

Organ Donation Activity

Key messages

- There has been an 18% increase in deceased donors (to 1,397) and a 102% increase in living organ donors (to 909) compared with last year
- There has been a increase in donors after brain death of 2% to 785 and an increase of 48% in donors after circulatory death to 612, compared with last year
- Donors after brain death provide, on average, one more organ for transplantation than donors after circulatory death
- As a result of the COVID-19 pandemic, donor characteristics changed in 2020-2021 following a decade long trend towards older and more obese donors, this trend has reversed in 2021-2022

3.1 Summary of activity

There was an 18% increase in the number of deceased organ donors in 2021-2022 (1,397). There was an increase in donors after brain death (DBD) of 2% and an increase of 48% in donors after circulatory death (DCD) after usual criteria for DCD donation were reinstated after the height of the pandemic.

The 1,397 deceased organ donors gave 4,438 organs compared with 1,180 donors and 3,650 organs in 2020-2021. This represents a 22% increase in organs donated. **Table 3.1** shows deceased organ donors according to the organs they donated.

Nearly all deceased donors (95%) gave a kidney and of these, the majority (75%) also donated at least one other organ. Only 14% of donors after brain death were single organ donors, with similar proportions being liver only and kidney only donors. By contrast, 47% of donors after circulatory death were single organ donors, the majority (96%) of these donating just their kidneys.

Although the vast majority of living organ donors donated a kidney, 25 donated part of their liver. All living donations are approved by the Human Tissue Authority.

Table 3.1 Solid organ donors in the UK, 1 April 2021 - 31 March 2022, by organ types donated				
	DBD	DCD	Living donor	TOTAL
Kidney only	64	275	884	1223
Kidney & thoracic	9	14	-	23
Kidney & liver	345	194	-	539
Kidney & pancreas	3	10	-	13
Kidney, thoracic & liver	70	23	-	93
Kidney, thoracic & pancreas	1	2	-	3
Kidney, liver & pancreas	122	50	-	172
Kidney, liver and bowel	2	-	-	2
Kidney, liver, pancreas & bowel	8	-	-	8
Kidney, thoracic, liver & pancreas	91	30	-	121
Kidney, thoracic, liver & bowel	3	-	-	3
Kidney, thoracic, liver, pancreas & bowel	15	-	-	15
Thoracic only	1	1	-	2
Thoracic & liver	3	1	-	4
Thoracic, liver & pancreas	-	1	-	1
Liver only	47	11	25	83
Liver & pancreas	1	-	-	1
TOTAL	785	612	909	2306

Bowel may include abdominal wall/colon/stomach/spleen

3.2 Organ donors

Organ donor rates per million population (pmp) for 2021-2022 are given by country and NHS region according to where the donor lived in **Table 3.2**, while the numbers of deceased donors are shown based on location of the hospital in which they died in **Table 3.3**. **Table 3.4** shows the number of deceased donors by Organ Donation Services Team. **Appendix I** shows a more detailed breakdown of the number of donors from the donating hospitals and **Appendix III** details the populations used. Number and rates of utilised donors are given in Chapter 4.

Table 3.2 Organ donation rates per million population (pmp), in the UK, 1 April 2021 - 31 March 2022, by country/ NHS region of donor residence								
Country/ NHS region of residence	DBD		DCD		TOTAL		Living	
	N	(pmp)	N	(pmp)	N	(pmp)	N	(pmp)
North East and Yorkshire	111	(12.8)	71	(8.2)	182	(21.1)	66	(7.6)
North West	64	(9.0)	65	(9.2)	129	(18.2)	57	(8.0)
Midlands	103	(9.7)	103	(9.7)	206	(19.3)	78	(7.3)
East of England	68	(10.4)	74	(11.3)	142	(21.6)	39	(5.9)
London	91	(10.1)	42	(4.7)	133	(14.8)	68	(7.6)
South East	118	(13.2)	96	(10.8)	214	(24.0)	78	(8.7)
South West	73	(12.9)	59	(10.4)	132	(23.3)	44	(7.8)
England	628	(11.1)	510	(9.0)	1138	(20.1)	430	(7.6)
Isle of Man	1	(12.5)	0	(0.0)	1	(12.5)	0	(0.0)
Channel Islands	4	(23.5)	2	(11.8)	6	(35.3)	0	(0.0)
Wales	41	(12.9)	16	(5.0)	57	(18.0)	29	(9.1)
Scotland	46	(8.4)	35	(6.4)	81	(14.8)	49	(9.0)
Northern Ireland	37	(19.5)	17	(8.9)	54	(28.4)	43	(22.6)
TOTAL¹	785	(11.7)	612	(9.1)	1397	(20.8)	903	(13.5)

