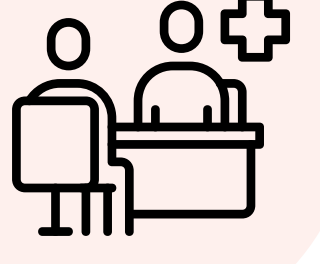


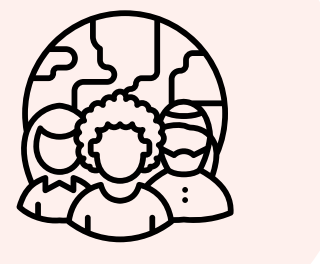
A retrospective cohort study of attendance to antenatal anaesthetic clinic

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INTRODUCTION

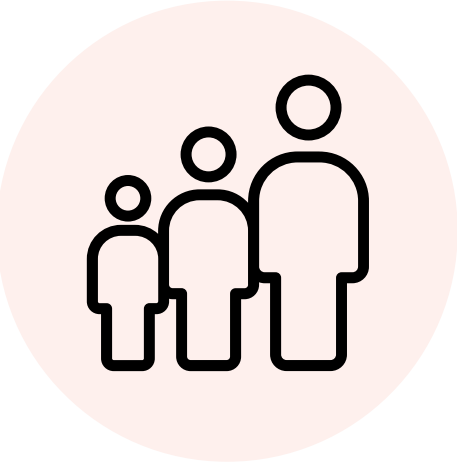
 Antenatal anaesthesia clinics are an important part of the multidisciplinary care of the **high-risk parturient** and are recommended by the RCOA as part of the Guidelines for the Provision of Anaesthetic Services.

 Inadequate utilisation of antenatal care is associated with an increased risk of **maternal morbidity and mortality** in the UK (1).

 Patients from non-White ethnic backgrounds and those from more deprived socioeconomic groups experience **worse perinatal outcomes** (2).

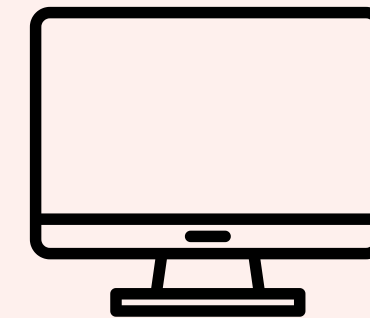
OBJECTIVE

We sought to review the demographics of attendances to our antenatal anaesthetic clinic.



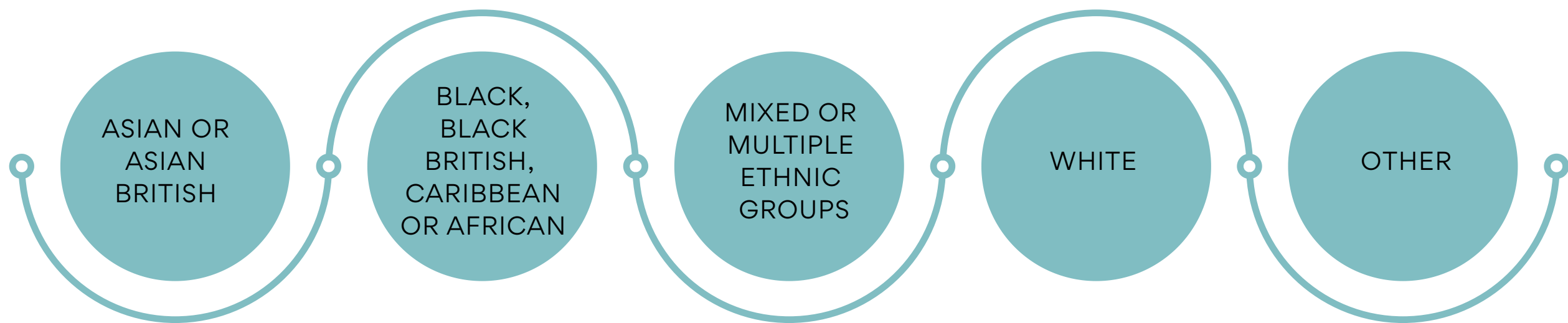
METHODS

Following ethical approval, we performed a single centre retrospective cohort study. Patients of all ages who delivered between January 2020 and December 2024 at our institution were included.

