



Public Health
England

Protecting and improving the nation's health

Measuring the impact of socio-economic deprivation on rates of sexually transmitted infection diagnoses among black Caribbean in England

Martina Furegato

Public Health England - HIV-STI Department

Background

- Ethnic disparities in the rates of sexually transmitted infection (STI) diagnoses have been reported in many developed countries and are a major source of health inequality worldwide
- In the UK, disproportionately high STI and HIV rates are reported in black Caribbeans and black Africans
- Socioeconomic deprivation (SED) is a likely contributing factor in this association

Methods

Data from all 208 STI clinics in England in 2013 were obtained from

GUM Clinic Activity Dataset version2 (GUMCADv2)

→ mandatory surveillance system for
all STI diagnoses and services
in England

Diagnosis rates of

- gonorrhoea
- genital warts (1st episode)
- genital herpes (1st episode)

Methods

Data from all 208 STI clinics in England in 2013 were obtained from

GUM Clinic Activity Dataset version2 (GUMCADv2)

—————→ mandatory surveillance system for
all STI diagnoses and services
in England

Diagnosis rates of



- gonorrhoea
- genital warts (1st episode)
- genital herpes (1st episode)

Socioeconomic deprivation was measured using

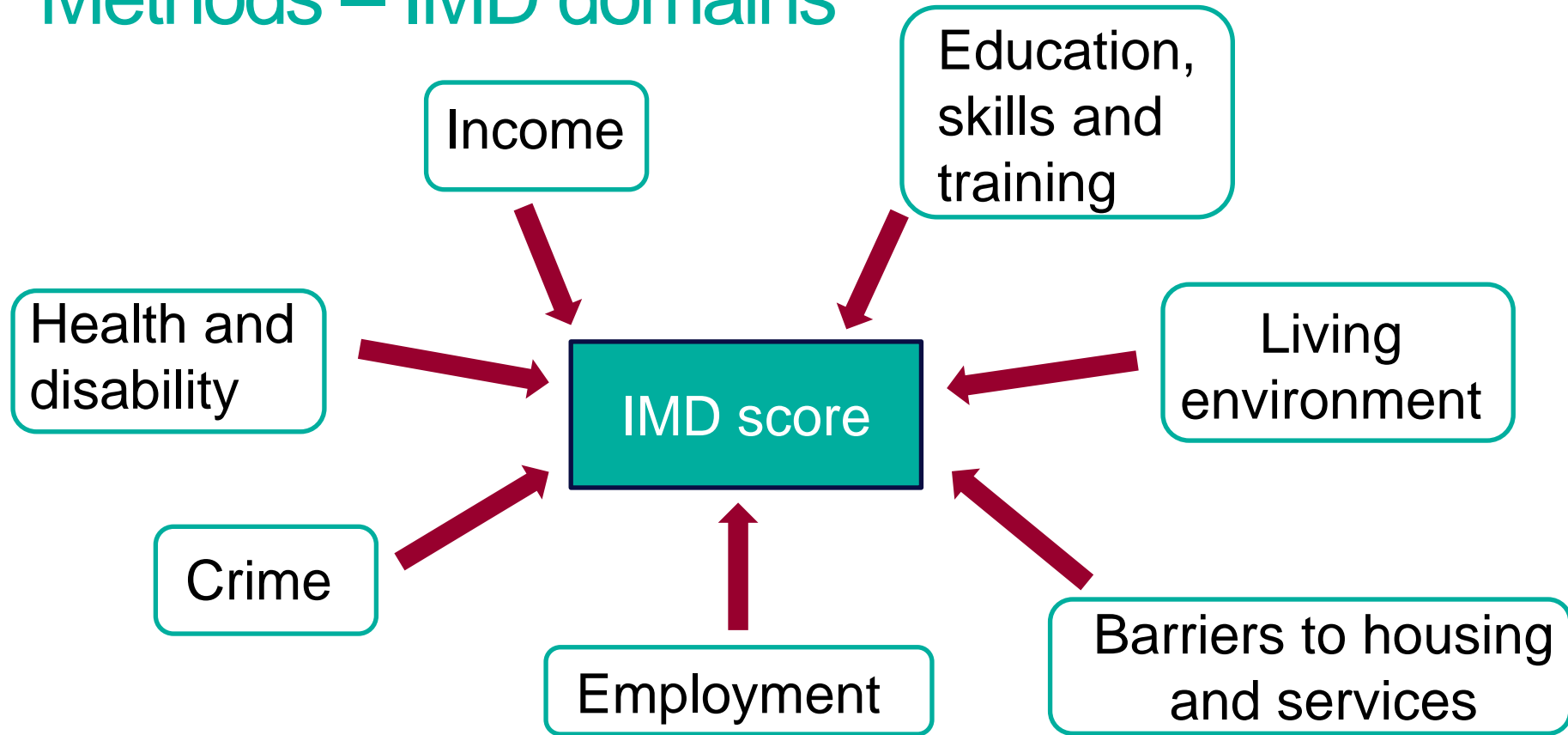
Index of Multiple Deprivation (IMD)

