropic support.

Antidiuretic agents were prescribed to 40% (16) of all donors.

MAP <50 mm Hg

One donor was reported to have had a mean arterial blood pressure (MAP) <50 MM Hg with a duration of half an hour.

Figure 126

Donor Maintenance 2000 - 2004										
Drugs	Australia					New Zealand				
	2000	2001	2002	2003	2004	2000	2001	2002	2003	2004
Number of Donors	(196)	(185)	(206)	(179)	(218)	(41)	(37)	(38)	(40)	(40)
Dopamine	30	30	18	12	22	13	12	10	9	6
Adrenaline	52	42	42	34	28	2	4	2	0	4
Noradrenaline	126	121	151	138	174	23	26	31	28	44
Aramine	5	7	7	12	4	4	4	0	2	0
Dobutamine	5	3	5	3	3	0	0	0	0	0
Desmopressin/DDAVP	116	123	134	122	133	17	20	14	20	16

NB: Donors may be given more than one drug

Figure 127

	Australian States Donor Maintenance 2004 (2003)							
	QLD	NSW	ACT	VIC	TAS	SA	NT	WA
Number of Donors	39 (40)	63 (46)	6 (8)	42 (47)	2 (6)	39 (22)	1 (2)	23 (18)
Dopamine	14 (5)	1 (4)	0 (0)	4 (2)	1 (1)	1 (0)	0 (0)	1 (0)
Adrenaline	5 (4)	5 (11)	0 (0)	4 (6)	0 (0)	12 (11)	0 (1)	2 (1)
Noradrenaline	21 (32)	58 (36)	6 (8)	41 (36)	1 (2)	26 (7)	1 (1)	20 (16)
Aramine	0 (1)	0 (6)	3 (1)	0 (4)	1 (0)	0 (0)	0 (0)	0 (0)
Dobutamine	1 (0)	0 (3)	1 (0)	0 (0)	0 (0)	0 (0)	0 (0)	1 (0)
Desmopressin/DDAVP	24 (26)	45 (36)	6 (7)	18 (25)	1 (2)	20 (12)	1 (1)	18 (13)

NB: Donors may be given more than one drug

TERMINAL TREATMENT

TERMINAL TREATMENT (PROVIDED IN THE OPERATING THEATRES)

Australia

Seven donors did not receive any heparin as part of their terminal treatment. Two of these were non heart beating kidney donors and did not receive any terminal treatment at all.

New Zealand

Three donors did not receive heparin as part of their terminal treatment. Two of these donors did not receive any terminal treatment at all. All three were beating heart donors.

Figure 128

Terminal Treatment 2000 - 2004										
	Australia					New Zealand				
	2000	2001	2002	2003	2004	2000	2001	2002	2003	2004
Number of Donors	(196)	(185)	(206)	(179)	(218)	(41)	(37)	(38)	(40)	(40)
Heparin	192	177	203	177	211	41	36	37	40	37
Methyl Prednisolone	179	166	186	157	182	1	0	2	4	5
Chlorpromazine	34	34	49	37	35	0	0	2	0	1
Mannitol	23	16	8	12	4	0	0	0	0	0
Prostacyclin	86	69	89	76	93	15	12	12	21	11

NB: Donors may be given more than one drug

Figure 129

Australian States Terminal Treatment 2004 (2003)								
	QLD	NSW	ACT	VIC	TAS	SA	NT	WA
Number of Donors	39 (40)	63 (46)	6 (8)	45 (42)	2 (2)	39 (22)	1 (1)	23 (18)
Heparin	39 (39)	60 (46)	6 (8)	45 (42)	2 (2)	37 (22)	1 (1)	21 (17)
Methyl Prednisolone	30 (38)	59 (44)	6 (8)	42 (39)	2 (2)	38 (22)	1 (1)	4 (3)
Chlorpromazine	28 (29)	0 (0)	1 (1)	5 (3)	0 (0)	1 (3)	0 (0)	0 (1)
Mannitol	1 (0)	0 (1)	0 (0)	0 (1)	0 (0)	3 (9)	0 (2)	0 (0)
Prostacyclin	20 (19)	31 (20)	5 (2)	14 (17)	2 (1)	12 (8)	0 (0)	9 (9)

NB: donors may be given more than one drug

