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## INTRODUCTION

The North West Adelaide Health Study is a cohort study addressing the National Health Priorities of diabetes and asthma because of the significant burden that they place on the community in terms of health, social, economic and quality of life costs. It also investigates chronic obstructive pulmonary disease (COPD) as this adds to the burden of respiratory disease and many risk factors associated with asthma are common to COPD.

## METHODS

- A representative population sample of people aged 18 years and over living in the northern and western suburbs of Adelaide (n=4060) was recruited via telephone interviews to participate.
- Health-related quality of life was measured using the generic Short Form 36 (SF-36). The SF-36 is summarised into eight dimensions, namely Physical Functioning (PF), Role Physical (RF), Bodily Pain (BP), General Health (GH), Vitality (VT), Social Functioning (SF), Role Emotional (RE), and Mental Health (MH).
- People with diabetes were defined as those who had a fasting plasma glucose level of at least 7.0mmol/L, and/or those who self-reported being told by a doctor that they had diabetes.
- People with asthma were defined as those who reported having been told by a doctor that they have asthma, or those who had a 15% increase in FEV<sub>1</sub> (forced expiratory volume in one second) from pre-Ventolin to post-Ventolin, or those who had a 12% increase in FEV<sub>1</sub> from pre-Ventolin to post-Ventolin if their absolute difference in FEV<sub>1</sub> was greater than 200ml.
- People with COPD were defined as those with a measured FEV<sub>1</sub>:FVC ratio less than the result of the formula  $(87.21 - (0.18 \times \text{age}))$  for males, and  $(89.10 - (0.19 \times \text{age}))$  for females, and required that people had not been diagnosed with asthma.

## RESULTS

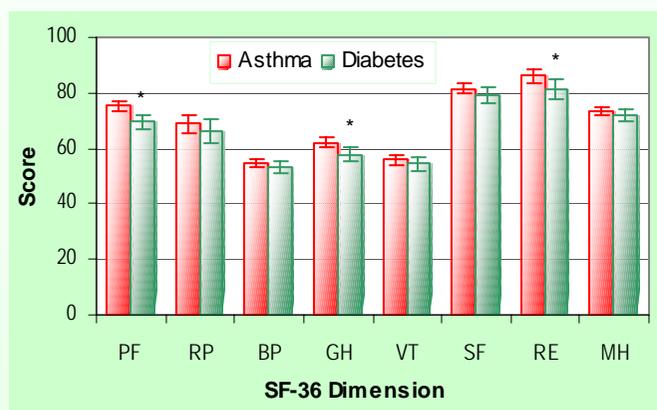
Table 1 shows the prevalence of diabetes, asthma and COPD.

**Table 1: Prevalence of diabetes, asthma and COPD**

|          | Prevalence (%) | (95% CI)      |
|----------|----------------|---------------|
| Diabetes | 6.6            | (5.8 – 7.4)   |
| Asthma   | 12.3           | (11.3 – 13.3) |
| COPD     | 22.3           | (21.1 – 23.6) |

People with diabetes scored statistically significantly lower on the Physical Functioning, General Health, and Role Emotional dimensions of the SF-36 compared to those with asthma.

Figure 1 shows the comparison of mean SF-36 scores between diabetes and asthma.

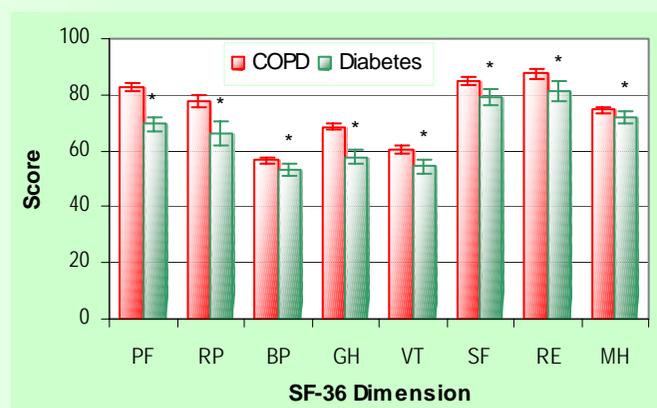


\* Statistically significantly different to those with asthma.

**Figure 1: Mean SF-36 scores, controlled for age and sex – Diabetes compared to Asthma**

Compared to those with COPD, people with diabetes scored statistically significantly lower on all eight dimensions of the SF-36.

Figure 2 shows the comparison of mean SF-36 scores between diabetes and COPD.



\* Statistically significantly different to those with COPD.

**Figure 2: Mean SF-36 scores, controlled for age and sex – Diabetes compared to COPD**

## CONCLUSION

People living in the north west region of Adelaide who have diabetes have significantly reduced health-related quality of life compared to people in the same region who have asthma or COPD.