INTRODUCTION
This brief report summarises key findings from the comprehensive report: The North West Adelaide Health Study: Risk Factors and Associated Chronic Conditions¹.

BACKGROUND
The North West Adelaide Health Study is a biomedical population study of chronic disease and is an important current information source providing validated estimates of chronic disease and related risk factors that can contribute to health policy decisions.

In this study we identify the prevalence of risk factors and various combinations of risk factors for the region as a whole and the sub-divisions of the north and west. The associations of the risk factors with disease groups and their impact on quality-of-life are also identified, together with descriptions of the groups at risk.

Methodology of the study is outlined in the North West Adelaide Health Study Brief Report number: 2002-08².

Self-reported information was obtained on smoking status, alcohol consumption, and physical activity. Body mass index, blood pressure, and total blood cholesterol were biomedically measured in the clinic.

THE CONTEXT AND DETERMINANTS OF HEALTH STATUS
The risk factors examined in this study in relation to chronic disease status provide the basis of a health impact statement for the north west region of Adelaide and the subdivisions of the north and west. The risk factors of concern in this study are: smoking, insufficient physical activity, obesity, high blood pressure, high cholesterol and medium to high alcohol consumption.

Risk factors for health status also have their own context and determinants. In the case of risk factors examined in this study, their demographic context and level of relative disadvantage are also examined. The Socio-Economic Indexes for Areas (SEIFA) index of disadvantage for geographic areas allows comparisons of disadvantage to be made across the north west region. These data together with environmental and genetic risk are considered to be part of the determinant context of risk factors, i.e. the determinants of the determinants.

The purpose of the report is to better inform health policy and target interventions that will affect each stage of the chronic disease continuum and subsequently lead to changes in underlying causes of risk factors, risk factors themselves and ultimately health status.

STUDY FINDINGS
The following summary conclusions are made from the data:

• Overall, 15.6% of people living in North West Adelaide had no risk factors, 28.8% had one risk factor, 30.5% had two risk factors and 25.1% had three or more risk factors.

• As demonstrated in Figure 1, the northern region compared to the western region of Adelaide has the higher burden of risk factors both in terms of number of risk factors. This also applies in terms of combinations of risk factors.

Figure 1: Number of risk factors by region

• In the north west region of Adelaide the prevalence of diabetes was 6.7%, asthma was 11.6% and COPD was 29.3%.

• There is a high burden of risk factors for chronic disease in the north west region as demonstrated in Figure 2.

• The burden of risk factors associated with chronic disease conditions showed that single risk factors in chronic disease is the exception rather than the rule.
Figure 2: Prevalence of risk factors in North West Adelaide

<table>
<thead>
<tr>
<th>Risk Factor</th>
<th>% Population with Risk Factor</th>
</tr>
</thead>
<tbody>
<tr>
<td>Obesity</td>
<td>30</td>
</tr>
<tr>
<td>Smoking</td>
<td>25</td>
</tr>
<tr>
<td>Med-high alcohol use</td>
<td>20</td>
</tr>
<tr>
<td>High blood pressure</td>
<td>15</td>
</tr>
<tr>
<td>High cholesterol</td>
<td>10</td>
</tr>
<tr>
<td>Insufficient activity</td>
<td>5</td>
</tr>
</tbody>
</table>

As can be seen in Figure 3, in north west Adelaide overall, 74% of people with diabetes, 61% of people with COPD and 55% of people with asthma have two or more risk factors. This underscores the complex morbidity and the difficult management situations of these chronic disease conditions.

CONCLUSION

Some important similarities and differences are apparent in the combinations of risk factors across the chronic conditions. The prevalence of people who are obese and smoke is fairly constant across all the disease conditions. On the other hand, the prevalence of smokers who are also obese is almost three times higher among people with diabetes than among those with asthma or COPD. These data again point to different targeting needs when addressing the risk factors and combinations of risk factors for each of the chronic disease conditions.

These data identify the complexity of risk factor associations within the chronic disease conditions and the need to differentially target each chronic condition. In management and secondary prevention initiatives there will be several related risk factor conditions that need to be dealt with (for example, obesity/high blood pressure, smoking/high blood pressure). In these cases dealing with simply one risk factor may have little effect.

The additional burden of combinations of risk factors increases the probability of developing chronic disease or impairs the ability to stabilise and manage chronic conditions. Guidelines for primary care need to acknowledge this management complexity and the fact that combinations of risk factors are very common.

Overall, these analyses identify the need to consider different combinations of risk factors for interventions in each region.

REFERENCES


INFORMATION

For further information about the results from the study
Please visit the web site at: http://www.nwadelaidehealthstudy.org/
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