PERCEPTION OF DIABETES RISK IN NORTH WEST ADELAIDE: A Population Biomedical Study

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The North West Adelaide Health Study collaboration

- SA Department of Human Services (Centre for Population Studies in Epidemiology)
- The Queen Elizabeth Hospital
- Lyell McEwin Health Service
- The Health Observatory
- The University of Adelaide
- University of South Australia
Overall study aims

- Assess prevalence of priority health problems (diabetes, asthma and COPD), risk factors and their demographic distributions.

- Segment each chronic condition into subgroups along a continuum
  - More precise targeting.
  - More effective interventions and policy.

- Track cohort over time.
Chronic disease continuum

Deteriorating health status / Increasing severity of disease

Not at risk

At risk

Previously undiagnosed

Diagnosed without comorbidity

Diagnosed with comorbidity

Death

PREVENTION

DELAY / EARLY DETECTION

PREVENTION / DELAY / EARLY DETECTION / CARE
Methodology overview

Timeline

- Eligible random, representative EWP sample, NW Adelaide
  n=4951

2000 Feb-Nov

- CATI recruitment interview, ages 18+
  n=3650

- Appointment made, information folder sent
  n=2683

Feb 2000 - Jun 2001

- Attended clinic
  n=2523

2002 Mar

- Follow-up interview
  n=2231
Methodology: Self-report questionnaire (n=2523)

- Self-reported diabetes, asthma, COPD (emphysema and bronchitis)
- Risk factors (smoking, physical activity, alcohol consumption, family history of diabetes, heart disease and stroke)
- Health service use
- SF-36
- Demographics
Methodology: Clinic assessment (n=2523)

- Blood pressure
- Height and weight measurements
- Waist and hip circumference
- Fasting blood sample (glucose, lipid profile, glycated haemoglobin)
- Allergy skin test (rye grass, cat, house dust mite, alternaria, feather and cockroach)
- Lung function tests (spirometry followed by ventolin inhalation and retesting)
Methodology:
Follow-up interview (n=2231)

- Further investigation of asthma, COPD and diabetes, including:
  - Perception of risk of getting diabetes or cardiovascular disease in future
  - Diabetes-related complications
  - Asthma severity
  - Health service use
Clinic results: Prevalence of diabetes

<table>
<thead>
<tr>
<th></th>
<th>% of Total</th>
<th>% of diabetes</th>
<th>Ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>Diagnosed</td>
<td>5.4</td>
<td>81.7</td>
<td>4.4</td>
</tr>
<tr>
<td>Undiagnosed</td>
<td>1.2</td>
<td>18.3</td>
<td>1.0</td>
</tr>
<tr>
<td>No diabetes</td>
<td>93.3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>100.0</td>
<td>100.0</td>
<td></td>
</tr>
</tbody>
</table>
Telephone follow up results: Prevalence of previously diagnosed diabetes, by sex and age group (n=2231)
Telephone follow up results:
Do you consider yourself at high risk of getting diabetes at some stage in your life?

<table>
<thead>
<tr>
<th>Response</th>
<th>n</th>
<th>% of Total</th>
<th>% of no diabetes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>369</td>
<td>16.5</td>
<td>17.6</td>
</tr>
<tr>
<td>No</td>
<td>1538</td>
<td>68.9</td>
<td>73.6</td>
</tr>
<tr>
<td>Don’t know</td>
<td>184</td>
<td>8.2</td>
<td>8.8</td>
</tr>
<tr>
<td>Already have diabetes</td>
<td>140</td>
<td>6.3</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>2231</td>
<td>100.0</td>
<td>100.0</td>
</tr>
</tbody>
</table>
Telephone follow up results: Proportion who considered themselves at high risk of developing diabetes, by sex and age group (n=2091)
Participants who did not consider themselves at risk of developing diabetes...

...were significantly more likely to be:
- Male
- Aged 60 years and over
- Widowed
- Sufficiently physically active

...and significantly less likely to:
- Have family history of diabetes
- Be overweight or obese
Telephone follow up results:
Proportion who considered themselves at high risk of developing diabetes, by number of risk factors (n=2091)
Conclusions

- Approximately 75% of people without diabetes do not consider themselves at high risk of developing diabetes.

- Awareness of diabetes risk needs to increase if prevention efforts to reduce the prevalence of diabetes in the population are to succeed.
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