National Health Performance Authority

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Healthy Communities:

Australians' experiences with primary health care in 2010–11

Technical Supplement

Please note:

This Technical Supplement relates to the report *Healthy Communities: Australians' experiences with primary health care in 2010–11* (published March 2013). Data and methods relating to MBS statistics have since been revised.
See **www.myhealthycommunities.gov.au** for the most up-to-date results and methods.

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Published March 2013.

Please note that there is potential for minor revisions of data in this report.
Please check **www.nhpa.gov.au** for any amendments.

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About the Authority

The National Health Performance Authority has been set up as an independent agency under the *National Health Reform Act 2011*. It commenced full operations in 2012.

Under the terms of the Act, the Authority will monitor, and report on, the performance of Local Hospital Networks, public and private hospitals, primary health care organisations and other bodies that provide health care services.

The Authority's reports will give all Australians access to timely and impartial information that fairly compares their local health care organisations against their peers.

The reports will let people see, for the first time, how their local health care organisations measure up against comparable organisations across Australia.

The Authority's activities are guided by a document called the *Performance and Accountability Framework* agreed by the Council of Australian Governments (COAG). The framework contains 48 indicators that will form the basis for the Authority's performance reports.

The Authority's role includes reporting on the performance of health care organisations against the 48 measures in order to identify both high-performing Local Hospital Networks, Medicare Locals and hospitals (so effective practices can be shared), and Local Hospital Networks and Medicare Locals that perform poorly (so that steps can be taken to address problems).

The Authority releases reports on a quarterly basis, and also publishes performance data on the MyHospitals website and on **www.nhpa.gov.au**

The Authority consists of a Chairman, a Deputy Chairman and five other members, appointed for up to five years. Members of the Authority are:

- Ms Patricia Faulkner AO (Chairman)
- Mr John Walsh AM (Deputy Chairman)
- Dr David Filby PSM
- Prof Michael Reid
- Prof Bryant Stokes AM RFD
- Prof Paul Torzillo AM
- Prof Claire Jackson (acting member).

The conclusions in this report are those of the Authority. No official endorsement from any Minister, department of health or health care organisation is intended or should be inferred.

Summary

This *Technical Supplement* summarises methods used to calculate descriptive statistics of performance indicators presented in the *Healthy Communities: Australians' experiences with primary health care in 2010-11* report. Due to the complexity of the methods used, this supplement is targeted at individuals with technical expertise in the creation and use of health information.

Healthy Communities: Australians' experiences with primary health care in 2010-11 publishes statistics for 61 Medicare Locals, and seven clusters of Medicare Locals called *peer groups*. For each Medicare Local and peer group, the National Health Performance Authority has published performance indicators using:

- Data from the Australian Bureau of Statistics (ABS) Patient Experience Survey 2010-11 **(see page 1)**
- Administrative data on claims and clients using items listed on the Medicare Benefits Schedule (MBS) **(see page 5)**.

The Authority identified seven peer groups of Medicare Locals on the basis of:

- Proximity of each Medicare Local to major metropolitan cities (using the ABS Australian Standard Geographic Classification, 2006 Remoteness Structure)
- Proximity to major hospitals (A1 public hospitals in AIHW's Public Hospital Peer Group classification, 2010-11)
- Socioeconomic status.
- These *peer groups* were used to support comparisons of Medicare Locals grouped within the same metropolitan, regional or rural peer group **(see page 9)**.

This *Technical Supplement* provides information about the data sources used and references for further information.

ABS Patient Experience Survey

This section summarises methods used to calculate descriptive statistics for the performance indicator "measures of patient experience", using data from the Australian Bureau of Statistics (ABS) Patient Experience Survey 2010-11. The Patient Experience Survey is conducted annually when ABS collects information from a representative sample of the Australian population. The Patient Experience Survey is one of several topics on the Multipurpose Household Survey, as a supplement to the monthly Labour Force Survey.

The data included in *Healthy Communities: Australians' experiences with primary health care in 2010-11* relates to the survey cycle conducted from July 2010 to June 2011. At that time, the ABS collected information from individuals about their experiences with the health system in the 12 months prior to interview. Demographic information was also collected.

Scope and coverage

The Patient Experience Survey 2010-11 included persons aged 15 years and over and excluded the following:

- Members of the Australian permanent defence forces
- Diplomatic personnel of overseas governments
- Overseas residents in Australia
- Members of non-Australian defence forces (and their dependents)
- Persons living in non-private dwellings such as hotels, university residences, boarding schools, hospitals, retirement homes, homes for people with disabilities, prisons, etc.
- Persons living in very remote parts of Australia
- Persons living in discrete Indigenous communities.

These survey scope exclusions have implications when interpreting results disaggregated to the Medicare Local and peer group level. Survey results for two Medicare Locals have not been presented in this report because the exclusion criteria outlined above meant a significant proportion of the population living in these Medicare Locals was not covered by the scope of the 2010-11 survey. Results for ML309 Central and North West Queensland (where at least 45% of the population were in very remote areas and not covered) and ML508 Kimberley-Pilbara (where at least 41% of the population were in very remote areas and not covered) are denoted as not available for publication (NP). Further, another five Medicare Locals and one peer group had more than 5% and less than 25% of their population in very remote areas (which were excluded from the scope of the survey):

Northern Territory (701)	23%
Goldfields – Midwest (507)	14%
Far West NSW (118)	10%
Far North Queensland (311)	8%
Country North SA (405)	7%
Rural 2 peer group	**20%**

Consequently, results presented for these Medicare Locals and the Rural 2 peer group may not represent a fair assessment of the circumstances for these areas. This should be considered when interpreting the ABS Patient Experience Survey 2010-11 data for these Medicare Locals and the Rural 2 peer group. In this report, each of these Medicare Locals and the Rural 2 peer group are denoted with a dagger symbol (†).

