

Healthcare Inequalities and Outcomes from Acute Pancreatitis

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Introduction

Acute pancreatitis (AP) is associated with a significant mortality but there remains a paucity of literature on the impact of ethnicity and the Index of Multiple Deprivation (IMD) on outcomes. The aim of this study was to establish whether ethnicity or IMD influence outcomes in AP.

Methods

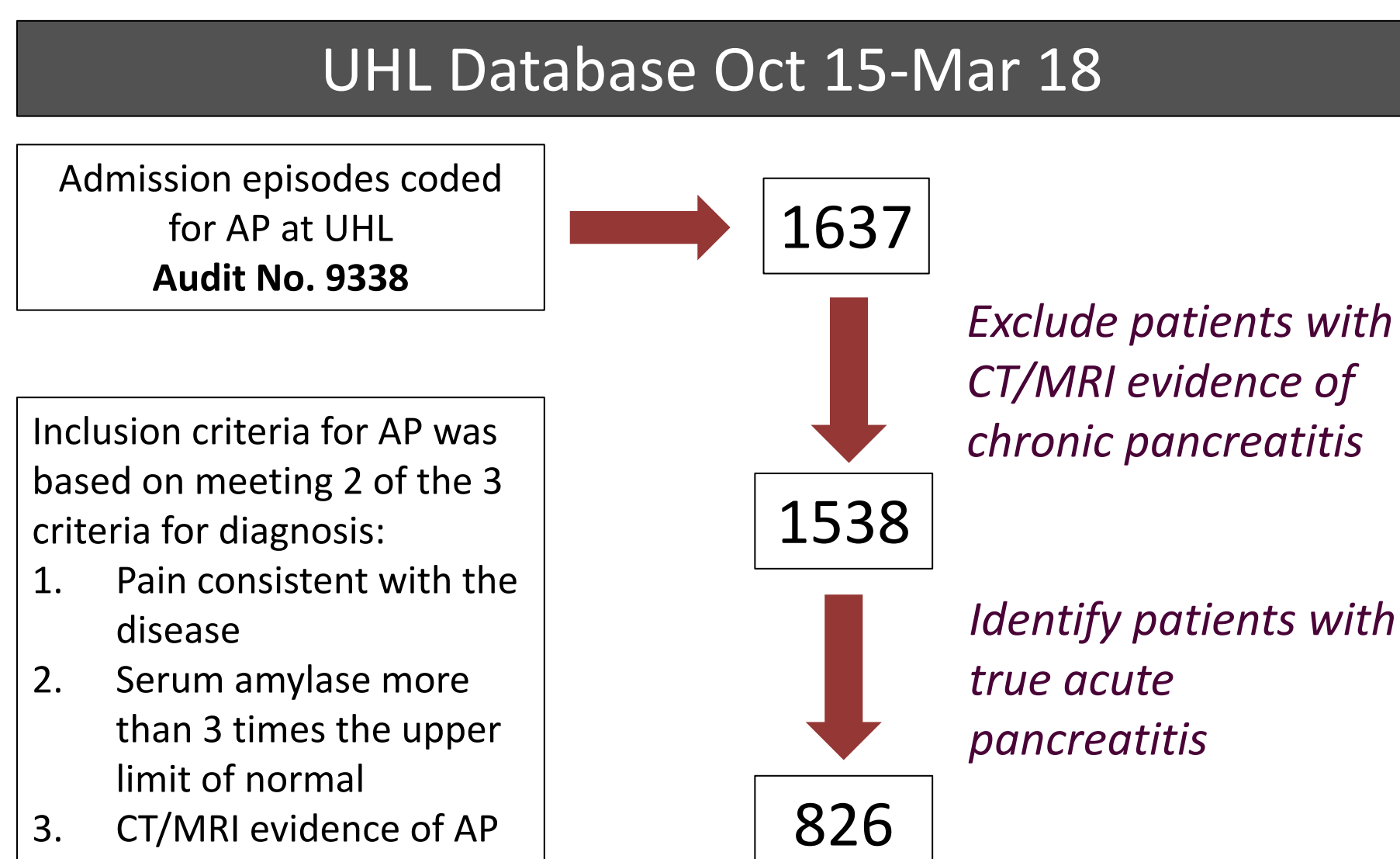


Figure 1 Methodology. Of 1637 patients coded for AP at UHL between October 15 and end of March 18, 826 met the inclusion criteria for true AP.

