Southern Region Health & Social Data Sets

Data Guidelines

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Table of Contents

Working the Data

Introduction

The data guidelines in this report are meant to accompany the data tables in the health and social data sets developed for the Southern Region Health and Social Data project. They provide a description of each data table, the data source, the website (where applicable) and the frequency with which the data is updated.

The data guidelines also provide, where relevant, an explanation of what the data measures, methodology and data limitations.

Glossary

ABS	Australian Bureau of Statistics
ACIR	Australian Childhood Immunisation Register
ATSI	Aboriginal and/or Torres Strait Islander
CDs	Census Collection Districts
DHSV	Dental Health Services Victoria
DSE	Department of Sustainability and Environment
ERP	Estimated resident population
LGA	Local government area These areas are the spatial units which represent the geographical areas of incorporated local government councils. The LGA Structure covers only incorporated areas of Australia, which are legally designated parts of states and territories over which incorporated local governing bodies have responsibility.
RTBA	Residential Tenancies Bond Authority
SLA	Statistical local area SLAs are an Australian Standard Geographical Classification. These areas are, in most cases, identical with, or have been formed from a division of, whole LGAs. In other cases, they represent unincorporated areas (e.g. ski resorts, islands). In aggregate, SLAs cover the whole of a state or territory without gaps or overlaps. In some cases, legal LGAs overlap Statistical Subdivision boundaries and therefore comprise two or three SLAs (Part A, Part B, Part C).
VAED	Victorian Admitted Episodes Dataset
VEMD	Victorian Emergency Management Dataset

List of LGAs by region

Region name	LGA name	LGA code
Hume	Alpine (S)	20110
Grampians	Ararat (RC)	20260
Grampians	Ballarat (C)	20570
North & West Metropolitan	Banyule (C)	20660
Gippsland	Bass Coast (S)	20740
Gippsland	Baw Baw (S)	20830
Southern Metropolitan	Bayside (C)	20910
Hume	Benalla (RC)	21010
Eastern Metropolitan	Boroondara (C)	21110
North & West Metropolitan	Brimbank (C)	21180
Loddon Mallee	Buloke (S)	21270
Loddon Mallee	Campaspe (S)	21370
Southern Metropolitan	Cardinia (S)	21450
Southern Metropolitan	Casey (C)	21610
Loddon Mallee	Central Goldfields (S)	21670
Barwon South Western	Colac-Otway (S)	21750
Barwon South Western	Corangamite (S)	21830
North & West Metropolitan	Darebin (C)	21890
Gippsland	East Gippsland (S)	22110
Southern Metropolitan	Frankston (C)	22170
Loddon Mallee	Gannawarra (S)	22250
Southern Metropolitan	Glen Eira (C)	22310
Barwon South Western	Glenelg (S)	22410
Grampians	Golden Plains (S)	22490
Loddon Mallee	Greater Bendigo (C)	22620
Southern Metropolitan	Greater Dandenong (C)	22670
Barwon South Western	Greater Geelong (C)	22750
Hume	Greater Shepparton (C)	22830
Grampians	Hepburn (S)	22910
Grampians	Hindmarsh (S)	22980
North & West Metropolitan	Hobsons Bay (C)	23110
Grampians	Horsham (RC)	23190
North & West Metropolitan	Hume (C)	23270
Hume	Indigo (S)	23350
Southern Metropolitan	Kingston (C)	23430
Eastern Metropolitan	Knox (C)	23670
Gippsland	Latrobe (C)	23810
Loddon Mallee	Loddon (S)	23940
Loddon Mallee	Macedon Ranges (S)	24130
Eastern Metropolitan	Manningham (C)	24210
Hume	Mansfield (S)	24250
North & West Metropolitan	Maribyrnong (C)	24330
Eastern Metropolitan	Maroondah (C)	24410
North & West Metropolitan	Melbourne (C)	24600
North & West Metropolitan	Melton (S)	24650
Loddon Mallee	Mildura (RC)	24780

Hume	Mitchell (S)	24850
Hume	Moira (S)	24900
Eastern Metropolitan	Monash (C)	24970
North & West Metropolitan	Moonee Valley (C)	25060
Grampians	Moorabool (S)	25150
North & West Metropolitan	Moreland (C)	25250
Southern Metropolitan	Mornington Peninsula (S)	25340
Loddon Mallee	Mount Alexander (S)	25430
Barwon South Western	Moyne (S)	25490
Hume	Murrindindi (S)	25620
North & West Metropolitan	Nillumbik (S)	25710
Grampians	Northern Grampians (S)	25810
Southern Metropolitan	Port Phillip (C)	25900
Grampians	Pyrenees (S)	25990
Barwon South Western	Queenscliffe (B)	26080
Gippsland	South Gippsland (S)	26170
Barwon South Western	Southern Grampians (S)	26260
Southern Metropolitan	Stonnington (C)	26350
Hume	Strathbogie (S)	26430
Barwon South Western	Surf Coast (S)	26490
Loddon Mallee	Swan Hill (RC)	26610
Hume	Towong (S)	26670
Hume	Wangaratta (RC)	26700
Barwon South Western	Warrnambool (C)	26730
Gippsland	Wellington (S)	26810
Grampians	West Wimmera (S)	26890
Eastern Metropolitan	Whitehorse (C)	26980
North & West Metropolitan	Whittlesea (C)	27070
Hume	Wodonga (RC)	27170
North & West Metropolitan	Wyndham (C)	27260
North & West Metropolitan	Yarra (C)	27350
Eastern Metropolitan	Yarra Ranges (S)	27450
Grampians	Yarriambiack (S)	27630
Other	Unincorporated Vic	29399
Other	No usual address	29499
Other	Interstate/OS/Unknown	

Note: Benalla and Mansfield were previously Delatite.

Estimated resident population

Description: Estimated resident population by age, sex and local government area (Victoria, 2006)
Source: Population by Age and Sex, Australia, 2006 ABS cat. no. 3235.0
Website: http://www.abs.gov.au/AUSSTATS/abs@.nsf/productsbyCatalogue/151AA7593B394934CA2573210018DA4A?OpenDocument
Frequency: Annual, typically twelve months after the reference data (e.g. data for June 2006 is released in June 2007)
Format: Online Excel spreadsheet (users have to aggregate SLA data to LGA level)
Accessibility: Free website download

This data set provides the 2006 Estimated Resident Population (ERP) by age group, statistical local area and local government area.

Methodology and data notes

There are three main sources of population data:

- Australian Bureau of Statistics (ABS) Census of Population and Housing population data.
- ABS Estimated Resident Population (ERP).
- Victorian Department of Sustainability and Environment (DSE) population projections.

The 2006 Census data is probably the most widely used source of population data, partly due to its easy availability at local government area (LGA) level on the ABS website and also because it is available for smaller geographic areas such as suburbs. The DSE data is based on a range of data – the Census, housing approvals data and other information likely to impact on future population – and are forecast estimates only. These are now out of date, as they have not yet been updated to include data from the 2006 Census.

The 2006 ERP data table contains *preliminary* estimates of the resident population at 30 June 2006, based on the results of the 2006 Census of Population and Housing. The ERP data is somewhat more accurate than Census data in that it is adjusted for Census undercounting and for Australians temporarily overseas; it is also – unlike the Census – updated annually. Regular annual updates of the ERP data incorporate births minus deaths, overseas migration, and interstate movements. A confidentialisation procedure is then applied to the estimates to avoid the release of populated cells of less than three people.

Population figures less than 1,000 in the text are usually rounded to the nearest ten, figures over 1,000 are rounded to the nearest hundred, and figures over 1 million are rounded to the nearest 10,000 or 100,000. Whilst unrounded figures are provided in the ABS data spreadsheets, accuracy to the last digit is not claimed and should not be assumed.

The ERP table has had region names added into the original source data, along with age groupings and percentage values.

Limitations and data application

The main limitation to the ERP data is that it is available at statistical local area (SLA) level and higher, but not at postcode or suburb level. A further limitation is that it is not released showing 1 year age groups, instead using 5 year age cohorts; customised data is available showing the 1 year age ranges but this is charged for.

Estimated resident populations are the "official estimates of the Australian population, which link people to a place of usual residence within Australia". It is therefore recommended that the ERP be used for LGA level population data; where it is used in conjunction with Census population counts (particularly for analysis using Census data for smaller areas), notes regarding the differences between the two data sets should be used to avoid confusion.

ERP data is useful in examining population demographics and trends, but also in calculating other data such as age-standardised rates (e.g. hospital admission rates) and population percentages (e.g. percentage of aged population receiving the aged pension).

Census postcode population

Description: Population by age by sex by postcode (Victoria, 2006) – count of persons, based on place of usual residence
Source: 2006 Census of Population and Housing ABS
Website: http://www.abs.gov.au/websitedbs/D3310114.nsf/Home/census
DataPacks
http://abs.gov.au/websitedbs/d3310114.nsf/4a256353001af3ed4b2562bb00121564/60fabd1bcba7bd2cca25721300127fad!OpenDocument
Frequency: 5 yearly
Format: Online Excel spreadsheet, downloaded for individual postcodes; data also available in basic unlabelled Excel files via DataPacks[1] – these require some time to make the data interpretable (adding labels etc.) but provide data for all postcodes rather than one by one
Accessibility: Free website download for individual postcodes; DataPacks also available for $115 per Census profile, provided on CD-ROM

This data set provides the 2006 Census population count by five year age group, sex and postcode.

