

INTRODUCTION

Diabetes-related complications, such as impaired eyesight and pain or loss of sensation in the lower extremities, can affect a person's quality of life and ability to function. This study examined the prevalence of diabetes-related eye and lower limb complications in a South Australian population sample and the follow-up of these conditions by health care professionals.

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. All households within this region with a telephone connected and the telephone number listed in the Electronic White Pages were eligible for 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. Of those who were interviewed, n=2523 attended the clinic, resulting in a clinic participation rate of 69%.

People with diabetes were defined as those who reported having been told by a doctor, or who were diagnosed in the clinic with a fasting plasma glucose reading of at least 7.0 mmol/L.

A follow-up telephone interview of people with diagnosed diabetes (n=140) was conducted in 2002 and included questions on feet, toes and lower limbs and eyes being affected by diabetes. Of all participants who attended the clinic, 90% took part in the follow-up interview. This report focuses on analyses of people with diagnosed diabetes who participated in the follow-up interview.

RESULTS

The overall prevalence of diabetes within the NWAHS population, as determined from self-reported data and biomedical measurement, was 6.7%. Of these people with diabetes (n=168), 81.7% were diagnosed and 18.3% were previously undiagnosed.

Of those people with diagnosed diabetes who took part in the telephone follow-up interview (n=140), 39.0% reported often suffering from tingling, pins and needles, burning, pain or loss of sensation in their feet, toes or lower limbs.

Figure 1: Proportion of people with diabetes who often experienced symptoms of neuropathy in feet, toes or lower limbs by age group

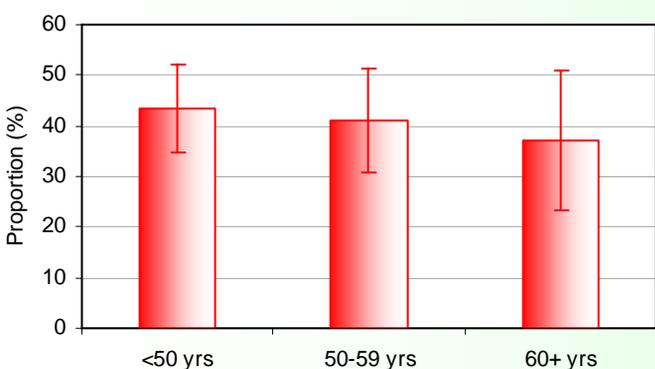


Figure 1 shows the proportion of people experiencing evidence of diabetes-related neuropathy by age group. The proportion of people reporting these symptoms did not significantly differ by age group. There were also no statistically significant differences found when the data were analysed by sex or country of birth.

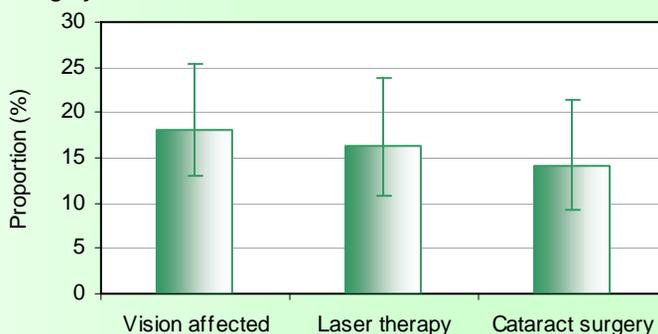
Current clinical guidelines for people with diabetes recommend an eye examination at diagnosis and then every one to two years. People with diabetes in this population were asked if they had had their eyes examined in the last twelve months by a doctor or an optometrist because of their diabetes. Overall, 59.2% had their eyes checked within this time frame. People who had their eyes checked were more likely to be in the older age groups (Table 1), although this was not statistically significant.

Table 1: Univariate odds ratios for a diabetes-related eye examination within the last twelve months by age

Age Group	n	(%)	Odds Ratio	(95% CI)	p value
<50 yrs	12/25	(50.5)	1.00		
50-59 yrs	16/30	(51.8)	1.07	(0.32-3.55)	p=0.9
60+ yrs	55/85	(64.3)	1.83	(0.67-5.04)	p=0.3

People with diabetes were then asked if they had ever been told by a doctor that their vision had been affected or if they had ever had laser therapy or cataract surgery because of their diabetes (Figure 2). Overall, 31.3% of people with diabetes reported ever being told their vision was affected, or having laser therapy or cataract surgery. No statistically significant differences were found in the proportion of people with diabetes whose vision was affected, or who had undergone laser therapy or cataract surgery, when analysed by age group, sex or country of birth.

Figure 2: Proportion of people with diabetes whose vision was affected or who had undergone laser therapy or cataract surgery



CONCLUSIONS

Ongoing adherence to accepted diabetes management guidelines for general practitioners, for routine referral of people with diabetes with podiatry and ophthalmological check-ups, is important for prevention of complications. These results have provided baseline measurements within a cohort study population, from which trends in the uptake of referral patterns and treatment can be monitored.