Data collection

After fully completing the Labour Force Survey at a household, a usual resident aged 15 years or over was selected at random (based on a computer algorithm) and asked the additional questions in relation to the patient experience. Data were collected using Computer Assisted Interviewing, whereby responses were recorded directly onto an electronic questionnaire in a notebook computer, usually during a telephone interview. For further information refer to the publication *Patient Experiences in Australia: Summary of Findings, 2010-11* (ABS cat. no. 4839.0).

Sample size

Of persons asked to participate in the survey, 26,423 (81.4%) fully responded to the Patient Experience Survey 2010-11. The sample was designed to produce representative results for states and territories. Data collection for the Patient Experience Survey 2010-11 predated the establishment of Medicare Locals. Accordingly, for some Medicare Locals with their population living in very remote parts of Australia or in discrete Indigenous communities, survey results are not available at a level of reliability equivalent to state and territory level estimates for the 2010-11 survey cycle reported elsewhere.

In 2012, the ABS was commissioned by the National Health Performance Authority to assign all respondent data to Medicare Local geography to produce survey results for each Medicare Local and peer group. The ABS Patient Experience Survey 2010-11 data have been weighted to meet independent population benchmarks for the civilian population aged 15 years and over living in private dwellings in each State and Territory, excluding those living in very remote areas of Australia, at 31 March 2011.

In the weighting process final weights were compiled through a generalised regression process taking into account sex, age group, State by Capital City Statistical Division/Rest of State plus ACT and NT, as defined in the ABS Australian Standard Geographical Classification (ASGC).

The ABS considered the possibility of re-weighting the Patient Experience Survey data to take into account the Medicare Local level geography. ABS advised the Authority that this was not necessary as previous investigations by ABS (both data-based and algebraic) had indicated that re-weighting of this type had little or no effect on prevalence rates as presented in this report or the associated confidence intervals. Further, given the relatively small sample size and consequent size of some of the individual cells, attempting to re-weight the Patient Experience Survey 2010-11 data might have resulted in degrading accuracy due to the need to collapse benchmarks such as age, sex and part of state that do benefit accuracy.

Data quality

The Patient Experience Survey results represent respondents' perception of their health status and views on experiences of using the health care system. Respondents' recall, perceptions and views are influenced by a number of factors which should be considered when interpreting the data.

The definition of urgent medical care was left to respondents to determine. However, discretionary interviewer advice was available as follows:

Include:
Health issues that arose suddenly and were serious, e.g. fever, headache, vomiting, unexplained rash.

Exclude:
Appointments to get a sick certificate for work.

Percentages (proportions)

The Patient Experience Survey 2010-11 results are expressed in terms of percentages, that is, the number of people in the Medicare Local area with a characteristic of interest, divided by the defined eligible total population and expressed as a percentage (per one hundred population). The denominator varies by survey data item. For example, the denominator for many survey data items is all persons aged 15 years and over in Australia, whereas the denominator for survey data items about emergency departments (ED) is all persons aged 15 years and over in Australia who had been to an ED for their own health in the previous 12 months. The responses "Don't know" or other applicable categories are included in the percentage denominator, unless otherwise stated. Further, percentages presented in this report for Medicare Locals and peer groups are weighted survey estimates. The Patient Experience Survey results for Medicare Local peer groups are calculated using the results of all survey responses within the peer group and have been described as an "average" in this report. These peer group results are not the average or arithmetic mean of the Medicare Local percentages presented in this report.

Reliability of percentages (proportions)

Two types of error are possible in estimated percentages based on a sample survey. These are non-sampling error and sampling error.

Non-sampling error may occur in any data collection and at any stage throughout the survey process. Examples include:

- Non-response by selected persons
- Questions being misunderstood
- Responses being incorrectly recorded
- Errors in coding or processing the survey data.

The ABS attempts to minimise non-sampling error through a range of procedures including cognitive testing, extensive interviewer training, detailed interviewer instructions and follow-up approaches to selected households.

Sampling error occurs because a subset of the total population is used to produce estimates that are designed to represent the whole population. Sampling error can be reliably measured, as it is calculated based on the scientific methods used to design surveys.

As the percentages reported in *Australians' experiences with primary health care in 2010-11* are based on information obtained from a sample survey, they are subject to sampling error. That is, they may differ from proportions that would have been produced if all persons in Australia had been included in the survey. Accordingly, confidence intervals are released, in addition to point estimates, to indicate the range in which the population value (as compared to the statistic derived from respondent surveys) is likely to lie.

Confidence intervals are constructed using the point estimate of the population value and its associated standard error. There is approximately a 95% chance (i.e. 19 chances in 20) that the population value is within 1.96 standard errors of the estimated proportion. The 95% confidence interval is equal to the estimated percentage plus or minus 1.96 standard errors.

All point estimate percentages included in this report have a confidence interval width less than or equal to 20 percentage points. A width of a confidence interval of 20 percentage points, for a point estimate of 40% for example, is between 30% and 50%. Medicare Locals with estimated proportions with a confidence interval width greater than 20 percentage points, or for which the results are not a fair assessment for the Medicare Local due to survey scope exclusions **(see page 1)** are indicated as not available for publication (NP).

