

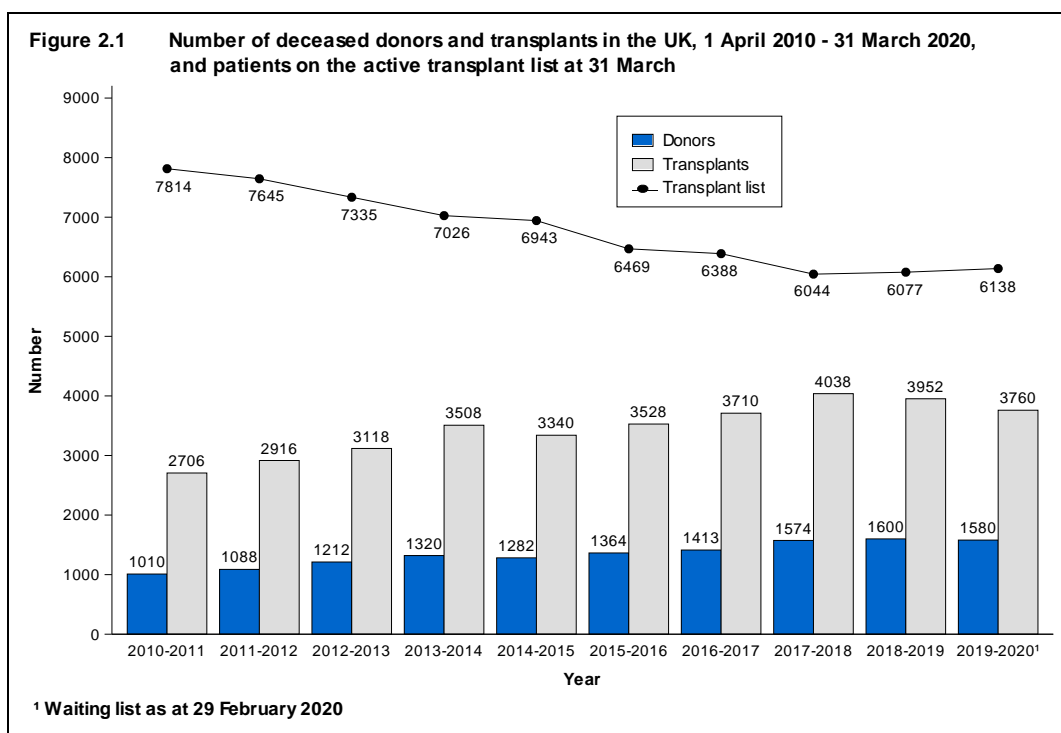


# Overview of Organ Donation and Transplantation

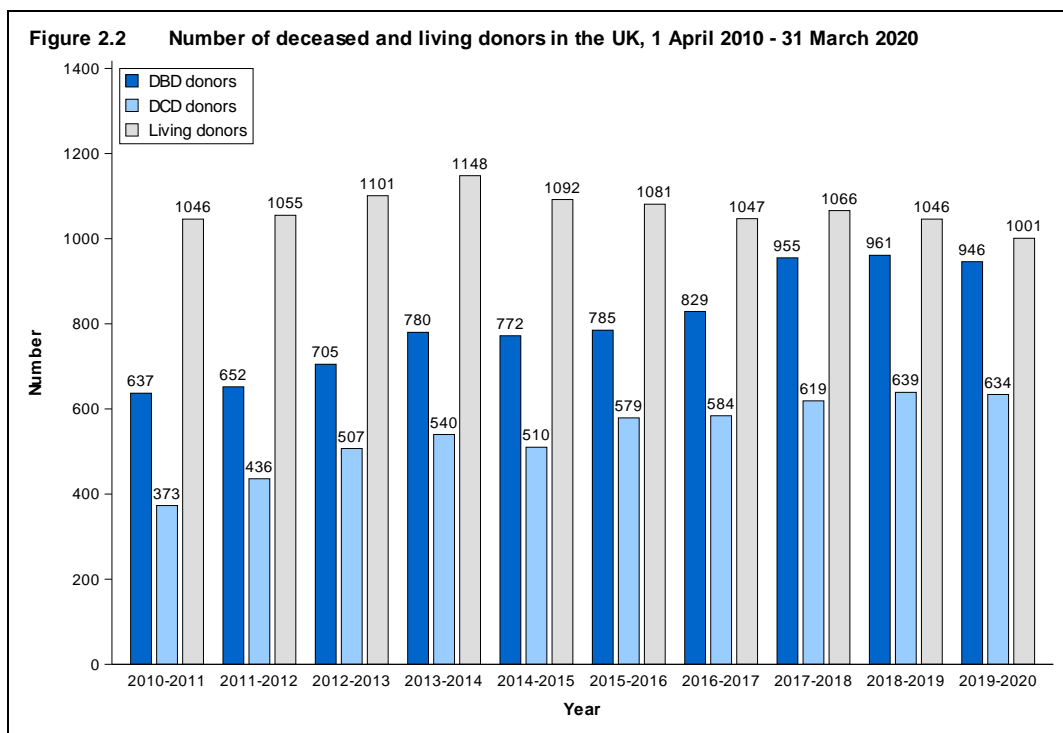
A summary of organ donation and transplantation activity in the UK during the financial year from 1 April 2019 to 31 March 2020

