



Blood and Transplant

Annual Report on Ethnicity Differences in Organ Donation and Transplantation

**Report for 2021/2022
(1 April 2017 - 31 March 2022)**



PREFACE

This report has been produced by Statistics and Clinical Research, NHS Blood and Transplant.

This report provides information related to organ donation and transplantation within the white and ethnic minority groups in the UK. It is published as a supplementary report of the *Organ Donation and Transplantation Activity Report 2021/22*.

Data analysed include registrations on the NHS Organ Donor Register (ODR), deceased and living organ donors, transplant recipients, patients and deaths on the transplant lists and waiting times to transplant. Trends in relation to potential organ donors, including donation consent/authorisation rates¹, are also reported. **The categories currently used to collect data on ethnicity are not consistent between these data sources, and the information is provided in as much detail as available data permit.**

The information reported is from the last 5 financial years, unless otherwise stated. One, three and five year post-registration outcomes have been reported from 1 April 2016 to 31 March 2017. Median waiting times include all patients joining the list in a given time period, which varies by organ, and the earliest time period was from 1 April 2008.

Median waiting times are determined by using Kaplan-Meier survival estimates of time from joining the list to allow the inclusion of patients not transplanted (as censored waiting times) and thus provide meaningful estimates. However, it should be noted that none of these waiting times are risk-adjusted for other potentially influential factors (e.g. blood group), and thus should be interpreted with a degree of caution.

Ethnicity of people registering on the ODR is only captured as a registration is made and is not linked to the main ODR and any subsequent updates (removal of duplicates and notifications of death). For this reason, ethnicity can only be reported on data that include duplicates and people who have subsequently died. The updated number of registrations as reported elsewhere is also provided for completeness.

Organ donors, transplant recipients and transplant waiting list data capture does not allow for a detailed breakdown of ethnicity. Overall <1% of recipients and donors did not have ethnicity recorded and where numbers are small ethnicities have been grouped. **This report only includes donors and recipients where ethnicity is reported on 6 July 2022.**

The COVID-19 pandemic has led to unprecedented challenges for UK transplantation. Concerns about the ability to care for transplant recipients, lack of access to resource because it is being used for patients in the pandemic, and the risk versus benefit for immunosuppressed transplant recipients, have resulted in a major reduction in the number of organ transplants undertaken.

Waiting list figures at the 31 March 2020 and 2021 do not accurately reflect the need for an organ transplant due to the COVID-19 pandemic. Different practices have been established across the UK and across organ groups with regards to waiting list management.

Acknowledgement

NHS Blood and Transplant would like to thank all those in the donation and transplantation communities responsible for providing data to the UK Transplant Registry and the Potential Donor Audit, without whom this report would not be possible. Thanks also go to NHS Blood and Transplant staff responsible for data entry and accuracy and completeness of the data.

¹ The consent/authorisation rate is the percentage of eligible donor families or appointed/nominated representatives approached for formal organ donation discussion where consent/authorisation was ascertained.

FOREWORD

After two incredibly challenging years, it is positive to report that the number of deceased ethnic minority organ donors last year increased by 31% (from 84 in 2020/21 to 110 in 2021/22). This is only two below the total of 112 deceased ethnic minority donors we saw in 2019/20.

We also saw strong recovery within the living donation programme, which had been temporarily suspended during the height of the pandemic due to the lack of clarity around transmission risk and for the safety of both recipients and donors. In 2021/22, 125 ethnic minority living donors generously gave the gift of life to another. This an increase of 61% from 2020/21 which saw a total of 62 donors. However, this is still below the pre-pandemic levels of 140-160 living donors per year.

Although it has been positive to see donation and transplantation rates returning to pre-pandemic levels, we have also seen a rise in the number of people on waiting lists for organ transplants. This includes a rise in the number of people of Black or Asian heritage. As of 31st March 2021, there were 1237 people from ethnic minority backgrounds listed for transplants and by the 31st March 2022 this had risen to 1967. Many of these patients were regarded as non-urgent and had been suspended during the height of the pandemic, however their reactivation on waiting lists has contributed to the increase we now see. There remains a growing need for suitable donors.

Over the year, people of Asian heritage represented 3% of deceased donors but 15% of deceased donor transplants and 18% of the transplant waiting list; while those of black heritage represented 2% of deceased donors but 9% of deceased donor transplants and 10% of the waiting list, similar to figures from the previous year.

There remains a need for more people of Black and Asian heritage to discuss and share their support for organ donation. For those people waiting for a kidney, the chances of finding a suitable donor are higher when a potential donor is of the same ethnicity.

Family consent or authorisation is still much lower for potential donors from ethnic minority backgrounds. Overall consent rates were 40% for ethnic minority donors last year, compared to 71% for white potential donors, similar to rates for the previous year and families not supporting the donation remains one of the main reasons for organ donation not going ahead.

Even though the law around organ donation has changed across England, Wales and Scotland, families will still be consulted if organ donation becomes a possibility, meaning it is still just as important as ever to register and share your decision with friends and family.

Over the past five years (from 2018-2022) a total of £1.5 million has been invested into 152 community projects via the NHS Blood and Transplant Community Grants Programme (formerly the Community Investment Scheme) in order to support initiatives to raise awareness, understanding and support for donation at a local level and in key communities across the country.



We believe close working between the NHS, key stakeholders, faith groups, community leaders and ambassadors, alongside clinical advances and improvements, is vital as we continue to work together to overcome the challenges we currently face and improve the chances for those in need of life-saving transplants both now and in the future.



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Kirit Modi MBE
Hon. President of
NBTA



Orin Lewis OBE
NBTA Co-Chair



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SUMMARY

SUMMARY

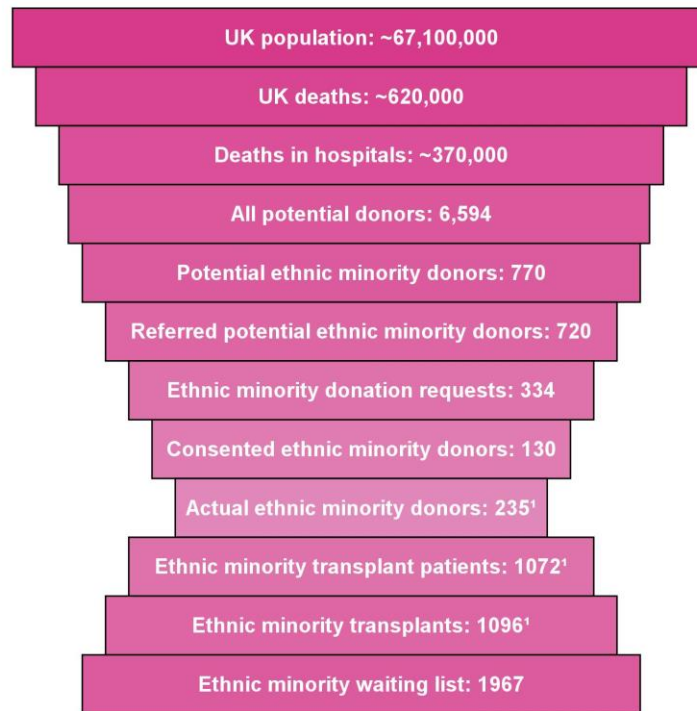
Organ Donor Register

- There has been an increase in the proportion of opt-in registrations from ethnic minority groups added to the Organ Donor Register (ODR) over the past 5 years; 7.4% of opt-ins with ethnicity reported in 2017/18 and 10.3% in 2021/22.
- All minority groups were under-represented in ODR registrations; ethnic minorities represent 10.3% of opt-in registrations compared with 14.0% of the population for England and Wales. However, there continues to be some variation in the proportion of opt in from different ethnic minority groups.
- Relative to the English and Welsh population, there is under representation in 215,654 opt-outs with ethnicity reported, for all but white people.
- The number of ODR opt-in registrations with ethnicity reported has fallen – from 34% in 2017/18 to 24% last year. In 2021/22, the proportion of ODR opt-out registrations with ethnicity reported was 80%.

Potential organ donors

- Referral rates to specialist nurses of potential white and ethnic minority donors after brain death (DBD) last year were comparable at 99%, but were lower for potential ethnic minority donors after circulatory death (DCD) at 91%.
- Family consent/authorisation is much lower for ethnic minority potential donors (42% DBD, 32% DCD) than for white potential donors (75% DBD, 66% DCD). Overall (DBD and DCD combined), consent rates were 40% for ethnic minority and 71% for white potential donors last year, similar to the previous year.
- The main reasons families from ethnic minority backgrounds gave for declining consent/authorisation for organ donation were that they felt it was against their religious/cultural beliefs or they were unsure whether the patient would have agreed to donation. Survey results of ethnic minority groups show that not knowing enough about organ donation is also a major barrier to organ donation. NHSBT and the National BAME Transplant Alliance (NBTA) have been working in partnership over a number of years to address these barriers. The Community Investment Scheme and the Living Transplant Initiative are now well-established programmes which empower ethnic minority groups to promote organ donation in targeted groups.

Figure 1.1 UK potential organ donor population, by ethnic minority groups, 1 April 2021 - 31 March 2022



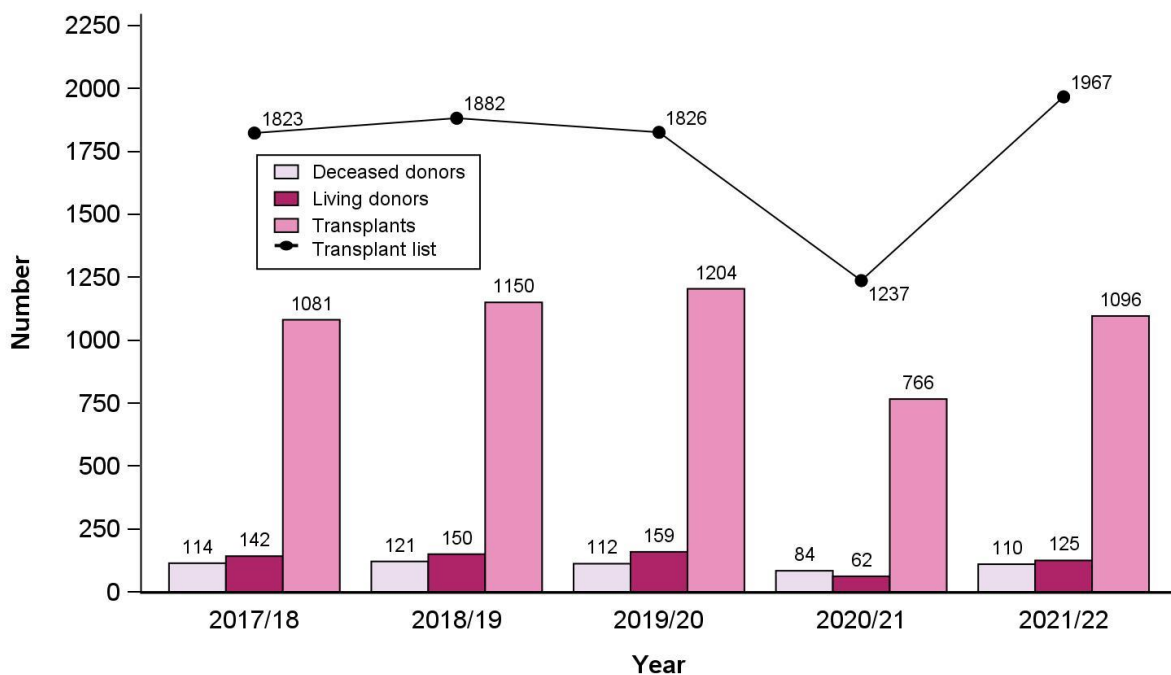
¹ Please note that 125 living donors have been included in this figure

Organ donors, transplant recipients and transplant waiting list

Overview

- The number of ethnic minority deceased organ donors has increased by 31% from 84 in 2020/21 to 110 in 2021/22.
- The number of ethnic minority living donors had remained at approx. 140-160 per year between 2017/18 and 2019/20, representing 14% of all living organ donors. COVID-19 also had an impact on living donation with ethnic minority living donors falling by 61% to 62 donors in 2020/21. This has since increased to 125 donors in 2021/22 as services started to increase to normal levels.
- The number of transplants in people from ethnic minority backgrounds increased from 766 in 2020/21 to 1096 in 2021/22.
- There were 1967 people from ethnic minority backgrounds on the active organ transplant list at 31 March 2022, an increase from 1237 as at 31 March 2021. This is mostly due to increases in the kidney and liver transplant lists, where non-urgent patients have been reactivated after being suspended during the height of the pandemic.
- In 2021/22, Asian people represented 3% of deceased donors (DD), 15% of DD transplants and 18% of the transplant waiting list; black people represented 2% of DD, 9% of DD transplants and 10% of the list, similar to the previous year.
- In 2021/22, Asian people represented 8% of living donors (LD) and 10% of LD transplants; black people represented 3% of LD and 4% of LD transplants, similar to the previous year.
- One year after being listed for a transplant (all organs), 45% (N=1930) of white and 32% (N=391) of ethnic minority groups have been transplanted. Five years after listing, 76% (N=3262) of white and 73% (N=906) of ethnic minority groups have been transplanted, while 9% (n=367) of white and 6% (N=76) of ethnic minority groups have died on the list.
- Median waiting times to transplant show that, generally, white patients wait less time than patients from ethnic minority backgrounds, with the exception of patients waiting for a non-urgent heart. Black patients often wait the longest (**Table 4.3**).
- Approximately 80% of transplants in people from ethnic minority backgrounds are from white donors.

Figure 1.2 Ethnic minority deceased and living donors and transplants in the UK, 1 April 2017 - 31 March 2022, and patients on the active transplant list at 31 March each year



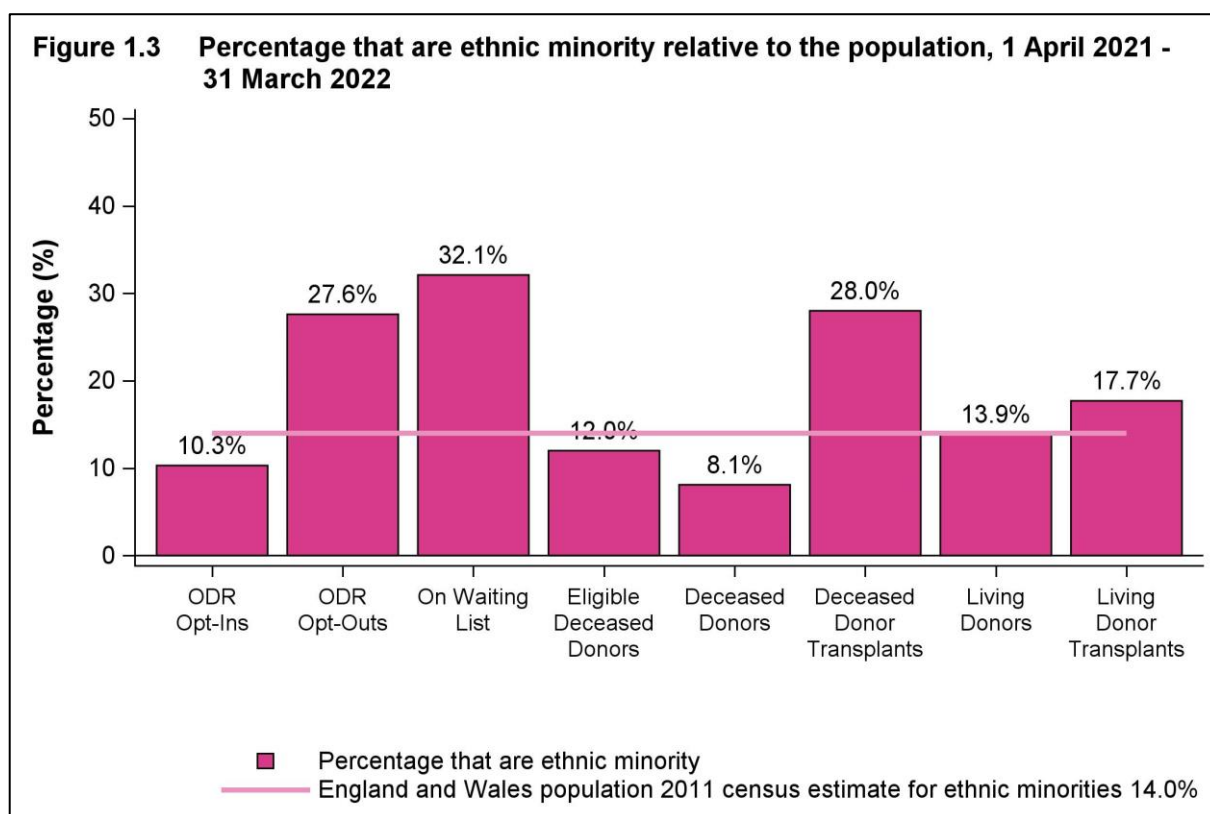
Kidney

- One year after being listed for a kidney transplant, 37% of white and 25% of ethnic minority people have received a transplant. Five years after listing, 79% of white and 74% of ethnic minority people have been transplanted while 7% of white and 6% of ethnic minority people have died on the list.
- There has been an overall decline in waiting times for all ethnicities, although black patients are waiting 8 months longer for a transplant than white patients (median waits are 735 days for black, 650 days for Asian, and 488 days for white people). Over time, it is predicted that the differences in the waiting times across ethnic minority groups will be reduced with the introduction of a revised kidney offering scheme in 2019.
- In 2021/22, Asian people represented 3% of deceased kidney donors (DD), 18% of DD kidney transplants and 19% of the transplant waiting list; black people represented 2% of kidney DD, 12% of DD transplants and 12% of the list.
- The majority of kidney transplants are from white donors across all recipient ethnic groups: approx. 90% of transplants in people from ethnic minority backgrounds are from white donors.
- 63% of Asian and 50% of black kidney transplant recipients receive a kidney from a living donor of the same ethnicity.

Other organs

- One year after listing for transplant:
 - **Pancreas and pancreas/kidney:** 35% of white and 31% of ethnic minority patients have received a transplant, while 4% and 0% have died on the list, respectively.
 - **Liver:** 71% of white and 66% of ethnic minority patients have received a transplant, while 6% and 5% have died on the list, respectively.
 - **Cardiothoracic:** 41% of white and 50% of ethnic minority patients have received a transplant, while 13% and 7% have died on the list, respectively.
- In 2022, Asian people represented:
 - **Pancreas and pancreas/kidney:** 2% of donors, 9% of transplants and 4% of the transplant list.
 - **Liver:** 3% of donors, 12% of transplants and 11% of the transplant list.
 - **Cardiothoracic:** 3% of donors, 8% of transplants and 11% of the transplant list.
- In 2022, black people represented:
 - **Pancreas and pancreas/kidney:** 2% of donors, 5% of transplants and 3% of the transplant list.
 - **Liver:** 2% of donors, 4% of transplants and 3% of the transplant list.
 - **Cardiothoracic:** 2% of donors, 2% of transplants and 5% of the transplant list.

