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## INTRODUCTION

The North West Adelaide Health Study is a cohort study designed to segment a large representative population sample by stage of disease to identify each stage's characteristics, and to examine the transition of participants through each stage of the disease process.

The aim of this study was to examine the proportion of people who had been told they had high blood sugar when they actually had pre-diabetes, in this case impaired fasting glucose (IFG).

## METHODS

- A representative, randomly selected sample of people aged 18 years and over living in the north west region of Adelaide (n=4060) was recruited via telephone interview, during which they answered questions about their health.
- Within each household, the person who had their birthday last, and was 18 years or older, was selected for interview and invited to attend the clinic. The participation rate for the household interview was 71.2%. The overall response rate for the study was 49.4%.
- All households in the north western area of Adelaide with a telephone connected and the telephone number listed in the Electronic White Pages (EWP) were eligible for selection. The sample was stratified into the two health regions: western Adelaide and northern Adelaide.
- The data were weighted by region, age group, gender, and probability of selection in the household to the Australian Bureau of Statistics 1999 Estimated Residential Population.
- Self-reported data was via the initial telephone interview, and a self-administered questionnaire that was completed before participants attended the clinic. Biomedical data was collected from participants at their clinic appointment.
- Participants with diagnosed diabetes were defined as those who self-reported being told by a doctor that they had diabetes.
- Those with previously undiagnosed diabetes were defined as those with a fasting plasma glucose (FPG) level  $\geq 7.0$  mmol/L, and who did not self-report being told by a doctor they had diabetes.

- Participants with IFG were defined as those with a FPG level of at least 6.1 mmol/L and less than 7.0 mmol/L.
- Participants were also asked if they had ever been told by a doctor they had high blood sugar.

## RESULTS

Overall, the prevalence of diagnosed diabetes was 5.6% (95% CI 4.9 – 6.3) and the prevalence of previously undiagnosed diabetes was 1.0% (95% CI 0.7 – 1.3). The prevalence of IFG and diabetes (diagnosed and undiagnosed) overall are shown in Table 1.

**Table 1: Prevalence of Impaired Fasting Glucose and Diabetes**

	Prevalence %	(95% CI)
IFG	4.3	(3.7 – 5.0)
Diabetes	6.6	(5.8 – 7.4)

In the telephone interviews, n=200 participants (4.9%) reported ever being told they had high blood sugar, however only 21.0% of these reported still having high blood sugar.

At clinic, of those who self-reported ever having been told they had high blood sugar, 11.2% had IFG and 5.7% had diabetes. Of those who self-reported no longer having high blood sugar, biomedical measurements revealed that 11.7% had IFG, and 3.8% had diabetes.

Figure 1 describes the stages of diabetes progression for those who reported ever being told by a doctor they had high blood sugar.

## CONCLUSION

- These results indicate the possibility that people are still being told they have high blood sugar, rather than being told they have diabetes, pre-diabetes or IFG.
- There is a need for regular screening for diabetes, and increased education about prevention of diabetes, among those who have ever had high blood sugar.

**Figure 1: Stages of diabetes progression for those who self-reported ever being told by a doctor they had high blood sugar**

