

# Antiretroviral treatment uptake and outcomes in heterosexual people living with HIV in the United Kingdom according to ethnic group

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# Background



- Black, Asian and minority ethnic (BAME) groups are disproportionately affected by HIV in the UK<sup>1</sup>.
- UK CHIC analysis: BAME MSM started antiretroviral therapy later and were more likely to be permanently loss to follow up than White MSM<sup>2</sup>.
- In the United States, African Americans have lower rates of viral suppression than White groups<sup>3,4</sup>.

1. O'Halloran C *et al.*, 2019
2. UK CHIC Study Group, . 2012
3. Nance RM *et al.*, 2018
4. Beer L *et al.*. 2016

# Aims



To investigate whether there are differences in HIV outcomes in the care continuum by ethnic group, amongst heterosexual women and men participating in the UK CHIC study.

1. Combination antiretroviral therapy (cART) initiation
2. Engagement-in-care
3. Viral load suppression
4. Viral rebound

# Methods 1



## UK CHIC Study<sup>5</sup>

- Individuals >16 living with HIV
- 25 HIV clinics in the UK
- Data from 1996-2017

## Inclusion criteria

- Heterosexual subjects with known ethnicity
- Aged  $\geq 16$  years
- $\geq 1$  day follow up from 2000-2017

5. The UK CHIC Steering Committee Study, 2004.

# Methods 2



- Ethnic categories:

- White

- Black African

- Black Caribbean

- Black Other

- South Asian/Other Asian

- Other/Mixed

# Methods 3



Logistic/Cox Proportional hazard regression to assess:

1. Combination antiretroviral therapy (cART) initiation
2. Engagement-in-care (REACH algorithm<sup>6</sup>)
3. Viral suppression ( $\leq 50$  copies/mL)
4. Viral rebound (2 consecutive viral loads  $> 50$  copies/mL)

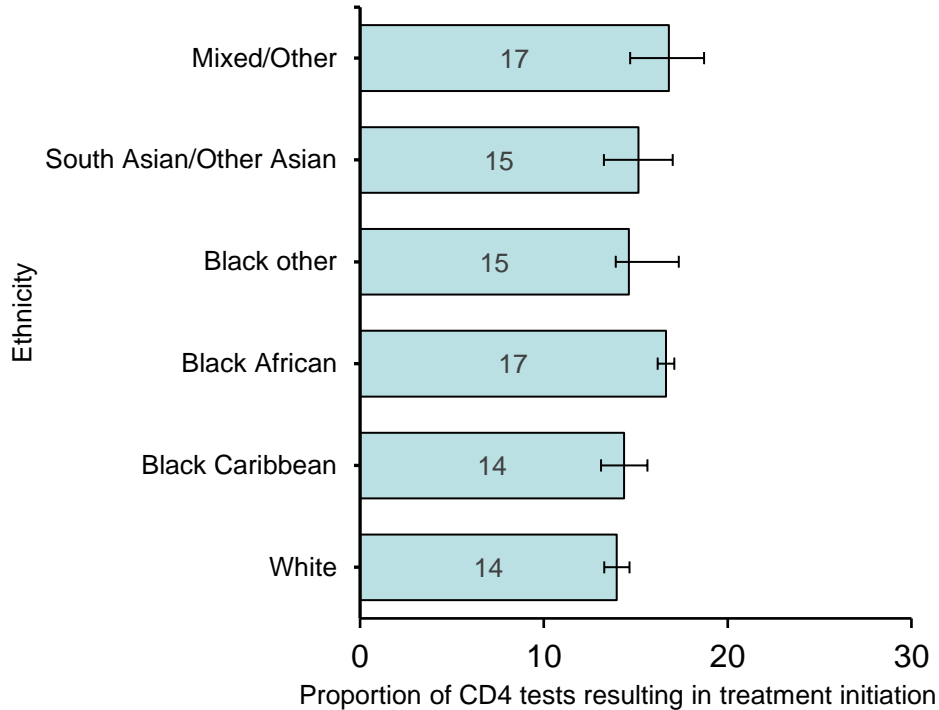
Adjustment for age, sex, prior AIDS, Hepatitis B/C, CD4 count, HIV viral load, calendar year and treatment initiation (where appropriate).

