

SOCIOECONOMIC STATUS AND ACUTE MYOCARDIAL INFARCT ADMISSIONS TO HOSPITAL IN MELBOURNE, AUSTRALIA

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Background and Aims: Explanatory studies of the relationship between area deprivation and health have highlighted urbanisation and inequality as an emerging theme. Socioeconomic influences on health have been reported at both the individual and area levels of analysis. Acute myocardial infarction (AMI) morbidity in Melbourne and socioeconomic status was mapped to demonstrate spatial associations within the data.

Methods: Age standardised rate ratios are calculated by determining the age specific rates for each age group, the expected and observed AMI were calculated. The observed AMI divided by the expected AMI provided a ratio of observed to expected AMI admissions controlling for differences in age structure. The standard Melbourne population was the baseline population. The measure of socioeconomic status used to examine health inequalities was the 2001 area-based Socio-Economic Index for Areas (SEIFA). AMI admissions to hospital were classified into SEIFA quintiles according to SEIFA value for place of residence. Each quintile contained approximately 668,000 adult persons. Quintile 1 includes the most disadvantaged areas and quintile 5 the least disadvantaged areas.

Results: The absolute and relative differences in AMI admissions to hospital for SEIFA quintiles 1-5 indicate that rates of AMI admissions are higher in the most disadvantaged areas in the western suburbs, the urban fringe and industrial areas. The rate ratio suggests there were twice as many AMI admissions in quintile 1 (most disadvantage) than in quintile 5 (least disadvantage).

Conclusions: The analysis indicates that socioeconomic inequality contributes to AMI admissions to hospital in Melbourne. Regional differences in AMI admissions were quantified and described. Spatial analysis was used to identify spatial clusters of AMI admissions in Melbourne metropolitan region. Quintile maps highlighted the differences in AMI admissions rates per quintile. AMI risk was presented in a spatial framework capable of informing policy and addressing disease prevention.