

NHS BLOOD AND TRANSPLANT
ORGAN DONATION AND TRANSPLANTATION DIRECTORATE
ADVISORY GROUP CHAIRS COMMITTEE
CHANGES IN DEMOGRAPHICS OF ELIGIBLE DONORS BEING APPROACHED
SUMMARY

INTRODUCTION

1. At the September 2015 Advisory Group Chairs meeting, members asked for information concerning the demographics of patients whose families were approached for consent to organ donation, and whether these had changed over time.
2. Risk –adjusted consent and approach rates are being developed but in the interim, this paper examines the family approach rate from eligible donors and key demographics of donors aged 75 years or under who died in critical care (excluding cardiothoracic ICUs) or emergency care since 1 April 2010.

DATA AND METHODS

3. Data analysed were of 24258 eligible donors aged <76 years in the UK between 1 April 2010 and 30 September 2015 as reported on the National Potential Donor Audit (PDA) as at 9 November 2015. Key demographics considered for eligible donors were age, gender, ethnicity, cause of death and social deprivation category.

RESULTS

4. The proportion of eligible DBDs whose families were approached was fairly static over time at around 93%. The proportion of eligible DCDs whose families were approached increased from 47% in 2010/2011 to 58% in 2012/2013. Since 2012/2013, the approach rate has fallen to 51-52%.
5. No trends were apparent over time in terms of gender and ethnicity of eligible donors. Social deprivation category information was only available for the last two time periods, but showed similar distributions for eligible DBD and DCD donors. In terms of age and cause of death, in both DBD and DCD data, there was a trend towards an increasing proportion of older (>60 years) eligible donors whose family were approached, coupled with an increase in the miscellaneous cause of death category. For eligible DCD donors, the % >60 years increased from 44% to 49% but then fell back to 41% more recently.

SUMMARY

6. The data clearly show that proportionally and numerically more families of older eligible donors are being approached, reflecting the evolving needs of the transplant community. The recent fall in approach rate of older DCD donors may be at least partly explained by refining the criteria for approaching families, matching requirements of transplant surgeons and making better use of resources.

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INTRODUCTION

1. At the September 2015 Advisory Group Chairs meeting, members asked for information concerning the demographics of patients whose families were approached for consent to organ donation, and whether these had changed over time.
2. The criteria for inclusion in the PDA has changed over time as follows:
 - a. Between 1 October 2009 and 31 March 2010, all patient deaths in critical care (excluding cardiothoracic ICUs) were audited for patients aged 75 years and under
 - b. All patient deaths in emergency care were included from 1 April 2010
 - c. From 1 April 2013, the age criterion was increased to 80 years and under and deaths in cardiothoracic ICUs were included.
3. Due to the above changes, this paper examines key demographics of donors aged 75 years or under who died in critical care (excluding cardiothoracic ICUs) or emergency care since 1 April 2010 and also examines the family approach rate from eligible donors.

DATA AND METHODS

4. There were 24258 eligible donors (using below definitions) aged less than 76 years in the UK between 1 April 2010 and 30 September 2015 as reported on the National Potential Donor Audit (PDA) as at 9th November 2015. Of these eligible donors, 15398 (63.5%) families were approached for consent to/ authorisation for donation.
5. Eligible donors after brain death (DBD) were defined as patients for whom death was confirmed following neurological tests, whilst eligible donors after circulatory death (DCD) were defined as patients who had treatment withdrawn and death was anticipated within four hours. All eligible donors also had no absolute medical contraindications to solid organ donation.
6. The key demographics examined in this paper are
 - a. Age (Grouped)
 - b. Sex
 - c. Ethnic origin
 - d. Cause of death
 - e. Social deprivation score (ACORN) (from 1 April 2014)

RESULTS

OVERALL FAMILY APPROACH RATES

7. **Table 1** shows the family approach rate by donor type and financial year for all eligible donors between 1 April 2010 and 30 September 2015. The proportion of eligible DBDs whose families were approached was fairly static over time at around 93%. The proportion of eligible DCDs whose families were approached increased from 47% in 2010/2011 to 58% in 2012/2013. Since 2012/2013, the approach rate has fallen to 51-52%.

Table 1 Family approach rates for eligible donors in the UK, 1 April 2010 to 30 September 2015

Period	DBD		DCD		Overall	
	Eligible donors	% approached	Eligible donors	% approached	Eligible donors	% approached
10/11	1143	92.6	2890	47.1	4033	60
11/12	1169	93.2	2936	54.5	4105	65.5
12/13	1189	92.5	3114	58.4	4303	67.8
13/14	1272	92.9	3423	50.7	4695	62.2
14/15	1300	93.8	3554	50.6	4854	62.2
Apr - Oct 15	636	92.8	1632	51.6	2268	63.1
Overall	6709	93.0	17549	52.2	24258	63.5

8. The main reasons why families of eligible DBD donors were not formally approached were that the Coroner/Procurator Fiscal refused permission (28%), the family stated that they would not consent/authorise before they were formally approached (19%) or the patient's general medical condition was not suitable for donation (19%).
9. The main reasons why families of eligible DCD donors were not formally approached were the patient's general medical condition (46%), that they were not identified as a potential donor / organ donation not considered (23%) or some other medical reason (11%).

