

ODTI

# Organ Donation and Transplant Ireland

ANNUAL REPORT 2016

Organ Donation and Transplant Ireland has been delegated the regulatory functions assigned to the Health Service Executive (HSE) in Statutory Instrument (SI) 325 (2012), European Union (Quality and Safety of Human Organs Intended for Transplantation) Regulations 2012. This annual report has been produced in compliance with part 5, SI 325 (2012):

25. (1) The HSE shall—

- (a) keep a record of the activities of procurement organisations and transplantation centres, including aggregated numbers of living and deceased donors, and the types and quantities of organs procured and transplanted, or otherwise disposed of in accordance with European Union and national provisions on the protection of personal data and statistical confidentiality,
- (b) draw up and make publicly accessible an annual report on activities referred to in subparagraph (a), and
- (c) establish and maintain an updated record of procurement organisations and transplantation centres.

(2) The HSE shall, upon the request of the Commission or another Member State, provide information on the record of procurement organisations and transplantation centres.

# Contents

<b>Director's Statement</b>	<b>2</b>
<b>Background</b>	
National Renal Transplant Service Beaumont Hospital	3
National Heart & Lung Transplant Service Mater Misericordiae University Hospital	3
National Liver Transplant Service St Vincent's University Hospital	4
National Pancreas Transplant Service St Vincent's University Hospital	4
<b>Activity in 2016</b>	<b>5</b>
Waiting List End December 2016	6
Organ Donation	8
Transplantation	11
Transplant & Graft Survival Rates	15
<b>Acknowledgements</b>	<b>18</b>
<b>Bibliography</b>	<b>20</b>

# Director's Statement

## *Organ donation saves lives*

This report outlines the rates of organ donation and transplantation in Ireland in 2016.

Thanks to the generosity of 77 families donating organs after death and 50 living donor kidney transplants, 280 people have received the gift of life through transplant surgery in 2016.

Living kidney donation plays a vital role in transplantation. Once again we have seen a strong year for living donor kidney transplant at the national renal transplant service Beaumont Hospital.

In 2016 Organ Donation Transplant Ireland (ODTI) has endeavoured to improve organ donation and transplantation rates for Ireland. Outcomes for transplant recipients in Ireland continue to rank amongst the best in Europe, as presented in this report on behalf of the transplant centres.

The need for organ transplants continues to increase. There were approximately 610 patients waiting for an organ transplant at the end of 2016.

The National Organ Procurement Service has worked in cooperation with the key organ donation personnel to raise awareness and provide training in best practices for organ donation.

ODTI has also provided financial support to the Irish Kidney Association to enable organ donor awareness campaigns.

Considerable work needs to be completed to enhance rates of organ donation and transplantation. Firstly, an audit system tracking potential donation episodes throughout the health service needs to be deployed. ODTI is currently working with the National Office of Clinical Audit (NOCA) on this task.

Secondly, a system which allows deceased cardiac donation (DCD) to be available to clinicians is required. 2016 saw the publication of DCD guidelines by the Intensive Care Society of Ireland (ICSI), this now needs to be implemented via an education programme.

Thirdly, awareness among medical and nursing staff, focusing on organ donation as part of every episode of end of life care, irrespective of age is necessary.

2016 has seen consolidation of the activities of the organ donor nurse managers and clinical leads in organ donation. This culminated in a milestone meeting in September 2016 where the Transplant Procurement Management (TPM) group from Spain provided active training to 33 Irish clinicians over a 2½ day period. This was the first in an initiative to enhance education throughout the Irish health service regarding organ donation. Furthermore, legislation for soft-opt out consent is currently being progressed by the Department of Health.

I would like to acknowledge the excellent work of the three transplant centres. I would also like to particularly recognise the Intensive Care Units (ICUs) across Ireland who have worked closely and professionally with the transplant centres and ODTI. I wish to thank the members of the National Organ Procurement Service (NOPS) and the National Organ Donation and Transplantation Advisory Group (NODTAG) for their dedication, commitment and direction in 2016.

Finally, but most importantly, I wish to acknowledge the courage and generosity of families who have saved lives by donating organs.

**Professor Jim Egan**  
**Director ODTI**

## National Renal Transplant Service: Beaumont Hospital

Since the first kidney transplant in Ireland was performed in 1964, 4843 kidneys have been transplanted, initially in Jervis Street Hospital and continuing in Beaumont Hospital in 1987 when the program moved to Beaumont.

Until 2003 all paediatric patients requiring renal transplantation were transplanted in Beaumont Hospital. However, since 2003, the kidney transplant team from Beaumont Hospital has also performed paediatric kidney transplants in Temple Street hospital and to date we have performed 117 transplants there. In recent years, we have worked to expand our living kidney donor rates in line with international trends and over the last 5 years we have evaluated 549 potential living kidney donors and performed 193 living donor kidney transplants.

In 2010, we performed the first Hand Assisted Laparoscopic Donor Nephrectomy in the country and since then have been able to offer all potential living donors the benefits of minimally invasive surgery to facilitate their recovery.

Approximately two thousand three hundred patients currently enjoy the benefits of a functioning kidney transplant and a large proportion of those patients receive their aftercare follow up here in Beaumont Hospital. The transplant team is extremely proud of our outcome data as our patient and graft survival rates compare favorably with the biggest and highest ranked transplant programmes, internationally.

2016 was another busy year for the National Kidney Transplant Service in Beaumont Hospital; with a record number of living donor kidney transplants performed in the unit and sustained activity in the deceased donor kidney transplant numbers. There were a total of **172** kidney transplants performed including **50** living donor kidney transplants in 2016, representing a 50% increase in the living kidney donor transplant rate compared to 2015. 2016 also saw the fruits of collaboration with

our renal transplant colleagues in the UK in the paired kidney exchange programme and a further 7 patients were transplanted in the UK in this programme with a living donor that was evaluated in Beaumont Hospital.

The National Kidney Transplant Programme also welcomed the reopening of the refurbished transplant ward "St Damien's" by Minister Finian McGrath in January 2016. This is a custom designed ward with single rooms en suite allowing post transplant recipients recover in a suitable environment while reducing their risk of cross infection. The unit also welcomed the appointment of Mr James Forde FRCS (Urol), Consultant Urologist and Transplant Surgeon in August 2016, who will contribute to the transplant service.

However, it is important to remember that every single one of the nearly five thousand transplants that we have performed has been initiated by an extra-ordinary gift of one human being reaching out to another. Whether that gift comes at a time of deepest loss and tragedy when an individual or family can see beyond their own loss and grief and agree for their loved one to be a deceased organ donor, or when an individual can overcome their own fear of ill health and undergo major surgery as a living kidney donor to hopefully restore health to another person. Every one of us working on the transplant team, wish to acknowledge the tremendous generosity of all kidney donors.