—————→ a measure of area-level deprivation

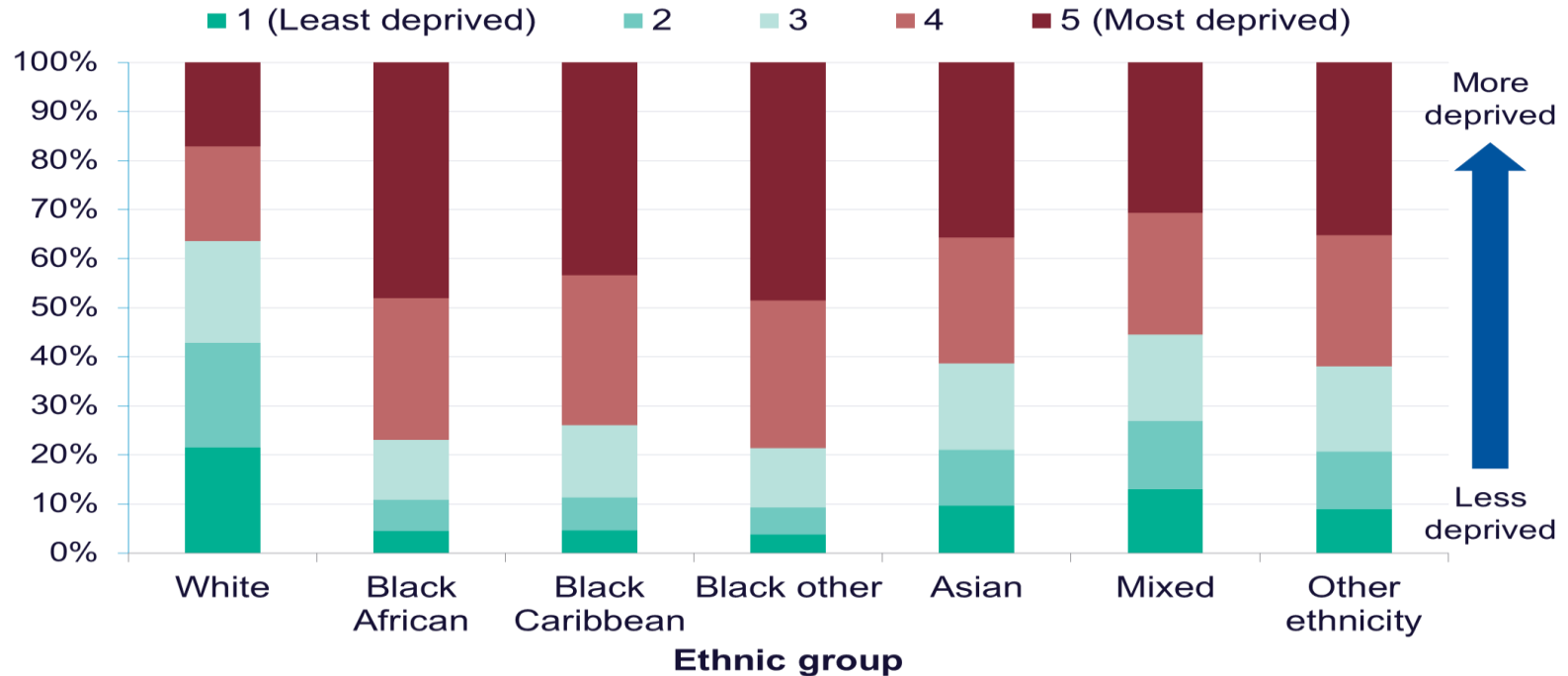
Methods – Statistical measures

- **Crude rate ratios** (per 100,000 population) for each STI by ethnic group
 Number of diagnoses / population
- Poisson regression was used to derive unadjusted and IMD-adjusted **incidence rate ratios (IRRs)** for each STI by ethnic group
 Comparing risk between ethnic groups

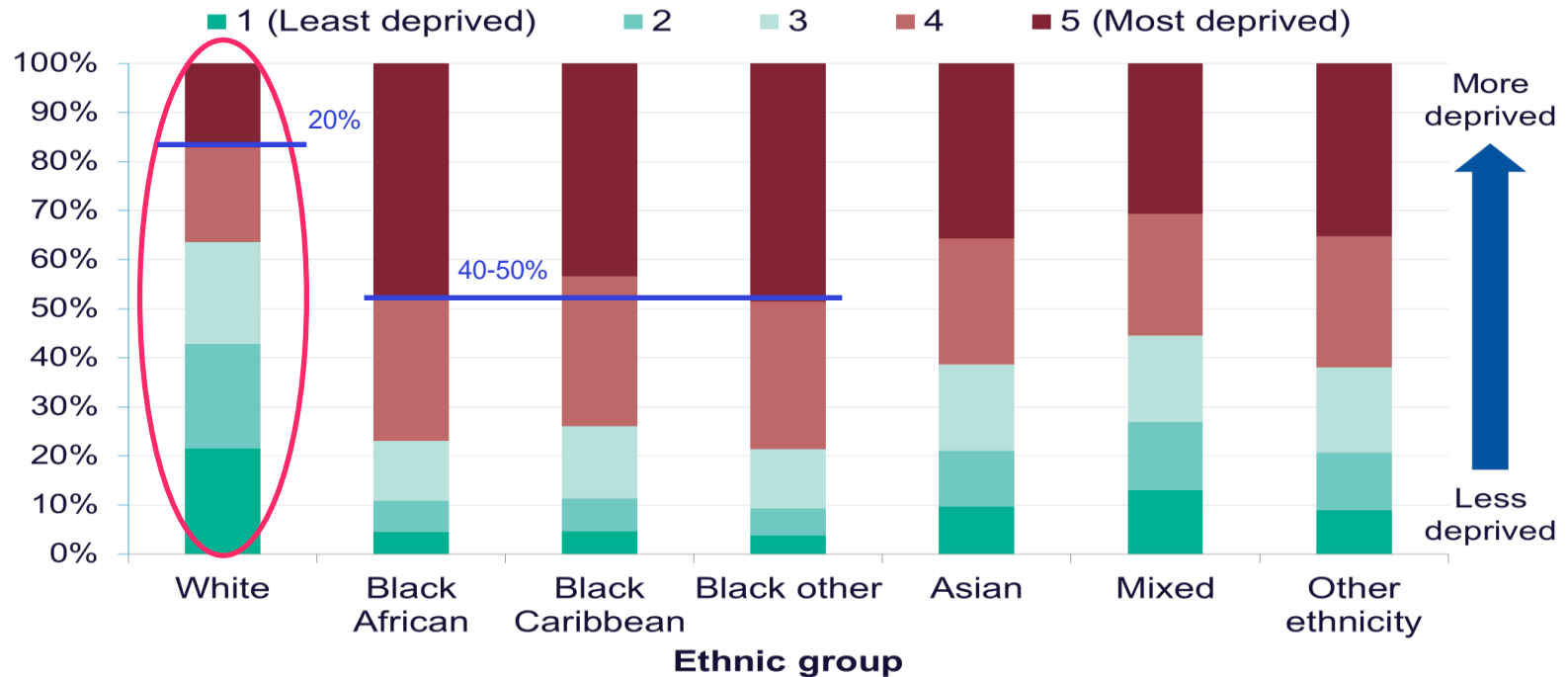
Methods – IMD domains



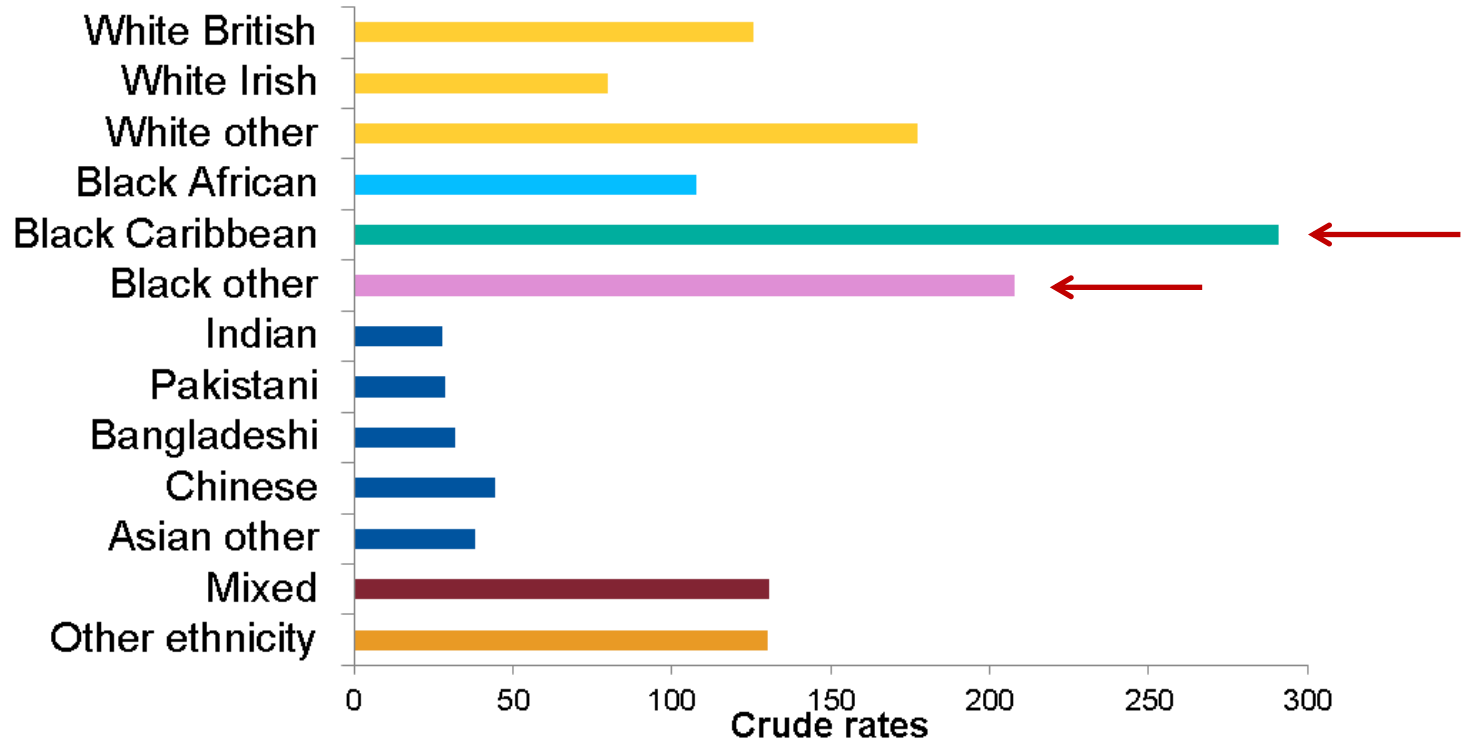
Results – IMD score distribution by ethnic group



