Alternative ways of measuring neighbourhood ethnic density

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Background

- Evidence that higher proportion of co-ethnics in neighbourhood is associated with reduced risk of morbidity among ethnic minorities
- “Ethnic density” effect
- Plausible explanations (social support, racial discrimination, behavioural norms)
- How should we measure neighbourhood ethnic density?

Explanatory pathways

- Social support
  - shared culture, empathy, beliefs
- Racial discrimination
  - interpersonal (conflict/concord between ethnic groups)
  - institutional (power, status)
- Norms of health-related behaviour
  - customs, religious code

Objective measures of ED

2001 Census: England and Wales

White

British

Irish

Any other White background

Mixed

White and Black Caribbean

White and Black African

White and Asian

Any other Mixed background

Asian or Asian British

Indian

Pakistani

Bangladeshi

Any other Asian background

Black or Black British

Caribbean

African

Any other Black background

Chinese or other ethnic group

Chinese

Any other ethnic group

Not stated

% in MSOA not white

% Indian

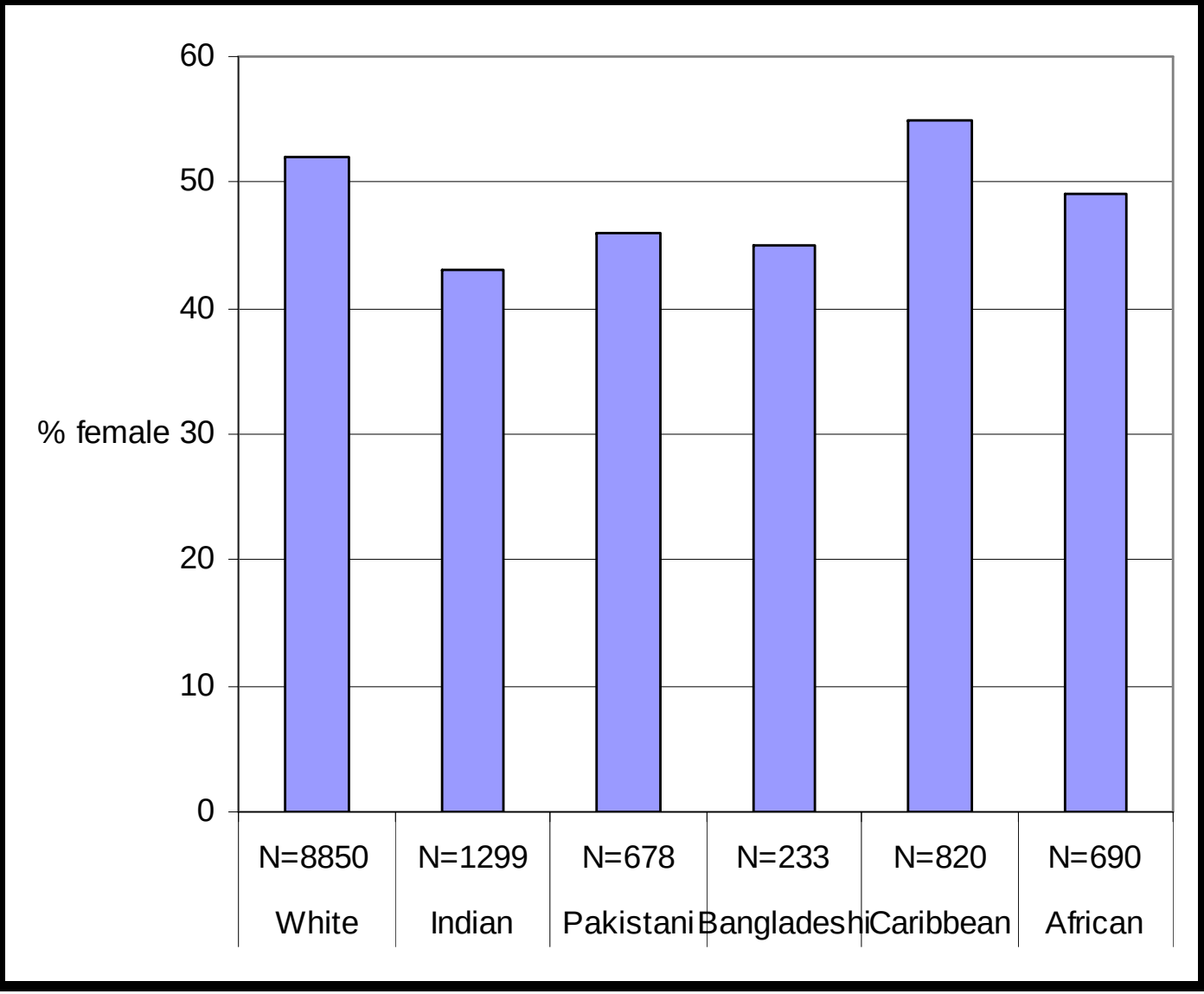
Subjective measures of ED

- Citizenship Survey (2005)
- Clustered in small areas due to sampling strategy

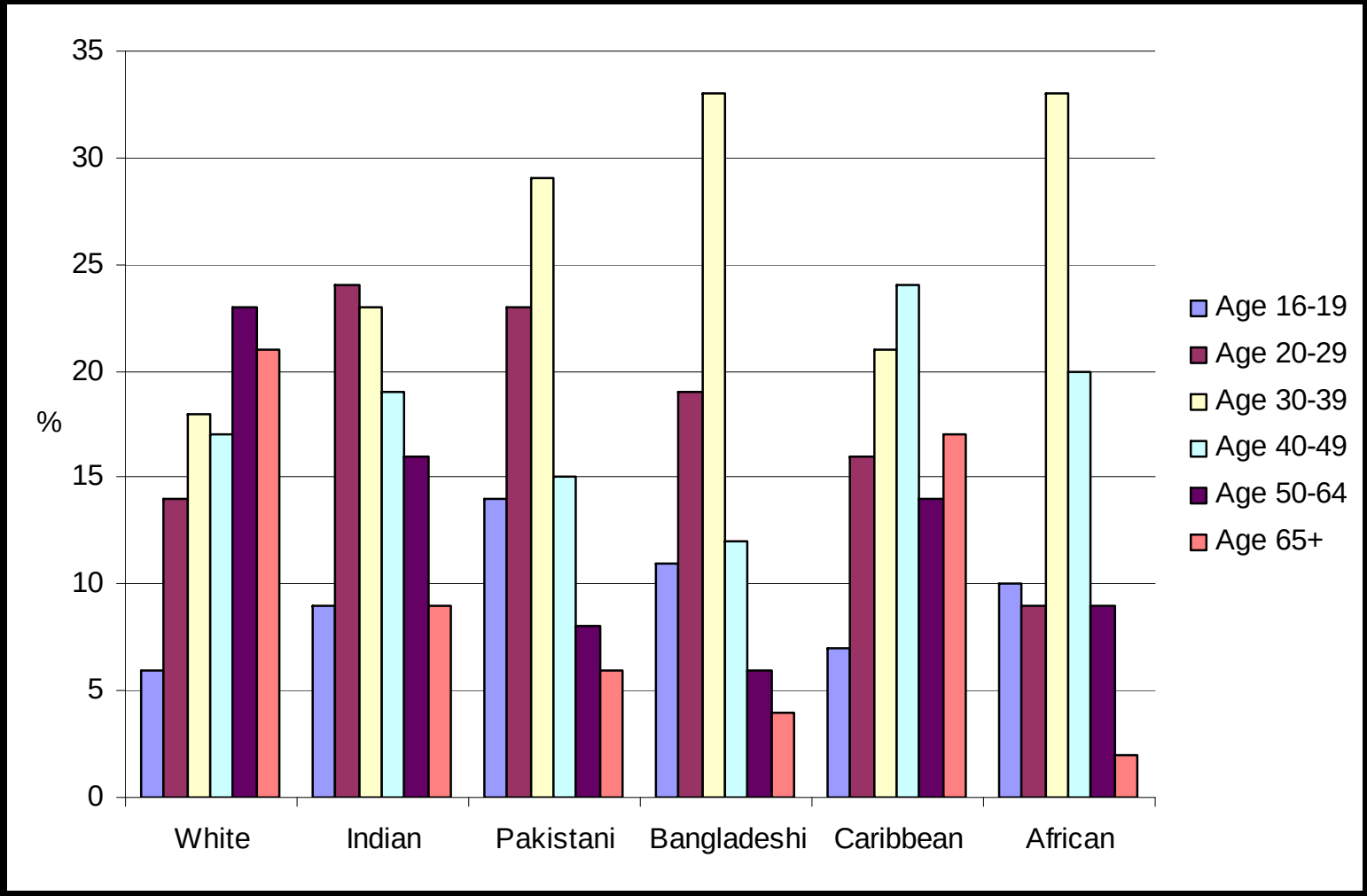
"… thinking about people in this local area (15/20 mins walking distance), what proportion … are of the same ethnic group as you?''