## National Heart and Lung Transplant Service: Mater Misericordiae University Hospital

The national heart and lung transplant service is provided at the Mater Misericordiae University Hospital. This service has particularly seen enhanced rates of lung transplantation. The heart transplant rate remains relatively stable. The Irish lung transplant programme is currently ranked third in Europe for rates of lung transplantation.

# National Liver and Pancreas Transplant Service: St Vincents University Hospital

## National Liver Transplant Programme

The National Liver Transplant Programme team is a multidisciplinary team (MDT) of healthcare professionals with expertise in liver disease and liver surgery including transplantation. The liver transplant programme has been running in St. Vincent's University Hospital (SVUH) since 1993.

## Background

The Liver Transplant Programme in Ireland was launched in January 1993, with the official opening of the Liver Programme in October 1993 by Brendan Howlin, the then Minister for Health. The development of the programme in Ireland was phased over several years and included an initial two-year liaison with King's College Hospital in London, who already had a fully developed programme in liver transplantation. During this period, all members of the future Irish transplant team - medical, nursing and paramedical - spent time training in liver transplantation at King's College Hospital. The links with Kings College Hospital has been maintained over the years to provide a second opinion for complex cases.

In January 2016, The National Liver Transplant Programme completed its 23rd year in operation at SVUH. Within this time, over 950 transplants have been performed, with success rates very much in keeping with the best results achieved in UK and European centres.

The continued success of the liver transplant programme has resulted in ever increasing numbers of patients being referred to St. Vincent's University Hospital for the assessment of liver disease. The comprehensive multidisciplinary approach to liver disease, which is employed in this hospital, has resulted in an increased rate of referral of patients for consideration for liver transplantation.

## National Pancreas Transplant Programme

St. Vincent's University Hospital (SVUH) was established as the home of the National Pancreas Transplant Programme in 2016.

Pancreas transplantation is a highly specialised procedure that was first performed in the USA in 1966 with the objective of replacing the need for insulin therapy in people with type 1 diabetes mellitus (T1DM).

Since then, simultaneous pancreas-kidney (SPK) transplantation has evolved both technically, and with the development of new immunosuppressive therapy. This therapy is now widely accepted as an optimal therapeutic option for patients with type 1 diabetes mellitus (T1DM) and end-stage renal disease.

The programme starts with referral of the potential recipient and follows through assessment and decision making to listing and waiting for a suitable organ, transplantation and post-operative follow up.

SVUH provides a consultant led pancreas transplant service for those patients with type 1 diabetes. Patients who require a simultaneous pancreas and kidney transplant are cared for in SVUH by a multidisciplinary team which combines the expertise of the surgical team in SVUH with the renal transplant team from Beaumont Hospital.

# Activity in 2016

In 2016 a total of 280 people received a life saving organ transplant in Ireland. Compared to 2015 this represents an overall increase.

There were 77 deceased organ donations in 2016. Kidney transplants from deceased donation has increased to 122. Living donor kidney transplant increased to 50 compared to 33 in 2015. There were 58 liver transplants.

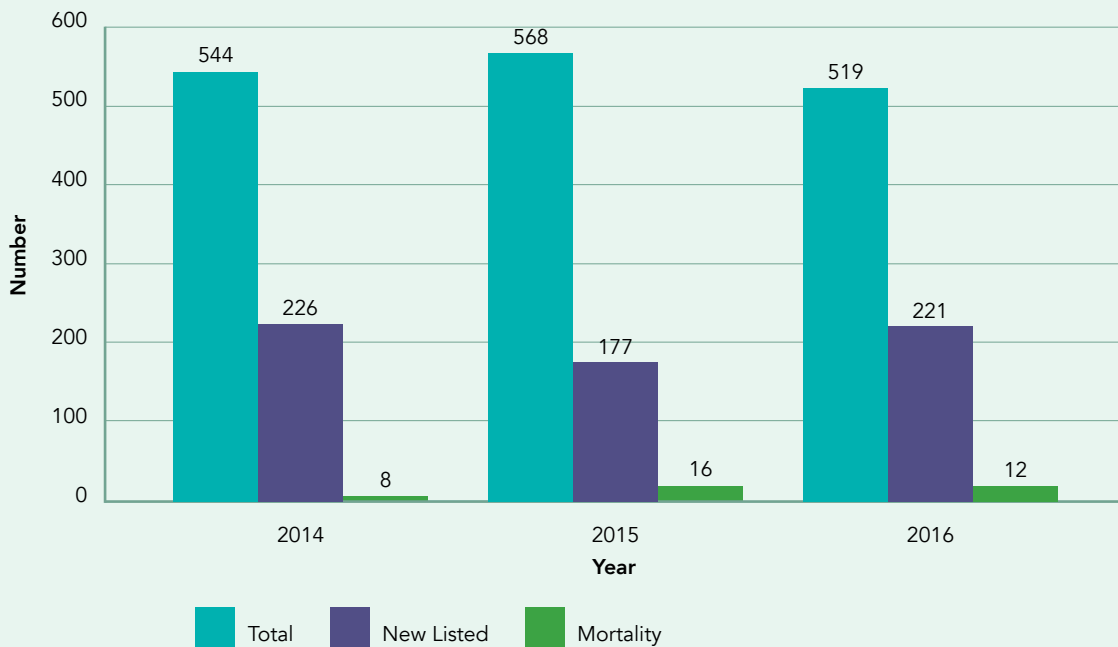
In 2016 there were 35 lung transplants in Ireland, achieving another strong year and one of the highest rates in Europe.

There were 15 heart transplants in 2016 representing the third highest on record.

The pancreas transplant service has relocated to St Vincent's University Hospital and a team are in place to deliver the programme.