Methodology and data notes

The Census population count assigns persons to their place of usual residence. There is some level of undercounting, including for persons who are overseas (see previous discussion of Census population data).

The Census Postal Areas are ABS approximations of Australia Post postcodes, created by allocating whole collection districts (CDs) on a 'best fit' basis to postcodes. Census Postal Areas exclude non-mappable Australia Post postcodes such as post office box postcodes; some delivery route postcodes, which are also covered by other postcodes; and postcodes which, because of the application of the 'best fit' principle, do not get a CD allocated to them.

This means that there are more Australia Post postcodes than Census Postal Areas. Every CD is allocated one valid Australia Post postcode as the Postal Area for that CD. When a person is enumerated in that CD, the Postal Area is allocated to the person as their Postal Area of enumeration. When a person's address is coded to their CD of Usual Residence, the Postal Area of the CD is allocated to the person as their Postal Area of Usual Residence.

Thus the data is not 100% accurate for postcode populations, but is the most accurate available small area data.

Limitations and data application

Apart from the limitations inherent in the nature of the dataset (e.g. not being 100% accurate), the inability to select groups of postcodes is also an issue with accessing data via the ABS website. Local government researchers could not, for instance, select in one query all postcodes for their LGA of interest to obtain a specific Census table or data item.

To obtain this data, postcodes would need to be queried one by one, or a custom data order placed, or DataPacks purchased. The DataPacks (see endnote 1) are the most cost effective means of accessing this data, but labels need to be assigned to data columns in order to interpret the data, and this can be time consuming.

Postcode level population data is useful in examining small area population demographics, but also in calculating other data such as the level of CentreLink benefit recipients (CentreLink data typically only being released by postcode).

Small area labour markets

Description: Small area labour markets data by statistical local area, smoothed series: Victoria, September quarter 2007
Source: Small Area Labour Markets Australia Economic And Labour Market Analysis Branch, Labour Market Strategies Group, Department Of Employment And Workplace Relations
Website: http://www.workplace.gov.au/workplace/Publications/LabourMarketAnalysis/SmallAreaLabourMarkets-Australia.htm
Frequency: Quarterly
Format: PDF or Excel spreadsheet
Accessibility: The quarterly PDF format report can be downloaded free of charge from the website; the data can also be obtained in spreadsheet format for a small charge (currently from $20 for a quarterly data set for one state)

This data set provides the smoothed September quarter 2007 labour market data by SLA and LGA (persons unemployed, persons in the labour force and unemployment rate).

Methodology and data notes

The SLA labour force estimates are based on the Structure Preserving Estimation (SPREE) methodology which enables the generation of small area unemployment, unemployment rate and labour force estimates. The data included in the data set is the smoothed labour market data; the original, unadjusted estimates are subject to high variability at local area level. The smoothed data uses the original data but averages it over four quarters.

The estimates are derived from three primary data sources:

1. CentreLink data on people receiving Newstart or Youth Allowance (other), by postcode (not including people in receipt of the Community Development Employment Projects Participant Supplement).

2. ABS Labour Force Survey data at the ABS Labour Force Region level.

3. 2001 Census of Population and Housing labour force data at the SLA level. The purpose of SPREE is to produce small area labour market estimates that reflect the regional disparities of the CentreLink data, while being consistent with the ABS Labour Force Survey estimates.

Unemployment estimates are produced by apportioning the level of unemployment for a region, as published by the ABS, across each of the SLAs within that region in accordance with the distribution of CentreLink Newstart and Youth Allowance (Other) beneficiaries, taking into account ABS unemployment estimates benchmarked at the metropolitan/non-metropolitan level.

Labour force estimates are produced by allocating the total labour force for each ABS Labour Force Region to the SLAs in that region, according to weights derived from the 2001 Census.

Three assumptions are made in applying the SPREE methodology. First, it is assumed that recipients of unemployment benefits are uniformly distributed within the postcodes. Second, it is assumed that there have been no changes to postcode and SLA boundaries since the 2001 Census.[1] Third, it is assumed that the proportional distribution of each ABS region's labour force between the SLAs within that region has remained stable since the 2001 Census.

Limitations and data application

Due to the small size of the labour force, particular care should be exercised when interpreting these estimates. Also, due to both the methodology used and the significantly higher variability for data disaggregated below the SLA level, it is not possible to derive reliable unemployment and unemployment rate estimates for particular groups (i.e. males, females, young people) within an SLA.

Note that this data set uses slightly outdated geographic areas. The data provided for the new Benalla LGA uses the SLA data for Delatite (S) – Benalla. The data provided for the new Mansfield LGA uses the combined SLA data for Delatite (S) – North and Delatite (S) – South. Yarra Ranges (S) - South West has now been broken into three SLAs - Dandenongs, Lilydale and Seville. This means that there will be a slight mismatch between SLA level data for Yarra Ranges in this data set and SLA level data for Yarra Ranges in other data sets.

The data is useful as an indicator of economic disadvantage (unemployment rates). It can also be used to examine labour market behaviour in more detail – for example, it is can be used to calculate the unemployment rate which would have been experienced by an area if it had an average labour market participation rate. The artificial lowering of unemployment rates during economic downturns by discouraged job seekers dropping out of the labour market, or the indicators provided by unusually high labour market participation rates, are often overlooked in usage of labour market data.

[1] Note that this was not the case between the 2001 and 2006 Censuses, as the Delatite LGA was de-amalgamated into Benalla and Mansfield. The SLAs for the Yarra Ranges LGA have also changed.

CentreLink benefit recipients

Description: CentreLink benefit recipients by postcode area and payment type (latest quarter, 2007[2])
Source: CentreLink
Website: n/a – custom order via email (datarequests@centrelink.gov.au)
Frequency: Quarterly
Format: Excel spreadsheet
Accessibility: Custom data order (cost applies, approximately $200-$300)

Methodology and data notes

This data set provides a count of CentreLink benefit recipients by payment type and postcode.

All data supplied is point in time data. This means that the data reflects the point in time when the snap shot was taken (as shown in the column headings). All snap shot data is taken as at a particular fortnight within a particular month or quarter, depending on the data source.

Specific data notes:

1. FTB is received by approximately 80-85% of families with dependent children. It should therefore be viewed differently to other CentreLink payments. Whereas income support payment data can identify segments of the population considered to be disadvantaged, FTB data does not fit that criterion.
2. Where a tabulation shows FTB customers on the maximum rate, these generally have family incomes of less than $41,318. Note, however, that there is an additional group of customers with incomes less than $41,318 who do not receive the maximum rate due to their receipt of maintenance income and to the operation of the maintenance income test.
3. Where the population of FTB customers and the population of income support customers are shown together, there may be double-counting. Approximately one-third of FTB customers also receive income support payments, and may therefore appear more than once.
4. Information shown in regard to FTB Part A & Part B refers only to fortnightly instalment customers paid directly by CentreLink. It excludes approximately an additional 10% who are paid through ATO lump sum and/or CentreLink lump sum.
5. This information represents the current population at a point in time and does not represent the total eligible population for the financial year.
6. Where the tabulation shows FTB Part A and B separately, approximately three-quarters of customers will appear in both categories, as they will be in receipt of both payments.

[2] The latest available quarter varies by payment type.

Limitations and data application

The LGA data is based on customers' residential postcodes. In a small number of cases, the residential postcode is reported incorrectly. In these cases, the number of customers affected are reported at the bottom of each column. Note that postcodes do not match exactly to LGAs (a table is provided in the data set showing the allocation of postcode areas to LGAs).

All cells with a value of less than 20 (including zero) have been changed to display "<20". This rule has been employed for privacy reasons. Where total fields are included, these will only have a value when it does not make it possible to work out the value of any "<20" fields. As the data is generally provided at postcode level, this limits its usefulness for local government research. The data provided for this project has been provided by CentreLink with the data subtotalled to LGAs, with the limitations as mentioned above.

Variations in population size and structure by postcode mean that making straight numerical comparisons can be misleading. This data is most useful when the rate per target population is used (e.g. using the percentage of the older population which is eligible for the age pension and is actually receiving this benefit, the population of working age or in the labour force for Newstart data, the percentage of residents receiving the disability support pension).

Victorian Admitted Episodes Dataset (VAED)

Description: Public and private hospital separations by LGA by age group; separations by LGA by major diagnostic category (MDC); separations by LGA by major diagnostic category by age group (Victoria, 2006/07)
Source: Performance Reporting & Analysis Unit, Metropolitan Health & Aged Care Services Division, Department of Human Services
Website: http://www.health.vic.gov.au/hdss/index.htm Detailed definitions for all data fields are available here http://www.health.vic.gov.au/hdss/vaed/2007-08/manual/sect3.pdf
Frequency: At least annual; quarterly data also available
Format: Excel spreadsheet
Accessibility: Custom data order (charges vary according to the number of tables required but are generally less than $200 for a complex data table)

Methodology and data notes

This data set provides selected hospital separations data by age group, LGA and MDC. Detailed data by both age and MDC is available for metropolitan LGAs only, due to small numbers of separations at this level of detail in many regional LGAs.