¹ Includes 412 donors (28 DBD, 32 DCD and 352 living) with an unknown UK postcode and excludes 6 living donors resident outside the UK

Table 3.2 shows variation in the number of DBD and DCD donors pmp across the UK. There were 11.7 DBD donors pmp for the UK as a whole, but across NHS regions this ranged between 9.0 and 13.2 pmp. Across the four countries of the UK, Northern Ireland had the highest rate of 19.5 pmp. However, the number of eligible donors pmp also varies and further information can be seen in Chapter 13. It should be noted that these figures are not directly comparable, since not all donors are reported in the Potential Donor Audit. For DCD donors the UK rate is 9.1 pmp, and England had the highest rate of 9.0 pmp across countries of the UK, and across NHS regions it ranged from 4.7 to 11.3 pmp. No adjustment has been made for any differences in demographics of the populations across countries or NHS regions.

Table 3.3 Deceased organ donors in the UK, 1 April 2021 - 31 March 2022, by country/ NHS region of hospital of donor death			
Country of donation/ NHS region	DBD N	DCD N	TOTAL N
North East and Yorkshire	114	77	191
North West	68	61	129
Midlands	106	104	210
East of England	62	72	134
London	141	76	217
South East	99	98	197
South West	69	57	126
England	659	545	1204
Isle of Man	1	0	1
Channel Islands	2	0	2
Wales	38	16	54
Scotland	47	34	81
Northern Ireland	38	17	55
TOTAL	785	612	1397

Table 3.4 Deceased organ donors in the UK, 1 April 2021 - 31 March 2022 by Organ Donation Services Team			
Team	DBD N	DCD N	TOTAL N
Eastern	74	83	157
London	105	52	157
Midlands	93	91	184
North West	80	64	144
Northern	46	31	77
Northern Ireland	38	17	55
Scotland	47	34	81
South Central	65	66	131
South East	74	58	132
South Wales	28	14	42
South West	60	50	110
Yorkshire	75	52	127
TOTAL	785	612	1397

The mean number of organs retrieved per donor in 2021-2022 is given by country in **Table 3.5**. Overall, an average of 3.5 organs were donated per DBD donor and 2.8 per DCD donor. These rates ranged from 3.1 (DBD) and 2.4 (DCD) organs per donor in Northern Ireland, to 3.5 (DBD) in England and Wales and 2.8 (DCD) in England.

Table 3.5 Organs retrieved per donor, in the UK, 1 April 2021 - 31 March 2022, by country of donor residence									
Country	Adult			Paediatric			All		
	DBD	DCD	TOTAL	DBD	DCD	TOTAL	DBD	DCD	TOTAL
England	3.5	2.8	3.2	5.4	3.4	4.5	3.5	2.8	3.2
Wales	3.5	2.5	3.2	4.0	-	4.0	3.5	2.5	3.2
Scotland	3.4	2.6	3.1	-	5.0	5.0	3.4	2.6	3.1
Northern Ireland	3.1	2.4	2.9	-	-	-	3.1	2.4	2.9
TOTAL	3.4	2.7	3.1	5.4	3.5	4.5	3.5	2.8	3.2

3.3 Demographic characteristics

While the number of donors overall has increased over the last 10 years, it is important to be aware that there have been changes over time with regard to donor characteristics (**Table 3.6**). In 2021-2022, 37% of deceased donors were aged 60 years or more compared with 34% in 2012-2013 (**Figure 3.1**). The proportion of clinically obese donors (Body Mass Index (BMI) of 30 or higher) has increased from 23% to 29% in deceased donors in the last 10 years (**Figure 3.2**). In addition, the proportion of all deceased donors after a trauma death has decreased from 6% to 2% over the same time period. Trends towards older and more obese deceased donors and those with non-trauma related deaths may all have an adverse impact on the quality and utilisation of the organs, and the subsequent transplant outcome for the recipient.

