

# More transplants – new lives



# Transplant Activity

in the Republic of Ireland

2002-2003

## **Executive Summary**

Transplantation is one of the successes of modern medicine.

In 2002-2003 the Republic of Ireland (ROI) had an increase in both donors and transplants. 82 cadaveric donors enabled 190 people in the ROI to receive a transplant, which was an increase of ten on the previous year. In addition, three live donors enabled three kidney transplants. The transplant rate increased by 6% overall with a 10% increase in kidney transplants and a 3% increase in liver transplants. One less heart transplant was undertaken than in the previous year.

Calendar year data shows that the ROI achieved a donor rate of 20.5 per million population (pmp) one of the highest rates in Europe next to Spain, which is a remarkable achievement. In addition, the cadaveric kidney transplant rate is high, 36.8 pmp compared with 22.9 pmp for the UK.

The number of liver donors was the highest for a decade enabling 68 livers to be transplanted in the ROI or the UK. In addition, more donors donated cardiothoracic organs, 41% compared to 36% in the previous year and all organs retrieved were transplanted either in the ROI or the UK.

In the same period the numbers of people registered for a transplant rose marginally. This rise relates to an increase in those registered for a liver transplant.

This activity report shows that ROI donation and transplantation rates have increased overall and they compare very favourably with other European countries, whilst the numbers of those registered for a transplant increased marginally.

**Sue Sutherland**  
**Chief Executive**

**July 2003**

## About this Report

This transplant activity report for financial year 2002-2003 relates throughout to the Republic of Ireland (ROI). All figures quoted are as reported to UK Transplant for the National Transplant Database, maintained on behalf of the transplant community and the National Health Service (NHS).

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.

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. This population figure is based on the 2001 estimate from the Central Statistics Office, Ireland. The number of heartbeating donors by hospital is detailed in **Appendix I**.

Please note that 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.

Where specified, living and non-heartbeating donations are recorded separately. Unless otherwise specified, waiting list figures include active and suspended patients.

This report is available on the UK Transplant website: [www.uktransplant.org.uk](http://www.uktransplant.org.uk)

## 1. Introduction and Overview

There were 82 cadaveric heartbeating solid organ donors reported from the ROI in 2002-2003, eight more than in 2001-2002. There were 282 cadaveric solid organs provided for transplant and living donors provided a further three organs. Note that there were no non-heartbeating donors in 2002-2003.

The number of cadaveric solid organ transplants was 190, ten more than in 2001-2002. A further three transplants were achieved through living donations.

At 31 March 2003, 244 patients were registered on a solid organ transplant waiting list in the ROI. Since 1992, all kidney patients registered have been formally suspended from the UK Transplant waiting list as the ROI does not participate in the National Kidney Allocation Scheme. Therefore on 31 March 2003, 199 patients on the ROI kidney waiting list were suspended from the UK Transplant waiting list. In addition, four pancreas and three liver patients were temporarily suspended for other reasons.

**Table 1.1** summarises the donors, transplants and waiting list by organ for 2002-2003. The number of cadaveric transplants excludes those organs donated in the ROI that were subsequently transplanted in the UK or other European countries. Donor numbers, transplant activity and active and suspended waiting lists at 31 March for 1993-1994 to 2002-2003 are shown in **Figure 1.1**.

### Waiting lists

**Table 1.2** shows the numbers of patients waiting for a transplant at 31 March 2002 and 2003. The total number rose by five patients (2%) to 244 by the end of March 2003. When comparing waiting lists at 31 March 2002 and 2003, the renal transplant waiting list remained unchanged, the liver waiting list increased by six patients and the heart waiting list increased by one patient. The ROI does not have a lung transplant waiting list as their patients are referred to the UK.

### Transplants

**Table 1.3** shows a total of 193 transplants were performed in the ROI in 2002-2003 compared with 182 in 2001-2002. There were nine multiple organ transplants, eight kidney and pancreas and one kidney and liver transplant.

There was a 10% increase in kidney transplants in 2002-2003, mainly due to an increase in the number of cadaveric kidney transplants. Overall the number of cardiothoracic transplants fell by 7%, but there was a 3% rise in the number of cadaveric whole liver transplants.

