



Overview of Organ Donation and Transplantation

A summary of organ donation and transplantation activity in the UK during the financial year from 1 April 2018 to 31 March 2019

2.1 Summary of activity

The number of patients on the active transplant list at 31 March 2019 is 33 more than on the same date last year. This small increase reflects an increasing number of transplants performed over the last ten years and a reasonably steady number of patients joining the transplant list each year. The increase in donor and transplant numbers (1 April 2009 to 31 March 2019) and the number of patients registered on the transplant lists at 31 March each year are shown in **Figure 2.1**. There were 87 fewer deceased donor transplants in 2018-2019 than in the previous year, representing a 2% fall. However, there was a 2% increase in the number of deceased donors.

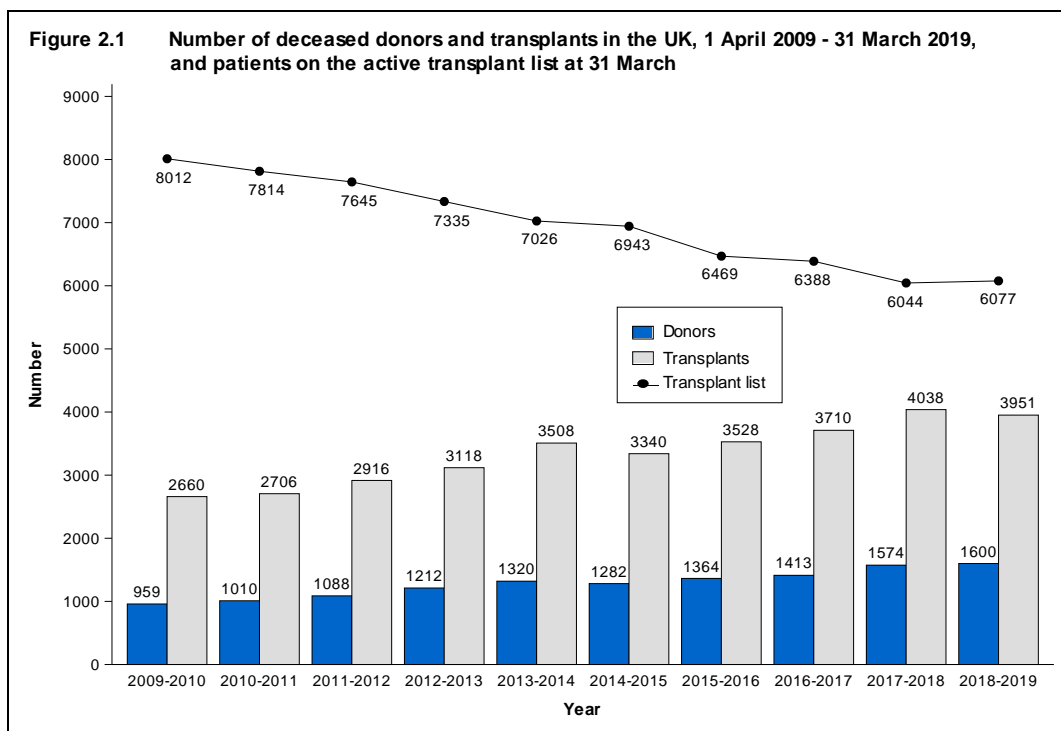


Figure 2.2 shows the number of deceased and living donors for 2009-2019. The numbers of deceased donors after brain death (DBD) and deceased donors after circulatory death (DCD) have both increased year on year, with the exception of 2014-2015. In 2018-2019 the numbers of DBD and DCD donors reached their highest ever, 962 and 638, respectively. The number of living donors has fallen over the last 6 years, from a peak of 1,148 donors in 2013-2014 to 1,039 in 2018-2019, which represents a 3% fall compared with 2017-2018.

