IMPACT OF CHRONIC CONDITIONS AND RISK FACTORS ON QUALITY OF LIFE:
The North West Adelaide Health Study

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Organisations involved

- SA Department of Human Services (Centre for Population Studies in Epidemiology)
- The Queen Elizabeth Hospital
- Lyell McEwin Health Service
- 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
Methods - Overall

- Random, representative sample
- North West region of Adelaide
- n=2523, aged 18+
- CATI recruitment interview
- Self-administered questionnaire
- Attendance at clinic
Methods - Questionnaire

- 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
- Demographics
- SF-36
Methods – Clinic assessment

- 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)
SF-36 standard scores for people who do and do not smoke, compared to the general SA population
SF-36 standard scores for people who are underweight/normal and overweight/obese according to BMI, compared to the general SA population.

<table>
<thead>
<tr>
<th>Dimension</th>
<th>General population</th>
<th>Underweight/Normal</th>
<th>Overweight/Obese</th>
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</thead>
<tbody>
<tr>
<td>PF</td>
<td>-0.4</td>
<td>-0.6</td>
<td>-0.2</td>
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<tr>
<td>RP</td>
<td>-0.2</td>
<td>-0.4</td>
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<td>BP</td>
<td>0.0</td>
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<td>GH</td>
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<tr>
<td>VT</td>
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<td>-0.4</td>
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<td>SF</td>
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<tr>
<td>RE</td>
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<tr>
<td>MH</td>
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<td>-0.2</td>
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</table>
SF-36 standard scores for people with and without a high WHR, compared to the general SA population.
SF-36 standard scores for people who do and do not perform sufficient physical activity, compared to the general SA population.
SF-36 standard scores for people with and without high blood pressure, compared to the general SA population.
SF-36 standard scores for people with and without high cholesterol, compared to the general SA population.
SF-36 standard scores for people classified as intermediate to very high alcohol risk and non-drinkers/no/low alcohol risk, compared to the general SA population.
SF-36 standard scores for people with multiple risk factors compared to the general SA population

Dimension

- PF
- RP
- BP
- GH
- VT
- SF
- RE
- MH

Standard score

Percentile

General population

- 50th
- 34th
- 42nd
- 27th
- 21st
- 16th
- 73rd
- 66th
- 58th
- 50th
- 42nd
- 34th
- 27th
- 21st
- 16th

None

1 to 3 risk factors

4 to 5 risk factors

6 to 8 risk factors
SF-36 standard scores for people with and without diabetes compared to the general SA population
SF-36 standard scores for people with undiagnosed and diagnosed diabetes compared to the general SA population
SF-36 standard scores for people with and without current asthma compared to the general SA population
SF-36 standard scores for people with and without COPD compared to the general SA population

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**General population**

<table>
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<th>Dimension</th>
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<th>GH</th>
<th>VT</th>
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<th>RE</th>
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<tbody>
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<td>-0.8</td>
<td>-0.6</td>
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<tr>
<td>Percentile</td>
<td>58th</td>
<td>50th</td>
<td>42nd</td>
<td>34th</td>
<td>27th</td>
<td>21st</td>
<td>16th</td>
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- No COPD
- Mild COPD
- Moderate or Severe COPD
SF-36 standard scores for people with diagnosed and previously undiagnosed COPD, compared to the general SA population

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<th>Diagnosed COPD</th>
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Conclusions

- The physical and mental functioning of people with chronic conditions is significantly impaired.
- In addition to clinical symptoms, aspects of social, emotional and mental functioning should be considered in the assessment and clinical management of people with chronic conditions.
Contact details

- North West Adelaide Health Study website: http://www.nwadelaidehealthstudy.org