

More transplants – new lives



Transplant Activity

in the Republic of Ireland
2003-2004



Cover pictures:

Eloise Allen, who had a heart transplant when she was two years old.

Dr Stephen Bonner, lead consultant for UK Transplant's donor liaison scheme, with Tracy Ryder, donor liaison nurse at James Cook University Hospital, in Middlesbrough.

Lesley Kelly, Donor Transplant Co-ordinator at Western Infirmary, Glasgow, promotes the NHS Organ Donor Register with the help of members of the Scottish Truckers Club.

Skilled surgeons and their teams carry out thousands of transplants every year.

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PREFACE

This transplant activity report for financial year 2003-2004 relates throughout to the Republic of Ireland (RoI). All figures quoted are as reported to UK Transplant by 10 May 2004 for the National Transplant Database, maintained on behalf of the transplant community and the National Health Service (NHS).

The information provided in the tables and graphs in Chapters 2-5 does not distinguish between adult and paediatric transplantation.

The definition of a solid organ donor is any donor from whom at least one solid organ has been retrieved with the intention to transplant. Organs retrieved solely for research purposes have not been counted in this Activity Report. Organ donation has been recorded to reflect the number of organs retrieved. For example, if both lungs were retrieved, two lungs are recorded even if they were both used in one transplant. Similarly, if one liver is donated, one liver is recorded even if it results in two transplants. All pancreatic transplants refer to the whole organ.

Donation and transplant rates in this report are presented per million population (pmp). The population figure used throughout this report for the RoI is 3.8 million and is based on the 2001 estimate from the Central Statistics Office, Ireland. The number of heartbeating donors by hospital is detailed in **Appendix I**.

The format of this report is rather different from last year. In particular, the report is now organised with a number of chapters and the textual commentary is now adjacent to the relevant figures and tables. The opportunity has also been taken to make some of the tables easier to read. Comments on both the content and layout of this report are very welcome.

This report is available on the UK Transplant website: www.uktransplant.org.uk

1 SUMMARY OF ACTIVITY

In 2002-2003, 81 cadaveric donors enabled 192 patients in the RoI to receive a solid organ transplant. This year saw an increase of two in the number of transplants, from the number recorded last year, making it the highest for five years. The number of donors was just one less than in 2002-2003. The increased numbers of both donors and transplants that were seen last year have therefore been maintained. The cadaveric donor rate per million population in the RoI is 21.3, which compares very favourably with the figure of 13.1 in the UK.

The demand for organ transplantation is continuing to increase over a period when the number of donors has been fairly constant. In 2003-2004, the total number of patients on the active and suspended transplant lists increased by 18% from 244 to 288. This was mainly due to the increase of 43 in the number of patients registered for a kidney transplant.

In renal transplantation, there were three more transplants from one less donor than last year. There was no live kidney donation in 2003-2004. There were nine fewer donors of cardiothoracic organs and two fewer transplants in 2003-2004. The number of liver donors continues to rise, with 74 donors in 2003-2004, the highest number in the last ten years. The number of patients on the cardiothoracic and liver transplant lists at 31 March 2004, 24 and 15 respectively, is much the same as it has been for the last ten years.

Dave Collett
Director of Statistics and Audit

2 OVERVIEW

2.1 Summary of activity

Cadaveric donor numbers, transplant activity and the number of patients on the active and suspended transplant lists at 31 March, for the period 1 April 1994 to 31 March 2004, are shown in **Figure 2.1**. There were two more transplants performed in 2003-2004 compared with the previous year, leading to the highest number in the last five years. There has been a sizeable increase (18%) in the number of patients on the transplant list from 244 in 2003 to 288 in 2004.