# Participant characteristics at study entry



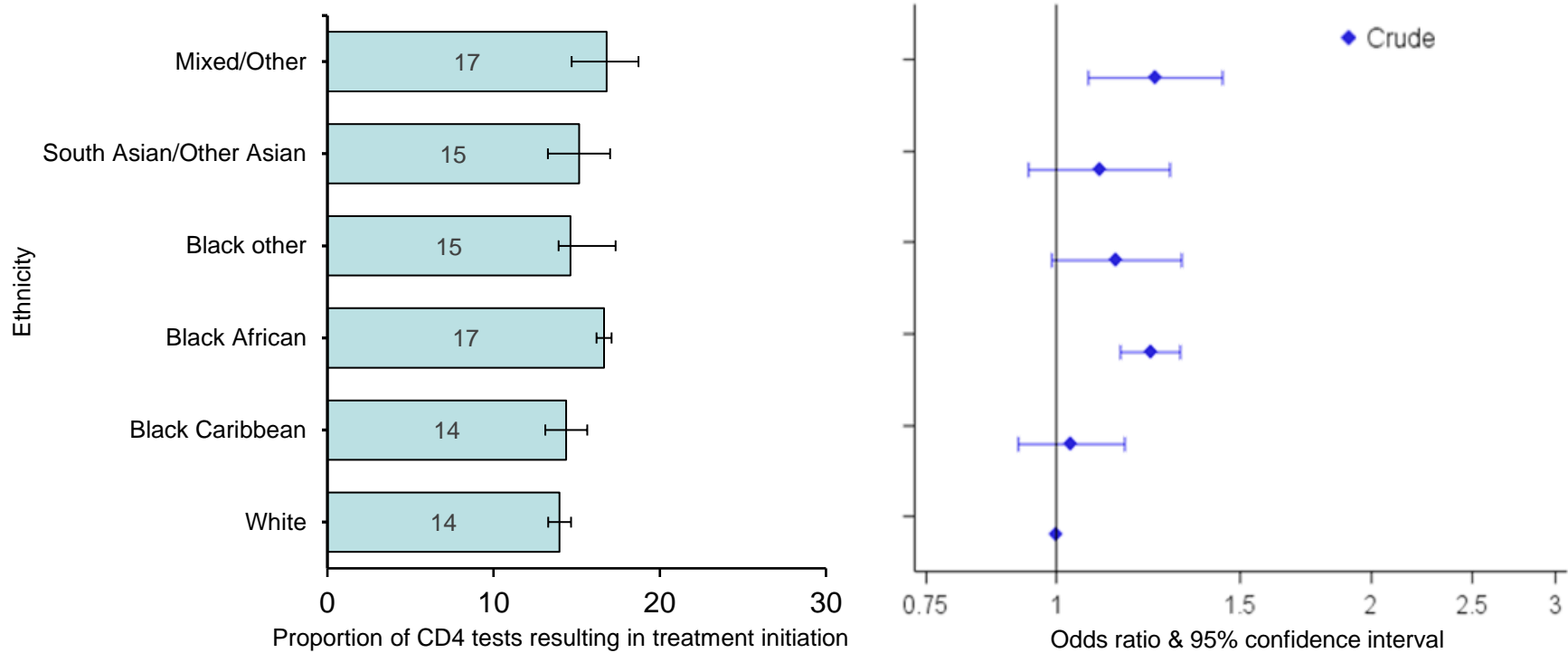
	Total (n=12302)	White (n=2345)	Black Caribbean (n=773)	Black African (n=7919)	Black other (n=449)	South Asian/Other Asian (n=401)	Other/Mixed (n=415)
<b>Median age (years)</b>	37	39	38	36	36	38	36
<b>% Male</b>	47.5	61.4	52.7	42.4	48.1	56.9	47.2
<b>Median CD4 (cells/mm<sup>3</sup>)</b>	276	363	315	250	288	240	311