**Table 1.1 ROI ACTIVITY SUMMARY FOR 1 APRIL 2002 - 31 MARCH 2003**

						<b>TOTAL</b>
Cadaveric solid organ donors						<b>82</b>
	Kidney	Heart	Heart/ lung	Lung	Liver	
Cadaveric donors <sup>1</sup>	78	29	-	12	69	<b>82</b>
Cadaveric organs donated <sup>1</sup>	163 <sup>2</sup>	29	-	21	69	<b>282</b>
Cadaveric transplants <sup>3</sup>	143	13	0	-	35	<b>190<sup>4</sup></b>
Living donor transplants	3	0	0	0	0	<b>3</b>
Waiting lists at 31 March 2003						
Active list	0	23	0	0	15	<b>38</b>
Temporarily suspended	203 <sup>5</sup>	0	0	0	3	<b>206</b>
<b>TOTAL</b>	<b>203</b>	<b>23</b>	<b>0</b>	<b>0</b>	<b>18</b>	<b>244</b>

<sup>1</sup> Excludes other European countries donors

<sup>2</sup> Includes 8 pancreas donations

<sup>3</sup> Excludes other European countries and UK transplants from organs donated in the ROI

<sup>4</sup> Includes 1 liver and kidney transplant

**Table 1.2 ACTIVE AND SUSPENDED WAITING LISTS IN THE ROI AT 31 MARCH 2002 AND 2003**

	<b>2002</b>	<b>2003</b>	<b>% Change</b>
Heart	22	23	+5
Heart/lung	2	0	-
<b>All cardiothoracic patients</b>	<b>24</b>	<b>23</b>	<b>-4</b>
<b>All liver patients</b>	<b>12</b>	<b>18</b>	<b>+50</b>
Kidney	187	187	0
Kidney & pancreas	15	12	-20
<b>All renal patients</b>	<b>202</b>	<b>199</b>	<b>0</b>
Pancreas	1	4	-
<b>ALL ORGANS</b>	<b>239</b>	<b>244</b>	<b>+2</b>

- % not reported when fewer than 10 in either year

**Table 1.3 TRANSPLANTS PERFORMED IN THE ROI,  
1 APRIL 2001 - 31 MARCH 2003**

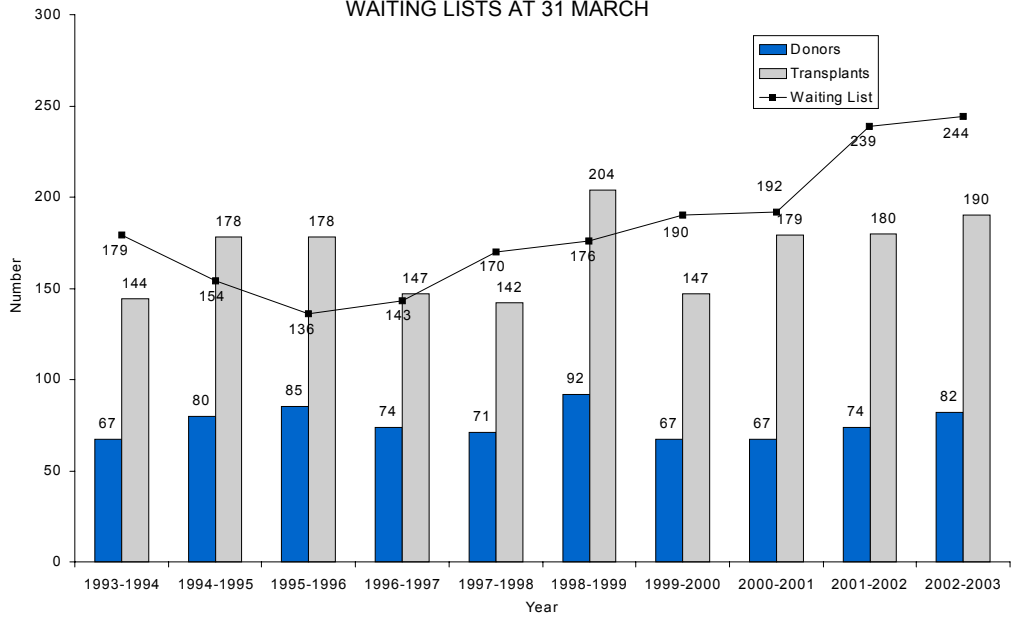
<b>Organ</b>	<b>2001-2002</b>	<b>2002-2003</b>	<b>% Change</b>
Cadaveric kidney <sup>1</sup>	123	134	+9
Living donor kidney	2	3	-
Cadaveric heart	14	13	-7
Cadaveric liver	34	34	0
Kidney and pancreas	8	8	-
Liver and kidney	0	1	-
Pancreas	1	0	-
<b>TOTAL TRANSPLANTS (Solid Organs)</b>	<b>182</b>	<b>193</b>	<b>+6</b>
<b>Total kidney transplants</b>	<b>133</b>	<b>146</b>	<b>+10</b>
<b>Total cardiothoracic transplants</b>	<b>14</b>	<b>13</b>	<b>-7</b>
<b>Total liver transplants</b>	<b>34</b>	<b>35</b>	<b>+3</b>