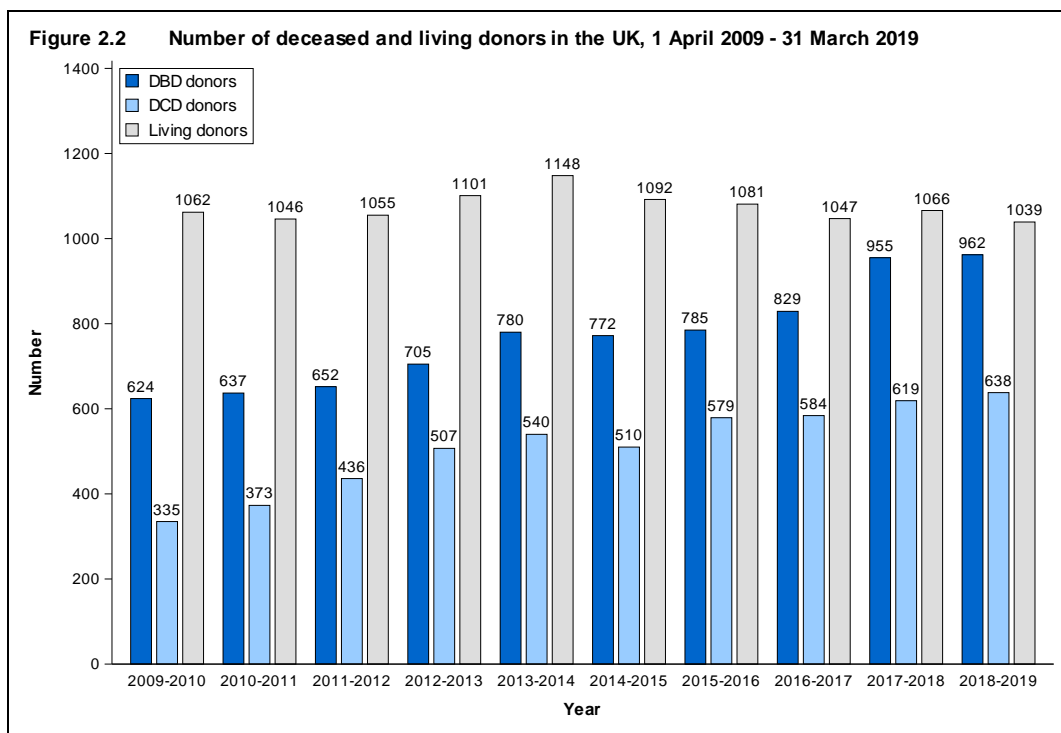
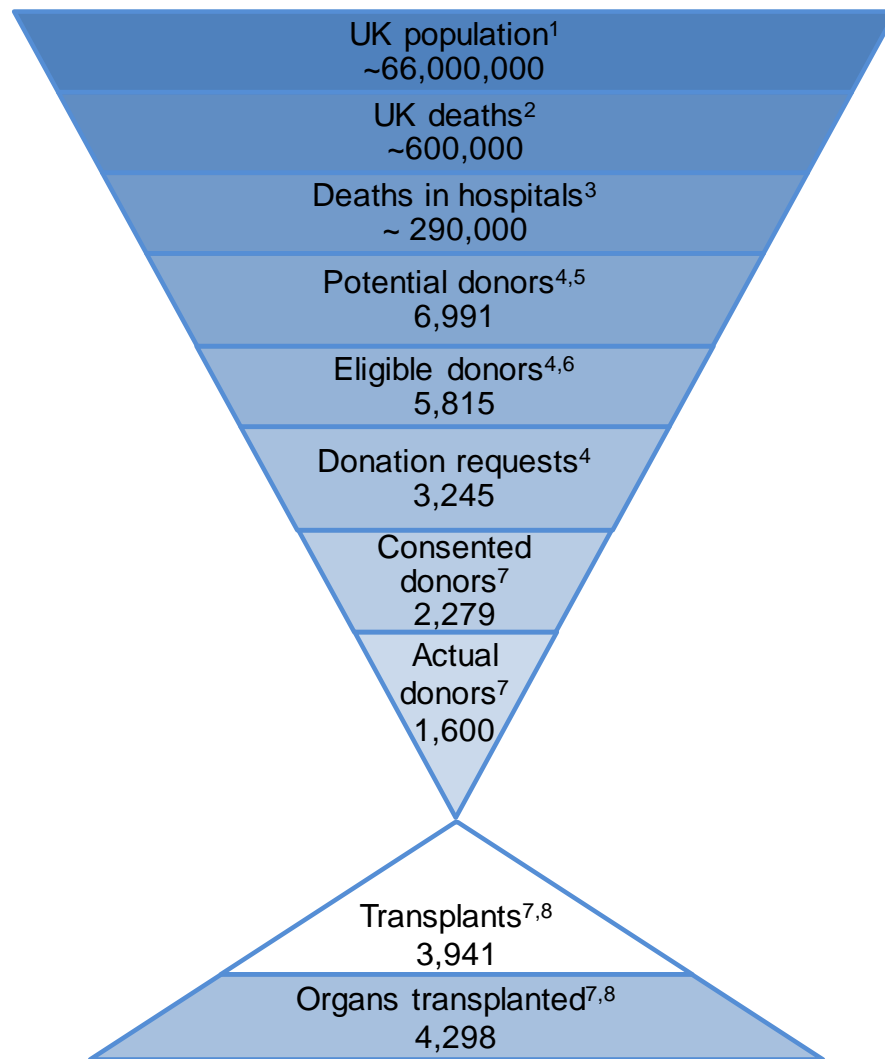


