



Blood and Transplant

Annual Report on Ethnicity Differences in Organ Donation and Transplantation

**Report for 2022/2023
(1 April 2018 - 31 March 2023)**

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 2022/23*.

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 2017 to 31 March 2018. 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 7 September 2023.**

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



Access to transplantation faces two major hurdles: limited organ availability and inefficient referral networks. Together, these barriers can lead to avoidable excess mortality among individuals with end-stage organ disease.

Limited information and health literacy especially among ethnic minorities can have a negative effect on transplant rates. It is commonly seen that patients and/or families of ethnic minorities refuse transplantation or donation due to misunderstandings and uncertainty regarding the unknown.

Among broader awareness initiatives, we have tailored our approach for ethnic minority communities to ensure messaging effectively reaches affected individuals. Working together with partners, stakeholders, community groups and the NHS to provide education, faith and cultural engagement is more important than ever, if we are to improve organ donation and transplantation rates within these ethnic minority communities.

With the slight fall (2%) in the number of ethnic minority deceased organ donors last year (108 in 2022/23 compared to 110 in 2021/22), it is vital that we continue with established community projects and campaigns that highlight the need for more diversity in organ donation.

The number of people from ethnic minorities are still vastly underrepresented when it comes to becoming organ donors. However, there has been an increase in the proportion of opt-in registrations from ethnic minority groups added to the NHS Organ Donor Register (ODR) over the past 5 years. In 2018/19, where ethnicity is reported, 7.1% of people from ethnic minority backgrounds opted in to the Organ Donor Register compared to 11.7% in 2022/23. In the last year, there has been a reduction in the number of opt out registrations. In 2022/23, the majority of opt-out registrations were among white people (68%), followed by Asian people (20%) and Black people (7%).

This rise in opt in registrations is encouraging and shows the collaborative work between NHS Blood and Transplant and the National BAME Transplant Alliance (NBTA); as well as the introduction of the Living Transplant Initiative and the Community Grants Programme (formally Community Investment Scheme) is really working to empower Black, Asian, Mixed Race and Minority Ethnic community groups to promote organ donation through their grassroot networks and take a leadership role in promoting organ donation among targeted groups. This, in turn, will instil confidence to these communities in not only gaining knowledge of organ donation but how to tackle the topic with their loved ones.

Last year, we saw the number of transplants in people from ethnic minority backgrounds increase from 1102 in 2021/22 to 1128 in 2022/23. However, around 80% of those were from white donors.

One major concern is the drop in family consent or authorisation rates across all ethnicities. Agreement from families for organ donation to go ahead has fallen over the last few years and it is still much lower for potential donors of an ethnic minority. Overall consent rates were 39% for Black, Asian and other Minority Ethnic donors last year, compared to 70% for white potential donors, (compared to 71% and 40% respectively last year) and families saying no remains one of the main reasons for organ donation not going ahead. The impact of the pandemic on organ donation activity among ethnic minority communities has been significant and we are gradually recovering from it.

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 or 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.

Even though the law around organ donation has now changed in all countries across the UK, families will still be consulted if organ donation becomes a possibility and their faith will be discussed with the family, meaning it is still just as important as ever to register and share your decision with them. Initial findings from the London School of Hygiene and Tropical medicine show that there is no evidence of any impact on organ donation because of the change in law in England in 2020.

The fact that the number of ethnic minority living donors had remained relatively stable at around 140-160 per year between 2018/19 and 2019/20 is encouraging. The number of donors fell sharply to 62 in 2020/21, likely as a result of the COVID-19 pandemic, but it is good to see that the number of donors has since increased to 138 in 2022/23.

What is encouraging is the overall decline in waiting times for kidneys for all ethnicities, but there is still concern over black patients waiting longer for a transplant than white patients. This unique disproportion requires further analysis and research as the revised kidney offering scheme that was introduced in 2019 was designed to reduce the disparity in waiting times across ethnic minority groups. The scheme prioritises patients who have been waiting the longest, regardless of their ethnicity. This should help to close the gap and ensure that black patients are able to receive a kidney transplant sooner.

Support for donation has continued to grow within those from ethnic minority communities thanks to the great work being done through the Community Grants Programme and transplants have continued to proceed in the most difficult of circumstances over the past few years. But most importantly, more people from Black, Asian, Mixed Race and minority ethnic backgrounds are discussing their organ donation decision and opting in to the NHS Organ Donor Register, ultimately enabling more donations and life-saving transplants to go ahead. Overcoming misconceptions and fear surrounding organ transplantation is key to increasing transplantation rates.



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SUMMARY

SUMMARY

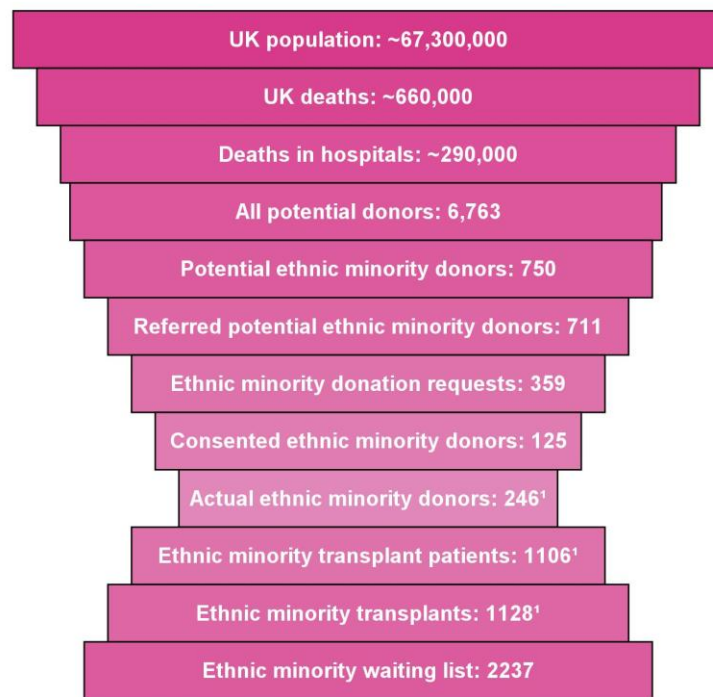
Organ Donor Register

- 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; 7.1% of opt-ins with ethnicity reported in 2018/19 and 11.7% in 2022/23.
- All minority groups were under-represented in ODR registrations; ethnic minorities represent 11.7% of opt-in registrations compared with 18.2% 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, ethnic minorities have over representation in opt-outs at 31.7%.
- The number of ODR opt-in registrations with ethnicity reported has fallen – from 33% in 2018/19 to 15% last year. In 2022/23, the proportion of ODR opt-out registrations with ethnicity reported was 85.4%.

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 92%.
- Family consent/authorisation is much lower for ethnic minority potential donors (39% DBD, 28% DCD) than for white potential donors (74% DBD, 60% DCD). Overall (DBD and DCD combined) consent rates were 39% for ethnic minority and 70% for white potential donors last year, lower than 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 2022 - 31 March 2023



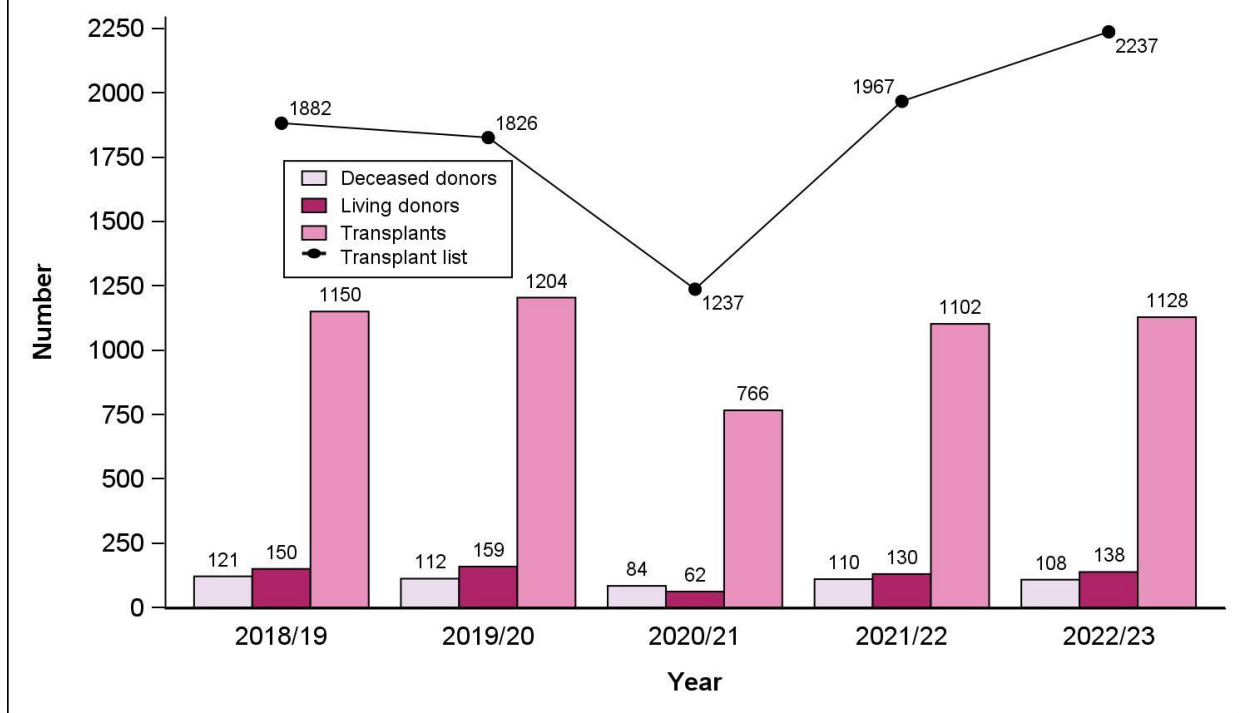
¹ Please note that 138 living donors have been included in this figure

Organ donors, transplant recipients and transplant waiting list

Overview

- The number of ethnic minority deceased organ donors has fallen by 2% from 110 in 2021/22 to 108 in 2022/23.
- The number of ethnic minority living donors had remained at approx. 140-160 per year between 2018/19 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 138 donors in 2022/23 as services started to increase to normal levels.
- The number of transplants in people from ethnic minority backgrounds increased from 1102 in 2021/22 to 1128 in 2022/23.
- There were 2237 people from ethnic minority backgrounds on the active organ transplant list at 31 March 2023, an increase from 1967 as at 31 March 2022. 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 2022/23, Asian people represented 4% of deceased donors (DD), 15% of DD transplants and 19% of the transplant waiting list; black people represented 2% of DD, 9% of DD transplants and 11% of the list.
- In 2022/23, Asian people represented 8% of living donors (LD) and 10% of LD transplants; black people represented 2% of LD and 3% of LD transplants.
- One year after being listed for a transplant (all organs), 49% (N=2083) of white and 33% (N=429) of ethnic minority groups have been transplanted. Five years after listing, 77% (N=3318) of white and 72% (N=921) of ethnic minority groups have been transplanted, while 7% (n=310) of white and 6% (N=77) 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 2018 - 31 March 2023, and patients on the active transplant list at 31 March each year



Kidney

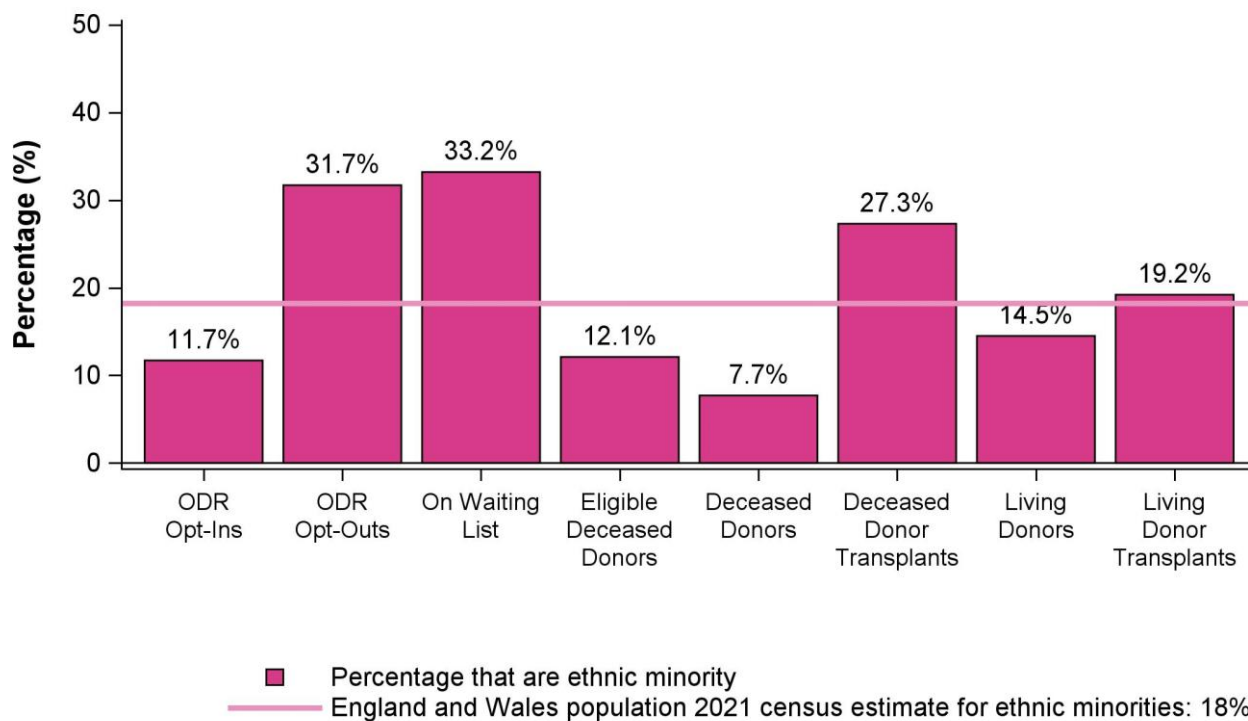
- One year after being listed for a kidney transplant, 39% of white and 28% of ethnic minority people have received a transplant. Five years after listing, 79% of white and 72% of ethnic minority people have been transplanted while 7% of white and 5% of ethnic minority people have died on the list.
- There has been an overall decline in waiting times for all ethnicities, although black patients are waiting 6 months longer for a transplant than white patients (median waits are 649 days for black, 599 days for Asian, and 463 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 2022/23, Asian people represented 4% of deceased kidney donors (DD), 17% of DD kidney transplants and 19% of the transplant waiting list; black people represented 2% of kidney DD, 12% of DD transplants and 13% of the list.
- The majority of kidney transplants are from white donors across all recipient ethnic groups: approx. 88% of transplants in people from ethnic minority backgrounds are from white donors.
- 62% of Asian and 51% 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:** 37% of white and 24% of ethnic minority patients have received a transplant, while 3% and 3% have died on the list, respectively.
 - **Liver:** 75% of white and 77% of ethnic minority patients have received a transplant, while 4% and 7% have died on the list, respectively.
 - **Cardiothoracic:** 49% of white and 41% of ethnic minority patients have received a transplant, while 10% and 10% have died on the list, respectively.
- In 2023, Asian people represented:
 - **Pancreas and pancreas/kidney:** 3% of donors, 5% of transplants and 6% of the transplant list.
 - **Liver:** 4% of donors, 11% of transplants and 10% of the transplant list.
 - **Cardiothoracic:** 5% of donors, 12% of transplants and 12% of the transplant list.
- In 2023, black people represented:
 - **Pancreas and pancreas/kidney:** 2% of donors, 7% of transplants and 5% of the transplant list.
 - **Liver:** 2% of donors, 3% of transplants and 4% of the transplant list.
 - **Cardiothoracic:** 1% 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. Ethnic minority groups are under-represented in deceased donors as well as eligible deceased donors, living donors and those registering on the opt-in ODR.

Figure 1.3 Percentage that are ethnic minority relative to the population, 1 April 2022 - 31 March 2023



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 2022/23 were the Driver and Vehicle Licensing (673%), Boots Advantage card (13%), online registrations (8%), Other (5%) and GP registrations (1%).

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 15% of people registering on the ODR in 2022/23 have their ethnicity recorded.

Table 2.1 shows the number of opt-in registrations per year by ethnicity from 1 April 2018 to 31 March 2023. In 2022/23, 88% of registrations with ethnicity recorded were by white people, 7% from Asian, and 1% from black.

Table 2.2 shows the number of opt-out registrations per year by ethnicity from 1 April 2018 to 31 March 2023. Most opt-out registrations are entered online and as a result have a higher proportion of people reporting their ethnicity (81% in 2022/23). In the last year, there has been a reduction in the number of opt-out registrations. In 2022/23, the majority of opt-out registrations were among white people (68%), followed by Asian people (20%) and black people (7%).