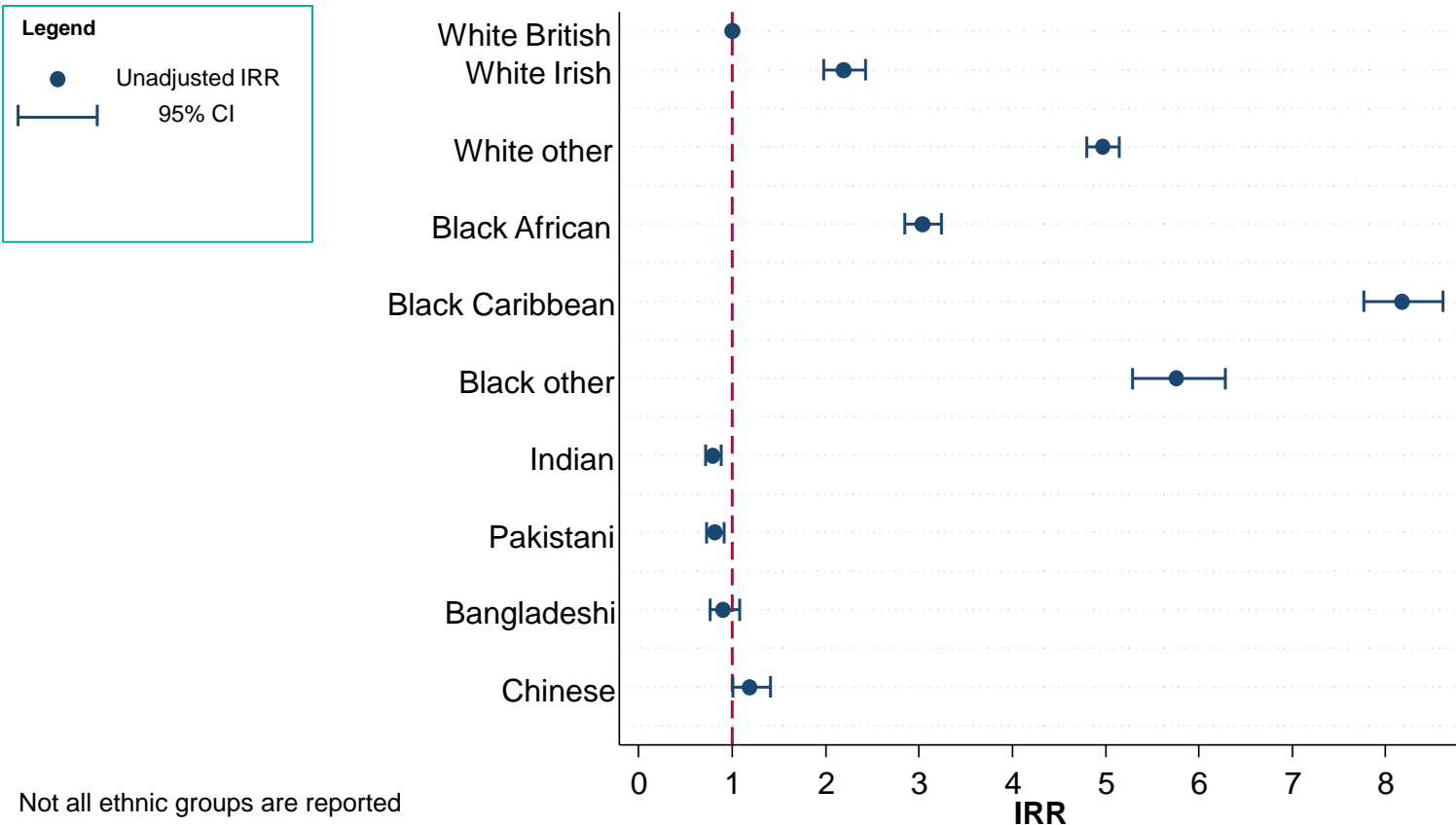
Results – IMD score distribution by ethnic group