The data covers all separations in the 2006/07 financial year, and is based on LGA of patient residence (not the LGA where the hospital is located). A separation occurs when an inpatient or same day patient leaves hospital - this could be to go home, to go to another hospital or institution, or when a patient dies.

The LGA 'Vic Other' includes the following LGAs - 810, 824, 830, 852.

Hospital separation rates

The expected number of hospitalisations by age/area/condition is calculated by multiplying the Victorian hospitalisation rate per 100,000 by age and condition, by the local population by age. This calculates the number of admissions that could be expected given the local area's age structure (if the admission rate was in line with the Victorian average). Thus simply comparing total population admission rates does not show whether an area is above average.

Rates and standardised morbidity ratios (SMRs) are calculated using the following process:

- The actual (observed) number of separations for each LGA by age group and MDC is used to calculate the crude morbidity (separation) rate per 1,000 ERP for each group (utilising the 2006 ERP data by age and LGA). This rate is separations divided by (ERP divided by 1,000).
- The average Victorian morbidity rate is used to calculate the expected number of hospital admissions for each LGA, by applying the Victorian morbidity rate by age and MDC to the local population by age and MDC.[3] That is, the expected number is what each area would have had, if it had the same admission rate as Victoria (when adjusted for each area's different age structure).

[3] Victorian hospitalisation rate per 1,000 by age/MDC multiplied by the equivalent local population (1,000s).

- The standardised morbidity ratio (SMR) is calculated by dividing the actual number by the expected number. So if an area has 120 actual admissions where the expected number is 100, its SMR would be 1.2 – 20% above the Victorian average. The SMR for Victoria is 1.0 for all ages and MDCs.

In the data set, an area and age group is considered to have an above average level of admissions if the ratio of the number of actual admissions by age and area, to the expected number of admissions by age and area is greater than one. The standardised morbidity ratio – SMR – shows this ratio (1.0 being the average). In the data set, an area/age group is highlighted as significantly above average if it has an SMR of more than 1.19 (an actual number of admissions approximately 20% or more higher than expected). However, this is an arbitrary cut-off point.

Limitations and data application

In line with the DHS data release policy, any cells with a separation count of less than 5 have been replaced by the text "<5". Therefore, some totals will not be exact, as they will exclude cells with numbers less than 5. This can prevent the calculation of accurate totals, percentages and rates for different age and/or diagnostic groupings - particularly for areas with relatively low numbers of admissions.

Hospital data is subject to changing in coding which are particularly important when using the detailed data. For example, a substantial apparent increase in hospital admission rates for diabetes complications would be partly due to the change in coding practices for diabetes complications between 2003/04 and 2004/05.

Despite this limitation, this data is one of the most up-to-date sources of local and relatively accurate health data. Burden of Disease data is released roughly every five years, and includes some data extrapolated to local areas rather than actual data for the area, whereas hospital data is available quarterly. The hospital data is available for a wide range of data fields and is highly detailed. Quarterly data releases allow trends to be monitored.

However, it is important to bear in mind that a comparatively low incidence of a particular condition cannot be taken as an indicator of wellbeing, unless a decision is made as to what absolute level of incidence would be a good result. When examining morbidity and mortality data, it must always be remembered that a comparatively low rate for a particular condition does not necessarily indicate wellbeing – just that the group in question is less sick than a given average. In addition, a low level of hospital admissions may represent a lack of service access, rather than comparatively good health. The low level of hospital admissions amongst indigenous persons for many conditions is a possible example of this issue.

Victorian Emergency Minimum Dataset (VEMD)

Description: Presentations by LGA by age group; presentations by LGA by diagnosis; presentations by LGA by injury cause and human intent (injury presentations only) – Victoria, 2006/07
Source: Performance Reporting & Analysis Unit, Metropolitan Health & Aged Care Services Division, Department of Human Services
Website: http://www.health.vic.gov.au/hdss/index.htm
Frequency: At least annual; quarterly data also available
Format: Excel spreadsheet
Accessibility: Custom data order (charges vary according to the number of tables required but are generally less than $200 for a complex data table)

Methodology and data notes

This data set provides selected hospital emergency department presentation data by age group, LGA and diagnosis, and also by injury cause and human intent.

The data covers all presentations in the 2006/07 financial year, and is based on LGA of patient residence (not the LGA where the hospital is located).

The data includes presentations where the person did not wait to be treated - i.e. no diagnosis codes have been recorded.

The diagnosis data provided for the VEMD data set uses ICD-10-AM 3 diagnosis chapter level (groupings of individual diagnosis codes). The data provided is based only on the first diagnosis for each presentation.

The LGA 'Vic Other' includes the following LGAs - 810, 824, 830, 852.

Limitations and data application

In line with the DHS data release policy, any cells with a separation count of less than 5 have been replaced by the text "<5". Therefore, some totals will not be exact, as they will exclude cells with numbers less than 5. This can prevent the calculation of accurate totals, percentages and rates for different age and/or diagnostic groupings - particularly for areas with relatively low numbers of admissions.

The format in which VEMD data is provided is often too detailed to show much data – i.e. numerous cells show less than 20. It is therefore important, if requesting customised data, to ensure that data is provided for groupings of individual diagnosis codes, rather than at the individual diagnosis level.

Despite this limitation, this data is one of the most up-to-date sources of local and relatively accurate health data. Burden of Disease data is released roughly every five years, and includes some data extrapolated to local areas rather than actual data for the area, whereas hospital data is available quarterly. The hospital data is available for a wide range of data fields and is highly detailed. Quarterly data releases allow trends to be monitored.

However, it is important to bear in mind that a comparatively low incidence of a particular condition cannot be taken as an indicator of wellbeing, unless a decision is made as to what absolute level of incidence

would be a good result. When examining morbidity and mortality data, it must always be remembered that a comparatively low rate for a particular condition does not necessarily indicate wellbeing – just that the group in question is less sick than a given average. In addition, a low level of hospital admissions may represent a lack of service access, rather than comparatively good health. The low level of hospital admissions amongst indigenous persons for many conditions is a possible example of this issue.

Road traffic casualty accidents

Description: Road traffic casualty accidents by LGA, 2006
Source: CrashStats database, VicRoads
Website: www.vicroads.vic.gov.au
Frequency: Annual
Format: Online query producing on screen output (data can be downloaded in PDF format)
Accessibility: Free website query/download; customised spreadsheet data n/a at this time

Methodology and data notes

This data set provides data on road traffic accidents involving casualties by LGA, broken down into fatal, serious and other injury. The data counts accidents, not individuals. If an accident involves one fatal accident, one serious accident and one other accident, it will be counted as a fatal accident, not as all three – each accident is counted only once, and classified according to the most serious injury type.

Note that accidents on LGA borders are counted in the totals for both LGAs. This means that regional figures will be lower than sub-totals calculated from LGAs.

In December 2005, Victoria Police implemented a new application called the Traffic Incident System. TIS is used to record details of road crashes and is the source of the data that is available in CrashStats.

When a crash record is processed within TIS, it is assigned a unique status such as "Draft" or “Ready for Review" or "Approved". An "Approved" incident means that the record has been finalised and is ready for coding and analysis by VicRoads. VicRoads can only process "Approved" incidents and these records are subsequently loaded into CrashStats. However, not all incidents are available within CrashStats - i.e. the data is "incomplete". The reasons for this include:

- an incident has not yet been approved by Victoria Police, perhaps due to ongoing investigation and/or prosecution via the courts.
- an incident has been approved but cannot be processed by VicRoads, due to incorrect and/or missing information.
- the incident record has been returned to Victoria Police for amendment.

For 2006, approximately 1% of incidents have not yet been provided to VicRoads.

Limitations and data application

In combination with the ERP data, road traffic accident data can be used to compare indicators such as road accident fatality rates per 1,000 residents between local government areas. Some differences will be due to high traffic volumes in areas such as the Melbourne CBD, but data such as the very high fatality rate in Yarra Ranges can be taken as indicative of wider issues such as less safe roads.

The online database requires users to select areas one by one (aggregates can be selected, but not comparative data). For researchers requiring data for more than one area, this can be very time consuming. VicRoads is currently reviewing the format of data provided via CrashStats, but is not providing customised data orders at this time. This makes the data difficult to extract for multiple areas.

Diabetes

Description: Prevalence of diabetes in Victoria by LGA, 2006
Source: Diabetes Australia Victoria
Website: http://www.dav.org.au/epidemic/index.htm#
Frequency: Currently available for 2001 and 2006; frequency of future updates unknown
Format: Online thematic map showing figures across Victoria, plus data table and chart for individual LGAs
Accessibility: Can be viewed for free but comparative data tables are not available via the website, user has to transcribe

This data set provides estimates of the prevalence of diabetes by LGA, based on registrations on the National Diabetes Services Scheme (NDSS). The NDSS database contains data on people who have been diagnosed with diabetes (any type) and have registered with the scheme. The database does not include everyone with diabetes in Victoria, as some people with diabetes do not register on the scheme at all, or may delay their registration for some time after diagnosis.