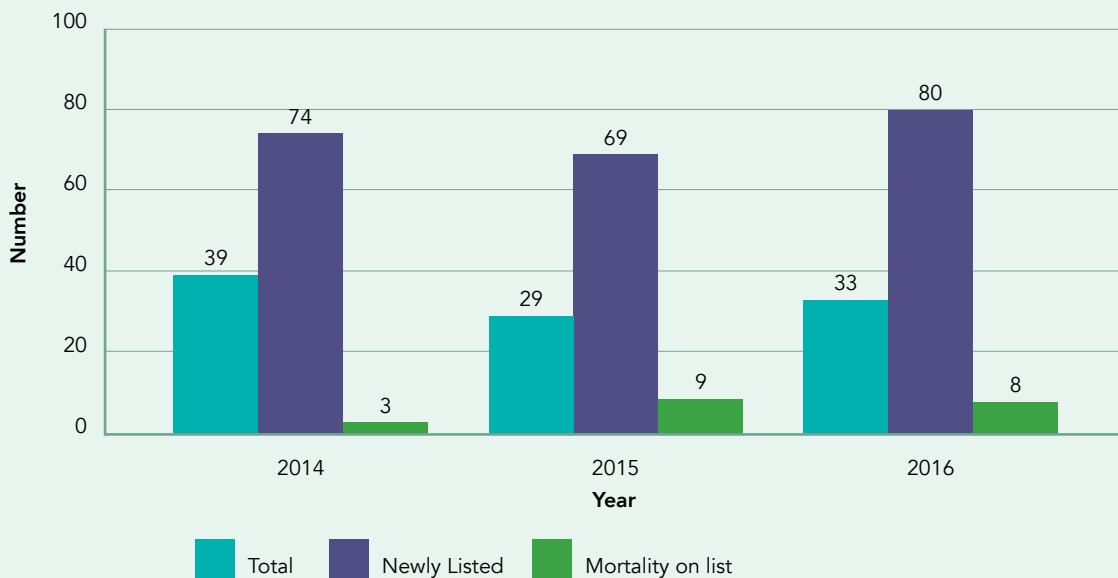
# Waiting Lists End December 2016

## Kidney Transplant Waiting List 2016



Source: National Renal Transplant Service Beaumont Hospital

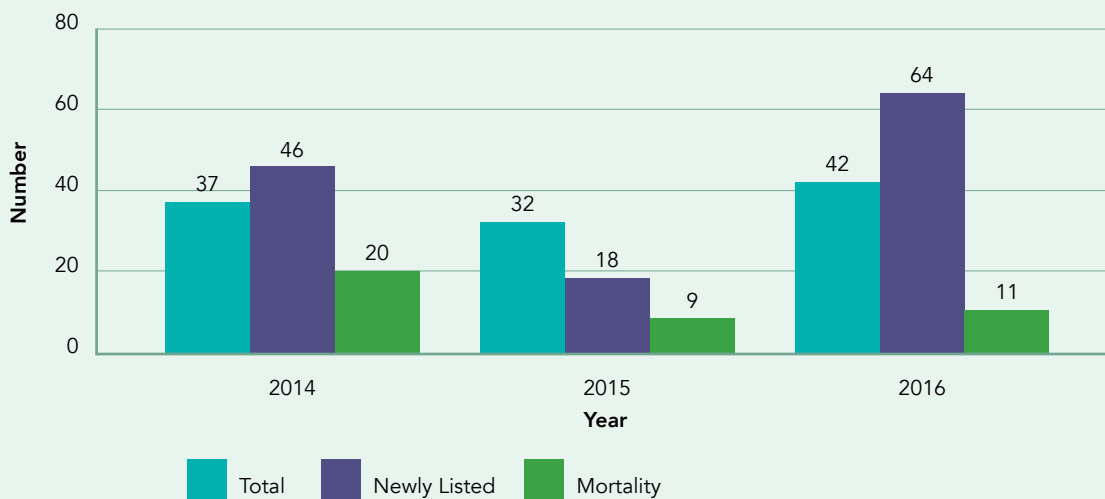
## Liver Transplant Waiting List 2016



Source: National Liver and Pancreas Transplant Service SVUH

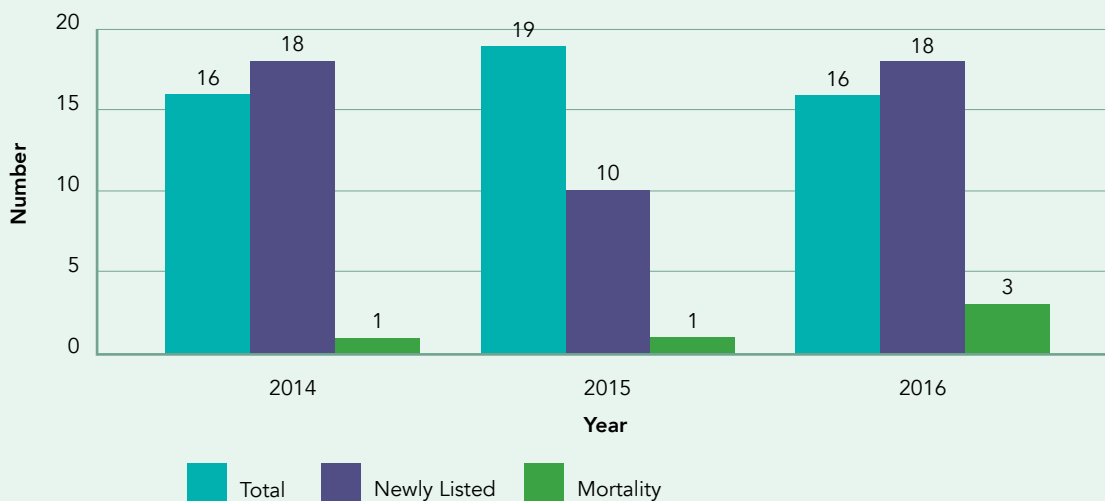


### Lung Transplant Waiting List 2016



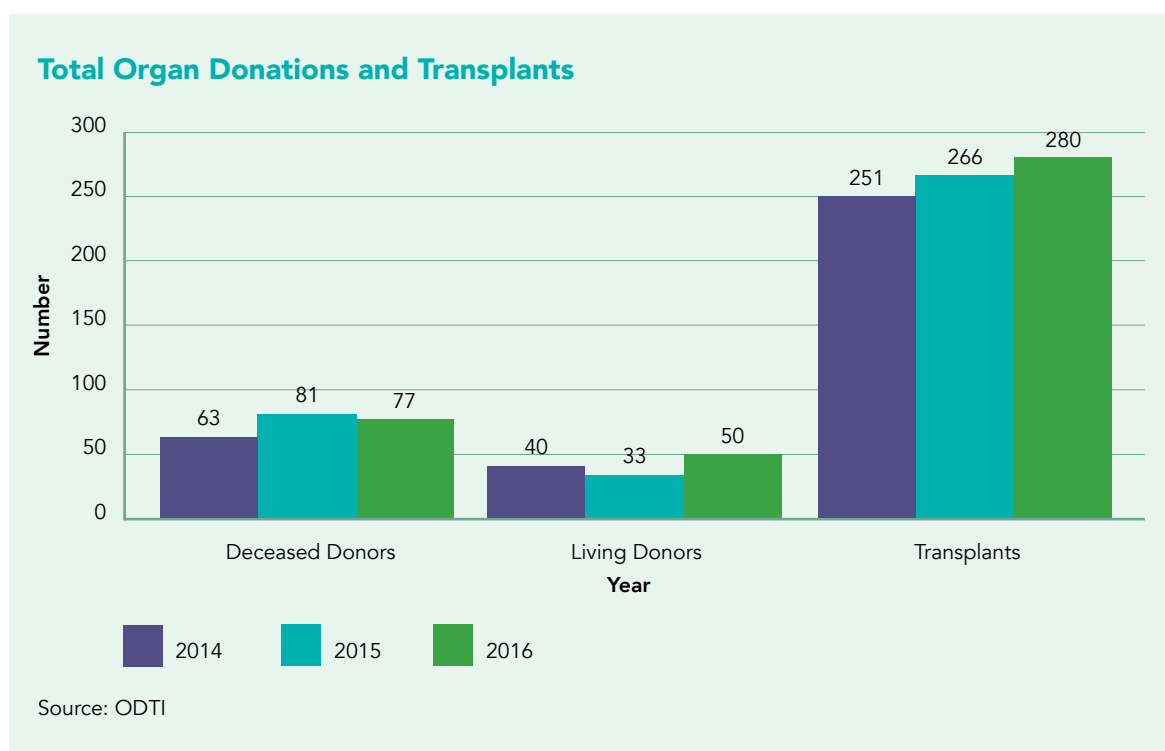
Source: National Heart and Lung Transplant Service Mater Misericordiae University Hospital