"All the same / more than half / about half / less than half"

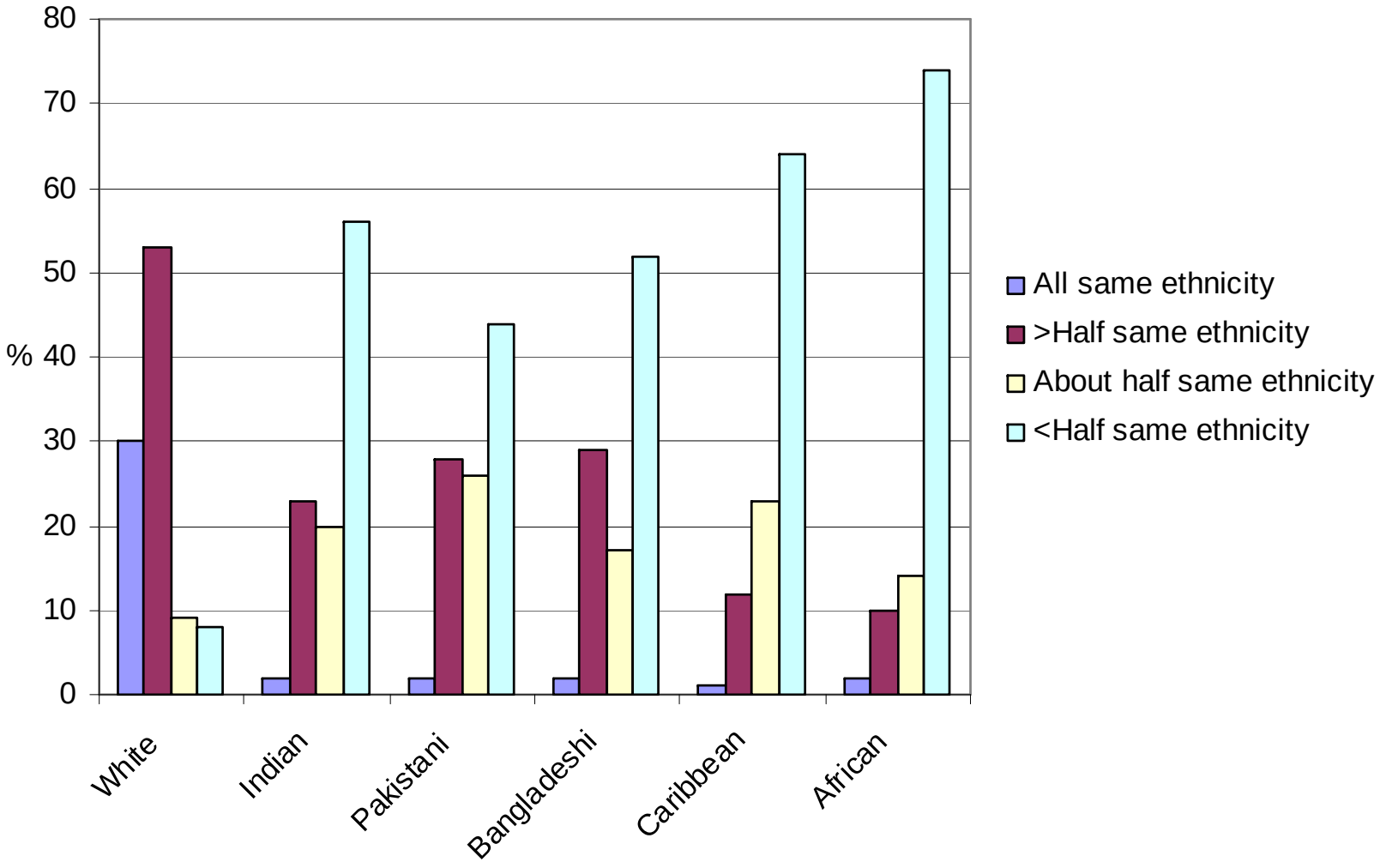
Description of CS 2005 sample