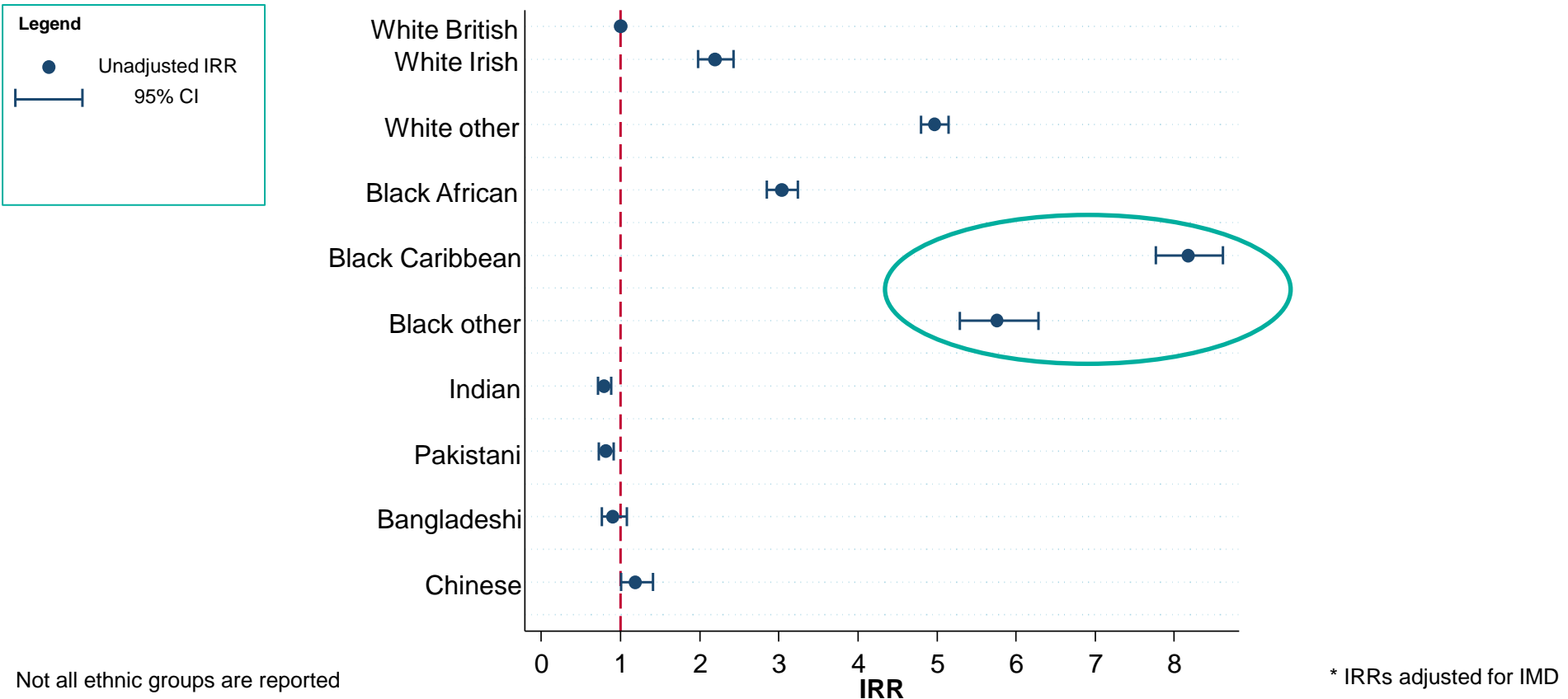
Results – Crude rates for gonorrhoea by ethnic group



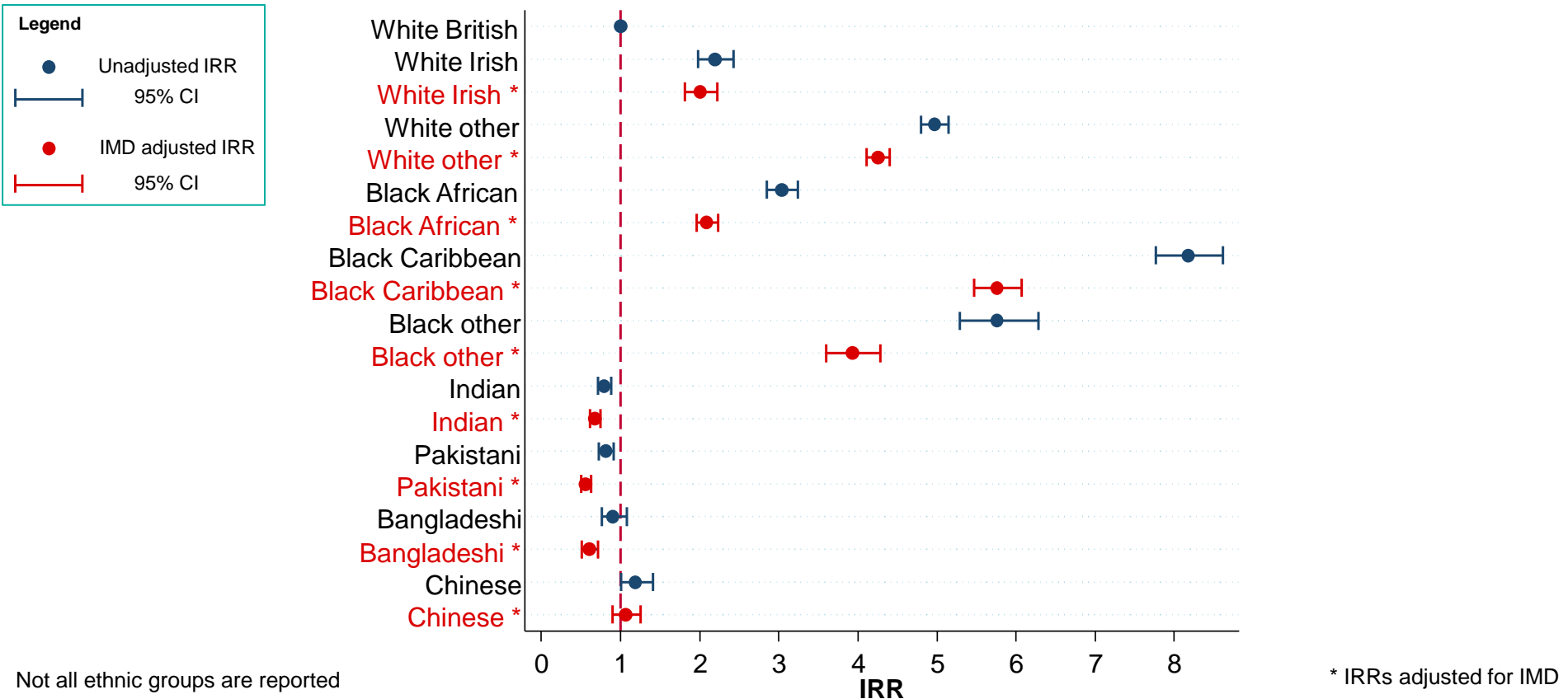
Results – IRRs for gonorrhoea by ethnic group