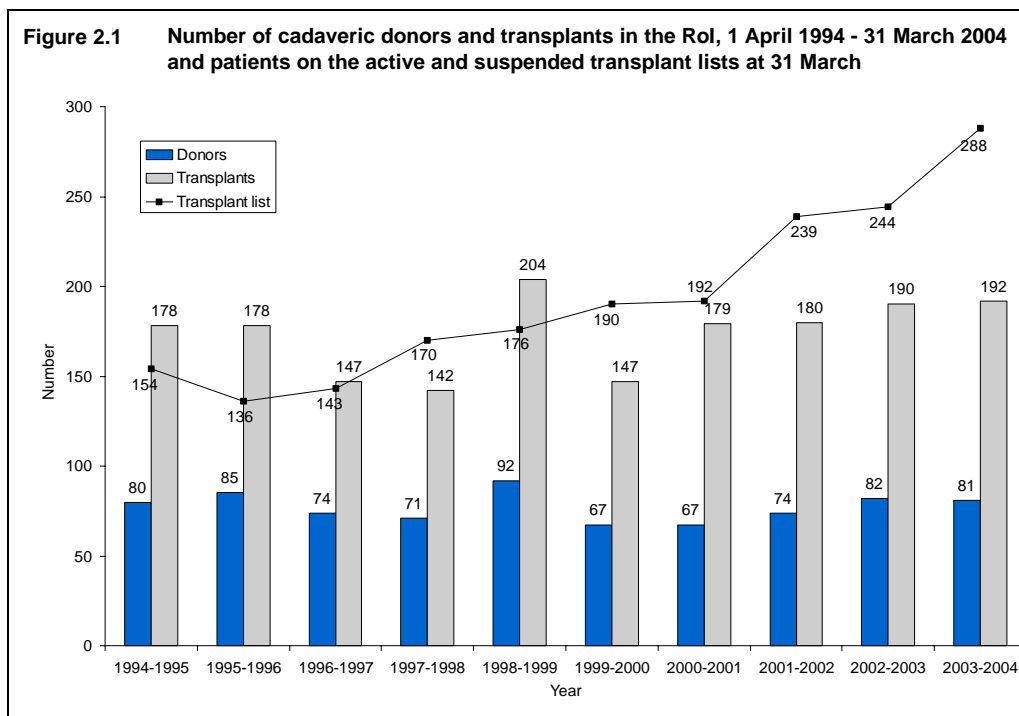


Table 2.1 summarises the number of donors and transplants, by organ, for 2003-2004. There were 81 cadaveric heartbeating solid organ donors reported from the RoI in 2003-2004, one less than the previous year. A total of 275 cadaveric solid organs were provided for transplant and 192 cadaveric transplants were performed in the RoI. Note that there were no non-heartbeating donors in 2003-2004.

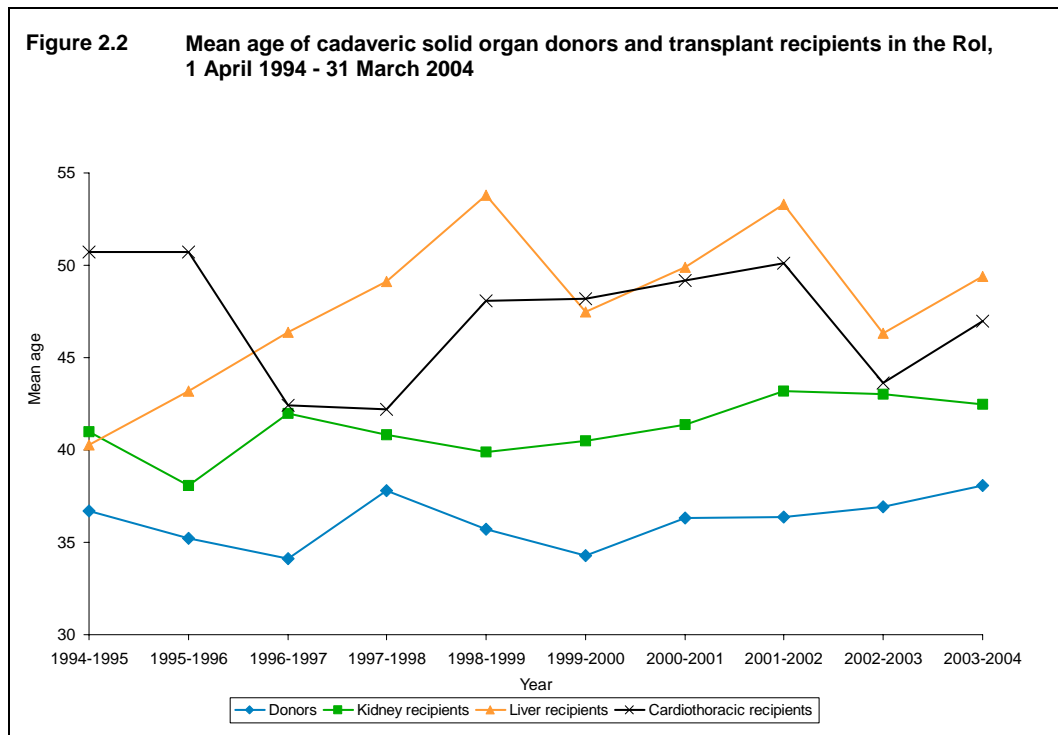
Table 2.1 RoI activity summary for 1 April 2003 - 31 March 2004