Figure 1.3 shows an over-representation of people from ethnic minority backgrounds relative to the population of England and Wales for ODR opt-outs, those on the waiting list, deceased donor transplants and living donor transplants. The proportion of living donors is similar to the proportion of the population. Ethnic minority groups are under-represented in deceased donors as well as eligible deceased donors and those registering on the opt-in ODR. In comparison to the previous year, the proportion of ODR opt-outs by ethnic minority groups remained at 27% with an increase in deceased donor transplants from 24% to 28% in 2021/22.



ORGAN DONOR REGISTER



2 Organ Donor Register (ODR)

Ethnicity of people registering on the ODR is only captured as a registration is made and is not linked to the main ODR and any subsequent updates (removal of duplicates and notifications of death). For this reason, ethnicity can only be reported on data that include duplicates and people who have subsequently died. The updated number of registrations as reported elsewhere is also provided for completeness.

The primary sources of opt-in ODR registrations in 2021/22 were the Driver and Vehicle Licensing (64%), other (13%), online registrations (11%), Boots Advantage card (7%) and GP registrations (5%).

Most sources of opt-in registration provided by NHSBT's partners do not have an option to record or report ethnicity. Even when the option is available, it is not possible to tell how many people choose not to provide the information when registering via these routes. Consequently, only 24% of people registering on the ODR in 2021/22 have their ethnicity recorded.

Table 2.1 shows the number of opt-in registrations per year by ethnicity from 1 April 2017 to 31 March 2022. In 2021/22, 90% of registrations with ethnicity recorded were by white people, 5% from Asian, and 1% from black.

Table 2.2 shows the number of opt-out registrations per year by ethnicity from 1 April 2017 to 31 March 2022. Most opt-out registrations are entered online and as a result have a higher proportion of people reporting their ethnicity (80% in 2021/22). In the last year, there has been a reduction in the number of opt-out registrations. In 2021/22, the majority of opt-out registrations were among white people (72%), followed by Asian people (14%) and black people (6%).

Table 2.1 Ethnicity of all ODR opt-in registrations by year of registration¹, 1 April 2017 - 31 March 2022

		2017/18		2018/19		2019/20		2020/21		2021/22	
		N	%	N	%	N	%	N	%	N	%
White	British	381,028	85.1	400,442	85.5	268,290	83.9	174,513	81.2	231,273	77.6
	Irish	9,929	2.2	11,645	2.5	8,384	2.6	3,845	1.8	4,890	1.6
	Other	23,681	5.3	23,123	4.9	18,033	5.6	16,983	7.9	31,229	10.5
	Total	414,638	92.6	435,210	92.9	294,707	92.2	195,341	90.9	267,392	89.7
Asian	Indian	8,726	1.9	9,495	2	6,957	2.2	5,146	2.4	8,643	2.9
	Pakistani	1,635	0.4	1,546	0.3	1,259	0.4	929	0.4	1,276	0.4
	Bangladeshi	464	0.1	430	0.1	348	0.1	306	0.1	398	0.1
	Other	4,096	0.9	3,965	0.8	3,167	1	2,800	1.3	4,499	1.5
	Total	14,921	3.3	15,436	3.3	11,731	3.7	9,181	4.3	14,816	5.0
Black	Caribbean	1,890	0.4	1,888	0.4	1,439	0.5	874	0.4	1,105	0.4
	African	2,387	0.5	2,325	0.5	1,730	0.5	1,360	0.6	1,729	0.6
	Other	307	0.1	331	0.1	273	0.1	334	0.2	821	0.3
	Total	4,584	1.0	4,544	1	3,442	1.1	2,568	1.2	3,655	1.2
Mixed	White/Black African	964	0.2	967	0.2	777	0.2	710	0.3	990	0.3
	White/Black Caribbean	2,635	0.6	2,803	0.6	1,980	0.6	1,328	0.6	1,776	0.6
	White/Asian	2,771	0.6	2,768	0.6	2,054	0.6	1,529	0.7	2,177	0.7
	Other	2,501	0.6	2,590	0.6	2,030	0.6	1,699	0.8	2,562	0.9
	Total	8,871	2.0	9,128	1.9	6,841	2.1	5,266	2.5	7,505	2.5
Chinese		1,513	0.3	1,391	0.3	1,056	0.3	866	0.4	2,333	0.8
Other		3,134	0.7	2,721	0.6	1,921	0.6	1,702	0.8	2,306	0.8
Total reported		447,661	100.0	468,430	100	319,698	100	214,924	100.0	298,007	100.0
Not reported		872,308	66.1	941,998	66.8	975,177	75.3	846,998	79.8	932,117	75.8
TOTAL OPT-IN REGISTRATIONS (incl. known duplicates/deaths)		1,319,969		1,410,428		1,294,875		1,061,922		1,230,124	
TOTAL OPT-IN REGISTRATIONS (excl. known duplicates/deaths)		1,024,664		1,230,560		1,039,485		827,777		1,027,724	

¹ Most sources of registration onto the ODR provided by NHSBT's partners do not have an option to record or report ethnicity

Table 2.2 Ethnicity of all ODR opt-out registrations by year of registration, 1 April 2017 - 31 March 2022

		2017/18		2018/19		2019/20		2020/21		2021/22	
		N	%	N	%	N	%	N	%	N	%
White	British	19,704	6.9	20,736	18.6	161,410	23.0	274,165	65.8	133,549	61.9
	Irish	322	0.1	315	0.3	1,857	0.3	3,327	0.8	1,839	0.9
	Other	2,916	1.0	2,422	2.2	16,740	2.4	25,202	6.0	20,693	9.6
	Total	22,942	8.0	23,473	21.0	180,007	25.7	302,694	72.6	156,081	72.4
Asian	Indian	39,327	13.7	7,720	6.9	46,090	6.6	13,094	3.1	8,239	3.8
	Pakistani	105,791	36.8	31,968	28.6	207,420	29.6	32,717	7.9	12,595	5.8
	Bangladeshi	50,782	17.7	17,221	15.4	78,960	11.3	12,160	2.9	4,115	1.9
	Other	10,554	3.7	3,471	3.1	31,140	4.4	10,002	2.4	6,191	2.9
	Total	206,454	71.8	60,380	54.1	363,610	51.9	67,973	16.3	31,140	14.4
Black	Caribbean	21,269	7.4	9,333	8.4	38,930	5.6	9,560	2.3	2,938	1.4
	African	19,903	6.9	10,888	9.7	71,392	10.2	14,541	3.5	6,485	3.0
	Other	3,459	1.2	1,591	1.4	8,654	1.2	2,607	0.6	3,593	1.7
	Total	44,631	15.5	21,812	19.5	118,976	17.0	26,708	6.4	13,016	6.0
Mixed	White/Black Caribbean	1,954	0.7	928	0.8	6,159	0.9	2,784	0.7	1,327	0.6
	White/Black African	788	0.3	437	0.4	2,632	0.4	1,146	0.3	944	0.4
	White/Asian	1,819	0.6	634	0.6	3,900	0.6	1,955	0.5	1,078	0.5
	Other	3,160	1.1	1,264	1.1	7,883	1.1	3,498	0.8	2,012	0.9
	Total	7,721	2.7	3,263	2.9	20,574	2.9	9,383	2.3	5,361	2.5
Chinese		304	0.1	295	0.3	1,256	0.2	2,413	0.6	5,644	2.6
Other		5,510	1.9	2,476	2.2	16,486	2.4	7,539	1.8	4,412	2.0
Total reported		287,562	100.0	111,699	100.0	700,909	100.0	416,710	100.0	215,654	100.0
Not reported		22,659	7.3	12,626	10.2	153,191	17.9	85,757	17.1	54,699	20.2
TOTAL OPT-OUT REGISTRATIONS (incl. known duplicates/deaths)		310,221		124,325		854,100		502,467		270,353	
TOTAL OPT-OUT REGISTRATIONS (excl. known duplicates/deaths)		303,362		122,019		821,701		483,684		269,347	

Given the lack of opt-in registrations for which ethnicity is recorded, it is not meaningful to compare absolute numbers of people registering each year. However, looking at proportions of those with ethnicity reported is meaningful. If it is assumed that the proportions are representative of all ODR opt-in and opt-out registrations, it is possible to see differences relative to the population of England and Wales (Appendix, **Table I**).

The population of England and Wales broken down by ethnicity is reported using the census data from the Office for National Statistics (ONS) and the most recent census reported was 2011.

Table 2.3 shows data on percentage of the ODR opt-in registrations in 2017/18 and 2021/22 against the percentage of the general population for England and Wales. In 2017/18, 7.3% of ODR opt-in registrations of known ethnicity were ethnic minority groups which has increased to 10.3% in 2021/22. It is estimated that 14.0% of the population for England and Wales are from ethnic minority backgrounds, reflecting an under-representation of ethnic minority groups on the ODR opt-in and an over-representation on the ODR opt-out.

Table 2.3 Ethnic minority opt-in registrations on the ODR vs the population for England and Wales

Ethnicity	2017/18 % of the ODR registrations¹	2021/22 % of the ODR registrations¹	2011 % of the population²
Asian-Indian	1.9	2.9	2.5
Asian-Pakistani	0.4	0.4	2.0
Asian-Bangladeshi	0.1	0.1	0.8
Asian-Other	0.9	1.5	1.5
<i>Asian-Total</i>	<i>3.3</i>	<i>5.0</i>	<i>6.8</i>
Black-African	0.5	0.6	1.8
Black-Caribbean	0.4	0.4	1.1
Black-Other	0.1	0.3	0.5
<i>Black-Total</i>	<i>1.0</i>	<i>1.2</i>	<i>3.3</i>
Chinese	0.3	0.8	0.7
Mixed race	2.0	2.5	2.2
Other ethnicity	0.7	0.8	1.0
Total ethnic minority groups	7.3	10.3	14.0

¹ Where ethnicity is reported
² Source - Office of National Statistics
Note some rounding effects

POTENTIAL ORGAN DONORS



3 Potential organ donors

NHS Blood and Transplant (NHSBT) capture information about potential organ donors through the Potential Donor Audit (PDA). This audit is of all patient deaths in UK Intensive Care Units and emergency departments, excluding deaths on wards and any patients over 80 years of age. The PDA provides information about the organ donation process and identifies potential barriers to organ donation. All data shown in this section use the following definitions:

Neurological death suspected patients who meet all of the following criteria: invasive ventilation, Glasgow Coma Scale 3 not explained by sedation, no respiratory effort, fixed pupils, no cough or gag reflex. Excluding those not tested as cardiac arrest occurred despite resuscitation, brain stem reflexes returned, or below 37 weeks corrected gestational age.

Eligible donors after brain death (DBD) are defined as patients for whom death was confirmed following neurological tests and who had no absolute medical contraindications to solid organ donation.

Eligible donors after circulatory death (DCD) are defined as patients who had treatment withdrawn and death was anticipated, with no absolute medical contraindications to solid organ donation.

The neurological death testing rate is the proportion of patients in whom neurological death was suspected who were tested (DBD donor process only).

The referral rate is the percentage of patients for whom neurological death was suspected, or imminent death was anticipated, that were discussed with the Specialist Nurse - Organ Donation (SN-OD).

The consent/authorisation rate is the percentage of eligible donor families or nominated/appointed representatives approached for formal organ donation discussion where consent/authorisation was ascertained.

Tables II and III in the Appendix show more detailed data by ethnic minority groups from both the DBD and DCD organ donation processes, respectively. The data in these tables are used to produce some of the figures in this chapter.

The neurological death testing rate for white and ethnic minority potential DBD donors has been fairly constant over the past 5 years. Rates of neurological death testing for white and ethnic minority potential donors were comparable in 2021/22 (80.3% and 78.9%, respectively).

Figure 3.1 presents the DBD and DCD referral rates for white and ethnic minority groups. The referral rates for ethnic minority and white potential DBD donors are 99%, and 90% and 91% for DCD donors, respectively.

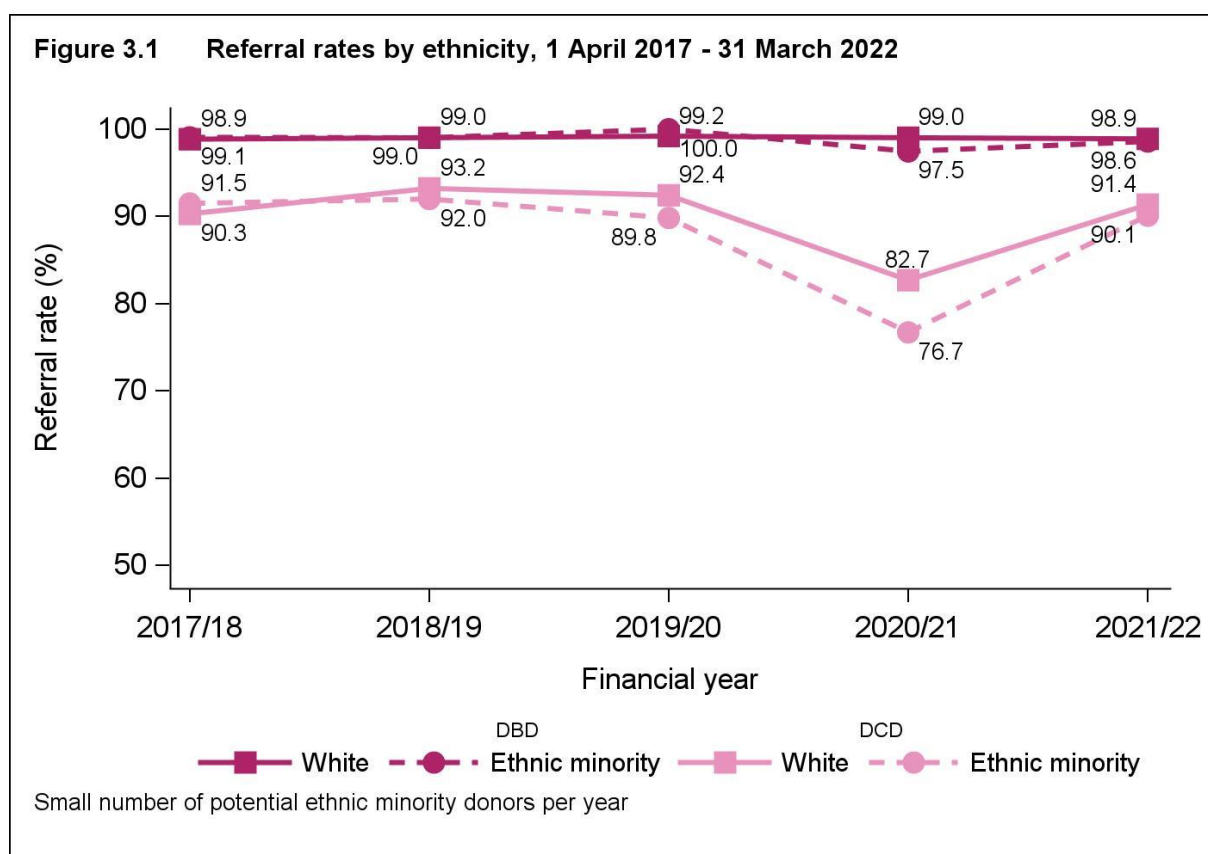


Figure 3.2 shows the number of eligible DBD donors and eligible DBD donors with consent ascertained over time for white and ethnic minority groups, **Figure 3.3** shows the overall DBD consent/authorisation rates. Similarly, **Figure 3.4** and **Figure 3.5** illustrate the same information for DCD donation, respectively.

Figure 3.2 demonstrates that the number of white and ethnic minority eligible DBD donors has increased to 1119 and 238 respectively and that the number of white and ethnic minority eligible consented/authorised DBD donors has fallen to 772 and increased to 83, respectively.

Whilst there is a large pool of eligible DCD donors, additional DCD assessment and screening processes identify those unsuitable for organ donation and preclude them from the donation process. In combination with lower consent/authorisation rates, this results in fewer consented/authorised DCD donors as shown in **Figure 3.4**.

The number of eligible DCD donors and eligible consented/authorised DCD donors have increased.