# Treatment initiation

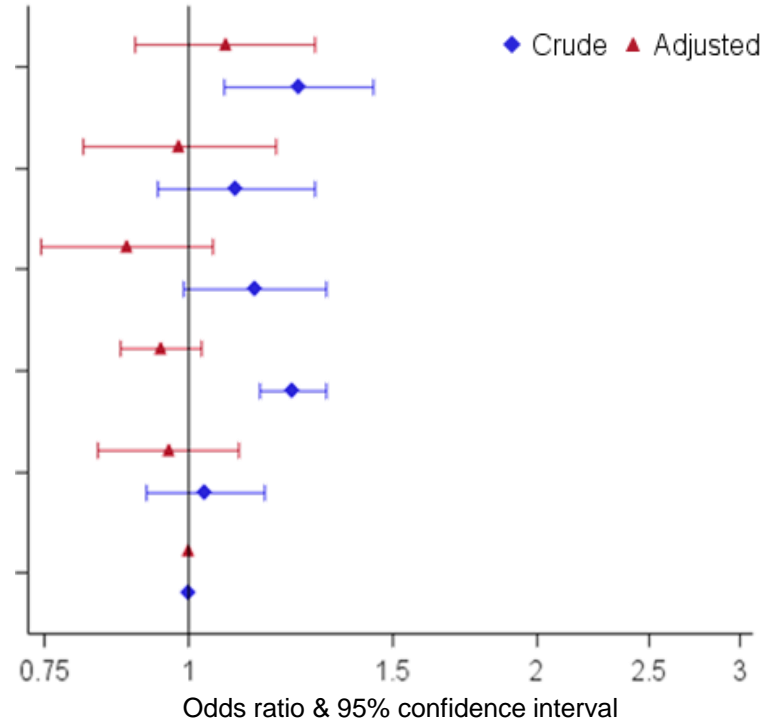
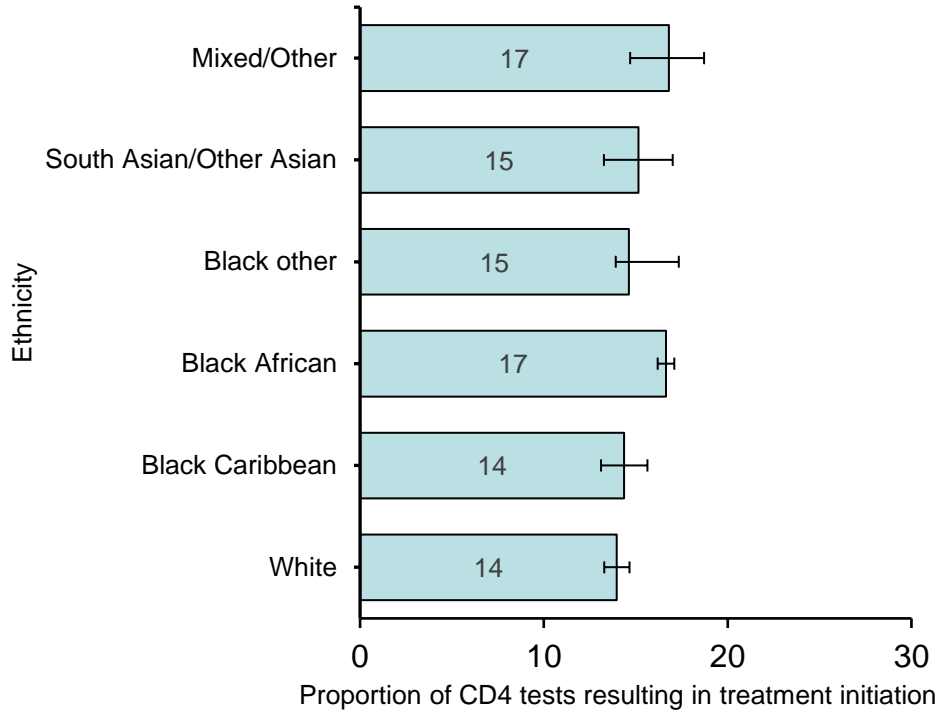




