



Overview of Organ Donation and Transplantation

A summary of organ donation and transplantation activity in the UK during the financial year from 1 April 2020 to 31 March 2021

2.1 Summary of activity

Many patients became suspended from the active transplant list as transplant centres reacted to the COVID-19 pandemic in March 2020. Using 29 February 2020 as a more representative date for the number of patients on the active transplant list at the end of the 2019/20 financial year, there were 1,882 less active patients at 31 March 2021. The change in donor and transplant numbers (1 April 2011 to 31 March 2021) and the number of patients registered on the transplant lists at 31 March each year are shown in **Figure 2.1**. There were 815 fewer deceased donor transplants in 2020-2021 than in the previous year, representing a 22% fall. There was a 25% fall in the number of deceased donors.

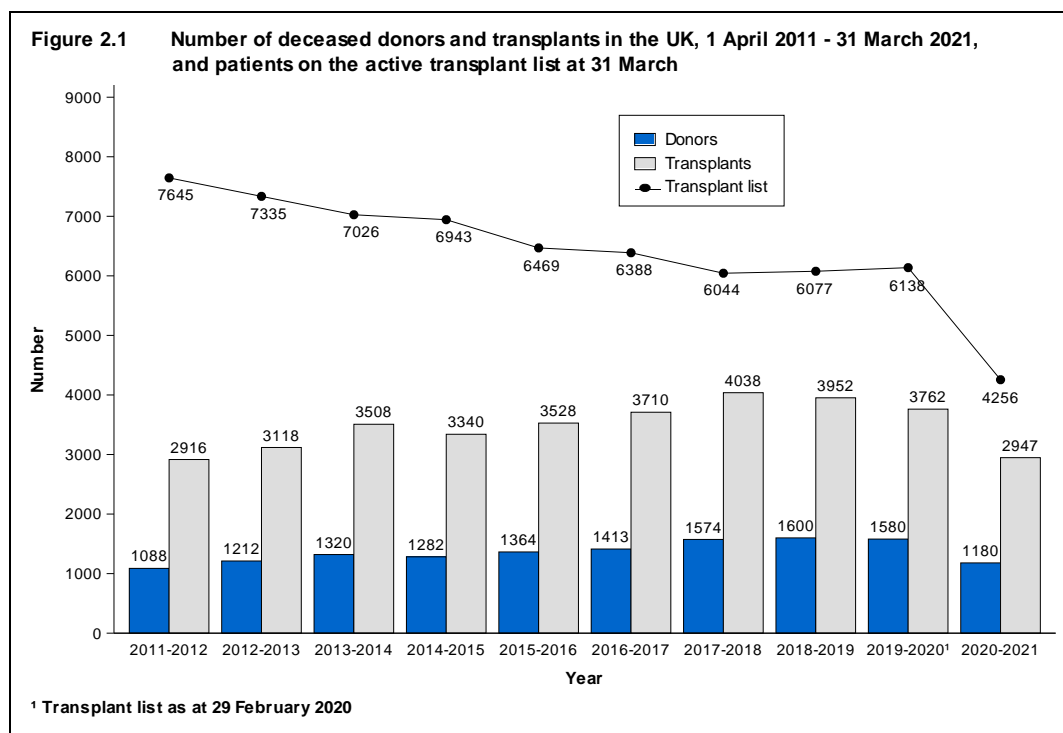


Figure 2.2 shows the number of deceased and living donors for 2011-2021. The numbers of deceased donors after brain death (DBD) and deceased donors after circulatory death (DCD) have both increased over the decade. In 2020-2021, as a result of the pandemic, the numbers of DBD and DCD donors fell greatly compared to the previous year, to 766 and 414 respectively. The number of living donors has also fallen, from a peak of 1,148 donors in 2013-2014 to 444 in 2020-2021, which represents a 58% fall compared with 2019-2020.