Table 2.1 Ethnicity of all ODR opt-in registrations by year of registration¹, 1 April 2018 - 31 March 2023

		2018/19		2019/20		2020/21		2021/22		2022/23	
		N	%	N	%	N	%	N	%	N	%
White	British	400,442	85.5	268,290	83.9	174,513	81.2	231,273	77.6	116,666	78.0
	Irish	11,645	2.5	8,384	2.6	3,845	1.8	4,890	1.6	2,106	1.4
	Other	23,123	4.9	18,033	5.6	16,983	7.9	31,229	10.5	13,372	8.9
	Total	435,210	92.9	294,707	92.2	195,341	90.9	267,392	89.7	132,144	88.3
Asian	Indian	9,495	2	6,957	2.2	5,146	2.4	8,643	2.9	5,158	3.4
	Pakistani	1,546	0.3	1,259	0.4	929	0.4	1,276	0.4	757	0.5
	Bangladeshi	430	0.1	348	0.1	306	0.1	398	0.1	209	0.1
	Chinese	1,391	0.3	1,056	0.3	866	0.4	2,333	0.8	1,360	0.9
	Other	3,965	0.8	3,167	1	2,800	1.3	4,499	1.5	2,585	1.7
	Total	16,827	3.6	12,787	4	10,047	4.7	17,149	5.8	10,069	6.7
Black	Caribbean	1,888	0.4	1,439	0.5	874	0.4	1,105	0.4	643	0.4
	African	2,325	0.5	1,730	0.5	1,360	0.6	1,729	0.6	1,127	0.8
	Other	331	0.1	273	0.1	334	0.2	821	0.3	335	0.2
	Total	4,544	1	3,442	1.1	2,568	1.2	3,655	1.2	2,105	1.4
Mixed	White/Black African	967	0.2	777	0.2	710	0.3	990	0.3	510	0.3
	White/Black Caribbean	2,803	0.6	1,980	0.6	1,328	0.6	1,776	0.6	936	0.6
	White/Asian	2,768	0.6	2,054	0.6	1,529	0.7	2,177	0.7	1,154	0.8
	Other	2,590	0.6	2,030	0.6	1,699	0.8	2,562	0.9	1,407	0.9
	Total	9,128	1.9	6,841	2.1	5,266	2.5	7,505	2.5	4,007	2.7
Other		2,721	0.6	1,921	0.6	1,702	0.8	2,306	0.8	1,276	0.9
Total reported		468,430	100	319,698	100	214,924	100	298,007	100.0	149,601	100.0
Not reported		941,998	66.8	975,177	75.3	846,998	79.8	932,117	75.8	871,917	85.4
TOTAL OPT-IN REGISTRATIONS (incl. known duplicates/deaths)		1,410,428		1,294,875		1,061,922		1,230,124		1,021,518	
TOTAL OPT-IN REGISTRATIONS (excl. known duplicates/deaths)		1,230,560		1,039,485		827,777		1,027,724		876,601	

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 2020 - 31 March 2023

		2018/19		2019/20		2020/21		2021/22		2022/23	
		N	%	N	%	N	%	N	%	N	%
White	British	20,736	18.6	161,410	23.0	274,165	65.8	133,549	61.9	61,393	58.2
	Irish	315	0.3	1,857	0.3	3,327	0.8	1,839	0.9	1,080	1.0
	Other	2,422	2.2	16,740	2.4	25,202	6.0	20,693	9.6	9,547	9.1
	Total	23,473	21.0	180,007	25.7	302,694	72.6	156,081	72.4	72,020	68.3
Asian	Indian	7,720	6.9	46,090	6.6	13,094	3.1	8,239	3.8	4,014	3.8
	Pakistani	31,968	28.6	207,420	29.6	32,717	7.9	12,595	5.8	6,859	6.5
	Bangladeshi	17,221	15.4	78,960	11.3	12,160	2.9	4,115	1.9	2,201	2.1
	Chinese	295	0.3	1,256	0.2	2,413	0.6	5,644	2.6	4,368	4.1
	Other	3,471	3.1	31,140	4.4	10,002	2.4	6,191	2.9	3,698	3.5
	Total	60,675	54.4	364,866	52.1	70,386	16.9	36,784	17.0	21,140	20.1
Black	Caribbean	9,333	8.4	38,930	5.6	9,560	2.3	2,938	1.4	1,535	1.5
	African	10,888	9.7	71,392	10.2	14,541	3.5	6,485	3.0	3,829	3.6
	Other	1,591	1.4	8,654	1.2	2,607	0.6	3,593	1.7	1,507	1.4
	Total	21,812	19.5	118,976	17.0	26,708	6.4	13,016	6.0	6,871	6.5
Mixed	White/Black Caribbean	928	0.8	6,159	0.9	2,784	0.7	1,327	0.6	713	0.7
	White/Black African	437	0.4	2,632	0.4	1,146	0.3	944	0.4	471	0.4
	White/Asian	634	0.6	3,900	0.6	1,955	0.5	1,078	0.5	562	0.5
	Other	1,264	1.1	7,883	1.1	3,498	0.8	2,012	0.9	1,246	1.2
	Total	3,263	2.9	20,574	2.9	9,383	2.3	5,361	2.5	2,992	2.8
Other		2,476	2.2	16,486	2.4	7,539	1.8	4,412	2.0	2,386	2.3
Total reported		111,699	100.0	700,909	100.0	416,710	100.0	215,654	100.0	105,409	100.0
Not reported		12,626	10.2	153,191	17.9	85,757	17.1	54,699	20.2	24,505	18.9
TOTAL OPT-OUT REGISTRATIONS (incl. known duplicates/deaths)		124,325		854,100		502,467		270,353		129,914	
TOTAL OPT-OUT REGISTRATIONS (excl. known duplicates/deaths)		122,019		821,701		483,684		269,347		132,879	

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 2021. **Table 2.3** shows data on percentage of the ODR opt-in registrations in 2018/19 and 2022/23 against the percentage of the general population for England and Wales. In 2018/19, 7.1% of ODR opt-in registrations of known ethnicity were ethnic minority groups which has increased to 11.7% in 2022/23. It is estimated that 18.3% 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	2018/19 % of the ODR registrations¹	2022/23 % of the ODR registrations¹	2021 % of the population²
Asian-Indian	2.0	3.4	3.1
Asian-Pakistani	0.3	0.5	2.7
Asian-Bangladeshi	0.1	0.1	1.1
Asian-Chinese	0.3	0.9	0.7
Asian-Other	0.8	1.7	1.6
<i>Asian-Total</i>	<i>3.6</i>	<i>6.7</i>	<i>9.2</i>
Black-African	0.5	0.8	2.5
Black-Caribbean	0.4	0.4	1.0
Black-Other	0.1	0.2	0.5
<i>Black-Total</i>	<i>1.0</i>	<i>1.4</i>	<i>4.0</i>
Mixed race	1.9	2.7	2.9
Other ethnicity	0.6	0.9	2.2
Total ethnic minority groups	7.1	11.7	18.3

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 2022/23 (79.4% and 77.9%, 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 92% and 93% for DCD donors, respectively.

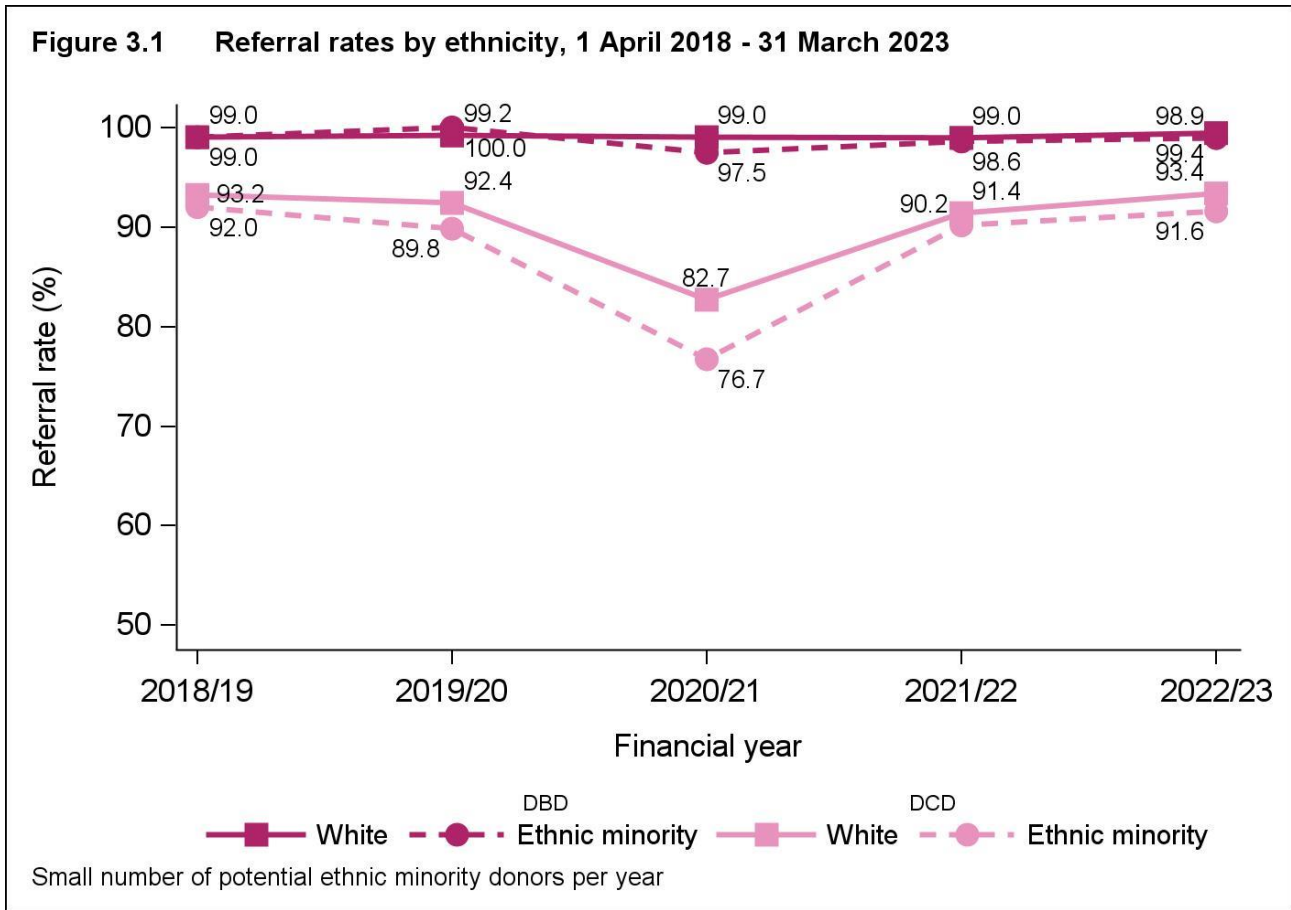


Figure 3.2 shows the number of eligible DBD donors and eligible DBD donors with consent ascertained over time for white and ethnic minority groups, **Figure 3.3** shows the overall DBD consent/authorisation rates. Similarly, **Figure 3.4** and **Figure 3.5** illustrate the same information for DCD donation,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

Figure 3.2 demonstrates that the number of white and ethnic minority eligible DBD donors has increased to 1160 and 271 respectively and that the number of white and ethnic minority eligible consented/authorised DBD donors has fallen to 762 and remained constant at 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 2018 - 31 March 2023

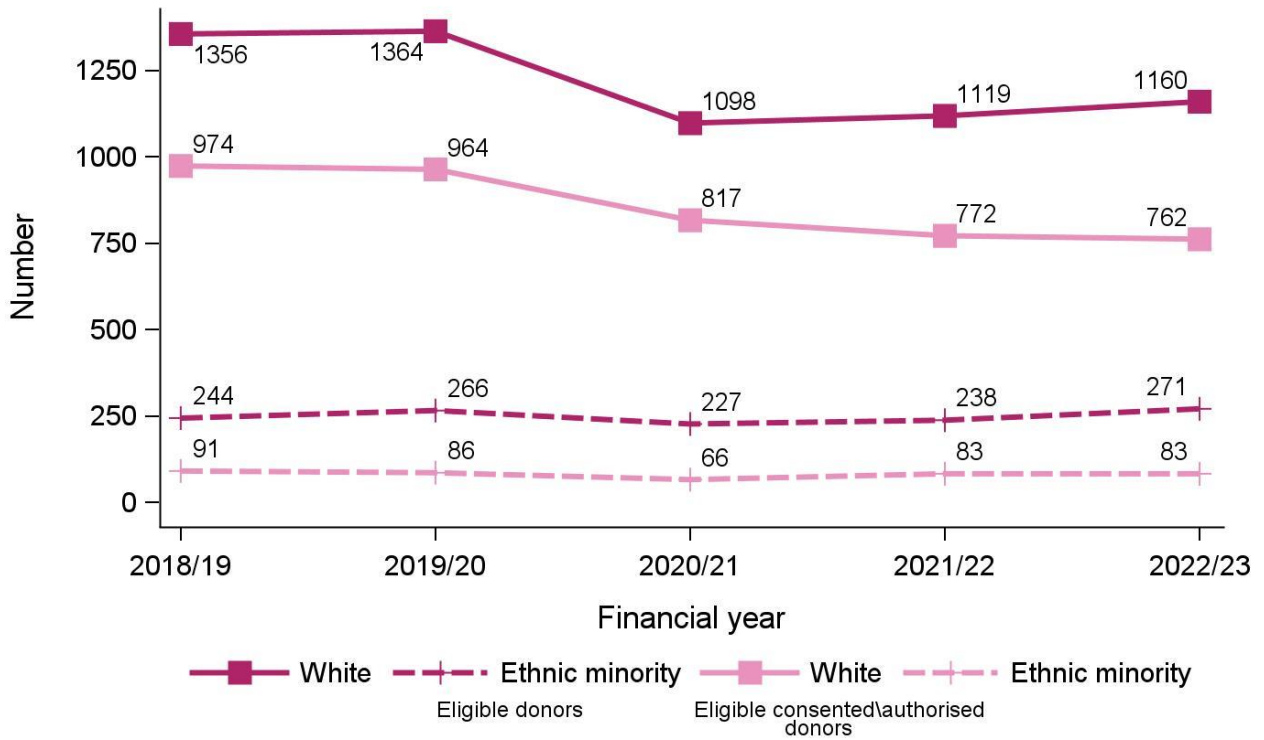
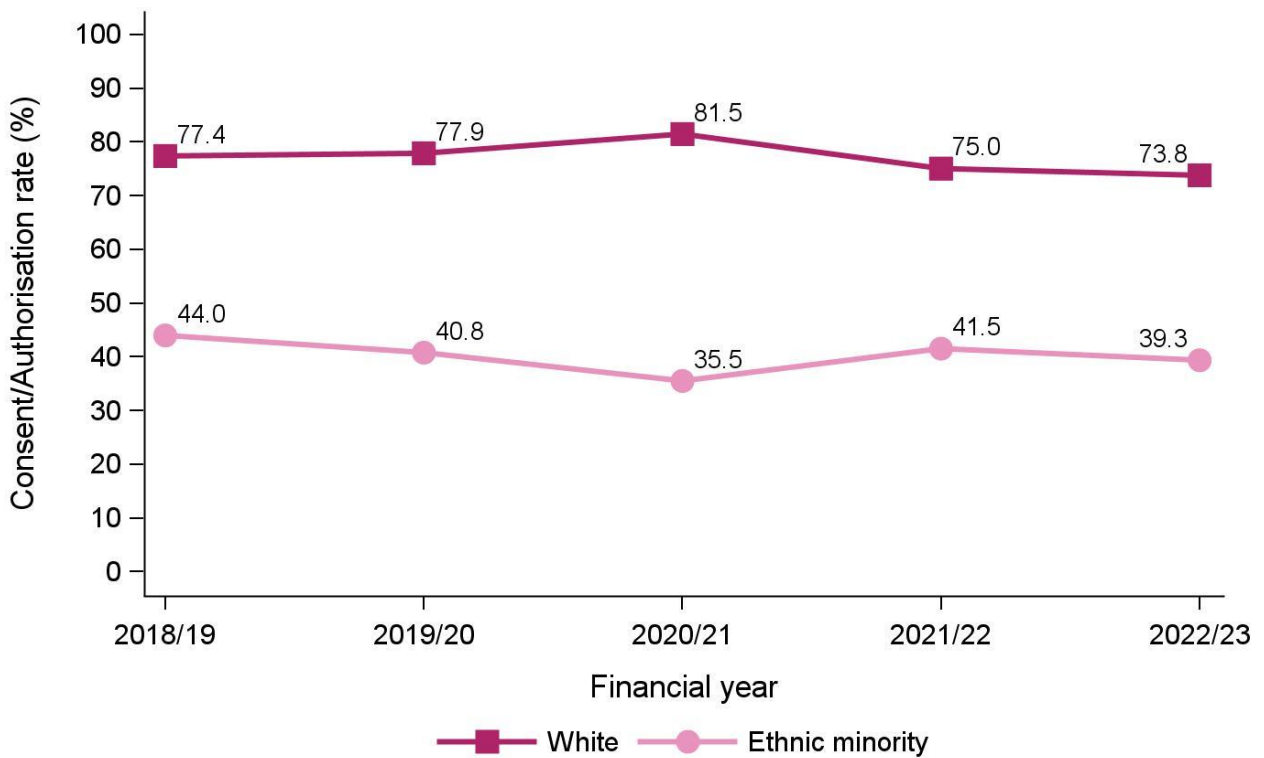


Figure 3.3 DBD consent/authorisation rates by ethnicity, 1 April 2018 - 31 March 2023