The database does, however, provide a reasonable estimate of the number of people with diabetes in Victoria, and because the registration form must be signed by a doctor or diabetes educator, it should generally record only confirmed cases.

The database would tend to understate rather than overstate the prevalence of diabetes.

Methodology and data notes

Data notes

The Diabetes Epidemic data are derived from registrations on the National Diabetes Services Scheme (NDSS). The NDSS is an Australian Government initiative, which provides a range of subsidised blood glucose and urine testing reagents, syringes and insulin pen needles for people with diabetes. People who have been diagnosed with diabetes register by completing a form which must be signed by their medical doctor or credentialed diabetes educator. The form is returned to Diabetes Australia – Victoria as the Victorian agent for the NDSS. The NDSS database therefore contains comprehensive data on people who have been diagnosed with diabetes (including type 1 diabetes, type 2 diabetes, gestational diabetes and other less common forms of diabetes) and have registered with the scheme.

The proportion of people with diabetes not registered with the NDSS is difficult to estimate as there are many reasons for not doing so and no reliable method of identifying those people. However, given the considerable benefit of being registered on the NDSS, the database should be considered to provide a good estimate of the number of people with diabetes in Victoria, and because the registration form must be signed by a doctor or diabetes educator, it should generally record only confirmed cases (although there may be a time lag between events such as death or changing address and the relevant changes being recorded on the database).

Methodology

Numbers of people in Victoria with diabetes (all types) at 30 June 2001 and 2006 were extracted from the NDSS database for each Victorian Local Government Area (LGA). The Australian Bureau of Statistics (ABS) 2001 Census data was used to obtain resident population estimates for each LGA at June 2001. ABS projected five year growth rates for 2000 to 2005 were used to estimate changes in population numbers from the 2001 figure in each LGA. This number was then added to or subtracted from the 2001 figure to provide an estimate of the LGA population at June 2006. Diabetes prevalence in each LGA was calculated by dividing the number of people registered as having diabetes in each LGA by the estimated population of that LGA. These were converted to percentages for each of 2001 and 2006. LGAs were then ranked according to their estimated prevalence for each of the two years in question.

Limitations and data application

The database does not include everyone with diabetes in Victoria as some people with diabetes do not register on the NDSS at all, or may delay their registration for some time after diagnosis. The data will therefore tend to undercount persons with diabetes. However, the degree of undercounting is likely to be consistent between areas, making the database a good source of comparative data as well as the best estimate of persons with diabetes.

The format in which data is provided on the DAV website does not allow for easy comparison of a group of areas, the data user has to transcribe. The comparative data shows the substantial variation of diabetes prevalence between different LGAs, particularly when comparing metropolitan and regional areas; the DAV website provides both a graphic overview of these differences and also shows the marked rise in the increase of diabetes between 2001 and 2006.

Bulk billing

Description: Medicare non-referred GP attendances by number and percentage bulk billed, 2005 and 2006 year of processing (excludes practice nurse items)
Source: Department of Health
Website: http://www.health.gov.au/internet/wcms/publishing.nsf/Content/electoratereport-index
Frequency: At least annual; quarterly data also available
Format: Online PDF or RTF file
Accessibility: Free website download

This data set provides estimates of the level of patient bulk billing by GPs, for (non-referred) Medicare attendances.

Methodology and data notes

- Medicare bulk billing data is based on the year of processing by Medicare Australia and may not be the same as the year in which the patient received the service.
- These statistics relate to non-referred (general practitioner) attendances that were rendered on a fee-for-service basis, for which benefits were processed by Medicare Australia. Details of non-referred GP attendances to public patients in hospital, to Department of Veterans' Affairs patients and some compensation cases are excluded.
- Electorate level data should be considered as estimates only. Allocations of services are based on the reported postal address postcodes of patients. Therefore, some data will not accurately reflect the address of where the patient actually resides.
- Where a postcode overlapped electoral boundaries, the statistics were allocated to electorate using a concordance file derived from Census population data. This can result in some data being erroneously allocated to an adjoining electorate. Data have also been excluded if postcodes were not present on the concordance file.
- Postcode data recorded using a post office box or private mailbag are excluded from electorate reporting in the cases where they cannot be accurately allocated.
- The state/territory and national totals above have been aggregated from postcode data, not from electorates.
- It is important to note that some people would receive assistance from services outside this electorate, and similarly services located in this electorate may provide assistance to people living in other electorates.

Limitations and data application

The main limitation is that this data is not available by LGA. However, it does show trend data, giving both changes in bulk billing rates and also geographic variations in bulk billing rates.

Office of Housing dwellings

Description: Total Office of Housing dwellings, 30 June 2006: Summary of stock (including leases) by dwelling type and LGA
Source: Summary of Housing Assistance Programs 2005-06 Office of Housing, Department of Human Services
Website: http://hnb.dhs.vic.gov.au/OOH/ne5ninte.nsf/93a98744f6ec41bd4a256c8e00013aa9/906d2e5af9283118ca2572b8007c0838/$FILE/summary_of_housing_assistance_programs_2005-2006.pdf
Frequency: Annual
Format: Online PDF file
Accessibility: Free website download

This data set provides a summary of Office of Housing stock by dwelling type and LGA.

Methodology and data notes

The data includes short term leases; it excludes community-owned and managed housing units.

Limitations and data application

The data provide a measure of levels of different types of public housing stock, rather than actual public housing demand. Whilst data on public housing waiting lists is available[4], this is by waiting list office rather than by LGA. Note that the Office of Housing also provides various forms of private rental assistance (as does CentreLink), and that public housing is not the only form of housing used by persons on low incomes. Thus the data on rental affordability to persons reliant on benefits provides a useful adjunct to this data.

[4] http://hnb.dhs.vic.gov.au/ooh/ne5ninte.nsf/LinkView/B6DA750F80F3FD82CA256D7C00025A630AE2EDFE1A3ADBF9CA25712300816307#wait

Rental affordability

Description: Rental affordability for local government areas (Victoria, September 2007)
Source: Rental Report – September Quarter 2007 Office of Housing, Department of Human Services
Website:
http://hnb.dhs.vic.gov.au/OOH/ne5ninte.nsf/LinkView/397B730DD11B8452CA2570D500101BD60AE2EDFE1A3ADBF9CA25712300816307
Frequency: Quarterly
Format: Online PDF file or Excel spreadsheet
Accessibility: Free website download

Methodology and data notes

This data set provides an overview of rental affordability for lower income households by LGA and dwelling type.

Lower income households are defined for the purposes of this data set as those receiving their income from CentreLink. The affordability benchmark is that no more than 30% of income is spent on rent. The data measures the supply of affordable new lettings based on Residential Tenancies Bond Authority (RTBA) records on the private rental market.

The calculations show the distribution of private rental properties in Victoria affordable to households on CentreLink incomes, by number of bedrooms for newly leased properties during the current quarter. It shows the number of properties by area which were affordable for different numbers of bedrooms, and the proportion of that municipality's stock of those properties. For example, if there are 100 x one bedroom properties deemed to be affordable in Port Phillip, and there are 1000 x one bedroom properties leased during that quarter, then the percentage of affordable one bedroom properties in Port Phillip during the quarter would be 10%.

The assessment of affordable supply is based on the number of suitably-sized properties that are within 30% of income for low income households. The rental thresholds are taken from the household incomes for whom that number of bedrooms is a minimum, and may have been rounded up to the nearest $5 increment. For one bedroom properties, the Rental Report has taken the income of singles on Newstart allowance; for two bedroom properties, it has taken a single parent pensioner with one child aged under five; for three bedroom properties it has taken a couple on Newstart with two children; and for four bedroom properties, it has taken a couple on Newstart with four children

The method used in these calculations assumes that rent assistance is fully offset against the weekly rent, by subtracting rent assistance from the rent and then calculating the resulting rent as a proportion of the CentreLink income. This is the net-rent method, which treats rent assistance as a housing payment, not an income supplement.

Limitations and data application

The data provide a measure of levels of different types of public housing stock, rather than actual public housing demand. Whilst data on public housing waiting lists is available[5], this is by waiting list office rather than by LGA. Note that the Office of Housing also provides various forms of private rental assistance (as does CentreLink), and that public housing is not the only form of housing used by persons on low incomes. Thus the data on rental affordability to persons reliant on benefits provides a useful adjunct to this data.

5

http://hnb.dhs.vic.gov.au/ooh/ne5ninte.nsf/LinkView/B6DA750F80F3FD82CA256D7C00025A630AE2EDFE1A3ADBF9CA25712300816307#wait

Family violence incidents

Description: Family violence incidents by LGA (Victoria, 2002/03-2006/07)
Source: Corporate Statistics, Victoria Police
Website: http://www.police.vic.gov.au/content.asp?a=internetBridgingPage&Media_ID=21749
Frequency: Annual
Format: Online PDF file
Accessibility: Free website download

Methodology and data notes

This data set provides a count of family violence incidents recorded by police, by LGA.

Rates for 2006/07 were calculated using the ERP figures as at 30 June 2006. The figures were extracted from the LEAP database on 18 July 2007, and are subject to variation.