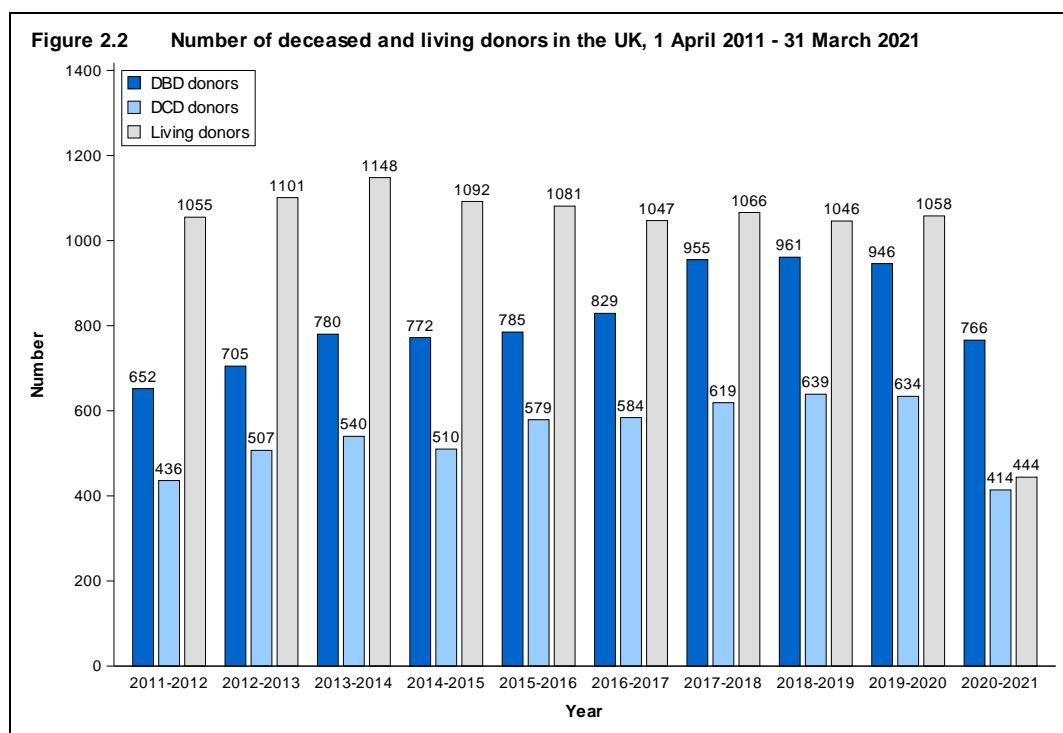
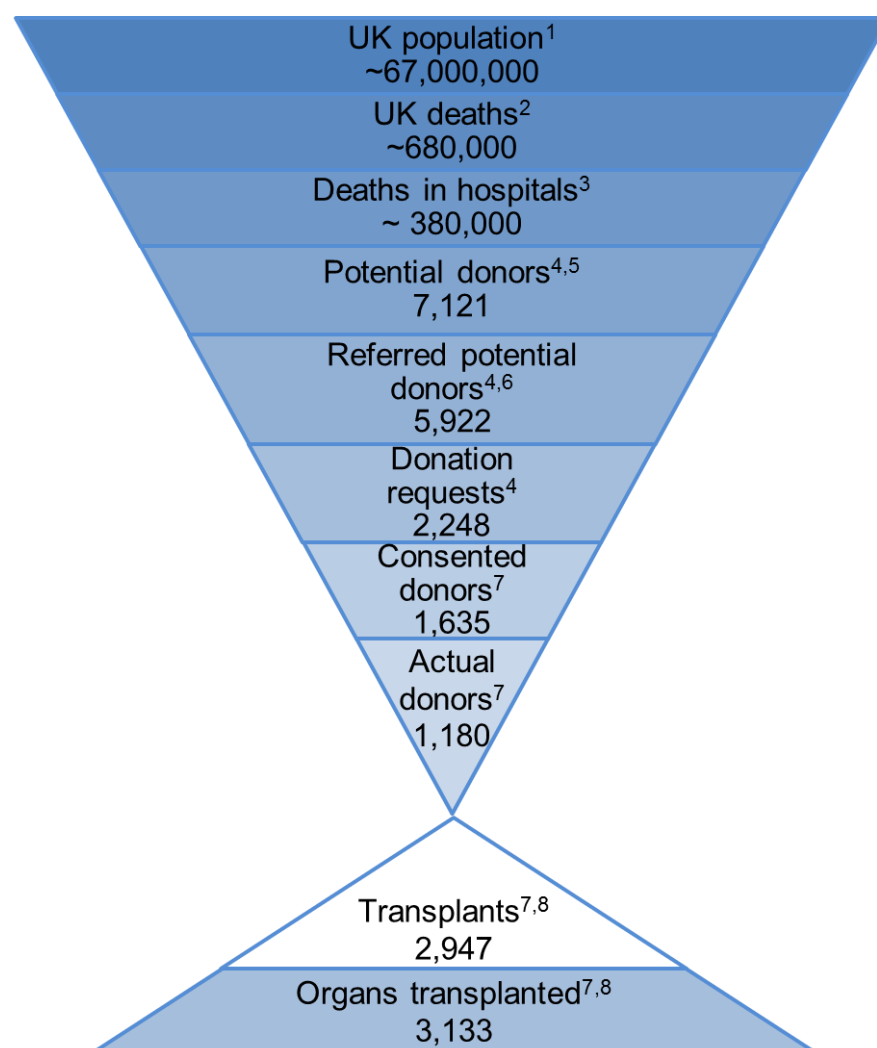