Figure 3.2 Eligible DBD donors and eligible consented/authorised DBD donors by ethnicity, 1 April 2017 - 31 March 2022

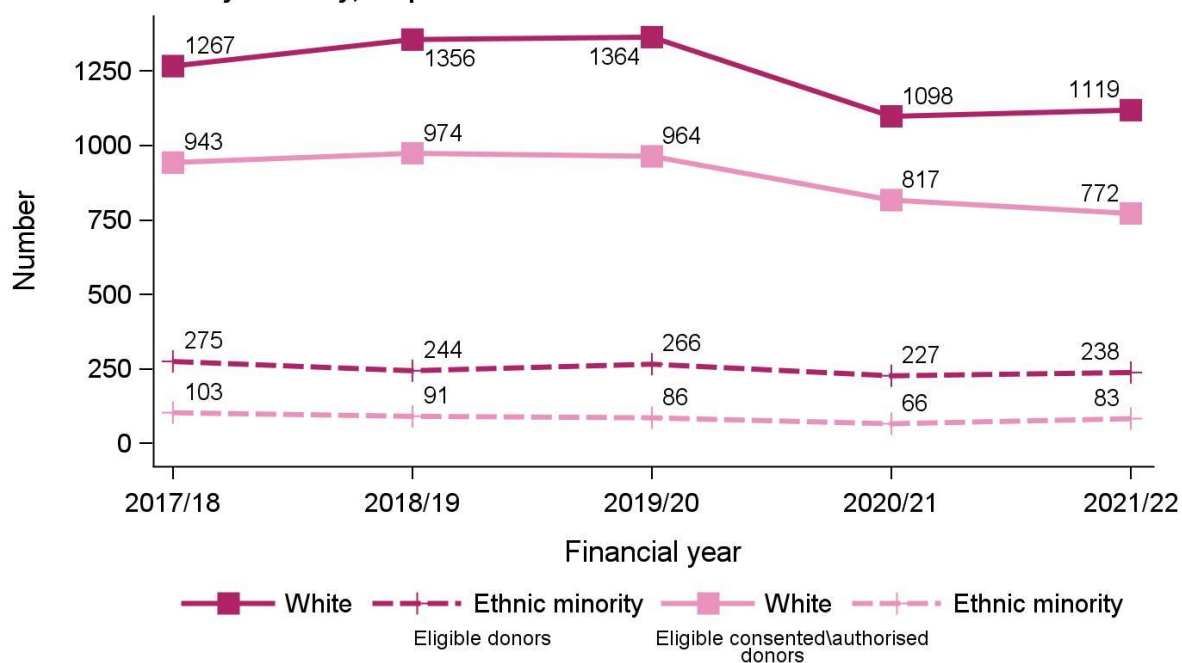
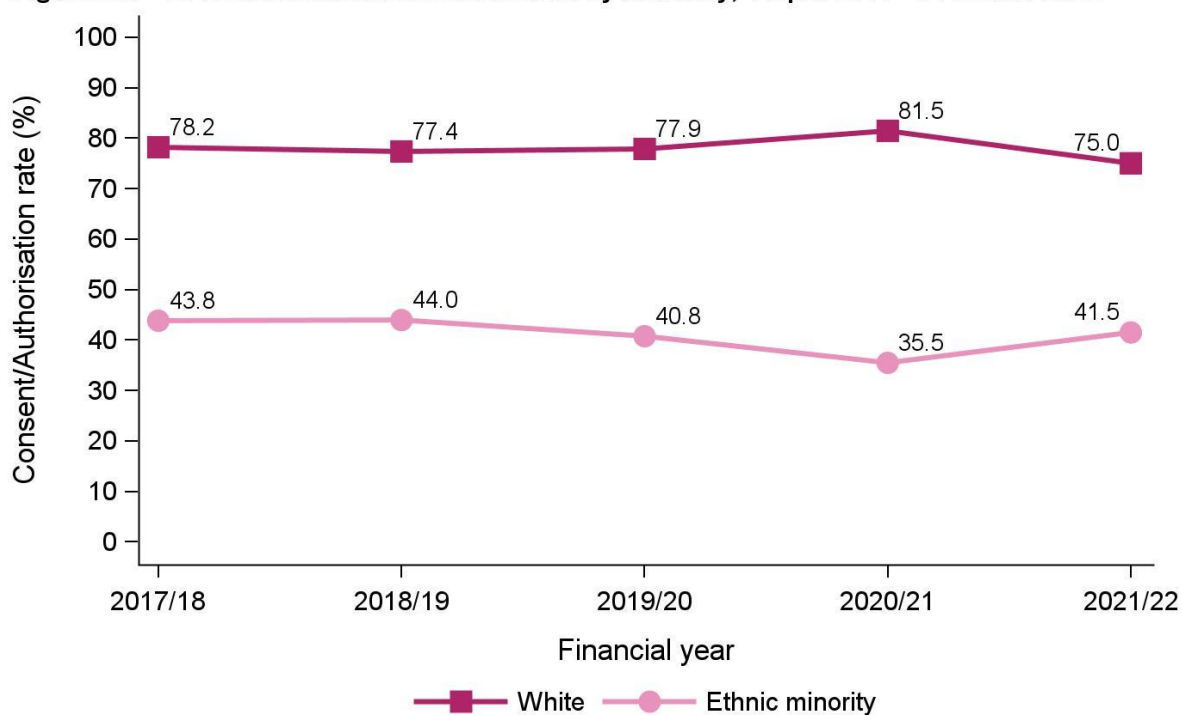


Figure 3.3 DBD consent/authorisation rates by ethnicity, 1 April 2017 - 31 March 2022



Rates should be interpreted with caution due to small numbers of ethnic minority patients' families approached

Figure 3.4 Eligible DCD donors and eligible consented/authorised DCD donors by ethnicity, 1 April 2017 - 31 March 2022

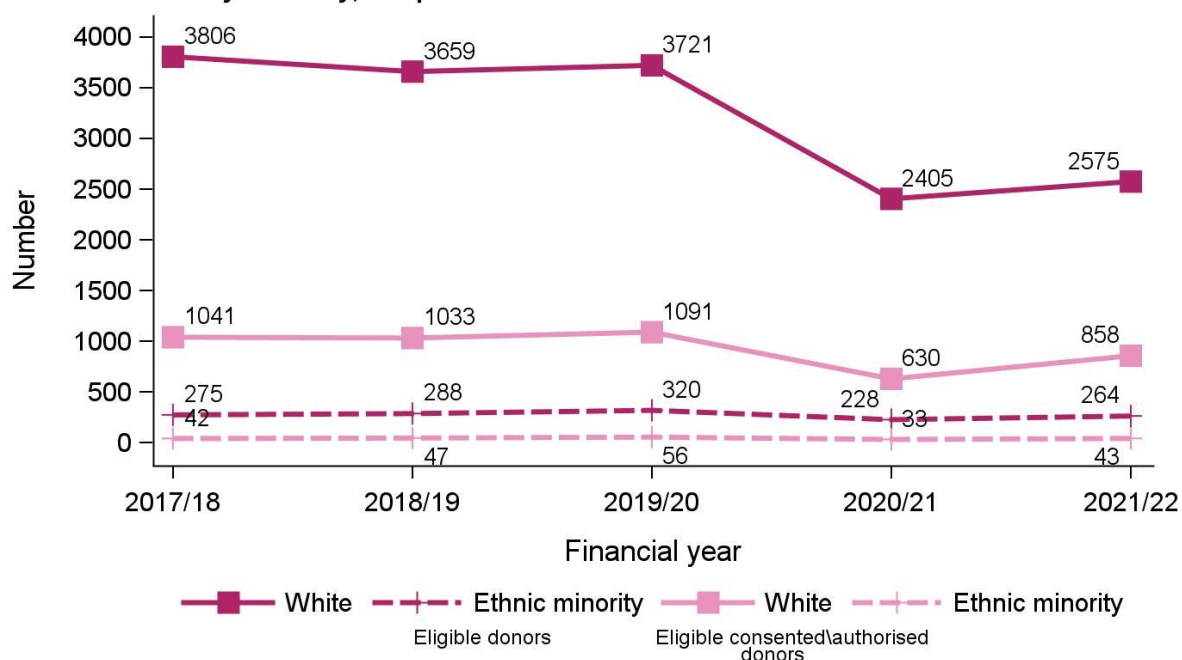
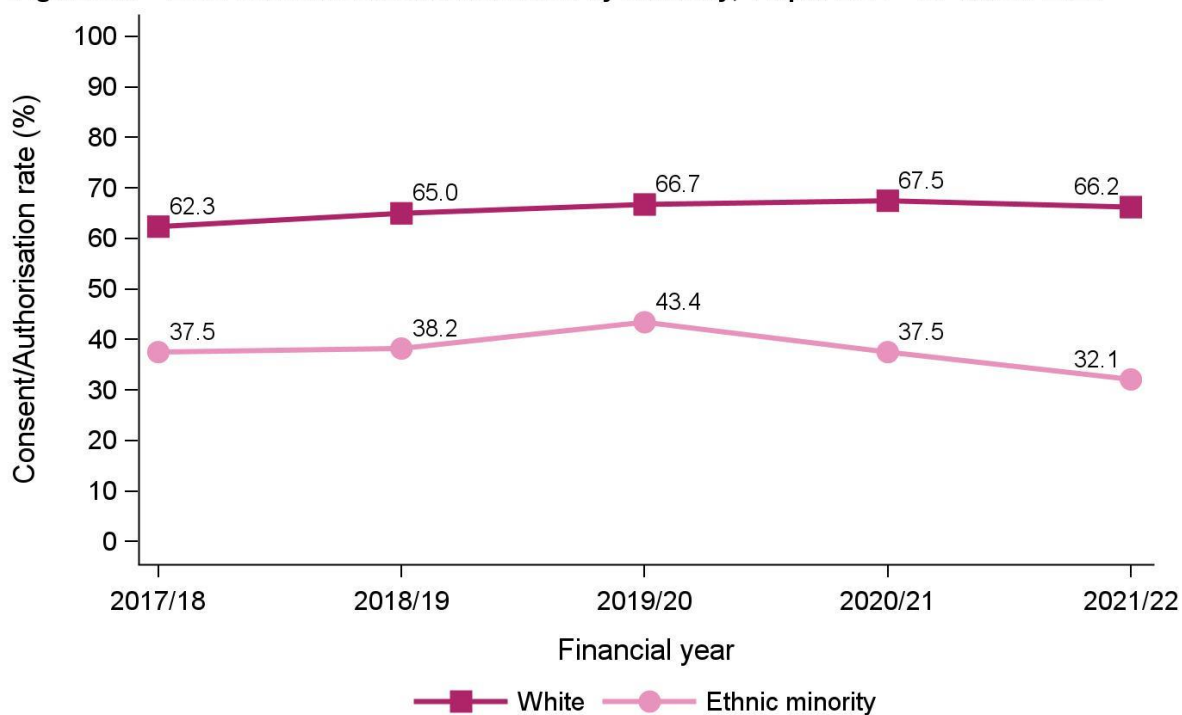


Figure 3.5 DCD consent/authorisation rates by ethnicity, 1 April 2017 - 31 March 2022



Rates should be interpreted with caution due to small numbers of ethnic minority patients' families approached

Table 3.1 shows the consent/authorisation rates separately for white and ethnic minority patients broken down by the Organ Donation Services Teams (ODSTs) in the UK from 1 April 2017 to 31 March 2022. The data reports on a five-year period due to a small number of eligible ethnic minority donors in some regions.

Table 3.1 DBD and DCD consent/authorisation rates from the Potential Donor Audit, by Organ Donation Services Team (ODST) and ethnicity, 1 April 2017 - 31 March 2022							
ODST	Number of eligible DBD donors	Number of eligible DBD donors whose family were approached	DBD consent/authorisation rate (%)	Number of eligible DCD donors	Number of eligible DCD donors whose family were approached	DCD consent/authorisation rate (%)	Overall consent/authorisation rate (%)
White							
Eastern	593	560	76.3	2291	945	68.7	71.5
London	663	632	74.1	1120	580	67.1	70.7
Midlands	693	628	76.8	2130	1027	62.0	67.6
North West	842	767	78.1	2524	901	66.4	71.8
Northern	424	398	76.1	1155	443	62.5	69.0
Northern Ireland	247	228	72.4	385	170	65.9	69.6
Scotland	489	441	76.2	1030	529	56.7	65.6
South Central	450	429	83.0	1354	572	64.2	72.2
South East	590	533	79.9	1202	575	68.3	73.9
South Wales	248	233	79.8	562	236	71.2	75.5
South West	420	391	84.9	858	452	67.9	75.8
Yorkshire	545	495	78.8	1555	695	65.6	71.1
Total	6204	5735	77.9	16166	7125	65.3	70.9
Ethnic minority groups							
Eastern	104	87	49.4	157	68	44.1	47.1
London	537	471	40.6	427	202	36.1	39.2
Midlands	183	138	33.3	283	97	35.1	34.0
North West	100	77	32.5	128	41	26.8	30.5
Northern	15	15	53.3	31	11	45.5	50.0
Northern Ireland	13	10	60.0	9	5	60.0	60.0
Scotland	23	18	44.4	20	10	20.0	35.7
South Central	49	38	50.0	71	36	44.4	47.3
South East	142	122	48.4	115	59	40.7	45.9
South Wales	14	13	53.8	20	12	41.7	48.0
South West	13	10	40.0	26	12	50.0	45.5
Yorkshire	57	40	32.5	88	33	36.4	34.2
Total	1250	1039	41.3	1375	586	37.7	40.0

Families of ethnic minority eligible donors consent/authorise organ donation at a rate of 41% for DBD donation and 38% for DCD donation compared with families of white eligible donors who consent/authorise organ donation at a rate of 78% for DBD donation and 65% for DCD donation from 1 April 2017 to 31 March 2022.

Table 3.2 shows the consent/authorisation rates for families approached for organ donation by ethnicity and financial year for the same time period. The consent/authorisation rates for white and ethnic minority people were 70% and 38%, respectively, in 2021/22.

Table 3.2 Consent/authorisation (Con/auth) rates for families approached (app) for organ donation, by ethnicity and financial year, 1 April 2017 - 31 March 2022										
Ethnicity	2017/18		2018/19		Financial year 2019/20		2020/21		2021/22	
	App	Con/auth rate %	App	Con/auth rate %	App	Con/auth rate %	App	Con/auth rate %	App	Con/auth rate %
White	2876	69.0	2849	70.4	2873	71.5	1937	74.7	2325	70.1
Asian	155	38.1	166	39.8	165	34.5	127	30.7	164	32.9
Black	97	34.0	90	32.2	98	39.8	76	27.6	83	36.1
Other	66	84.0	57	109.0	57	121.8	54	93.2	65	77.0
Mixed	29	79.3	17	64.7	20	50.0	17	64.7	22	72.7
Ethnic minority groups	347	41.8	330	41.8	340	41.8	274	36.1	334	37.7

Table 3.3 shows the reasons given by a family when declining consent/authorisation for organ donation, by ethnicity from 1 April 2017 to 31 March 2022. The main reasons families from ethnic minority backgrounds gave for refusing consent/authorisation for organ donation was that they felt it was against their religious/cultural beliefs or they were unsure whether the patient would have agreed to donation. It is important to note that the most fitting reason following family discussion is chosen from a list by the attending/facilitating SNOD. Survey results of ethnic minority groups shows that not knowing enough about organ donation is also a major barrier to organ donation. NHSBT and the National BAME Transplant Alliance (NBTA) have been working in partnership over a number of years to address these barriers. The Community Investment Scheme and the Living Transplant Initiative are now well-established programmes which empower ethnic minority groups to promote organ donation in targeted groups.

Table 3.3 Reasons for family's refusal to give consent/authorise to organ donation by ethnicity, 1 April 2017 - 31 March 2022												
Consent/authorisation refusal reason	Potential donor ethnicity											
	White		Asian		Black		Chinese/ East Asian		Mixed		Other	
	N	%	N	%	N	%	N	%	N	%	N	%
Patient had previously expressed a wish not to donate	1028	27.5	88	17.5	58	19.9	9	16.1	2	5.9	15	16.5
Family were not sure whether the patient would have agreed to donation	556	14.9	46	9.2	40	13.7	9	16.1	6	17.6	14	15.4
Family felt the length of time for the donation process was too long	506	13.5	10	2.0	8	2.7	1	1.8	3	8.8	2	2.2
Family did not want surgery to the body	359	9.6	51	10.2	20	6.8	4	7.1	2	5.9	14	15.4
Family felt patient had suffered enough	321	8.6	20	4.0	11	3.8	2	3.6	4	11.8	1	1.1
Other	283	7.6	37	7.4	13	4.5	1	1.8	5	14.7	9	9.9
Family divided over the decision	155	4.1	18	3.6	11	3.8	3	5.4	3	8.8	2	2.2
Family felt that the body should be buried whole (unrelated to religious/cultural reasons)	135	3.6	22	4.4	22	7.5	3	5.4	1	2.9	5	5.5
Family did not believe in donation	111	3.0	22	4.4	17	5.8	4	7.1	2	5.9	3	3.3
Strong refusal - probing not appropriate	106	2.8	16	3.2	9	3.1			1	2.9	4	4.4
Family felt it was against their religious/cultural beliefs	43	1.2	150	29.9	62	21.2	20	35.7	4	11.8	21	23.1
Family wanted to stay with the patient after death	43	1.2			1	0.3						
Family concerned that organs may not be transplantable	36	1.0	2	0.4								
Patient had registered a decision to Opt Out	31	0.8	13	2.6	10	3.4					1	1.1
Family had difficulty understanding/accepting neurological testing	8	0.2			3	1.0						
Family concerned other people may disapprove/be offended	6	0.2	3	0.6	4	1.4			1	2.9		
Family concerned about organ allocation	4	0.1			2	0.7						
Family concerned donation may delay the funeral	4	0.1	4	0.8								
Family believe patient's treatment may have been limited to facilitate organ donation	1	0.0			1	0.3						
Total	3736	100	502	100	292	100	56	100	34	100	91	100

ORGAN DONORS, TRANSPLANT RECIPIENTS AND TRANSPLANT WAITING LIST

4.1 Overview

This section contains data on all organ donors (living and deceased), transplants and patients on the transplant waiting list over time. Further information is also included on post-registration outcomes, median waiting times to transplant and donor to recipient ethnicities.

Figure 4.1 shows ethnic minority deceased and living donors, transplants and those patients on the active transplant list as at 31 March every financial year from 1 April 2017 to 31 March 2022. Waiting list figures at the 31 March 2020 and 2021 do not accurately reflect the need for an organ transplant due to the COVID-19 pandemic. Different practices have been established across the UK and across organ groups with regards to waiting list management.

There were 730 more active ethnic minority patients at 31 March 2022. There was a 43% increase in the number of ethnic minority transplant recipients in 2021/22 and a 31% increase in the number of ethnic minority deceased organ donors as services resume following the height of the COVID-19 pandemic. There is also a 102% increase in the number of living donors.