ELIGIBLE DONOR DEMOGRAPHICS FOR FAMILIES THAT WERE APPROACHED

DBD donors

10. **Figures 1-5 and Table A1 in the Appendix** show the key demographics of eligible DBD donors whose family was approached for consent, by financial year.

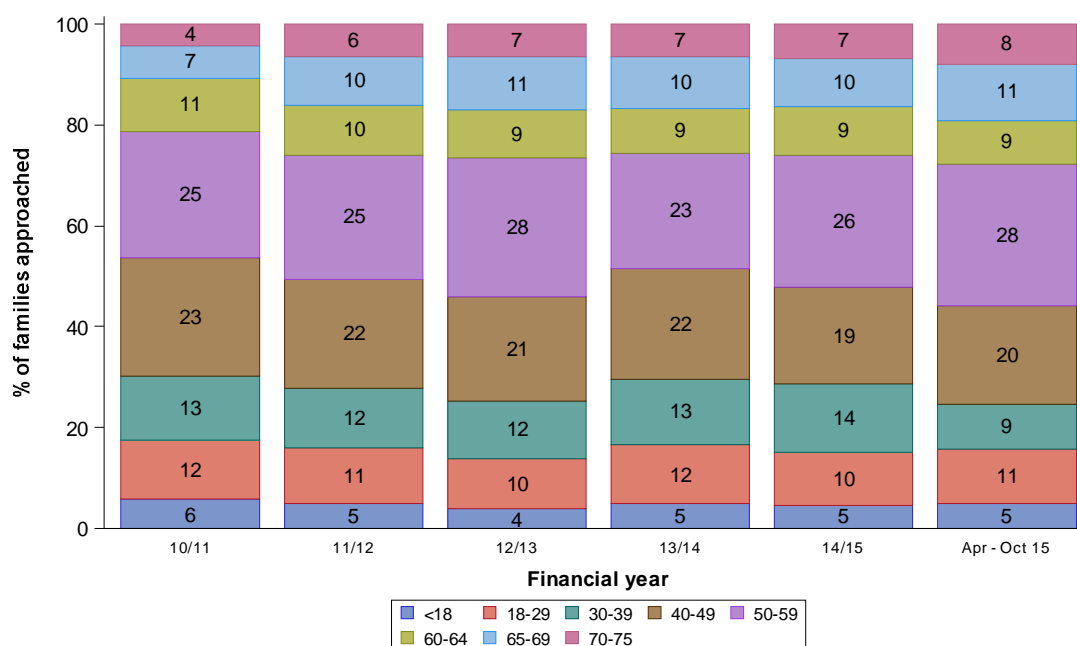


Figure 1 Age of eligible DBD donors whose family were approached for consent, April 2010-Sept 2015

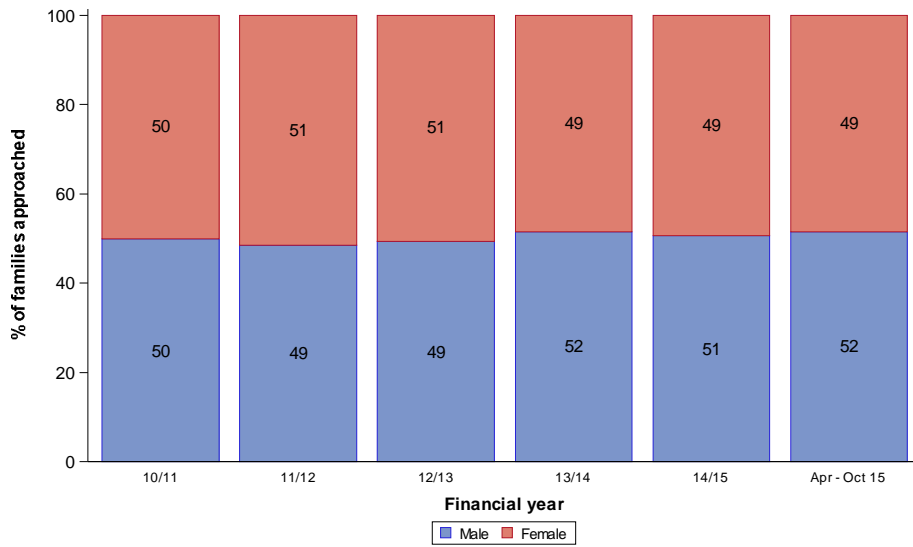


Figure 2 Sex of eligible DBD donors whose family were approached for consent, April 2010-Sept 2015