### Heart Transplant Waiting List 2016



Source: National Heart and Lung Transplant Service Mater Misericordiae University Hospital

# Organ Donation

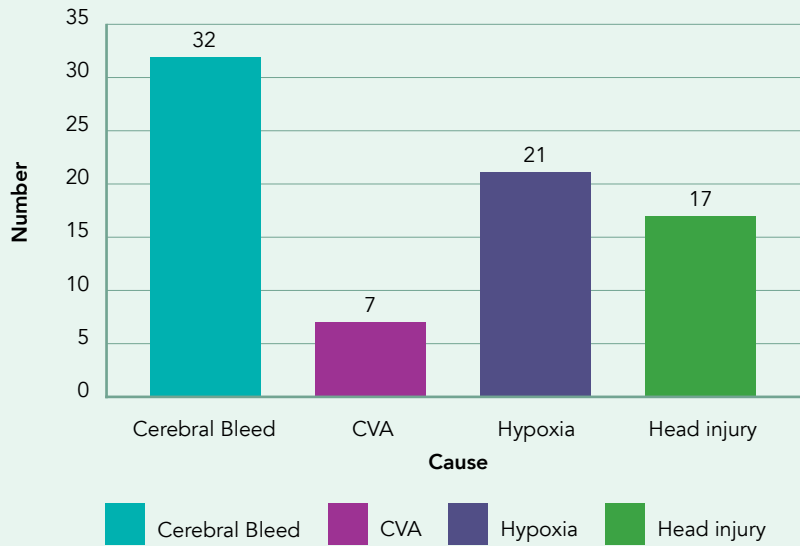


Not including UK 5 paired exchange or 2 desensitised patients.

## Organ Donation and Transplant Summary 2012 - 2016

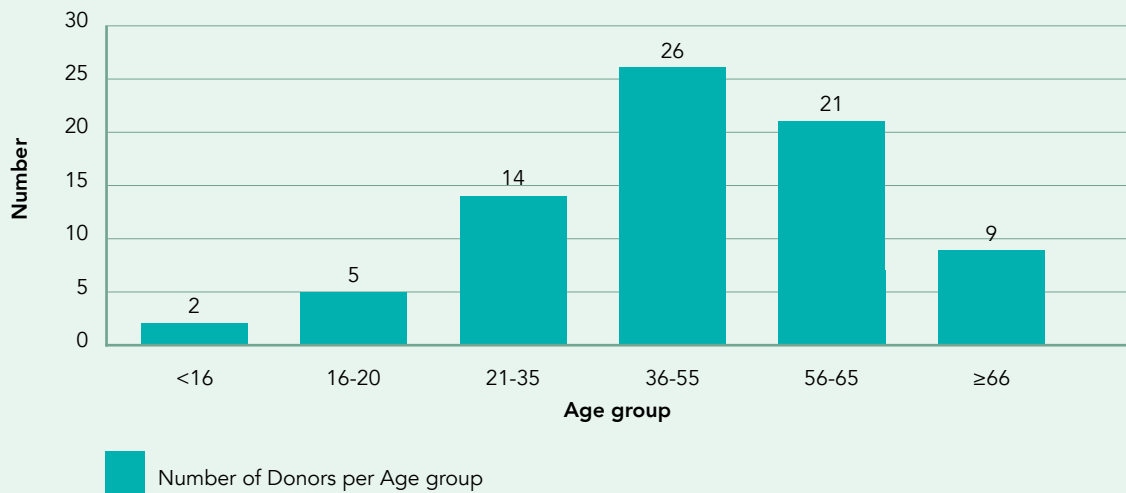
Organ Donation and Transplant 2012 - 2016								
		2012	2013	2014	2015	2016	5 year total	5 year average
Transplantation From Deceased	Kidney	131	147	112	120	122	632	<b>126</b>
	Liver	50	55	44	61	58	268	<b>54</b>
	Lungs	14	32	31	36	35	148	<b>30</b>
	Heart	10	11	18	16	15	70	<b>14</b>
	Pancreas	1	11	6	0	0	18	<b>4</b>
<b>Sub-total</b>		<b>206</b>	<b>256</b>	<b>211</b>	<b>233</b>	<b>230</b>	<b>1136</b>	<b>227</b>
Living Kidney Transplants		32	38	40	33	50	193	<b>39</b>
UK Paired Kidney Exchange / * 2 desensitize in UK		3	1	5	8	*7	24	<b>5</b>
Living & Deceased Kidney Transplants		163	185	152	153	172	825	<b>165</b>
<b>Total Organ Transplants (Not including UK paired exchange)/desensitized</b>		<b>238</b>	<b>294</b>	<b>251</b>	<b>266</b>	<b>280</b>	<b>1329</b>	<b>266</b>

### Donor Cause of Death



Source: ODTI

### Donor Age



Source: ODTI

## Donor Figures Per Hospital Group

RCSI Hospital group					
Year	2012	2013	2014	2015	2016
Total	20	28	21	27	25

Beaumont Hospital, Our Lady of Lourdes Hospital Drogheda, Connolly Hospital, Cavan General Hospital, Rotunda Hospital, Louth County Hospital, Monaghan Hospital

Dublin Midlands Hospital group					
Year	2012	2013	2014	2015	2016
Total	12	11	9	11	11

St James Hospital, AMNCH-Tallaght Hospital, Midlands Regional Hospital Tullamore , Naas General Hospital, Midland Regional Hospital Portlaoise, Coombe Women & Infant University Hospital

Ireland East Hospital Group					
Year	2012	2013	2014	2015	2016
Total	19	11	8	3	10

Mater Misericordiae University Hospital, St Vincent's University Hospital, Midland Regional Hospital Mullingar, St Lukes's Hospital Kilkenny, Wexford General Hospital, Our Lady's Hospital Navan, St Colmcilles Hospital, St Michael's Hospital Dunlaoighre, National Maternity hospital

South/South West Hospital Group					
Year	2012	2013	2014	2015	2016
Total	15	20	12	20	16

Bantry General Hospital, Cork University Hospital, University Hospital Kerry, Mallow General Hospital, Mercy University Hospital, South Infirmary Victoria University Hospital, South Tipperary General Hospital, University Hospital Waterford