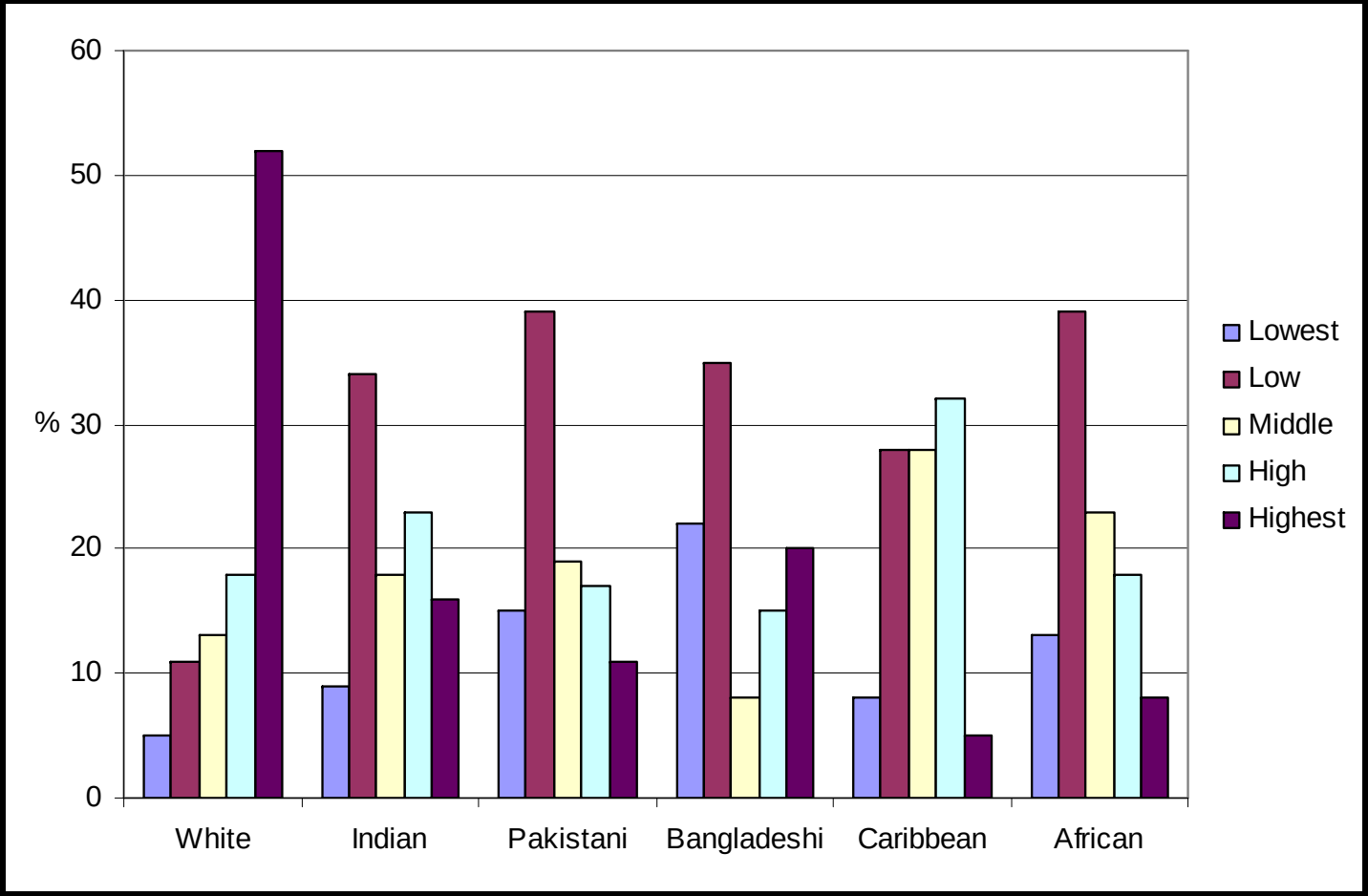
Age distribution of CS 2005 sample



Subjective ED

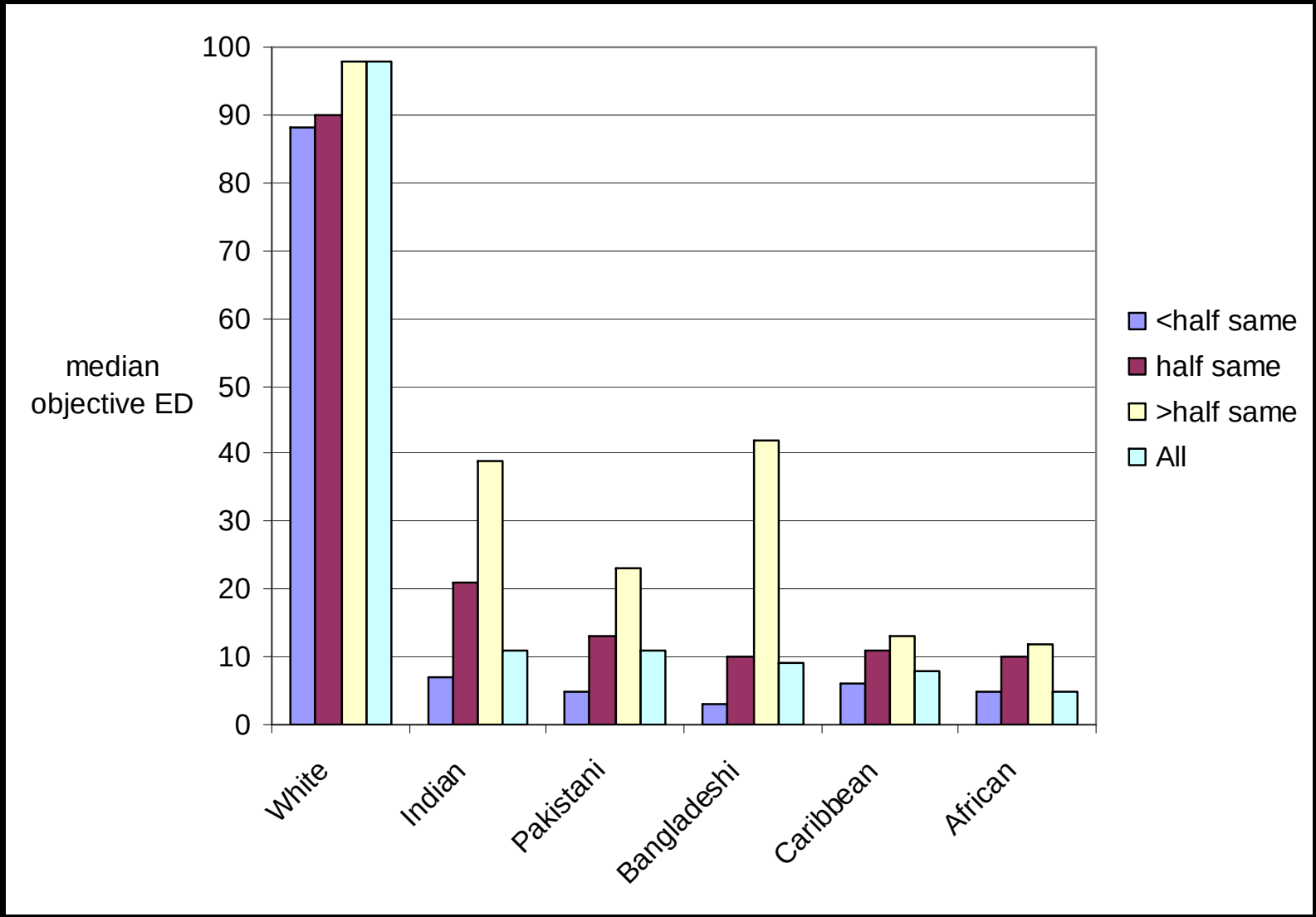


Objective ED



Cut-offs are Whites: 75%, 90%, 95%, 97.5%; Indians, Pakistanis and Bangladeshis: 1%, 10%, 20%, 40%; Caribbeans and Africans: 0.5%, 5%, 10%, 20%