Limitations and data application

This data set provides raw numbers only. Due to the variation in population size by LGA, it is best to use the rate of incidents per 1,000 ERP (which have been added into the spreadsheet data table) for comparing areas; the numbers can be used to show annual changes over time.

Maternal & child health data, selected indicators

Description: Maternal & Child Health Service data by region and LGA: Key indicators, 2005/06
Source: Maternal & Child Health Services Annual Report 2005-2006, run date 19 April 2007 (separate reports for each DHS region)
Website: http://www.office-for-children.vic.gov.au/early-years-services/library/data/annual_mch
Frequency: Annual
Format: Online PDF file
Accessibility: Free website download

Methodology and data notes

This data set provides selected maternal and child health indicators by LGA for Victoria in 2005/06.[6] The indicators included are

- number of birth notifications;
- percentage participation in key ages and stages visit, 4 months;
- percentage participation in key ages and stages visit, 12 months;
- percentage participation in key ages and stages visit, 2 years;
- percentage of babies fully breastfed at 3 months;
- Total ATSI participation rate (active ATSI as percentage of total ATSI cards).

Note that the annual reports contain a wide range of maternal and child health data by LGA; for more detail, refer to the regional reports.

Limitations and data application

The data for the percentage fully breastfed at three months only applies to children whose parents visit maternal and child health nurses; breastfeeding rates amongst other children are unknown. However, there is a high participation rate amongst mothers of children ages less than one, so this indicator is fairly reliable. The ATSI participation rate data is likely to be less reliable due to population mobility issues and the potential for miscounting of this group; also, the data is not published for several LGAs.

The data provides a good indicator not only of maternal and child health service usage, but also of disadvantage, with indicators such as percentage participation in key ages & stages visit (4 months) and the percentage fully breastfed at 3 months clearly being higher in higher income LGAs.

[6] The 2006/07 reports have not yet been released.

Immunisation rates

Description: Australian Childhood Immunisation Register (ACIR) - Coverage Report
Source: ACIR Coverage Report, provided by the Southern Metropolitan Region DHS
Website: http://www.medicareaustralia.gov.au/provider/patients/acir/statistics.shtml
Frequency: Quarterly
Format: Excel spreadsheet
Accessibility: Available free of charge from the DHS but needs to be requested, the LGA level data is not available via the DHS or ACIR website

Methodology and data notes

This data set provides data on the percentage of children immunised for key age groups by LGA and postcode.

Limitations and data application

Note that the ACIR data does have some inaccuracies. For instance, if a child moves out of the area, they will generally show up as unimmunised in later data. Variation in areas with high and low immunisation rates can indicate partly that one area has more capacity to 'clean' the data for errors such as this. There can also be difficulties with timely processing of immunisations done through GPs rather than local government public health units. It must therefore be assumed that the Register data understates the true immunisation rate.

School dental health status

Description: Dental health status by LGA (Victoria, 2004-2006 combined)
Source: DHSV Clinical Analysis & Evaluation Unit
Website: n/a
Frequency: Irregular; annual combined data
Format: Excel spreadsheet
Accessibility: Available free of charge from DHSV but needs to be requested, older data is also available to persons registered for access to the Community Health Plan Data Sets (http://www.health.vic.gov.au/communityhealth/chpds/index.htm)

Methodology and data notes

This data set provides survey data on the dental health status of children serviced under the School Dental Health Service.

The data represents the average number of teeth affected per individual and the proportion of clients sampled who have a zero score for the various dental health indicators.

Limitations and data application

The data is based on a 1 in 8 client sample. Due to this methodology, data for some areas and groups has been suppressed due to inadequate sample size; some data requires caution when using due to a small sample size (these items are noted in the data table). It is important to note that this is survey data only, and does not show data for all users of the School Dental Health Service. The data is combined for 2004, 2005 and 2006; the previous data set shows 2001, 2002 and 2003. Comparison of the data sets is best avoided due to variations in sample size.

Country of birth

Description: Detailed country of birth by age group by LGA (Victoria, 2006)
Source: ABS 2006 Census of Population and Housing
Website: www.abs.gov.au Customised data request, contact client.services@abs.gov.au
Frequency: 5-yearly
Format: Excel spreadsheet
Accessibility: Customised data request – data is charged for, with charges varying according to the amount of data requested

Methodology and data notes

This data set provides data on country of birth by age and LGA of Victorian residents. It goes beyond the standard Basic Community Profile on country of birth, which shows numbers only for the main countries of birth across Australia (whereas the main countries of birth vary substantially by LGA).

The data is based on place of usual residence.

Limitations and data application

The data excludes overseas visitors. Cells in the data table have been randomly adjusted to avoid the release of confidential data.

The data is highly detailed; for summary country of birth data, researchers should access the basic community profile table on country of birth from the ABS Census website.

Language spoken at home

Description: Detailed language spoken at home by age group by LGA (Victoria, 2006)
Source: ABS 2006 Census of Population and Housing
Website: www.abs.gov.au Customised data request, contact client.services@abs.gov.au
Frequency: 5-yearly
Format: Excel spreadsheet
Accessibility: Customised data request – data is charged for, with charges varying according to the amount of data requested

Methodology and data notes

This data set provides data on language spoken at home by age and LGA of Victorian residents. It goes beyond the standard Basic Community Profile on language, which shows numbers only for the main languages spoken across Australia (whereas the main languages spoken vary substantially by LGA).

The data is based on place of usual residence.

Limitations and data application

The data excludes overseas visitors. Cells in the data table have been randomly adjusted to avoid the release of confidential data.

The data is highly detailed; for summary language spoken data, researchers should access the basic community profile table on language spoken from the ABS Census website.

Persons in non-private dwellings

Description: Persons in non-private dwellings by dwelling type and LGA (Victoria, 2006)
Source: ABS 2006 Census of Population and Housing
Website: www.abs.gov.au Customised data request, contact client.services@abs.gov.au
Frequency: 5-yearly
Format: Excel spreadsheet
Accessibility: Customised data request – data is charged for, with charges varying according to the amount of data requested

Methodology and data notes

This data set provides data on persons living in non-private dwellings (e.g. residential care) by type of dwelling and LGA of Victorian residents. This data is not published on the ABS website.

Limitations and data application

The data is based on place of enumeration (i.e. where the persons counted were on Census night). Cells in the data table have been randomly adjusted to avoid the release of confidential data.

WORKING THE DATA

This section provides case studies for two of the data sets, explaining in more detail how to obtain and work with VAED data and maternal and child health data.

Case Study 1 >> Victorian Admitted Episodes Dataset (VAED)

The VAED basically shows what one would think of as hospital admissions. The actual unit of measurement is a separation, which occurs when an inpatient or same day patient leaves hospital - this could be to go home, to go to another hospital or institution, or when a patient dies.

The data is generally extracted by financial year, but is also available by quarter or for a calendar year (basically any combination of quarterly data). It is a highly detailed dataset containing a wealth of information; data can be extracted based on any of the data fields (assuming that there is adequate data to enable data release without raising confidentiality issues). The fact that the data is very up-to-date, with a small lag time (usually about three months) before quarterly data can be accessed, is a key advantage of this data set – it is the most detailed up-to-date health data set at LGA level.

The site linked below provides data dictionaries for the VAED data and other hospital data sets (description of the data field, variable name, format and definition.
http://www.health.vic.gov.au/hosdata/datafields.htm
More detailed definitions for all data fields are available via the following link.
http://www.health.vic.gov.au/hdss/vaed/2007-08/manual/sect3.pdf

Whilst local government social planners are most likely to require data geographically based on LGA of patient residence, hospitals can extract it by hospital in order to identify their main catchment areas.

The uses for the data include:

- Contributing to an assessment of population health status and key health issues, including comparisons to other groups/areas and metropolitan/rural/regional averages. Data can be extracted by age, gender, whether born in a non-English speaking country, indigenous status and a wide range of other characteristics. Municipal Public Health Plans would be one of the key potential uses of this data for local government, along with providing key data which could be passed on to local services such as Community Health Centres. The data as provided for this project shows the main reasons for hospital separation by age, the separation rates by age (allowing valid comparisons between areas) and the SMRs (showing where an area is above average)…data can be compared across a population, within an age group, between geographic areas, depending on data requirements. The full dataset allows a vast range of data permutations.
- Contributing to an assessment of absolute demand for different service types.

- Analysis of service usage data, such as specific hospitals' average length of stay (or same day versus multi day stay) by age, diagnosis, LGA of residence, etc. It can also provide key comparative data (between hospitals/catchment areas).
- Incorporating it into statistical correlations (e.g. between mental health separations, demographics, life expectancy, service usage, disadvantage, etc.). Note that the variation in the quality of data sets would be an issue here.
- Examining co-morbidity - the extent to which certain conditions co-exist (e.g. mental health disorders and substance misuse) by looking at all diagnoses (rather than the main diagnosis).

Where numbers are sufficient (at least five separations per table cell), the data can be drilled down into, for example, mental health separations can be broken down into more detail such as anxiety disorders, same day mental health treatment, schizophrenia and so forth. Note that the confidentiality-based restriction on release of data cells less than five does have a substantial impact on the ability to examine the data using a detailed combination of data fields.