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 2018 - 31 March 2023

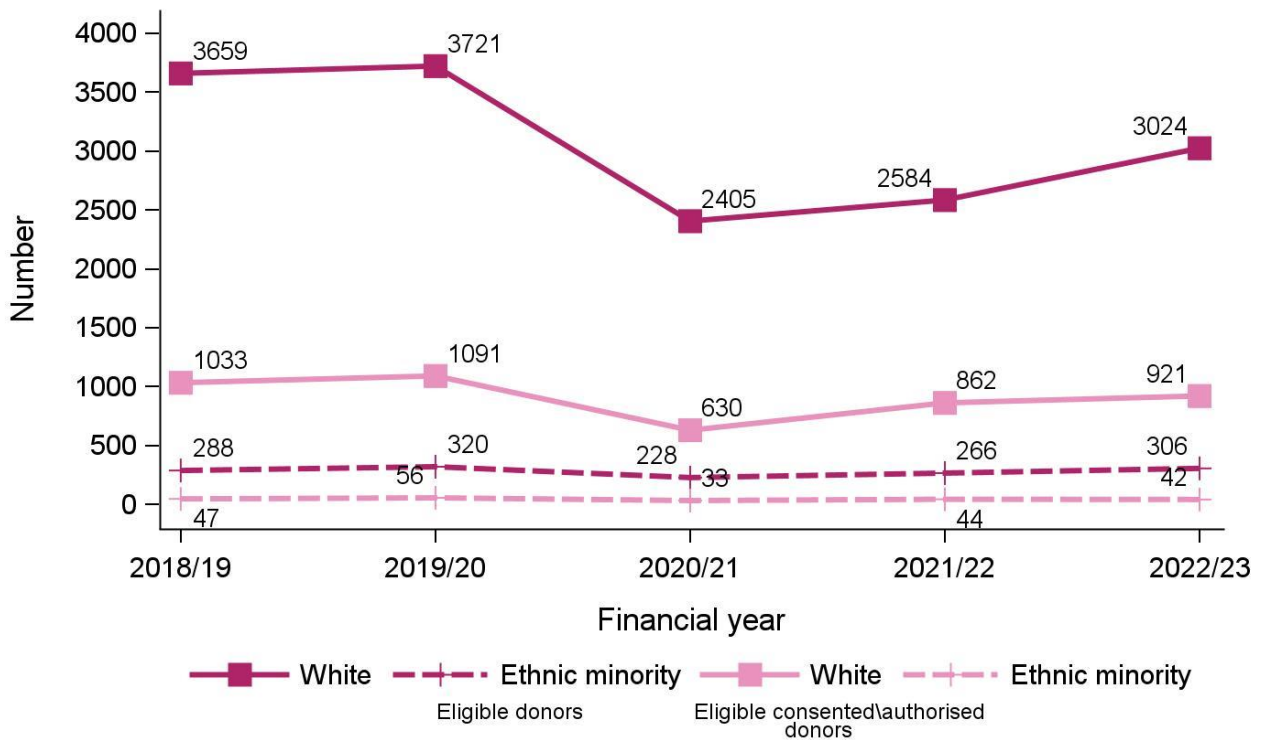
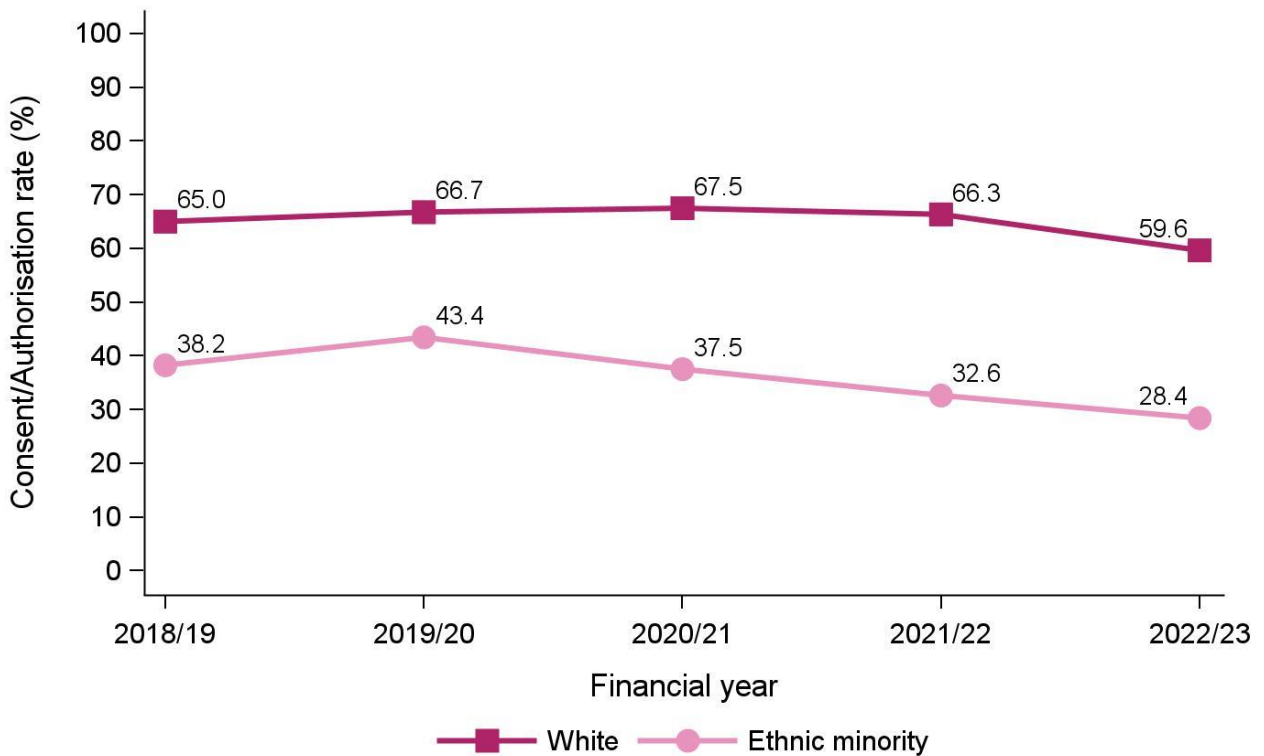


Figure 3.5 DCD consent/authorisation rates by ethnicity, 1 April 2018 - 31 March 2023



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 2018 to 31 March 2023. 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 2018 - 31 March 2023							
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	568	524	74.6	2202	958	67.5	70.0
London	635	591	73.9	1085	543	66.3	70.3
Midlands	689	618	75.7	1990	1049	60.2	65.9
North West	786	700	76.3	2443	861	65.6	70.4
Northern	432	397	75.8	1094	423	65.2	70.4
Northern Ireland	276	251	71.3	347	187	66.8	69.4
Scotland	475	423	77.1	951	489	59.5	67.7
South Central	452	431	82.1	1305	566	64.8	72.3
South East	566	509	78.2	1209	604	67.2	72.2
South Wales	249	236	78.0	520	223	68.2	73.2
South West	414	385	86.0	800	435	68.7	76.8
Yorkshire	555	497	77.7	1447	666	62.8	69.1
Total	6097	5562	77.1	15393	7004	64.8	70.2
Ethnic minority							
Eastern	104	85	49.4	173	73	38.4	44.3
London	509	431	38.3	434	214	36.0	37.5
Midlands	199	154	35.1	271	105	32.4	34.0
North West	97	73	30.1	123	41	26.8	28.9
Northern	15	14	57.1	36	10	40.0	50.0
Northern Ireland	12	9	55.6	8	4	50.0	53.8
Scotland	18	13	53.8	21	9	44.4	50.0
South Central	55	40	42.5	85	47	40.4	41.4
South East	154	130	48.5	127	67	35.8	44.2
South Wales	15	13	53.8	17	13	46.2	50.0
South West	13	9	44.4	27	9	55.6	50.0
Yorkshire	55	44	34.1	86	31	25.8	30.7
Total	1246	1015	40.3	1408	623	35.6	38.5

Families of ethnic minority eligible donors consent/authorise organ donation at a rate of 40% for DBD donation and 36% for DCD donation compared with families of white eligible donors who consent/authorise organ donation at a rate of 77% for DBD donation and 65% for DCD donation from 1 April 2018 to 31 March 2023.

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 65% and 35%, respectively, in 2022/23.

Table 3.2 Consent/authorisation (Con/auth) rates for families approached (app) for organ donation by ethnicity and financial year, 1 April 2018 - 29 February 2023										
Ethnicity	2018/19		2019/20¹		Financial year 2020/21		2021/22		2022/23	
	App	Con/auth rate %	App	Con/auth rate %	App	Con/auth rate %	App	Con/auth rate %	App	Con/auth rate %
White	2849	70.4	2873	71.5	1937	74.7	2329	70.2	2578	65.3
Asian	184	39.8	186	34.5	141	30.7	182	32.9	208	33.2
Black	90	32.2	98	39.8	76	27.6	83	36.1	99	29.3
Mixed	17	64.7	20	50.0	17	64.7	22	72.7	22	59.1
Other	39	59.0	36	69.4	40	57.5	48	41.7	30	46.7
Ethnic minority	330	41.8	340	41.8	274	36.1	335	37.9	359	34.8

¹ 1 April 2019 to 29 February 2020 due to the COVID-19 pandemic

Table 3.3 shows the reasons given by a family when declining consent/authorisation for organ donation, by ethnicity from 1 April 2018 to 31 March 2023. 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 2018 - 31 March 2023										
Consent/authorisation refusal reason	Potential donor ethnicity									
	White		Asian		Black		Mixed		Other	
	N	%	N	%	N	%	N	%	N	%
Patient had previously expressed a wish not to donate	1054	28.2	115	19.7	69	23.2	2	5.4	14	15.9
Family were not sure whether the patient would have agreed to donation	530	14.2	55	9.4	39	13.1	3	8.1	13	14.8
Family felt the length of time for the donation process was too long	505	13.5	13	2.2	8	2.7	2	5.4	5	5.7
Family did not want surgery to the body	332	8.9	52	8.9	19	6.4	4	10.8	12	13.6
Family felt patient had suffered enough	330	8.8	21	3.6	14	4.7	4	10.8	2	2.3
Other	289	7.7	37	6.3	15	5.0	5	13.5	8	9.1
Family divided over the decision	155	4.1	15	2.6	9	3.0	4	10.8	1	1.1
Strong refusal - probing not appropriate	123	3.3	19	3.3	8	2.7	2	5.4	5	5.7
Family felt that the body should be buried whole (unrelated to religious/cultural reasons)	109	2.9	24	4.1	18	6.0	2	5.4	5	5.7
Family did not believe in donation	97	2.6	24	4.1	12	4.0	2	5.4	2	2.3
Patient had registered a decision to Opt Out	65	1.7	25	4.3	15	5.0	1	2.7	2	2.3
Family wanted to stay with the patient after death	52	1.4			1	0.3	1	2.7		
Family felt it was against their religious/cultural beliefs	45	1.2	172	29.5	60	20.1	4	10.8	19	21.6
Family concerned that organs may not be transplantable	31	0.8	2	0.3						
Family concerned other people may disapprove/be offended	7	0.2	4	0.7	5	1.7	1	2.7		
Family had difficulty understanding/accepting neurological testing	6	0.2	2	0.3	3	1.0				
Family concerned donation may delay the funeral	4	0.1	4	0.7						
Family concerned about organ allocation	3	0.1			2	0.7				
Family believe patient's treatment may have been limited to facilitate organ donation	2	0.1			1	0.3				
Total	3739	100.0	584	100.0	298	100.0	37	100.0	88	100.0

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 2018 to 31 March 2023. 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 270 more active ethnic minority patients at 31 March 2023. There was a 2% increase in the number of ethnic minority transplant recipients in 2022/23 and a 2% decrease in the number of ethnic minority deceased organ donors. There is also a 6% increase in the number of living donors.

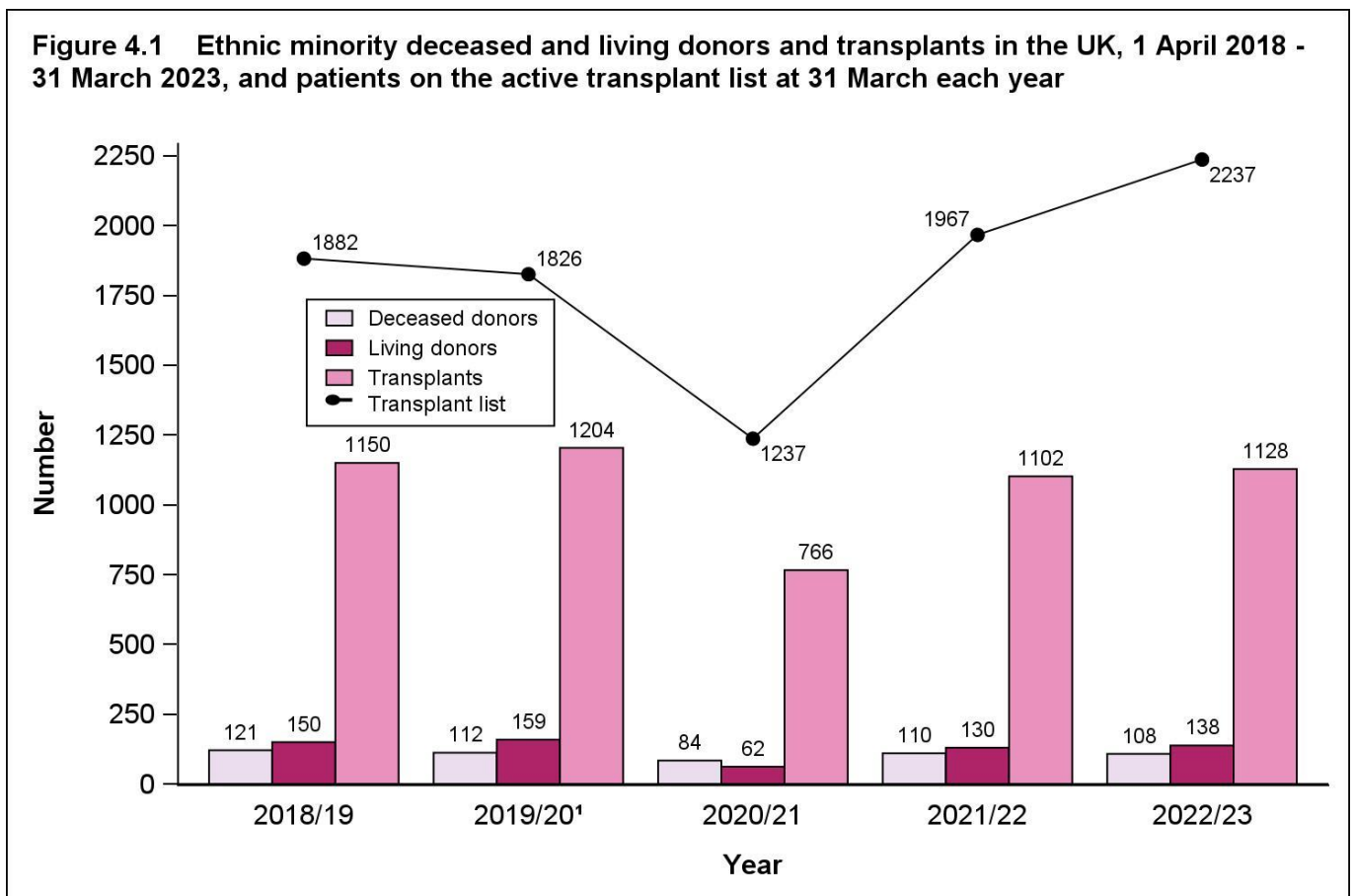


Table 4.1 shows a further breakdown of the number of living and deceased ethnic minority donors, transplants and those on the transplant waiting list from 1 April 2018 to 31 March 2023, where totals exclude those with ethnicity not recorded. Rates per million population (pmp) of the total population 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 11% of donors.

Table 4.1 Number of donors, transplants and waiting list in the UK, by financial year and ethnic minority groups, 1 April 2018 - 31 March 2023					
	Financial year				
	2018/19	2019/20	2020/21	2021/22	2022/23
Waiting list ¹	5984	5602	4189	6126	6730
Ethnic minority waiting list ¹	1882	1826	1237	1967	2237
Ethnic minority % of waiting list	31.5	32.6	29.5	32.1	33.2
Ethnic minority on waiting list per million population of total UK population (pmp)	28.1	27.2	18.5	29.3	33.4
Total donors	2635	2620	1596	2297	2350
Total ethnic minority donors	271	271	146	240	246
Ethnic minority % of donors	10.3	10.3	9.1	10.4	10.5
Ethnic minority donors pmp	4	4	2.2	3.6	3.7
Deceased donors	1589	1566	1145	1363	1397
Deceased ethnic minority donors	121	112	84	110	108
<i>DBD ethnic minority donors</i>	<i>90</i>	<i>76</i>	<i>61</i>	<i>75</i>	<i>77</i>
<i>DCD ethnic minority donors</i>	<i>31</i>	<i>36</i>	<i>23</i>	<i>35</i>	<i>31</i>
Ethnic minority % of deceased donors	7.6	7.2	7.3	8.1	7.7
Deceased ethnic minority donors pmp	1.8	1.7	1.3	1.6	1.6
Living donors	1046	1054	451	934	953
Living ethnic minority donors	150	159	62	130	138
Ethnic minority % of living donors	14.3	15.1	13.7	13.9	14.5
Living ethnic minority donors pmp	2.2	2.4	0.9	1.9	2.1
Total transplants	4943	4753	3348	4265	4412
Total ethnic minority transplants	1150	1204	766	1102	1128
Ethnic minority % of transplants	23.3	25.3	22.9	25.8	25.6
Ethnic minority transplants pmp	17.2	18	11.4	16.4	16.8
Deceased donor (DD) transplants	3912	3713	2903	3351	3482
Ethnic minority DD transplants	971	1010	681	937	949
Ethnic minority % of deceased donor transplants	24.8	27.2	23.5	28	27.3
Ethnic minority DD transplants pmp	14.5	15.1	10.2	14	14.2
Living donor (LD) transplants	1031	1040	445	914	930
Ethnic minority LD transplants	179	194	85	165	179
Ethnic minority % of LD transplants	17.4	18.7	19.1	18.1	19.2
Ethnic minority LD transplants pmp	2.7	2.9	1.3	2.5	2.7
Unknown ethnicity was excluded					
Per million population of total UK population in 2021					
¹ Waiting list as at 31 March					

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 2017 and 31 March 2018. 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.