<sup>1</sup> Includes en bloc kidney transplants (1 in 2001-2002 and 3 in 2002-2003) and double kidney transplants (1 in 2001-2002, 2 in 2002-2003)

- % not reported when fewer than 10 transplants in either year

Figure 1.1

NUMBER OF CADAVERIC DONORS AND TRANSPLANTS IN THE ROI,  
1 APRIL 1993 - 31 MARCH 2003 AND PATIENTS ON THE ACTIVE AND SUSPENDED  
WAITING LISTS AT 31 MARCH





## 2. Kidney and Pancreas Activity

### Overview

A summary of activity for the cadaveric kidney programme from 1993-1994 to 2002-2003 is shown in **Figure 2.1**. The number of cadaveric kidney donors and transplants has gradually increased over the last four years.

The number of patients registered on the waiting list for a kidney or kidney and pancreas transplant has increased by 52% between 31 March 1994 and 2003. Since 1992, all kidney patients registered have been formally suspended from the UK Transplant waiting list, as the ROI does not participate in the National Kidney Allocation Scheme.

The cadaveric kidney activity for 2002-2003 and 2001-2002 and donor rates per million population are shown in **Table 2.1**.

### Donor and organ supply

Of the 82 cadaveric heartbeating solid organ donors in the ROI in 2002-2003, 78 (95%) donated kidney(s), **Table 2.1**. From these donors, 155 kidneys were retrieved and 153 (99%) were transplanted. In 2002-2003, there were 11 donors who only donated kidney(s).

96% of kidney donors in the ROI with reported ethnicity were white. There was one Asian donor and two donors with ethnicity recorded as Filipino.

### Waiting list

The number of patients registered on the kidney or kidney and pancreas waiting list decreased by 1%: on 31 March 2003, 199 patients were registered (187 kidney and 12 kidney and pancreas), compared with 202 on 31 March 2002, **Table 2.1**. The number of patients waiting for a kidney transplant represents 52.4 patients pmp. An additional four patients were registered for a pancreas only transplant.

Of patients on the waiting list, with a reported ethnicity, 99% were white and 1% were black.

The outcome of patients registered on the kidney waiting list at 1 April 2002 and subsequently registered during the financial year is shown in **Figure 2.2**. Overall, 38% of patients registered during 2002-2003 received a transplant by 31 March 2003.

### Transplants

There were 143 cadaveric heartbeating kidney transplants (including three en bloc and two double kidney transplants) in 2002-2003, 9% more than in 2001-2002, **Table 2.1**. Of these transplants, 6% were kidney and pancreas transplants.

Of the kidney transplant recipients with reported ethnicity, all except one were white.

### Living donor transplants

There were three living donor kidney transplants in 2002-2003. In all cases the donor was a sibling of the recipient.