Table 3.6 also indicates the ethnicity of deceased organ donors, highlighting that 8% of donors are from the Black, Asian and minority ethnic community. By contrast, these communities are estimated to represent 14% of the UK population.

Table 3.6		Demographic characteristics of organ donors in the UK 1 April 2021 - 31 March 2022					
		DBD		DCD		TOTAL	
		N	%	N	%	N	%
Age	0-17	21	3	19	3	40	3
	18-49	322	41	172	28	494	35
	50-59	172	22	179	29	351	25
	60-69	175	22	171	28	346	25
	70+	95	12	71	12	166	12
	mean (SD)	51	(16)	53	(16)	52	(16)
BMI	0-19	54	7	29	5	83	6
	20-29	522	66	387	63	909	65
	30+	209	27	196	32	405	29
	mean (SD)	27	(6)	28	(6)	28	(6)
Cause of death	Intracranial	694	88	511	83	1205	86
	Trauma	16	2	15	2	31	2
	Other	75	10	86	14	161	12
Ethnicity	White	695	90	558	94	1253	92
	Asian	33	4	10	2	43	3
	Black	17	2	7	1	24	2
	Other	25	3	18	3	43	3
	Unknown	15	0	19	0	34	0
Blood group	O	366	47	282	46	648	46
	A	317	40	253	41	570	41
	B	72	9	59	10	131	9
	AB	29	4	17	3	46	3
	Unknown ¹	1	0	1	0	2	0
Donor sex	Male	394	50	409	67	803	58
	Female	391	50	203	33	594	43
TOTAL		785	100	612	100	1397	100