Figure 2.3 shows the potential deceased organ donor population in the UK. Not everyone can be a deceased organ donor and this figure highlights the small proportion of deaths in the UK that represent potential donors. *Please note that the information presented comes from several different sources. The NHSBT Potential Donor Audit collects information on most, but not all, actual donors and the potential for donation could therefore be slightly underestimated. The quoted numbers of transplants and organs transplanted are those achieved using organs from deceased actual donors in the UK, some of which may have been performed overseas, and does not reflect the number of deceased donor transplants in the UK, which may have used organs from overseas donors.*

Figure 2.3 UK potential deceased organ donor population, 1 April 2018 – 31 March 2019



¹ Mid 2017 estimates: www.ons.gov.uk

² 2017 data: England & Wales www.ons.gov.uk; Scotland www.gro-scotland.gov.uk; Northern Ireland www.nisra.gov.uk

³ 2017 data: England & Wales www.ons.gov.uk; Scotland www.isdscotland.org; Northern Ireland www.nisra.gov.uk

⁴ 2018/2019 data: NHSBT, Potential Donor Audit

⁵ Potential donor - patients for whom death was confirmed following neurological tests or patients who had treatment withdrawn and death was anticipated within four hours

⁶ Eligible donor - Potential donor with no absolute medical contraindications to solid organ donation

⁷ 2018/2019 deceased donor data: NHSBT, UK Transplant Registry

⁸ Using organs from actual donors in the UK

Table 2.1 shows the number of deceased donors and transplants in 2018-2019 and patients on the transplant list at 31 March 2019 for each country in the UK and overall.