	Kidney	Pancreas	Heart	Heart/ lung	Lung	Liver	TOTAL
Cadaveric donors	79	8	16	-	13	74	81
Cadaveric organs donated	154	8	16	-	23	74	275
Cadaveric transplants	140	7	11	0	0	40	192¹
Living donor transplants	0	0	0	-	0	0	0

¹ Includes combined transplants: 6 kidney and pancreas

The number of cadaveric transplants excludes those organs donated in the RoI that were subsequently transplanted in the UK or other European countries.

Figure 2.2 shows the mean age of cadaveric solid organ donors and transplant recipients for the last ten years. The mean age of cadaveric donors has gradually increased over the last four years to a ten-year high of 38.1 years. The mean age of liver and cardiothoracic recipients in 2003-2004 was 49.4 and 47 years, respectively.



2.2 Transplant list

A summary of the number of patients on the transplant list at 31 March 2004 is given in **Table 2.2** for each organ. At 31 March 2004, there were 288 patients registered on a solid organ transplant list in the RoI. Since 1992, all kidney patients registered have been formally suspended from the UK Transplant list as the RoI does not participate in the National Kidney Allocation Scheme. Therefore, on 31 March 2004, 242 patients on the RoI kidney transplant list were suspended. In addition, seven pancreas and six liver patients were temporarily suspended for other reasons.

Table 2.2 Transplant list summary for the RoI at 31 March 2004

	Kidney	Pancreas	Heart	Heart/ lung	Lung	Liver	TOTAL
Active list	0	0	24	0	0	9	33
Temporarily suspended	242 ¹	7	0	0	0	6	255
TOTAL	242	7	24	0	0	15	288

¹ Includes 5 kidney and pancreas patients

Table 2.3 shows the numbers of patients waiting for a transplant at 31 March 2003 and 2004. The total number rose by 44 patients (18%) to 288 by the end of March 2004. When comparing transplant lists at 31 March 2003 and 2004, the renal list increased by 43 patients, the liver list fell by three patients and the heart list increased by one patient. The RoI does not have a lung transplant waiting list as their patients are referred to the UK.

Table 2.3 Active and suspended transplant lists in the RoI at 31 March 2003 and 2004

	2003	2004	% Change
Cardiothoracic patients	23	24	+4
Heart	23	24	+4
Heart/lung	0	0	0
Liver patients	18	15	-17
Renal patients	199	242	+22
Kidney	187	237	+27
Kidney & pancreas	12	5	-
Pancreas patients	4	7	-
ALL ORGANS	244	288	+18

Percentage not reported when fewer than 10 in either year

2.3 Transplants

The number of transplants performed in the RoI in the last two years are given in **Table 2.4**. This table shows that a total of 192 transplants were performed in 2003-2004, one less than in the previous year. There were six multi-organ transplants, all were kidney and pancreas transplants. The 134 cadaveric heartbeating kidney transplants in 2003-2004 include 5 en bloc and 3 double kidney transplants.