The data was obtained via a custom data order from the VHIRS help desk, specifying the data fields required, date range and geographic coverage. ERP data was used to calculate separation rates by age cohort.

The turn around time for customised hospital data generally ranges from two to six weeks, depending on the workload within this area of the DHS. This means that it is difficult to go back with further detailed queries exploring issues raised in an examination of the initial data (e.g. a high mental health separation rate leading to the desire to analysis detailed causes of mental health admissions). It is therefore necessary to be as specific as possible when making customised data queries.

All data sets are likely to have some errors. A simple coding error can totally skew an individual data set; a change in which the way data is recorded can skew trend data. Since VAED data provided is reliant on data queries run by the data provider, a mistake in their data query can also lead to inaccurate data (e.g. data being extracted for one gender only but shown as being for both gender). It is therefore important to combine data such as the VAED with local knowledge and complementary datasets; and to check data against previous data sets if possible to identify any major data inconsistencies. One past example of a data anomaly was Boroondara having a high level of admissions for alcohol/drug use and induced mental disorders, but not having a high level of alcohol and drug service clients. This may be due to problems with the service data, with residents accessing private rather than public services (there is little data available on private health service usage apart from hospitals).

Because calculations of standardised morbidity ratios depend on comparing the actual number of separations to the expected number, based on the Victorian average, where the expected number is very low, even one or two hospital admissions can give an LGA a significantly above average admission rate. It is therefore important to look at the underlying *numbers* as well as the admission rates and SMRs.

The sample table below shows hospital separations by age for alcohol/drug use and alcohol/drug induced organic mental disorders. It shows an above average hospital admission rate amongst:

- 0-14 year olds in Casey.
- 15-24 year olds in Frankston, Glen Eira (see note) and Port Phillip.
- 25-54 year olds in Frankston, Mornington Peninsula, Port Phillip and Stonnington.
- Persons aged 55 plus in Bayside, Cardinia, Frankston, Glen Eira, Kingston, Mornington Peninsula, Port Phillip and Stonnington.

The map shows the standardised morbidity ratio rate for 15-24 year olds for alcohol/drug use and alcohol/drug induced organic mental disorders, with areas in red having an admission rate at least 20% above average, and areas in yellow having an admission rate at least 20% below average. Note that Glen Eira does not come up on the map as at least 20% above average because its actual figure is 1.19775640056854. This raises the arbitrary cut-off issue – Glen Eira could be considered either above average or just within the average range; a lower cut-off figure would yield a different result.

The data also shows that adults aged 25 years or more (generally 25-54 year olds) account for most of the separations for alcohol/drug use and alcohol/drug induced organic mental disorders. Note that this data is useful only for examining variations in the number of admissions *within* an LGA. Variations in age structure mean that comparing the percentage of admission by age between LGAs is meaningless; instead, the separation rates by age should be used for this purpose.

It also shows that the total number of separations for alcohol/drug use and alcohol/drug induced organic mental disorders is highest in Stonnington (16% of separations), Mornington Peninsula (15%) and Frankston (15%). This type of data is useful for helping to identify *absolute* service demand, but is affected by total population size as well as by actual population health issues.

It is also important to note that hospital data are not a perfect indicator of the existence of a particular health issue, as some groups are more likely to access hospital services than others (comparing English speaking and non-English speaking hospital usage is a good indicator of this issue). Socio-economic status also affects service usage – for example, residents of a high income area may be more likely to pay for a GP home visit rather than go to an emergency department for some health issues; some individuals may use services such as nurse on-call rather than immediately going to an emergency department. These demand drivers vary substantial by geographic area (particularly relating to how close residents are to a hospital) and demographic characteristics, as well as by actual health status.

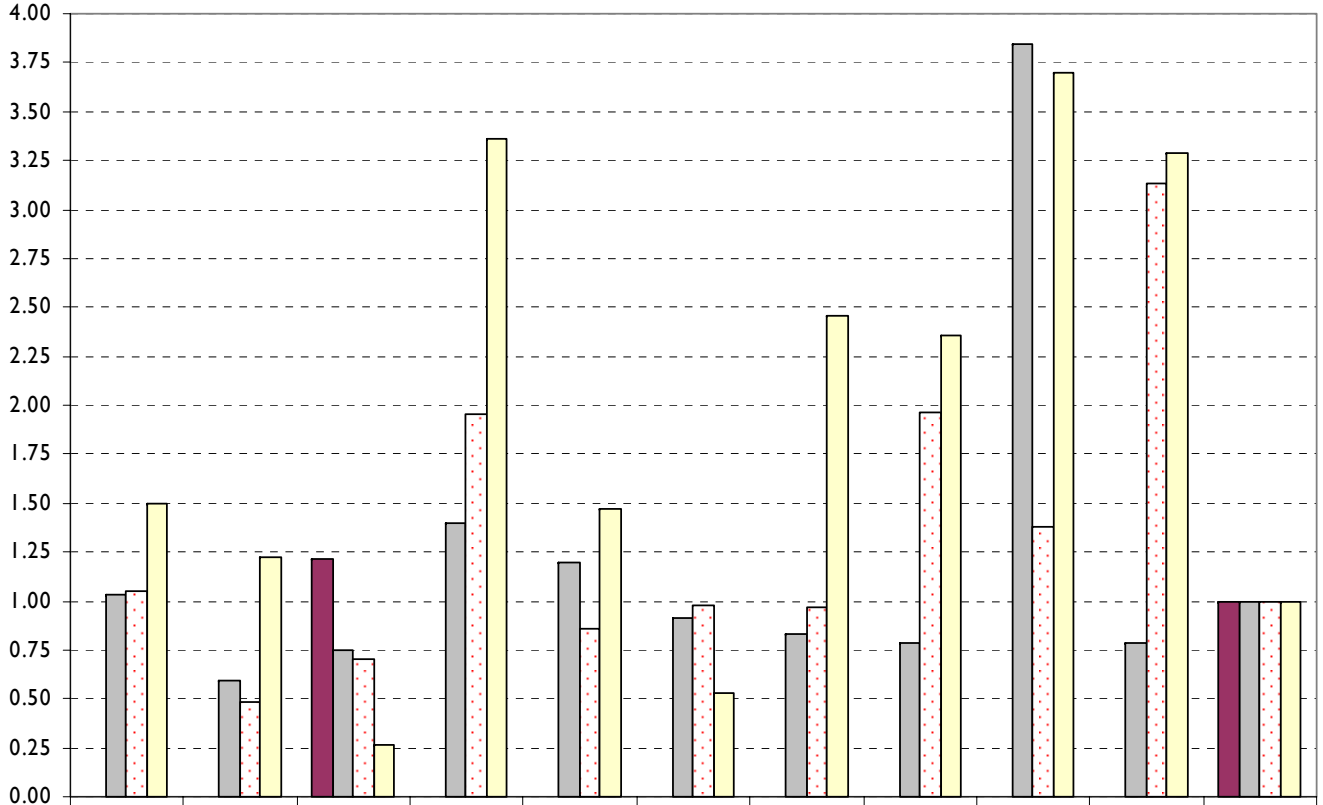
VAED data - public & private separations by age for alcohol/drug use & alcohol/drug induced organic mental disorders:
SMR LGAs, 2006/07

	Actual (observed) number by age					Crude morbidity rate per 1,000 (by age/area)					Standardised morbidity ratio (SMR)				
LGA name	0-14	15-24	25-54	55 & over	Total	0-14	15-24	25-54	55 & over	Total	0-14	15-24	25-54	55 & over	Total
Bayside (C)	<5	26	113	101	241	n/a	2.4	3.0	3.8	2.6	n/a	1.0	1.0	1.5	1.2
Cardinia (S)	<5	11	35	36	87	n/a	1.4	1.4	3.1	1.5	n/a	0.6	0.5	1.2	0.7
Casey (C)	5	57	205	24	292	0.1	1.8	2.0	0.7	1.3	1.2	0.7	0.7	0.3	0.6
Frankston (C)	<5	55	294	245	598	n/a	3.3	5.7	8.6	4.9	n/a	1.4	2.0	3.4	2.2
Glen Eira (C)	<5	47	144	123	315	n/a	2.8	2.5	3.8	2.4	n/a	1.2*	0.9	1.5	1.1
Greater Dandenong (C)	<5	41	156	43	246	n/a	2.2	2.8	1.3	1.9	n/a	0.9	1.0	0.5	0.9
Kingston (C)	<5	34	171	234	445	n/a	2.0	2.8	6.3	3.2	n/a	0.8	1.0	2.5	1.4
Mornington Peninsula (S)	<5	31	298	275	605	n/a	1.9	5.7	6.0	4.3	n/a	0.8	2.0	2.4	1.9
Port Phillip (C)	0	94	214	168	476	0.0	9.1	4.0	9.5	5.3	0.0	3.8	1.4	3.7	2.4
Stonnington (C)	<5	26	413	195	642	n/a	1.8	9.1	8.4	6.7	n/a	0.8	3.1	3.3	3.1
Victoria	75	1,691	6,374	3,162	11,302	0.1	2.4	2.9	2.6	2.2	1.0	1.0	1.0	1.0	1.0