**Table 2.1      CADAVERIC KIDNEY ACTIVITY IN THE ROI,  
1 APRIL 2001 - 31 MARCH 2003**

	<b>2001-2002</b>		<b>2002-2003</b>	
Solid organ donors (pmp)	74	(19.5)	82	(21.6)
Kidney donors (pmp)	72	(18.9)	78	(20.5)
Kidneys retrieved (used)	143	(142 <sup>1</sup> )	155	(153 <sup>2</sup> )
Kidney transplants in ROI	131 <sup>3</sup>		143 <sup>4</sup>	
Kidney waiting list at 31 March	202		199	

<sup>1</sup> Includes 9 kidneys used in the UK

<sup>2</sup> Includes 5 kidneys used in the UK

<sup>3</sup> Includes 1 en bloc and 1 double kidney transplant

<sup>4</sup> Includes 3 en bloc and 2 double kidney transplants

Figure 2.1

**CADAVERIC KIDNEY PROGRAMME IN THE ROI, 1 APRIL 1993 - 31 MARCH 2003**  
**NUMBER OF DONORS, TRANSPLANTS AND PATIENTS ON THE WAITING LIST AT 31 MARCH**

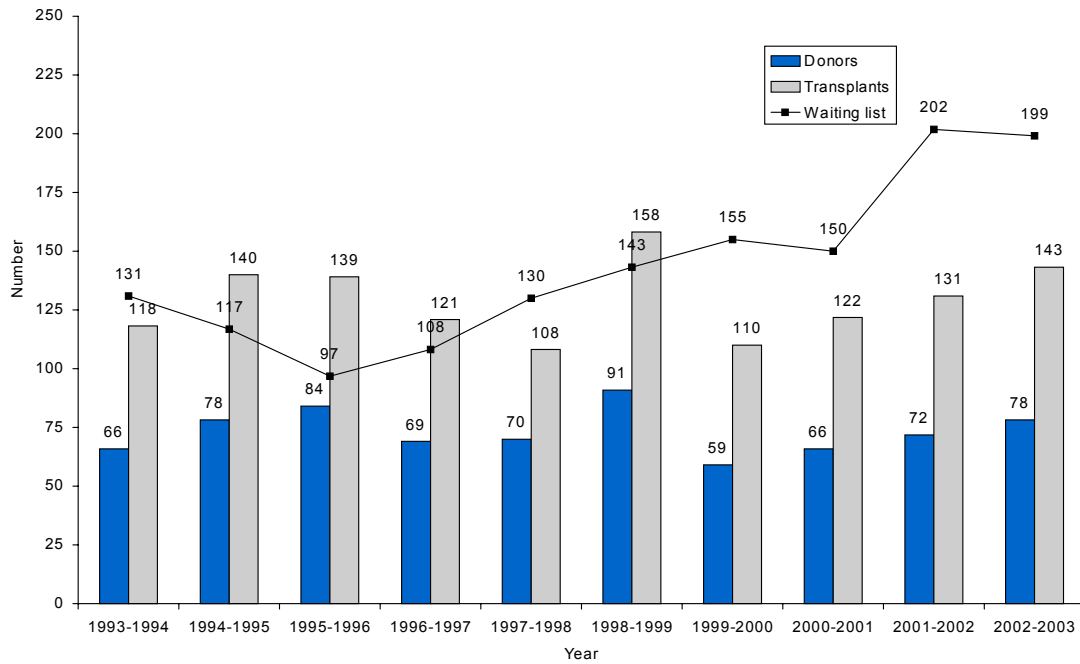
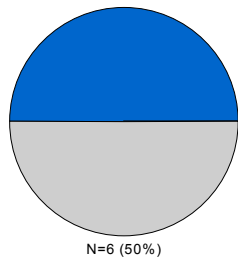


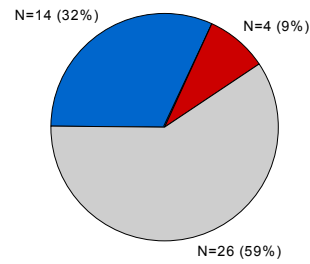
Figure 4.2

**LIVER WAITING LIST AND NEW REGISTRATIONS IN THE ROI, 1 APRIL 2002 - 31 MARCH 2003**

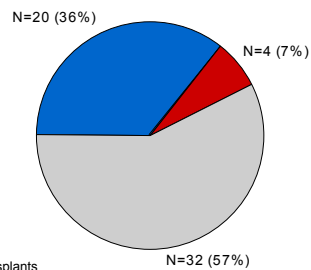
Active and suspended patients at 1 April 2002 (N=12)  
 N=6 (50%)