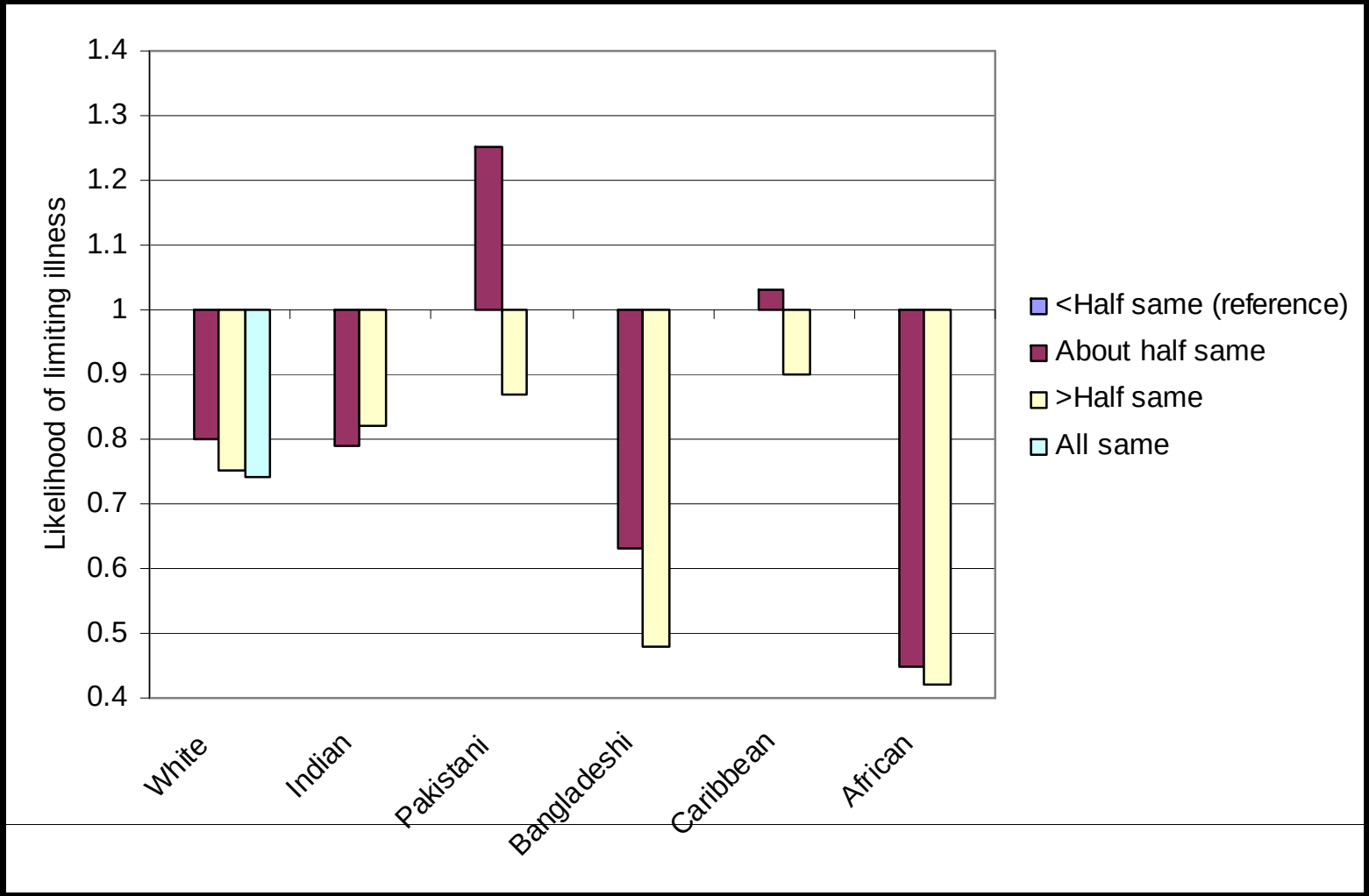
Objective versus subjective ED



Modelling ED and illness

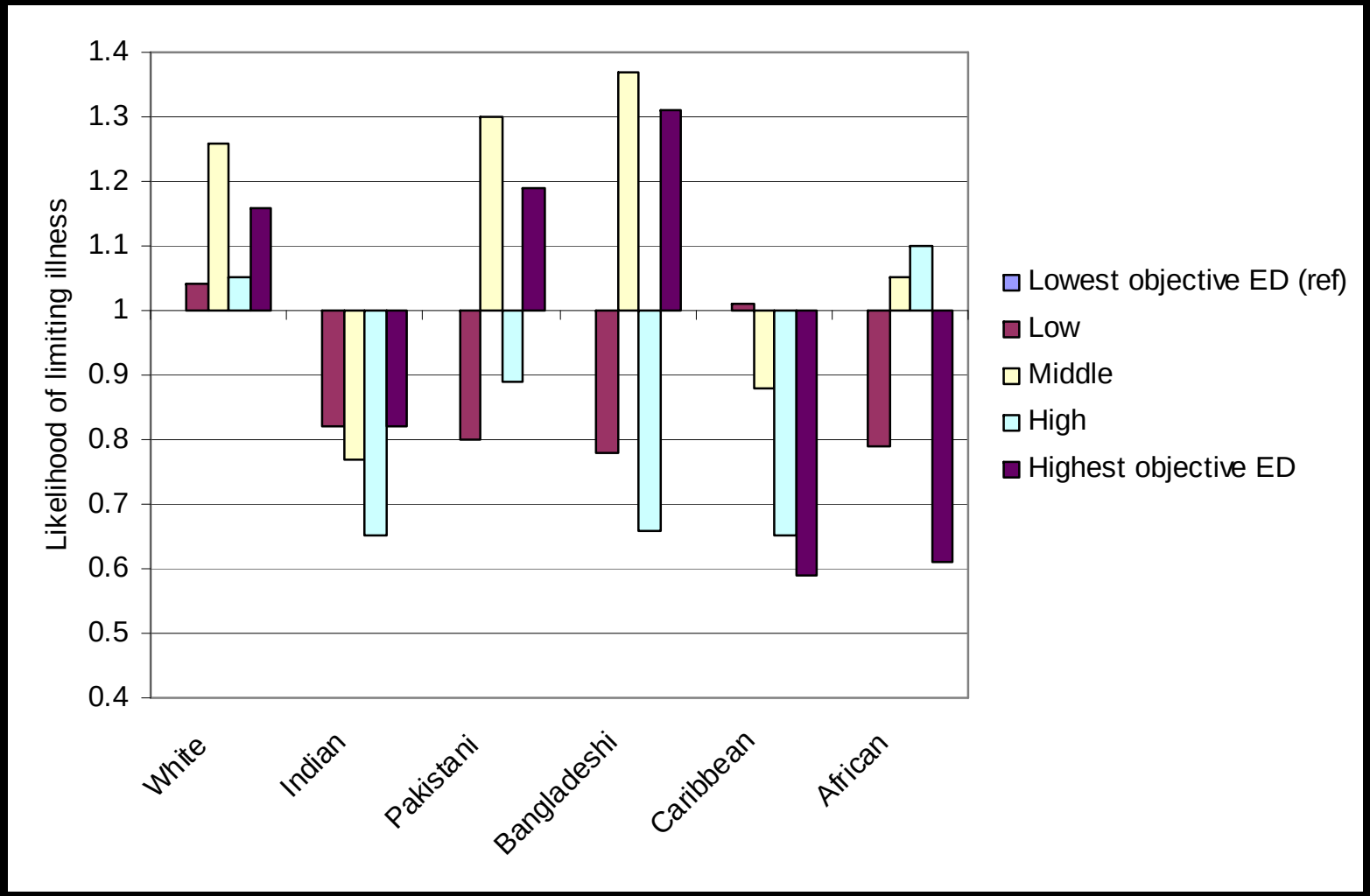
- What is relationship between ED and limiting long-term illness?
- Regression model with robust standard errors to allow for hierarchy of ppts in small areas
- Control for gender, age, SES and area deprivation as important correlates of limiting illness

Subjective ED and limiting illness



Adjusted for age, gender, occupation-based socioeconomic group and area deprivation.

Objective ED and limiting illness



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Summary

- There is positive correlation between objective and subjective indicators of ED
- White ppts tended to underestimate % whites in MSOA
- Participants from all other ethnic groups tended to overestimate % in their own ethnic group
- Subjective ED was associated with long-term limiting illness (controlling for age, SES etc)
- Subjective ED was more strongly associated with long-term limiting illness than was objective ED and associations were more consistent across ethnic groups

Discussion

- What explains failure to find association between objective ED and limiting illness?
  - Consider other health outcomes
    - Reasonably consistent evidence for protective association between objective ED and psychoses, anxiety/depression, suicide & self harm
    - Less consistent for physical health outcomes
  - Insufficient range of ED
    - Compare US where black density reaches much higher levels
  - BUT subjective ED was associated with illness in this study so above do not appear good explanations

- Why might objective ED be less relevant than subjective ED for health?
  - MSOA may not be an appropriate geographical unit to summarise ED
    - Subjective ED based on participant's own definition of their area
    - This may capture people's movements and exposure more accurately
  - Ethnicity based on pre-defined categories in questionnaire
    - Assumes level of agreement between people in an area as to ethnic identification
    - Subjective ED based on participant's categorisation of the people around them

Concluding remarks

Study highlights difficulties in capturing the social and cultural aspects of ethnic identity using pre-defined categories

& collective social phenomena using data aggregated to administrative areas

Future studies may consider including subjective measures of ED

Thank you for listening!

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