** Glen Eira does not come up on the map as at least 20% above average because the actual figure is 1.19775640056854. This raises the arbitrary cut-off issue – Glen Eira could be considered either above average or just within the average range; a lower cut-off figure would yield a different result.*

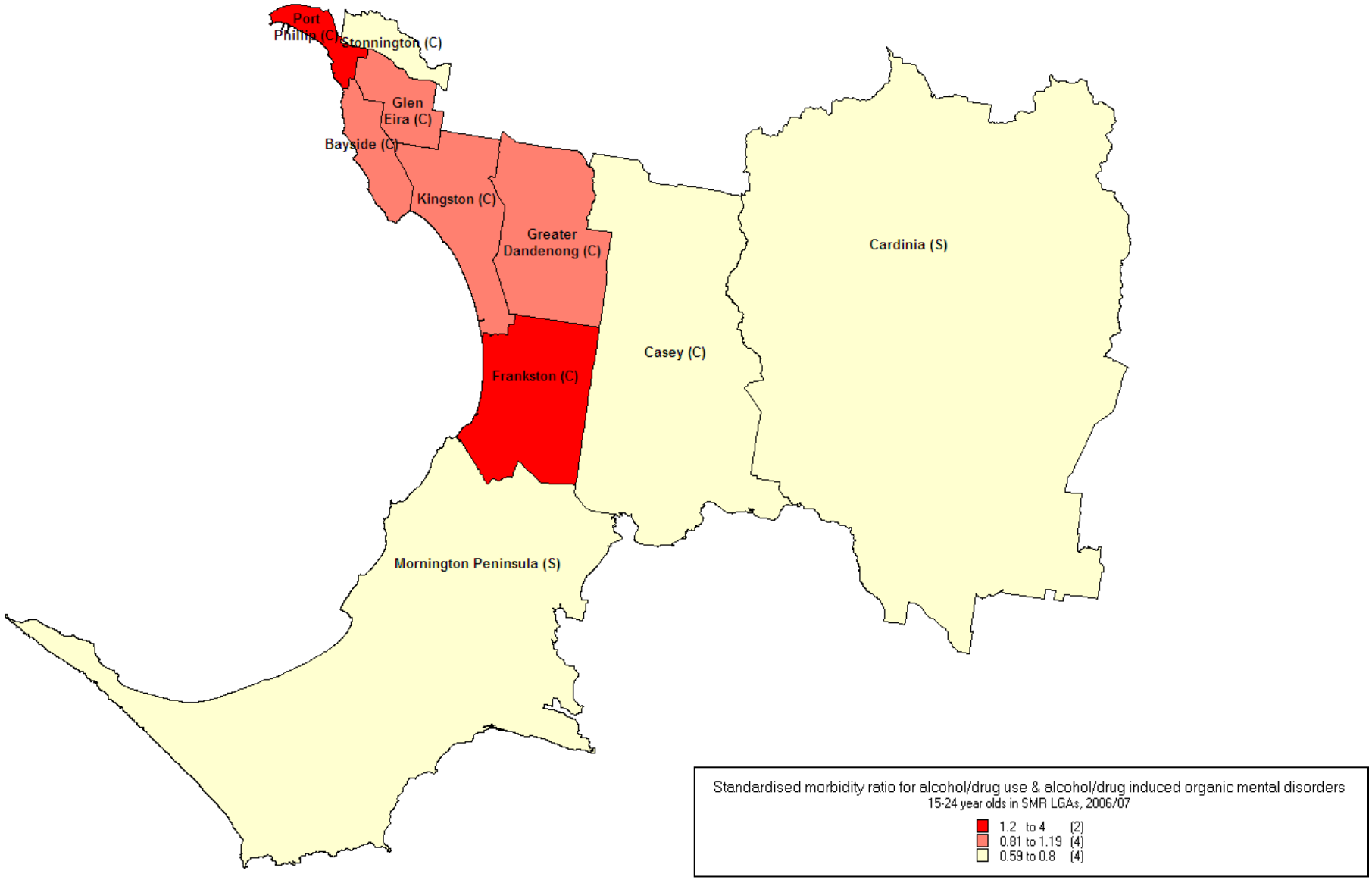
Source: VAED (Victorian Admitted Episodes Dataset) Public & Private Hospital Separations Data 2006/07, Performance Reporting & Analysis Unit, Metropolitan Health & Aged Care Services Division, Department of Human Services

VAED data - public & private separations by age for alcohol/drug use & alcohol/drug induced organic mental disorders: SMR LGAs, 2006/07



	Bayside (C)	Cardinia (S)	Casey (C)	Frankston (C)	Glen Eira (C)	Greater Dandenong (C)	Kingston (C)	Mornington Peninsula (S)	Port Phillip (C)	Stonnington (C)	Victoria
0-14			1.21						0.00		1.00
15-24	1.03	0.59	0.75	1.40	1.20	0.92	0.83	0.79	3.85	0.78	1.00
25-54	1.05	0.49	0.71	1.96	0.86	0.97	0.97	1.97	1.38	3.13	1.00
55 & over	1.50	1.22	0.26	3.36	1.47	0.53	2.46	2.36	3.70	3.29	1.00

VAED data - public & private separations amongst 15-24 year olds for alcohol/drug use & alcohol/drug induced organic mental disorders: SMR LGAs, 2006/07



Case Study 2 >> Maternal & child health data

This data set provides selected maternal and child health indicators by LGA and region, primarily relating to service usage. The data is reasonably comprehensive for those children whose parents/guardians utilise maternal and child health centres; note that there is a substantial element of self-reporting (e.g. for breastfeeding), which could lead to data inaccuracies. The data provides its own assessment of target population coverage, by stating the percentage of children attending the key ages and stages visits. It covers a wide range of indicators including service usage, breast feeding rates, reasons for counselling or referral to specialist services, first time mothers and ATSI participation.

The data is released annually but there is a considerable lag time, with 2006/07 data not yet available on the website.

The source of this data were the Maternal and Child Health Services Annual Reports 2005-2006, published separately for each region; the data was accessed by downloading the pdf reports from the DHS website (the data is free). The reports use base data such as the number of birth notifications and the number of children in each target age/population group within each LGA (e.g. 2 year olds, ATSI children) to calculate percentages such as the percentage fully breastfed at three months. This makes the data relatively easy to work with, although percentages are only provided for selected data tables.

The uses for the data include:

- Obtaining an overview of total demand for Maternal and Child Health Services, via data such as birth notifications. This sort of information is also useful for other child services such as child care services.
- Analysing variations in service utilisation between ATSI and non-ATSI children, different age groups and different geographic areas. For example, participation in key ages and stages visits tends to be high in more advantaged areas, as do breastfeeding rates.
- Identifying trends in total births and service usage patterns.
- Helping to identify health issues (reasons for counselling and referral) amongst mothers/families and young children – data on counselling and referrals for both mothers/families and their children are provided.

The ATSI participation rate data is likely to be less reliable due to population mobility issues and the potential for miscounting of this group; also, the data is not published for several LGAs.

The data for LGAs in the Southern Metropolitan region shows that:

- The level of birth notifications was by far the highest in Casey (23% of total notifications for the region).
- A well below average level of infants were fully breastfed at three months in Casey, Frankston, Greater Dandenong and Mornington Peninsula.
- The participation rate for 4 month old visits was highest in Bayside, Port Phillip and Stonnington.
- The participation rate for 12 month old visits was highest in Kingston, Bayside, Cardinia and Stonnington
- The participation rate for 2 year old visits was highest in Bayside and Kingston.

It also shows that the decline in participation between 4 months and 2 years was much higher than the regional average in Casey, Port Phillip, Cardinia and Stonnington.

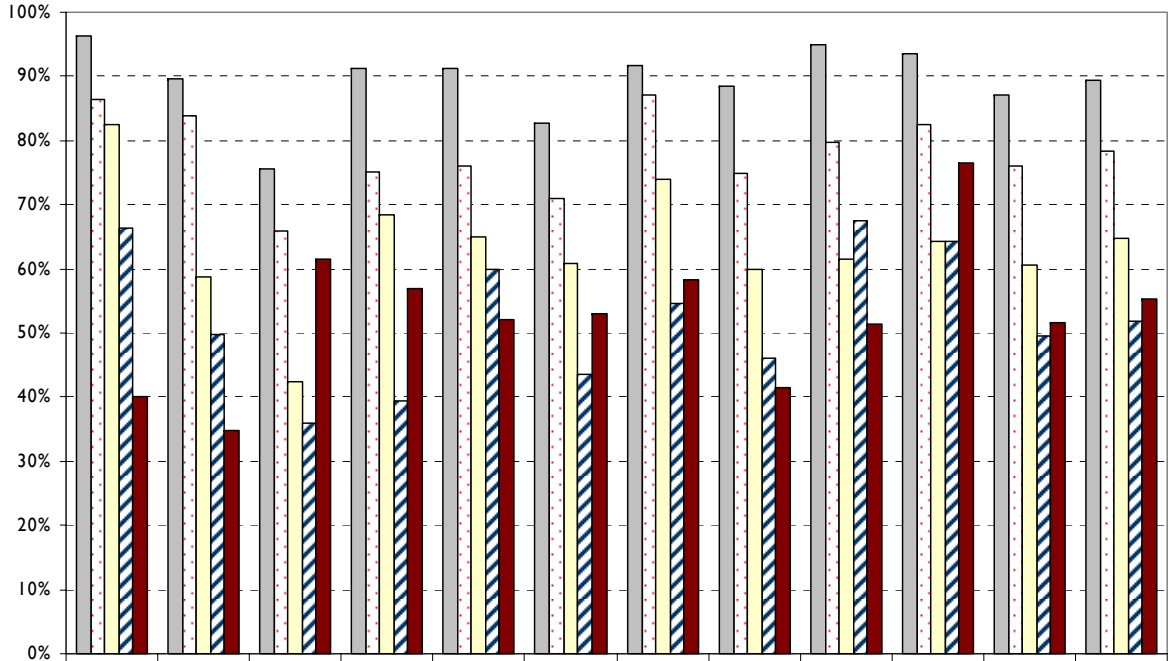
Maternal & Child Health Service data, SMR LGAs: Key indicators, 2005/06