New registrations in 2002-2003<sup>1</sup> (N=44)



**TOTAL (N=56)**



**Outcome of waiting patient at 31 March 2003**

- Remained active/suspended
- Transplanted
- Removed
- Died

<sup>1</sup> Includes re-registrations for second and subsequent transplants

### 3. Cardiothoracic Activity

#### Overview

**Figure 3.1** shows cadaveric cardiothoracic donor and transplant activity between 1993-1994 and 2002-2003. Transplant and donor numbers have fluctuated over the period, but overall, both have increased since 1993-1994. The active and suspended waiting list at 31 March 2003 was one patient less than at 31 March 2002.

Cardiothoracic organ donors by retrieval centre (as opposed to geographical zone) are detailed in **Table 3.1**. Under current contracts, Newcastle retrieved organs from 50% of the ROI cardiothoracic donors. 65% of the cardiothoracic donors donated only the heart.

#### Donor and organ supply

**Table 3.2** shows a summary of cardiothoracic organ activity in 2001-2002 and 2002-2003. Of the 82 solid organ donors in the ROI, 41% donated cardiothoracic organs in 2002-2003 compared with 36% of 74 donors in 2001-2002. The number of hearts retrieved increased by 32% and the number of lungs retrieved fell by 9%. Retrieved organs have been recorded as the actual number of solid organs retrieved.

All 34 cardiothoracic donors had ethnicity reported, 94% were white, 3% were Asian and 3% were recorded as Filipino.

#### Waiting list

The number of patients on the cardiothoracic waiting list decreased by one at 31 March 2003. The ethnicity of patients registered on the waiting list in the ROI is poorly reported. Only three patients out of 23 had ethnicity reported and all were white.

#### Transplants

Only cadaveric heart transplants have been carried out in the ROI in the last three years: 15, 14 and 13 in 2000-2001, 2001-2002 and 2002-2003, respectively. Currently, there is no lung transplant programme in the ROI. All 13 cardiothoracic transplant recipients in 2002-2003 were of white ethnicity.

**Table 3.1 CADAVERIC CARDIOTHORACIC ORGAN DONORS IN THE ROI, 1 APRIL 2002 - 31 MARCH 2003 (2001-2002), BY RETRIEVAL CENTRE**

Retrieval centre	Type of donor						TOTAL	
	Heart only		Heart/lung		Lung(s) only			
Birmingham	2	(0)	0	(0)	0	(0)	2	(0)
Dublin	10	(11)	3	(5)	0	(0)	13	(16)
Great Ormond Street	0	(1)	0	(0)	0	(0)	0	(1)
Manchester	0	(1)	0	(0)	0	(0)	0	(1)
Newcastle	10	(1)	3	(3)	4	(5)	17	(9)
Papworth	0	(0)	1	(0)	1	(0)	2	(0)
<b>TOTAL</b>	<b>22</b>	<b>(14)</b>	<b>7</b>	<b>(8)</b>	<b>5</b>	<b>(5)</b>	<b>34</b>	<b>(27)</b>

**Table 3.2 CADAVERIC CARDIOTHORACIC ORGAN ACTIVITY IN THE ROI, 1 APRIL 2001 - 31 MARCH 2003**

	2001-2002		2002-2003	
Solid organ donors (pmp)	74	(19.5)	82	(21.6)
Cardiothoracic donors (pmp)	27	(7.1)	34	(8.9)
Organs retrieved (used)				
Hearts	22	(22 <sup>1</sup> )	29	(29 <sup>2</sup> )
Lungs	23	(23 <sup>3</sup> )	21	(21 <sup>4</sup> )
<b>TOTAL</b>	<b>45</b>	<b>(45)</b>	<b>50</b>	<b>(50)</b>
Transplants in ROI				
Heart	14		13	
<b>TOTAL</b>	<b>14</b>		<b>13</b>	
Waiting list at 31 March				
Heart	22		23	
Heart/lung	2		0	
<b>TOTAL</b>	<b>24</b>		<b>23</b>	