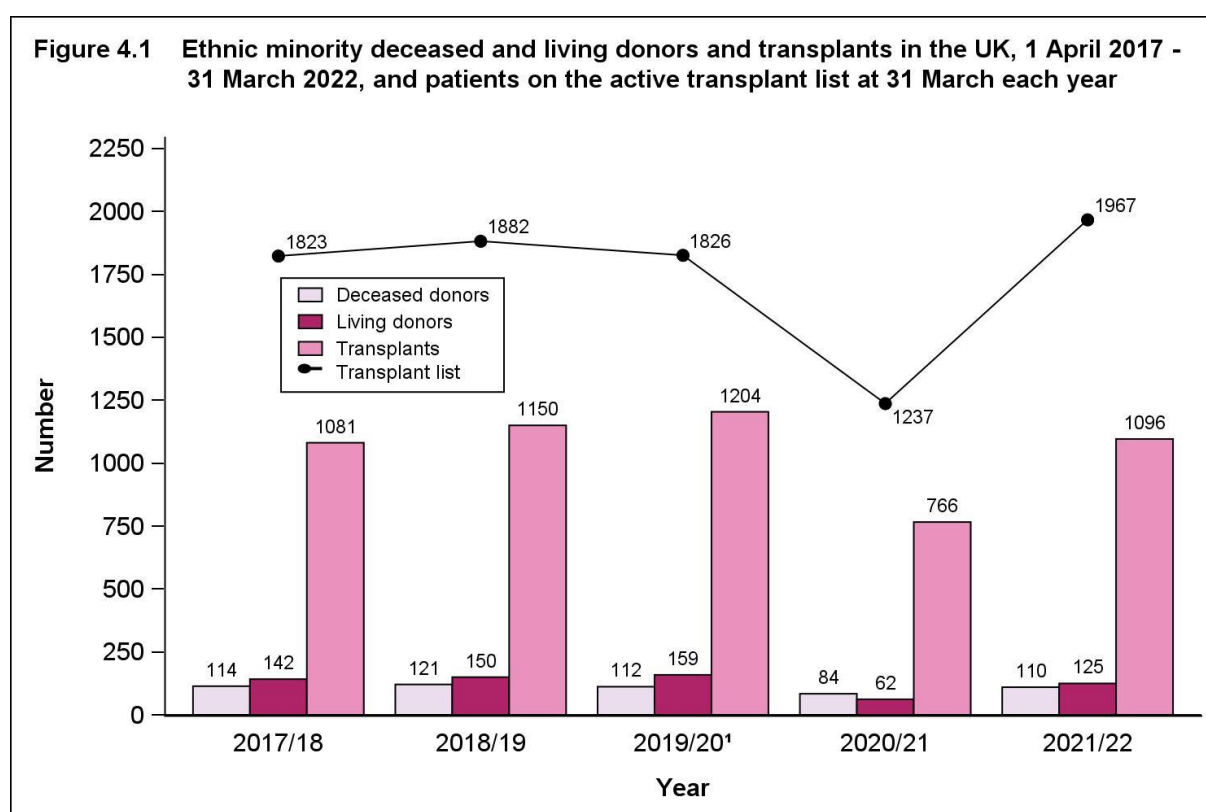
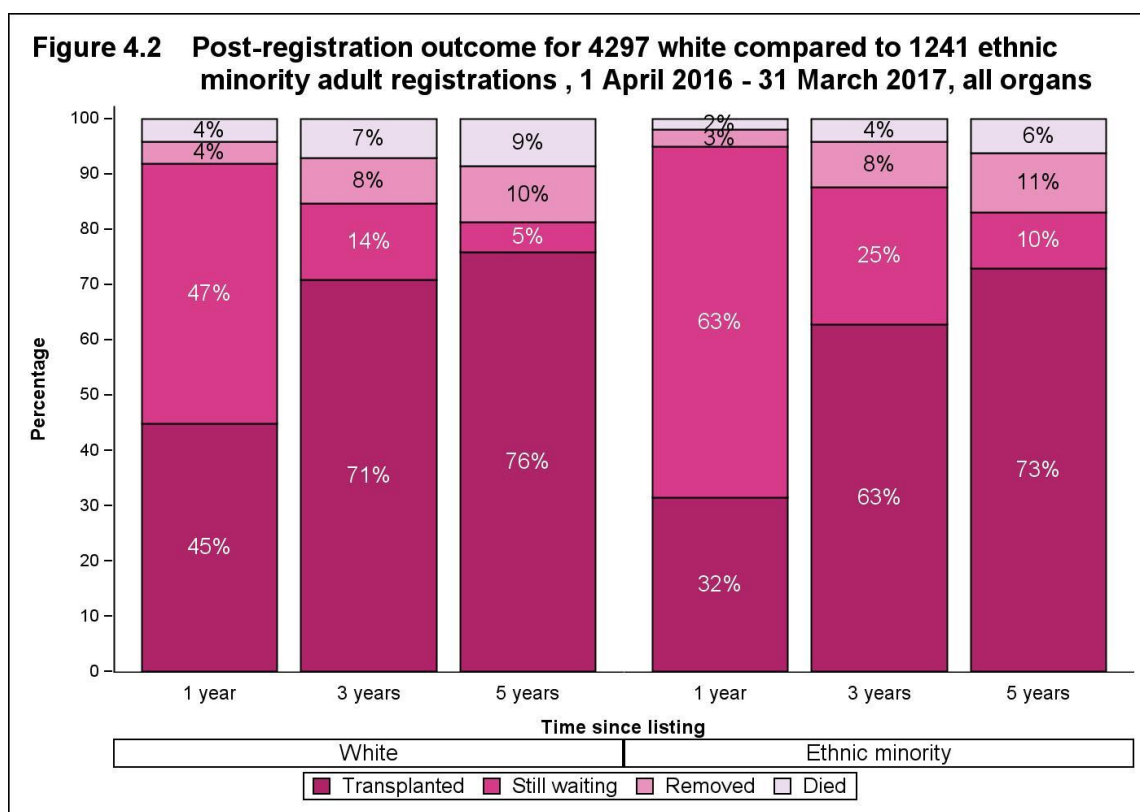


Table 4.1 shows a further breakdown of the number of living and deceased ethnic minority donors, transplants and those on the transplant waiting list from 1 April 2017 to 31 March 2022, where totals exclude those with ethnicity not recorded. Rates per million population (pmp) of the total population are also shown. Last year, patients from ethnic minority backgrounds accounted for a third of patients on the transplant waiting list, a quarter of all transplants and 8% of donors.

Table 4.1 Number of donors, transplants and waiting list in the UK, by financial year and ethnic minority groups, 1 April 2017 - 31 March 2022					
	Financial year				
	2017/18	2018/19	2019/20	2020/21	2021/22
Waiting list ¹	5949	5984	5602	4189	6126
Ethnic minority waiting list ¹	1823	1882	1826	1237	1967
Ethnic minority % of waiting list	30.6	31.5	32.6	29.5	32.1
Ethnic minority groups on waiting list per million population of total UK population (pmp)	27.2	28.1	27.2	18.4	29.3
Total donors	2619	2635	2621	1595	2264
Total ethnic minority donors	256	271	271	146	235
Ethnic minority % of donors	9.8	10.3	10.3	9.2	10.4
Ethnic minority donors pmp	3.8	4	4	2.2	3.5
Deceased donors	1555	1589	1566	1145	1363
Deceased ethnic minority donors	114	121	112	84	110
<i>DBD ethnic minority donors</i>	83	90	76	61	75
<i>DCD ethnic minority donors</i>	31	31	36	23	35
Ethnic minority % of deceased donors	7.3	7.6	7.2	7.3	8.1
Deceased ethnic minority donors pmp	1.7	1.8	1.7	1.3	1.6
Living donors	1064	1046	1055	450	901
Living ethnic minority donors	142	150	159	62	125
Ethnic minority % of living donors	13.3	14.3	15.1	13.8	13.9
Living ethnic minority donors pmp	2.1	2.2	2.4	0.9	1.9
Total transplants	5044	4941	4750	3347	4243
Total ethnic minority transplants	1081	1150	1204	766	1096
Ethnic minority % of transplants	21.4	23.3	25.3	22.9	25.8
Ethnic minority transplants pmp	16.1	17.1	17.9	11.4	16.3
Deceased donor (DD) transplants	3996	3910	3711	2903	3350
Ethnic minority DD transplants	902	971	1010	681	938
Ethnic minority % of deceased donor transplants	22.6	24.8	27.2	23.5	28
Ethnic minority DD transplants pmp	13.4	14.5	15.1	10.2	14
Living donor (LD) transplants	1048	1031	1039	444	893
Ethnic minority LD transplants	179	179	194	85	158
Ethnic minority % of LD transplants	17.1	17.4	18.7	19.1	17.7
Ethnic minority LD transplants pmp	2.7	2.7	2.9	1.3	2.4
Those with unknown/unreported ethnicity were excluded					
Per million population of total UK population in 2020					

Figure 4.2 and **Table 4.2** show post-registration outcomes (transplanted, still waiting, removed from the list or died waiting on the list) for all organs after one year, three years and five years for white patients compared to patients from ethnic minority backgrounds registered between 1 April 2016 and 31 March 2017. Liver patients that were removed from the list because their condition deteriorated were grouped with those who died. This figure illustrates that ethnic minority groups tend to wait for an organ longer than white patients, however, proportionally fewer are removed from the transplant list or die waiting for a transplant.



Outcome	1 year		3 years		5 years	
	N	%	N	%	N	%
White						
Transplanted	1930	44.9	3043	70.8	3262	75.9
Still waiting	2022	47.1	598	13.9	231	5.4
Removed	167	3.9	351	8.2	437	10.2
Died	178	4.1	305	7.1	367	8.5
Ethnic minorities						
Transplanted	391	31.5	780	62.9	906	73.0
Still waiting	787	63.4	307	24.7	125	10.1
Removed	40	3.2	103	8.3	134	10.8
Died	23	1.9	51	4.1	76	6.1

This pattern is further demonstrated in **Table 4.3** which gives the median waiting time to transplant for adult and paediatric patients for each organ. Generally, white patients wait less time than ethnic minority patients with the exception of non-urgent adult hearts. Black patients or those of other ethnic minority groups tend to wait the longest across all organs.

Table 4.3 Median waiting time to transplant in the UK

Ethnicity	Number of patients registered	Waiting time (days)	
		Median	95% Confidence interval
Adult kidney¹			
White	7433	488	473 - 503
Asian	1817	650	618 - 682
Black	1067	735	687 - 783
Other	445	629	572 - 686
TOTAL	10890	550	536 - 564
Paediatric kidney¹			
White	152	191	137 - 245
Asian	89	432	355 - 509
Black	29	415	94 - 736
Other	16	548	452 - 644
TOTAL	288	282	220 - 344
Adult pancreas²			
White	794	363	331 - 395
Asian	66	366	327 - 405
Black	50	414	376 - 452
Other	21	209	38 - 380
TOTAL	938	364	336 - 392
Adult liver³			
White	1519	80	69 - 91
Asian	143	101	62 - 140
Black	45	126	57 - 195
Other	43	90	3 - 177
TOTAL	1793	84	74 - 94
Paediatric liver³	142	66	48 - 84
Adult non-urgent heart^{4,5}			
White	494	2189	-
Asian	38	1535	-
Black	19	-	-
Other	0	-	-
TOTAL	559	2189	-
Adult urgent heart^{4,5}			
White	699	37	33 - 41
Asian	80	37	12 - 62
Black	42	63	15 - 111
Other	15	34	0 - 90
TOTAL	843	37	33 - 41
Paediatric non-urgent heart^{4,5}	56	510	65 - 955
Paediatric urgent heart^{4,5}	254	91	73 - 109
Adult non-urgent lung^{4,5}			
White	1501	366	319 - 413
Asian	64	-	-
Black	20	-	-
Other	0	-	-
TOTAL	1599	380	326 - 434

Median waiting time not reported for fewer than 10 patients

- Median and/or 95% confidence interval cannot be estimated due to insufficient numbers of patients transplanted

¹ Kidney-only patients registered 1 April 2015 - 31 March 2019

² Pancreas-only and kidney/pancreas patients registered 1 April 2016 - 31 March 2020

³ Liver patients registered 1 April 2019 - 31 March 2021

⁴ Cardiothoracic patients registered 1 April 2013 - 31 March 2019

⁵ Excludes patients that were moved to the urgent/super-urgent lists

The number of deaths on the transplant waiting list broken down by financial year, organ type and ethnicity are shown in **Table 4.4**. Over the last year, there has been a fall in the number of deaths on the waiting list across all organs, from 566 to 450. Patients from ethnic minority backgrounds accounted for 23% of those who died waiting for a transplant in 2021/22.

Table 4.4 Number of deaths on the transplant waiting list, by financial year, organ and ethnicity, 1 April 2017 - 31 March 2022											
Ethnicity		2017/18		2018/19		2019/20		2020/21		2021/22	
		N	%	N	%	N	%	N	%	N	%
Kidney											
	White	230	73.2	229	74.8	209	75.2	256	68.4	205	71.9
	Asian	42	13.4	43	14.1	38	13.7	76	20.3	40	14.0
	Black	31	9.9	18	5.9	22	7.9	37	9.9	28	9.8
	Other	11	3.5	16	5.2	9	3.2	5	1.3	12	4.2
	Unknown	5		5		4		3		5	
	Total	319	100.0	311	100.0	282	100.0	377	100.0	290	100.0
Pancreas											
	White	24	85.7	19	95.0	14	87.5	24	92.3	15	78.9
	Asian	1	3.6			2	12.5	2	7.7	2	10.5
	Black	2	7.1							1	5.3
	Other	1	3.6	1	5.0					1	5.3
	Unknown			1				1			
	Total	28	100.0	21	100.0	16	100.0	27	100.0	19	100.0
Liver											
	White	62	81.6	45	86.5	42	84.0	65	86.7	58	85.3
	Asian	7	9.2	6	11.5	6	12.0	6	8.0	4	5.9
	Black	4	5.3	1	1.9	2	4.0	3	4.0	3	4.4
	Other	3	3.9					1	1.3	3	4.4
	Unknown			2		6		1		2	
	Total	76	100.0	54	100.0	56	100.0	76	100.0	70	100.0
Cardiothoracic											
	White	103	92.8	86	87.8	94	89.5	73	84.9	62	87.3
	Asian	4	3.6	8	8.2	6	5.7	9	10.5	6	8.5
	Black	4	3.6	2	2.0	4	3.8	3	3.5	2	2.8
	Other			2	2.0	1	1.0	1	1.2	1	1.4
	Total	111	100.0	98	100.0	105	100.0	86	100.0	71	100.0
Total											
	White	419	79.2	379	79.6	359	80.0	418	74.5	340	76.7
	Asian	54	10.2	57	12.0	52	11.6	93	16.6	52	11.7
	Black	41	7.8	21	4.4	28	6.2	43	7.7	34	7.7
	Other	15	2.8	19	4.0	10	2.2	7	1.2	17	3.8
	Unknown	5		8		10		5		7	
	Total	534	100.0	484	100.0	459	100.0	566	100.0	450	100.0

Figure 4.3 and **Table 4.5** display donor ethnicities for each recipient ethnic group for all transplants in the UK over the last 5 years (1 April 2017 to 31 March 2022). It shows that most ethnicities receive an organ from a white donor (living or deceased). There is also evidence of ethnicity matching between donor and recipient, with the second most common donor ethnicity being the same as the recipient's ethnicity for most ethnic minority groups.

**Figure 4.3 Donor to recipient ethnicities for all transplants in the UK,
1 April 2017 - 31 March 2022**

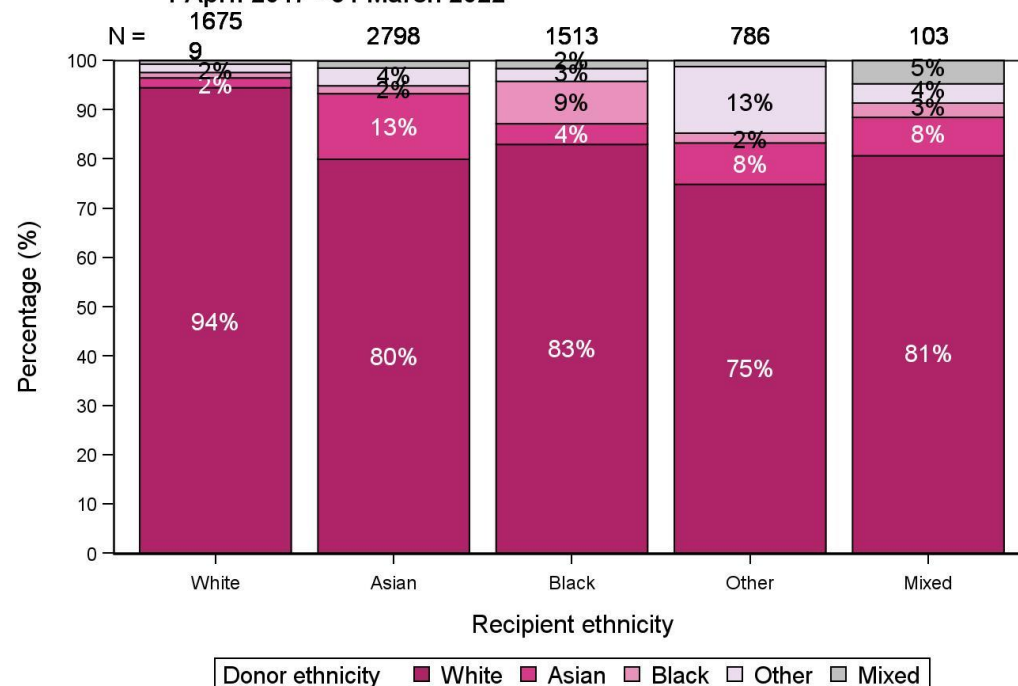


Table 4.5 Donor to recipient ethnicities for all transplants in the UK, 1 April 2017 - 31 March 2022

Donor ethnicity	Recipient ethnicity										Total
	White		Asian		Black		Other		Mixed		
	N	%	N	%	N	%	N	%	N	%	
White	15818	94.4	2237	79.9	1255	82.9	588	74.8	83	80.6	19981
Asian	327	2.0	373	13.3	64	4.2	66	8.4	8	7.8	838
Black	187	1.1	46	1.6	130	8.6	16	2.0	3	2.9	382
Other	290	1.7	102	3.6	39	2.6	106	13.5	4	3.9	541
Mixed	137	0.8	40	1.4	25	1.7	10	1.3	5	4.9	217
Total	16759	100.0	2798	100.0	1513	100.0	786	100.0	103	100.0	21959

Deceased organ donors, deceased donor transplant recipients and patients on the transplant list at 31 March each year are shown by ethnicity from 2017/18 to 2021/22 in **Figure 4.4** and **Figure 4.5** where **Figure 4.4** includes all patients and **Figure 4.5** only includes ethnic minority groups. Similarly, **Figure 4.6** and **Figure 4.7** display this information for living donors and living donor transplant recipients receiving a kidney or liver. Numbers relating to **Figures 4.4 to 4.7** are shown in **Table 4.6**; numbers in these charts are subject to rounding effects.

The figures illustrate that there are proportionally more ethnic minority living donors than deceased donors. There are proportionally more ethnic minority people on the list for transplant than there are among people transplanted, reflecting an inequity of access to transplant for some organs.