## 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 year end this year, there were 61 more active patients than at the end of March 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 2010 to 31 March 2020) and the number of patients registered on the transplant lists at 31 March each year are shown in **Figure 2.1**. There were 192 fewer deceased donor transplants in 2019-2020 than in the previous year, representing a 5% fall. There was a 1% fall in the number of deceased donors.

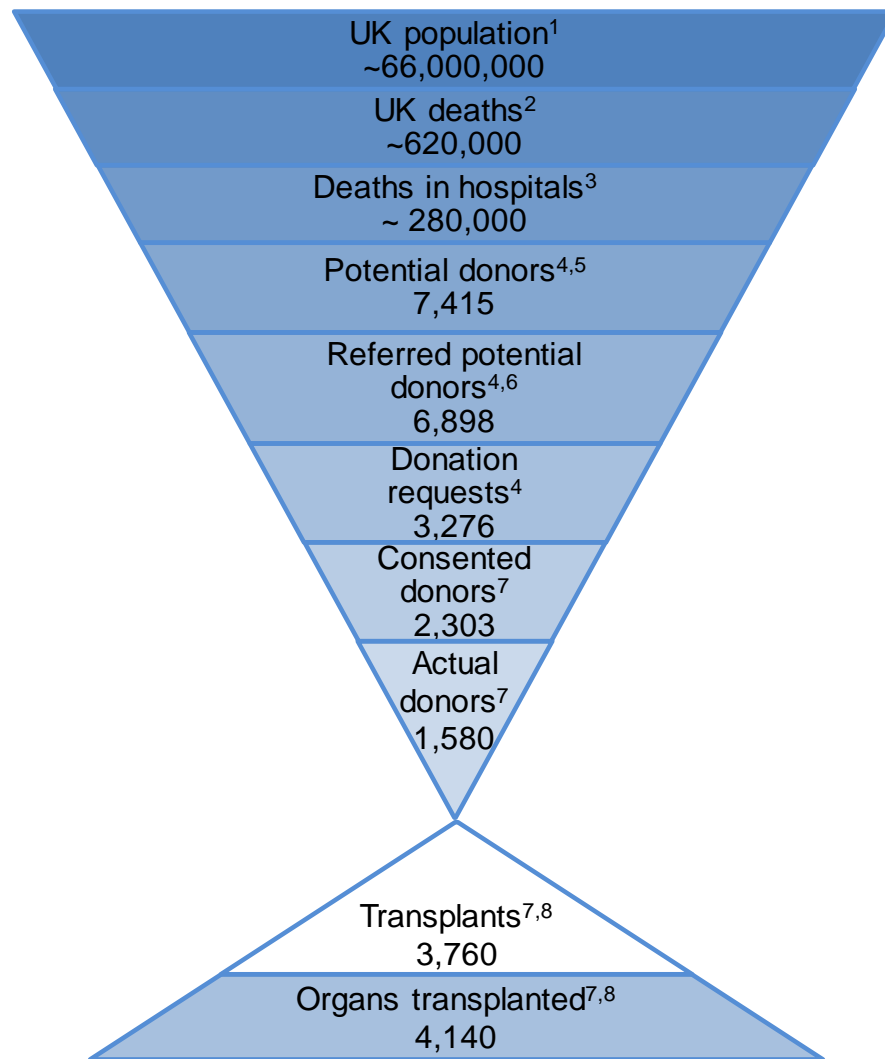


**Figure 2.2** shows the number of deceased and living donors for 2010-2020. The numbers of deceased donors after brain death (DBD) and deceased donors after circulatory death (DCD) have both increased over the decade. In 2019-2020 the numbers of DBD and DCD donors fell slightly compared to the previous year, to 946 and 634 respectively. The number of living donors has fallen over the last 7 years, from a peak of 1,148 donors in 2013-2014 to 1,001 in 2019-2020, which represents a 4% fall compared with 2018-2019.



**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 2019 – 31 March 2020**



<sup>1</sup> Mid 2018 estimates: [www.ons.gov.uk](http://www.ons.gov.uk)

<sup>2</sup> 2018 data: England & Wales [www.ons.gov.uk](http://www.ons.gov.uk); Scotland [www.gro-scotland.gov.uk](http://www.gro-scotland.gov.uk); Northern Ireland [www.nisra.gov.uk](http://www.nisra.gov.uk)

<sup>3</sup> 2018 data: England & Wales [www.ons.gov.uk](http://www.ons.gov.uk); Scotland [www.isdscotland.org](http://www.isdscotland.org); Northern Ireland [www.nisra.gov.uk](http://www.nisra.gov.uk)

<sup>4</sup> 2019/2020 data, NHSBT, Potential Donor Audit as at 8 June 2020

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

<sup>6</sup> Referred potential donor – Potential donor who was discussed with a Specialist Nurse – Organ Donation

<sup>7</sup> 2019/2020 deceased donor data: NHSBT, UK Transplant Registry

<sup>8</sup> Using organs from actual donors in the UK