Significance testing

When comparing two point estimates or percentages of a characteristic of interest within a survey, it is useful to determine the degree of certainty of differences between them or whether the observed differences relate simply to, for example, sampling variability. One way to compare two point estimates is to test whether the difference between them is statistically significant. This test assesses whether the difference between two point estimates is statistically significant at the 95% level. If the two estimates are statistically significantly different, there is a very small chance (5% or less) that differences between them relate to, for example, sampling variability. In presenting ABS Patient Experience Survey 2010-11 results by Medicare Local, a # (hash) has been added to those Medicare Locals for which there is a statistically significant difference (at the 95% confidence level) to the point estimate for their peer group.

Survey results for Aboriginal and Torres Strait Islander Peoples

The ABS Patient Experience Survey, 2010-11 did not survey people living in very remote areas of Australia or discrete Indigenous communities specified in the Indigenous Communities Frame of the ABS Population Surveys Framework (see Glossary). Approximately 400 Aboriginal and Torres Strait Islander people responded in the Patient Experience Survey 2010-11 in other parts of Australia, compared to the non-Indigenous sample size of approximately 26,000. These survey respondents who reported that they were Australian Aboriginal and/or Torres Strait Islander comprised 1.5% of all respondents, compared with 2.4% of the Estimated Resident Population who were Aboriginal and Torres Strait Islander peoples.[1] This difference in survey sample outcome, together with the survey scope exclusions, was considered by the Authority when interpreting the survey results for Aboriginal and Torres Strait Islander peoples. Further, the primary health care service usage, access and experiences of Aboriginal and Torres Strait Islander peoples who live in discrete Indigenous communities or in remote areas of Australia, may differ appreciably from those Aboriginal and Torres Strait Islander peoples who responded to the ABS Patient Experience Survey 2010-11. Accordingly, while responses from Aboriginal and Torres Strait Islander people are included in the results presented in this report, they are not presented separately.

1. Using preliminary Estimated Resident Population aged 15 years and over for Australia based on the ABS 2011 Census of Population and Housing as at 30 June 2011 as published in Australian Demographic Statistics, March 2012 (cat. no. 3101.0)

Medicare Benefits Schedule statistics

This section summarises methods used to calculate descriptive statistics on performance indicators using data from the Medicare Benefits Schedule (MBS). These statistics are derived from administrative information on services that qualified for a Medicare benefit under the *Health Insurance Act 1973* and for which a claim was processed by the Department of Human Services. Under MBS arrangements, 'eligible persons' are persons who reside permanently in Australia. This includes New Zealand citizens and holders of permanent residence visas.

Applicants for permanent residence may also be eligible depending on circumstances. In addition, persons from countries with which Australia has reciprocal health care agreements might also be entitled to benefits under MBS arrangements. MBS data do not include services provided free of charge to public patients in hospitals, to Department of Veterans' Affairs beneficiaries, to some patients under compensation arrangements and through other publicly funded programs.

This report contains MBS statistics on GP attendances, after-hours attendances and GP care planning for the 12 months of processing ending 30 June 2010–11 and 2011–12. These statistics exclude MBS rebatable investigations, tests and procedures which might occur during an attendance or consultation. It is important to note that some Australian residents may access medical services through other arrangements, such as salaried doctor arrangements. As a result, MBS statistics may underestimate the rate of use of health services by some members of the community.

GP attendances

'GP attendances' are based on the performance indicator for GP-type services in the National Healthcare Agreement (NHA). GP attendances are MBS non-referred attendances provided by medical practitioners, but deviates from the NHA performance indicator by excluding services provided by practice nurses and Aboriginal and Torres Strait Islander health practitioners on behalf of medical practitioners.

GP attendances represent non-referred attendances between patients and medical practitioners for the purposes of primary health care, which include:

- GP and other non-referred attendances
- Prolonged attendances
- Group therapy
- Acupuncture
- Urgent attendance after hours
- Health assessments
- GP management plans, team care arrangements and case conferences
- Domiciliary and residential management reviews
- Attendances associated with Practice Incentives Program (PIP) payments
- GP mental health treatment
- After-hours attendances
- Pregnancy support counselling
- Telehealth attendances.

These services correspond with the non-referred attendance broad type of services groups used in MBS statistics published by the Department of Human Services[2] and the Department of Health and Ageing.[3]

After-hours attendances

This subcategory of GP attendances includes urgent items in Group A11 and non-urgent items in Groups A22 and A23 of the MBS. Essentially, these services represent after-hours non-referred 'attendances' between patients and medical practitioners (including general practitioners) for the purposes of primary health care.

GP care planning

This sub-category of GP attendances includes GP management plans, team-care arrangements, multidisciplinary care plans, and case conferences involving a general practitioner.

Medicare services and benefits

Each MBS non-referred attendance, including after-hours attendances and care planning items, processed by the Department of Human Services (Medicare) in 2010-11 and 2011-12, is counted as a service in summary statistics. Bulk-billing incentive services are excluded from service counts, since they are 'top-up' items. MBS statistics only include benefits paid by the Department of Human Services and do not include patient copayments. While MBS benefits associated with bulk-billing incentives are included in MBS statistics published elsewhere, they are not included in this report since they cannot be precisely attributed to associated items in the MBS. In 2010–11 and 2011–12, total MBS expenditure for GP bulk-billing incentives other than pathology and diagnostic imaging was $482.2M and $493.6M, respectively. Services and benefits per person for 2010-11 and 2011-12 (based on date of processing) were computed having regard to ABS population estimates at 30 June 2011.