Medical records included data on demographics including ethnicity and Index of Multiple Deprivation (IMD) based on UK Census data.

Results

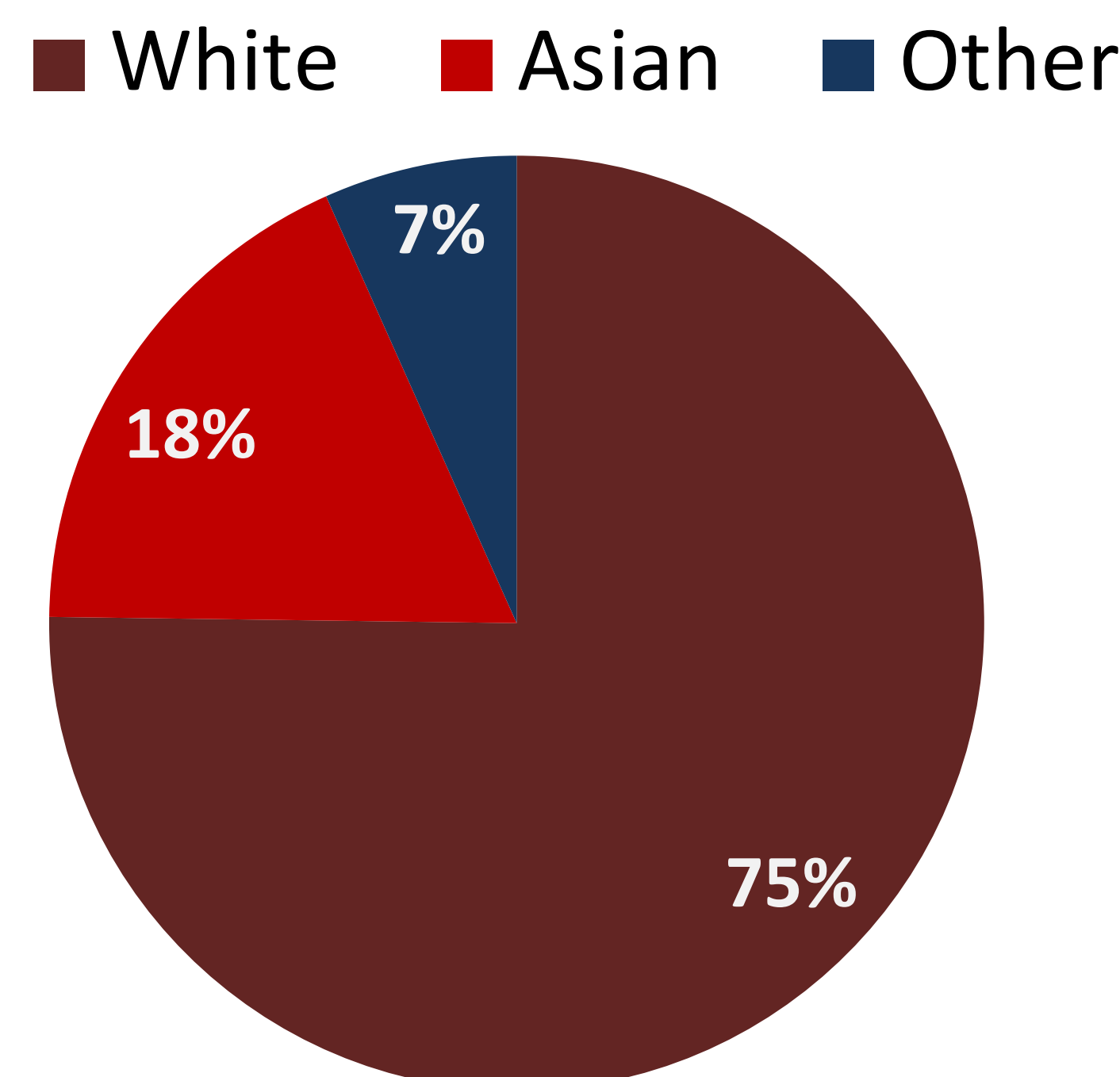
In 2011, Leicester had a population of 330,000, giving AP an estimated incidence of 1/1000 person-years. The population distribution in Leicester was estimated to be 50.3% "White", 36.3% "Asian" and 13.3% "Other". The ethnic distribution for patients with AP was: 75% "White" (British/Irish/Other), 18% "Asian" (Indian/Pakistani/Bangladeshi/Chinese/Other) and 7% "Other" (Black/Mixed/Other).