**Table 2.1** shows the number of deceased donors and transplants in 2019-2020 and patients on the transplant list at 29 February 2020 for each country in the UK and overall.

<b>Table 2.1 Deceased donors and transplants 1 April 2019 - 31 March 2020, and transplant lists as at 29 February 2020, by country of residence</b>										
<b>Organ</b>	<b>Country of residence<sup>1</sup></b>								<b>TOTAL<sup>2</sup></b>	
	England		Wales		Scotland		Northern Ireland		N	(pmp)
	N	(pmp)	N	(pmp)	N	(pmp)	N	(pmp)	N	(pmp)
<b>Kidney</b>										
Deceased donors	1235	(22.1)	82	(26.1)	90	(16.5)	44	(23.4)	1474	(22.2)
Transplants <sup>3</sup>	1957	(35.0)	90	(28.7)	180	(33.1)	43	(22.9)	2280	(34.3)
Transplant list	4215	(75.3)	200	(63.7)	444	(81.6)	79	(42.0)	4960	(74.7)
<b>Pancreas</b>										
Deceased donors	371	(6.6)	31	(9.9)	30	(5.5)	8	(4.3)	449	(6.8)
Transplants	155	(2.8)	10	(3.2)	34	(6.3)	3	(1.6)	203	(3.1)
Transplant list	185	(3.3)	16	(5.1)	33	(6.1)	1	(0.5)	237	(3.6)
<b>Heart</b>										
Deceased donors	163	(2.9)	16	(5.1)	11	(2.0)	6	(3.2)	199	(3.0)
Transplants <sup>4</sup>	148	(2.6)	4	(1.3)	13	(2.4)	3	(1.6)	173	(2.6)
Transplant list	281	(5.0)	12	(3.8)	28	(5.1)	14	(7.4)	343	(5.2)
<b>Lung</b>										
Deceased donors	158	(2.8)	12	(3.8)	14	(2.6)	3	(1.6)	192	(2.9)
Transplants	131	(2.3)	11	(3.5)	9	(1.7)	6	(3.2)	159	(2.4)
Transplant list	282	(5.0)	14	(4.5)	32	(5.9)	21	(11.2)	352	(5.3)
<b>Liver</b>										
Deceased donors	927	(16.6)	71	(22.6)	71	(13.1)	30	(16.0)	1119	(16.8)
Transplants	766	(13.7)	41	(13.1)	65	(11.9)	31	(16.5)	915	(13.8)
Transplant list	355	(6.3)	27	(8.6)	54	(9.9)	19	(10.1)	466	(7.0)
<b>Intestinal</b>										
Deceased donors	17	(0.3)	0	(0.0)	4	(0.7)	0	(0.0)	21	(0.3)
Transplants	16	(0.3)	0	(0.0)	0	(0.0)	1	(0.5)	17	(0.3)
Transplant list	17	(0.3)	0	(0.0)	0	(0.0)	0	(0.0)	19	(0.3)
<b>Total<sup>5</sup></b>										
<b>Deceased donors</b>	<b>1314</b>	<b>(23.5)</b>	<b>85</b>	<b>(27.1)</b>	<b>100</b>	<b>(18.4)</b>	<b>49</b>	<b>(26.1)</b>	<b>1580</b>	<b>(23.8)</b>
<b>Transplants</b>	<b>3172</b>	<b>(56.7)</b>	<b>155</b>	<b>(49.4)</b>	<b>301</b>	<b>(55.3)</b>	<b>87</b>	<b>(46.3)</b>	<b>3760</b>	<b>(56.6)</b>
<b>Transplant list</b>	<b>5145</b>	<b>(91.9)</b>	<b>253</b>	<b>(80.6)</b>	<b>561</b>	<b>(103.1)</b>	<b>133</b>	<b>(70.7)</b>	<b>6138</b>	<b>(92.4)</b>