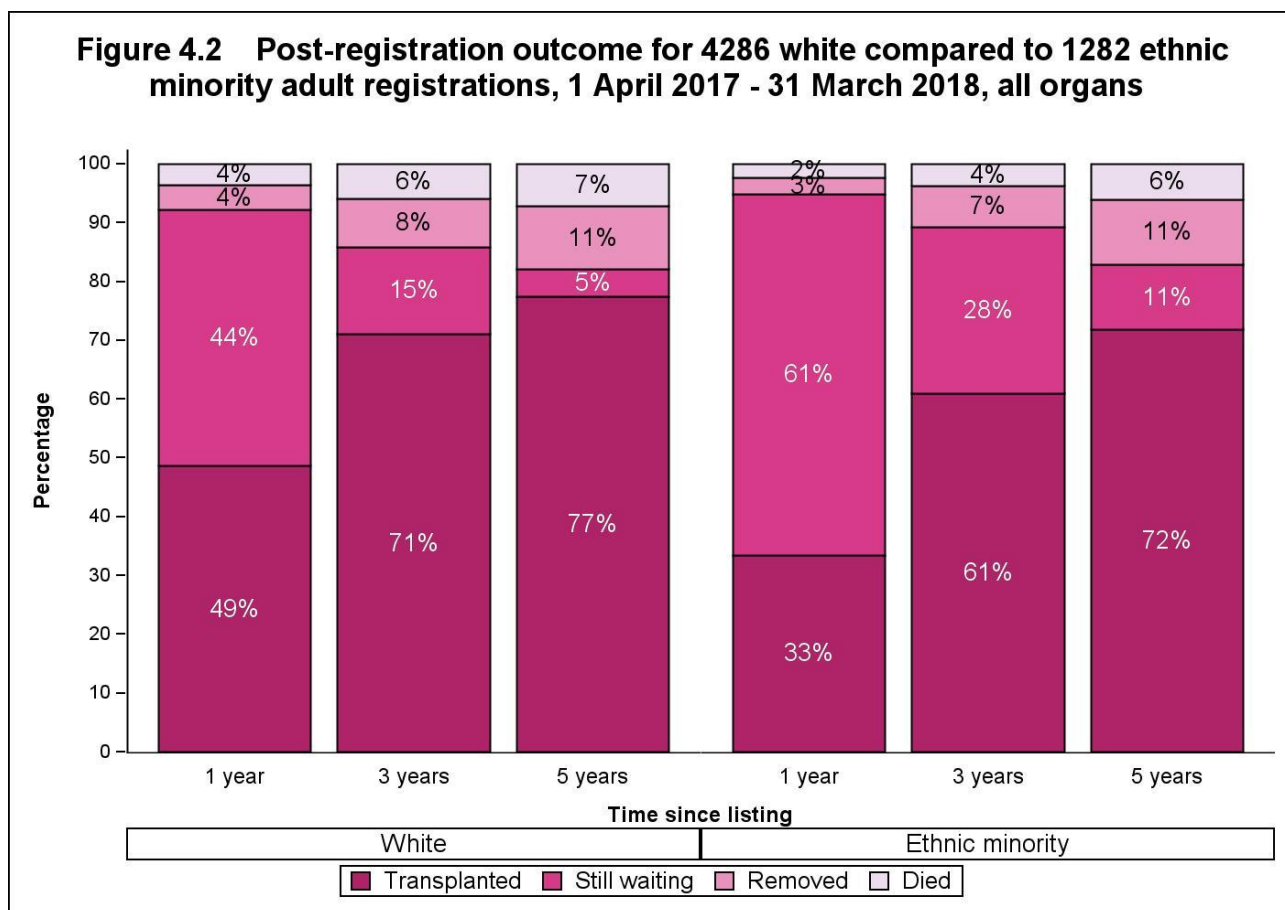


Table 4.2 Post-registration outcome for 4286 white adult registrations compared to 1282 ethnic minority adult registrations, 1 April 2017 - 31 March 2018, all organs

Outcome	1 year		3 years		5 years	
	N	%	N	%	N	%
White						
Transplanted	2083	48.6	3045	71.0	3318	77.4
Still waiting	1868	43.6	637	14.9	204	4.8
Removed	183	4.3	353	8.2	454	10.6
Died	152	3.5	251	5.9	310	7.2
Ethnic minority						
Transplanted	429	33.5	781	60.9	921	71.8
Still waiting	788	61.5	364	28.4	141	11.0
Removed	36	2.8	90	7.0	143	11.2
Died	29	2.3	47	3.7	77	6.0

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 kidney			
White	7799	463	448 - 478
Asian	1979	599	564 - 634
Black	1179	649	605 - 693
Other	532	584	519 - 649
TOTAL	11632	509	496 - 522
Paediatric kidney			
White	157	206	147 - 265
Asian	88	449	333 - 565
Black	36	360	246 - 474
Other	17	560	397 - 723
TOTAL	303	312	253 - 371
Adult pancreas			
White	713	378	343 - 413
Asian	62	437	268 - 606
Black	43	372	239 - 505
Other	18	209	148 - 270
TOTAL	839	375	343 - 407
Adult liver			
White	1585	111	96 - 126
Asian	164	118	92 - 144
Black	52	243	93 - 393
Other	40	235	0 - 718
TOTAL	1873	119	106 - 132
Paediatric liver	131	64	32 - 96
Adult never urgent heart			
White	479	2082	0 - -
Asian	45		0 - -
Black	19		0 - -
TOTAL	551	2082	0 - -
Adult ever urgent heart			
White	681	43	39 - 47
Asian	80	37	17 - 57
Black	39	45	3 - 87
Other	12	78	10 - 146
TOTAL	815	43	39 - 47
Adult super-urgent heart	153	13	8 - 18
Paediatric non-urgent heart	51	754	424 - 1084
Adult lung			
Paediatric urgent heart	244	97	77 - 117

Median waiting time not reported for fewer than 10 patients

¹ Kidney-only patients registered 1 April 2016 - 31 March 2020

² Pancreas-only and kidney/pancreas patients registered 1 April 2017 - 31 March 2021

³ Liver patients registered 1 April 2020 - 31 March 2022

⁴ Cardiothoracic patients registered 1 April 2015 - 31 March 2020

⁵ Includes registrations and waiting time on super-urgent list where applicable

⁶ Median and/or 95% confidence interval cannot be estimated

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 510 to 470. Patients from ethnic minority backgrounds accounted for 22% of those who died waiting for a transplant in 2022/23.

Table 4.4 Number of deaths on the transplant waiting list, by financial year, organ and ethnicity, 1 April 2017 - 31 March 2022											
Ethnicity	2018/19		2019/20		2020/21		2021/22		2022/23		N
	N	%	N	%	N	N	%	N	%		
Kidney											
White	230	74.9	212	74.6	258	67.5	237	71.6	218	70.8	
Asian	43	14.0	38	13.4	78	20.4	46	13.9	50	16.2	
Black	18	5.9	25	8.8	41	10.7	35	10.6	28	9.1	
Other	16	5.2	9	3.2	5	1.3	13	3.9	12	3.9	
Unknown	5		4		3		5		4		
Total	312	100.0	288	100.0	385	100.0	336	100.0	312	100.0	
Pancreas											
White	19	95.0	14	87.5	25	92.6	18	81.8	25	92.6	
Asian			2	12.5	2	7.4	2	9.1	2	7.4	
Black							1	4.5			
Other	1	5.0					1	4.5			
Unknown	1				1						
Total	21	100.0	16	100.0	28	100.0	22	100.0	27	100.0	
Liver											
White	51	86.4	44	84.6	69	87.3	65	86.7	61	87.1	
Asian	6	10.2	6	11.5	6	7.6	4	5.3	3	4.3	
Black	2	3.4	2	3.8	3	3.8	3	4.0	4	5.7	
Other					1	1.3	3	4.0	2	2.9	
Unknown	2		6		1		2		1		
Total	61	100.0	58	100.0	80	100.0	77	100.0	71	100.0	
Cardiothoracic											
White	86	87.8	94	89.5	73	84.9	65	86.7	53	88.3	
Asian	8	8.2	6	5.7	9	10.5	7	9.3	6	10.0	
Black	2	2.0	4	3.8	3	3.5	2	2.7			
Other	2	2.0	1	1.0	1	1.2	1	1.3	1	1.7	
Total	98	100.0	105	100.0	86	100.0	75	100.0	60	100.0	
Total											
White	386	79.8	364	79.6	425	74.0	385	76.5	357	76.8	
Asian	57	11.8	52	11.4	95	16.6	59	11.7	61	13.1	
Black	22	4.5	31	6.8	47	8.2	41	8.2	32	6.9	
Other	19	3.9	10	2.2	7	1.2	18	3.6	15	3.2	
Unknown	8		10		5		7		5		
Total	492	100.0	467	100.0	579	100.0	510	100.0	470	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 2018 to 31 March 2023). 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 2018 - 31 March 2023

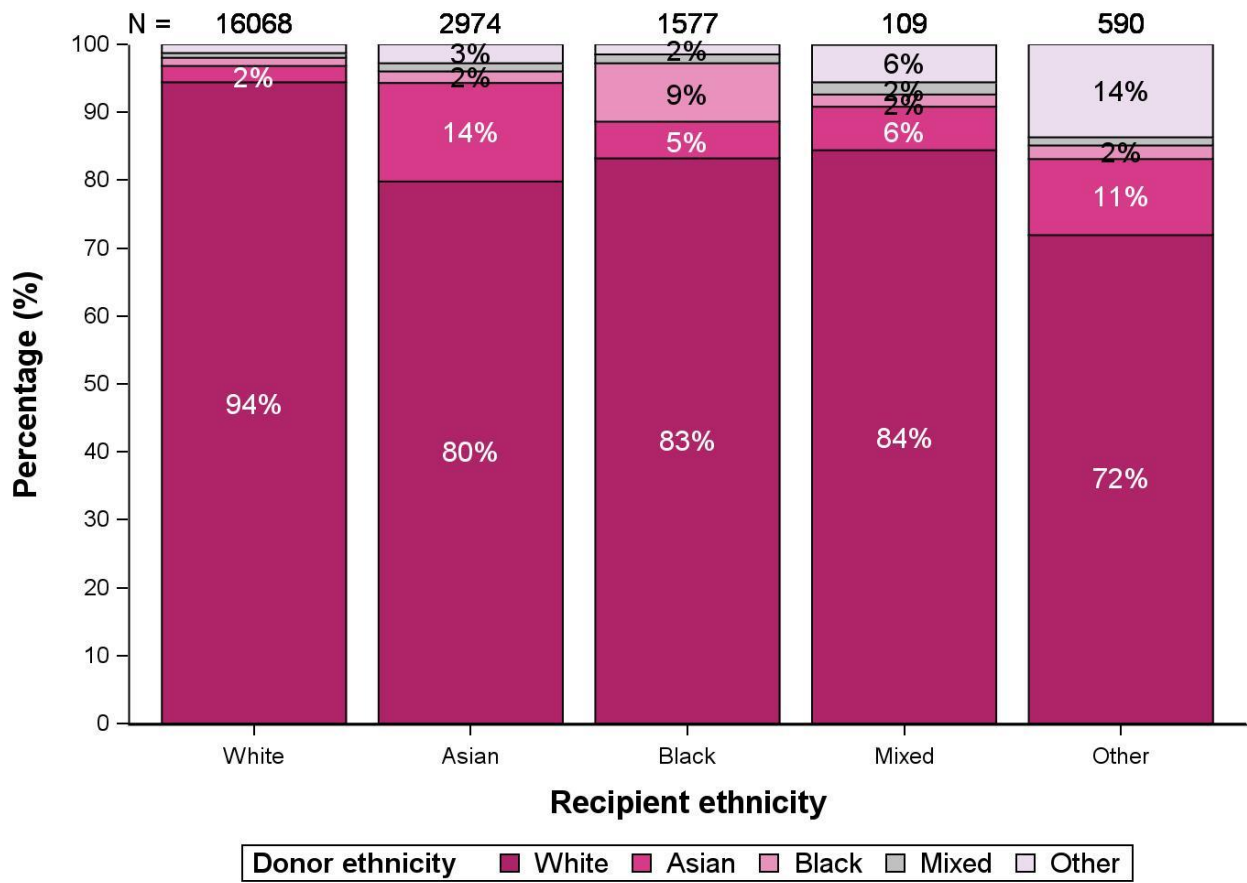


Table 4.5 Donor to recipient ethnicities for all transplants in the UK, 1 April 2018 - 31 March 2023

Donor ethnicity	Recipient ethnicity										Total N
	White		Asian		Black		Mixed		Other		
	N	%	N	%	N	%	N	%	N	%	
White	15168	94.4	2372	79.8	1312	83.2	92	84.4	424	71.9	19368
Asian	393	2.4	431	14.5	85	5.4	7	6.4	66	11.2	982
Black	186	1.2	52	1.7	135	8.6	2	1.8	12	2.0	387
Mixed	111	0.7	37	1.2	21	1.3	2	1.8	7	1.2	178
Other	210	1.3	82	2.8	24	1.5	6	5.5	81	13.7	403
Total	16068	100.0	2974	100.0	1577	100.0	109	100.0	590	100.0	21318

Deceased organ donors, deceased donor transplant recipients and patients on the transplant list at 31 March each year are shown by ethnicity from 2018/19 to 2022/23 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 2018 - 31 March 2023

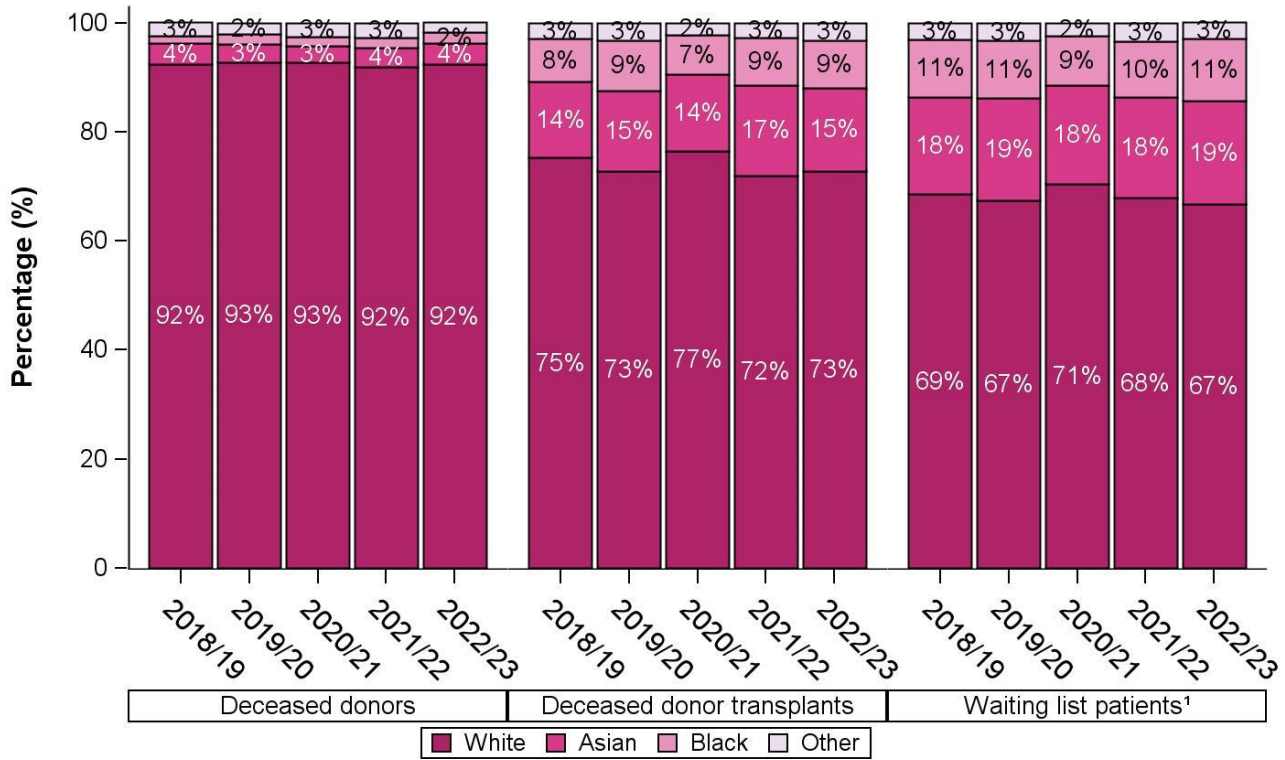


Figure 4.5 Ethnic minority groups - Deceased donors, deceased donor transplants and patients on the waiting list (as at 31 March each year), 1 April 2018 - 31 March 2023