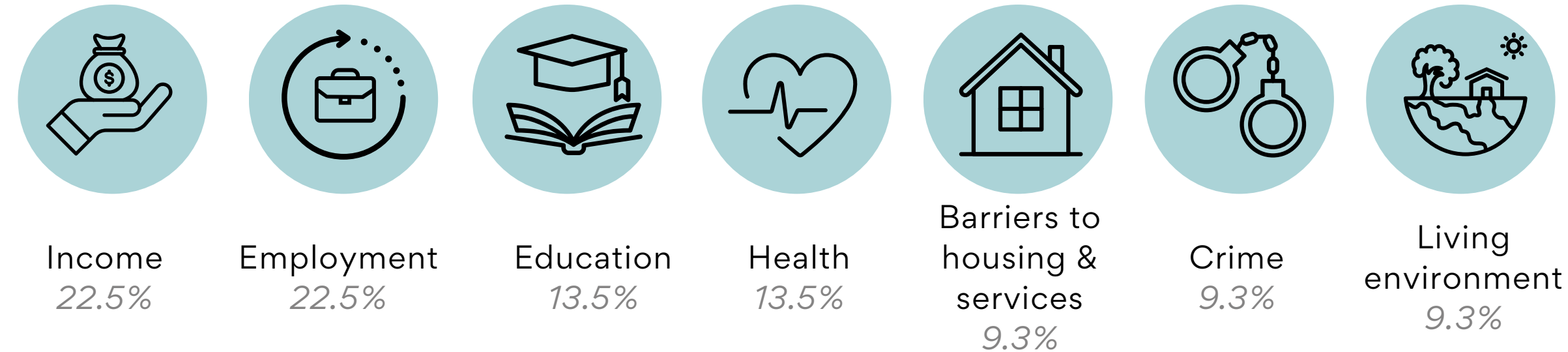
 We analysed the following variables from the electronic health record:

- Patient demographics
- Anaesthetic
- Obstetric
- Neonatal
- Medical

Ethnic origin was collapsed into five groups, as per the Office of National Statistics base categories of ethnicity:



Using Lower layer Super Output Areas (derived from postcode), we used the Index of Multiple Deprivation (IMD) as a measure of socio-economic status. It is based on residential area, and takes into account the following domains of deprivation:

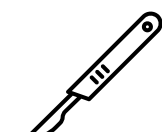


We hypothesised that patients from non-White ethnic groups and those from more deprived socioeconomic groups would be less likely to attend antenatal clinic.

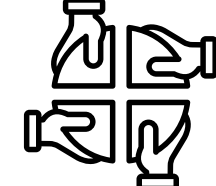
RESULTS

 **27,727 patients**

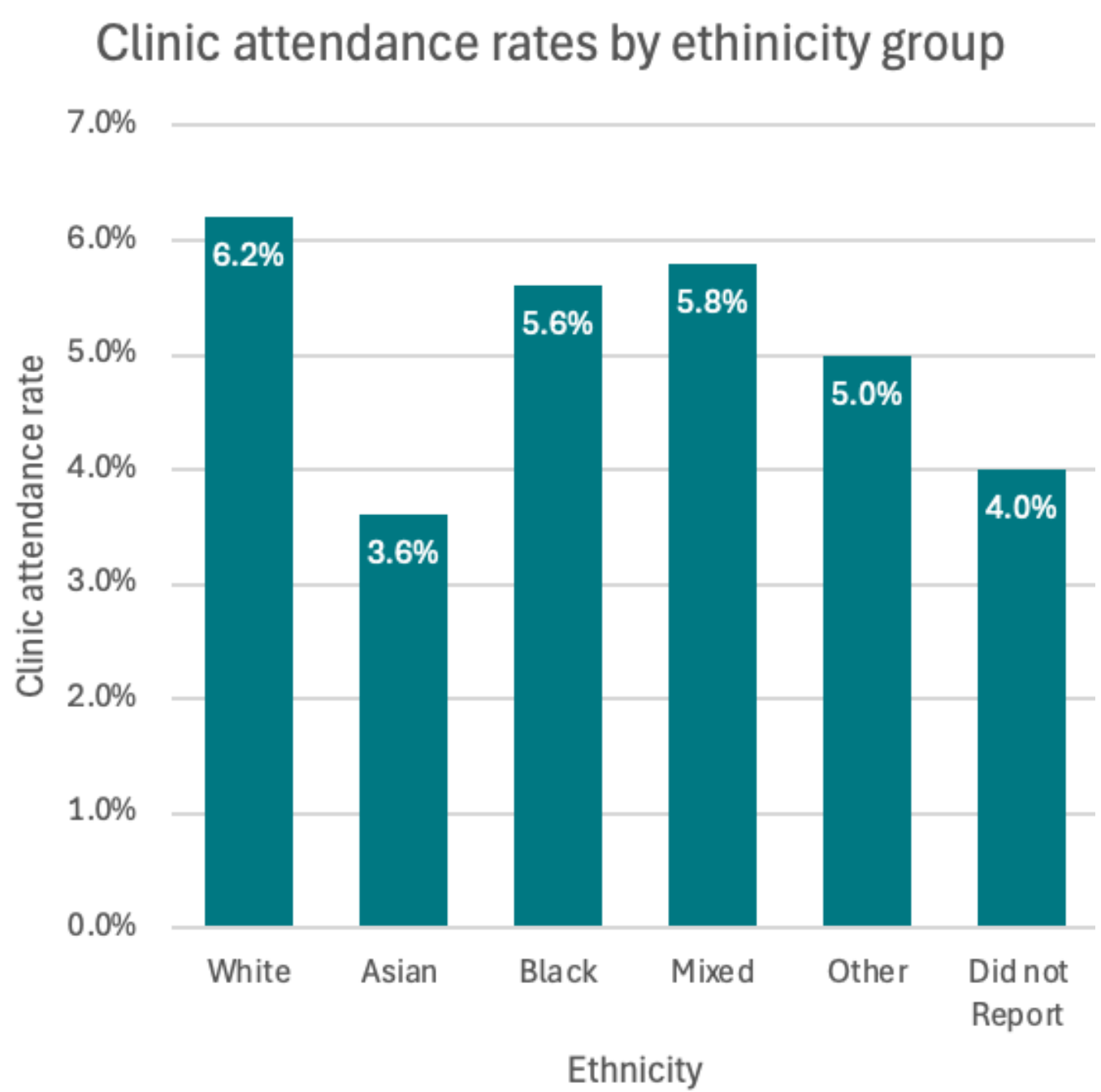
 **1487 (5.4%) attended anaesthetic clinic**