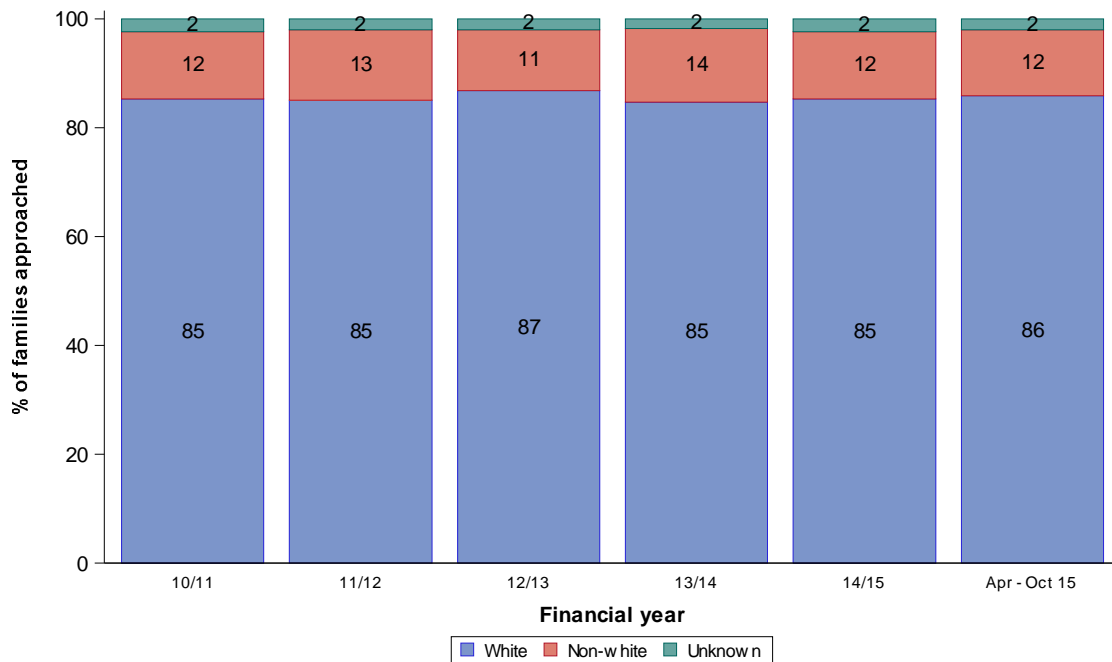


Figure 3 Ethnicity of eligible DBD donors whose family were approached for consent, April 2010-Sept 2015

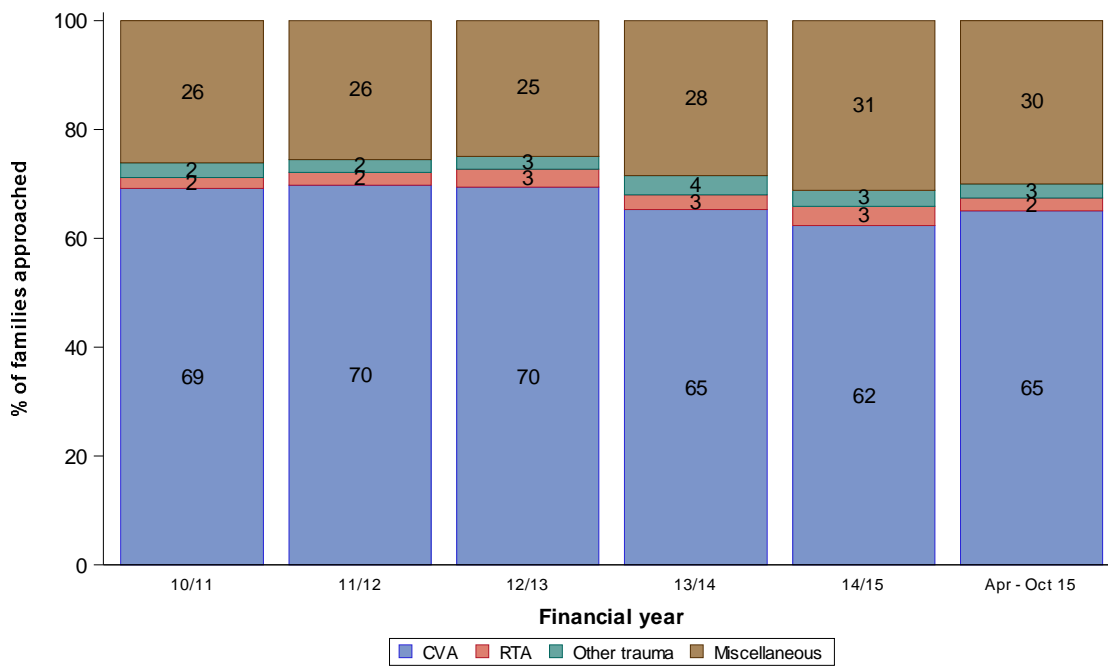


Figure 4 Cause of death of eligible DBD donors whose family were approached for consent, April 2010-Sept 2015