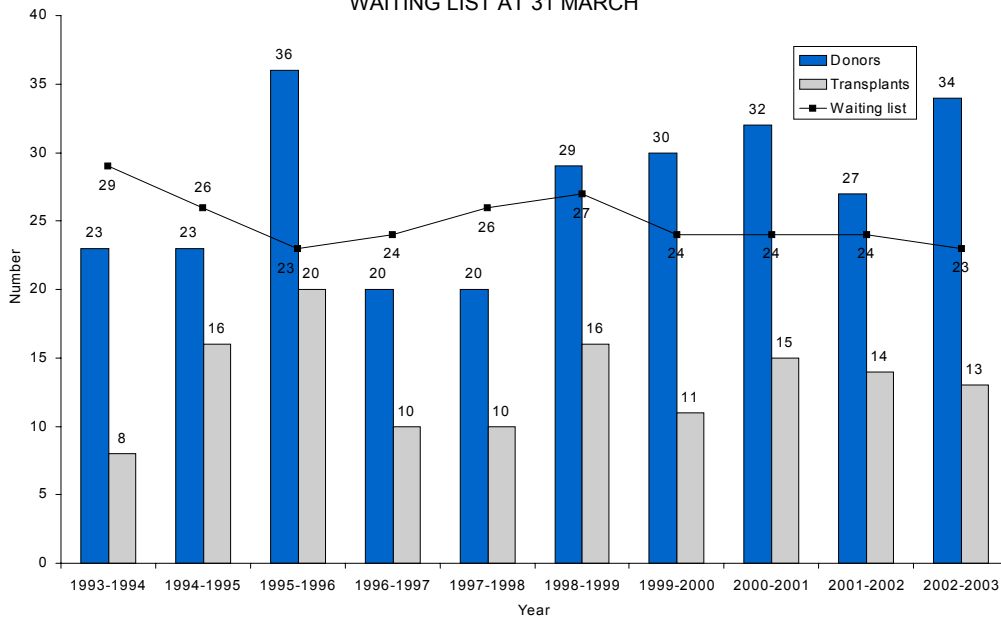
<sup>1</sup> 8 hearts were used in the UK

<sup>2</sup> 16 hearts were used in the UK

<sup>3</sup> 23 lungs were used in the UK

<sup>4</sup> 21 lungs were used in the UK

Figure 3.1  
 CADAVERIC CARDIOTHORACIC PROGRAMME IN THE ROI, 1 APRIL 1993 - 31 MARCH 2003  
 NUMBER OF DONORS, TRANSPLANTS AND PATIENTS ON THE ACTIVE AND SUSPENDED  
 WAITING LIST AT 31 MARCH



## 4. Liver Activity

### Overview

The number of cadaveric liver donors, transplants and the active and suspended waiting list is shown for the last ten financial years in **Figure 4.1**. The number of liver donors in 2002-2003 was the highest for the past decade. In 2002-2003, the number of patients waiting for a transplant increased by 50% compared with 2001-2002 and was the highest level in the decade.

### Donor and organ supply

Of the 82 solid organ donors in 2002-2003, 69 (84%) were liver donors giving a retrieval rate of 18.2 livers pmp, **Table 4.1**. Of the livers retrieved, all but one were transplanted in both 2001-2002 and 2002-2003. Of the 69 livers retrieved, 31 were transplanted in the ROI and 37 were exported and transplanted in the UK. In addition, four livers from the UK were transplanted in the ROI.

Of the 68 liver donors with reported ethnicity, 96% were white, 2% Asian and 3% were recorded as Filipino.

### Waiting list

There were 18 patients on the liver waiting list at 31 March 2003 and the ethnicity of all patients registered was white.

**Figure 4.2** shows the outcome of patients registered on the liver waiting list at 1 April 2002 and subsequently registered during the year. 50% of all patients waiting had received a transplant by the end of March 2003. Of the new registrations during the year, 32% were still waiting at 31 March 2003.

### Transplants

All the 35 liver transplants performed in 2002-2003 used whole livers from cadaveric heartbeating donors (31 from ROI donors and four imported from the UK).

Of the 35 transplant recipients, the ethnicity was white for 94.3% and the rest were black.