Saolta Hospital Group					
Year	2012	2013	2014	2015	2016
Total	7	10	5	13	12

University Hospital Galway, Sligo University Hospital, Letterkenny University Hospital, Mayo University Hospital, Portiuncula University Hospital, Roscommon University Hospital

University of Limerick Hospital Group					
Year	2012	2013	2014	2015	2016
Total	4	4	4	4	2

University Hospital Limerick, Ennis General Hospital, Nenagh General Hospital, St John's Hospital Limerick

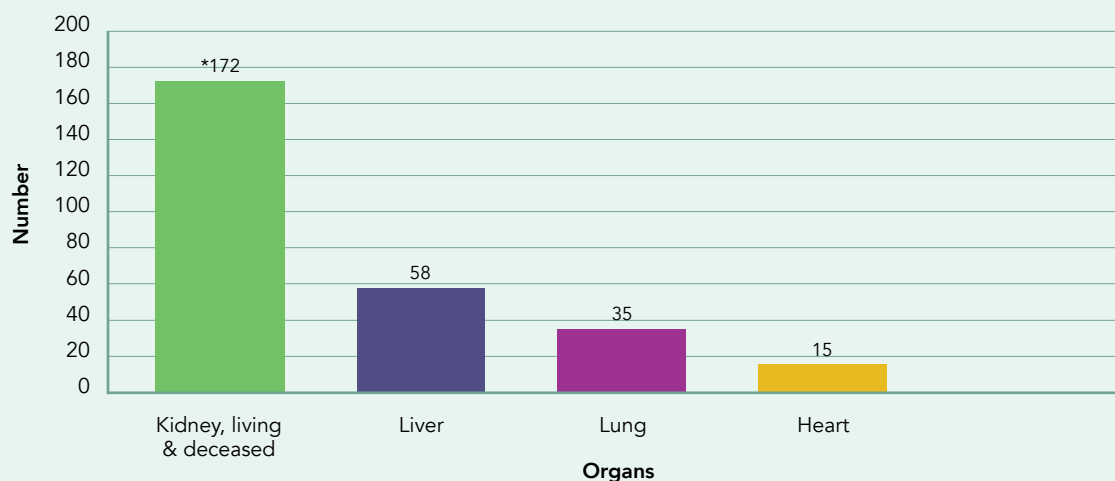
Childrens Hospital Group					
Year	2012	2013	2014	2015	2016
Total	1	2	4	3	1

Our Lady's Children's Hospital Crumlin, Children's University Hospital Temple Street, AMNCH-Talaght hospital Paediatrics

National Yearly total					
Year	2012	2013	2014	2015	2016
Total	78	86	63	81	77

# Transplantation

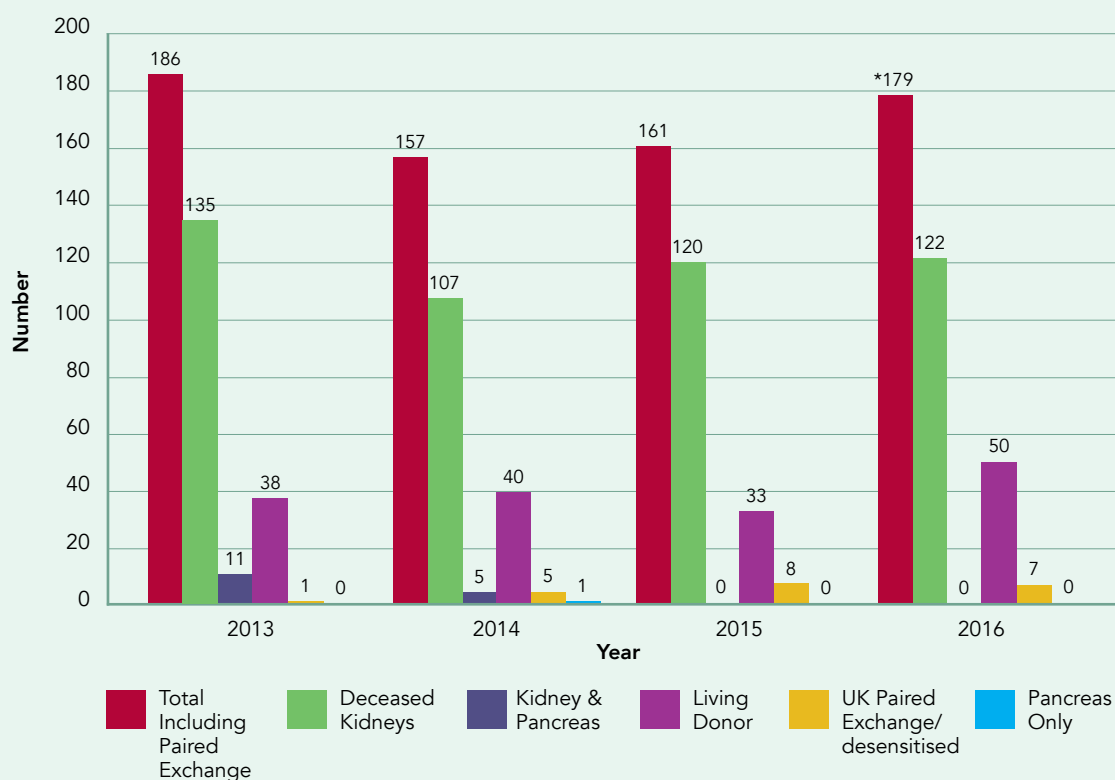
## Organ Transplant Specific Activity 2016



Source: ODTI

\*Not including UK paired exchange or desensitized patients.

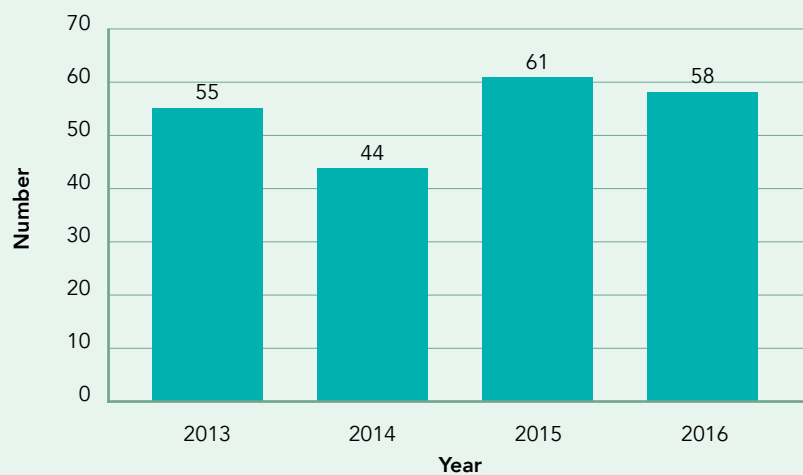
## Kidney & Pancreas Transplants for years 2013-2016