Geography levels

MBS statistics are presented in this report by Medicare Local and by ABS Statistical Area Level 3 (SA3), based on the patient's enrolment address postcode in the Department of Human Services (Medicare) program as opposed to the service provider. Statistics in this report have been compiled by applying geographic concordances to MBS aggregate statistics at the patient enrolment postcode level. This has led to several technical methodological decisions which were required to produce results for this report.

Where postcodes overlapped Medicare Local or SA3 boundaries, services and benefits paid were attributed to a Medicare Local or SA3 based on the percentage of the population of each postcode in each Medicare Local or SA3.

Further, in the postcode to SA3 geographical correspondence file (see Glossary) obtained from the ABS, the factors for a number of postcodes either did not equal or sum to one. This was due to boundary misalignment between the original

2. Department of Human Services, 2013, *Medicare Australia Statistics*, Department of Human Services, Canberra, viewed 12 February 2013, **www.medicareaustralia.gov.au/statistics/mth_qtr_std_report.shtml, www.medicareaustralia.gov.au/statistics/mbs_group.shtml, www.medicareaustralia.gov.au/statistics/mbs_item.shtml**

3. Department of Health and Ageing, 2013, Department of Health and Ageing, viewed 12 February 2013, **www.health.gov.au/internet/main/publishing.nsf/Content/Medicare+Statistics-1**

postcode and other maps. In some instances, service counts have been apportioned between multiple Medicare Locals or SA3s. National totals may not correspond to the sums of lower-level statistics due to rounding.

In the Medicare Local statistics that summarise service use by postcodes, a small number of postcodes which did not map to a Medicare Local have been assigned to a single "Other" row. Those individual numbers were generally low.

In the SA3 tables and maps, postcodes which did not map to SA3s have been separately tabulated under their respective states or territories. This includes Post Office Boxes, delivery centres, etc. For the Northern Territory, data for all SA3s and unallocated postcodes have been combined.

ABS Statistical Areas Level 3 (SA3s) have been excluded from the reported range of results where the population is less than 1000, as they may identify individual providers and their patients. Additionally, Christmas Island and the Cocos (Keeling) Islands were excluded as the majority of primary health care services are provided by the Indian Ocean Territories Health Service.

Region

Statistics are presented at Medicare Local level and SA3 level. Since many patients change mailing address through a year, the postcode used in compiling statistics was based on the latest processed MBS record (of any type, not just GP attendances) for each patient during each processing year (financial years 2010-11 and 2011-12, by date of processing).

Confidential results

Data rows containing information which could lead to the identification of individuals have been suppressed and their cell values marked as not available for publication (NP). The rules that were applied in ensuring confidential results of data are defined for the number of MBS services and benefits per person. The definition of confidential data for a number of MBS services is as follows:

- If number of services is less than six, or;
- If the number of services is equal to or greater than six but:
  - (i) two patients receive more than 90% of services, or;
  - (ii) one patient receives more than 85% of services.

Due to confidentiality processes that were applied to the MBS data, some cells have been suppressed at the age group by sex by Medicare Local level on provision to the Authority. This suppression, together with not attributing some postcodes to SA3 regions, has led to some MBS data by Medicare Local, SA3 and higher aggregates possibly not agreeing with statistics published elsewhere. The impact on estimates presented in this report is relatively small.

Interpretation of MBS statistics

Several factors should be considered in interpreting MBS statistics by region and in making comparisons in service utilisation, including services per person, between regions. As noted above, these statistics relate to the Medicare enrolment region of the patient as opposed to the region in which the services were provided. Many patients receive services in a region other than the region recorded as their Medicare enrolment address postcode.

In the Northern Territory, approximately 30 per cent of GP attendances involve persons with Post Office Box or similar enrolment postcodes. Since these postcodes are not on SA3 concordance files, it was not possible to publish statistics for the Northern Territory at SA3 level.

Differences in utilisation of MBS services by region can be due to:

- Services in some regions of Australia being provided by salaried practitioners outside Medicare 'fee-for-service' arrangements. These services are not captured in MBS statistics
- Significant differences in the supply of practitioners
- Rates of bulk-billing, or;
- The age and gender profile of persons in the region.

Future work

The Authority has commenced statistical analysis comparing MBS statistics compiled using different "per person" denominators including:

- The ABS Estimated Resident Population presented in this report as at 30 June 2011
- An approximate mid-financial year estimate for 31 December 2010 and 31 December 2011
- The number of clients who obtained an MBS benefit in the financial year, and;
- If accessible, the number of people who held a Medicare entitlement in the financial year (that is, including those who did not obtain an MBS benefit during the year).

Results of this analysis will be presented in a future report by the Authority.

Medicare Local peer group design

What is a Medicare Local?

Medicare Locals are a new nationwide network of primary health care organisations established to improve responsiveness, coordinate primary health care delivery and tackle local health care needs and service gaps. They have been established by the Australian Government to drive improvements in primary health care and ensure that services are better tailored to meet the needs of local communities. For further information, see Glossary.