Table 2.4 Transplants performed in the RoI, 1 April 2002 - 31 March 2004

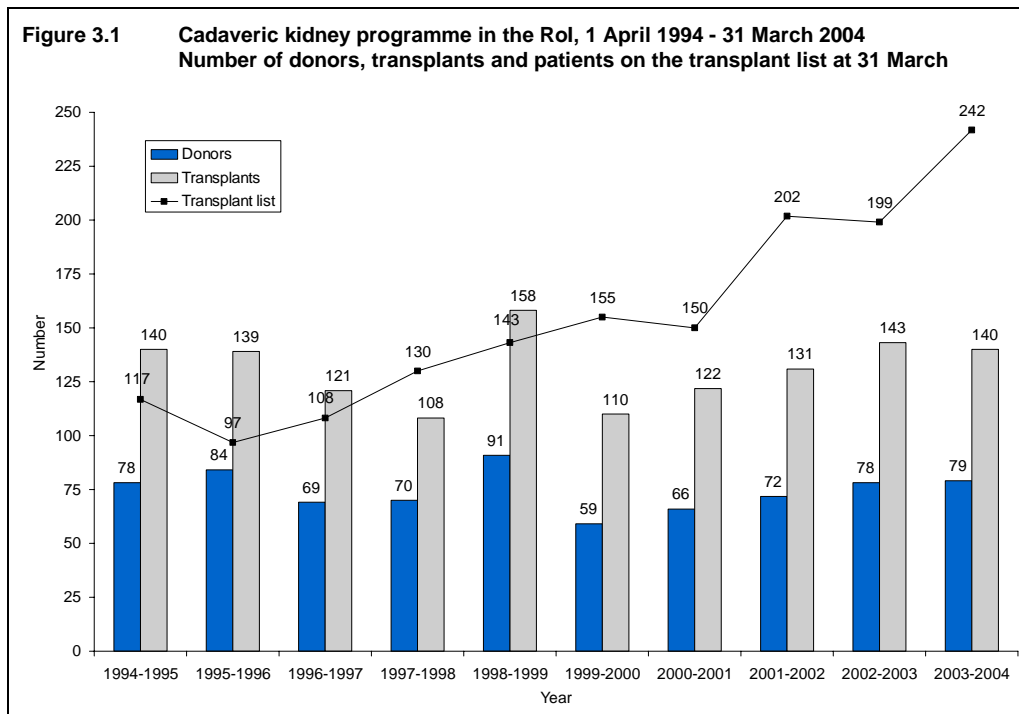
Transplant	2002-2003	2003-2004	% Change
Cadaveric heartbeating kidney	134	134	0
Living donor kidney	3	0	-
Cadaveric heart	13	11	-15
Cadaveric heartbeating liver	34	40	+18
Kidney & liver	1	0	-
Kidney & pancreas	8	6	-
Pancreas	0	1	-
TOTAL TRANSPLANTS (Solid organs)	193	192	-1
Total kidney transplants	146	140	-4
Total cardiothoracic transplants	13	11	-15
Total liver transplants	35	40	+14

Percentage not reported when fewer than 10 transplants in either year

3 KIDNEY AND PANCREAS ACTIVITY

3.1 Overview

A summary of activity for the cadaveric kidney programme is shown in **Figure 3.1**. This figure gives the number of donors, transplants and patients on the transplant list in the last ten years. The number of patients on the kidney transplant list increased in 2003-2004 to the highest level in the last ten years, while the number of donors and transplants are comparable with those for last year.



The cadaveric donor kidney activity for 2003-2004 and 2002-2003 is summarised in **Table 3.1**. The donor rates per million population are shown in parentheses.

Table 3.1 Cadaveric kidney activity in the RoI, 1 April 2002 - 31 March 2004

	2002-2003		2003-2004	
Solid organ donors (pmp)	82	(21.6)	81	(21.3)
Kidney donors (pmp)	78	(20.5)	79	(20.8)
Kidneys retrieved	155		154	
Kidneys used	153		154	
Kidney transplants in RoI	143		140	
Kidney transplant list at 31 March	199		242	

Of the kidneys retrieved and used in 2003-2004, 6 (4%) were used in the UK (5 (3%) in 2002-2003). The kidney transplants in the RoI include en bloc and double kidney transplants, five and three in 2003-2004, respectively (three and two in 2002-2003, respectively).