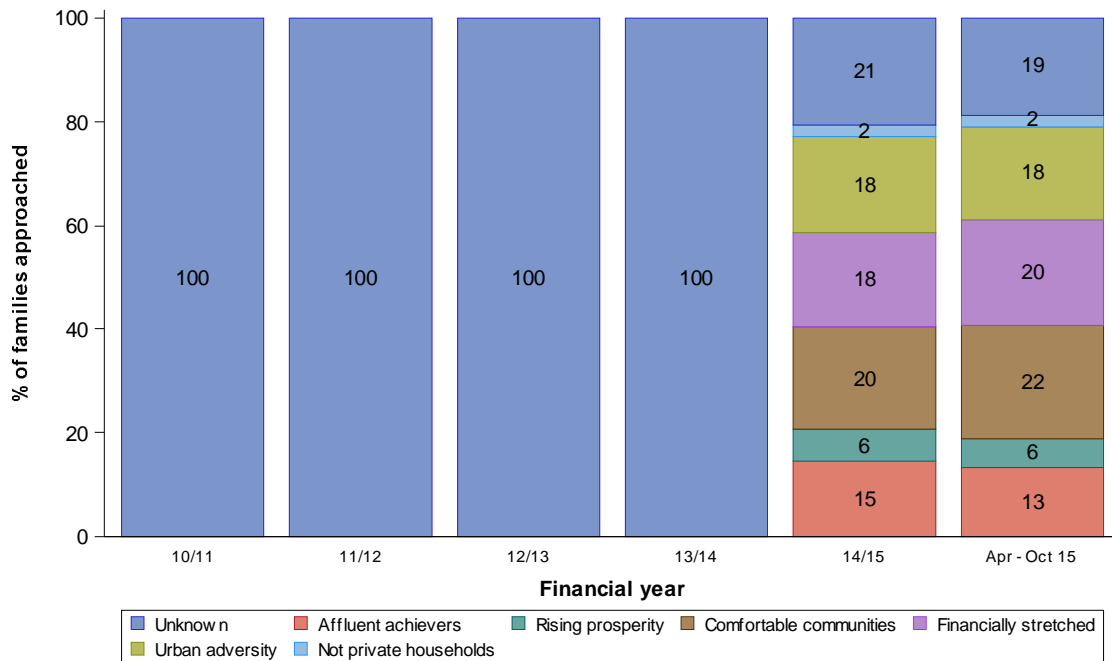


Figure 5 Deprivation category of eligible DBD donors whose family were approached for consent, April 2010-Sept 2015

DCD donors

11. Figures 6-10 and Table A2 in the Appendix show the key demographics of eligible DBD donors whose family was approached for consent, by financial year.