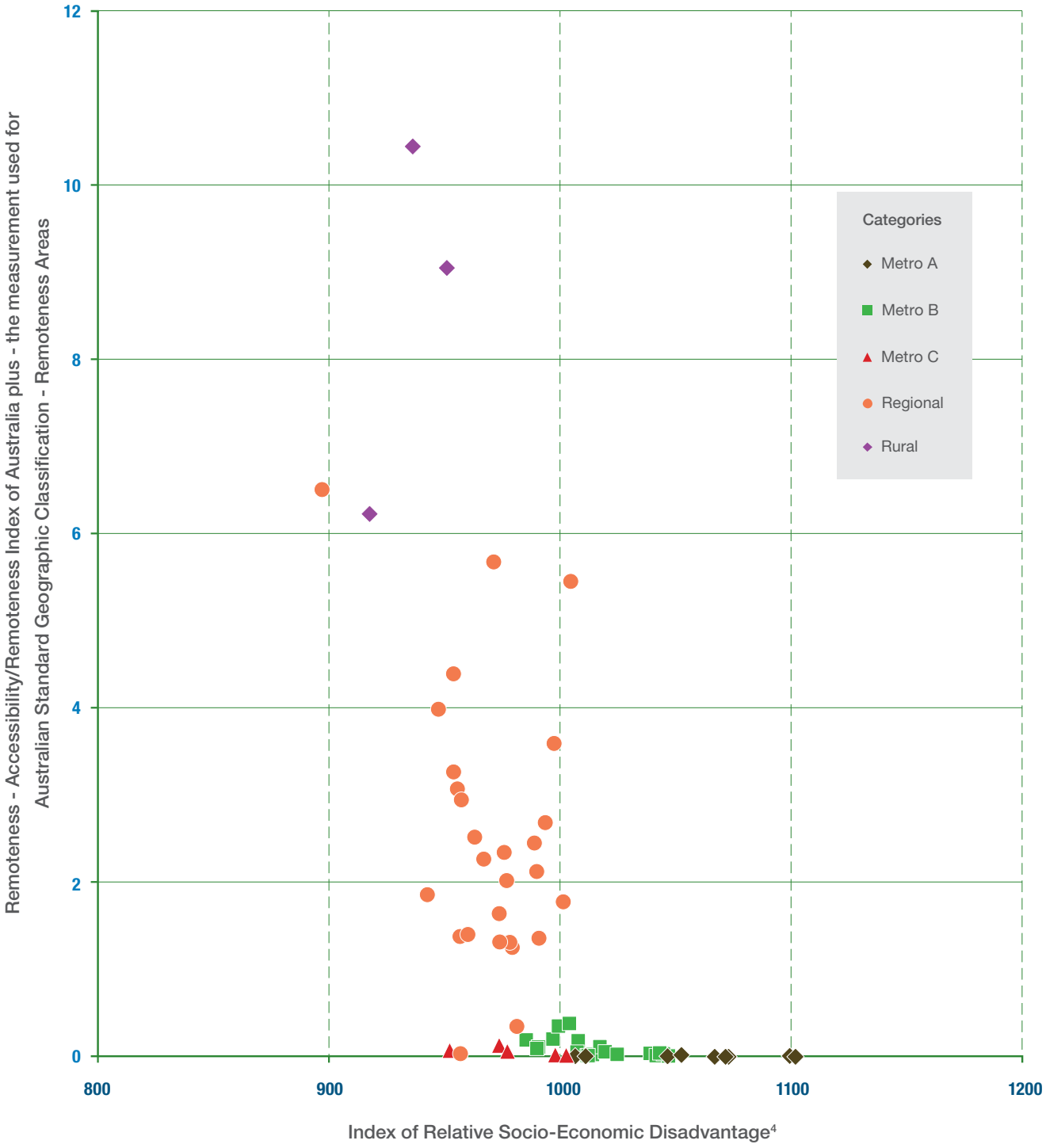
What is a Medicare Local peer group?

Australia is a diverse country settled by a diverse population. To enable the presentation and reporting of comparable information to stimulate and inform efforts to improve the health system, improve transparency, accountability and inform consumers, the Authority has grouped the 61 Medical Locals into seven clusters called peer groups. This enables a fairer comparison of individual Medicare Local with peers, and also gives a summary of variation across Australia's diverse metropolitan, regional and rural populations by presenting aggregate results for each peer group.

The grouping of Medicare Locals into seven peer groups was undertaken by the Authority using statistical cluster analysis of 2006 Census based socioeconomic status for each Medicare Local (ABS, *Information Paper: An Introduction to Socio-Economic Indexes for Areas (SEIFA), 2006* (ABS catalogue no. 2039.0)) and 2006 Census based Remoteness Area categories. The initial cluster analysis was conducted by the ABS at the request of the Authority, and further information was introduced, including discussions on early drafts with key stakeholders. The cluster analysis produced five groupings of Medicare Locals (see Figure 1). These initial groupings were considered a starting point. Using additional information on the average distance to the closest large capital city and major hospital (A1 public hospitals in AIHW's Public Hospital Peer Group classification, 2010-11) and face validity testing using knowledge from stakeholders, the Authority further refined the five groups. In addition, some Medicare Locals within a group appeared as outliers in terms of socioeconomic status and remoteness. These were then reassigned to a more appropriate group. This resulted in an increase from five peer groupings **(Figure 1 on next page)** to a total of seven **(Figure 2 on page 11)**. **Table 1 on page 12** contains a list of the Medicare Locals and the group to which each was allocated in the initial cluster analysis alongside their final peer grouping.