3.2 Transplant list

The number of patients registered on the kidney or kidney and pancreas transplant list has increased by 22%. On 31 March 2004, 242 patients were registered (237 for kidney and 5 for kidney and pancreas), compared with 199 on 31 March 2003; see **Table 3.1**. The number of patients waiting for a kidney transplant represents 63.7 patients pmp. An additional seven patients were registered for a pancreas only transplant. Of patients on the transplant list with a reported ethnicity, all were white.

The outcome of patients registered on the kidney transplant list at 1 April 2003 and subsequently registered during the financial year, is shown in **Table 3.2**. Overall, 128 (34%) of the 373 patients registered during 2003-2004 received a transplant by 31 March 2004.

Table 3.2 Kidney transplant list and new registrations in the RoI, 1 April 2003 - 31 March 2004

Outcome of patient at 31 March 2004	Patients listed at 1 April 2003		New registrations in 2003-2004 ¹		TOTAL	
	N	%	N	%	N	%
Remained listed	115	58	128	73	243	65
Transplanted	81	41	47	27	128	34
Removed	1	<1	0	0	1	<1
Died	1	<1	0	0	1	<1
TOTAL	198		175		373	

¹ Includes re-registrations for second or subsequent transplants

3.3 Donor and organ supply

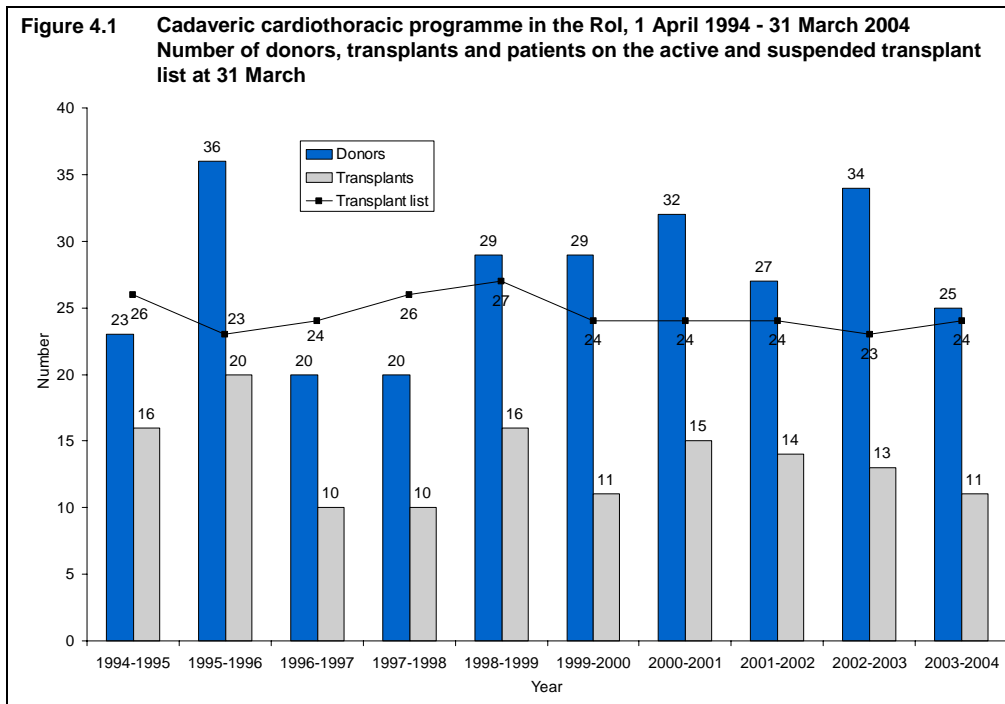
Of the 81 cadaveric heartbeating solid organ donors in the RoI in 2003-2004, 79 (98%) donated kidney(s), as shown in **Table 3.1**. From these donors, 154 kidneys were retrieved and all were transplanted. In 2003-2004, there were six donors who only donated kidney(s). All of the kidney donors were white.

