

Organ Donation Activity

Key messages

- There has been a 2% increase in deceased donors (to 1,429) and a 2% increase in living organ donors (to 958) compared with last year
- There has been a decrease in donors after brain death of 2% to 772 and an increase of 7% in donors after circulatory death to 657, compared with last year
- Donors after brain death provide, on average, one more organ for transplantation for every two donors after circulatory death
- Following the changes observed in 2020-2021, donor characteristics have returned to those similar to pre-pandemic and the long term trend towards more donors affected by obesity has continued

3.1 Summary of activity

There was a 2% increase in the number of deceased organ donors in 2022-2023 (1,429). There was a decrease in donors after brain death (DBD) of 2% and an increase of 7% in donors after circulatory death (DCD).

The 1,429 deceased organ donors gave 4,580 organs compared with 1,397 donors and 4,433 organs in 2021-2022. This represents a 3% 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 (77%) also donated at least one other organ. Only 13% of donors after brain death were single organ donors, with similar proportions being liver only or kidney only donors. By contrast, 41% of donors after circulatory death were single organ donors, the majority (94%) of these donating just their kidneys.

Although the vast majority of living organ donors donated a kidney, 35 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 2022 - 31 March 2023, by organ types donated				
	DBD	DCD	Living donor	TOTAL
Kidney only	58	252	923	1233
Kidney & thoracic	7	19	-	26
Kidney & liver	352	227	-	579
Kidney & pancreas	2	10	-	12
Kidney, thoracic & liver	60	30	-	90
Kidney, thoracic & pancreas	2	1	-	3
Kidney, liver & pancreas	117	64	-	181
Kidney, liver, pancreas & bowel	7	-	-	7
Kidney, thoracic, liver & pancreas	100	35	-	135
Kidney, thoracic, liver & bowel	1	-	-	1
Kidney, thoracic, liver, pancreas & bowel	16	-	-	16
Thoracic only	3	1	-	4
Thoracic & liver	-	1	-	1
Thoracic, liver & pancreas	2	-	-	2
Liver only	44	17	35	96
Liver, pancreas & bowel	1	-	-	1
TOTAL	772	657	958	2387

Bowel may include abdominal wall/colon/stomach/spleen

3.2 Organ donors

Organ donor rates per million population (pmp) for 2022-2023 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 2022 - 31 March 2023, 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	105	(12.9)	82	(10.1)	187	(23.0)	54	(6.6)
North West	78	(10.5)	55	(7.4)	133	(17.9)	35	(4.7)
Midlands	92	(8.5)	109	(10.1)	201	(18.5)	45	(4.2)
East of England	67	(10.6)	74	(11.7)	141	(22.2)	20	(3.1)
London	85	(9.7)	49	(5.6)	134	(15.2)	38	(4.3)
South East	105	(11.3)	99	(10.7)	204	(22.0)	54	(5.8)
South West	70	(12.3)	51	(8.9)	121	(21.2)	37	(6.5)
England	602	(10.6)	519	(9.2)	1121	(19.8)	283	(5.0)
Isle of Man	0	(0.0)	1	(12.5)	1	(12.5)	2	(25.0)
Channel Islands	1	(5.9)	1	(5.9)	2	(11.8)	1	(5.9)
Wales	44	(14.1)	34	(10.9)	78	(25.1)	22	(7.1)
Scotland	49	(8.9)	51	(9.3)	100	(18.2)	45	(8.2)
Northern Ireland	35	(18.4)	22	(11.6)	57	(30.0)	16	(8.4)
TOTAL¹	772	(11.5)	657	(9.8)	1429	(21.3)	944	(14.1)

¹ Includes 645 donors (41 DBD, 29 DCD and 575 living) with an unknown UK postcode and excludes 14 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 11.5 DBD donors pmp for the UK as a whole, but across NHS regions this ranged between 8.5 and 12.9 pmp. Across the four countries of the UK, Northern Ireland had the highest rate of 18.4 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 9.8 pmp, and Northern Ireland had the highest rate of 11.6 pmp across countries of the UK, and across NHS regions it ranged from 5.6 to 11.7 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 2022 - 31 March 2023, by country/ NHS region of hospital of donor death			
Country of donation/ NHS region	DBD N	DCD N	TOTAL N
North East and Yorkshire	109	82	191
North West	88	59	147
Midlands	89	114	203
East of England	67	76	143
London	123	67	190
South East	104	106	210
South West	66	51	117
England	646	555	1201
Isle of Man	0	1	1
Channel Islands	1	1	2
Wales	37	27	64
Scotland	51	51	102
Northern Ireland	37	22	59
TOTAL	772	657	1429

