

INTRODUCTION

A major challenge for public health is to halt the global epidemic of diabetes and its associated complications. To successfully contribute to the reduction of this condition, diabetes epidemiology needs to recognise that sex is a biological construct and gender is a social construction that embodies particular roles and expectations.

METHODS

The North West Adelaide Health Study used a representative population sample of adults living in the north western region of Adelaide to examine the prevalence of chronic conditions, including diabetes. Of those who were interviewed, n=4060 attended the clinic, resulting in a participation rate of 71.2%. Demographic, chronic disease information was self-reported via a telephone interview and self-completed questionnaire. Glucose, body mass index, waist/hip ratio, blood pressure and cholesterol were biomedically measured. 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.

RESULTS

Overall, the prevalence of diabetes was 6.6% (95% CI 5.8-7.4) – 7.2% (95% CI 6.1-8.4) among men and 5.8% (95% CI 4.9-7.0) among women. At a multivariate level, both men and women with diabetes were statistically significantly (p<0.05) more likely to be aged 40 years or over, to have a family history of diabetes and to be obese, whilst less likely to have a gross household income more than \$60,000 (Table 1, Figure 1).

Table 1: Multivariate Odds Ratios for variables associated with diabetes for both men and women

Variable	OR	(95% CI)	p value
Age Group - 18-39 years	1.00		
MEN			
40-59 years	5.28	(2.70-10.30)	<0.001
60 years and over	14.58	(7.10-29.92)	<0.001
WOMEN			
40-59 years	3.28	(2.01-5.35)	<0.001
60 years and over	7.08	(4.17-12.01)	<0.001
Gross ann h'hold income - < \$20,000	1.00		
MEN			
\$20,000-40,000	1.31	(0.81-2.12)	0.27
\$40,001-60,000	0.73	(0.38-1.38)	0.33
More than \$60,000	0.39	(0.19-0.84)	0.02
WOMEN			
\$20,000-40,000	1.03	(0.72-1.46)	0.88
\$40,001-60,000	0.65	(0.40-1.07)	0.09
More than \$60,000	0.49	(0.29-0.85)	0.01
Family history of diabetes - No	1.00		
MEN			
Yes	3.66	(2.47-5.41)	<0.001
WOMEN			
Yes	2.78	(2.10-3.70)	<0.001
Body Mass Index – Acceptable	1.00		
MEN			
Overweight (≥ 25)	1.45	(0.80-2.64)	0.22
Obese (≥ 30)	4.32	(2.39-7.83)	<0.001
WOMEN			
Overweight (≥ 25)	1.49	(0.95-2.33)	0.08
Obese (≥ 30)	3.34	(2.15-5.19)	<0.001

Men with diabetes were also statistically significantly more likely to be an ex-smoker and less likely to have high cholesterol (Table 2). Women with diabetes were also statistically significantly more likely to have a high waist-hip ratio, high blood pressure, and to report a past cardiovascular event (heart attack, stroke or angina) and/or a mental health problem (anxiety, depression, stress-related and/or other mental health problem), whilst less likely to be a low risk drinker (Table 3).

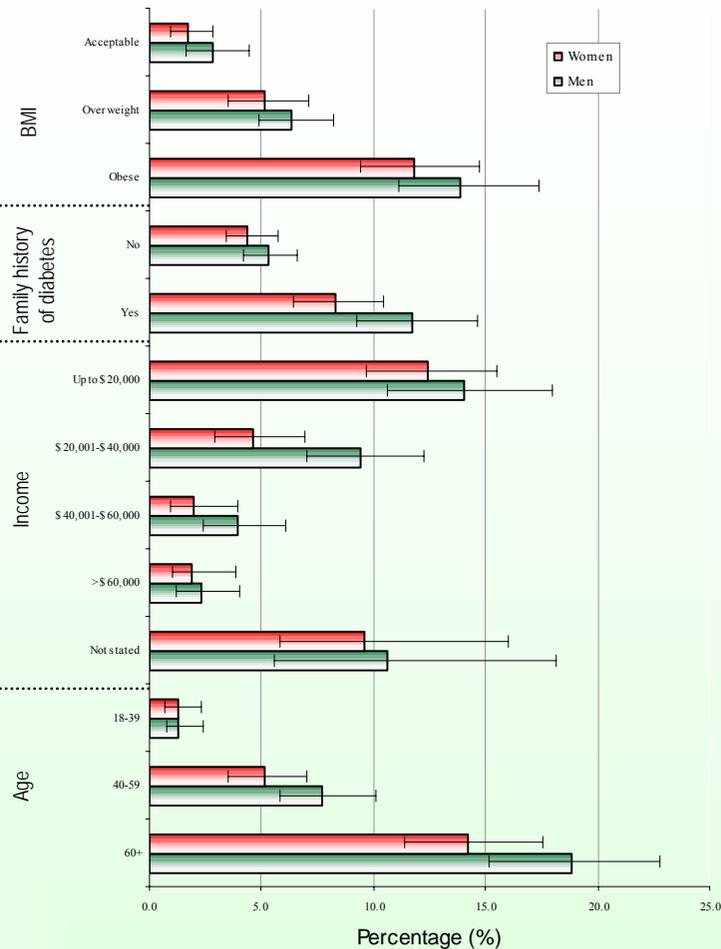


Figure 1: Proportion of men and women with and without diabetes and related self-reported and biomedically measured factors

Table 2: Multivariate Odds Ratios for variables associated with diabetes for men

Variables - MEN	OR	(95% CI)	p value
Smoking - Non smoker	1.00		
Ex-smoker	1.56	(1.01-2.42)	0.05
Current smoker	1.33	(0.77-2.31)	0.31
High total blood cholesterol - No	1.00		
Yes (≥ 5.5 mmol/L)	0.50	(0.33-0.76)	0.001

Table 3: Multivariate Odds Ratios for variables associated with diabetes for women

Variables - WOMEN	OR	(95% CI)	p value
High waist/hip ratio - No	1.00		
Yes (≥ 0.85)	2.80	(1.81-4.31)	<0.001
High blood pressure - No	1.00		
Yes (\geq sys 140 &/or dias 90mmHg)	2.50	(1.64-3.83)	<0.001
Cardiovascular disease - No	1.00		
Yes	4.03	(0.00-32.0)	<0.001
Mental health disorder - No	1.00		
Yes	1.99	(1.26-3.14)	0.003

CONCLUSION

Several factors associated with diabetes are different between men and women. This finding has implications for developing health promotion, and prevention and management interventions.