<sup>1</sup> Country of residence of donor given for deceased donor numbers, and residence of recipient given for transplant and waiting list numbers  
<sup>2</sup> Includes patients resident in Channel Islands, Isle of Man and UK unknown; excludes patients resident overseas and in the Republic of Ireland  
<sup>3</sup> Kidney only transplants  
<sup>4</sup> Excludes heart-lung transplants  
<sup>5</sup> 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 29 February 2020, 6,138 patients were registered for an organ transplant in the UK on the active transplant list. A further 3,484 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 2019 and 29 February 2020. Between these dates the total number increased by 61 (1%), mostly due to increases in the heart, intestinal, and liver transplant lists which have seen the largest increases in numbers.

<b>Table 2.2 Active transplant lists in the UK at 31 March 2019 and 29 February 2020</b>			
	<b>2019</b>	<b>2020</b>	<b>% Change</b>
<b>Kidney &amp; pancreas patients</b>	<b>4989</b>	<b>4963</b>	<b>-1</b>
Kidney	4739	4726	0
Kidney & pancreas	196	198	+1
Kidney & pancreas islets	16	12	-25
Pancreas	12	11	-8
Pancreas islets	26	16	-38
<b>Cardiothoracic patients</b>	<b>643</b>	<b>690</b>	<b>+7</b>
Heart	292	340	+16
Heart-lung	12	5	-
Lung(s)	339	345	+2
<b>Liver patients</b>	<b>407</b>	<b>437</b>	<b>+7</b>
<b>Intestinal patients</b>	<b>11</b>	<b>19</b>	<b>+73</b>
<b>Other multi-organ patients<sup>1</sup></b>	<b>27</b>	<b>29</b>	<b>+7</b>
<b>ALL PATIENTS</b>	<b>6077</b>	<b>6138</b>	<b>+1</b>

Percentages not reported when fewer than 10 in either year  
<sup>1</sup> Includes patients waiting for kidney and liver transplants (24 in 2019, 24 in 2020), kidney and heart transplants (2 in 2019), liver and heart transplants (1 in 2019, 3 in 2020), liver and lung transplants (2 in 2020)

During 2019-2020, 377 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, 1 April 2019 and 31 March 2020**

	Total	Adult	Paediatric
<b>Kidney &amp; pancreas patients</b>	<b>247</b>	<b>247</b>	<b>0</b>
Kidney	233	233	0
Kidney & pancreas	13	13	0
Pancreas	1	1	0
<b>Cardiothoracic patients</b>	<b>79</b>	<b>70</b>	<b>9</b>
Heart	27	20	7
Heart-lung	2	1	1
Lung(s)	50	49	1
<b>Liver patients</b>	<b>49</b>	<b>42</b>	<b>7</b>
<b>Intestinal patients</b>	<b>1</b>	<b>0</b>	<b>1</b>
<b>Other multi-organ patients<sup>1</sup></b>	<b>1</b>	<b>0</b>	<b>1</b>
<b>ALL PATIENTS</b>	<b>377</b>	<b>359</b>	<b>18</b>