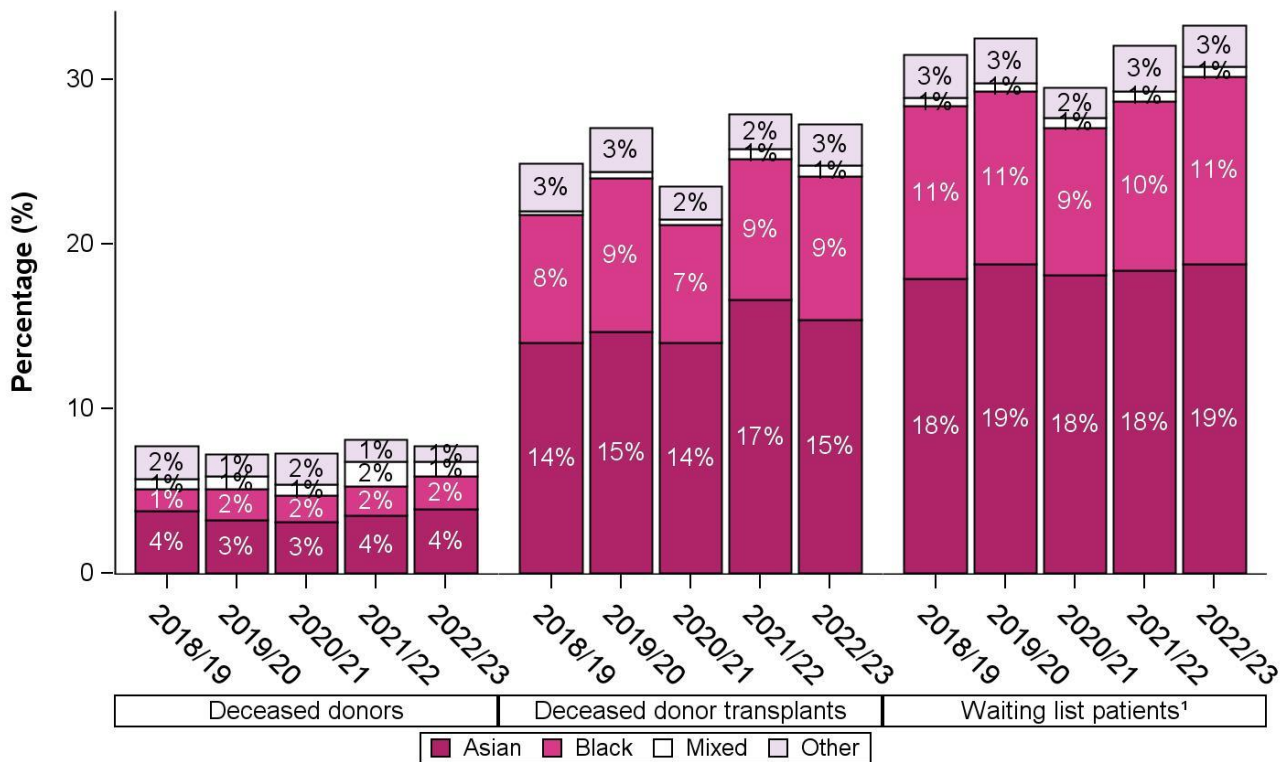


Figure 4.6 Living donors and transplants, 1 April 2018 - 31 March 2023

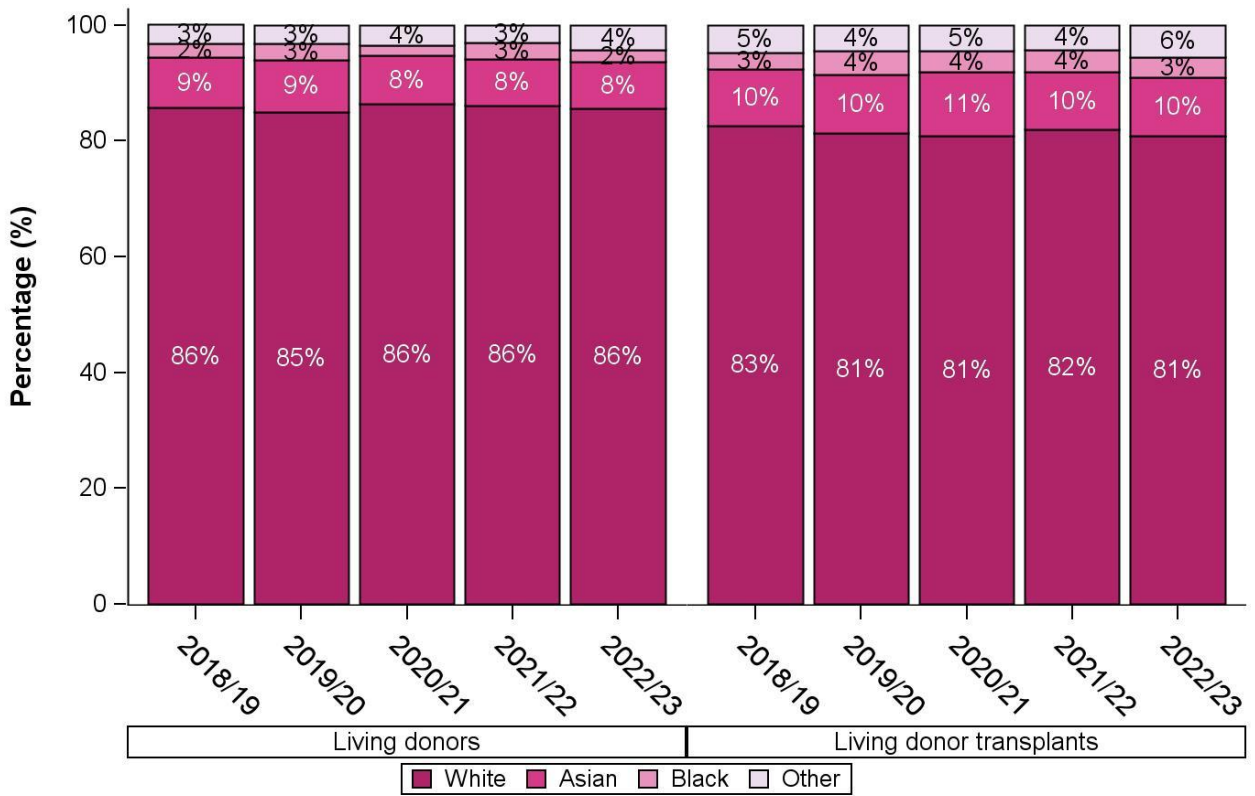


Figure 4.7 Ethnic minority groups - Living donors and transplants, 1 April 2018- 31 March 2023

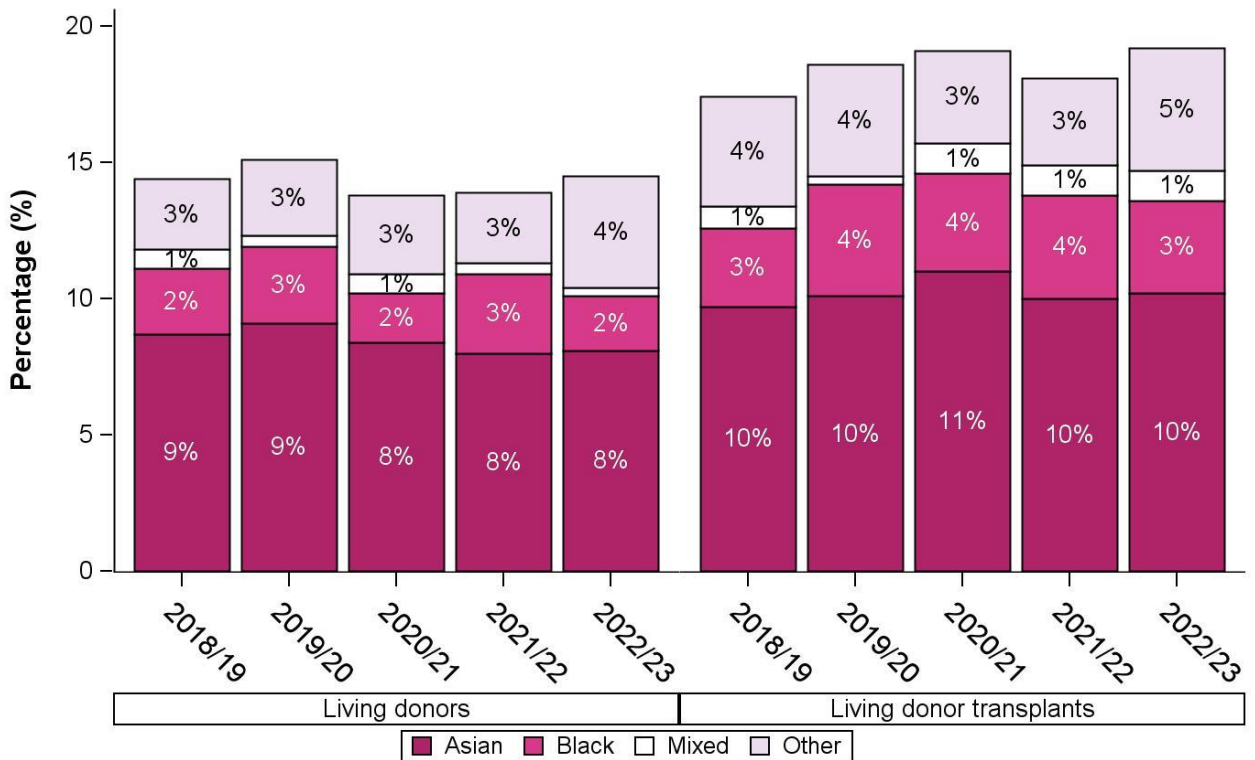


Table 4.6 Number of donors, transplants and waiting list patients in the UK, by ethnicity and financial year, 1 April 2018 - 31 March 2023

Ethnicity	2018/19		2019/20		Financial year 2020/21		2021/22		2022/23	
	N	%	N	%	N	N	%	N	%	N
Deceased donors										
White	1468	92.4	1454	92.8	1061	92.7	1253	91.9	1289	92.3
Asian	60	3.8	50	3.2	36	3.1	48	3.5	54	3.9
Black	20	1.3	30	1.9	18	1.6	24	1.8	28	2.0
Mixed	9	0.6	12	0.8	8	0.7	20	1.5	13	0.9
Other	32	2.0	20	1.3	22	1.9	18	1.3	13	0.9
Deceased donor transplants										
White	2941	75.2	2703	72.8	2222	76.5	2414	72.0	2533	72.7
Asian	548	14.0	547	14.7	406	14.0	556	16.6	535	15.4
Black	304	7.8	347	9.3	209	7.2	288	8.6	304	8.7
Mixed	7	0.2	15	0.4	8	0.3	21	0.6	23	0.7
Other	112	2.9	101	2.7	58	2.0	72	2.1	87	2.5
Waiting list										
White	4102	68.5	3776	67.4	2952	70.5	4159	67.9	4493	66.8
Asian	1069	17.9	1053	18.8	759	18.1	1129	18.4	1264	18.8
Black	629	10.5	591	10.5	376	9.0	628	10.3	766	11.4
Mixed	31	0.5	30	0.5	25	0.6	36	0.6	41	0.6
Other	153	2.6	152	2.7	77	1.8	174	2.8	166	2.5
Living donors										
White	896	85.7	895	84.9	389	86.3	804	86.1	815	85.5
Asian	91	8.7	96	9.1	38	8.4	75	8.0	77	8.1
Black	25	2.4	30	2.8	8	1.8	27	2.9	19	2.0
Mixed	7	0.7	4	0.4	3	0.7	4	0.4	3	0.3
Other	27	2.6	29	2.8	13	2.9	24	2.6	39	4.1
Living donor transplants										
White	852	82.6	846	81.3	360	80.9	749	81.9	751	80.8
Asian	100	9.7	105	10.1	49	11.0	91	10.0	95	10.2
Black	30	2.9	43	4.1	16	3.6	35	3.8	32	3.4
Mixed	8	0.8	3	0.3	5	1.1	10	1.1	10	1.1
Other	41	4.0	43	4.1	15	3.4	29	3.2	42	4.5

Unknown ethnicity was excluded

Table 4.7 summarises all deceased donor transplants by country of residence, ethnicity of recipient and organ transplanted in 2022/23. 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	1185	12	86	125	91	620	20	9	2148
Asian	376		7	30	5	92	2	1	513
Black	265		6	5	3	23	1		303
Other	76		2	7	1	13	2	1	102
Wales									
White	63	2	7						72
Asian	5								5
Scotland									
White	124	7	18	34		68			251
Asian	13			3		1			17
Black				1					1
Other	3			1		3			7
Northern Ireland									
White	62								62
Other	1								1

¹ Includes 13 islet transplants

² Includes 5 simultaneous islet/kidney transplants

³ Includes 9 liver and kidney transplants, 2 heart and liver transplants

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 2017 to 31 March 2018. Post-registration, 28% of ethnic minority kidney patients compared to 39% 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.

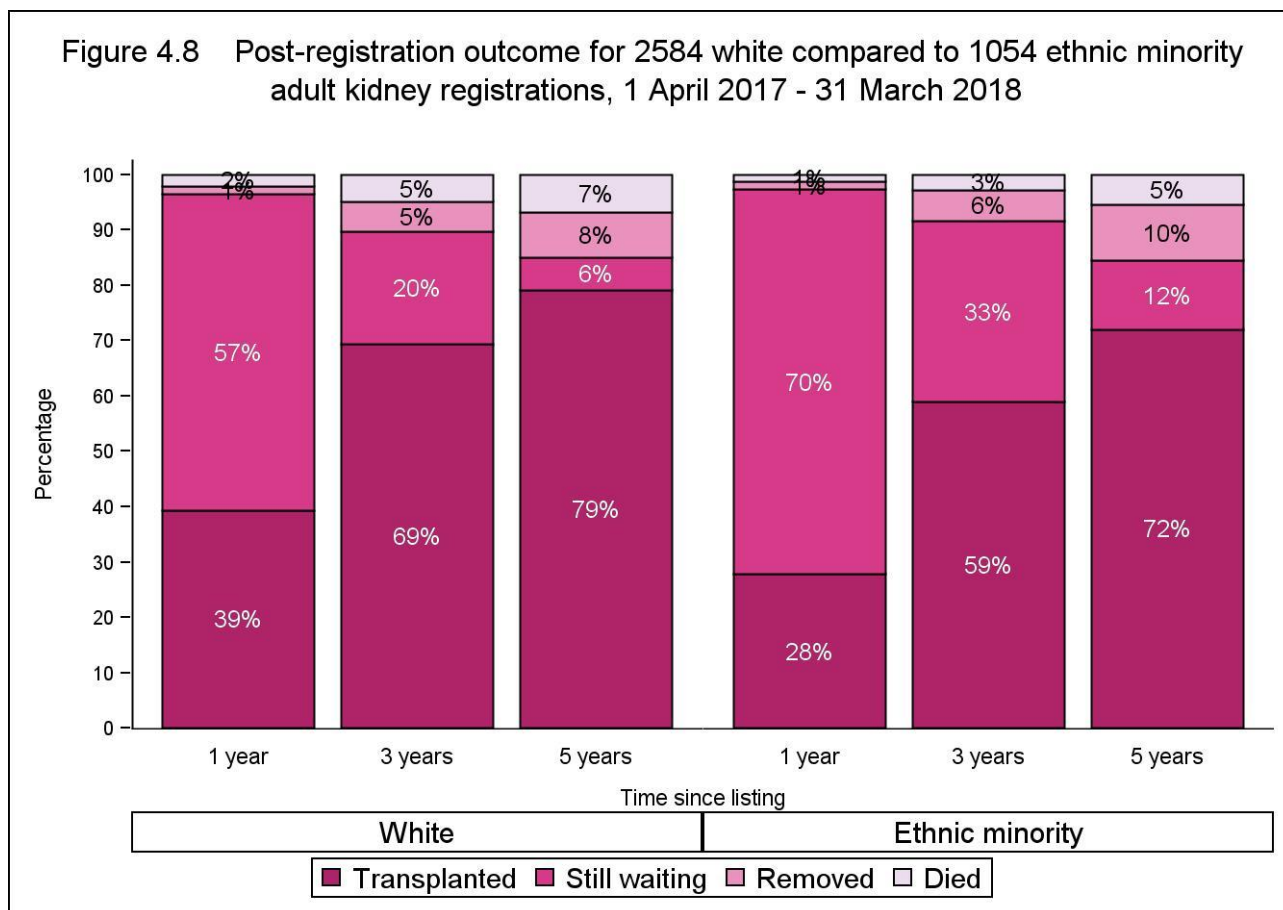
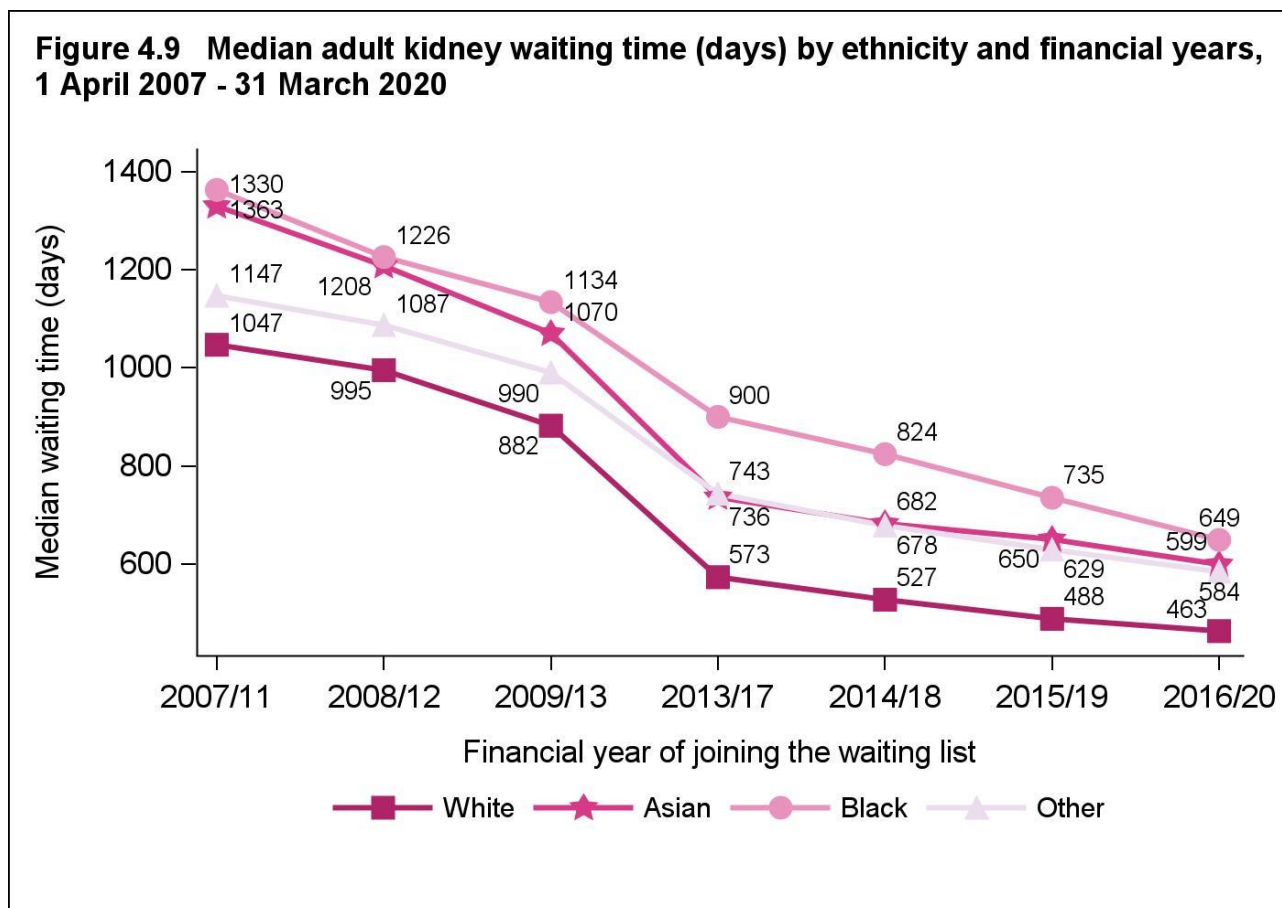


