

INTRODUCTION

The North West Adelaide Health (NWAH) Study is a biomedical study in the north western suburbs of Adelaide. Respondents were initially recruited by telephone interview to participate in a clinic assessment of their health. Data were obtained using telephone interview and clinic assessment. This poster presents data from the first measurement phase relating to use of Medical Benefits Scheme (MBS) and Pharmaceutical Benefits Scheme (PBS) associated with the following risk factors: physical activity, smoking status, alcohol risk, blood pressure and blood cholesterol level.

METHODS

All households within the north west suburbs of Adelaide 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 response rate of 51%.

RISK FACTORS

- **Smoking prevalence:** Categorised into current smoker, ex-smoker and non-smoker based on self report.
- **Alcohol consumption:** Respondents were classified as non-drinkers/no risk, low alcohol risk, intermediate alcohol risk and high to very high alcohol risk based on self reported data.
- **Physical activity:** Participants were classified as sedentary, low level, moderate level or high level of physical activity using the questions from the National Health Survey (1995 and 2001).
- **High blood pressure:** Greater than or equal to 140/90 mm Hg measured at the clinic.
- **High cholesterol:** Measured using a fasting blood sample. The definition of high cholesterol was total blood cholesterol ≥ 5.5 mmol/L or the ratio of low density lipoprotein to high density lipoprotein being greater than 5.

MBS and PBS data were obtained for each participant from the Health Insurance Commission (HIC). The information included date of service, MBS item number, and benefit paid, for each service from 1 July 1997 to 30 June 2002. Pharmaceutical Benefit Scheme (PBS) data included date of prescription, PBS item number, and benefit paid, for each service for the period 1 October 1999 to 31 December 2003.

RESULTS

Of the participants who attended the clinic during Phase 1, 4.6% did not provide Medicare details or consent for their data to be matched to PBS or MBS items. Matching was successful for 97.7% of participants with regard to MBS items and 95.8% for PBS items. Table 1 presents the mean MBS cost (in Australian dollars) per participant and the mean MBS service use per participant for each risk factor over five years. Table 2 presents the mean PBS cost (in Australian dollars) per participant and PBS item use per participant over four years for each risk factor.

Table 1: Mean MBS costs and number of services (1997-2002) for five chronic disease risk factors

Risk factor	Mean Cost (MBS)	Mean number of services (MBS)
No high cholesterol	2246.70	65
High cholesterol	2429.91	69
No high blood pressure	2014.68*	59*
High blood pressure	2993.75*	83*
Exercise	2152.16*	62*
Sedentary	2465.01*	71*
Non smoker	2344.61*	66*
Ex smoker	2773.97*	77*
Current smoker	1675.89*	51*
Non drinkers, no risk	2237.66	64
Low risk	2378.93	68
Intermediate to very high	1961.76	55

*Significant difference between all categories for each risk factor $p < 0.05$

Table 2: Mean PBS costs and number of items (1999-2003) for five chronic disease risk factors

Risk factor	Mean Cost (PBS)	Mean number of items (PBS)
No high cholesterol	1355.89	21
High cholesterol	1344.80	23
No high blood pressure	902.72*	15*
High blood pressure	2423.25*	38*
Exercise	1112.82*	17*
Sedentary	1627.26*	27*
Non smoker	1247.14*	21*
Ex smoker	1835.87*	28*
Current smoker	940.28*	16*
Non drinkers, no risk	1567.07*	24*
Low risk	1095.02*	19*
Intermediate to very high	805.30*	13*

*Significant difference between all categories for each risk factor $p < 0.05$

CONCLUSION

Risk factors for chronic disease have a significant impact on health service use in terms of both pharmaceutical item and medical service use. The age and sex of participants may also effect costs and this requires further examination. It is of interest to note that smokers have lower costs and services than non or ex-smokers, as do intermediate to very high drinkers compared to non-drinkers or no risk. This may indicate a reluctance on the part of these participants to attend general practitioners.