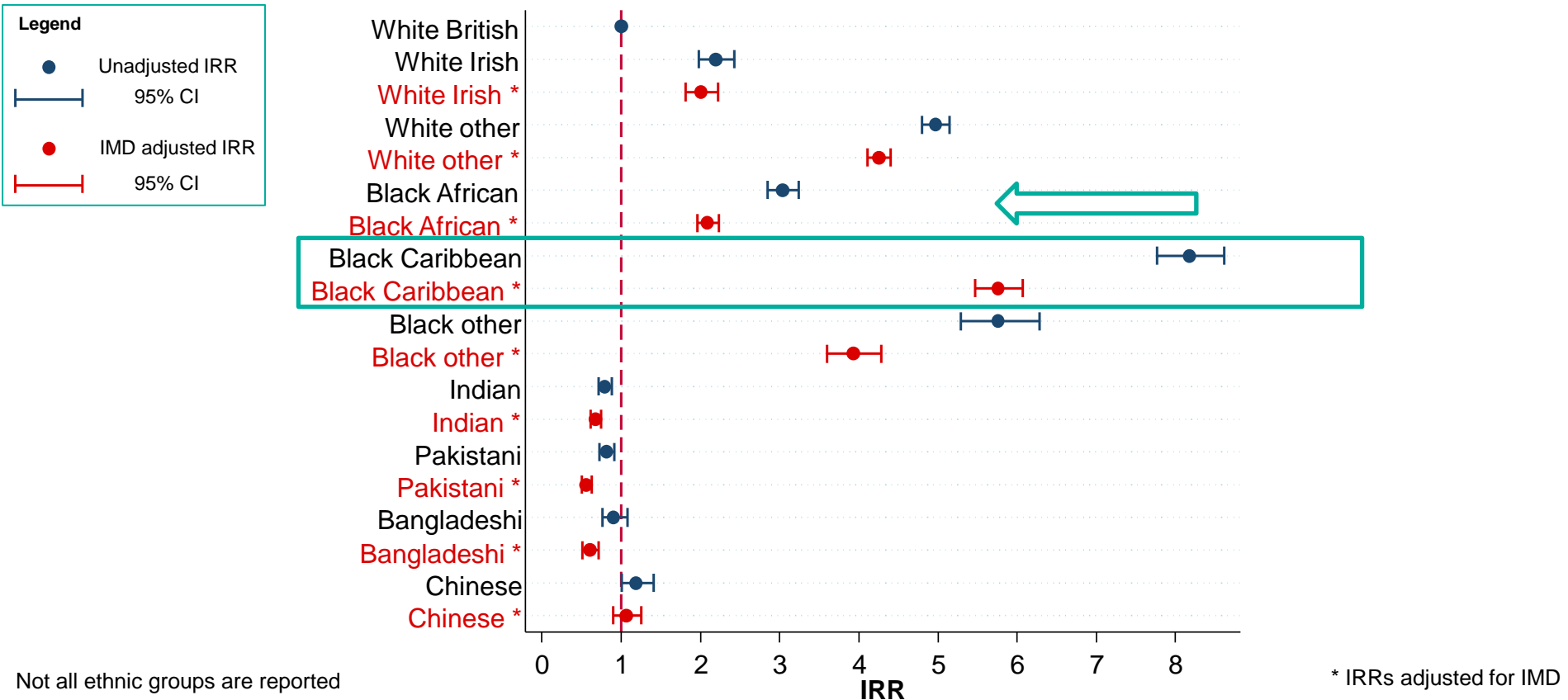
Results – IRRs for gonorrhoea by ethnic group



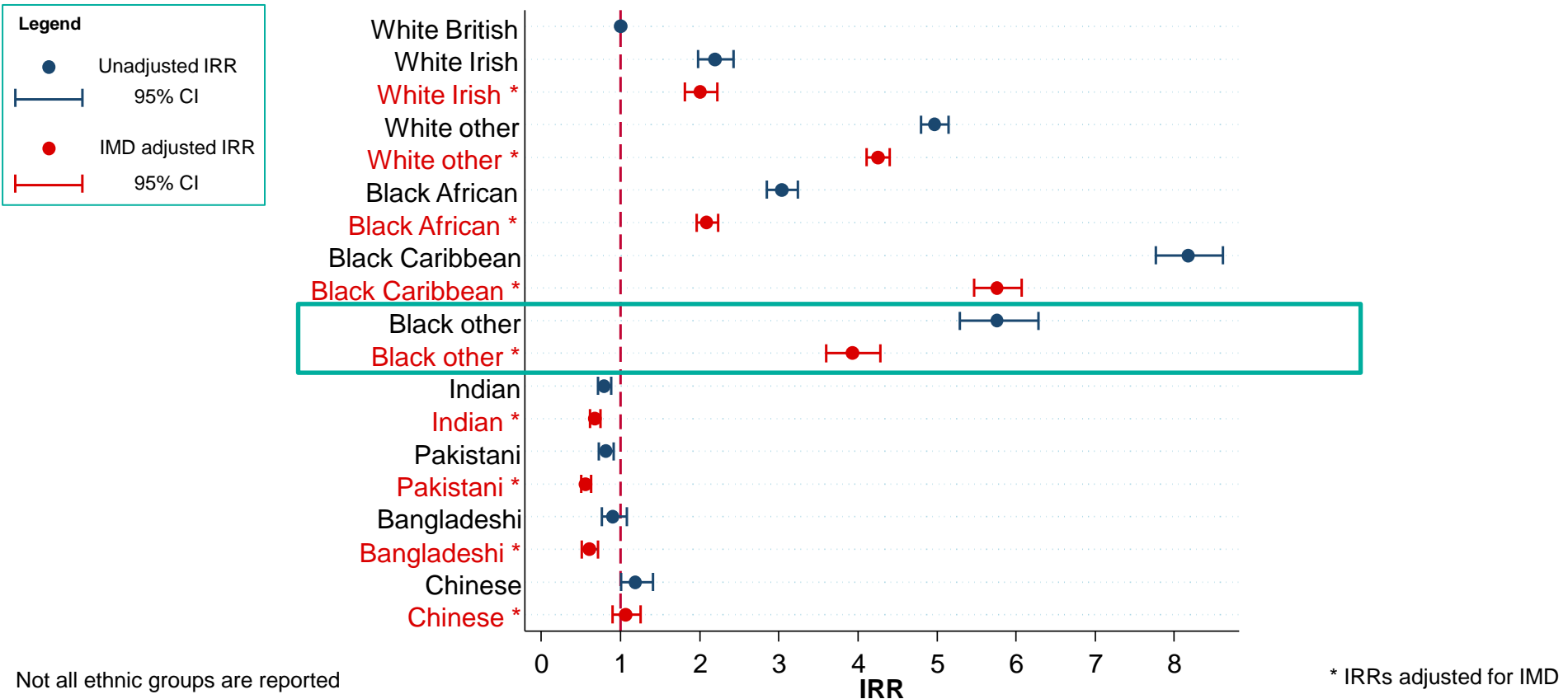
Results – IRRs for gonorrhoea by ethnic group



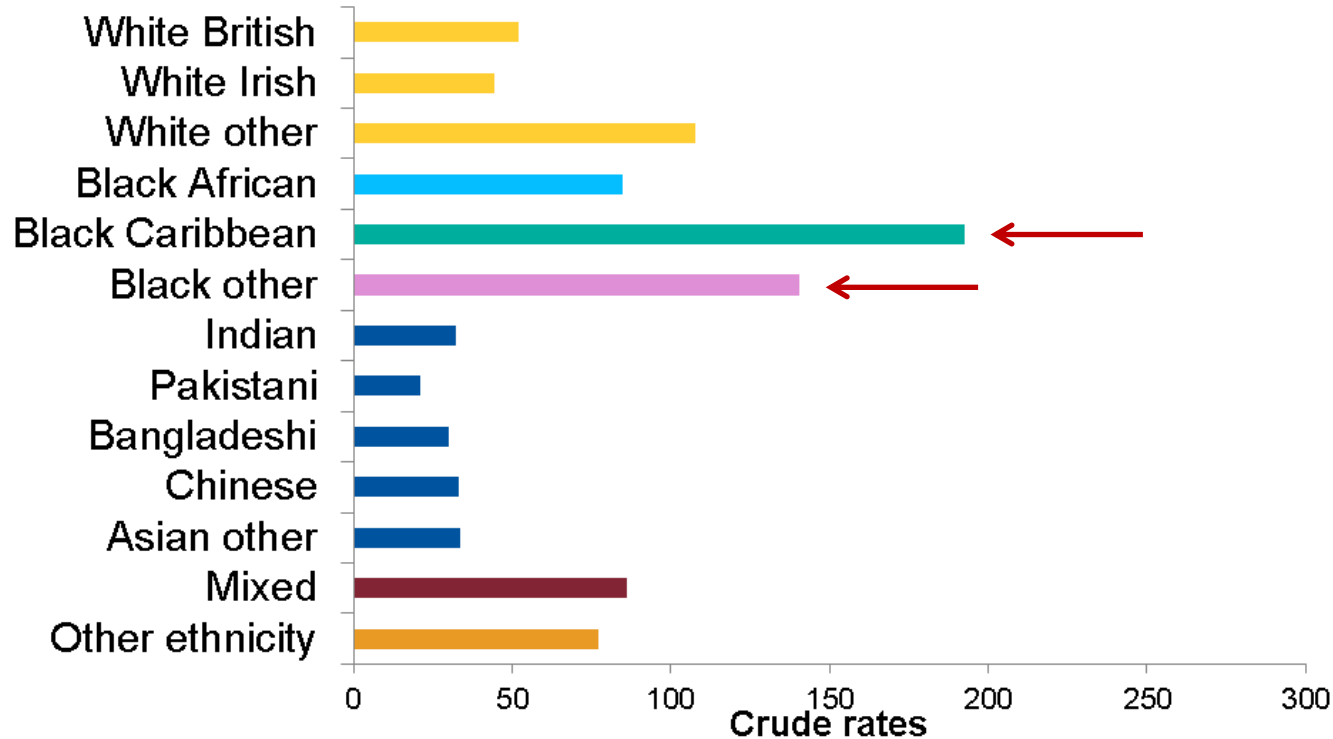
Results – IRRs for gonorrhoea by ethnic group