Table 4.8 Post-registration outcome for 2584 white adult kidney registrations compared to 1054 ethnic minority, 1 April 2017 - 31 March 2018

Outcome	1 year		3 years		5 years	
	N	%	N	%	N	%
White						
Transplanted	1017	39.4	1794	69.4	2046	79.2
Still waiting	1476	57.1	526	20.4	152	5.9
Removed	37	1.4	137	5.3	210	8.1
Died	54	2.1	127	4.9	176	6.8
Ethnic minority						
Transplanted	293	27.8	621	58.9	759	72.0
Still waiting	733	69.5	345	32.7	131	12.4
Removed	15	1.4	59	5.6	107	10.2
Died	13	1.2	29	2.8	57	5.4

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 2020. 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 33% of transplants and account for 37% 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 2018 to 31 March 2023. 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.

Figure 4.10 Kidney statistics (waiting list as at 31 March each year), 1 April 2018 - 31 March 2023

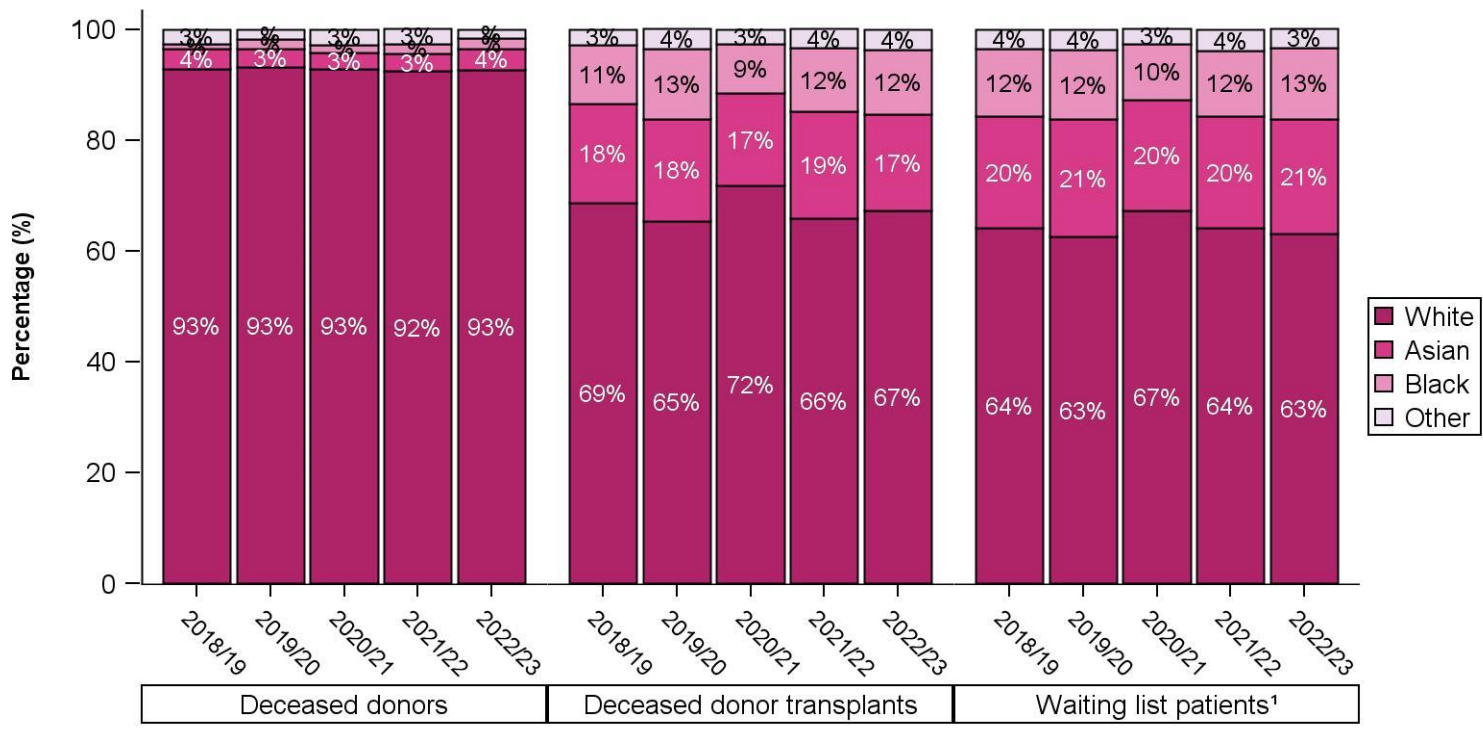


Table 4.10 Kidney statistics (waiting list as at 31 March), 1 April 2018 - 31 March 2023

Ethnicity	Deceased donors					Deceased donor transplants					Waiting list patients				
	18/19	19/20	20/21	21/22	22/23	18/19	19/20	20/21	21/22	22/23	18/19	19/20	20/21	21/22	22/23
White	1389	1367	997	1200	1233	1752	1595	1366	1464	1552	3131	2783	2324	3129	3438
Asian	54	49	32	41	50	457	446	320	426	402	978	949	691	989	1121
Black	14	27	15	23	24	269	311	170	255	271	599	550	351	578	707
Mixed	8	9	8	18	12	6	11	6	16	14	27	25	20	29	32
Other	31	16	22	17	11	65	76	43	62	69	144	144	72	159	154
Total	1496	1468	1074	1299	1330	2549	2439	1905	2223	2308	4879	4451	3458	4884	5452

Figure 4.11 Deceased donor to recipient ethnicities for kidney transplants in the UK, 1 April 2018 - 31 March 2023

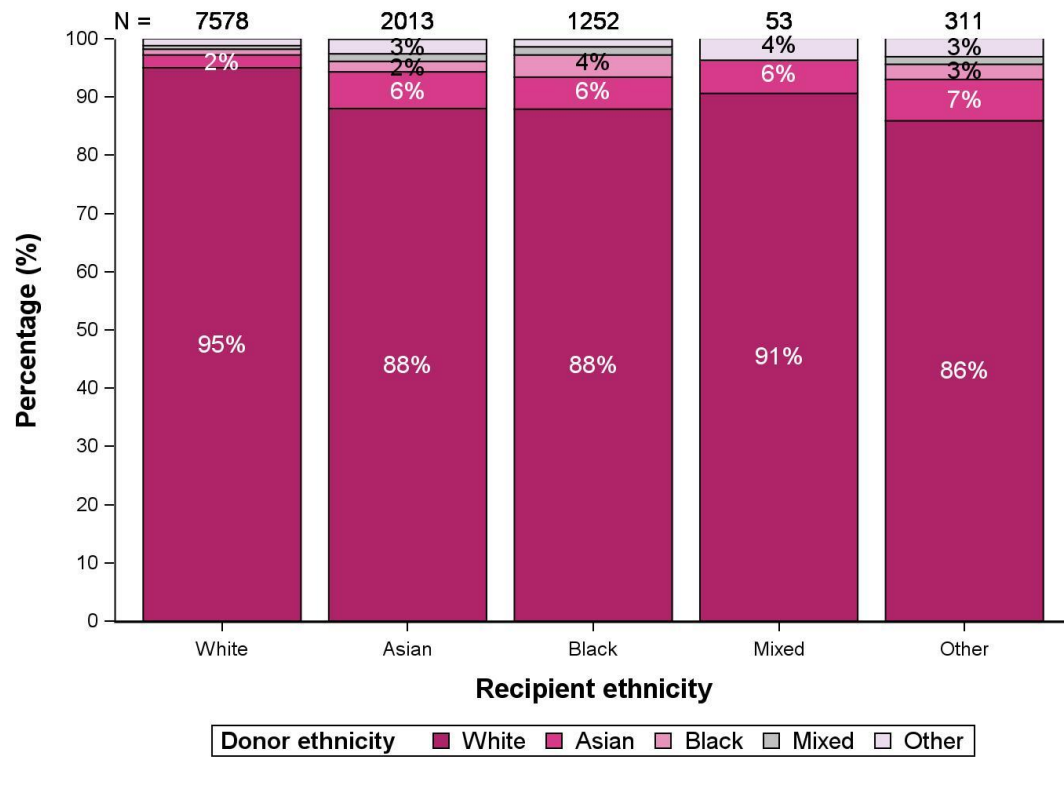


Table 4.11 Deceased donor to recipient ethnicities for kidney transplants in the UK, 1 April 2018 - 31 March 2023

Donor ethnicity	Recipient ethnicity										Total N
	White		Asian		Black		Mixed		Other		
	N	%	N	%	N	%	N	%	N	%	
White	7200	95.0	1772	88.0	1101	87.9	48	90.6	267	85.9	10388
Asian	164	2.2	127	6.3	69	5.5	3	5.7	22	7.1	385
Black	78	1.0	36	1.8	48	3.8	0	0.0	8	2.6	170
Mixed	44	0.6	27	1.3	18	1.4	0	0.0	4	1.3	93
Other	92	1.2	51	2.5	16	1.3	2	3.8	10	3.2	171
Total	7578	100.0	2013	100.0	1252	100.0	53	100.0	311	100.0	11207

Figure 4.12 Living donor to recipient ethnicities for kidney transplants in the UK, 1 April 2018 - 31 March 2023

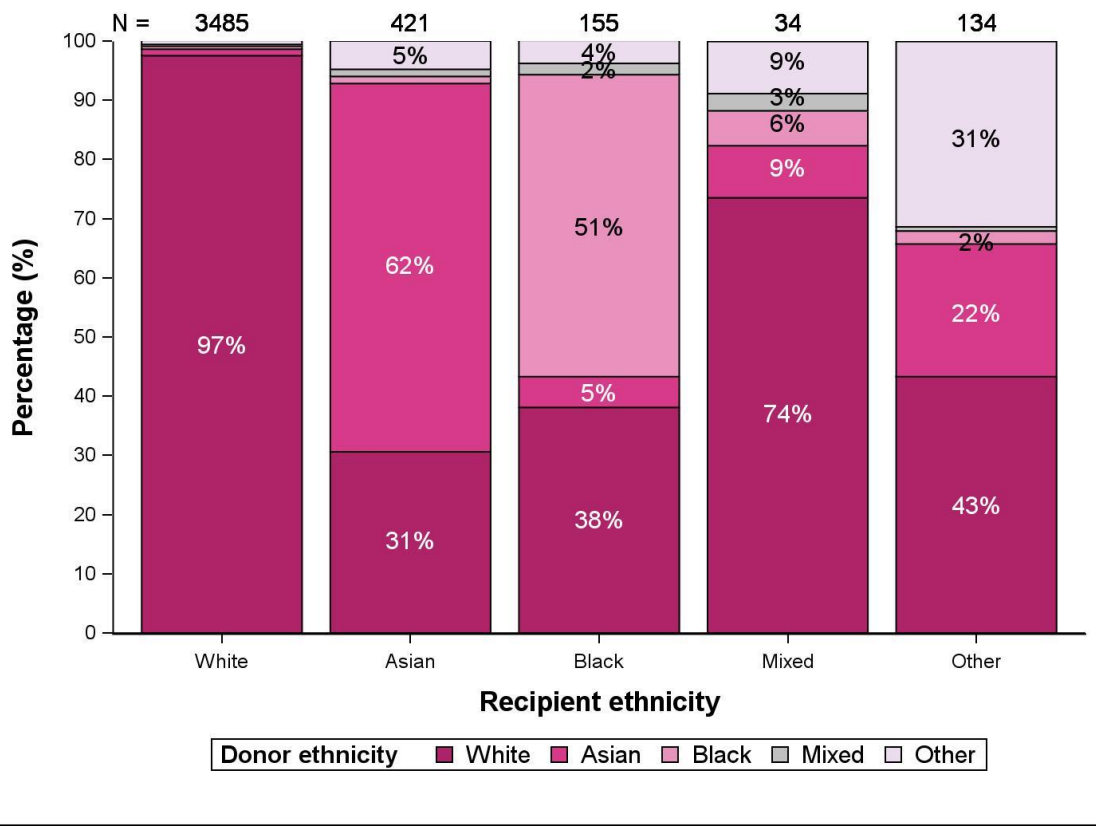


Table 4.12 Living donor to recipient ethnicities for kidney transplants in the UK, 1 April 2018 - 31 March 2023

Donor ethnicity	Recipient ethnicity										Total N
	White		Asian		Black		Mixed		Other		
	N	%	N	%	N	%	N	%	N	%	
White	3397	97.5	129	30.6	59	38.1	25	73.5	58	43.3	3668
Asian	38	1.1	262	62.2	8	5.2	3	8.8	30	22.4	341
Black	16	0.5	5	1.2	79	51.0	2	5.9	3	2.2	105
Mixed	10	0.3	5	1.2	3	1.9	1	2.9	1	0.7	20
Other	24	0.7	20	4.8	6	3.9	3	8.8	42	31.3	95
Total	3485	100.0	421	100.0	155	100.0	34	100.0	134	100.0	4229

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 2018 to 31 March 2023. Ethnic minority living donor transplant recipients mostly received a kidney from family or friends (related/unrelated). In the last 5 years, there have been 4 Asian, 1 black and 3 other ethnic minority altruistic donors.