3.4 Transplants

There were 140 cadaveric heartbeating donor kidney transplants in 2003-2004, as shown in **Table 3.1**. Of these transplants, 4% were kidney and pancreas transplants. Of the kidney transplant recipients with reported ethnicity, all except one were white.

4.1 Overview

Figure 4.1 shows cadaveric cardiothoracic donor and transplant activity between 1 April 1994 and 31 March 2004. Transplant and donor numbers have fluctuated over this period while the active and suspended transplant list has remained relatively constant over the last four years.



A summary of cadaveric cardiothoracic activity for 2002-2003 and 2003-2004 is shown in **Table 4.1** and includes donor rates per million population in parentheses.

Table 4.1 Cadaveric cardiothoracic organ activity in the RoI, 1 April 2002 - 31 March 2004

	2002-2003		2003-2004	
Solid organ donors (pmp)	82	(21.6)	81	(21.3)
Cardiothoracic donors (pmp)	34	(8.9)	25	(6.6)
Organs retrieved				
Hearts	29		16	
Lungs	21		23	
TOTAL	50		39	
Organs used				
Hearts	29		16	
Lungs	21		23	
TOTAL	50		39	
Transplants in RoI				
Heart	13		11	
TOTAL	13		11	
Transplant list at 31 March				
Heart	23		24	
TOTAL	23		24	

Of the hearts and lungs retrieved and used in 2003-2004, five hearts and 23 lungs were used in the UK. The corresponding figures for 2002-2003 were 16 hearts and 21 lungs.

4.2 Transplant list

The number of patients registered at Dublin, Mater Misericordiae on the cardiothoracic transplant list increased by one at 31 March 2004. The ethnicity of patients registered on the heart transplant list in the RoI is poorly reported; only four patients out of 24 had ethnicity reported and all were white.

4.3 Donor and organ supply

Of the 81 solid organ donors in the RoI, 25 (31%) donated cardiothoracic organs in 2003-2004 as shown in **Table 4.1**. In the previous year, 34 (41%) of 82 solid organ donors provided cardiothoracic organs. The number of hearts retrieved fell by 45% and the number of lungs retrieved increased by 10%. All 25 cardiothoracic donors were of white ethnicity.

Cardiothoracic organ donors by retrieval centre, rather than geographical zone, in 2003-2004 are detailed in **Table 4.2**, with the corresponding figures for 2002-2003 in parentheses. Under current contracts, Newcastle retrieved organs from 52% of the RoI cardiothoracic donors. Of the cardiothoracic donors, 48% donated only the heart.

Table 4.2 Cadaveric cardiothoracic organ donors in the RoI, 1 April 2003 - 31 March 2004 (2002-2003), by retrieval centre

Retrieval centre	Type of donor						TOTAL	
	Heart only		Heart/lung		Lung(s) only			
Birmingham	0	(2)	0	(0)	0	(0)	0	(2)
Dublin	10	(10)	1	(3)	0	(0)	11	(13)
Great Ormond Street	1	(0)	0	(0)	0	(0)	1	(0)
Newcastle	1	(10)	3	(3)	9	(4)	13	(17)
Papworth	0	(0)	0	(1)	0	(1)	0	(2)
TOTAL	12	(22)	4	(7)	9	(5)	25	(34)