Figure 4.4 Deceased donors, deceased donor transplants and patients on the waiting list (as at 31 March each year), 1 April 2017 - 31 March 2022

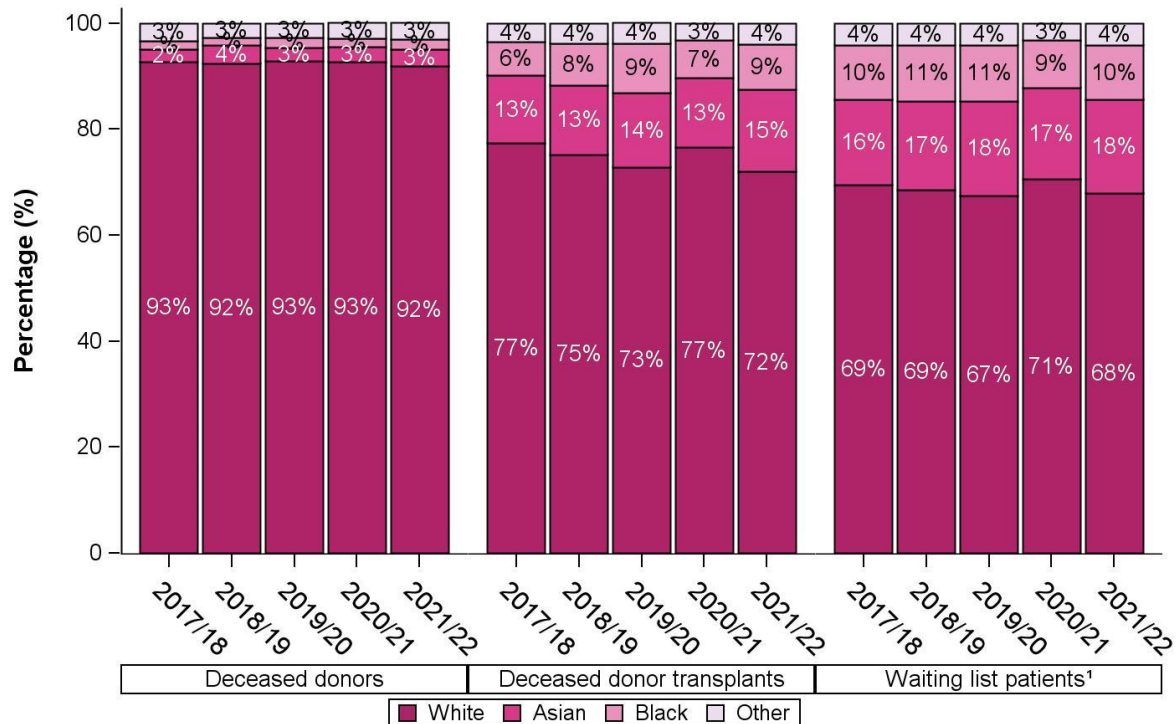


Figure 4.5 Ethnic minority groups - Deceased donors, deceased donor transplants and patients on the waiting list (as at 31 March each year), 1 April 2017 - 31 March 2022

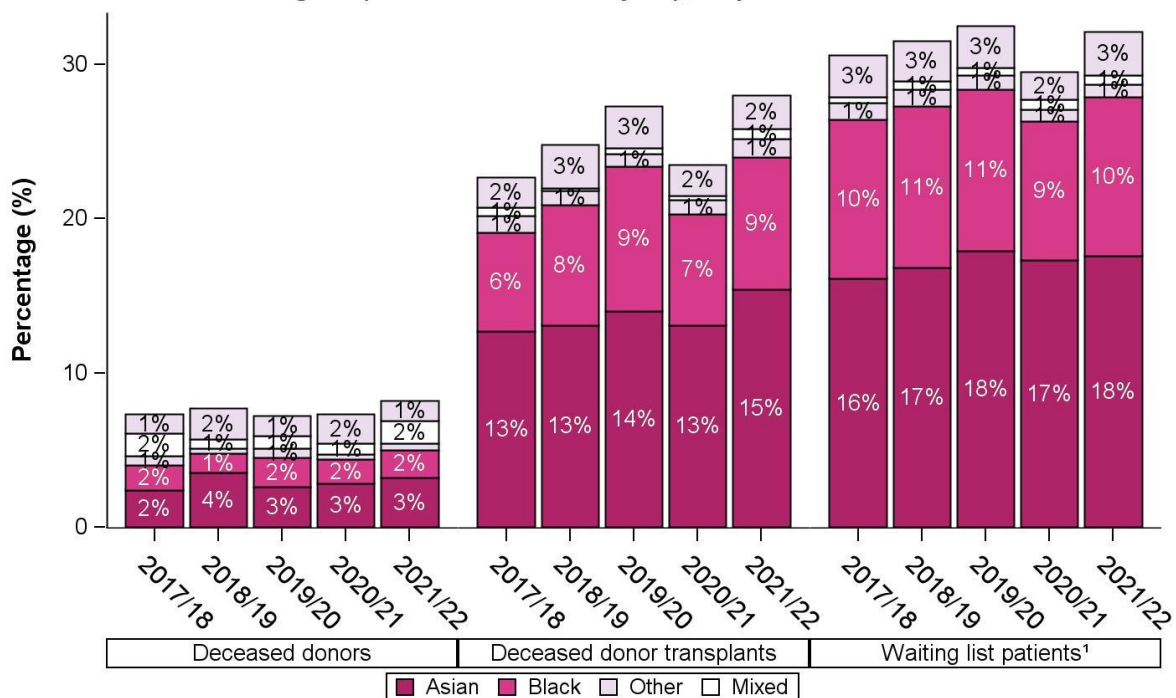


Figure 4.6 Living donors and transplants, 1 April 2017 - 31 March 2022

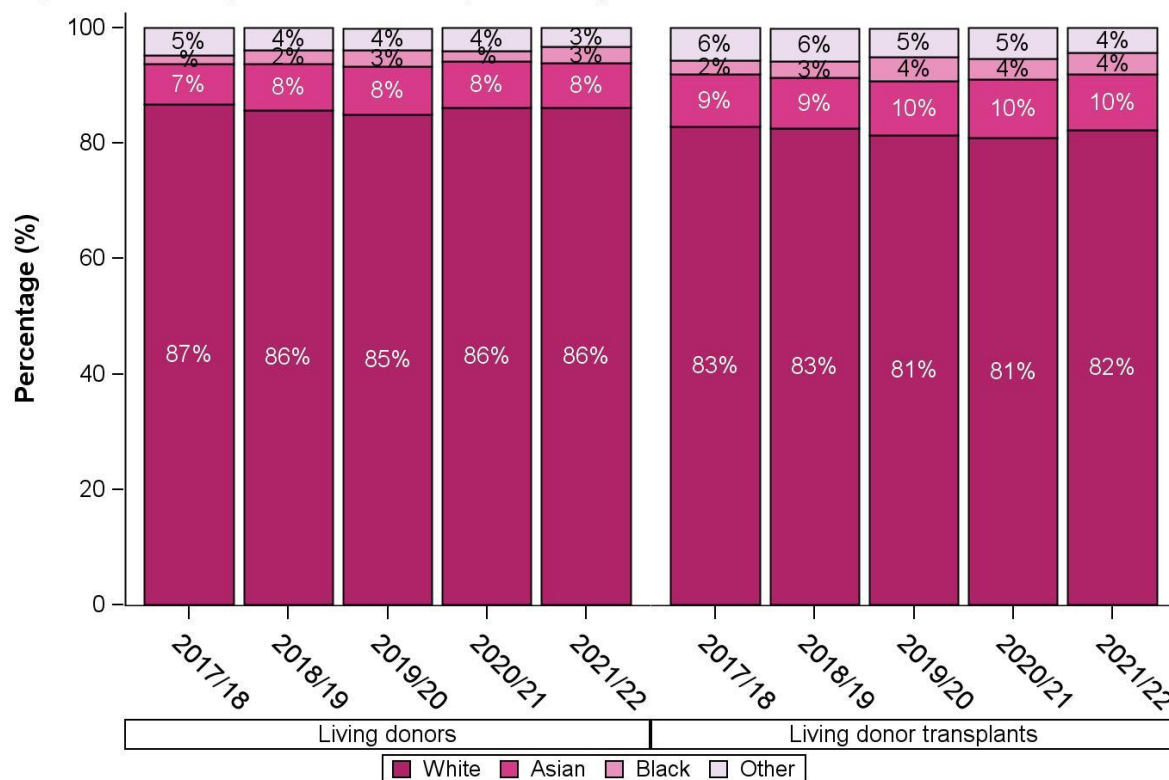


Figure 4.7 Ethnic minority groups - Living donors and transplants, 1 April 2017 - 31 March 2022

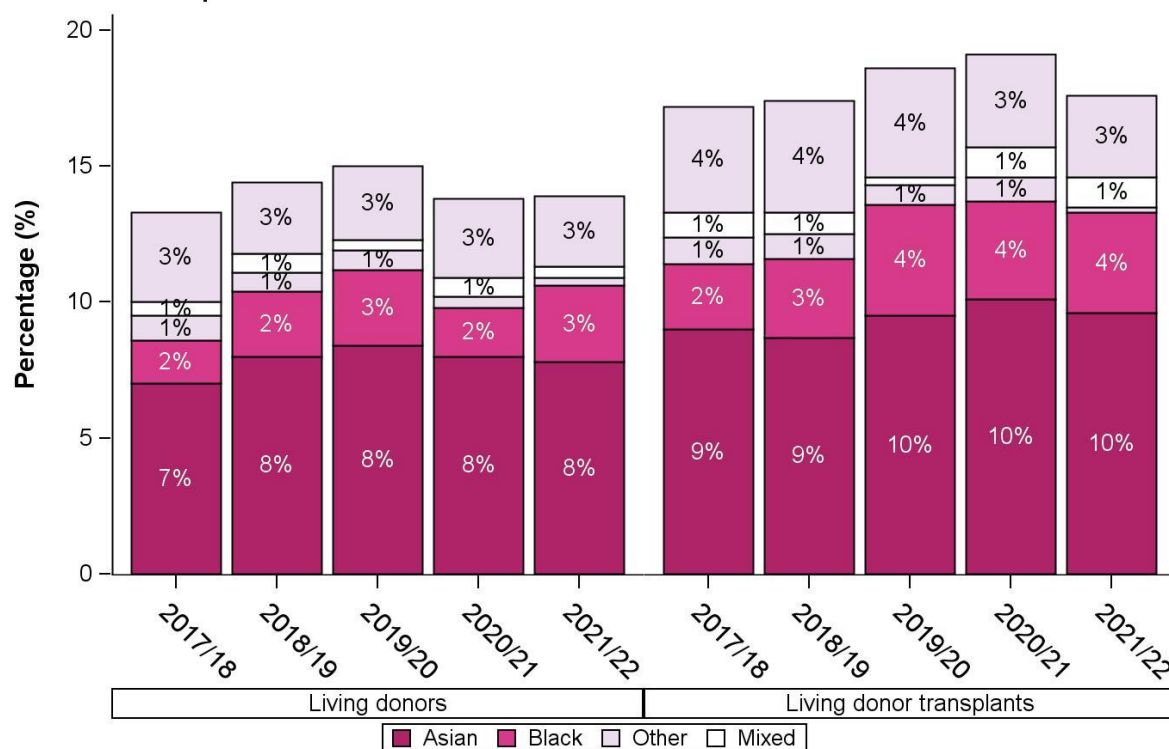


Table 4.6 Number of donors, transplants and waiting list patients in the UK, by ethnicity and financial year, 1 April 2017 - 31 March 2022

Ethnicity	2017/18		2018/19		Financial year 2019/20		2020/21		2021/22	
	N	%	N	%	N	%	N	%	N	%
Deceased donors										
White	1441	92.7	1468	92.4	1454	92.8	1061	92.7	1253	91.9
Asian	37	2.4	56	3.5	40	2.6	32	2.8	43	3.2
Black	25	1.6	20	1.3	30	1.9	18	1.6	24	1.8
Mixed	24	1.5	9	0.6	12	0.8	8	0.7	20	1.5
Other	28	1.8	36	2.3	30	1.9	26	2.2	23	1.7
Deceased donor transplants										
White	3094	77.4	2939	75.2	2701	72.8	2222	76.5	2412	72
Asian	506	12.7	513	13.1	518	14	379	13.1	517	15.4
Black	255	6.4	305	7.8	347	9.4	209	7.2	288	8.6
Mixed	19	0.5	7	0.2	15	0.4	8	0.3	21	0.6
Other	122	3.1	146	3.7	130	3.5	85	2.9	112	3.4
Waiting list										
White	4126	69.4	4102	68.5	3776	67.4	2952	70.5	4159	67.9
Asian	958	16.1	1006	16.8	1003	17.9	725	17.3	1079	17.6
Black	614	10.3	629	10.5	591	10.5	376	9	628	10.3
Mixed	22	0.4	31	0.5	30	0.5	25	0.6	36	0.6
Other	229	3.8	216	3.7	202	3.6	111	2.6	224	3.6
Living donors										
White	922	86.7	896	85.7	896	84.9	388	86.2	776	86.1
Asian	75	7	84	8	89	8.4	36	8	70	7.8
Black	17	1.6	25	2.4	30	2.8	8	1.8	25	2.8
Mixed	5	0.5	7	0.7	4	0.4	3	0.7	4	0.4
Other	45	4.2	34	3.3	36	3.4	15	3.3	26	2.9
Living donor transplants										
White	869	82.9	852	82.6	845	81.3	359	80.9	735	82.3
Asian	94	9	90	8.7	99	9.5	45	10.1	86	9.6
Black	25	2.4	30	2.9	43	4.1	16	3.6	33	3.7
Mixed	9	0.9	8	0.8	3	0.3	5	1.1	10	1.1
Other	51	4.9	51	5	49	4.7	19	4.3	29	3.2

Unknown ethnicity was excluded

Table 4.7 summarises all deceased donor transplants by country of residence, ethnicity of recipient and organ transplanted in 2021/22. Patients in Wales, Scotland and Northern Ireland requiring transplants that are not undertaken in that country are referred to another UK country (usually England) for transplantation. If the patient's address was unknown the country of transplant was used instead. Few ethnic minority deceased donor transplant recipients live in Northern Ireland, Scotland or Wales.

Table 4.7 Deceased donor transplants by country of residence, organ and ethnicity, 1 April 2021 - 31 March 2022,

Country of residence	Transplants (N)								Total
	Kidney	Pancreas ¹	Kidney/ Pancreas ²	Heart	Lung	Liver	Intestinal	Multiorgan ³	
England									
White	1101	11	85	109	84	480	15	9	1945
Asian	363	2	10	13	6	82	2	4	496
Black	244		7	4	1	25	1	1	285
Mixed	16			2	1				20
Other	83		3	2		9	2		101
Wales									
White	69	3	6	5	3	22		1	113
Asian	5								5
Black	2								2
Mixed									1
Other	4								4
Scotland									
White	120	8	5	25	4	62	3		233
Asian	13		1						14
Other	3					1			4
Northern Ireland									
White	54	2	2	9	4	21	2		97
Other	2								2

¹ Includes 15 islet transplants

² includes 7 simultaneous islet/kidney transplants

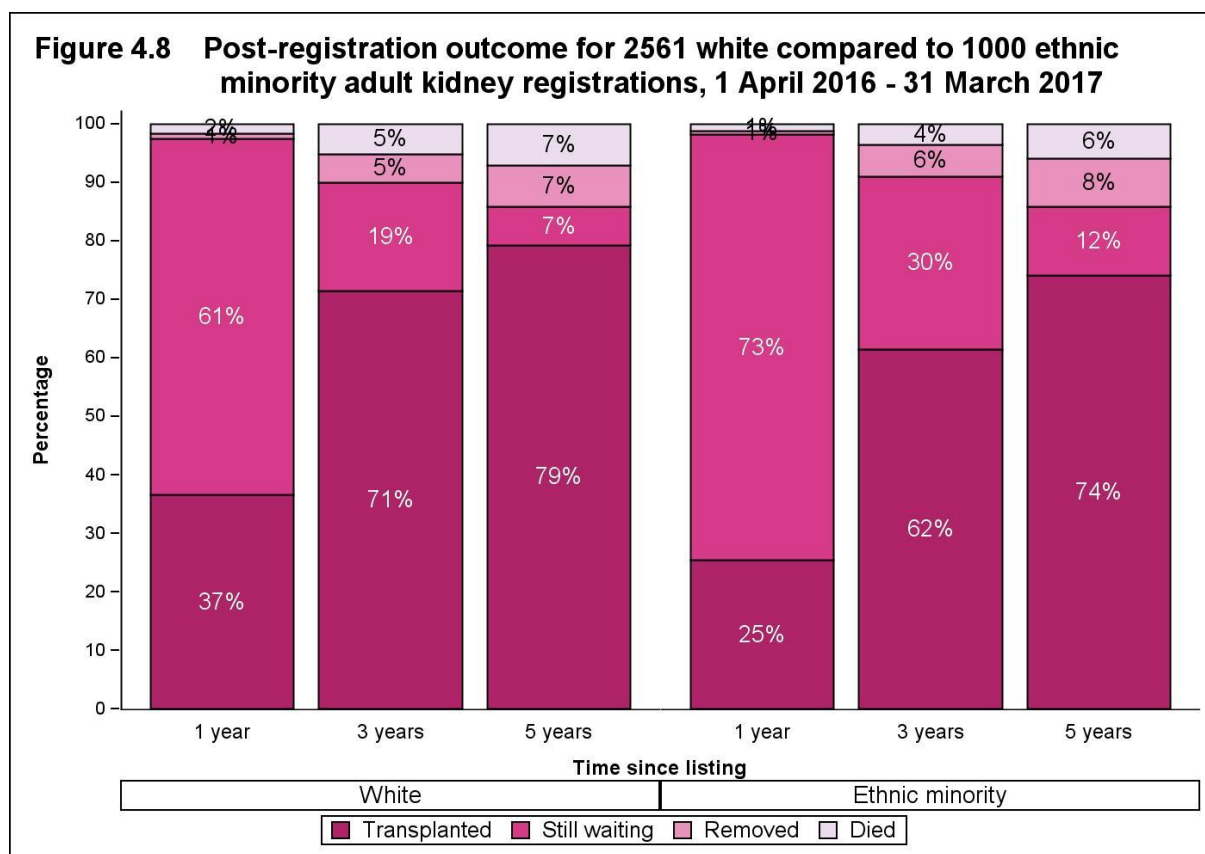
³ Includes 3 heart/lung transplants, 7 liver and kidney transplants, 2 heart and kidney transplants, 2 heart and liver transplants, 1 lung and liver transplant