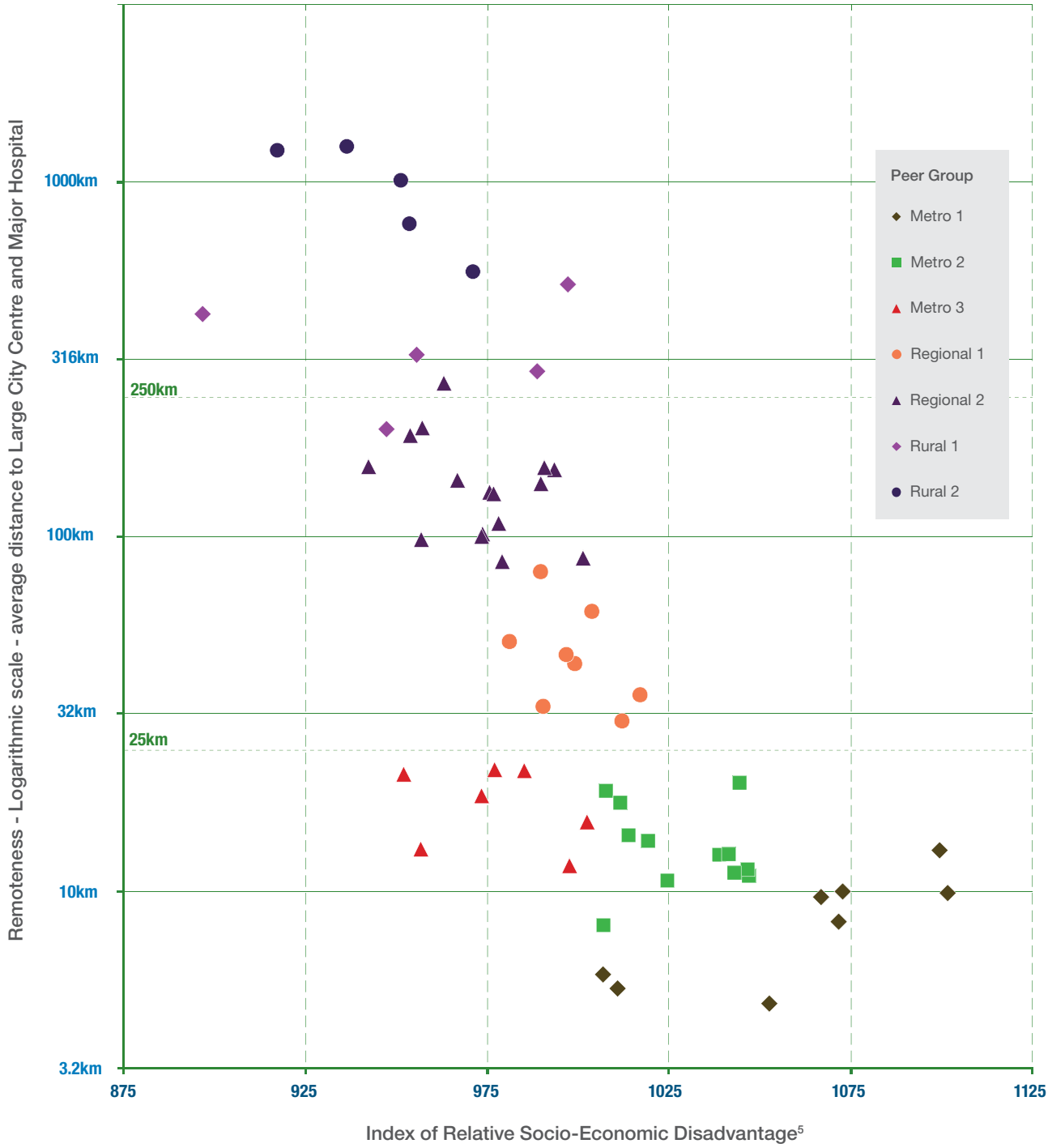
ABS analysis of results of the 2011 Census to produce updated Socio-Economic Indexes for Areas and Remoteness Area Categories is under way and scheduled to be released by March 2013. The results will be examined by the Authority, along with other information and methods to review the current peer group design, categories, and future options for fair comparison and reporting of health and other information for Medicare Locals.

Figure 1: Initial Medicare Locals cluster analysis Socio-Economic Indexes for Areas - Index of Relative Socio-Economic Disadvantage[4] variables with Remoteness and showing the original five peer group categories



4. Australian Bureau of Statistics 2008, Index of Relative Socio-Economic Disadvantage published in *Census of Population and Housing: Socio-Economic Indexes for Areas (SEIFA), Australia - Data only, 2006*. (ABS Catalogue No. 2033.0.55.001).

Figure 2: Medicare Local cluster analysis Socio-Economic Indexes for Areas - Index of Relative Socio-Economic Disadvantage[5] with Remoteness following cluster refinement and stakeholder consultation resulting in seven peer groups



5. Australian Bureau of Statistics 2008, Index of Relative Socio-Economic Disadvantage published in *Census of Population and Housing: Socio-Economic Indexes for Areas (SEIFA), Australia - Data only, 2006*. (ABS Catalogue No. 2033.0.55.001).