Source: National Renal Transplant Service Beaumont Hospital

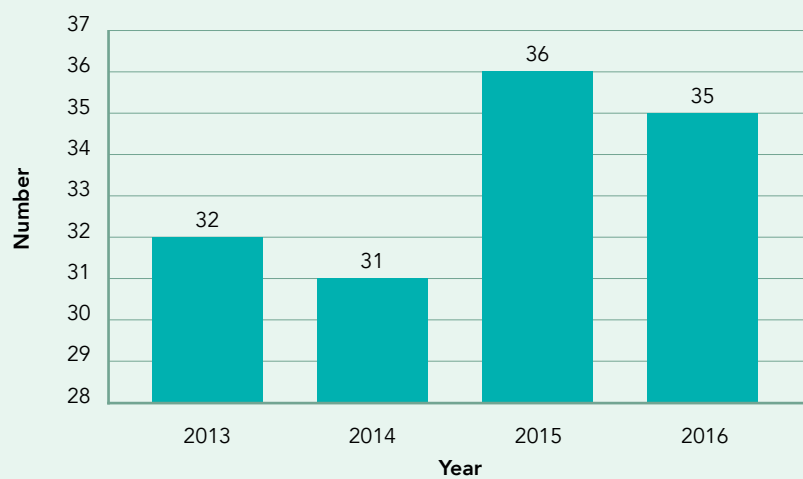
\*Including UK 5 Paired exchange and 2 desensitized patients in 2016

### Liver Transplants 2013-2016



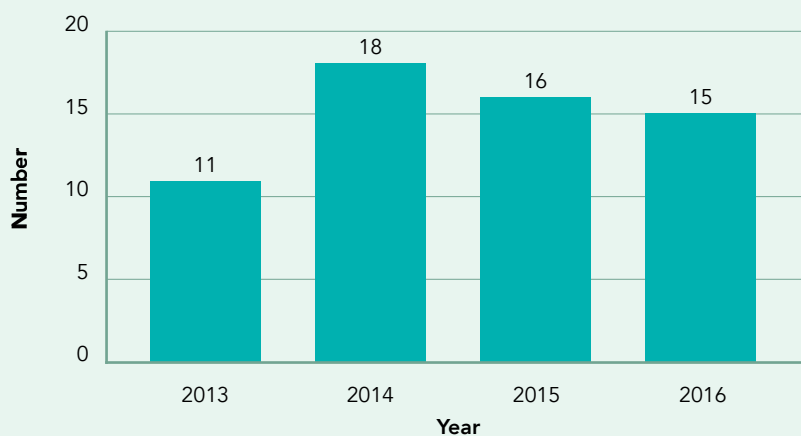
Source: National Liver and Pancreatic Transplant Service St. Vincent's University Hospital

### Lung Transplants 2013-2016



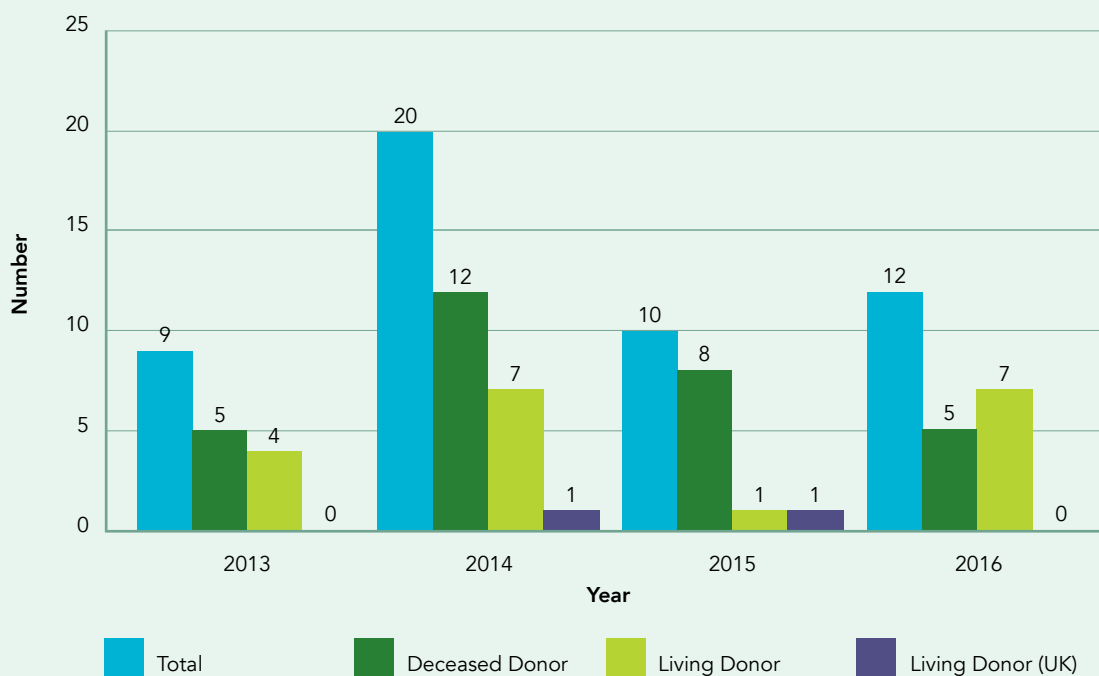
Source: National Heart and Lung Transplant Service Mater Misericordiae University Hospital

### Heart Transplants 2013-2016



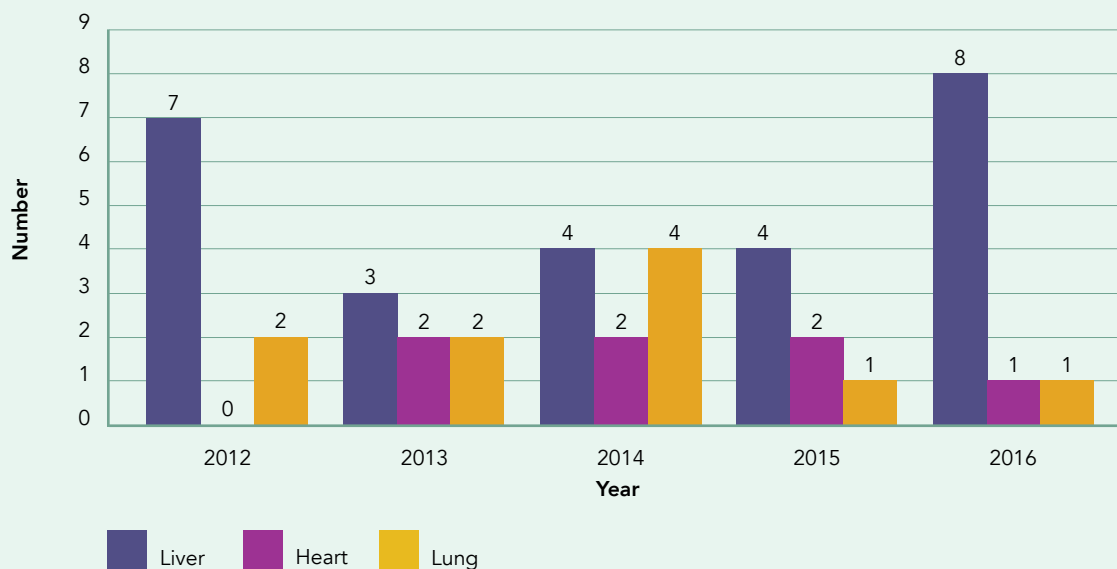
Source: National Heart and Lung Transplant Service Mater Misericordiae University Hospital