⁴ unknown UK addresses were defined as the country of transplant

4.2 Kidney

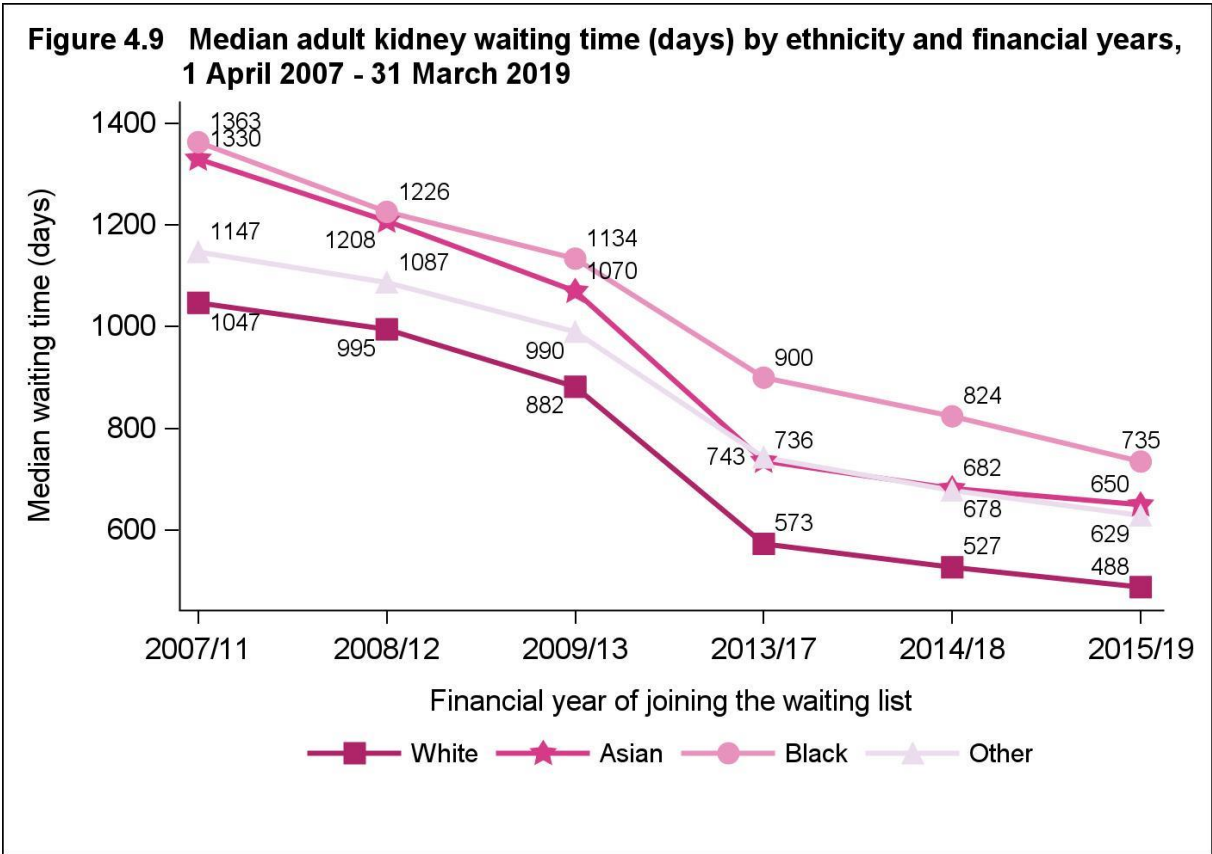
The vast majority of transplants are for patients who require a kidney either from living or deceased donation. Post-registration outcomes, median waiting times, donor to recipient ethnicities, deceased and living donor transplants are detailed in this section.

Figure 4.8 and **Table 4.8** show post-registration outcome comparisons for white and ethnic minority adult kidney patients registered from 1 April 2016 to 31 March 2017. Post-registration, 25% of ethnic minority kidney patients compared to 37% of white patients are transplanted in the first year. Patients from ethnic minority backgrounds are waiting longer for a kidney compared to white patients but have a lower death or removal rate, with a higher rate of patients waiting on the list.



Outcome	1 year		3 years		5 years	
	N	%	N	%	N	%
White						
Transplanted	937	36.6	1831	71.5	2030	79.3
Still waiting	1559	60.9	475	18.5	168	6.6
Removed	25	1.0	124	4.8	183	7.1
Died	40	1.6	131	5.1	180	7.0
Ethnic minorities						
Transplanted	254	25.4	615	61.5	741	74.1
Still waiting	728	72.8	295	29.5	118	11.8
Removed	6	0.6	55	5.5	82	8.2
Died	12	1.2	35	3.5	59	5.9

Figure 4.9 gives the adult median waiting time for a kidney transplant in days, by ethnicity and financial year group from 1 April 2007 to 31 March 2018. It shows an overall decline in waiting times for all ethnicities, although black patients are waiting ten months longer for a transplant than white patients.



In the last year, **Figure 4.10** shows that 7% of deceased kidney donors are from ethnic minority groups whilst ethnic minority patients represent 28% of transplants and account for 33% of the kidney transplant waiting list. **Table 4.10** provides the numbers for **Figure 4.10**.

Figure 4.11 and **Table 4.11** display deceased donor to recipient ethnicities for kidney transplants in the UK from 1 April 2016 to 31 March 2021. Likewise, **Figure 4.12** and **Table 4.12** show the living donor to recipient ethnicities. Generally, ethnic minority kidney transplant recipients receive white donor organs. However, for living donor transplants, recipients are much more likely to receive a kidney from someone of the same ethnicity with the exception of mixed ethnic group.



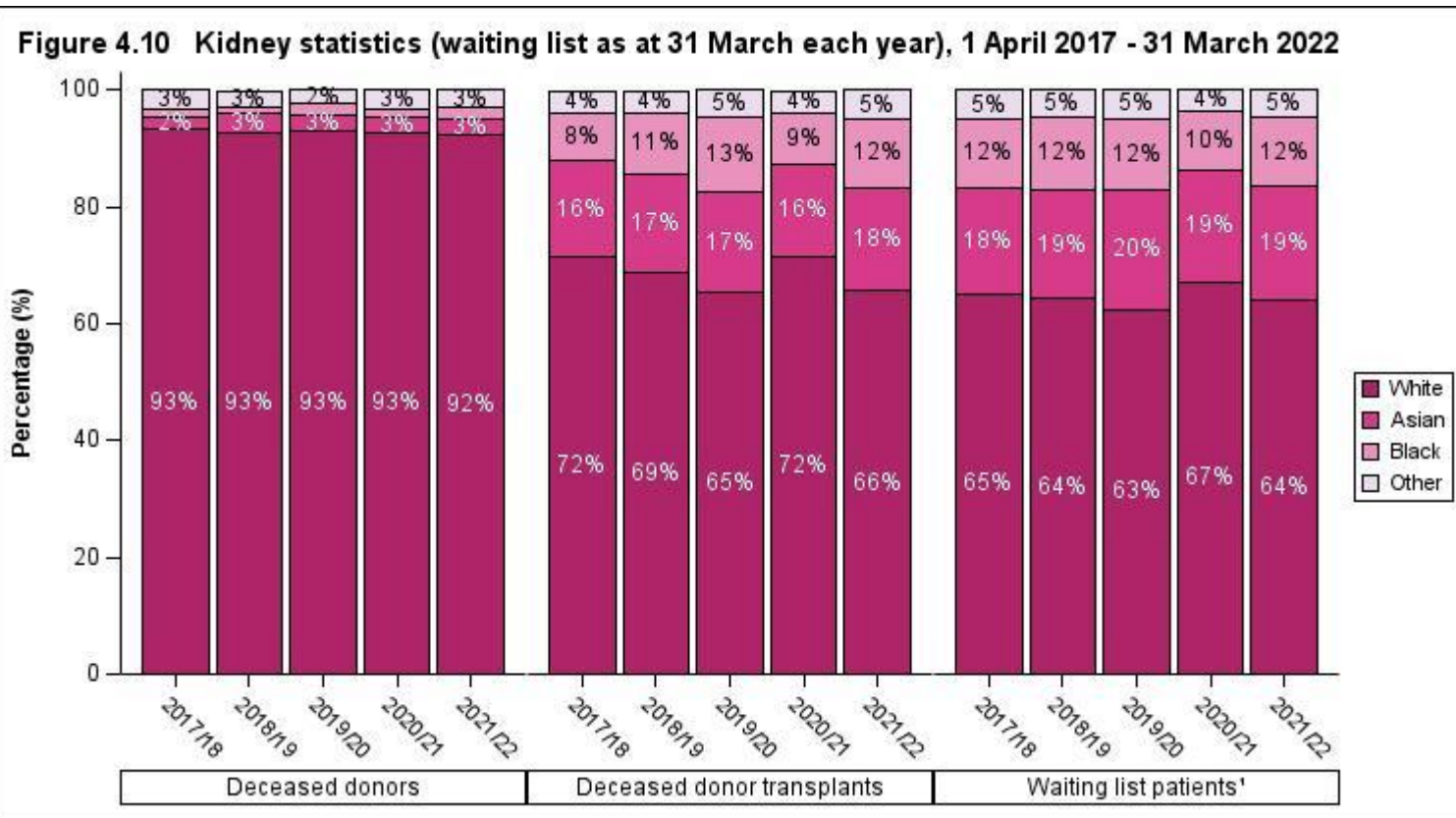


Table 4.10 Kidney statistics (waiting list as at 31 March), 1 April 2017 - 31 March 2022

Ethnicity	Deceased donors					Deceased donor transplants					Waiting list patients				
	16/17	17/18	18/19	19/20	20/21	16/17	17/18	18/19	19/20	20/21	16/17	17/18	18/19	19/20	20/21
White	1363	1389	1367	997	1200	1813	1743	1590	1361	1456	3204	3131	2783	2324	3129
Asian	30	51	39	28	36	416	433	420	297	393	893	919	902	659	947
Black	19	14	27	15	23	208	270	311	170	255	587	599	550	351	578
Other	27	34	26	26	22	83	88	102	66	96	219	203	191	104	201
Mixed	23	8	9	8	18	14	6	11	6	16	20	27	25	20	29
Total	1462	1496	1468	1074	1299	2534	2540	2434	1900	2216	4923	4879	4451	3458	4884

Figure 4.11 Deceased donor to recipient ethnicities for kidney transplants in the UK, 1 April 2017 - 31 March 2022

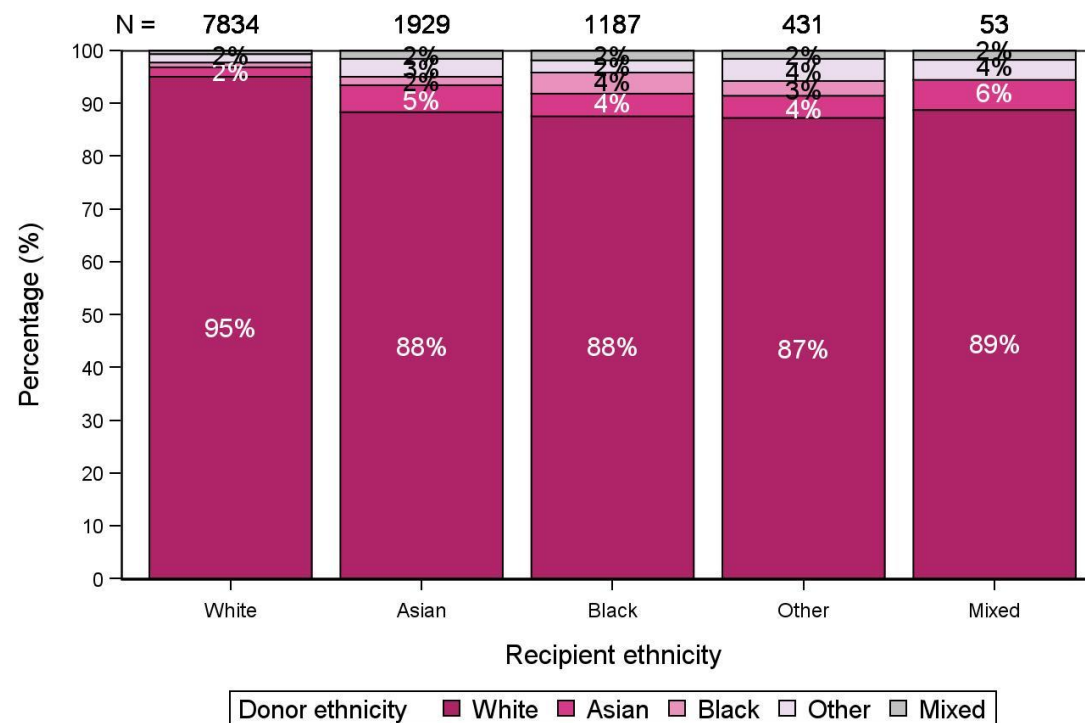


Table 4.11 Deceased donor to recipient ethnicities for kidney transplants in the UK, 1 April 2017 - 31 March 2022

Donor ethnicity	Recipient ethnicity										Total
	White		Asian		Black		Other		Mixed		
	N	%	N	%	N	%	N	%	N	%	
White	7440	95	1704	88.3	1039	87.5	376	87.2	47	88.7	10606
Asian	142	1.8	98	5.1	51	4.3	18	4.2	3	5.7	312
Black	71	0.9	31	1.6	48	4	12	2.8	0	0	162
Other	124	1.6	66	3.4	27	2.3	18	4.2	2	3.8	237
Mixed	57	0.7	30	1.6	22	1.9	7	1.6	1	1.9	117
Total	7834	100	1929	100	1187	100	431	100	53	100	11434

Figure 4.12 Living donor to recipient ethnicities for kidney transplants in the UK, 1 April 2017 - 31 March 2022

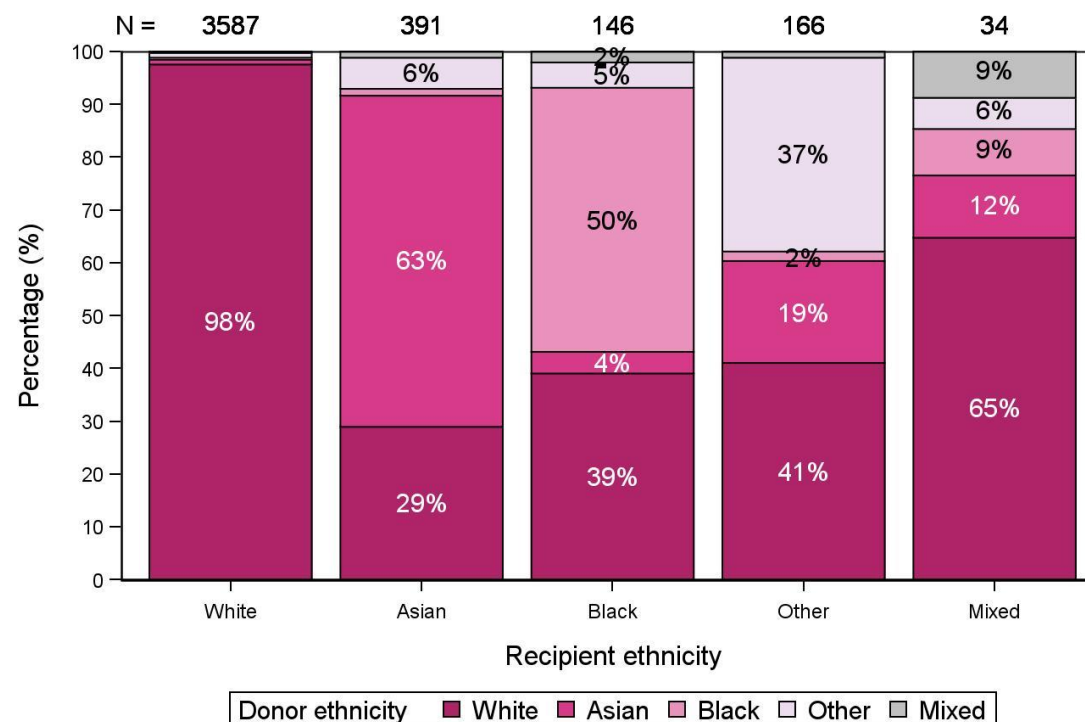


Table 4.12 Living donor to recipient ethnicities for kidney transplants in the UK, 1 April 2017 - 31 March 2022

Donor ethnicity	Recipient ethnicity										Total
	White		Asian		Black		Other		Mixed		
	N	%	N	%	N	%	N	%	N	%	
White	3499	97.5	113	28.9	57	39	68	41	22	64.7	3759
Asian	32	0.9	245	62.7	6	4.1	32	19.3	4	11.8	319
Black	16	0.4	5	1.3	73	50	3	1.8	3	8.8	100
Other	31	0.9	23	5.9	7	4.8	61	36.7	2	5.9	124
Mixed	9	0.3	5	1.3	3	2.1	2	1.2	3	8.8	22
Total	3587	100	391	100	146	100	166	100	34	100	4324

Figure 4.13 and **Table 4.13** break down adult living donor kidney recipients by transplant type and ethnicity for the same time period from 1 April 2016 to 31 March 2021. Ethnic minority living donor transplant recipients mostly received a kidney from family or friends (related/unrelated). In the last 5 years, there have been 6 Asian and 2 other ethnic minority altruistic donors.