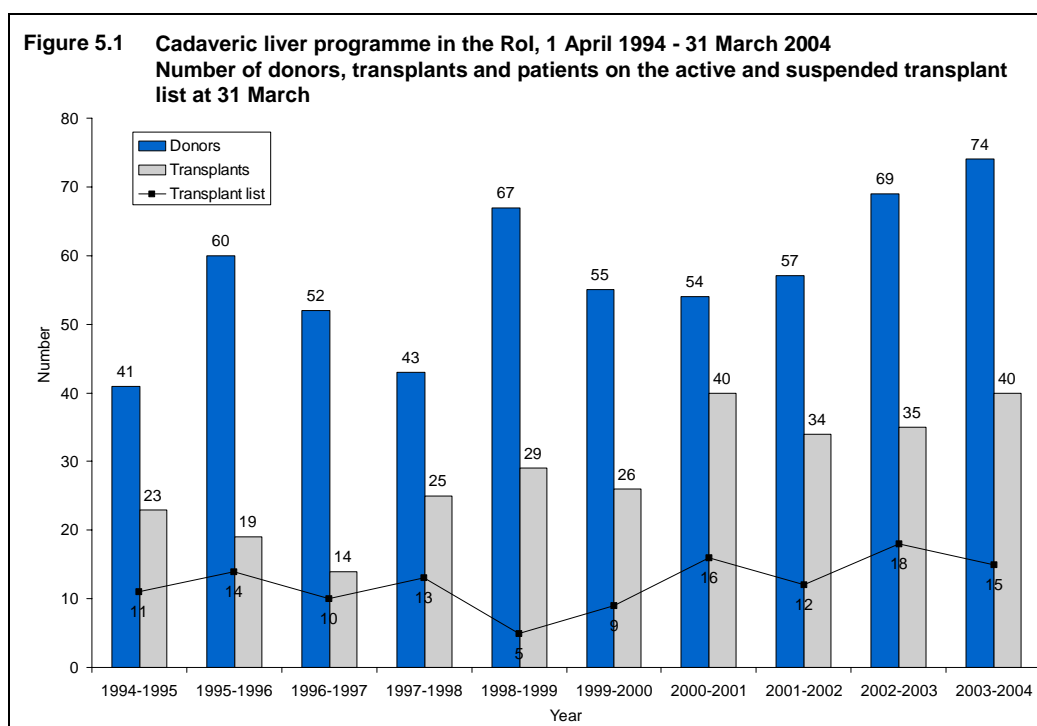
4.4 Transplants

Only cadaveric heart transplants have been carried out in the RoI in the last two years: 13 and 11 in 2002-2003, and 2003-2004, respectively. Currently, there is no lung transplant programme in the RoI. All 11 cardiothoracic transplant recipients in 2003-2004 were of white ethnicity.

5 LIVER ACTIVITY

5.1 Overview

The number of cadaveric liver donors and transplants, and patients on the active and suspended transplant list for the last ten financial years is given in **Figure 5.1**. The number of liver donors in 2003-2004 increased by five from the previous year to give the highest in the past decade.



The cadaveric liver activity for 2003-2004 and 2002-2003, with donor rates per million population (pmp) in parentheses, are given in **Table 5.1**.

Table 5.1 Cadaveric liver activity in the RoI, 1 April 2002 - 31 March 2004

	2002-2003		2003-2004	
Solid organ donors (pmp)	82	(21.6)	81	(21.3)
Liver donors (pmp)	69	(18.2)	74	(19.5)
Livers retrieved	69		74	
Livers used	68		73	
Liver transplants in RoI	35		40	
Liver transplant list at 31 March	18		15	

Of the livers retrieved and used in 2003-2004, 41 were used in the UK (37 in 2002-2003). Liver transplants in the RoI in 2003-2004 include eight transplants using livers from the UK (four in 2002-2003).

5.2 Transplant list

In 2003-2004, the number of patients waiting for a transplant fell by 17% compared with 2002-2003. Of the 15 patients on the liver transplant list at 31 March 2004, 14 were white.

Table 5.2 shows the outcome of patients registered on the liver transplant list at 1 April 2003 and subsequently registered during the year.

Outcome of patient at 31 March 2004	Active and suspended patients at 1 April 2003		New registrations in 2003-2004 ¹		TOTAL	
	N	%	N	%	N	%
Remained active/suspended	7	44	8	18	15	25
Transplanted	3	19	35	80	38	63
Removed	5	31	1	2	6	10
Died	1	6	0	0	1	2
TOTAL	16		44		60	

¹ Includes re-registrations for second or subsequent transplants

Of the 60 patients waiting throughout the year, 38 (63%) had received a transplant by the end of March 2004, 15 (25%) were still waiting for a transplant and 7 (12%) had either died or been removed from the transplant list.