**Table 4.1      CADAVERIC LIVER ACTIVITY IN THE ROI,  
1 APRIL 2001 - 31 MARCH 2003**

	<b>2001-2002</b>		<b>2002-2003</b>	
Solid organ donors (pmp)	74	(19.5)	82	(21.6)
Liver donors (pmp)	57	(15.0)	69	(18.2)
Livers retrieved (used)	57	(56 <sup>1</sup> )	69	(68 <sup>2</sup> )
Liver transplants in ROI	34 <sup>3</sup>		35 <sup>4</sup>	
Liver waiting list at 31 March	12		18	

<sup>1</sup> 28 livers were used in the UK

<sup>2</sup> 37 livers were used in the UK

<sup>3</sup> 6 were using livers from the UK

<sup>4</sup> 4 were using livers from the UK



Figure 4.1

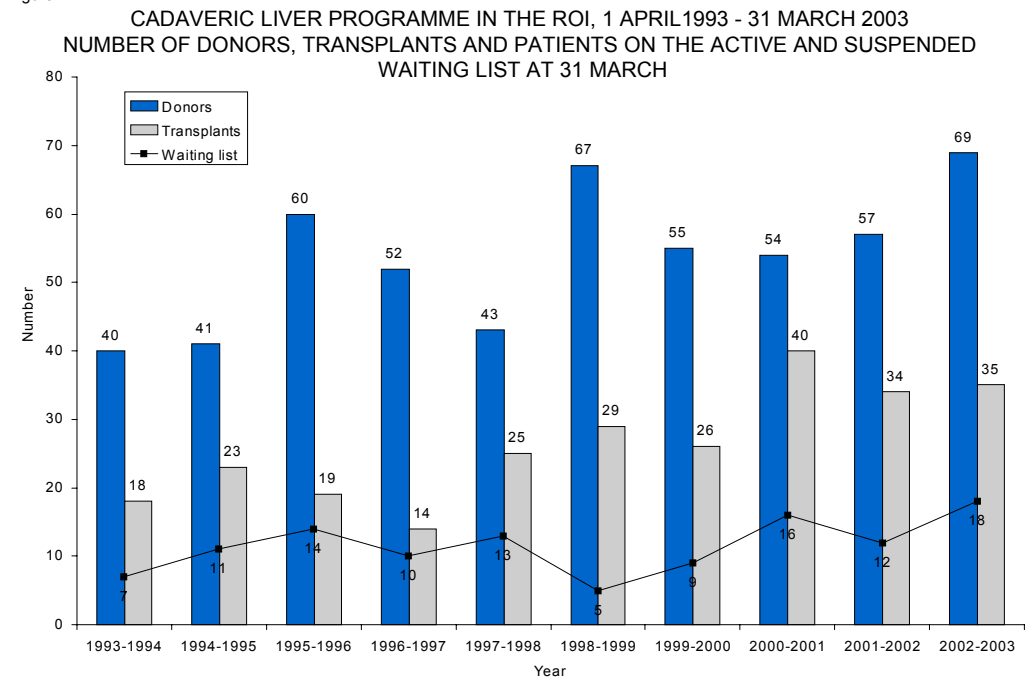
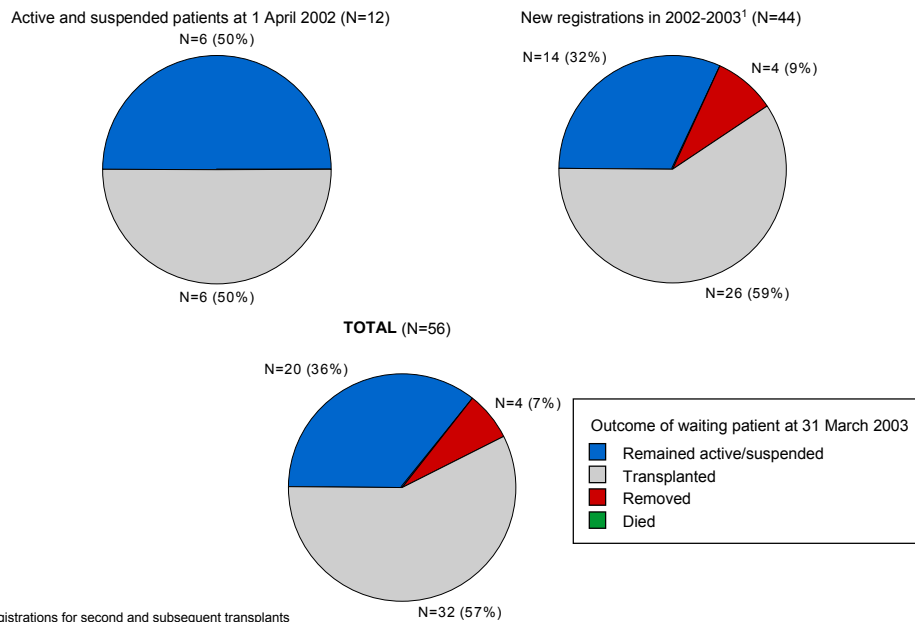