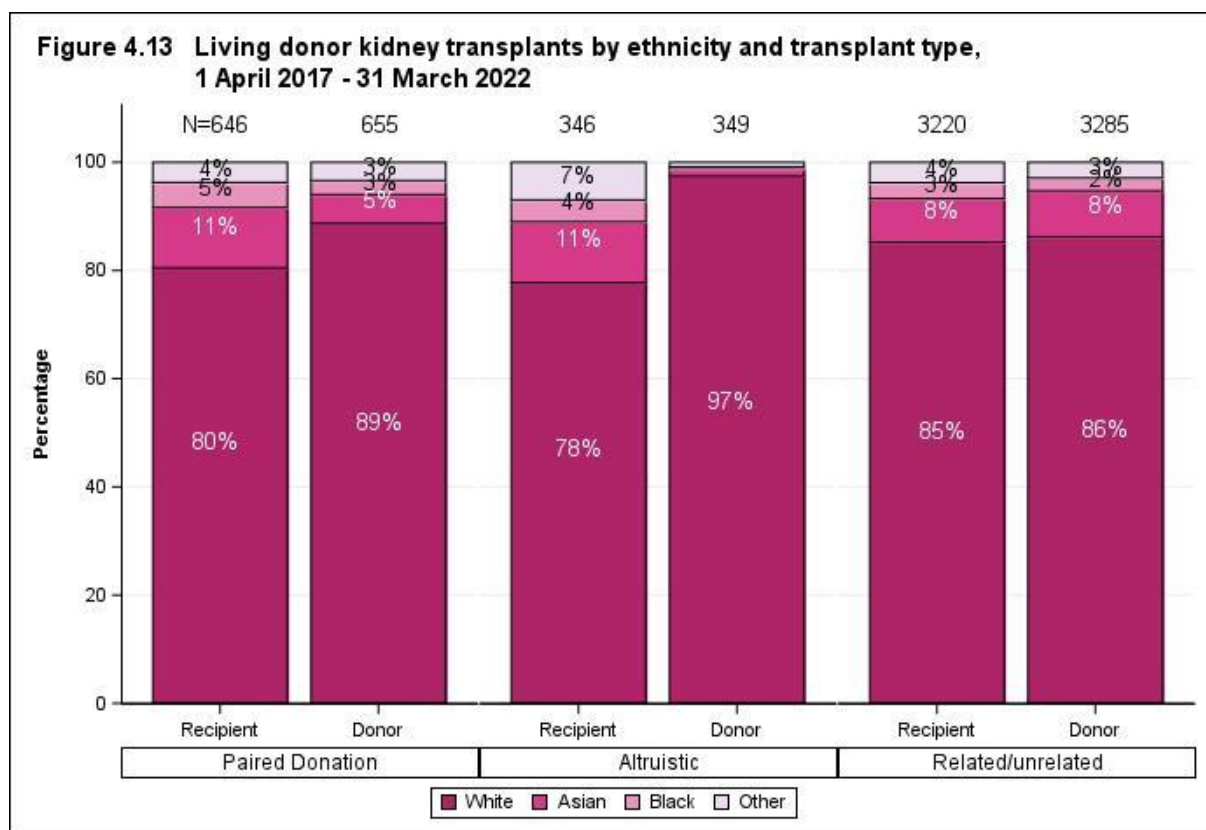


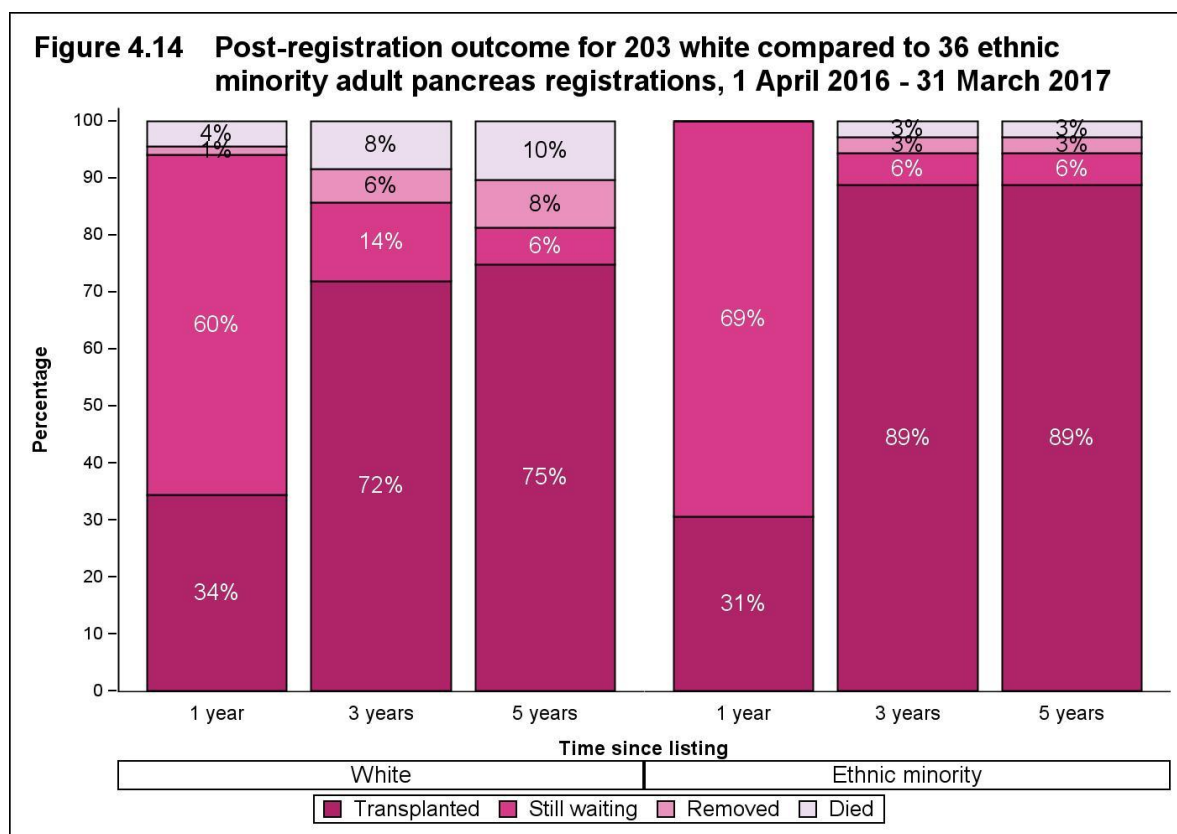
Table 4.13 Living donor kidney transplants by ethnicity and transplant type, 1 April 2017 - 31 March 2022

Type of living donation	Ethnicity	Recipient		Donor	
		N	%	N	%
Paired Donation	White	520	80.5	581	88.7
	Asian	72	11.1	35	5.3
	Black	30	4.6	17	2.6
	Other	24	3.7	22	3.4
	Unknown	10		1	
	Total	656	100.0	656	100.0
Altruistic	White	269	77.7	340	97.4
	Asian	39	11.3	5	1.4
	Black	14	4.0	1	0.3
	Other	24	6.9	3	0.9
	Unknown	3			
	Total	349	100.0	349	100.0
Related/unrelated	White	2745	85.2	2833	86.2
	Asian	259	8.0	279	8.5
	Black	95	3.0	78	2.4
	Other	121	3.8	95	2.9
	Unknown	65			
	Total	3285	100.0	3285	100.0

4.3 Pancreas and kidney/pancreas

This section focuses on pancreas and kidney/pancreas transplantation, reporting on post-registration outcomes and deceased pancreas donors, transplant recipients and transplant waiting list. The number of pancreas or kidney/pancreas transplants per year are small for patients from ethnic minority backgrounds.

Figure 4.14 and **Table 4.14** shows post-registration outcome comparisons for white and ethnic minority adult pancreas patients registered from 1 April 2016 to 31 March 2017. Of the 36 ethnic minority pancreas patients listed, 89% were transplanted within 5 years. This rate is higher than for white patients. The number of patients from ethnic minority backgrounds is very small so results should be interpreted with caution.



Outcome	1 year		3 years		5 years	
	N	%	N	%	N	%
White						
Transplanted	70	34.5	146	71.9	152	74.9
Still waiting	121	59.6	28	13.8	13	6.4
Removed	3	1.5	12	5.9	17	8.4
Died	9	4.4	17	8.4	21	10.3
Ethnic minorities						
Transplanted	11	30.6	32	88.9	32	88.9
Still waiting	25	69.4	2	5.6	2	5.6
Removed	0	0.0	1	2.8	1	2.8
Died	0	0.0	1	2.8	1	2.8

Figure 4.15 shows in the last financial year that 11% of deceased pancreas donors are from ethnic minority groups whilst patients from ethnic minority backgrounds represent 16% of transplants and 9% of the pancreas or islet transplant waiting list. **Table 4.15** shows the numbers in **Figure 4.15**.

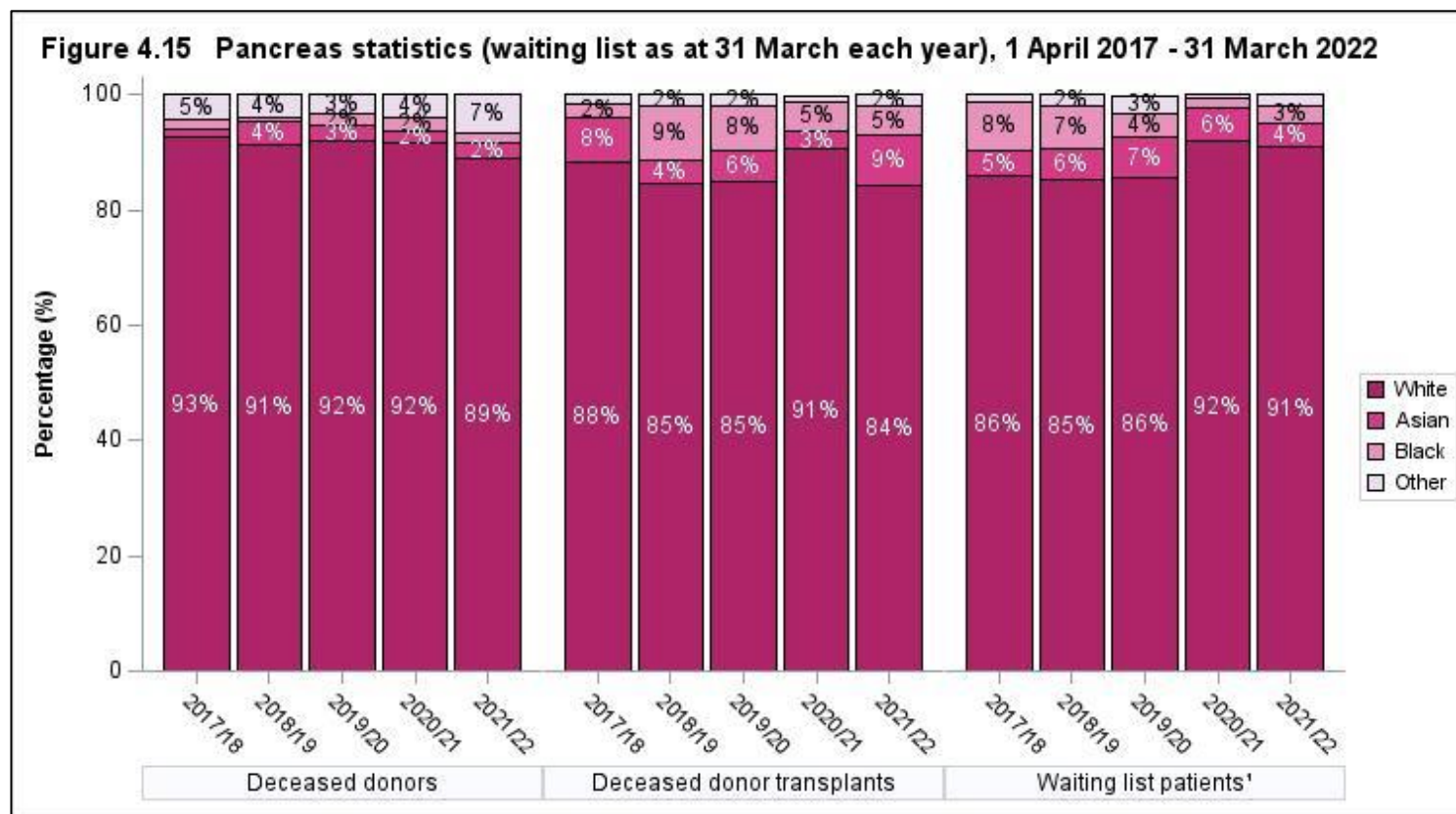


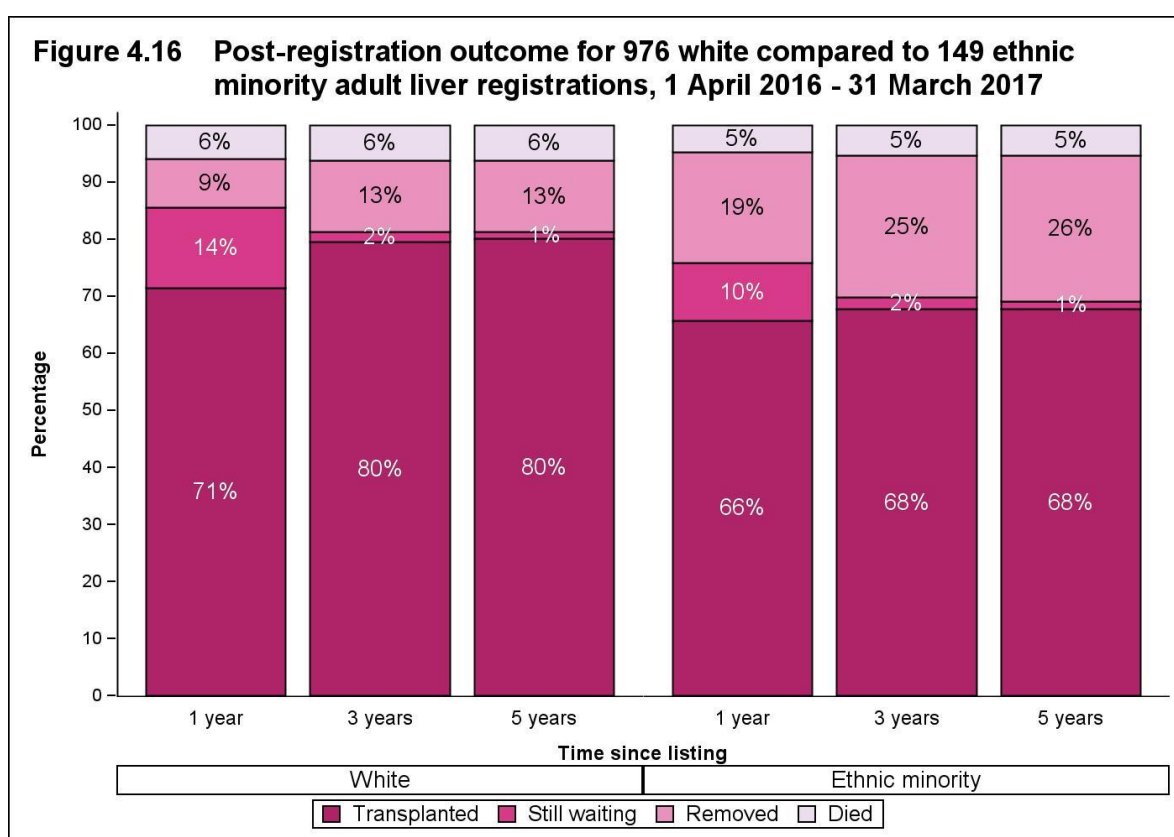
Table 4.15 Pancreas statistics (waiting list as at 31 March), 1 April 2017 - 31 March 2022

Ethnicity	Deceased donors					Deceased donor transplants					Waiting list patients				
	17/18	18/19	19/20	20/21	21/22	17/18	18/19	19/20	20/21	21/22	17/18	18/19	19/20	20/21	21/22
White	435	423	408	188	294	181	166	167	87	122	187	213	130	158	252
Asian	6	18	13	4	8	16	8	11	3	13	10	14	11	10	11
Black	8	4	9	5	6	5	18	15	5	7	18	18	6	3	9
Other	12	15	11	5	11	1	4	3		3	3	5	4	2	3
Mixed	9	3	3	3	11	2		1	1				1		1
Total	470	463	444	205	330	205	196	197	96	145	218	250	152	173	276

4.4 Liver

This section focuses on liver transplantation reporting on post-registration outcomes, median waiting times and deceased liver donors, transplant recipients and transplant waiting list. Figures for living liver donation have not been reported on separately due to the small number of ethnic minority recipients.

Figure 4.16 and **Table 4.16** shows post-registration outcome comparisons for white and ethnic minority adult liver patients registered from 1 April 2016 to 31 March 2017. Liver patients that were removed from the list because their condition deteriorated were defined as having died. A lower proportion of ethnic minority patients are transplanted compared to white patients at each time point post listing. Liver patients from ethnic minority backgrounds were more likely to be removed from the list.



Outcome	1 year		3 years		5 years	
	N	%	N	%	N	%
White						
Transplanted	697	71.4	776	79.5	782	80.1
Still waiting	138	14.1	18	1.8	11	1.1
Removed	84	8.6	122	12.5	123	12.6
Died	57	5.8	60	6.1	60	6.1
Ethnic minorities						
Transplanted	98	65.8	101	67.8	101	67.8
Still waiting	15	10.1	3	2.0	2	1.3
Removed	29	19.5	37	24.8	38	25.5
Died	7	4.7	8	5.4	8	5.4

Figure 4.17 gives the adult median waiting time for a liver in days by ethnicity and financial year from 1 April 2009 to 31 March 2021. It shows an overall decline in waiting times for all ethnicities, although there has been an increase in waiting times in the most recent period across all ethnic groups. Throughout this time period, other ethnicity groups consistently waited less time for a liver transplant although they are a smaller cohort of patients and so waiting times may vary.

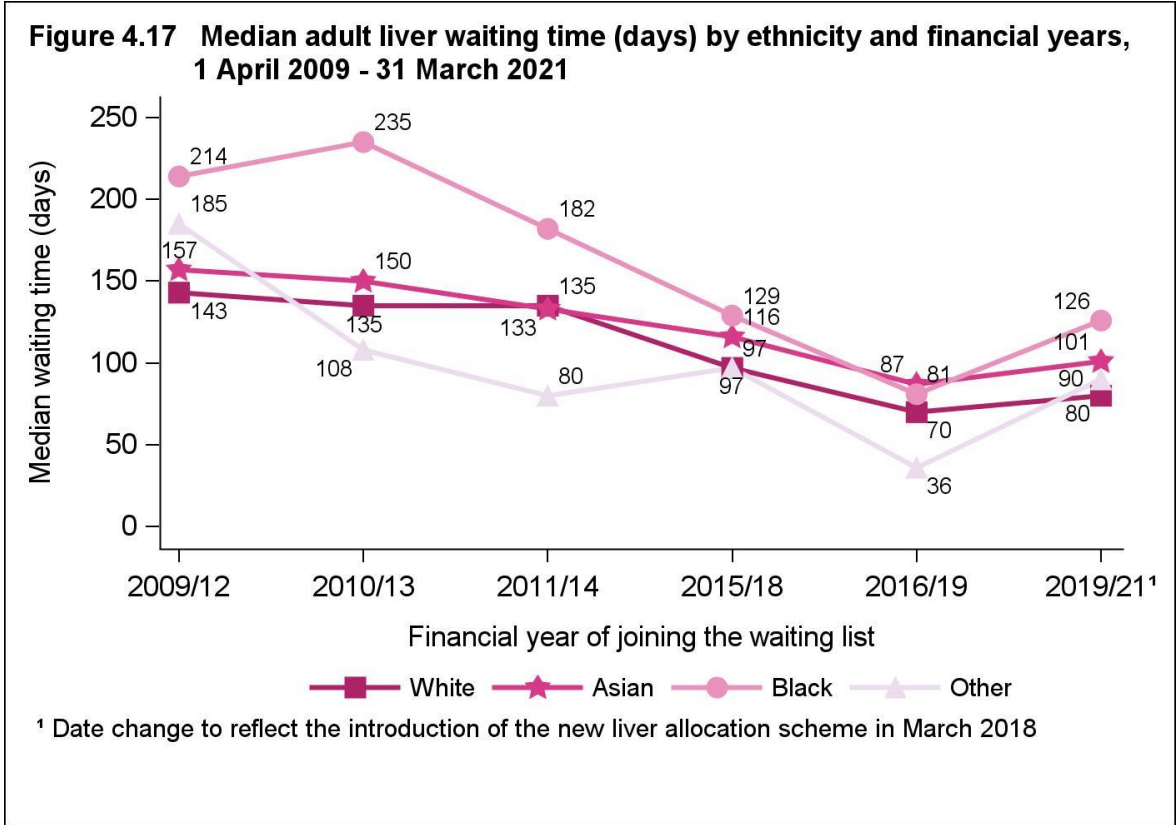


Figure 4.18 shows that 9% of deceased liver donors are from ethnic minority groups whilst patients from ethnic minority backgrounds represent 18% of transplants and 16% of the liver transplant waiting list in 2021/22. **Table 4.18** shows the numbers in **Figure 4.18**.