Table 3.4 Deceased organ donors in the UK, 1 April 2022 - 31 March 2023 by Organ Donation Services Team			
Team	DBD N	DCD N	TOTAL N
Eastern	69	85	154
London	92	44	136
Midlands	77	101	178
North West	94	61	155
Northern	48	34	82
Northern Ireland	37	22	59
Scotland	51	51	102
South Central	64	71	135
South East	81	64	145
South Wales	34	28	62
South West	59	44	103
Yorkshire	66	52	118
TOTAL	772	657	1429

The mean number of organs retrieved per donor in 2022-2023 is given by country in **Table 3.5**. Overall, an average of 3.5 organs were donated per DBD donor and 2.9 per DCD donor. These rates ranged from 3.2 (DBD) and 2.7 (DCD) organs per donor in Northern Ireland, to 3.8 (DBD) in Wales and 2.9 (DCD) in England, Wales and Scotland.

Table 3.5 Organs retrieved per donor, in the UK, 1 April 2022 - 31 March 2023, by country of donor residence									
Country	Adult			Paediatric			All		
	DBD	DCD	TOTAL	DBD	DCD	TOTAL	DBD	DCD	TOTAL
England	3.4	2.9	3.2	4.3	3.9	4.2	3.5	2.9	3.2
Wales	3.2	2.9	3.1	-	-	-	3.2	2.9	3.1
Scotland	3.7	2.8	3.3	4.7	4.0	4.5	3.8	2.9	3.3
Northern Ireland	3.1	2.7	3.0	4.0	-	4.0	3.2	2.7	3.0
TOTAL	3.4	2.9	3.2	4.3	3.9	4.2	3.5	2.9	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 2022-2023, 37% of deceased donors were aged 60 years or more (**Figure 3.1**). The proportion of clinically obese donors (Body Mass Index (BMI) of 30 or higher) has increased from 22% to 28% 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 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 18% of the UK population.

Table 3.6		Demographic characteristics of organ donors in the UK 1 April 2022 - 31 March 2023					
		DBD		DCD		TOTAL	
		N	%	N	%	N	%
Age (Years)	0-17	28	4	13	2	41	3
	18-49	317	41	200	30	517	36
	50-59	190	25	161	25	351	25
	60-69	142	18	181	28	323	23
	70+	95	12	102	16	197	14
	Mean (SD)	50	(17)	54	(15)	52	(16)
BMI	0-19	75	10	42	6	117	8
	20-29	514	67	401	61	915	64
	30+	183	24	214	33	397	28
	Mean (SD)	27	(6)	28	(6)	27	(6)
Cause of death	Intracranial	694	90	573	87	1267	89
	Trauma	12	2	17	3	29	2
	Other	66	9	67	10	133	9
Ethnicity	White	678	90	611	95	1289	92
	Asian	40	5	14	2	54	4
	Black	22	3	6	1	28	2
	Other	15	2	11	2	26	2
	Unknown	17	-	15	-	32	-
Blood group	O	350	45	317	48	667	47
	A	324	42	263	40	587	41
	B	72	9	63	10	135	9
	AB	24	3	14	2	38	3
	Unknown	2	-	0	-	2	-
Donor gender	Male	395	51	418	64	813	57
	Female	377	49	239	36	616	43
TOTAL		772	100	657	100	1429	100