5.3 Donor and organ supply

Of the 81 solid organ donors in 2003-2004, 74 (91%) were liver donors giving a retrieval rate of 19.5 livers pmp; see **Table 5.1**. Of the livers retrieved, all but one were transplanted in both 2002-2003 and 2003-2004. In 2003-2004, of the 74 livers retrieved, 32 were transplanted in the RoI and 41 were exported and transplanted in the UK. All 74 liver donors had ethnicity reported as white.

5.4 Transplants

All the 40 liver transplants performed in 2003-2004 used whole livers from cadaveric heartbeating donors. Of these, 32 used livers from RoI donors and eight used livers imported from the UK. All 40 transplant recipients were of white ethnicity.

APPENDIX

The table overleaf provides details of the 81 cadaveric heartbeating solid organ donors reported in 2003-2004, by donating hospital. Corresponding figures for 2002-2003 are given in parentheses.

**Appendix I Cadaveric heartbeating solid organ donors and donated organs in the RoI, 1 April 2003 - 31 March 2004 (2002-2003),
by donating hospital**

Donating hospital	All donors		Multi-organ donor		Kidney	Heart	Lung	Liver	Pancreas
Ballinasloe, Portiuncula Hospital	2	(3)	1	(2)	2	0	0	2	0
Castlebar General Hospital	2	(2)	2	(2)	4	1	3	2	0
Cavan General Hospital	4	(2)	3	(2)	8	0	0	3	0
Cork University Hospital	8	(10)	8	(10)	15	2	0	8	0
Drogheda, Our Lady Of Lourdes Hospital	1	(1)	0	(1)	2	0	0	0	0
Dublin, Beaumont Hospital	27	(20)	25	(18)	53	6	2	25	4
Dublin, James Connolly Memorial Hospital	2	(3)	1	(3)	4	1	0	1	1
Dublin, Mater Misericordiae Hospital	4	(4)	3	(2)	8	0	4	2	0
Dublin, St Vincent's Hospital (Elm Park)	2	(0)	2	(0)	4	0	2	2	0
Dublin, St. Colmcilles, Loughlinstown	2	(2)	2	(1)	4	0	2	2	0
Dublin, St. James's Hospital	5	(1)	5	(0)	10	0	2	5	1
Dublin, The Children's Hospital	2	(1)	2	(1)	4	1	0	2	0
Ennis, County Hospital	1	(0)	1	(0)	2	1	2	1	0
Galway, University College Hospital	3	(4)	3	(4)	5	1	2	3	1
Kilkenny, St. Lukes Hospital	0	(2)	0	(1)	0	0	0	0	0
Letterkenny General Hospital	1	(3)	1	(3)	2	0	0	1	0
Limerick Regional Hospital	5	(5)	5	(3)	10	1	2	5	1
Limerick, St Johns Hospital	1	(0)	0	(0)	0	0	0	1	0
Mater Public Hospital	0	(1)	0	(1)	0	0	0	0	0
Mullingar General Hospital	2	(2)	2	(2)	3	0	0	2	0
Naas General Hospital	0	(2)	0	(2)	0	0	0	0	0
Navan, Our Lady's Hospital	1	(0)	1	(0)	2	0	1	1	0
Nenagh General Hospital	0	(1)	0	(1)	0	0	0	0	0
Roscommon County Hospital	0	(1)	0	(1)	0	0	0	0	0
Sligo General Hospital	3	(1)	3	(0)	6	0	0	3	0
Tallaght Hospital	1	(8)	1	(7)	2	1	0	1	0
Tralee General Hospital	1	(1)	1	(0)	2	1	1	1	0
Tullamore, Count Hospital	1	(0)	1	(0)	2	0	0	1	0
Wexford, General Hospital	0	(2)	0	(1)	0	0	0	0	0
TOTAL	81	(82)	73	(68)	154	16	23	74	8

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