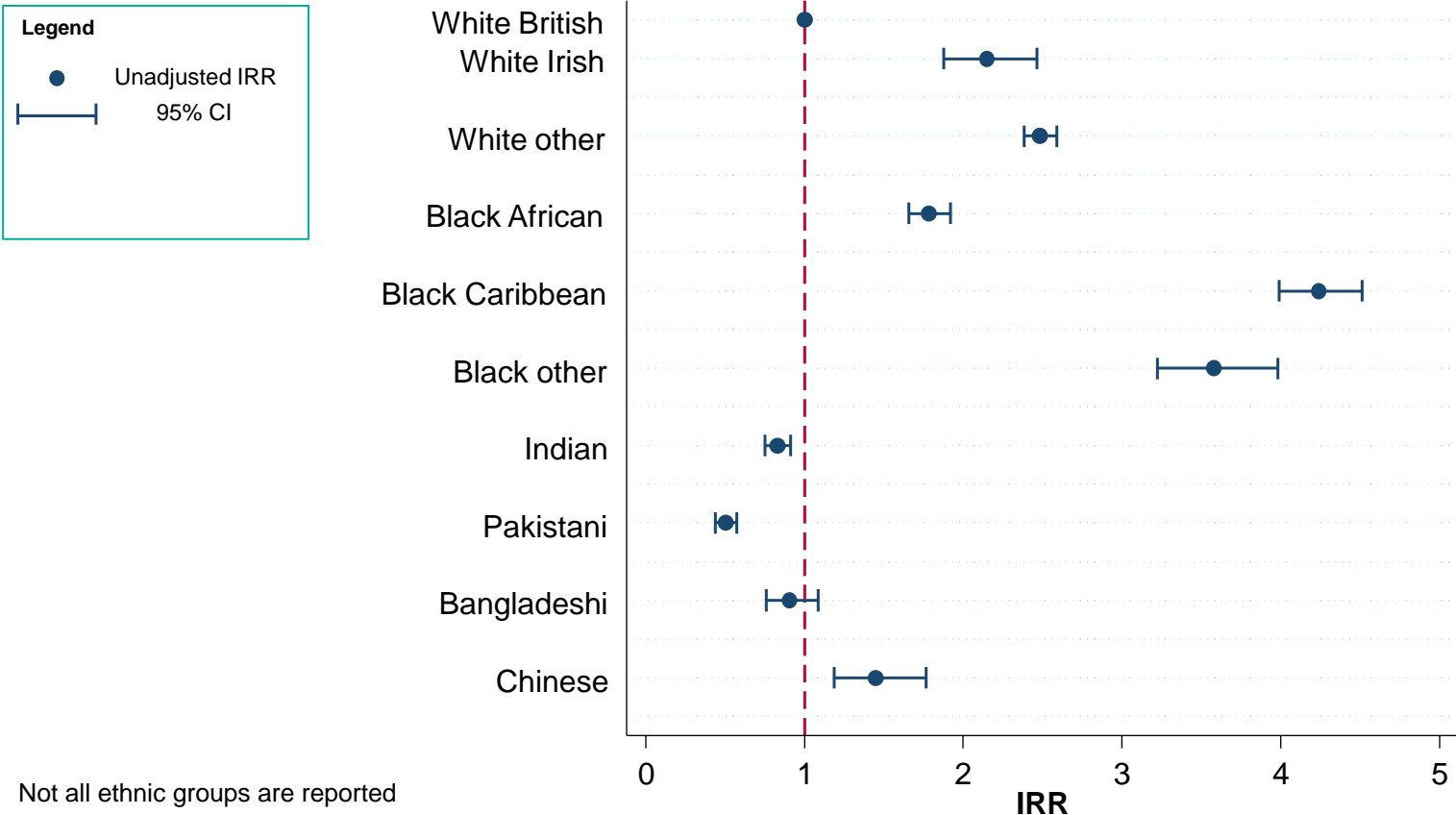
Results – IRRs for gonorrhoea by ethnic group



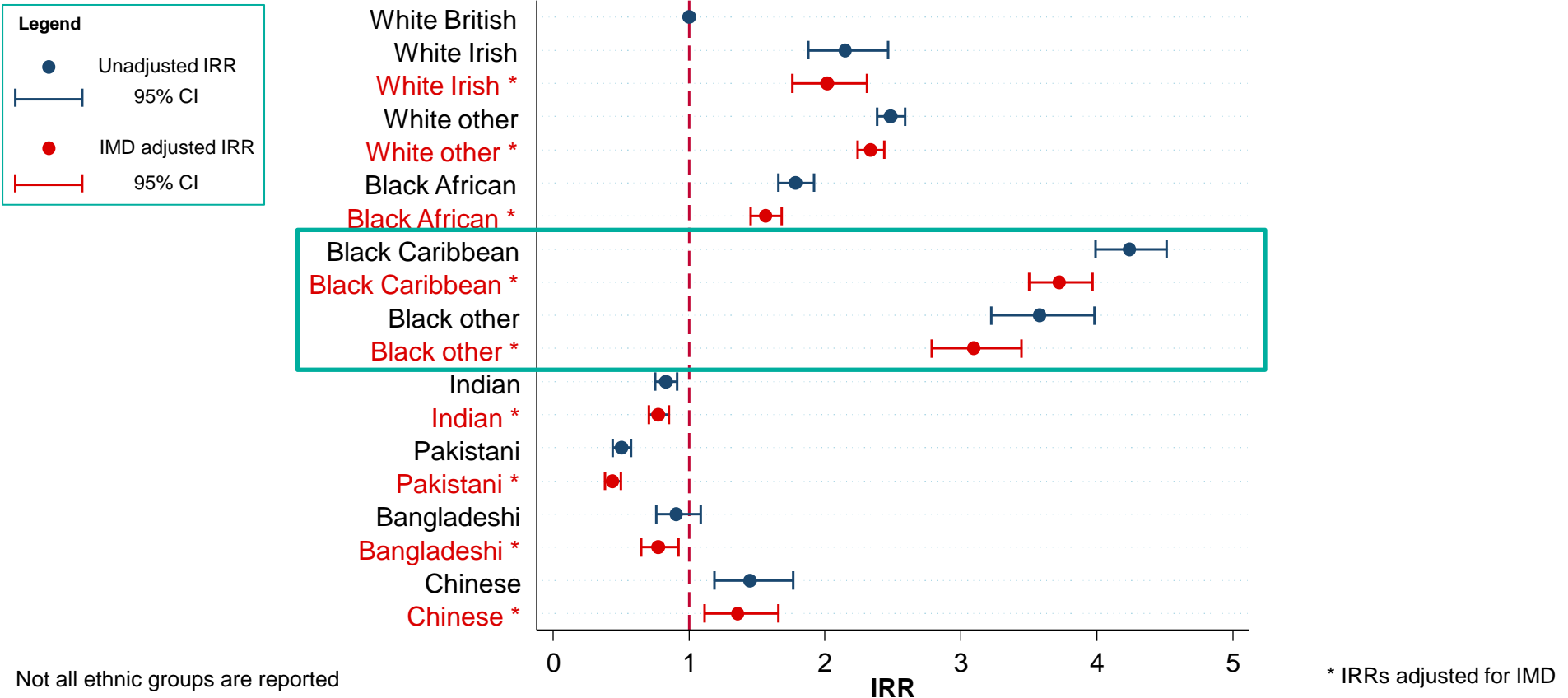
Results – Crude rates for genital herpes by ethnic group