There was a significant difference in IMD between the 3 groups with the "Other" population being the most deprived, and the "White" population the least deprived ($p < 0.05$; one way ANOVA).

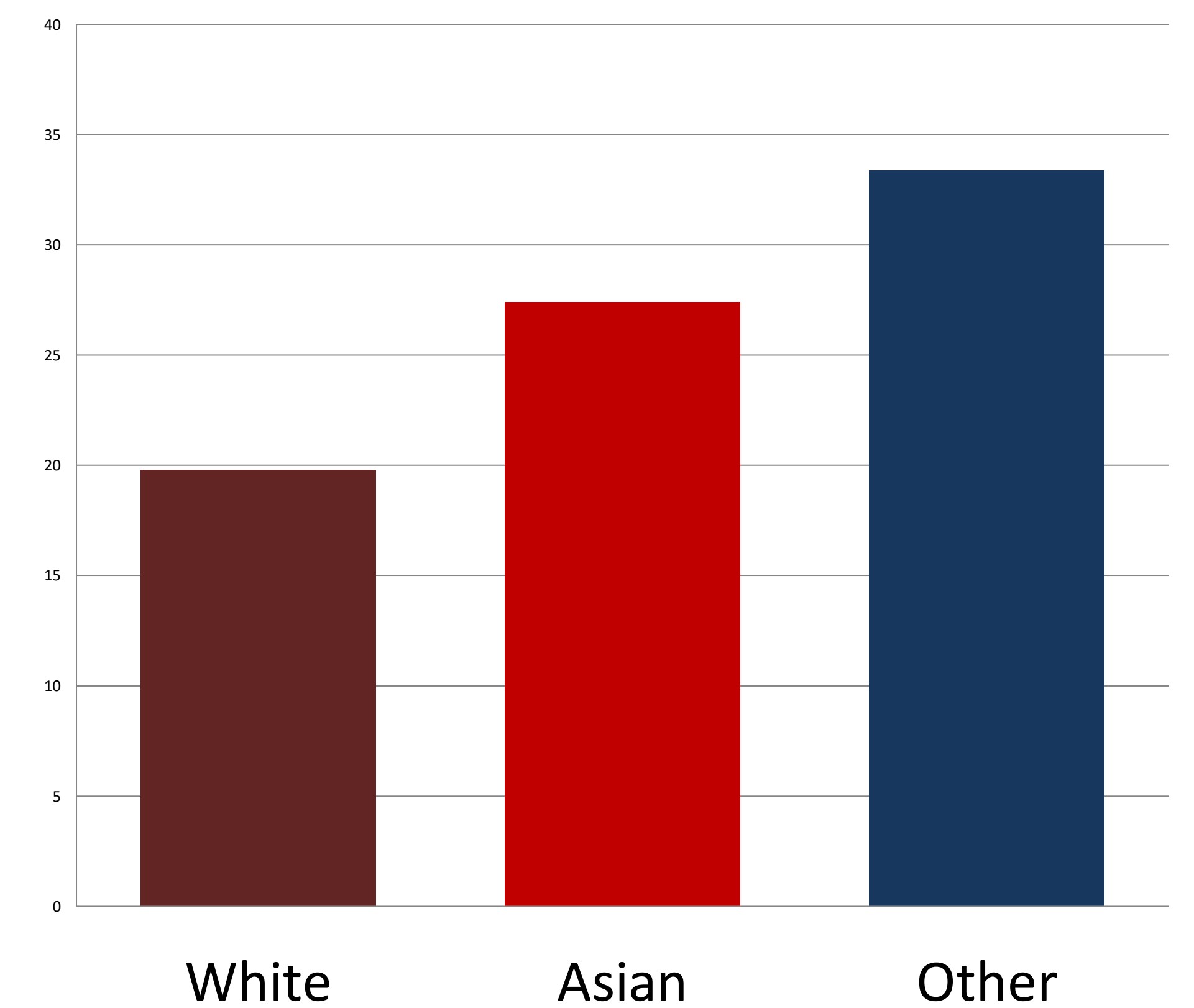
There was no difference in the rate of ITU/HDU admission between the three ethnic groups (4.7% White, 3.4% Asian, 5.2% Other; $p > 0.05$, Chi-Squared) and also no significant difference in 30-day mortality between the 3 groups (4.2% White, 4.0% Asian, 1.7% Other; $p > 0.05$, Chi-Squared).