Table 2.1 Deceased donors and transplants 1 April 2018 - 31 March 2019, and transplant lists as at 31 March 2019, by Country of residence										
Organ	Country of residence¹								TOTAL²	
	England		Wales		Scotland		Northern Ireland		N	(pmp)
	N	(pmp)	N	(pmp)	N	(pmp)	N	(pmp)	N	(pmp)
Kidney										
Deceased donors	1281	(23.0)	89	(28.4)	93	(17.2)	40	(21.4)	1506	(22.8)
Transplants ³	2058	(37.0)	109	(34.8)	171	(31.5)	48	(25.7)	2399	(36.3)
Transplant list	4214	(75.8)	171	(54.6)	482	(88.9)	92	(49.2)	4977	(75.4)
Pancreas										
Deceased donors	410	(7.4)	25	(8.0)	32	(5.9)	16	(8.6)	484	(7.3)
Transplants	168	(3.0)	12	(3.8)	22	(4.1)	2	(1.1)	204	(3.1)
Transplant list	183	(3.3)	18	(5.8)	44	(8.1)	3	(1.6)	250	(3.8)
Heart										
Deceased donors	161	(2.9)	12	(3.8)	7	(1.3)	6	(3.2)	186	(2.8)
Transplants ⁴	153	(2.8)	7	(2.2)	11	(2.0)	7	(3.7)	180	(2.7)
Transplant list	234	(4.2)	10	(3.2)	27	(5.0)	15	(8.0)	295	(4.5)
Lung										
Deceased donors	165	(3.0)	8	(2.6)	15	(2.8)	9	(4.8)	197	(3.0)
Transplants	138	(2.5)	8	(2.6)	14	(2.6)	4	(2.1)	164	(2.5)
Transplant list	283	(5.1)	22	(7.0)	28	(5.2)	14	(7.5)	351	(5.3)
Liver										
Deceased donors	947	(17.0)	64	(20.4)	76	(14.0)	23	(12.3)	1113	(16.9)
Transplants	779	(14.0)	35	(11.2)	114	(21.0)	34	(18.2)	972	(14.7)
Transplant list	346	(6.2)	19	(6.1)	37	(6.8)	20	(10.7)	432	(6.5)
Intestinal										
Deceased donors	16	(0.3)	2	(0.6)	1	(0.2)	2	(1.1)	21	(0.3)
Transplants	17	(0.3)	0	(0.0)	0	(0.0)	0	(0.0)	18	(0.3)
Transplant list	10	(0.2)	0	(0.0)	0	(0.0)	0	(0.0)	11	(0.2)
Total⁵										
Deceased donors	1361	(24.5)	96	(30.7)	97	(17.9)	43	(23.0)	1600	(24.2)
Transplants	3313	(59.6)	171	(54.6)	332	(61.3)	95	(50.8)	3951	(59.8)
Transplant list	5091	(91.5)	222	(70.9)	579	(106.8)	143	(76.5)	6077	(92.0)

¹ Country of residence of donor given for deceased donor numbers, and residence of recipient given for transplant and waiting list numbers
² Includes patients resident in Channel Islands, Isle of Man; excludes patients resident overseas and in the Republic of Ireland
³ Kidney only transplants
⁴ Excludes heart-lung transplants
⁵ Organ numbers do not add up to total due to multi-organ donors and patients waiting for a multi-organ transplant

2.2 Transplant list

At 31 March 2019, 6,077 patients were registered for an organ transplant in the UK on the active transplant list. A further 3,322 patients were temporarily suspended from the active national transplant list because they were unfit or otherwise unavailable for transplant. Details of numbers of patients on each of the organ transplant lists are given in **Table 2.2** for 31 March 2018 and 2019. Between these dates the total number increased by 33 (1%) due to an increase in the number of patients on the liver transplant list.

Table 2.2 Active transplant lists in the UK at 31 March 2018 and 2019			
	2018	2019	% Change
Kidney & pancreas patients	5038	4989	-1
Kidney	4820	4739	-2
Kidney & pancreas	175	196	+12
Kidney & pancreas islets	10	16	+60
Pancreas	14	12	-14
Pancreas islets	19	26	+37
Cardiothoracic patients	639	643	+1
Heart	282	292	+4
Heart-lung	13	12	-8
Lung(s)	344	339	-1
Liver patients	333	407	+22
Intestinal patients	6	11	-
Other multi-organ patients¹	28	27	-4
ALL PATIENTS	6044	6077	+1

Percentages not reported when fewer than 10 in either year
¹ Includes patients waiting for kidney and liver transplants (26 in 2018, 24 in 2019), kidney and heart transplants (2 in 2018, 2 in 2019), liver and heart transplants (1 in 2019)

During 2018-2019, 408 patients died whilst active/suspended on the transplant list or within one year of removal from the list. This information is shown by organ and age group in **Table 2.3**.