<sup>1</sup> Includes 1 patient waiting for liver and lung transplants (1 paediatric)

## 2.3 Transplants

There was a 5% fall in the total number of organ transplants (from deceased and living donors) last year: 4,761 transplants were performed in 2019-2020 compared with 4,998 in 2018-2019 (**Table 2.4**). All multi-organ transplants are identified separately as are transplants from living donors.

The total number of kidney transplants fell in 2019-2020; kidney transplants from donors after circulatory death fell by 5%, while the number of living donor kidney transplants fell by 4%. The total number of cardiothoracic organ transplants fell by 4%, the number of liver transplants fell by 6%, however the number of pancreas transplants (including pancreas only, intestinal, kidney/pancreas and pancreas islets) increased by 1%.

**Note that the COVID-19 pandemic affected the number of transplants in 2019-2020, and that, based on comparing the first 11 months of this year with the same period last year, total deceased donor transplants fell by 2% and living donor transplants actually increased by 2%, resulting in a 1% decrease overall (compared with a 5% decrease at year end).**

**Table 2.4 Transplants performed in the UK, 1 April 2018 - 31 March 2020**

<b>Transplant</b>	<b>2018-2019</b>	<b>2019-2020</b>	<b>% Change</b>
DBD kidney	1425	1362	-4
DCD kidney	974	921	-5
Living donor kidney	1024	982	-4
DBD kidney & pancreas	112	118	+5
DCD kidney & pancreas	46	44	-4
Kidney & pancreas islets	8	5	-
DBD pancreas	12	11	-8
DCD pancreas	6	2	-
Pancreas islets	20	23	+15
DBD heart	152	149	-2
DCD heart	31	23	-26
Heart-lung	4	5	-
DBD single lung	11	13	+18
DCD single lung	5	1	-
DBD bilateral lung	112	109	-3
DCD bilateral lung	34	31	-9
DBD liver	674	644	-4
DCD liver	187	169	-10
Domino liver	1	1	-
DBD liver lobe	107	92	-14
DCD liver lobe	1	0	-
Living donor liver lobe	21	18	-14
Bowel only <sup>1</sup>	8	6	-
Liver, bowel & pancreas	1	0	-
Multivisceral <sup>2</sup>	6	8	-
Modified multivisceral <sup>3</sup>	4	6	-
Kidney & heart	0	1	-
Kidney & liver	12	15	+25
Heart & liver	0	1	-
Lung & liver	0	1	-
<b>TOTAL ORGAN TRANSPLANTS</b>	<b>4998</b>	<b>4761</b>	<b>-5</b>
<b>Total kidney transplants<sup>4</sup></b>	<b>3601</b>	<b>3452</b>	<b>-4</b>
<b>Total pancreas transplants<sup>4</sup></b>	<b>215</b>	<b>217</b>	<b>+1</b>
<b>Total cardiothoracic transplants</b>	<b>349</b>	<b>334</b>	<b>-4</b>
<b>Total liver transplants<sup>4</sup></b>	<b>1010</b>	<b>949</b>	<b>-6</b>
<b>Total intestinal transplants</b>	<b>19</b>	<b>20</b>	<b>+5</b>

Percentage not reported when fewer than 10 in either year

<sup>1</sup> Including a kidney (1 in 2019-2020)

<sup>2</sup> Including a kidney (1 in 2019-2020)

<sup>3</sup> Including a kidney (2 in 2019-2020)

<sup>4</sup> Includes intestinal transplants



The total approximate number of patients with a functioning transplant on 31 March 2020 is 56,300 (**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.

<b>Table 2.5      Number of transplants reported as functioning at 31 March 2020</b>	
	<b>Functioning transplants<sup>1</sup></b>
Kidney	41000
Pancreas	2100
Cardiothoracic	4100
Liver	11000
Intestinal	150
<b>ALL PATIENTS</b>	<b>56300</b>
<sup>1</sup> 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	