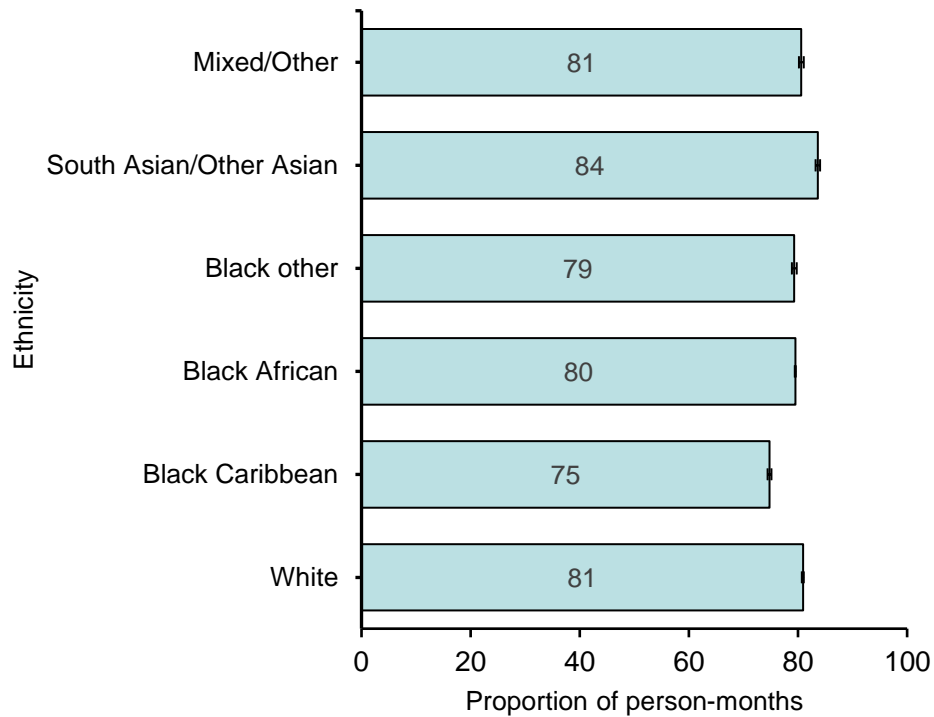
# Treatment initiation



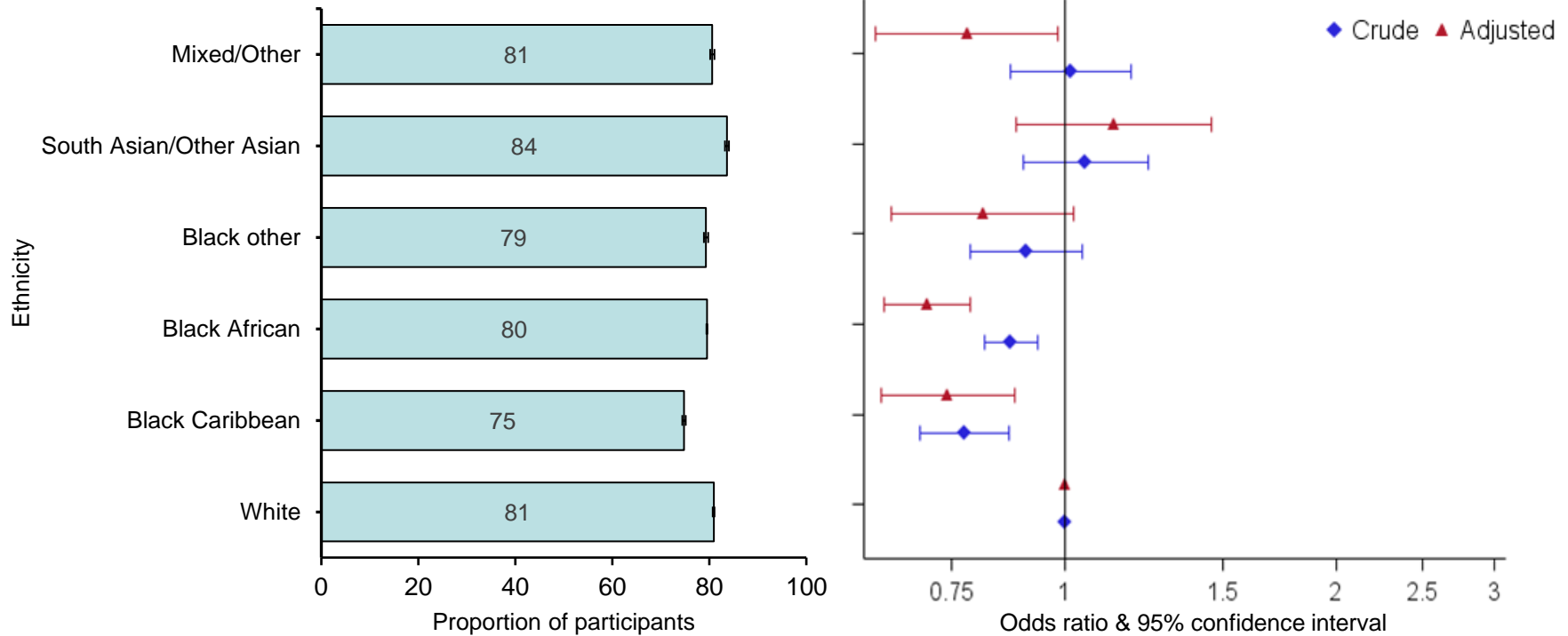
# Treatment initiation



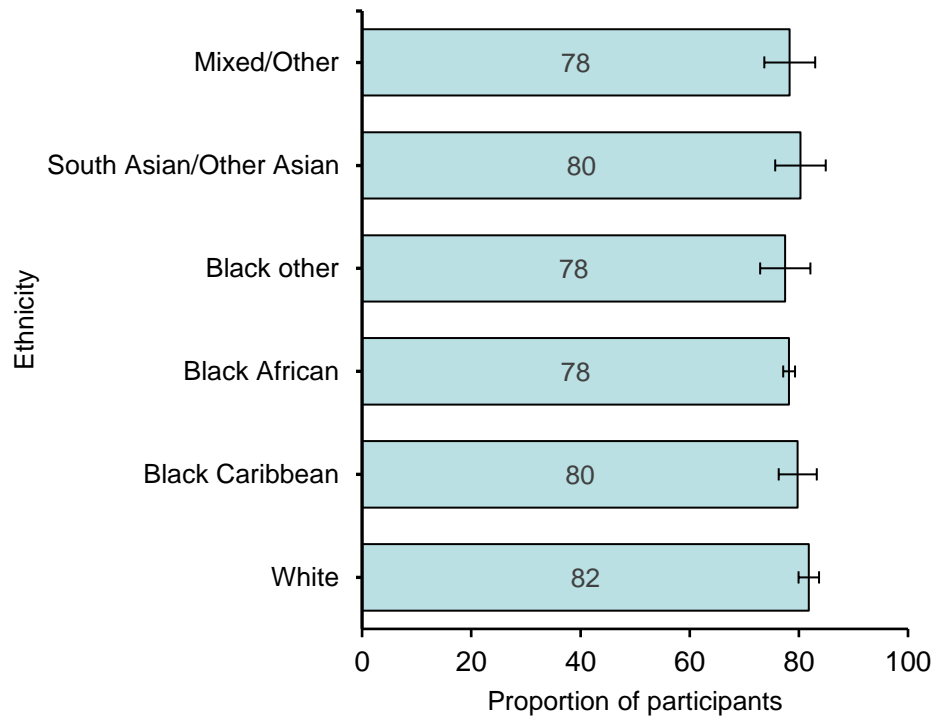
# Engagement-in-care



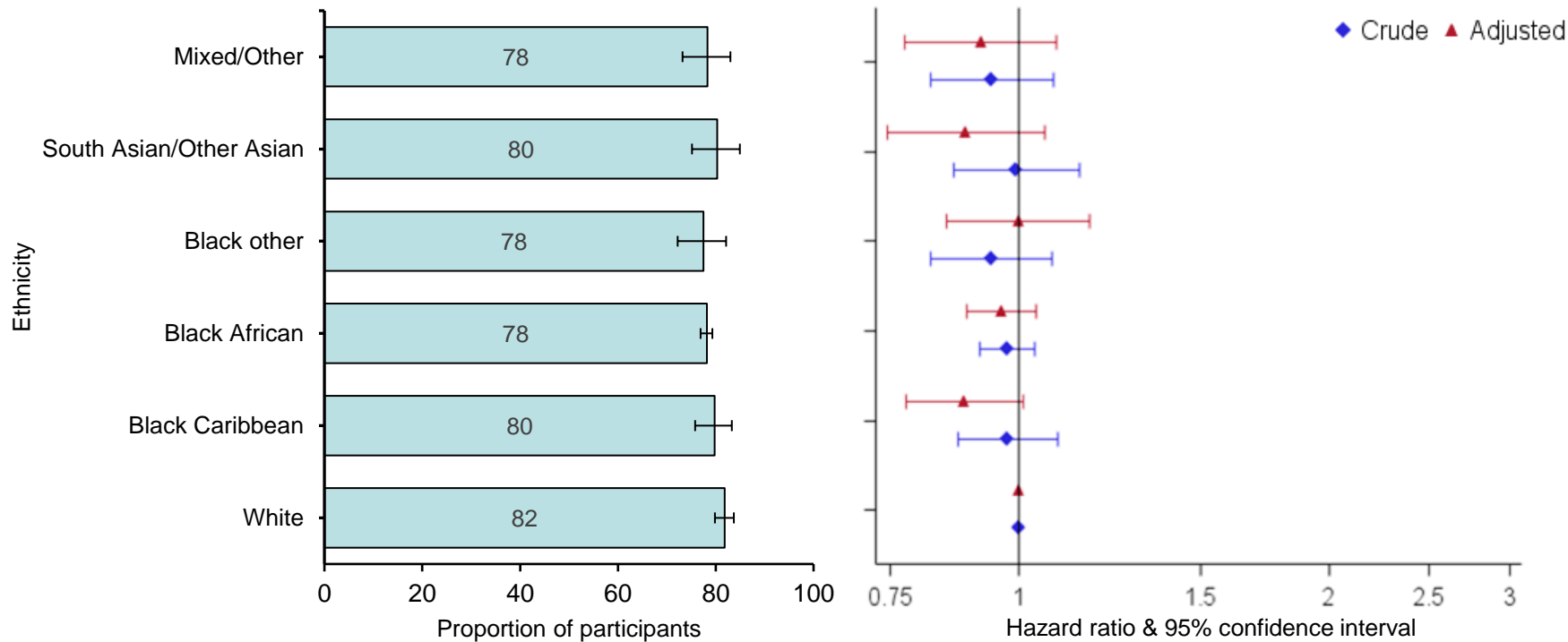
# Engagement-in-care



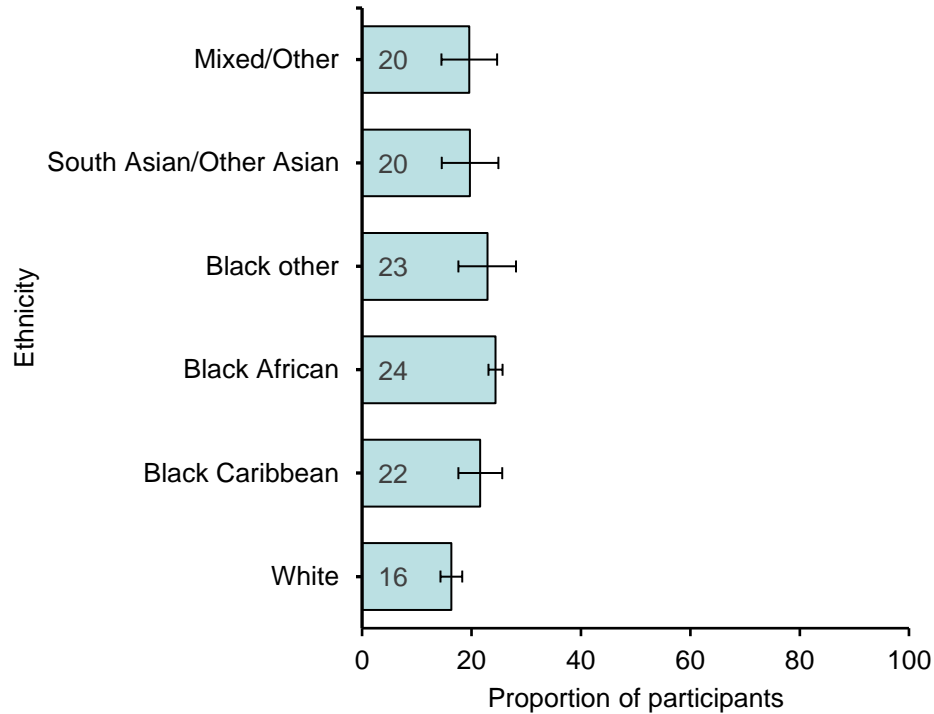
# Viral suppression



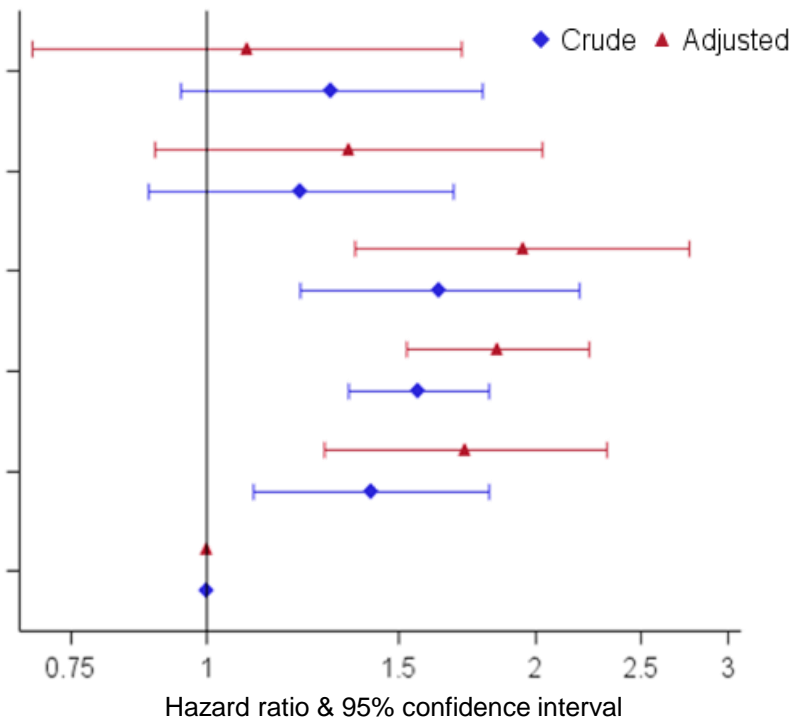
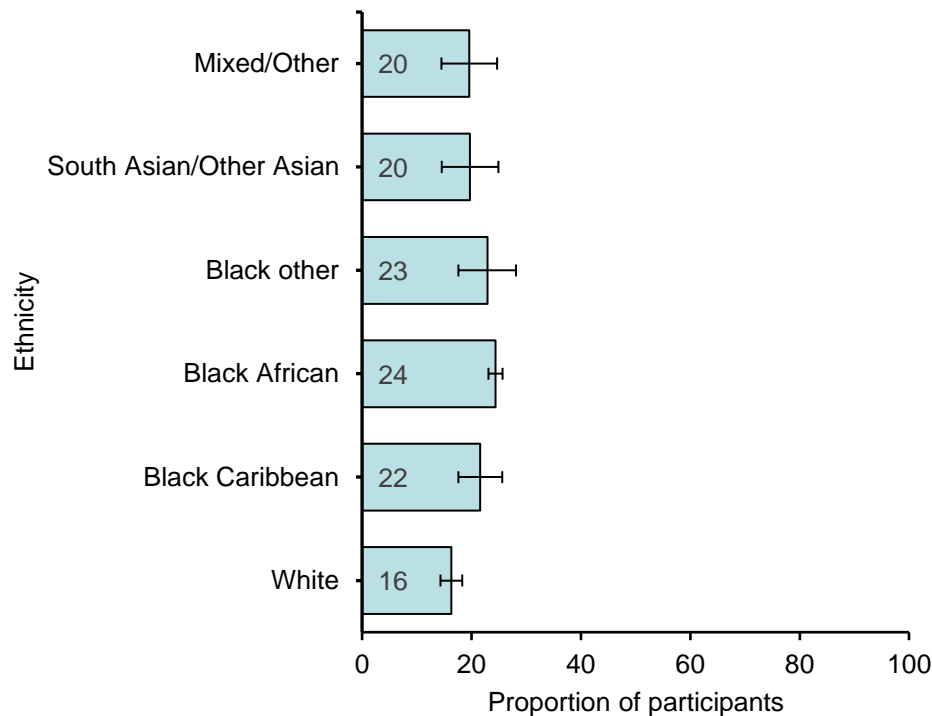
# Viral suppression



# Viral rebound



# Viral rebound





# Strengths and limitations



## STRENGTHS

- Largest HIV cohort in the UK
- Contributing HIV clinics are diverse in size/location
- Cohort broadly representative of UK population of heterosexual people with HIV.

## LIMITATIONS

- Ethnicity is self-reported.
- Only have data on men and women actually attending clinic.
- No data collected on country of birth, socioeconomic factors.

# Summary



- No difference in treatment uptake or time to viral suppression by ethnic group.
- All BAME groups more likely to experience viral rebound.
- All Black and Mixed/Other groups less likely to be engaged-in-care.
- Suggests that BAME groups may need additional support to stay engaged in care and on treatment.
- If we are to meet UNAIDS targets in the UK, we must understand and address these differences, to ensure no groups are left behind.

# UK CHIC: Acknowledgements

## **Steering Committee:**

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**Central Co-ordination:** UCL (David Dunn, Teresa Hill, Hajra Okhai, Andrew Phillips, Caroline Sabin); Medical Research Council Clinical Trials Unit [MRC CTU at UCL] (Nadine van Looy, Keith Fairbrother).

## **Participating sites:**

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