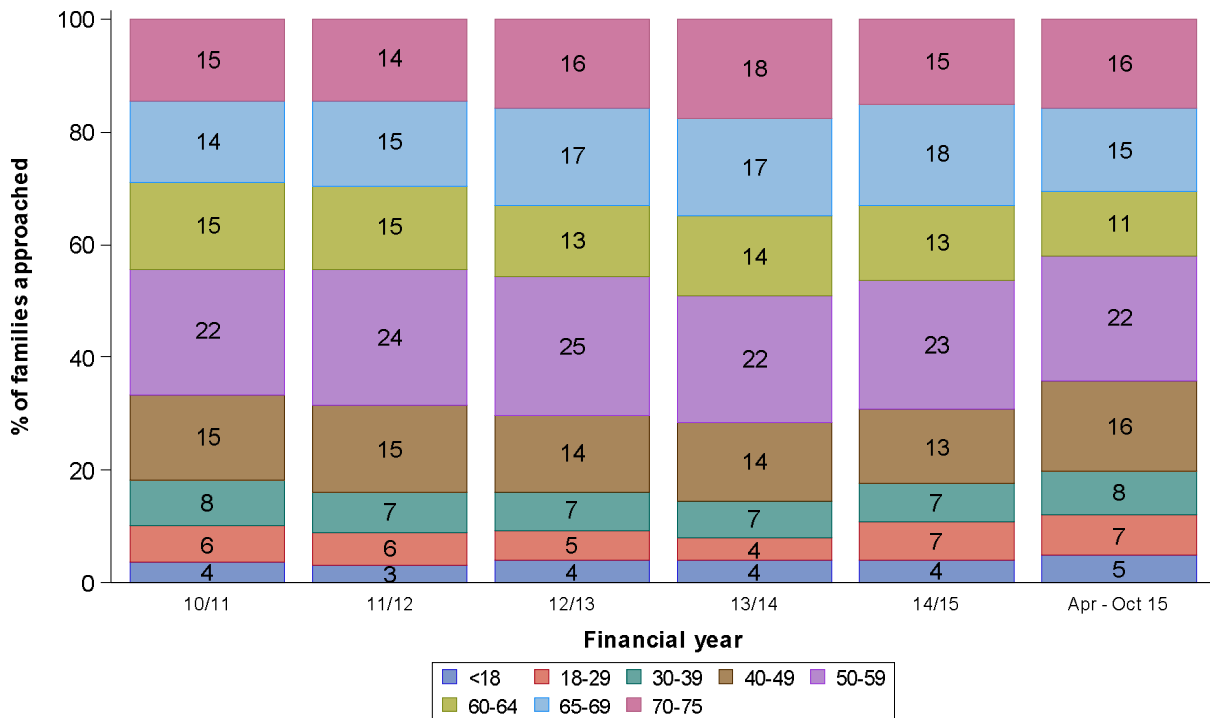


Figure 6 Age of eligible DCD donors whose family were approached for consent, April 2010-Sept 2015

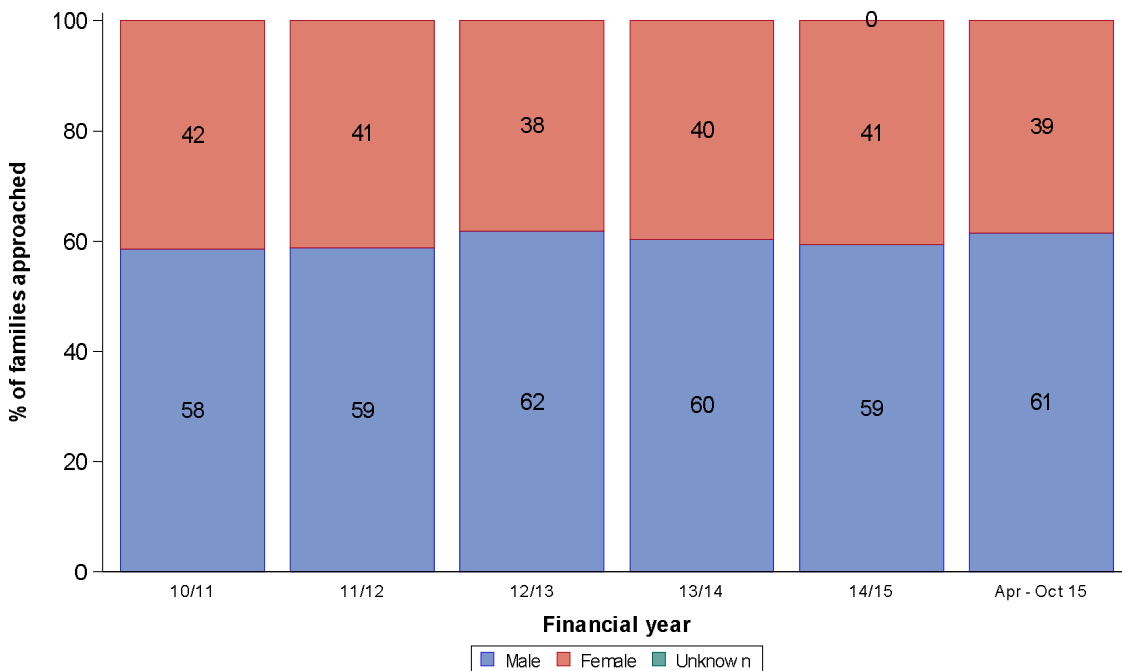


Figure 7 Sex of eligible DCD donors whose family were approached for consent, April 2010-Sept 2015