Figure 4.2

**LIVER WAITING LIST AND NEW REGISTRATIONS IN THE ROI, 1 APRIL 2002 - 31 MARCH 2003**



## Appendix

**Appendix I** provides details of the 82 cadaveric heartbeating solid organ donors reported in 2002-2003, by donating hospital.

**Appendix I CADAVERIC HEARTBEATING SOLID ORGAN DONORS AND DONATED ORGANS IN THE ROI,  
1 APRIL 2002 - 31 MARCH 2003 (2001-2002), BY DONATING HOSPITAL**

Donating hospital	All donors	Multi-organ donor	Kidney	Heart	Lung	Liver	Pancreas
Ballinasloe, Portiuncula Hospital	3 (2)	2 (1)	6	1	2	2	0
Castlebar, Castlebar General Hospital	2 (1)	2 (1)	4	1	0	2	0
Cavan, Cavan General Hospital	2 (0)	2 (0)	4	1	2	2	0
Cork, Cork University Hospital	10 (10)	10 (9)	20	6	1	9	2
Drogheda, Our Lady of Lourdes Hospital	1 (2)	1 (2)	2	0	0	1	0
Dublin, Beaumont Hospital	20 (24)	18 (20)	37	6	4	19	3
Dublin, James Connolly Memorial Hospital	3 (4)	3 (3)	6	1	0	2	0
Dublin, Mater Misericordiae Hospital	4 (2)	2 (1)	8	0	0	2	0
Dublin, Mater Public Hospital	1 (0)	1 (0)	2	0	0	1	0
Dublin, Our Lady's Hospital for Sick Children	0 (2)	0 (1)	0	0	0	0	0
Dublin, St. Colmcilles, Loughlinstown	2 (1)	1 (0)	2	0	0	2	0
Dublin, St. James's Hospital	1 (4)	0 (4)	2	0	0	0	0
Dublin, St. Vincent's Hospital (Elm Park)	0 (1)	0 (1)	0	0	0	0	0
Dublin, Tallaght Hospital	8 (4)	7 (3)	14	0	6	8	0
Dublin, The Children's Hospital	1 (0)	1 (0)	2	0	0	1	0
Galway, University College Hospital	4 (1)	4 (1)	8	4	2	4	0
Kilkenny, St. Lukes Hospital	2 (1)	1 (1)	4	0	0	1	0
Limerick, Limerick Regional Hospital	5 (3)	3 (3)	10	1	0	3	0
Letterkenny, Letterkenny General Hospital	3 (1)	3 (1)	6	3	0	3	2
Mullingar, Mullingar General Hospital	2 (1)	2 (1)	2	1	2	2	1
Naas, Naas General Hospital	2 (1)	2 (0)	4	2	2	2	0
Navan, Our Lady's Hospital	0 (4)	0 (4)	0	0	0	0	0
Nenagh, Nenagh General Hospital	1 (0)	1 (0)	2	1	0	1	0
Roscommon, Roscommon County Hospital	1 (0)	1 (0)	2	0	0	1	0
Sligo, Sligo General Hospital	1 (2)	0 (2)	2	0	0	0	0
Tralee, Tralee General Hospital	1 (1)	0 (0)	2	0	0	0	0
Wexford, General Hospital	2 (2)	1 (0)	4	1	0	1	0
<b>TOTAL</b>	<b>82 (74)</b>	<b>68 (59)</b>	<b>155</b>	<b>29</b>	<b>21</b>	<b>69</b>	<b>8</b>

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