**Income and diabetes: Prevalence is higher among the poor**

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**INTRODUCTION**

The North West Adelaide Health Study, a representative cohort study, is designed to enable examination of disease by stage of progression. This analysis uses a social determinants of health approach to describe undiagnosed and diagnosed diabetes in terms of income gap and gradient.

**METHODS**

The North West Adelaide Health Study (NWAHS) used a representative population sample of adults living in the north western region of Adelaide to examine the prevalence of chronic conditions, including diabetes. Data were obtained from a random, representative sample of people aged 18 years and over living in the north west region of Adelaide (n=4060), who were recruited via telephone interviews. All households within this region with a telephone and the telephone number listed in the Electronic White Pages were eligible for random selection. Within each household, the person who had their birthday last and was aged 18 years or older, was selected for interview and invited to attend the Study clinic for biomedical measurements to be taken. Of those interviewed, 69% participated in the clinic visit. Data was obtained from self-reported questionnaires and biomedical measurements.

Those with undiagnosed diabetes were defined as those with a fasting plasma glucose of at least 7.0mmol/L and who did not self-report having diabetes, and those with diagnosed diabetes were those who self-reported being told by a doctor that they had diabetes. Income gap was analysed by categorising gross annual household income into $20,000 or less, and over $20,000. Income gradient was analysed by categorising gross annual household income into $20,000 or less, $20,001 to $40,000, $40,001 to $60,000, and over $60,000.

**RESULTS**

The prevalence of diagnosed diabetes was 5.6% (95% CI 4.9 – 6.3), and the prevalence of undiagnosed diabetes was 1.0% (95% CI 0.7 – 1.4).

Examination of the prevalence of diagnosed and undiagnosed diabetes by income gap revealed that the prevalence of diagnosed diabetes was statistically significantly lower for those with an income above $20,000 pa when compared to those with an income of up to $20,000, however there was no statistically significant difference in the prevalence of undiagnosed diabetes between the two groups. Figure 1 shows the relationship between income gap and diabetes.

**CONCLUSIONS**

This analysis demonstrates an inverse income gradient effect in the prevalence of diagnosed diabetes, such that the prevalence of diagnosed diabetes is higher among those with lower income, which exists even when controlling for the effects of age. Prevention and management strategies for diabetes must include a focus on income inequalities.