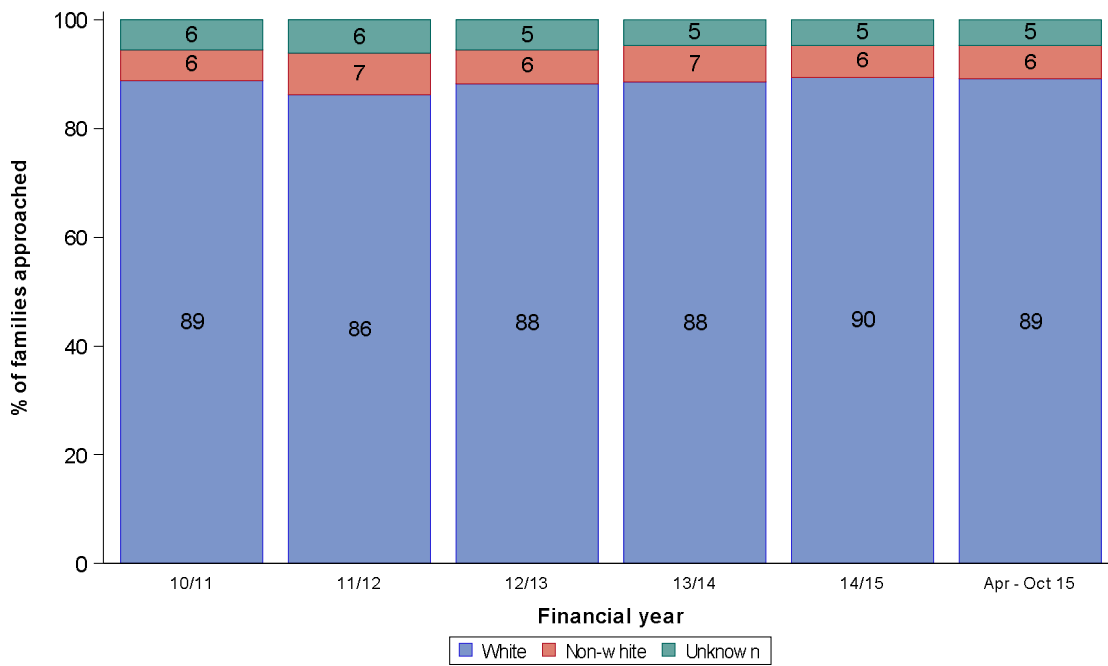


Figure 8 Ethnicity of eligible DCD donors whose family were approached for consent, April 2010-Sept 2015

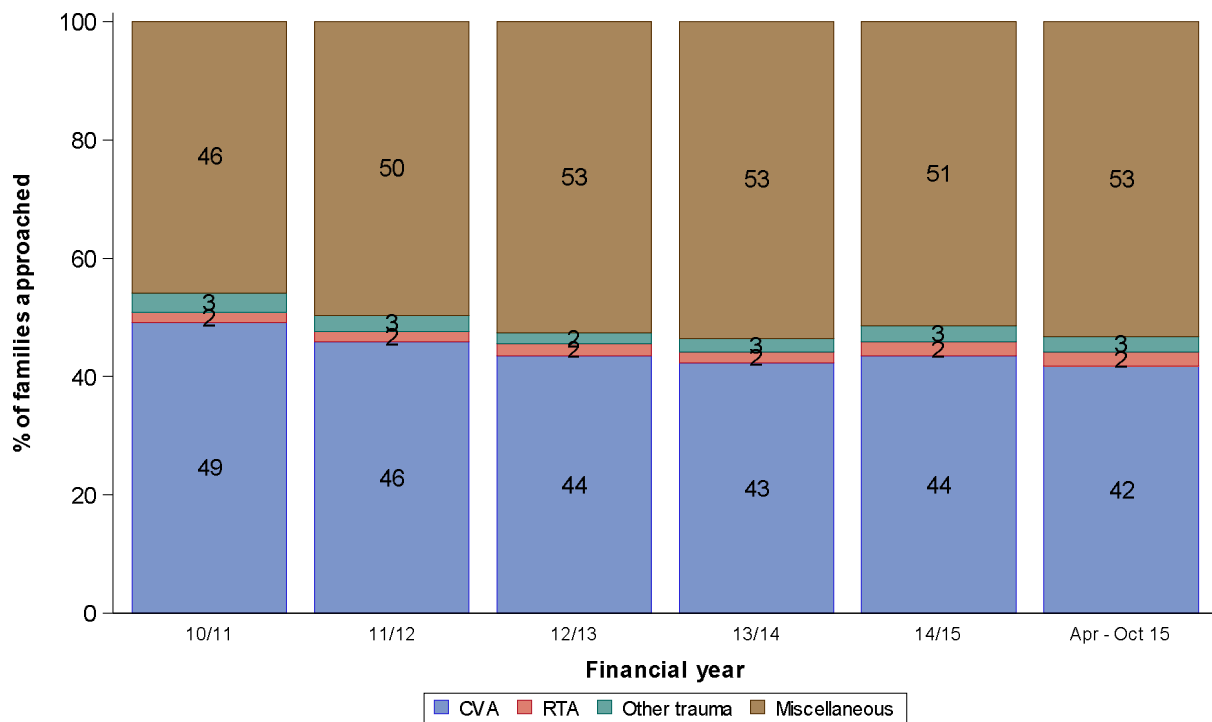


Figure 9 Cause of death of eligible DCD donors whose family were approached for consent, April 2010-Sept 2015