### Paediatric Kidney Transplants 2013-2016



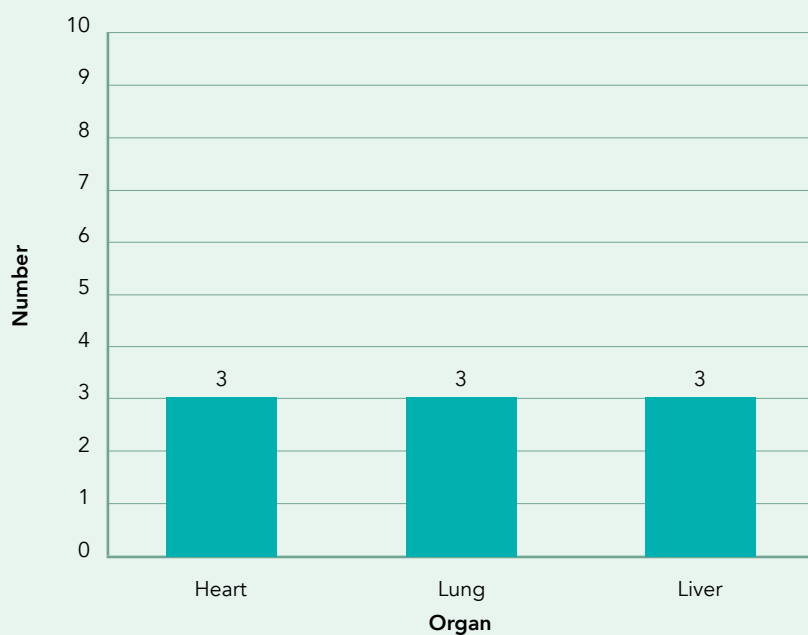
Source: National Renal Transplant Service Beaumont Hospital

### Irish Paediatric Transplants Performed in the UK



Source: Children’s Hospital Group, Saolta Hospital Group, University of Limerick Hospital Group, South/South West Hospital Group

### Irish Paediatric Transplant UK Waiting List End December 2016

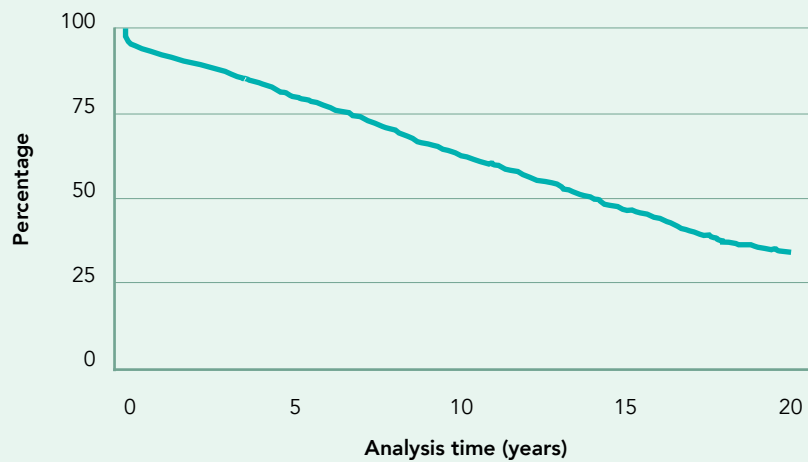


Source: Children’s Hospital Group, Saolta Hospital Group, University of Limerick Hospital Group, South/South West Hospital Group



# Transplant & Graft Survival Rates

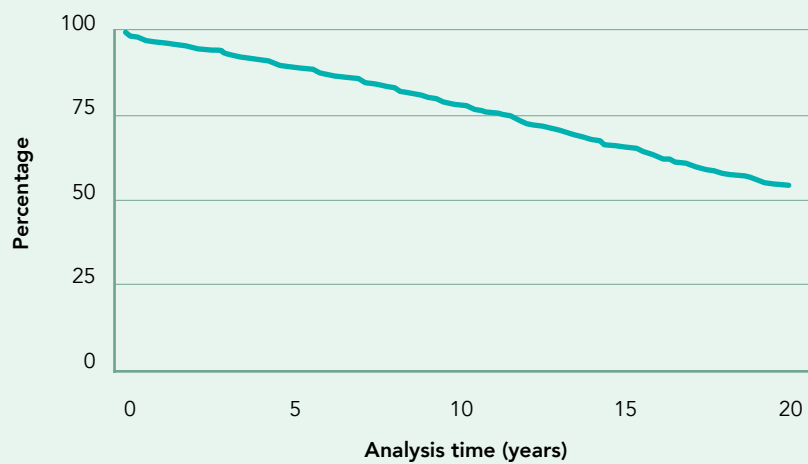
**Graft survival for kidney transplants 1991 - 2015**



Source: National Renal Transplant Service Beaumont Hospital

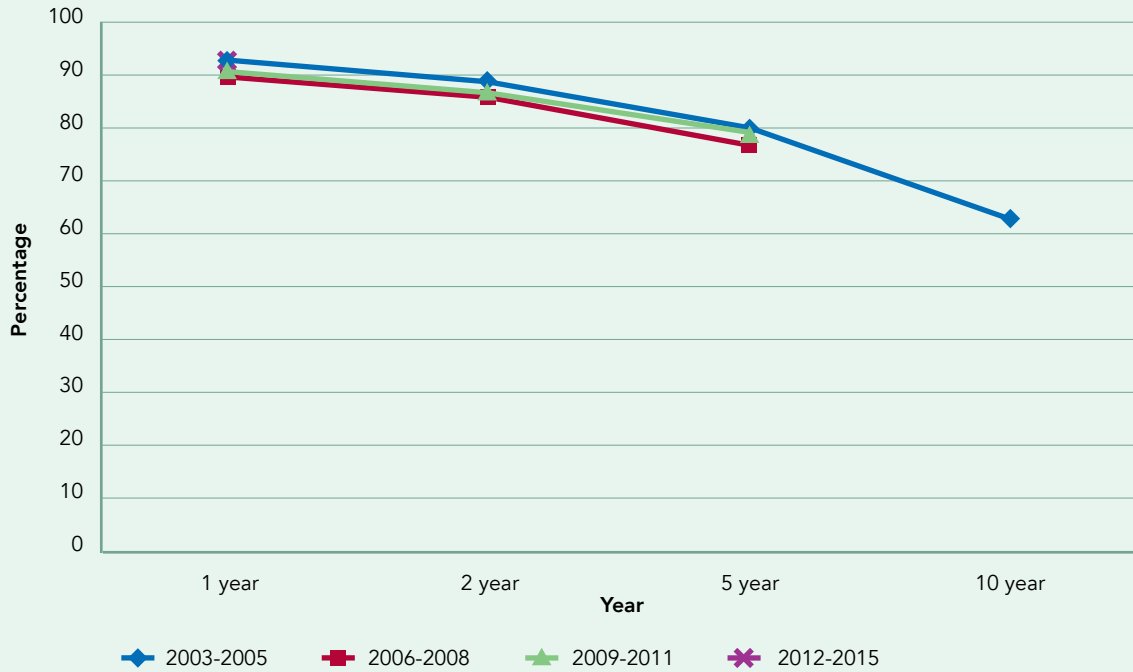
Reference: <http://www.beaumont.ie/kidneycentre-annual3>