Table 2.3 Number of patient deaths on transplant lists in the UK, between 1 April 2018 and 31 March 2019

	Total	Adult	Paediatric
Kidney & pancreas patients	279	279	0
Kidney	260	260	0
Kidney & pancreas	17	17	0
Pancreas	2	2	0
Cardiothoracic patients	81	77	4
Heart	20	16	4
Heart-lung	1	1	0
Lung(s)	60	60	0
Liver patients	45	44	1
Intestinal patients	1	0	1
Other multi-organ patients¹	2	1	1
ALL PATIENTS	408	401	7

¹ Includes patients waiting for kidney and liver transplants (1 adult, 1 paediatric)

2.3 Transplants

There was a 2% fall in the total number of organ transplants (from deceased and living donors) last year: 4,990 transplants were performed in 2018-2019 compared with 5,104 in 2017-2018 (**Table 2.4**). All multi-organ transplants are identified separately as are transplants from living donors.

The total number of kidney transplants remained similar in 2018-2019; kidney transplants from donors after circulatory death increased by 3%, while the number of living donor kidney transplants fell by 2%. The total number of cardiothoracic organ transplants fell by 16%, the number of liver transplants fell by 5% and the number of pancreas transplants (including pancreas only, intestinal, kidney/pancreas and pancreas islets) fell by 7%.

Table 2.4 Transplants performed in the UK, 1 April 2017 - 31 March 2019

Transplant	2017-2018	2018-2019	% Change
DBD kidney	1436	1427	-1
DCD kidney	943	972	+3
Living donor kidney	1035	1017	-2
DBD kidney & pancreas	120	112	-7
DCD kidney & pancreas	48	46	-4
Kidney & pancreas islets	4	8	-
DBD pancreas	13	12	-8
DCD pancreas	4	6	-
Pancreas islets	22	20	-9
DBD heart	172	151	-12
DCD heart	25	31	+24
Heart-lung	12	4	-
DBD single lung	21	11	-48
DCD single lung	2	5	-
DBD bilateral lung	142	112	-21
DCD bilateral lung	36	34	-6
DBD liver	690	675	-2
DCD liver	200	186	-7
Domino liver	1	1	-
DBD liver lobe	99	107	+8
DCD liver lobe	0	1	-
Living donor liver lobe	29	21	-28
Bowel only	6	8	-
Liver, bowel & pancreas	2	1	-
Multivisceral ¹	12	6	-
Modified multivisceral	5	4	-
Living liver & bowel	1	0	-
Kidney & liver	22	12	-45
Heart & liver	1	0	-
Liver & lung	1	0	-
TOTAL ORGAN TRANSPLANTS	5104	4990	-2
Total kidney transplants²	3612	3594	0
Total pancreas transplants²	230	215	-7
Total cardiothoracic transplants	412	348	-16
Total liver transplants²	1058	1010	-5
Total intestinal transplants	26	19	-27

Percentage not reported when fewer than 10 in either year

¹ Including a kidney (4 in 2017-2018)

² Includes intestinal transplants

The total approximate number of patients with a functioning transplant on 31 March 2019 is 54,500 (**Table 2.5**). This reflects information held on the UK transplant registry database and excludes those patients who are known to be lost to follow-up.

Table 2.5 Number of transplants reported as functioning at 31 March 2019	
	Functioning transplants¹
Kidney	39700
Pancreas	2000
Cardiothoracic	4000
Liver	10500
Intestinal	100
ALL PATIENTS	54500

¹ Approximate number of patients with a functioning transplant being followed up
Multi-organ transplants (excluding intestinal transplants) are counted in each organ
Excludes those patients known to be lost to follow-up