Figure 2.3 shows the potential deceased organ donor population in the UK. Not everyone can be a deceased organ donor and this figure highlights the small proportion of deaths in the UK that represent potential donors. *Please note that the information presented comes from several different sources. The 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 2020 – 31 March 2021**



¹ Mid 2019 estimates: www.ons.gov.uk

² 2020 data: England & Wales www.ons.gov.uk; Scotland www.gro-scotland.gov.uk; Northern Ireland www.nisra.gov.uk

³ 2020 data: England & Wales www.ons.gov.uk; Scotland www.isdscotland.org; Northern Ireland www.nisra.gov.uk

⁴ 2020/2021 data, NHSBT, Potential Donor Audit as at 10 May 2021

⁵ Potential donor - patients for whom death was confirmed following neurological tests or patients who had treatment withdrawn and death was anticipated within a time frame to allow donation to occur

⁶ Referred potential donor – Potential donor who was discussed with a Specialist Nurse – Organ Donation

⁷ 2020/2021 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 2020-2021 and patients on the transplant list at 31 March 2021 for each country in the UK and overall.

Table 2.1 Deceased donors and transplants 1 April 2020 - 31 March 2021, and transplant lists as at 31 March 2021, by Country of residence									
Organ	Country of residence ¹								TOTAL ²
	England		Wales		Scotland		Northern Ireland		
	N	(pmp)	N	(pmp)	N	(pmp)	N	(pmp)	N (pmp)
Kidney									
Deceased donors	902	(16.0)	49	(15.6)	90	(16.5)	48	(25.4)	1106 (16.5)
Transplants ³	1457	(25.9)	52	(16.5)	174	(31.9)	133	(70.4)	1836 (27.4)
Transplant list	2959	(52.6)	126	(40.0)	345	(63.2)	86	(45.5)	3525 (52.6)
Pancreas									
Deceased donors	168	(3.0)	13	(4.1)	18	(3.3)	8	(4.2)	211 (3.1)
Transplants	75	(1.3)	9	(2.9)	15	(2.7)	1	(0.5)	101 (1.5)
Transplant list	142	(2.5)	5	(1.6)	23	(4.2)	2	(1.1)	172 (2.6)
Heart									
Deceased donors	134	(2.4)	10	(3.2)	14	(2.6)	10	(5.3)	171 (2.6)
Transplants ⁴	127	(2.3)	6	(1.9)	21	(3.8)	3	(1.6)	161 (2.4)
Transplant list	262	(4.7)	12	(3.8)	19	(3.5)	16	(8.5)	313 (4.7)
Lung									
Deceased donors	88	(1.6)	5	(1.6)	9	(1.6)	5	(2.6)	108 (1.6)
Transplants	76	(1.4)	4	(1.3)	7	(1.3)	3	(1.6)	91 (1.3)
Transplant list	217	(3.9)	17	(5.4)	22	(4.0)	10	(5.3)	271 (4.0)
Liver									
Deceased donors	704	(12.5)	44	(14.0)	71	(13.0)	34	(18.0)	870 (13.0)
Transplants	606	(10.8)	29	(9.2)	71	(13.0)	29	(15.3)	749 (11.1)
Transplant list	94	(1.7)	5	(1.6)	13	(2.4)	3	(1.6)	123 (1.8)
Intestinal									
Deceased donors	13	(0.2)	1	(0.3)	0	(0.0)	0	(0.0)	14 (0.2)
Transplants	10	(0.2)	0	(0.0)	1	(0.2)	0	(0.0)	12 (0.2)
Transplant list	13	(0.2)	0	(0.0)	1	(0.2)	0	(0.0)	14 (0.2)
Total⁵									
Deceased donors	967	(17.2)	52	(16.5)	92	(16.8)	48	(25.4)	1180 (17.6)
Transplants	2349	(41.7)	100	(31.7)	289	(52.9)	169	(89.4)	2947 (44.0)
Transplant list	3555	(63.2)	159	(50.5)	401	(73.4)	115	(60.8)	4256 (63.5)

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, 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 2021, 4,256 patients were registered for an organ transplant in the UK on the active transplant list. A further 5,307 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 29 February 2020 and 31 March 2021. Between these dates the total number decreased by 1882 (31%). This is mostly due to decreases in the kidney and liver transplant lists, where non-urgent patients have been suspended. There have also been fewer patients added to the transplant lists throughout the pandemic.