¹ 2 donors had an indeterminate blood group

Figure 3.1 Age of deceased donors in the UK, 1 April 2012 - 31 March 2022

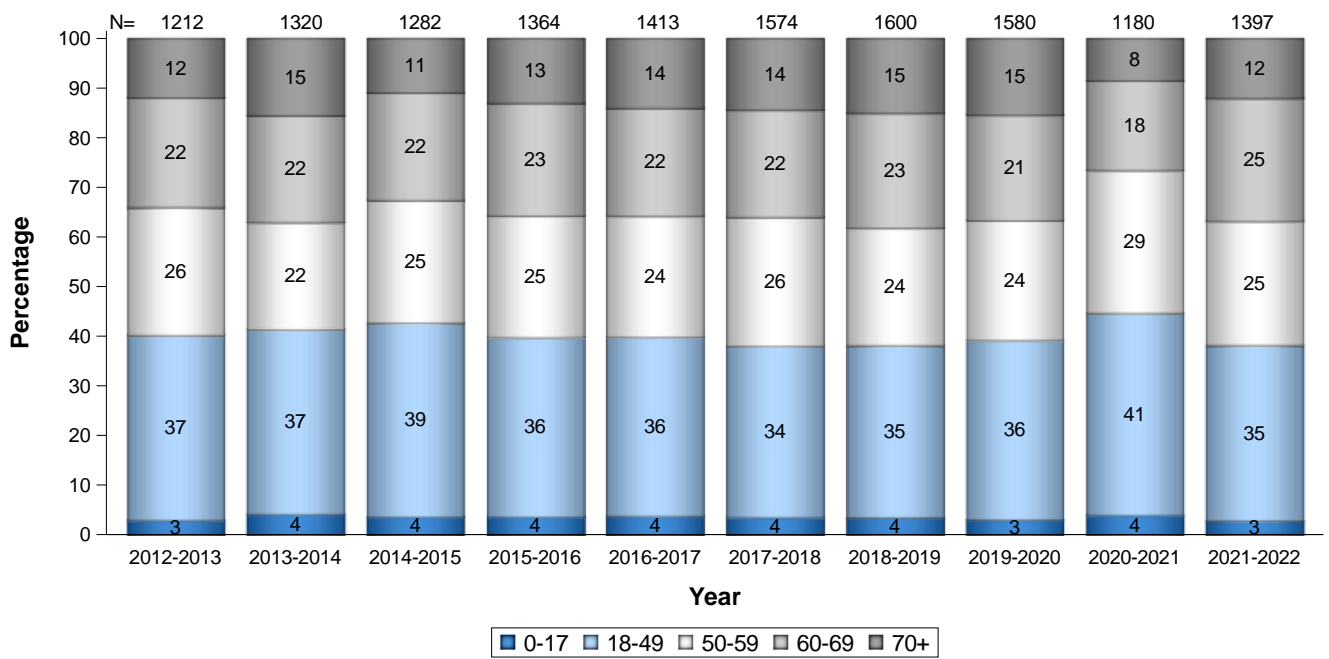
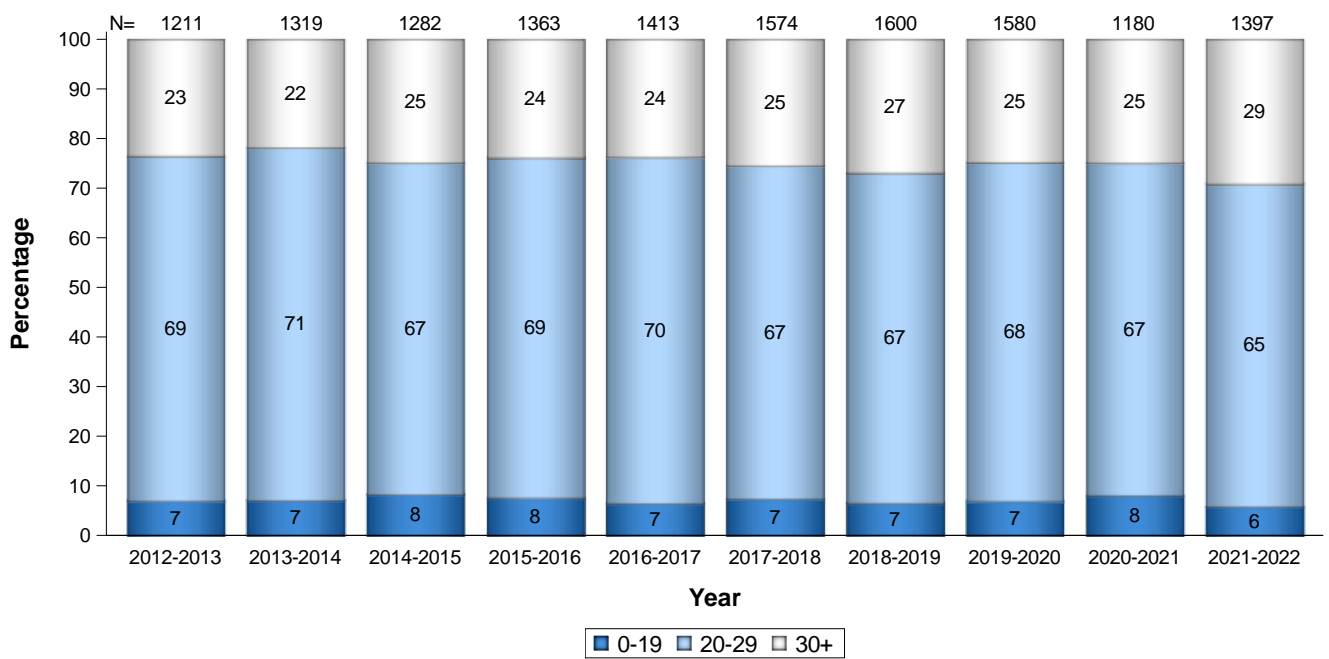


Figure 3.2 BMI of deceased donors in the UK, 1 April 2012 - 31 March 2022



Note that BMI cannot be determined for all deceased donors thus numbers indicated in **Figure 3.2** are the numbers of donors for which BMI was available, not total number of donors.