Table 1: Medicare Locals[6] by initial cluster and final peer group allocation

ML Code	Medicare Local name	Initial cluster	Final peer group
101	Eastern Sydney	1	Metro 1
102	Inner West Sydney	1	Metro 1
103	South Eastern Sydney	1	Metro 2
104	South Western Sydney	2	Metro 3
105	Western Sydney	2	Metro 3
106	Nepean-Blue Mountains	3	Regional 1
107	Northern Sydney	1	Metro 1
108	Sydney North Shore and Beaches	1	Metro 1
109	Central Coast NSW	3	Regional 1
110	Illawarra-Shoalhaven	4	Regional 1
111	Hunter Urban[6]	3	Regional 1
112	Hunter Rural[6]	4	Regional 1
113	North Coast NSW	4	Regional 2
114	New England	4	Regional 2
115	Western NSW	4	Regional 2
116	Murrumbidgee	4	Regional 2
117	Southern NSW	4	Regional 2
118	Far West NSW	4	Rural 1
201	Inner North West Melbourne	1	Metro 1
202	Bayside	1	Metro 1
203	South Western Melbourne	3	Metro 2
204	Macedon Ranges and North Western Melbourne	2	Metro 3
205	Northern Melbourne	2	Metro 3
206	Inner East Melbourne	1	Metro 1
207	Eastern Melbourne	3	Metro 2
208	South Eastern Melbourne	2	Metro 3
209	Frankston-Mornington Peninsula	3	Regional 1
210	Barwon	3	Regional 1
211	Grampians	4	Regional 2
212	Great South Coast	4	Regional 2
213	Lower Murray	4	Rural 1
214	Loddon-Mallee-Murray	4	Regional 2
215	Goulburn Valley	4	Regional 2
216	Hume	4	Regional 2
217	Gippsland	4	Regional 2
301	Metro North Brisbane	3	Metro 2
302	Greater Metro South Brisbane	3	Metro 2
303	Gold Coast	3	Metro 2
304	Sunshine Coast	3	Regional 1
305	West Moreton-Oxley	3	Metro 3
306	Darling Downs-South West Queensland	4	Regional 2
307	Wide Bay	4	Regional 2
308	Central Queensland	4	Rural 1
309	Central and North West Queensland	5	Rural 2
310	Townsville-Mackay	4	Rural 1
311	Far North Queensland	4	Rural 2
401	Northern Adelaide	4	Metro 3
402	Central Adelaide and Hills	3	Metro 2
403	Southern Adelaide-Fleurieu-Kangaroo Island	3	Metro 2
404	Country South SA	4	Regional 2
405	Country North SA	4	Rural 1
501	Perth Central and East Metro	3	Metro 2
502	Perth North Metro	3	Metro 2
503	Fremantle	3	Metro 2
504	Bentley-Armadale	3	Metro 2
505	Perth South Coastal	3	Regional 1
506	South West WA	4	Regional 2
507	Goldfields-Midwest	4	Rural 2
508	Kimberley-Pilbara	5	Rural 2
601	Tasmania	4	Regional 2
701	Northern Territory	5	Rural 2
801	Australian Capital Territory	1	Metro 1

6. The catchments for Hunter Urban and Hunter Rural were combined by the Australian Government Department of Health and Ageing on 1st July 2012 to form a single Medicare Local named Hunter. For further information see Department of Health and Ageing website **www.yourhealth.gov.au/internet/yourhealth/publishing.nsf/content/MediLocBound_Review** viewed 12 February 2013

Glossary and Index

After-hours attendances	This subcategory of GP attendances includes urgent items in Group A11 and non-urgent items in Groups A22 and A23 of the MBS. Essentially, these services represent after-hours non-referred 'attendances' between patients and medical practitioners (including general practitioners) for the purposes of primary health care.
Attendances	Attendances are defined in the Medicare Benefits Schedule and are synonymous with a visit or consultation between a medical practitioner or primary health care provider and a patient.
Confidence interval	See Reliability of Proportions on **page 3**
Concordances	See Geographical Correspondences below.
Correspondences	See Geographical Correspondences below.
Decile group	Selected Medicare Benefits Schedule statistics for Statistical Area 3 regions were ranked from highest to lowest and then split into 10 equal groups called deciles.
Discrete Indigenous communities	The ABS Labour Force Survey sample (the underlying survey sample for the ABS Patient Experience Survey sample) is based on the ABS Population Survey Framework, which in turn is composed of three components: the private dwelling framework, the special dwelling framework and the Indigenous Community Framework (ICF). These three frames are non-overlapping and the latter two components are not within the scope of the ABS Patient Experience Survey 2010-11. The 2006 Indigenous Communities Framework contains all 2006 Census Collection Districts with an identified population of Aboriginal and Torres Strait Islander peoples greater that 75% of the total population. There are approximately 650 CDs and 1300 Indigenous communities on the Indigenous Communities Framework. For further information, see Chapter 18 of the ABS release *Labour Statistics: Concepts, Sources and Methods, Apr 2007* (cat. no. 6102.0.55.001).
General Practitioner	General Practitioners include Fellows of the RACGP or the Australian College of Rural and Remote Medicine (ACCRM), vocationally registered general practitioners and medical practitioners undertaking approved training. This also includes doctors who are eligible for the Other Medical Practitioners programs run by the Australian Government Department of Health and Ageing.