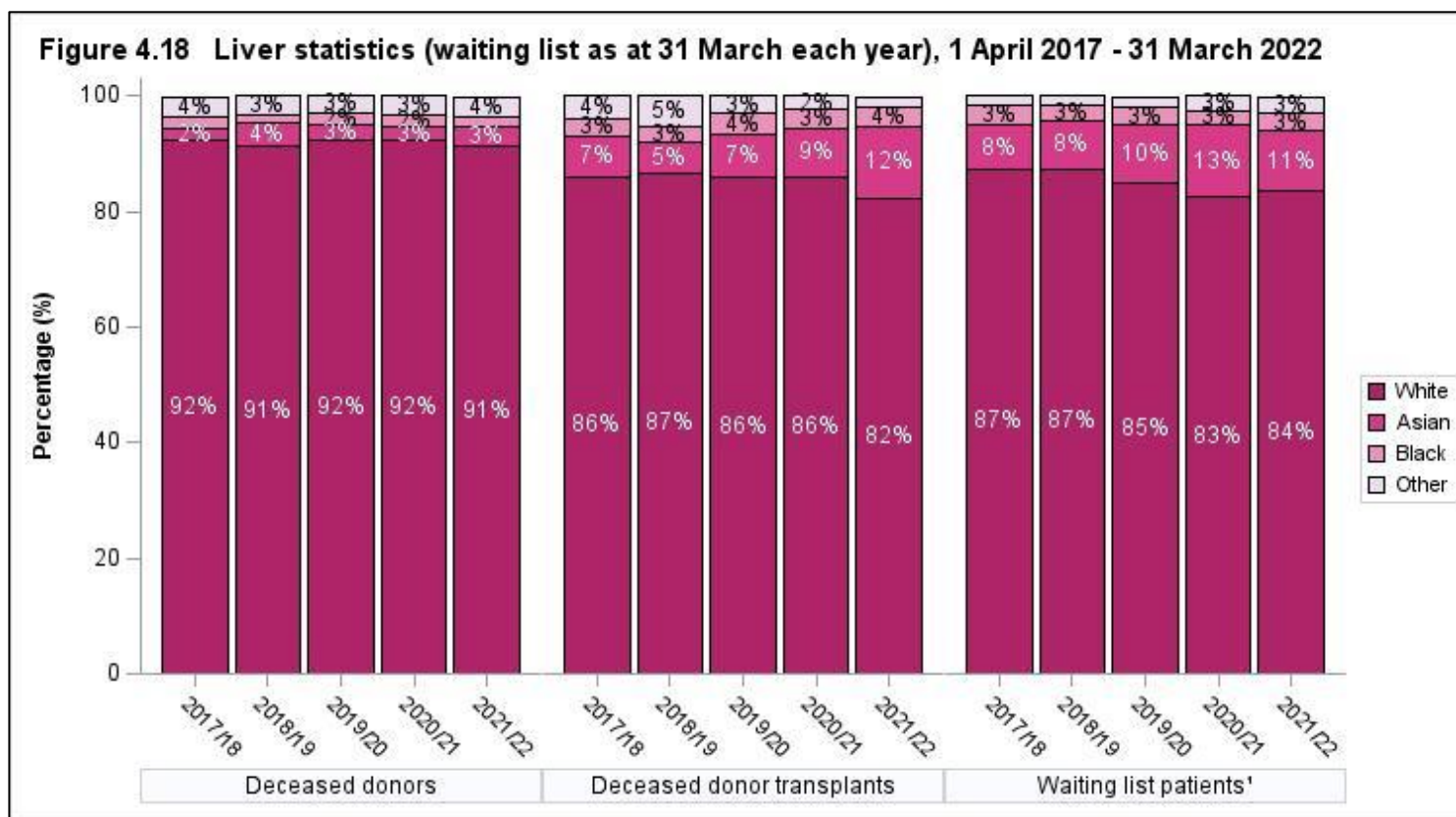


Table 4.18 Liver statistics (waiting list as at 31 March), 1 April 2017 - 31 March 2022

Ethnicity	Deceased donors					Deceased donor transplants					Waiting list patients				
	17/18	18/19	19/20	20/21	21/22	17/18	18/19	19/20	20/21	21/22	17/18	18/19	19/20	20/21	21/22
White	1047	1008	1030	780	908	867	838	772	629	662	309	365	369	99	523
Asian	25	44	29	22	33	69	51	66	63	100	27	35	44	15	66
Black	22	17	26	17	18	31	27	34	24	28	12	11	14	3	19
Other	22	27	23	21	18	38	51	26	15	12	6	7	6	1	14
Mixed	18	8	8	6	17	2		1	1	2			2	2	4
Total	1134	1104	1116	846	994	1007	967	899	732	804	354	418	435	120	626

4.5 Cardiothoracic

This section focuses on cardiothoracic transplantation reporting on post-registration outcomes and deceased cardiothoracic donors, transplant recipients and transplant waiting list.

Figure 4.19 and **Table 4.19** shows post-registration outcome comparisons for white and ethnic minority adult cardiothoracic patients registered from 1 April 2016 to 31 March 2017. Cardiothoracic recipients from ethnic minority backgrounds wait a similar time for a heart or lung compared to white patients but have a higher chance of removal from the list.

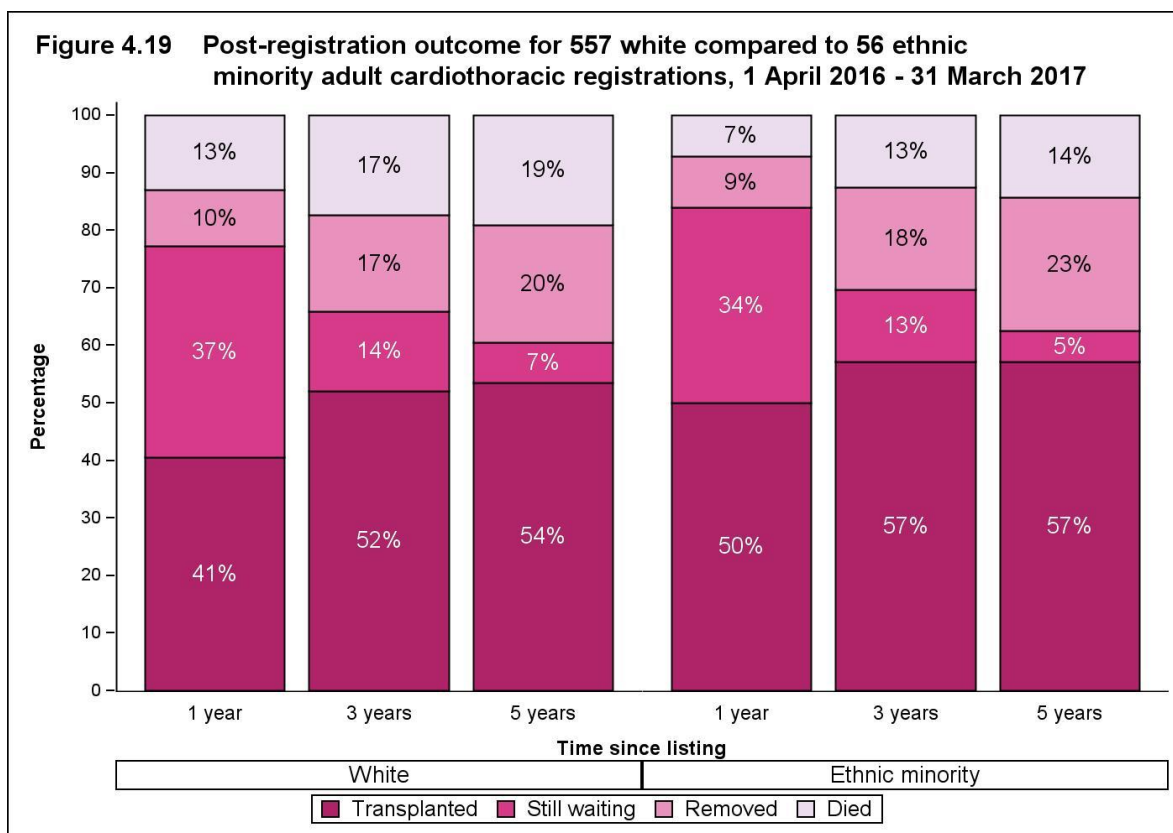


Table 4.19 Post-registration outcome for 445 white compared to 52 ethnic minority adult cardiothoracic registrations, 1 April 2016 - 31 March 2017

Outcome	1 year		3 years		5 years	
	N	%	N	%	N	%
White						
Transplanted	226	40.6	290	52.1	298	53.5
Still waiting	204	36.6	77	13.8	39	7.0
Removed	55	9.9	93	16.7	114	20.5
Died	72	12.9	97	17.4	106	19.0
Ethnic minorities						
Transplanted	28	50.0	32	57.1	32	57.1
Still waiting	19	33.9	7	12.5	3	5.4
Removed	5	8.9	10	17.9	13	23.2
Died	4	7.1	7	12.5	8	14.3

In the last financial year, **Figure 4.20** shows that 12% of deceased cardiothoracic donors are from ethnic minority groups whilst patients from ethnic minority backgrounds represent 11% of transplants and 18% of the cardiothoracic transplant waiting list. **Table 4.20** shows the numbers in **Figure 4.20**.

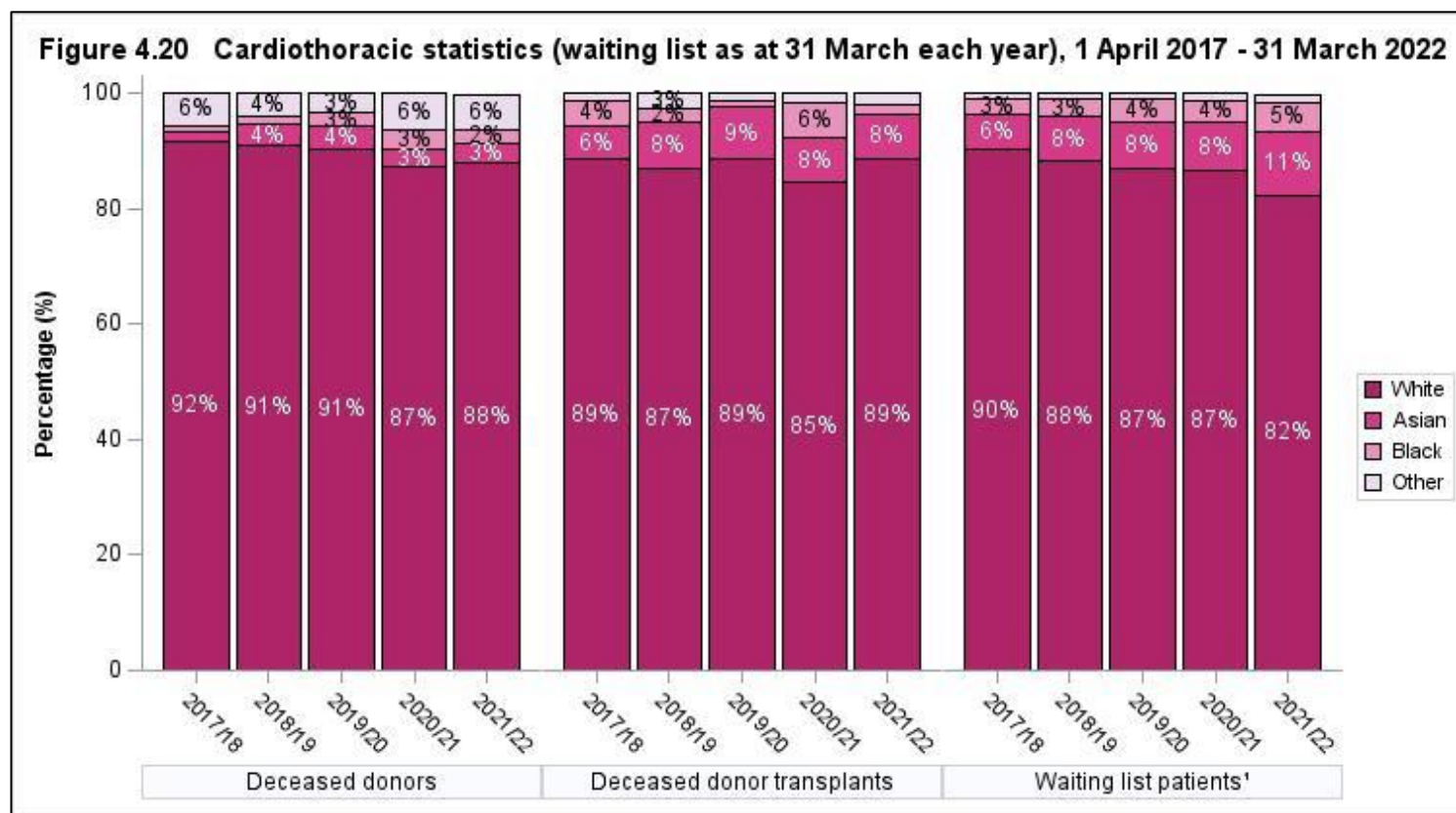


Table 4.20 Cardiothoracic statistics (waiting list as at 31 March), 1 April 2017 - 31 March 2022

Ethnicity	Deceased donors					Deceased donor transplants					Waiting list patients				
	17/18	18/19	19/20	20/21	21/22	17/18	18/19	19/20	20/21	21/22	17/18	18/19	19/20	20/21	21/22
White	335	285	287	205	230	364	304	297	212	252	577	566	602	504	4802
Asian	6	11	12	7	9	24	28	30	20	22	39	50	57	48	65
Black	4	4	8	8	6	18	8	4	15	5	17	19	28	22	29
Other	11	11	6	12	9	2	8	1	3	2	4	3	3	4	7
Mixed	9	2	4	3	7	3	1	3	1	3	2	4	3	3	2
Total	365	313	317	235	261	411	349	335	251	284	639	642	693	581	583

APPENDIX

**Table I Population of England and Wales by ethnicity, mid-2011
census data estimates per thousands**

Ethnicity	N (thousands)	%
White British	45,135	80.5
White Irish	531	0.9
Other White	2,544	4.5
Total White	48,209	86.0
Asian-Indian	1,413	2.5
Asian-Pakistani	1,125	2.0
Asian-Bangladeshi	447	0.8
Other Asian	836	1.5
Total Asian	3,821	6.8
Black-African	990	1.8
Black-Caribbean	595	1.1
Other Black	280	0.5
Total Black	1,865	3.3
White & Black Caribbean	427	0.8
White & Black African	166	0.3
White & Asian	342	0.6
Other Mixed	290	0.5
Chinese	393	0.7
Other ethnicity	564	1.0
Total Other	2,182	3.9
TOTAL	56,076	100.0

Source - Office of National Statistics

Table II National data from the NHSBT Potential Donor Audit for donation after brain death, 1 April 2017 – 31 March 2022

Financial Year	Ethnic origin	Number of patients where neurological death was suspected	Number of patients that were neurological death tested	Neurological death testing rate (%)	Number of patients where neurological death was suspected that were referred to the SN-OD	DBD referral rate (%)	Number of eligible DBD donors whose family were approached	Number where consent/authorisation ascertained	DBD consent/authorisation rate (%)
2017/18	White	1566	1338	85.4	1548	98.9	1206	943	78.2
	Ethnic minorities	322	288	89.4	319	99.1	235	103	43.8
	Unknown	68	52	76.5	64	94.1	33	21	63.6
2018/19	White	1638	1415	86.4	1622	99.0	1259	974	77.4
	Ethnic minorities	305	257	84.3	302	99.0	207	91	44.0
	Unknown	65	47	72.3	62	95.4	31	22	71.0
2019/20	White	1630	1434	88.0	1617	99.2	1238	964	77.9
	Ethnic minorities	322	281	87.3	322	100.0	211	86	40.8
	Unknown	44	29	65.9	38	86.4	19	12	63.2
2020/21	White	1428	1187	83.1	1414	99.0	1003	817	81.5
	Ethnic minorities	315	262	83.2	307	97.5	186	66	35.5
	Unknown	68	43	63.2	58	85.3	20	10	50.0
2021/22	White	1529	1228	80.3	1512	98.9	1029	772	75.0
	Ethnic minorities	355	280	78.9	350	98.6	200	83	41.5
	Unknown	37	23	62.2	34	91.9	12	7	58.3

¹All data for neonatal ICUs has been excluded from this data

Table III National data from the NHSBT Potential Donor Audit for donation after circulatory death, 1 April 2017 – 31 March 2022							
Financial Year	Ethnic origin	Number of patients for whom imminent death was anticipated	Number of patients for whom imminent death was anticipated that were referred to the SN-OD	DCD referral rate (%)	Number of eligible DCD donors whose family were approached	Number where consent/authorisation ascertained	DCD consent/Authorisation rate (%)
2017/18	White	5357	4837	90.3	1670	1041	62.3
	Ethnic minorities	388	355	91.5	112	42	37.5
	Unknown	538	424	78.8	77	32	41.6
2018/19	White	5131	4783	93.2	1590	1033	65.0
	Ethnic minorities	450	414	92.0	123	47	38.2
	Unknown	401	349	87.0	43	19	44.2
2019/20	White	5322	4919	92.4	1635	1091	66.7
	Ethnic minorities	482	433	89.8	129	56	43.4
	Unknown	492	371	75.4	48	23	47.9
2020/21	White	4740	3920	82.7	934	630	67.5
	Ethnic minorities	640	491	76.7	88	33	37.5
	Unknown	558	372	66.7	20	4	20.0
2021/22	White	4349	3973	91.4	1296	858	66.2
	Ethnic minorities	525	473	90.1	134	43	32.1
	Unknown	338	264	78.1	18	2	11.1
¹ All data for neonatal ICUs has been excluded from this data.							