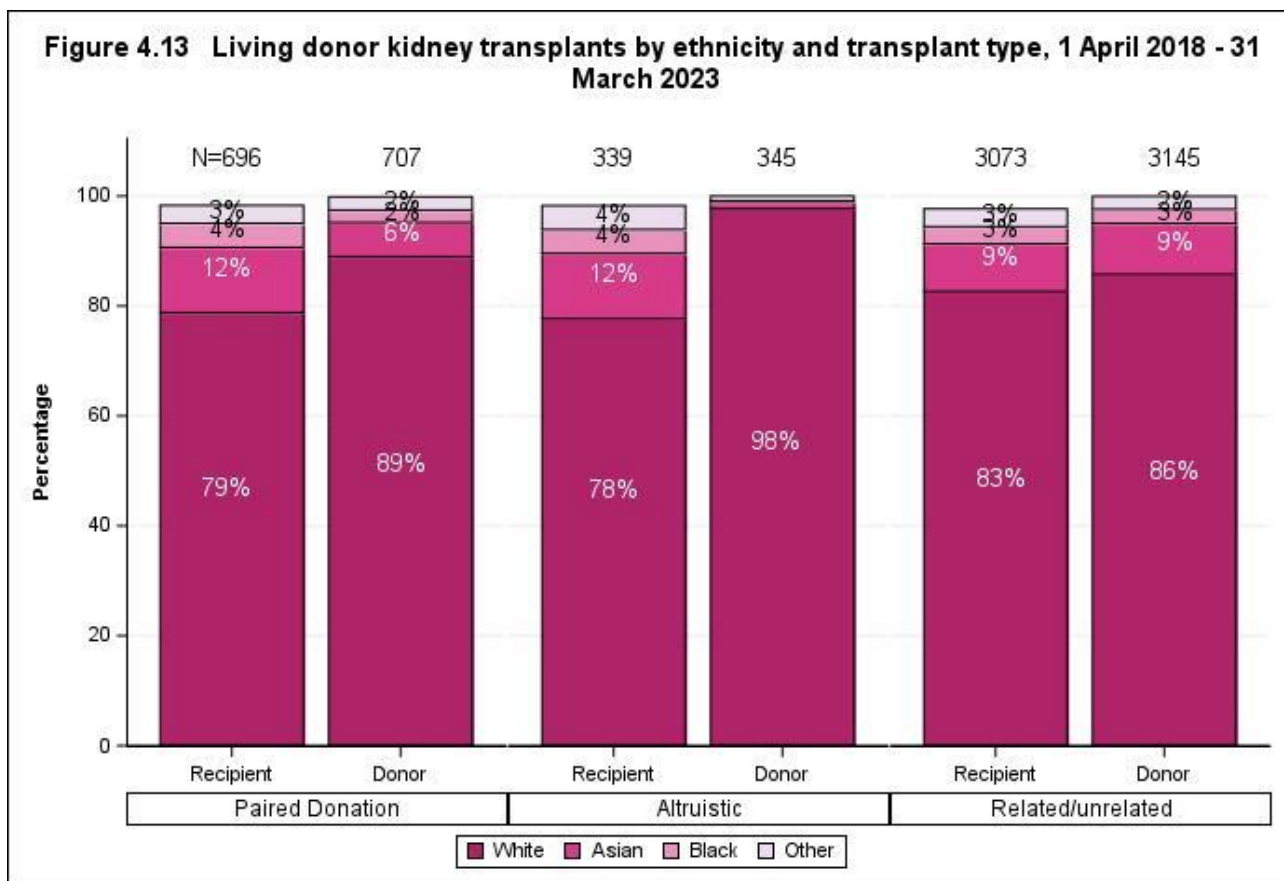


Table 4.13 Living donor kidney transplants by ethnicity and transplant type, 1 April 2018 - 31 March 2023

Type of living donation	Ethnicity	Recipient		Donor	
		N	%	N	%
Paired Donation	White	558	78.8	630	89.0
	Asian	84	11.9	44	6.2
	Black	31	4.4	16	2.3
	Other	23	3.2	17	2.4
	Unknown	12	1.7	1	0.1
	Total		708	100.0	708
Altruistic	White	268	77.7	337	97.7
	Asian	41	11.9	4	1.2
	Black	15	4.3	1	0.3
	Other	15	4.3	3	0.9
	Unknown	6	1.7		
	Total		345	100.0	345
Related/unrelated	White	2600	82.6	2698	85.8
	Asian	272	8.6	292	9.3
	Black	99	3.1	81	2.6
	Other	102	3.2	74	2.4
	Unknown	73	2.3	1	0.0
	Total		3146	100.0	3146

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 2017 to 31 March 2018. Of the 33 ethnic minority pancreas patients listed, 67% were transplanted within 5 years. This rate is lower than for white patients. The number of patients from ethnic minority backgrounds is very small so results should be interpreted with caution.

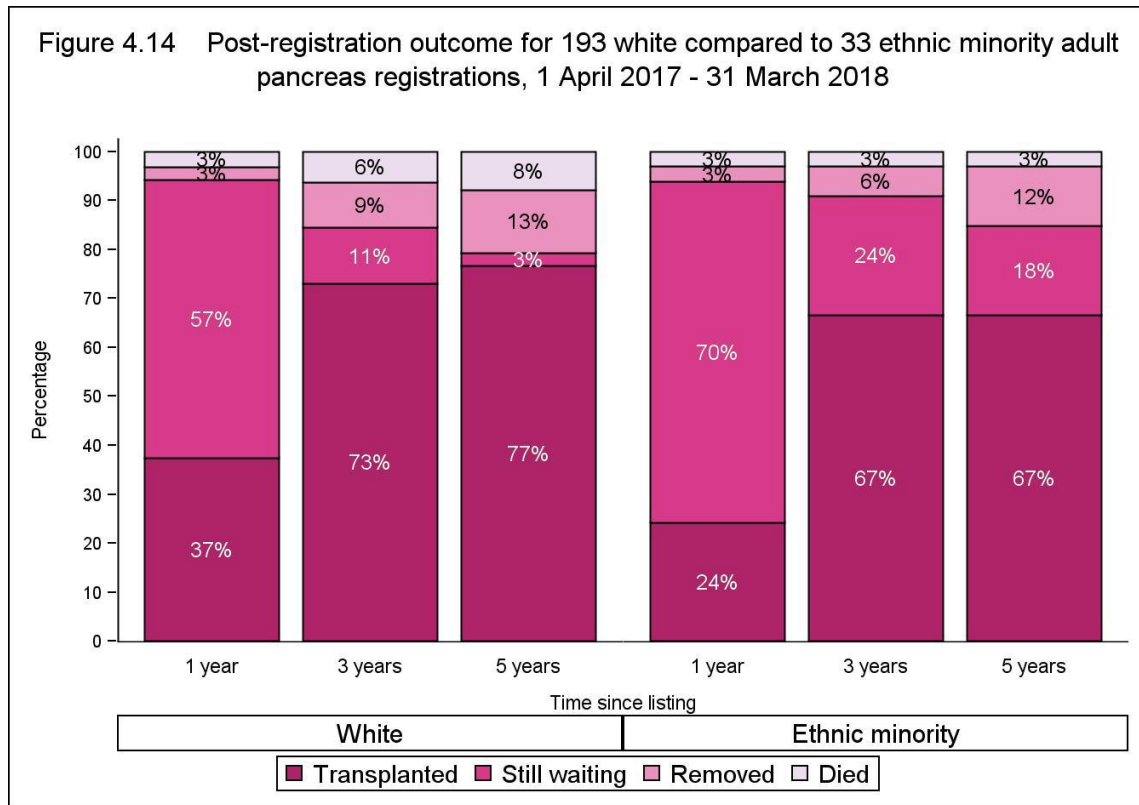
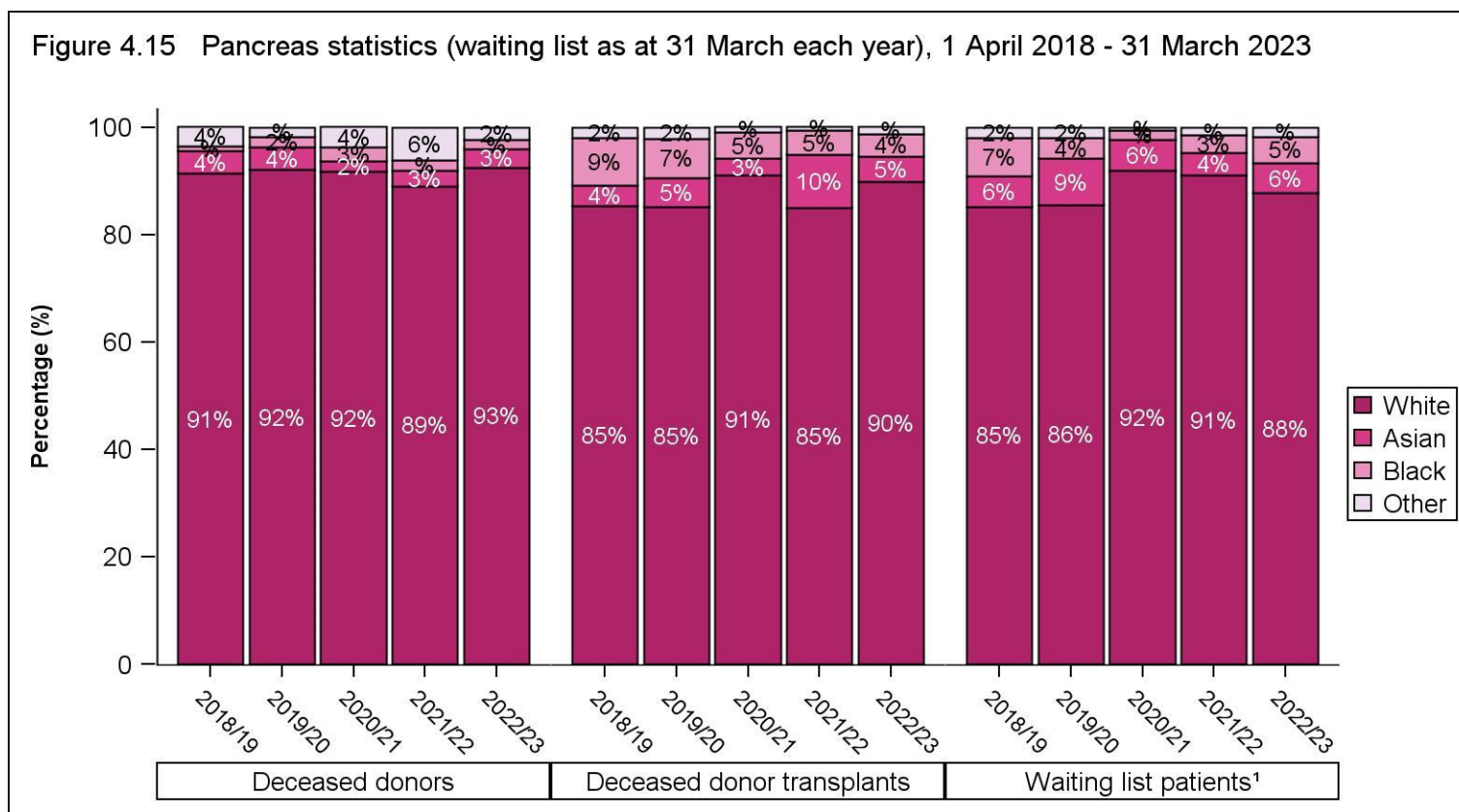


Table 4.14 Post-registration outcome for 193 white adult pancreas registrations compared to 33 ethnic minority, 1 April 2017 - 31 March 2018

Outcome	1 year		3 years		5 years	
	N	%	N	%	N	%
White						
Transplanted	72	37.3	141	73.1	148	76.7
Still waiting	110	57.0	22	11.4	5	2.6
Removed	5	2.6	18	9.3	25	13.0
Died	6	3.1	12	6.2	15	7.8
Ethnic minority						
Transplanted	8	24.2	22	66.7	22	66.7
Still waiting	23	69.7	8	24.2	6	18.2
Removed	1	3.0	2	6.1	4	12.1
Died	1	3.0	1	3.0	1	3.0

Figure 4.15 shows in the last financial year that 7% of deceased pancreas donors are from ethnic minority groups whilst patients from ethnic minority backgrounds represent 10% of transplants and 12% of the pancreas or islet transplant waiting list. **Table 4.15** shows the numbers in **Figure 4.15**.



Ethnicity	Deceased donors					Deceased donor transplants					Waiting list patients				
	18/19	19/20	20/21	21/22	22/23	18/19	19/20	20/21	21/22	22/23	18/19	19/20	20/21	21/22	22/23
White	423	406	187	292	322	174	172	92	129	132	213	130	158	252	250
Asian	19	18	4	10	12	8	11	3	15	7	14	13	10	12	16
Black	4	9	5	6	6	18	15	5	7	6	18	6	3	9	14
Mixed	3	3	3	11	6		1	1				1		1	1
Other	14	5	5	9	2	4	3		1	2	5	2	1	3	4
Total	463	441	204	328	348	204	202	101	152	147	250	152	172	277	285

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 2017 to 31 March 2018. 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.

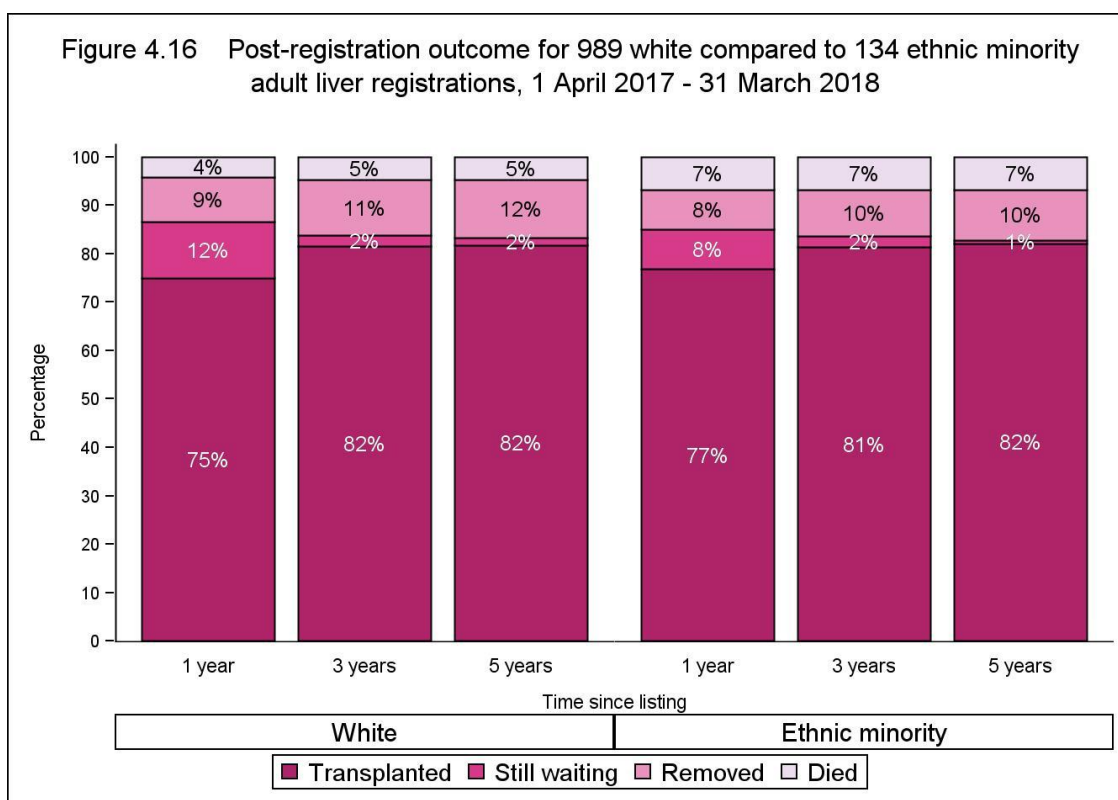


Table 4.16 Post-registration outcome for 989 white adult liver registrations compared to 134 ethnic minority, 1 April 2017 - 31 March 2018

Outcome	1 year		3 years		5 years	
	N	%	N	%	N	%
White						
Transplanted	741	74.9	807	81.6	809	81.8
Still waiting	115	11.6	22	2.2	15	1.5
Removed	92	9.3	113	11.4	118	11.9
Died	41	4.1	47	4.8	47	4.8
Ethnic minority						
Transplanted	103	76.9	109	81.3	110	82.1
Still waiting	11	8.2	3	2.2	1	0.7
Removed	11	8.2	13	9.7	14	10.4
Died	9	6.7	9	6.7	9	6.7

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 2022. It shows a recent increase in waiting times for all ethnicities, in particular for black and other patients.

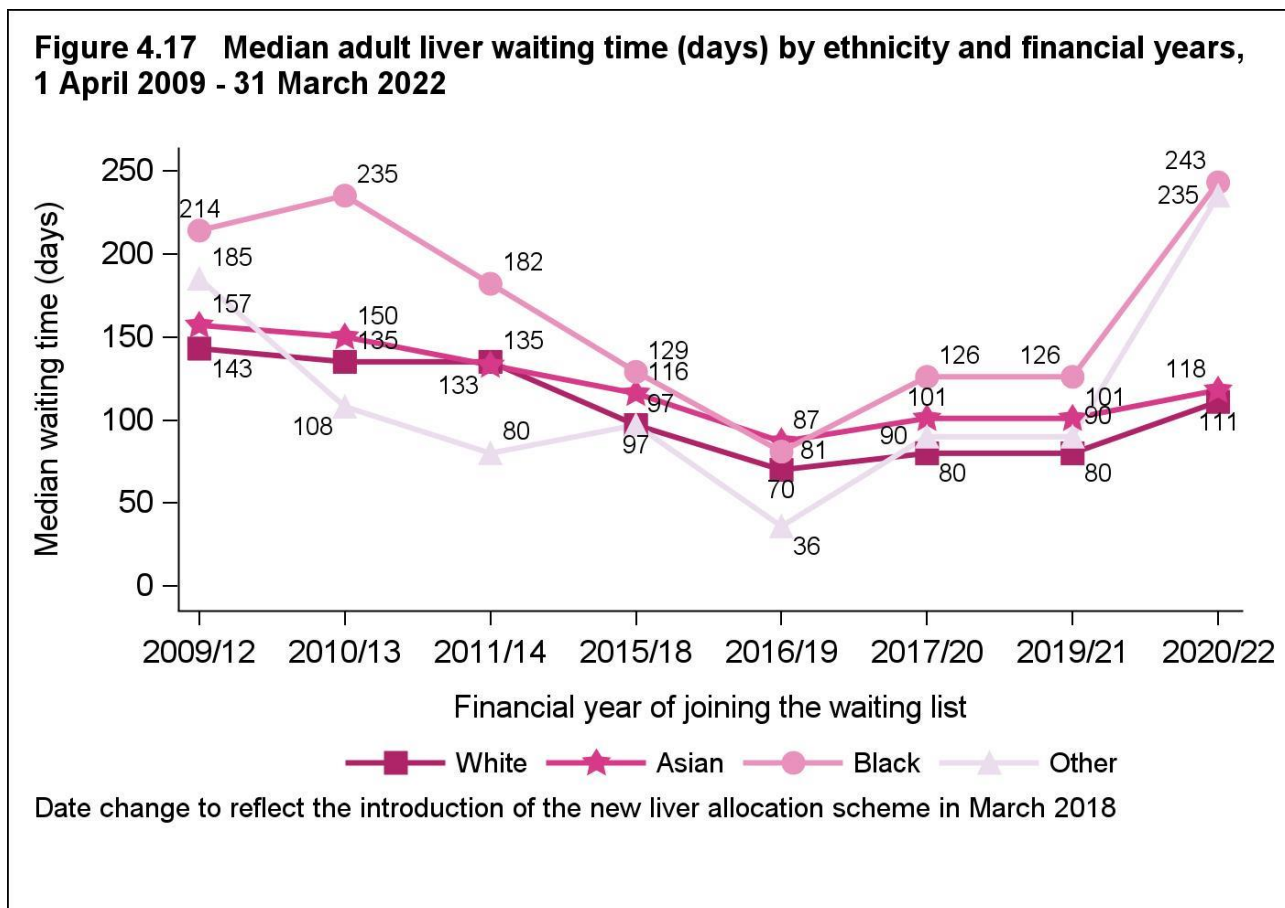


Figure 4.18 shows that 8% of deceased liver donors are from ethnic minority groups whilst patients from ethnic minority backgrounds represent 16% of transplants and 17% of the liver transplant waiting list in 2022/23. **Table 4.18** shows the numbers in **Figure 4.18**.