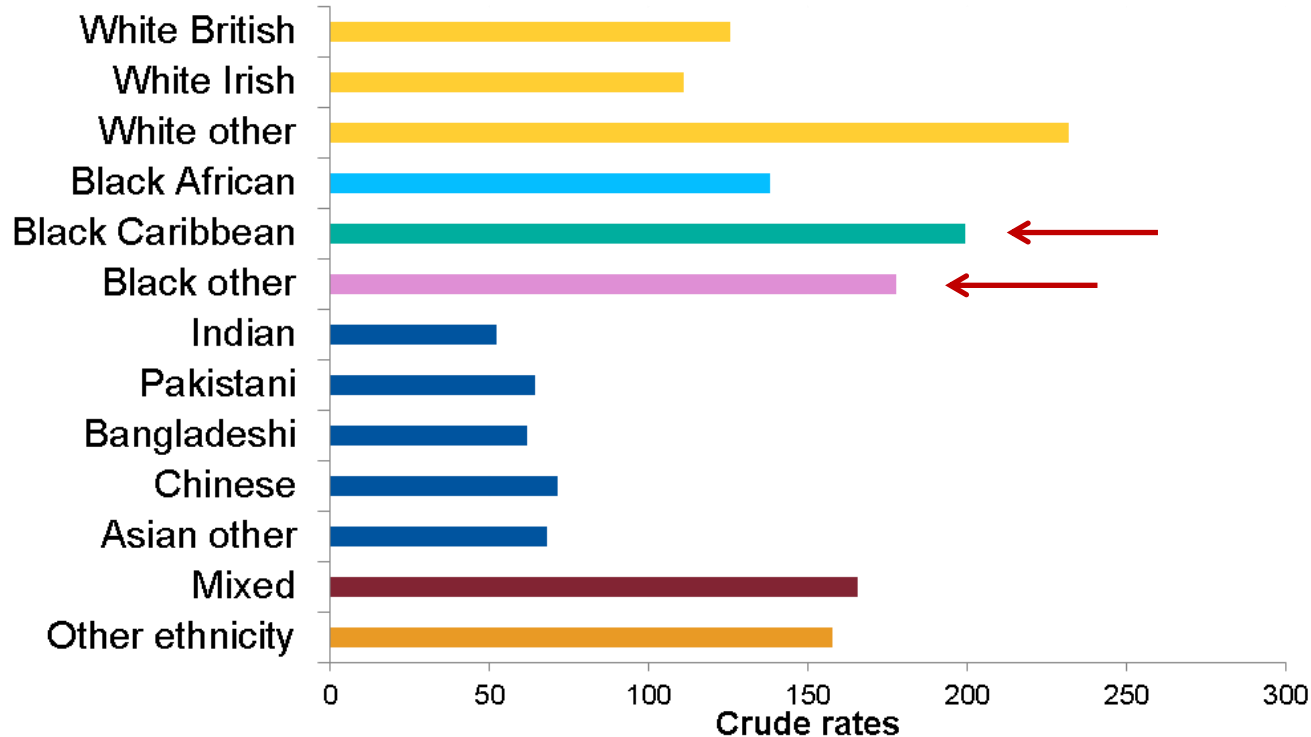
Results – IRRs for genital herpes by ethnic group



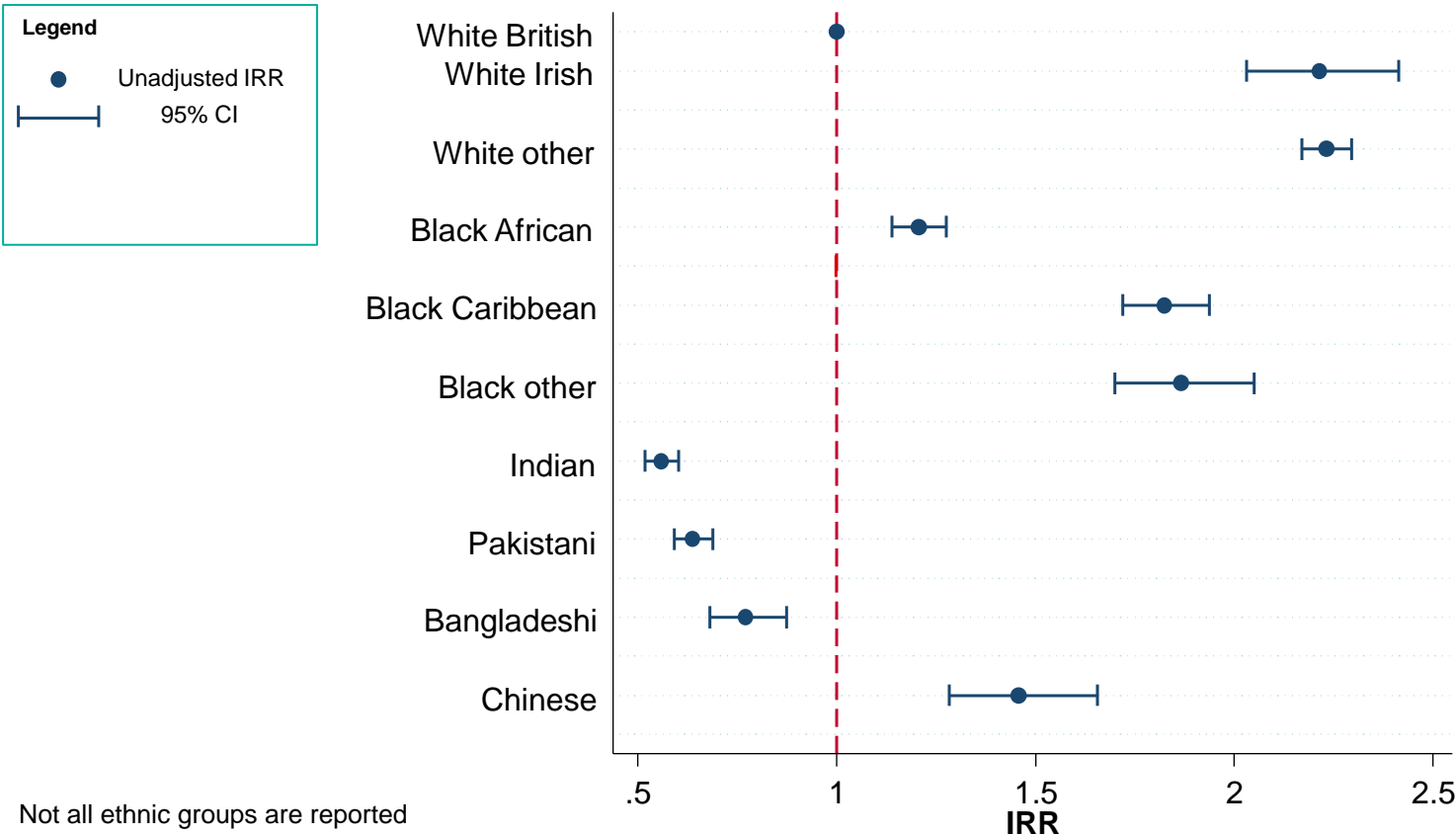
Results – IRRs for genital herpes by ethnic group