 **Caesarean delivery is strongly associated with clinic attendance (OR = 2.26, 95% CI: 2-2.57, p< 0.001).**

 **Clinic attendance is associated with a reduced odds of neonatal demise (OR = 0.47, 95% CI: 0.27-0.82, p< 0.05).**

 **There is no association between socio-economic deprivation and clinic attendance.**

A Chi-squared test demonstrated a significant association between ethnicity and clinic attendance (p < 0.001).



Graph 1. Barchart showing clinic attendance rates by ethnicity from 1st January 2020 to 31st December 2024.

These findings suggest disparities in antenatal clinic access across different ethnic groups.

Patients from Asian or non-reported ethnic backgrounds had lower odds OR (95% CI) of attending clinic, 0.55 (0.46-0.66) and 0.62 (0.52-0.75), respectively, when compared with patients from a White ethnic background. When correcting for measured variables the differences remain.

	Variable	Clinic attendance	Clinic attendance	p- value
		No	Yes	
Ethnicity (n)	Age Years Mean (SD)	34.5 (5.3)	33.5 (5.3)	0.1
	White	12,953	857	<0.001
	Asian	3,770	139	
	Black	2,577	154	
	Mixed	1,115	69	
	Other	2,515	133	
Mode of delivery (n)	Did not report	3,210	135	
	Caesarean	11,688	968	<0.001
	Vaginal	10,753	384	
	Forceps or vacuum	3,682	235	
Neonatal outcome (n) (missing 4)	Delivery not known	17	0	
	Neonatal living	25,658	1474	0.01
	Neonatal/ fetal demise	478	13	

Table 1. Baseline demographic data of patients delivering from 1st January 2020 and 31st December 2024.

CONCLUSION

We have demonstrated disparities related to racial ethnic background in access to antenatal clinics.

Racial/ethnic disparities in utilisation of antenatal clinics may be reflective of structural access barriers that can then lead to inequity in experience and outcome.

Further research is needed to identify the causes and design interventions that address them.

REFERENCES

- 1.Knight M, Bunch K, Felker et al. on behalf of MBRRACE UK. Saving Lives, Improving Mothers' Care Core Report - Lessons learned to inform maternity care from the UK and Ireland Confidential Enquiries into Maternal Deaths and Morbidity 2019-21. Oxford: National Perinatal Epidemiology Unit, University of Oxford 2023.
- 2.O'Carroll JE, Zucco L, Warwick E, et al. Ethnicity, socio-economic deprivation and postpartum outcomes following caesarean delivery: a multicentre cohort study. Anaesthesia. 2024;79(5):486-97.