**Patient survival following first kidney transplants 1991 - 2015**



Source: National Renal Transplant Service Beaumont Hospital

### Patient survival after first elective adult liver transplant 2003-2015



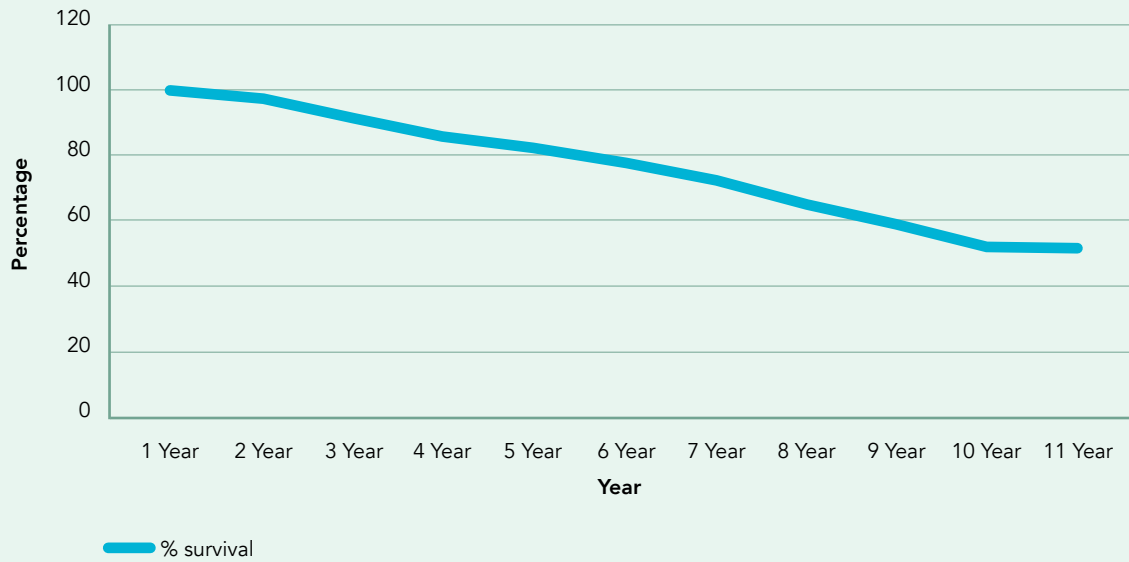
Source: National Liver and Pancreas Service St Vincent's University Hospital (SVUH)

### Graft survival after first elective adult liver transplant 2003-2015



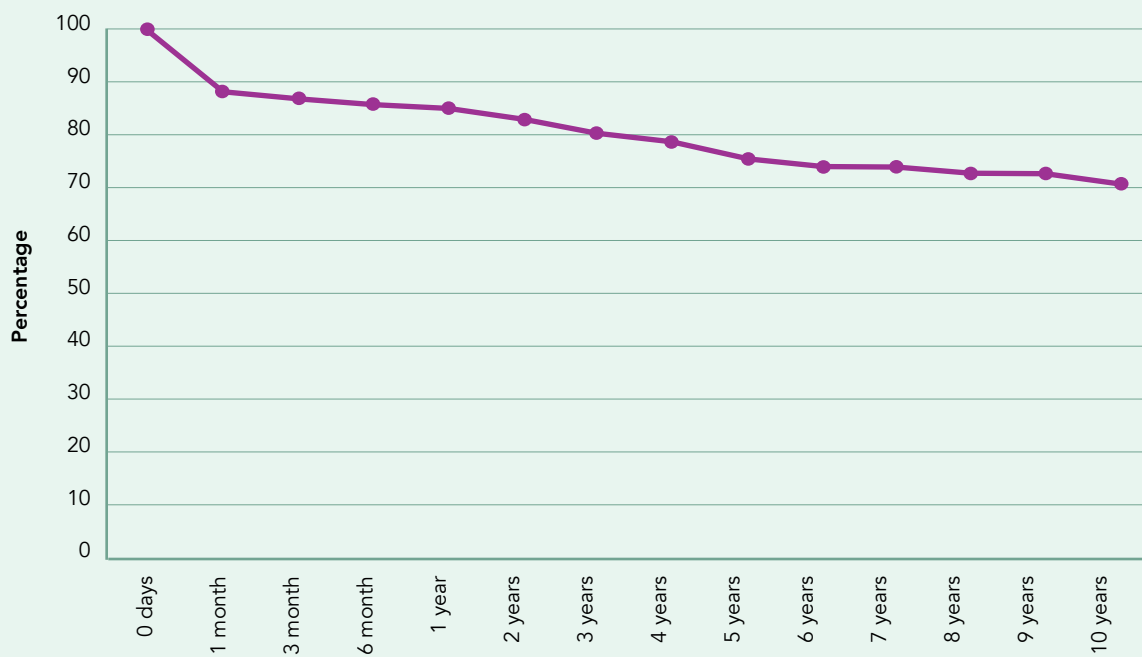
Source: National Liver and Pancreas Service St Vincent's University Hospital (SVUH)

### 10 year patient survival for lung transplantation



Source: National Heart and Lung Transplant Service Mater Misericordiae University Hospital (MMUH)

### 10-year patient survival for heart transplantation (2000-2015 inclusive):



Source: National Heart and Lung Transplant Service, Mater Misericordiae University Hospital (MMUH)

# Acknowledgements

Acknowledgment is necessary to the continued support of the ODTI team, inclusive of National Organ Procurement Service (NOPS), Organ Donor Nurse Managers (ODNM), Clinical Leads in Organ Donation (CLOD) and administrative support function who ensure the smooth delivery of the service. Lynn Martin NOPS coordinator who particularly facilitated the publication of this report.

## The National Organ Donation and Transplant Advisory Group (NODTAG)

The NODTAG is the clinical advisory group to the ODTI which provides recommendations and sets direction for the office. In 2016 the NODTAG met four times and was made up of fifteen committee members.

### Professor Jim Egan

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**Fiadhna McMonagle**, NOPS Quality Manager

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