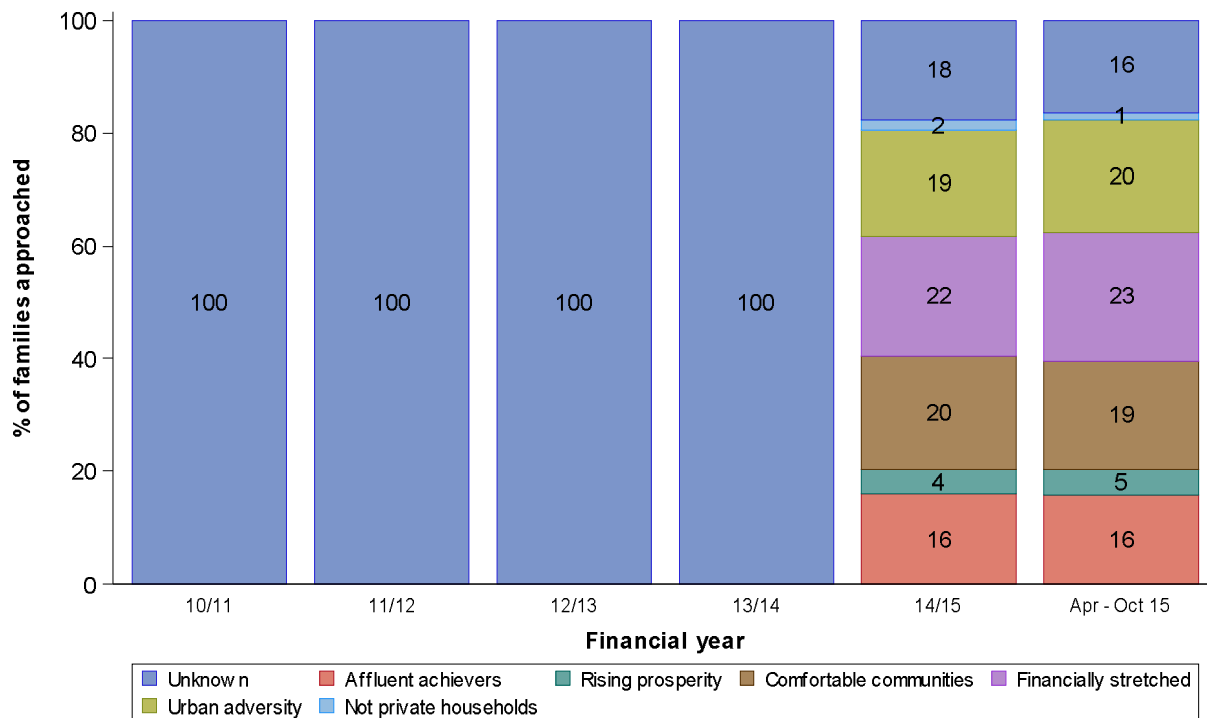


Figure 10 Deprivation category of eligible DCD donors whose family were approached for consent, April 2010-Sept 2015

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APPENDIX

Table A1 Demographics of eligible DBD donors in the UK whose families were approached, by six month periods, 1 April 2013 to 30 September 2015

Variable	Level	Apr 10 - Mar 11		Mar 11 - Mar 12		Apr 12 - Mar 13		Apr 13 - Mar 14		Apr 14 - Mar 15		Apr 15 - Sep 15		Overall	
		N	%	N	%	N	%	N	%	N	%	N	%	N	%
Age group	<18	61	5.8	56	5.1	44	4	58	4.9	57	4.7	30	5.1	306	4.9
	18-29	124	11.7	119	10.9	109	9.9	139	11.8	127	10.4	64	10.8	682	10.9
	30-39	136	12.9	130	11.9	127	11.5	155	13.1	167	13.7	52	8.8	767	12.3
	40-49	245	23.2	235	21.6	225	20.5	259	21.9	232	19	115	19.5	1311	21
	50-59	267	25.2	268	24.6	305	27.7	269	22.8	322	26.4	166	28.1	1597	25.6
	60-64	111	10.5	108	9.9	102	9.3	104	8.8	113	9.3	50	8.5	588	9.4
	65-69	69	6.5	104	9.5	115	10.5	119	10.1	117	9.6	66	11.2	590	9.5
	70-75	45	4.3	70	6.4	73	6.6	79	6.7	85	7	47	8	399	6.4
Gender	Male	529	50	530	48.6	543	49.4	609	51.5	618	50.7	304	51.5	3133	50.2
	Female	529	50	560	51.4	557	50.6	573	48.5	602	49.3	286	48.5	3107	49.8
Ethnic Origin	White	903	85.3	926	85	954	86.7	1002	84.8	1041	85.3	507	85.9	5333	85.5
	Asian Or Asian-British	52	4.9	63	5.8	57	5.2	71	6	68	5.6	37	6.3	348	5.6
	Black Or Black-British	48	4.5	49	4.5	46	4.2	56	4.7	48	3.9	23	3.9	270	4.3
	Chinese/Oriental	9	0.9	7	0.6	5	0.5	12	1	10	0.8	3	0.5	46	0.7
	Mixed - Please Specify	6	0.6	9	0.8	4	0.4	7	0.6	8	0.7	3	0.5	37	0.6
	Other - Please Specify	16	1.5	13	1.2	12	1.1	13	1.1	16	1.3	5	0.8	75	1.2
	Not Reported	3	0.3	3	0.3	2	0.2	6	0.5	13	1.1	3	0.5	30	0.5
	Unknown	21	2	20	1.8	20	1.8	15	1.3	16	1.3	9	1.5	101	1.6
Grouped cause of death	CVA	730	69	761	69.8	764	69.5	771	65.2	761	62.4	383	64.9	4170	66.8
	RTA	24	2.3	25	2.3	33	3	32	2.7	41	3.4	14	2.4	169	2.7
	Other trauma	25	2.4	26	2.4	29	2.6	43	3.6	38	3.1	16	2.7	177	2.8
	Miscellaneous	279	26.4	278	25.5	274	24.9	336	28.4	380	31.1	177	30	1724	27.6
ACORN categories	Affluent achievers									177	14.5	79	13.4	256	14.1
	Rising prosperity									74	6.1	33	5.6	107	5.9
	Comfortable communities									242	19.8	129	21.9	371	20.5
	Financially stretched									222	18.2	119	20.2	341	18.8
	Urban adversity									224	18.4	106	18	330	18.2
	Not private households									27	2.2	13	2.2	40	2.2
	Unknown	1058	100	1090	100	1100	100	1182	100	254	20.8	111	18.8	4795	76.8