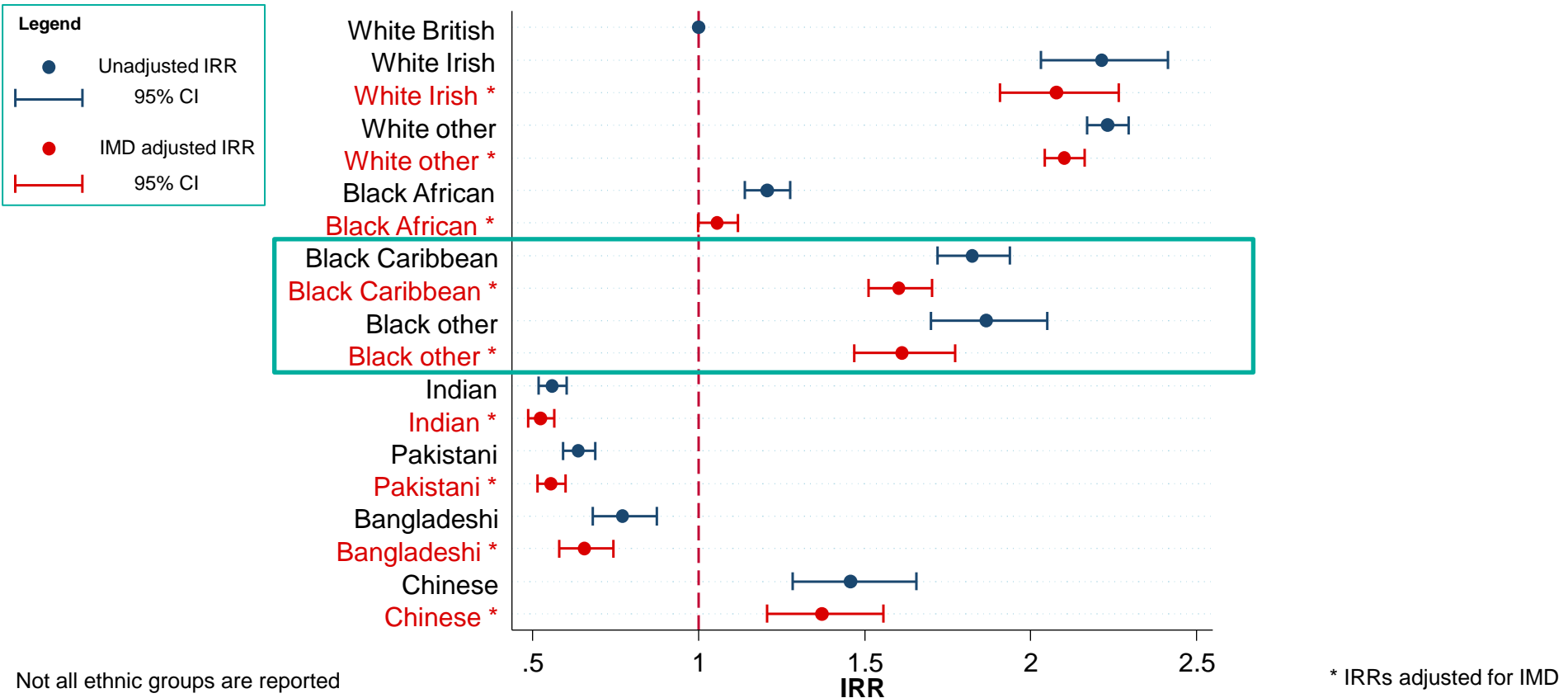
Results – Crude rates for genital warts by ethnic group



Results – IRRs for genital warts by ethnic group



Results – IRRs for genital warts by ethnic group



Limitations

- IMD is a measure of residential area-level, not individual, deprivation
- Due to a lack of population data at the small geographical unit, it was not possible to stratify by age, gender and sexual orientation and only ethnicity and deprivation could be considered at the same time in the model

→ Using multivariate logistic regression similar results were observed

Conclusions

- In England, rates of gonorrhoea, genital herpes and genital warts diagnoses among black ethnic minorities, especially black Caribbeans, are higher compared to those of other ethnic groups
- SED is a key determinant of STI rates, with the highest rates in the most deprived areas
- High STI rates in black ethnic minorities persist even after adjustment for SED

Conclusions

- Background prevalence of untreated disease
- Racial discrimination perception
- Drug and alcohol use
- Sexual behaviour
- Social and sexual networks
- Health-seeking behaviour

Conclusions

- Background prevalence of untreated disease
- Racial discrimination perception
- Drug and alcohol use
- Sexual behaviour
- Social and sexual networks
- Health-seeking behaviour



STI risk

Future steps

Understanding the context and drivers associated with transmission of STIs is vital to inform the development of tailored interventions

NIHR Health Protection Research Unit in Blood Borne and Sexually Transmitted Infections

Theme A: Understanding risk and risk reduction

- Improve understanding and knowledge-base of behaviours, attitudes, and other factors influencing STI and BBV risk
- Inform and support the targeting and delivery of timely interventions which maximise patient and public health benefit
- Initial focus on two priority population groups:
 - Black Caribbean and black ‘other’ populations
 - MSM

Poster n. P233 – Wayal et al.
“Understanding the greater burden of STIs among black Caribbeans in the UK: evidence from a systematic review”

Acknowledgments

Yunting Chen - UCL

Hamish Mohammed - PHE

Sonali Wayal – UCL

Cath Mercer - UCL

Gwenda Hughes – PHE

GUMCAD team

Thank you