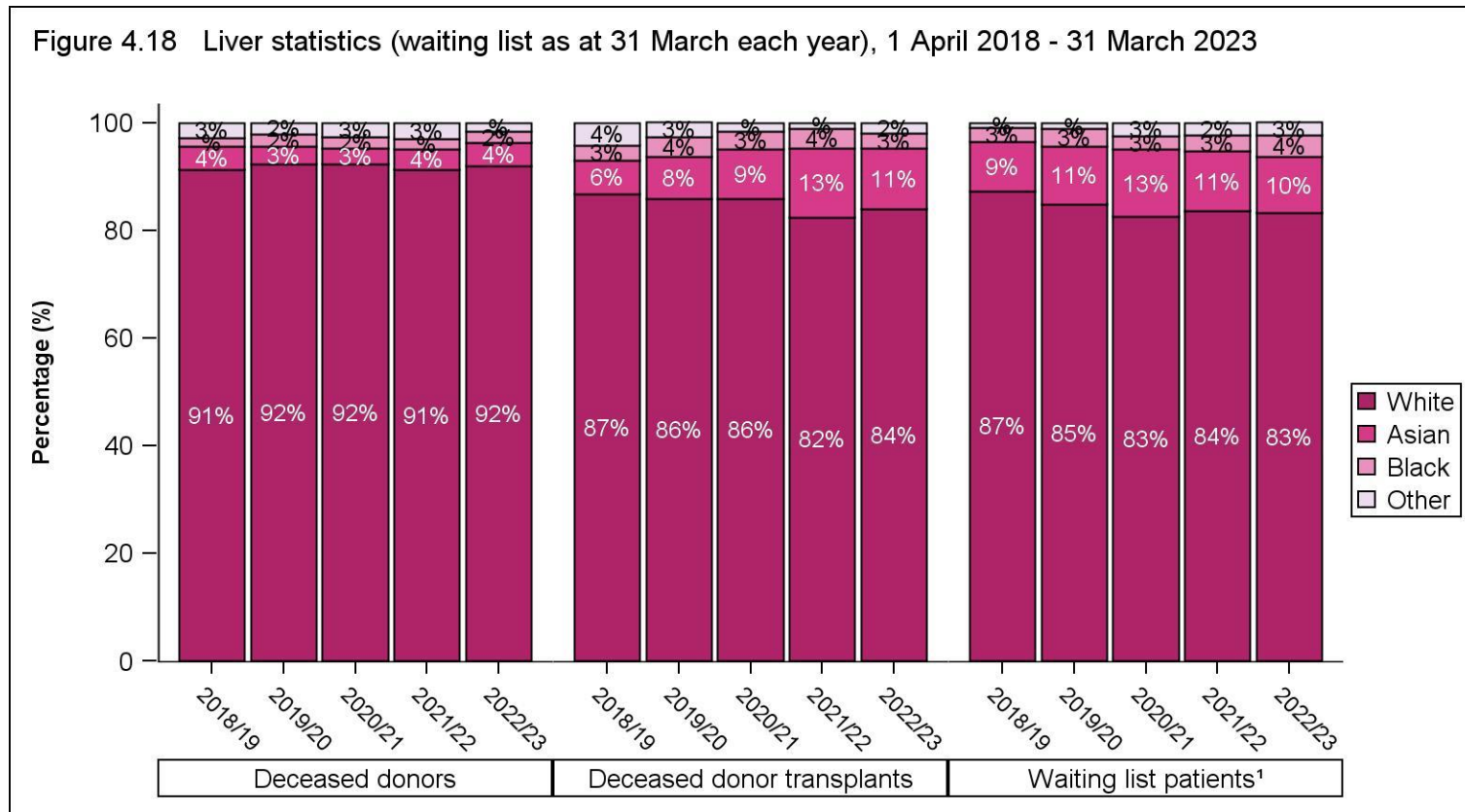


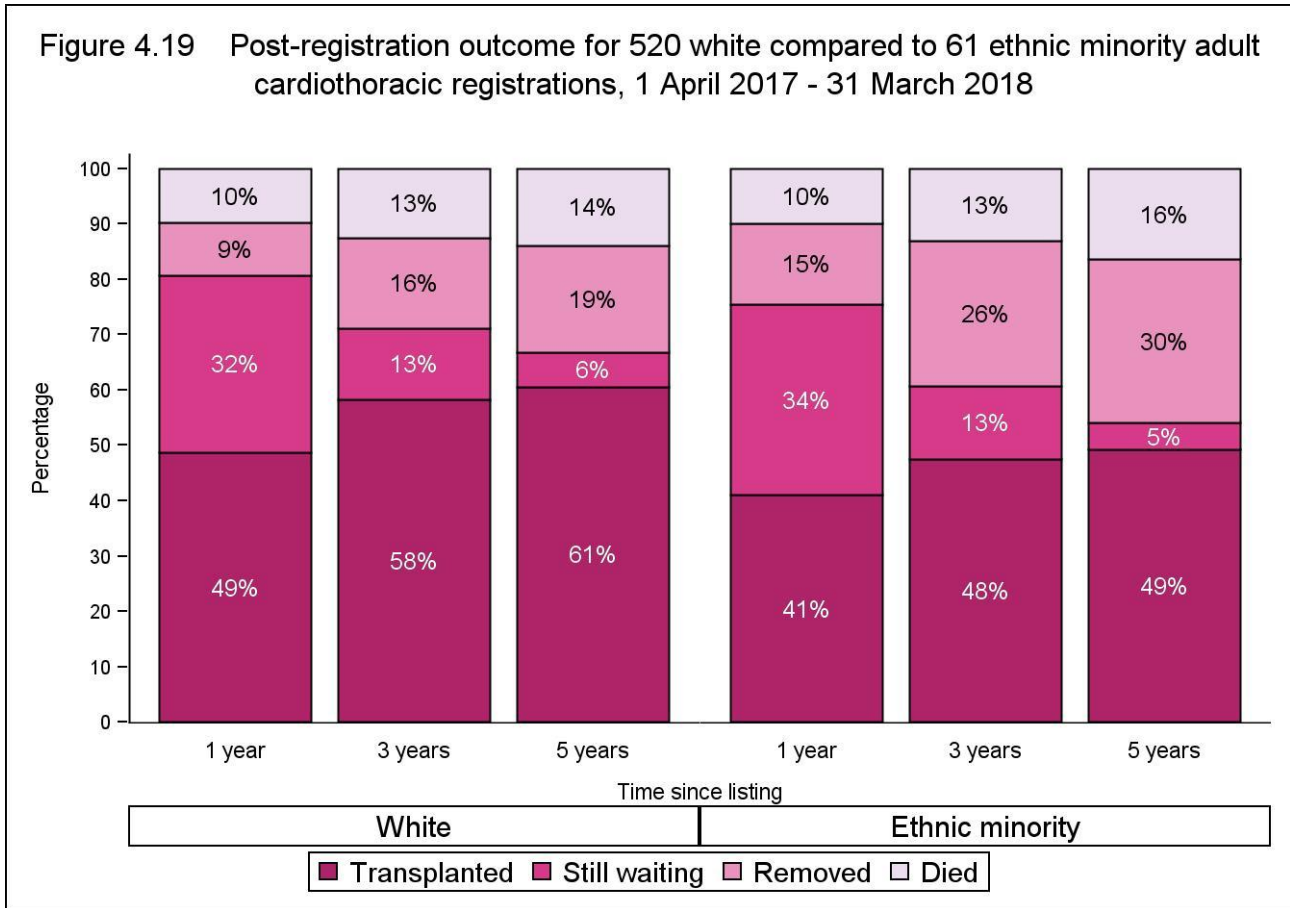
Table 4.18 Liver statistics (waiting list as at 31 March), 1 April 2018 - 31 March 2023

Ethnicity	Deceased donors					Deceased donor transplants					Waiting list patients				
	18/19	19/20	20/21	21/22	22/23	18/19	19/20	20/21	21/22	22/23	18/19	19/20	20/21	21/22	22/23
White	1008	1030	780	908	966	839	774	629	663	697	365	369	99	523	542
Asian	47	37	26	38	46	61	69	67	104	94	38	47	15	70	67
Black	17	26	17	18	21	27	34	24	28	23	11	14	3	19	26
Mixed	8	8	6	17	10		1	1	2	6		2	2	4	5
Other	24	15	17	13	8	41	23	11	8	11	4	3	1	10	11
Total	1104	1116	846	994	1051	968	901	732	805	831	418	435	120	626	651

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 2017 to 31 March 2018. 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.



Outcome	1 year		3 years		5 years	
	N	%	N	%	N	%
White						
Transplanted	253	48.7	303	58.3	315	60.6
Still waiting	167	32.1	67	12.9	32	6.2
Removed	49	9.4	85	16.3	101	19.4
Died	51	9.8	65	12.5	72	13.8
Ethnic minority						
Transplanted	25	41.0	29	47.5	30	49.2
Still waiting	21	34.4	8	13.1	3	4.9
Removed	9	14.8	16	26.2	18	29.5
Died	6	9.8	8	13.1	10	16.4

In the last financial year, **Figure 4.20** shows that 8% of deceased cardiothoracic donors are from ethnic minority groups whilst patients from ethnic minority backgrounds represent 18% of transplants and 18% of the cardiothoracic transplant waiting list. **Table 4.20** shows the numbers in **Figure 4.20**.

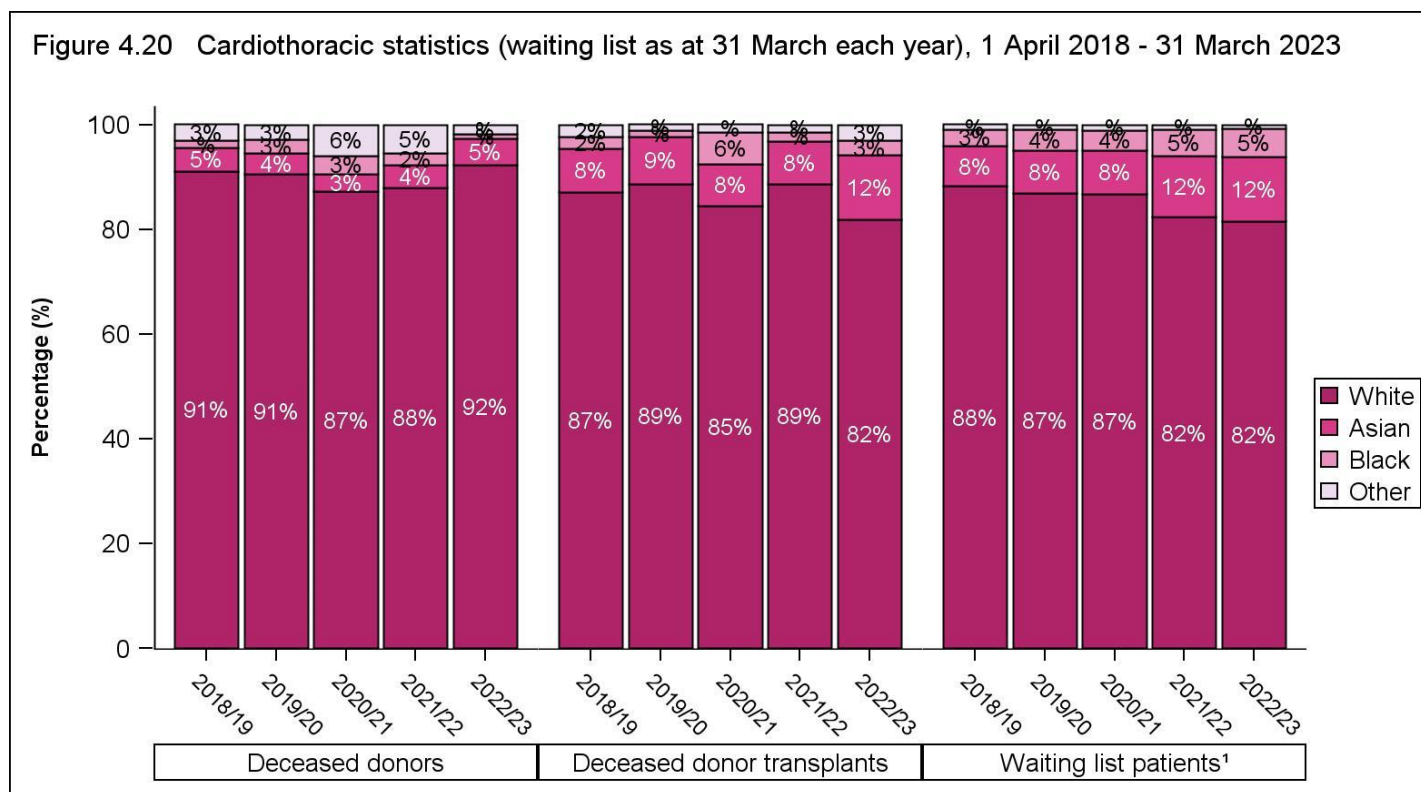


Table 4.20 Cardiothoracic statistics (waiting list as at 31 March), 1 April 2018 - 31 March 2023

Ethnicity	Deceased donors					Deceased donor transplants					Waiting list patients				
	18/19	19/20	20/21	21/22	22/23	18/19	19/20	20/21	21/22	22/23	18/19	19/20	20/21	21/22	22/23
White	285	286	205	228	252	304	297	212	252	252	566	602	504	480	493
Asian	14	13	8	11	14	29	30	20	23	38	50	57	49	68	75
Black	4	8	8	6	2	8	4	15	5	9	19	28	22	29	32
Mixed	2	4	3	7	2	1	3	1	3	2	4	3	3	2	4
Other	8	5	11	7	3	7	1	3	1	7	3	3	3	4	1
Total	313	316	235	259	273	349	335	251	284	308	642	693	581	583	605

APPENDIX



**Table I Population of England and Wales by ethnicity, mid-2021
census data estimates per thousands**

Ethnicity	N (thousands)	%
White British	44,355	74.4
White Irish	507	0.9
Other White	3,837	6.5
Total White	48,699	81.8
Asian-Indian	1,864	3.1
Asian-Pakistani	1,588	2.7
Asian-Bangladeshi	645	1.1
Asian-Chinese	446	0.7
Other Asian	973	1.6
Total Asian	5,516	9.2
Black-African	1,488	2.5
Black-Caribbean	623	1.0
Other Black	298	0.5
Total Black	2,409	4.0
White & Black Caribbean	513	0.9
White & Black African	250	0.4
White & Asian	488	0.8
Other Mixed	467	0.8
Other ethnicity	1,256	2.2
Total Other	1,723	3.0
TOTAL	59,598	100.0

Source - Office of National Statistics

Table II National data from the NHSBT Potential Donor Audit for donation after brain death, 1 April 2018 – 29 February 2023¹

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 (%)
2018/19	White	1638	1415	86.4	1622	99.0	1259	974	77.4
	Ethnic minority	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 minority	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 minority	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	1527	1231	80.6	1511	99.0	1029	772	75.0
	Ethnic minority	355	280	78.9	350	98.6	200	83	41.5
	Unknown	36	23	63.9	34	94.4	12	7	58.3
2022/23	White	1575	1251	79.4	1566	99.4	1033	762	73.8
	Ethnic minority	376	293	77.9	372	98.9	211	83	39.3
	Unknown	34	14	41.2	32	94.1	1	0	0.0

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 2018 – 31 March 2023¹

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 (%)
2018/19	White	5131	4783	93.2	1590	1033	65.0
	Ethnic minority	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 minority	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 minority	640	491	76.7	88	33	37.5
	Unknown	558	372	66.7	20	4	20.0
2021/22	White	4365	3989	91.4	1300	862	66.3
	Ethnic minority	529	477	90.2	135	44	32.6
	Unknown	338	264	78.1	18	2	11.1
2022/23	White	4597	4292	93.4	1545	921	59.6
	Ethnic minority	463	424	91.6	148	42	28.4
	Unknown	264	183	69.3	7	1	14.3

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