Table A2 Demographics of eligible DCD donors in the UK whose families were approached, by six month periods, 1 April 2013 to 30 September 2015

Variable	Level	Apr 10 - Mar 11		Mar 11 - Mar 12		Apr 12 - Mar 13		Apr 13 - Mar 14		Apr 14 - Mar 15		Apr 15 - Sep 15		Overall	
		N	%	N	%	N	%	N	%	N	%	N	%	N	%
Age group	<18	51	3.7	51	3.2	72	4	69	4	76	4.2	41	4.9	360	3.9
	18-29	87	6.4	93	5.8	98	5.4	69	4	117	6.5	60	7.1	524	5.7
	30-39	111	8.1	113	7.1	124	6.8	117	6.7	122	6.8	66	7.8	653	7.1
	40-49	209	15.3	244	15.3	246	13.5	239	13.8	240	13.3	135	16	1313	14.3
	50-59	301	22.1	386	24.1	446	24.5	387	22.3	410	22.8	188	22.3	2118	23.1
	60-64	210	15.4	240	15	230	12.7	247	14.2	241	13.4	94	11.2	1262	13.8
	65-69	196	14.4	241	15.1	315	17.3	301	17.3	321	17.8	125	14.8	1499	16.4
	70-75	197	14.5	231	14.4	287	15.8	308	17.7	273	15.2	133	15.8	1429	15.6
Gender	Male	796	58.4	939	58.7	1122	61.7	1046	60.2	1068	59.3	517	61.4	5488	59.9
	Female	566	41.6	660	41.3	696	38.3	691	39.8	731	40.6	325	38.6	3669	40.1
	Unknown	0	0.0	0	0.0	0	0.0	0	0.0	1	0.1	0	0.0	1	0.1
Ethnic Origin	White	1211	88.9	1380	86.3	1606	88.3	1536	88.4	1611	89.5	749	89	8093	88.4
	Asian Or Asian-British	47	3.5	69	4.3	66	3.6	72	4.1	62	3.4	30	3.6	346	3.8
	Black Or Black-British	16	1.2	30	1.9	26	1.4	23	1.3	22	1.2	11	1.3	128	1.4
	Chinese/Oriental	4	0.3	7	0.4	7	0.4	5	0.3	8	0.4	1	0.1	32	0.3
	Mixed - Please Specify	4	0.3	6	0.4	10	0.6	6	0.3	7	0.4	6	0.7	39	0.4
	Other - Please Specify	4	0.3	6	0.4	4	0.2	12	0.7	8	0.4	4	0.5	38	0.4
	Not Reported	9	0.7	7	0.4	9	0.5	14	0.8	8	0.4	4	0.5	51	0.6
	Unknown	67	4.9	94	5.9	90	5	69	4	74	4.1	37	4.4	431	4.7
Grouped cause of death	CVA	669	49.1	732	45.8	792	43.6	739	42.5	783	43.5	353	41.9	4068	44.4
	RTA	25	1.8	29	1.8	35	1.9	26	1.5	43	2.4	18	2.1	176	1.9
	Other trauma	42	3.1	42	2.6	32	1.8	46	2.6	48	2.7	23	2.7	233	2.5
	Miscellaneous	626	46	796	49.8	959	52.8	926	53.3	926	51.4	448	53.2	4681	51.1
ACORN categories	Affluent achievers									290	16.1	132	15.7	422	16
	Rising prosperity									77	4.3	40	4.8	117	4.4
	Comfortable communities									359	19.9	161	19.1	520	19.7
	Financially stretched									387	21.5	191	22.7	578	21.9
	Urban adversity									334	18.6	168	20	502	19
	Not private households									35	1.9	12	1.4	47	1.8
	Unknown	1362	100	1599	100	1818	100	1737	100	318	17.7	138	16.4	6972	76.1