Furthermore, there was no difference in mean IMD for patients requiring HDU/ITU or those who died within 30-days of admission, compared with those who survived ($p > 0.05$, unpaired t-test).

Ethnic Distribution for Patients with AP

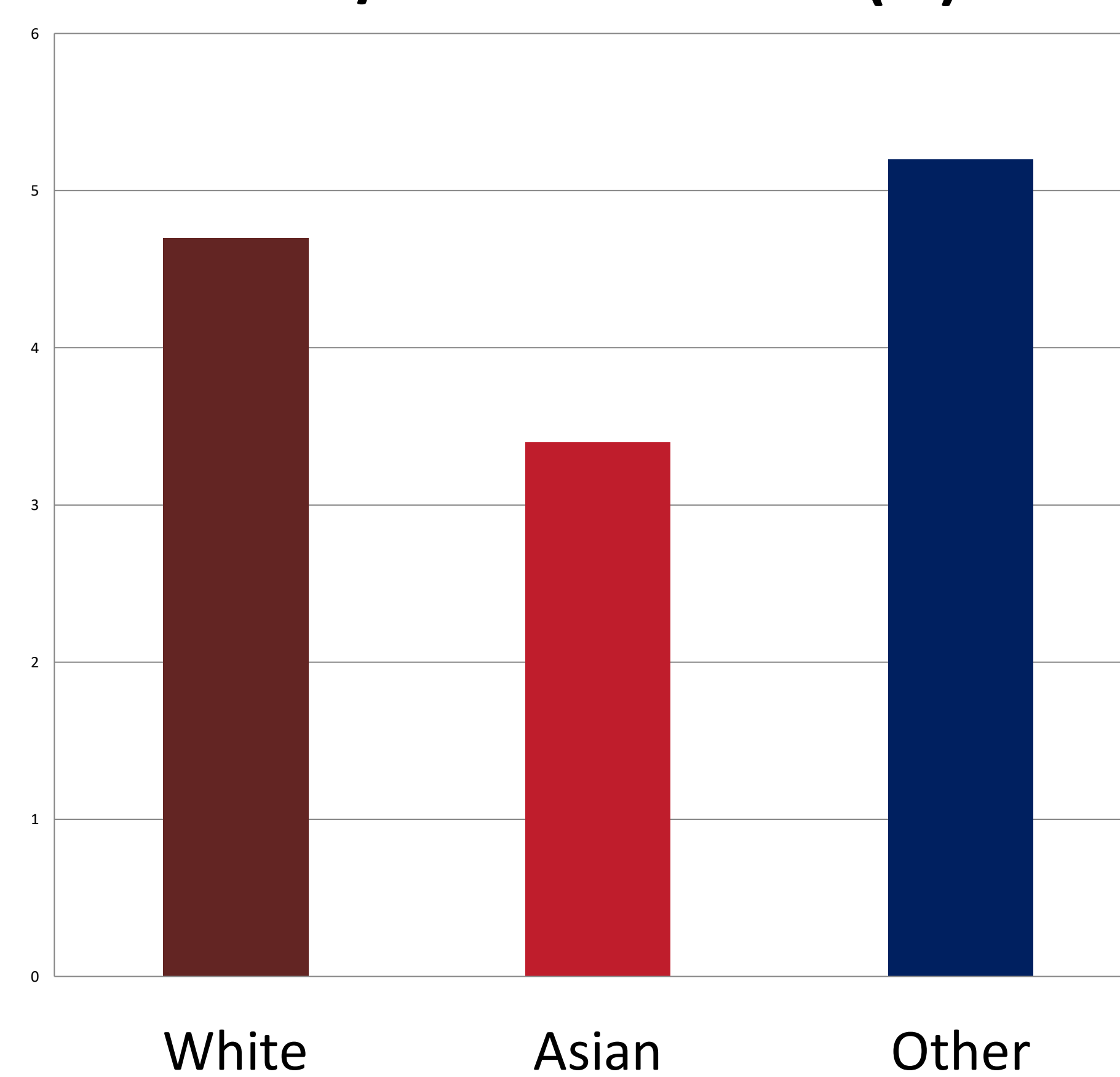


IMD by Ethnicity

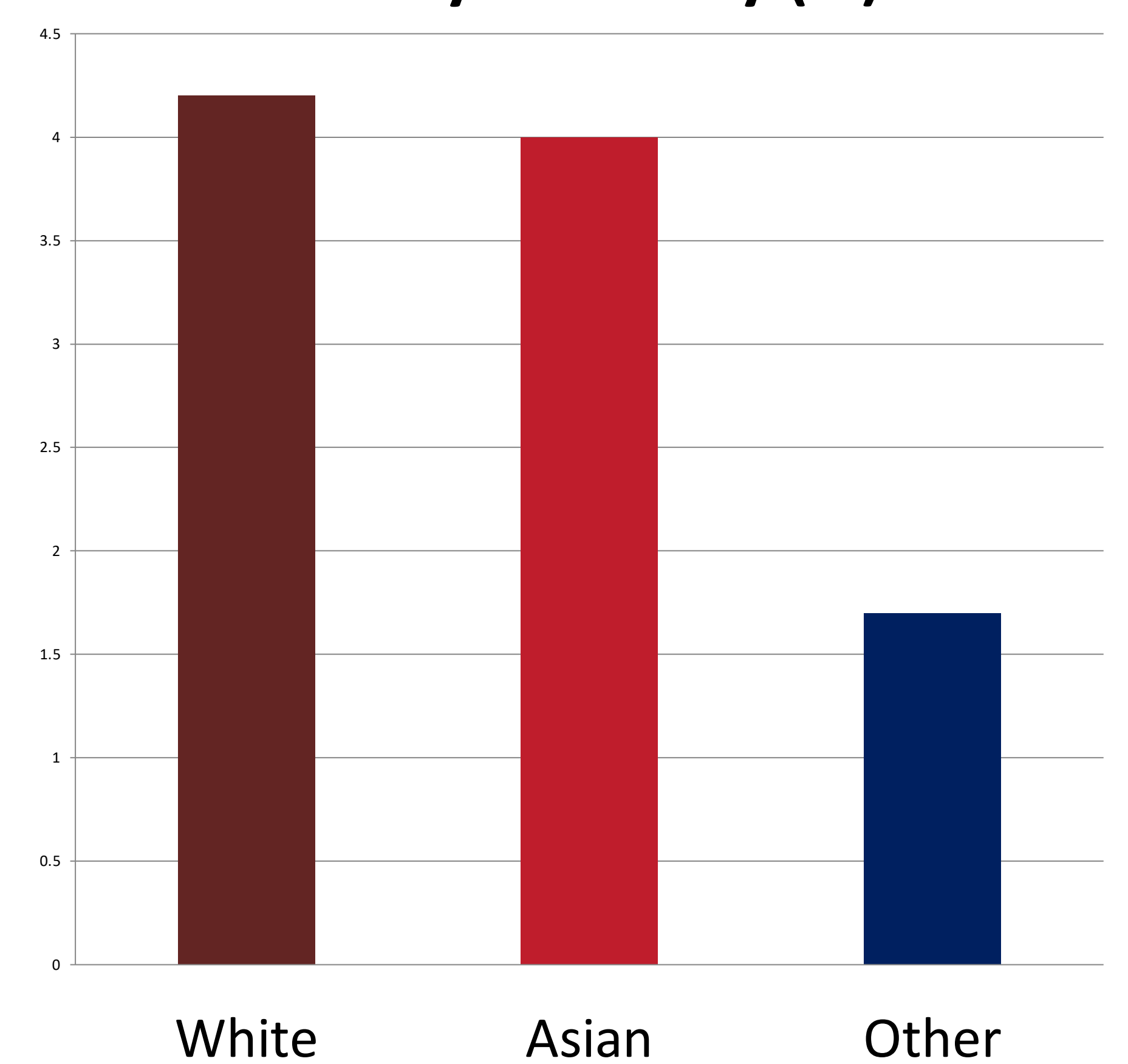


A significant difference in IMD between the 3 ethnic groups ($p < 0.05$; one way ANOVA)

HDU/ITU Admissions (%)



30-Day Mortality (%)



No difference in HDU/ITU stay or mortality between the 3 ethnic groups ($p > 0.05$; Chi-Squared)

Conclusions

To conclude, although the Asian, Black and Other populations were more socially deprived than the White population, ethnicity or IMD did not influence HDU/ITU admission or 30-day mortality in AP. We propose further investigation of less diverse populations to fully understand the contributing factors.