Table 2.2 Active transplant lists in the UK at 29 February 2020 and 31 March 2021			
	2020	2021	% Change
Kidney & pancreas patients	4963	3537	-29
Kidney	4726	3365	-29
Kidney & pancreas	198	143	-28
Kidney & pancreas islets	12	11	-8
Pancreas	11	10	-9
Pancreas islets	16	8	-
Cardiothoracic patients	690	582	-16
Heart	340	312	-8
Heart-lung	5	10	-
Lung(s)	345	260	-25
Liver patients	437	115	-74
Intestinal patients	19	14	-26
Other multi-organ patients¹	29	8	-
ALL PATIENTS	6138	4256	-31
Percentages not reported when fewer than 10 in either year			
¹ Includes patients waiting for kidney and liver transplants (24 in 2020, 6 in 2021), liver and heart transplants (3 in 2020, 1 in 2021), liver and lung transplants (2 in 2020, 1 in 2021)			

During 2020-2021, 487 patients died whilst active/suspended on the transplant list or within one year of removal from the list. For comparison, in 2019-2020, 377 patients died. This information for 2020-2021 is shown by organ and age group in **Table 2.3**.

Table 2.3 Number of patient deaths on transplant lists in the UK, 1 April 2019 and 31 March 2021				
	2019-2020 Total	Total	2020-2021 Adult	Paediatric
Kidney & pancreas patients	247	337	336	1
Kidney	233	313	312	1
Kidney & pancreas	13	23	23	0
Pancreas	1	1	1	0
Cardiothoracic patients	79	77	71	6
Heart	27	27	21	6
Heart-lung	2	2	2	0
Lung(s)	50	48	48	0
Liver patients	49	65	60	5
Intestinal patients	1	4	3	1
Other multi-organ patients¹	1	4	3	1
ALL PATIENTS	377	487	473	14
¹ Includes patients waiting for kidney and heart transplants (1 adult), kidney and liver transplants (1 adult, 1 paediatric), liver and heart transplants (1 adult) in 2020-2021 and 1 patient waiting for liver and lung transplant (1 paediatric) in 2019-2020				

2.3 Transplants

There was a 30% fall in the total number of organ transplants (from deceased and living donors) last year: 3,391 transplants were performed in 2020-2021 compared with 4,820 in 2019-2020 (**Table 2.4**). All multi-organ transplants are identified separately as are transplants from living donors.

The total number of kidney transplants fell in 2020-2021; kidney transplants from donors after circulatory death fell by 28%, while the number of living donor kidney transplants fell by 59%. The number of heart transplants fell by 7%, the number of lung transplants fell by 44%, the number of liver transplants fell by 19%, and the number of pancreas transplants (including pancreas only, intestinal, kidney/pancreas and pancreas islets) fell by 49%.

Table 2.4 Transplants performed in the UK, 1 April 2019 - 31 March 2021

Transplant	2019-2020	2020-2021	% Change
DBD kidney	1362	1171	-14
DCD kidney	921	665	-28
Living donor kidney	1039	422	-59
DBD kidney & pancreas	118	62	-47
DCD kidney & pancreas	44	21	-52
Kidney & pancreas islets	5	5	-
DBD pancreas	11	3	-
DCD pancreas	2	0	-
Pancreas islets	23	10	-57
DBD heart	149	137	-8
DCD heart	23	22	-4
Heart-lung	5	2	-
DBD single lung	13	4	-
DCD single lung	1	3	-
DBD bilateral lung	110	65	-41
DCD bilateral lung	31	16	-48
DBD liver	645	518	-20
DCD liver	169	120	-29
Domino liver	1	0	-
DBD liver lobe	92	100	+9
DCD liver lobe	0	1	-
Living donor liver lobe	18	22	+22
Bowel only ¹	6	2	-
Multivisceral ²	8	5	-
Modified multivisceral ³	6	5	-
Kidney & heart	1	0	-
Kidney & liver	15	7	-
Heart & liver	1	2	-
Liver & lung	1	1	-
TOTAL ORGAN TRANSPLANTS	4820	3391	-30
Total kidney transplants⁴	3509	2353	-33
Total pancreas transplants⁴	217	111	-49
Total cardiothoracic transplants	335	252	-25
Total liver transplants⁴	950	776	-18
Total intestinal transplants	20	12	-40

Percentage not reported when fewer than 10 in either year

¹ Including a kidney (1 in 2019-2020)

² Including a kidney (1 in 2019-2020)

³ Including a kidney (2 in 2019-2020)

⁴ Includes intestinal transplants

The total approximate number of patients with a functioning transplant on 31 March 2021 is 57,400 (**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 2021	
	Functioning transplants¹
Kidney	42000
Pancreas	2500
Cardiothoracic	4000
Liver	11000
Intestinal	150
ALL PATIENTS	57400
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	