Figure 3.1 Age of deceased donors in the UK, 1 April 2013 - 31 March 2023

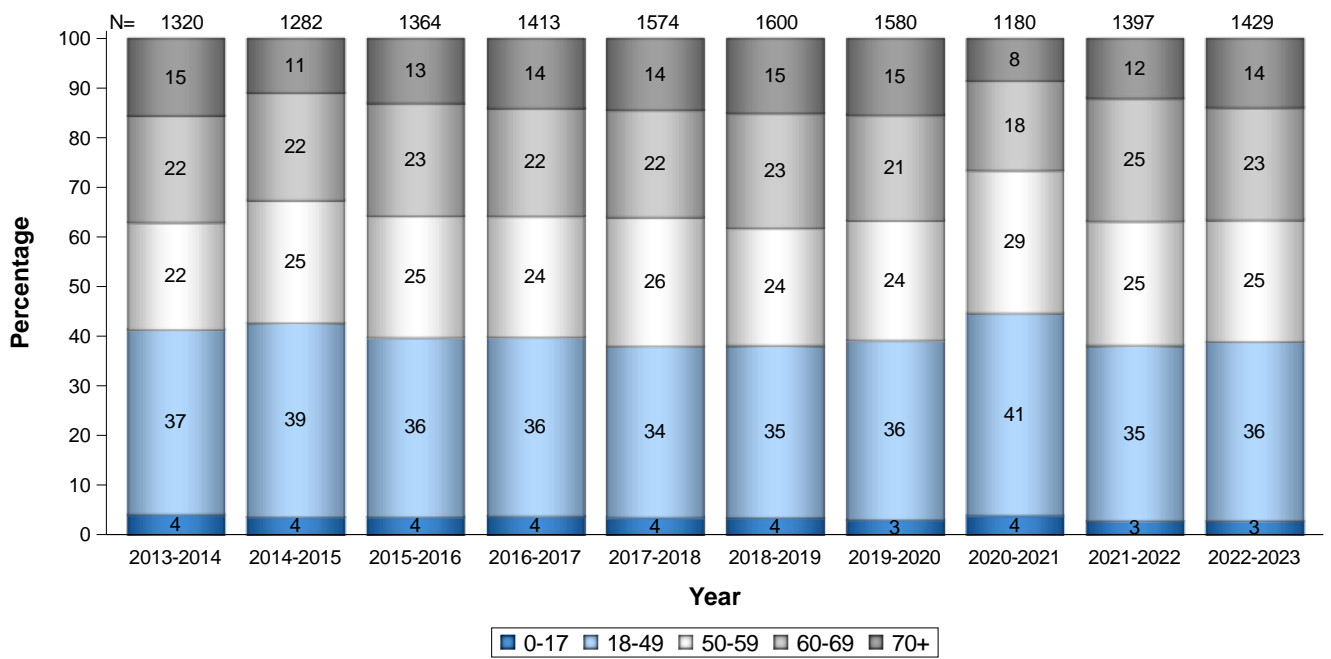
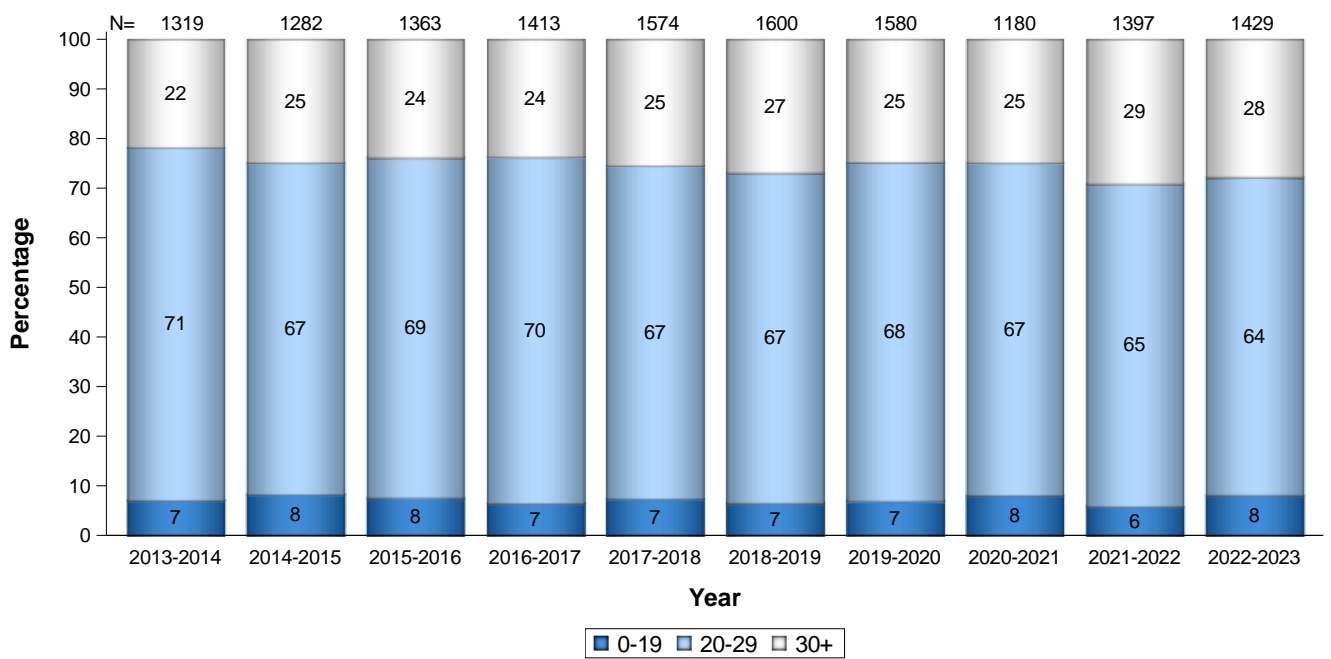


Figure 3.2 BMI of deceased donors in the UK, 1 April 2013 - 31 March 2023



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.