LGA name	No. of birth notifications	% participation in key ages & stages visit, 4 months	% participation in key ages & stages visit, 12 months	% participation in key ages & stages visit, 2 years	% fully breastfed at 3 months	Total ATSI participation rate (active ATSI as % of total ATSI cards)
Bayside (C)	1,119	96.3%	86.5%	82.4%	66.4%	40.0%
Cardinia (S)	848	89.6%	83.8%	58.8%	49.7%	34.9%
Casey (C)	3,705	75.6%	65.8%	42.3%	35.9%	61.6%
Frankston (C)	1,660	91.3%	75.1%	68.4%	39.5%	57.0%
Glen Eira (C)	1,748	91.3%	76.1%	64.9%	59.9%	52.0%
Greater Dandenong (C)	1,869	82.8%	70.9%	60.9%	43.6%	52.9%
Kingston (C)	1,809	91.6%	87.2%	74.0%	54.6%	58.3%
Mornington Peninsula (S)	1,478	88.5%	75.0%	59.9%	46.1%	41.5%
Port Phillip (C)	1,158	94.9%	79.7%	61.6%	67.6%	51.4%
Stonnington (C)	1,060	93.6%	82.4%	64.3%	64.3%	76.5%
SMR	16,454	87.1%	76.0%	60.7%	49.6%	51.6%
Victoria	66,526	89.4%	78.3%	64.7%	51.8%	55.2%

Note: "Active" is defined as a child having attended the Maternal & Child Health Service at least once during the financial year. ATSI refers to a person self-reporting as being of Aboriginal and/or Torres Strait Islander origin.

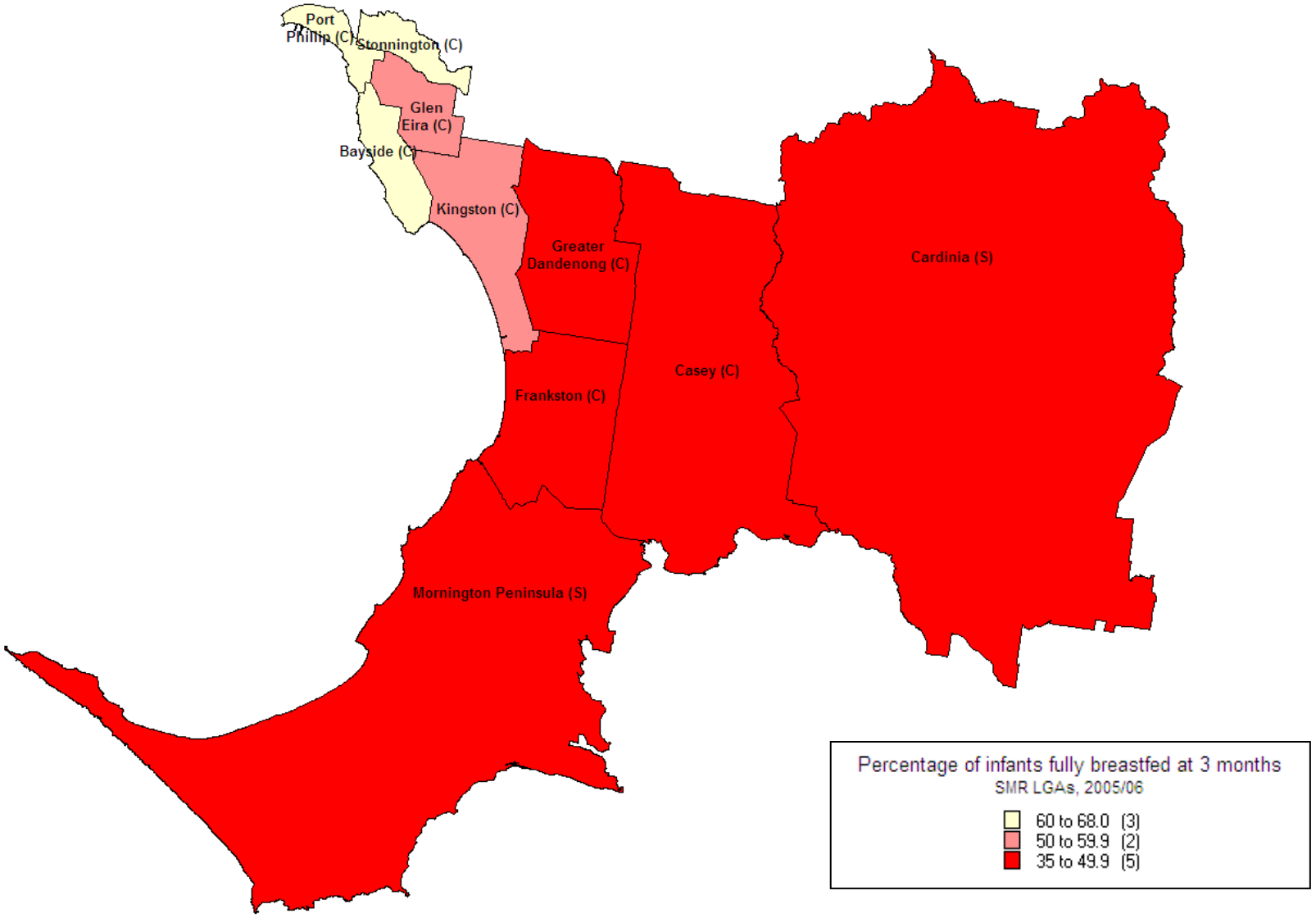
Source: Maternal & Child Health Services Annual Report 2005-2006

Maternal & Child Health Service data, SMR LGAs: Key indicators, 2005/06



	Bayside (C)	Cardinia (S)	Casey (C)	Frankston (C)	Glen Eira (C)	Greater Dandenong (C)	Kingston (C)	Mornington Peninsula (S)	Port Phillip (C)	Stonnington (C)	SMR	Victoria
% participation in key ages & stages visit, 4 months	96.3%	89.6%	75.6%	91.3%	91.3%	82.8%	91.6%	88.5%	94.9%	93.6%	87.1%	89.4%
% participation in key ages & stages visit, 12 months	86.5%	83.8%	65.8%	75.1%	76.1%	70.9%	87.2%	75.0%	79.7%	82.4%	76.0%	78.3%
% participation in key ages & stages visit, 2 years	82.4%	58.8%	42.3%	68.4%	64.9%	60.9%	74.0%	59.9%	61.6%	64.3%	60.7%	64.7%
% fully breastfed at 3 months	66.4%	49.7%	35.9%	39.5%	59.9%	43.6%	54.6%	46.1%	67.6%	64.3%	49.6%	51.8%
Total ATSI participation rate (active ATSI as % of total ATSI cards)	40.0%	34.9%	61.6%	57.0%	52.0%	52.9%	58.3%	41.5%	51.4%	76.5%	51.6%	55.2%

Map of Maternal & Child Health service data, percentage of infants fully breastfed at 3 months: SMR LGAs, 2005/06



[1] 2006 DataPacks' is a CD-ROM product containing 2006 Census of Population and Housing Community Profile data for all of Australia to the Collection District (CD) level and the matching digital boundary basemaps in generic Geographical Information System (GIS) format. The '2006 DataPacks' product contains 2006 Community Profile data in CSV format (which can easily be opened by Excel and Access) and digital boundary basemaps in both '.Mid/Mif' and 'ESRI.shp' formats.

There is no software included in this product. It contains data, digital boundary basemap files and metadata/reference documents to enable the user to read the data. The 'data' and 'digital boundary basemap' files are required to open in tabulation and mapping software to read both file formats. There are also metadata files provided that contain data sequencing, labelling, geographic concordances and information pertaining to both the data and digital boundary basemaps where required. Clients will be required to merge the data files with the 'Sequential file' to obtain meaningful data labels and other attributes associated with the data.

The digital boundary basemaps are used for boundary displays and overlays for area specific comparison purposes and once the data is input into a GIS, thematic maps can be obtained by matching the CSV data with the digital boundary basemap file. Thematic maps are where a digital boundary and/or a set of digital boundaries are 'shaded', representing a data item and also incorporates a data 'range' to display the comparison regarding the difference in population counts between the users chosen areas.