Census Data
Menzies Research Institute Tasmania
Quantitative Methods in Clinical Research
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• The Australian Bureau of Statistics (ABS) makes available a wide range of datasets to support functions including strategic planning, policy development and research

• Data specific to the geography of Australia is routinely made available and includes information such as population numbers, socio-economic status, indexes of socio-economic advantage and disadvantage, accessibility remoteness index of Australia, indexes of education and occupation and of economic resources

• Indexes are a summary of different subsets of Census variables with a focus on different aspects of socio-economic advantage and disadvantage

• Such data is commonly used for service planning, to identify areas of need, to assist with identification of possible business opportunities etc.,

• Importantly, data is also used extensively for research purposes such as exploring relationships between socio-economic advantage / disadvantage and a range of health and educational outcomes

• For example, to compare rates of chronic disease throughout the community based on an advantage or disadvantage, education levels or employment status
In 2011 the ABS introduced a new geography classification system known as the ASGS – Australian Statistical Geography Standard

The ASGS replaced the ASGC – Australian Standard Geographical Classification

The ASGC was introduced in 2006 – at its core were 7 interrelated classification levels

Reporting at Statistical Local Area (SLA) was, and still is, common practice

Similarly, reporting at Local Government Area (LGA) is still common even though under the ASGS the concept of LGAs and SLAs no longer exists

In Tasmania, under the ASGC there were 44 SLAs and 29 LGAs

Under the new geography system, there are still 7 ‘layers’, however these structures are based more around population numbers

The lowest unit of geography under the ASGS is a Mesh Block, which comprise app. 30-60 dwellings

In Tasmania, there are just under 13,000 mesh blocks

The most common reporting level is known as SA2, of which there are 100 in Tasmania comprising populations between 3,000 - 25,000 people
### ASGS

#### Spatial Unit Units Population ranges

<table>
<thead>
<tr>
<th>Spatial Unit</th>
<th>Units</th>
<th>Population ranges</th>
</tr>
</thead>
<tbody>
<tr>
<td>Australia</td>
<td>1</td>
<td>23+ million</td>
</tr>
<tr>
<td>Tasmania</td>
<td>1</td>
<td>500,000+</td>
</tr>
<tr>
<td>SA4</td>
<td>4</td>
<td>100,000-500,000</td>
</tr>
<tr>
<td>SA3</td>
<td>17</td>
<td>30,000-100,000</td>
</tr>
<tr>
<td>SA2</td>
<td>100</td>
<td>3000-25,000</td>
</tr>
<tr>
<td>SA1</td>
<td>1,450</td>
<td>200-800 persons</td>
</tr>
<tr>
<td>Mesh Blocks</td>
<td>12,992</td>
<td>30-60 dwellings</td>
</tr>
</tbody>
</table>
• The most recent Census conducted in Australia was in 2011, being the 16th Census undertaken in this country and marking 100 years since the first
• Following the 2011 Census, the ABS has progressively made available data captured during the Census
• Available data include both free and paid datasets
• For quick and easy access to basic data, the ABS makes available at no charge a product called QuickStats
• QuickStats presents data through tables, graphs and text to highlight key themes from the Census.
• Further exploration is made possible through direct links to a series known as the Community Profiles series.
• Community Profiles provide a detailed statistical picture of an area in Excel format; the encompass characteristics relating to individuals, families and dwellings and cover most topics on the Census form.
• For more experienced users, or to drill deeper into Census data, the ABS makes available products known as DataPacks.
DataPacks

- DataPacks contain comprehensive information about people, families and dwellings for all available geographic areas together with associated Geographic Information System (GIS) digital boundary files.

- A total of 6 DataPacks, plus information on estimate resident population, are available for download and to use with your own software products.

- The 6 DataPacks are:
  - Basic Community Profile
  - Aboriginal and Torres Strait Islander Peoples (Indigenous)
  - Time Series
  - Place of Enumeration
  - Expanded Community
  - Working Population

- DataPacks are designed for people with existing databases and/or analysis systems- i.e., GIS or other mapping or analysis systems.
The ABS also makes available an online software product known as TableBuilder, in both basic (free) and paid editions (pro).

TableBuilder enables the construction of tables of data, from quite basic through to complex; it is possible to build tables for most geographic areas as defined in the ASGS.

Data collected in the 2011-12 Australian Health Survey (AHS) is also available in various forms from the ABS.

Importantly, in many instances AHS data can be used in combination with Census data – in particular through use of the TableBuilder Pro product.
• Changes to geographic structures, introduced to coincide with the 2011 Census, create challenges in comparing data over time.
• The ASGS brings regions used by the ABS to produce data under one statistical framework; the result is that we now have:
  • ABS Structures
    – those regions which are defined and maintained by the ABS.
  • Non-ABS Structures
    – those regions defined and maintained by other organisations, but for which the ABS supplies data.
• ABS Structures are considered stable regions and won’t change until the next Census in 2016.
• All ABS Structures are built from Statistical Areas Level 1 (SA1s) - SA1s aggregated directly from Mesh Blocks.
• The SA1 is the smallest geographic region for which population data from the 2011 Census data are provided.
• The only 2011 Census data available for Mesh Blocks are total population and dwelling counts (no age/sex breakdown).
Non-ABS Structures

- Non-ABS Structures are regions that are defined by other agencies for administrative purposes
- e.g. Local Government Areas (LGAs), Commonwealth Electoral Divisions etc.
- The ABS approximates these regions by using whole ABS statistical geography units
- Mesh Blocks are used to approximate LGAs, however SA1s are used to approximate most of the other Non-ABS areas
• Over half (55.1%) of all Australians aged 15 years and over considered themselves to be in very good or excellent health; 4.0% rated their health as poor.

• The number of people aged 2 years and over with the following long-term health conditions were:
  - diabetes mellitus - 1.0 million people (4.6%)
  - heart disease - 1.1 million people (5.0%)
  - hypertensive disease - 2.3 million people (10.6%)
  - kidney disease - 183,400 people (0.9%)

• Rates of daily smoking have continued to drop to 16.1% of people aged 18 years and over (2.8 million people) in 2011-12, from 18.9% in 2007-08 and 22.4% in 2001

• Proportionally, more men smoke daily than women (18.3% and 14.1%, respectively)
• People living in outer regional and remote areas of Australia had higher rates of daily smoking compared with those who live in inner regional or major cities of Australia
• Rates of smoking increased as the level of disadvantage increased; people living in areas of most disadvantage more likely to smoke compared with those living in areas of least disadvantage
• The prevalence of overweight and obesity in adults > 18 years has continued to rise to 62.8% in 2011-12, from 61.2% in 2007-08 and 56.3% in 1995
• The prevalence of overweight and obesity in children aged 5-17 years has increased between 1995 and 2007-08 (20.9% and 24.7%, respectively) and then remained stable to 2011-12 (25.7%)
• Adults living in outer regional and remote areas of Australia were more likely to be overweight or obese (69.5%) compared with adults living in major cities (60.2%)
• More adult women living in areas of most disadvantage were overweight or obese (63.8%) compared with women living in areas of least disadvantage (47.7%)
• This pattern was not apparent for adult men, with men equally as likely to be overweight or obese in areas of most disadvantage (69.0%) compared with least disadvantage (68.6%)
• Used in combination, Census and Health Survey Data offer significant opportunity to support wide ranging health and related research.