Geographical correspondences	Geographical correspondences (sometimes referred to as concordances or mapping files) can be used where the location information in an original survey, census or administrative data is not available at the geographic level required for analysis and reporting. They are a mathematical method of reassigning data from one geographic region (for example, a postcode of a patient's address in MBS records) to a new geographic region (for example, Medicare Local or Statistical Area 3 geographic areas). When reporting data for counts of people, it is preferable to use correspondences weighted for population, rather than area based correspondences. For further information, see the ABS online publications, Information Paper: Converting Data to the Australian Statistical Geography Standard, 2012 (cat. No. 1216.0.55.004) and Information Australian Statistical geography Standard (ASGS): Correspondences, July 2011 (cat. No. 1270.0.55.006). In 2012, the Authority commissioned the ABS to compile several correspondences to convert data from other geographic levels to Medicare Local geographic level using Medicare Local level boundaries and names that were available at the time.
GP attendances	GP attendances are MBS non-referred attendances provided by medical practitioners, but deviates from the NHA performance indicator by excluding services provided by practice nurses and Aboriginal and Torres Strait Islander health practitioners on behalf of medical practitioners.
GP care planning	This sub-category of GP attendances includes GP management plans, team-care arrangements, multidisciplinary care plans, and case conferences involving a general practitioner.
Index of Relative Socio-Economic Disadvantage	The ABS Census of Population and Housing: Socio-Economic Indexes for Areas (SEIFA) includes four summary measures that have been created from 2006 Census information. For the formation of peer groups and comparison of Medicare Locals within their peer group, on ABS advice the Authority has used the Index of Relative Socio-Economic Disadvantage (IRSD). This Index focuses primarily on disadvantage, and is derived from Census variables such as low income, low educational attainment, unemployment, and dwellings without motor vehicles. For further information see the ABS Information Paper: An Introduction to Socio-Economic Indexes for Areas (SEIFA), 2006 (ABS catalogue no. 2039.0).

Medicare	Medicare gives eligible people access to: • Free or subsidised treatment by health professionals such as doctors, specialists, optometrists, dentists and other allied health practitioners (in special circumstances only) • Free treatment and accommodation as a public (Medicare) patient in a hospital • Other benefits.
Medicare Local	A key component of the Australian Government's National Health Reforms is the establishment of a new nationwide network of Medicare Locals. Medicare Locals are primary health care organisations established to improve responsiveness, coordinate primary health care delivery and tackle local health care needs and service gaps. They will drive improvements in primary health care and ensure that services are better tailored to meet the needs of local communities. For this report, statistical information is presented using the boundaries of Medicare Locals as released by the Department of Health and Ageing.[7] With Medicare Locals being a relatively new geographic area, little data is readily available at the Medicare Local level. Data for several items presented in this report are initially held at other geographic levels which have required the use of *correspondences* so as to convert data from the original geographic level at which the data are held to the required Medicare Local geographic level.
NP – Not available for publication	This designation is used when data are not able to be published for reasons related to reliability, validity and/or confidentiality. Methods used to determine whether a statistic is published are included in this *Healthy Communities: Australians' experiences with primary health care in 2010-11, Technical Supplement.*
Population	This report has made use of two population estimates. These are based on the ABS Estimated Resident Population: one at 30 June 2006 in relation to Medicare Locals by the Australian Standard Geographical Classification (ASGC) Remoteness Structure using 2006 Census results; the second on preliminary estimates as at 30 June 2011 based on the 2011 Census results.

7. Department of Health and Ageing, 2012, Department of Health and Ageing, Canberra < **http://www.yourhealth.gov.au/internet/yourhealth/publishing.nsf/content/medilocals-lp-1**>, viewed on 13 February 2013.

Quintile group	Selected ABS Patient Experience Survey 2010-11 results for Medicare Locals were ranked from highest to lowest and then split into five equal groups called quintiles.
Remoteness Area	Remoteness Area categories used in this report are based on the ABS 2006 Census of Population and Housing using ARIA+. For information on the Remoteness Area categories of geographic areas used in this report, see 1216.0 - Statistical Geography Volume 1 - Australian Standard Geographical Classification (ASGC), July 2006 (ABS catalogue number 1216.0).
Socioeconomic status	Information from the ABS Socio-Economic Indexes for Areas (SEIFA) - Index of Relative Socio-Economic Disadvantage was used as part of the methodology to group Medicare Locals into seven comparable peer groups to support comparisons of similar locales. SEIFA includes four summary measures that have been created from 2006 Census information. The indexes can be used to explore different aspects of socioeconomic conditions by geographic areas. For each index, every geographic area in Australia is given a SEIFA number which shows how disadvantaged that area is compared with other areas in Australia. Each index summarises a different aspect of the socioeconomic conditions of people living in an area. They each summarise a different set of social and economic information. The indexes provide more general measures of socioeconomic status than is given by measuring income or unemployment alone, for example. The Index of Relative Socio-Economic Disadvantage is derived from Census variables related to disadvantage, such as low income, low educational attainment, unemployment, and dwellings without motor vehicles. For further information see the ABS publication, *Information Paper: An Introduction to Socio-Economic Indexes for Areas (SEIFA), 2006* (ABS catalogue number 2039.0).

Standard error	Since the Patient Experience data in this report are based on information obtained from a sample, they are subject to sampling variability. That is, they may differ from those estimates that would have been produced if all dwellings had been included in the survey. One measure of the likely difference is given by the standard error, which indicates the extent to which an estimate might have varied by chance because only a sample of dwellings (or households) was included. There are about two chances in three (67%) that a sample estimate will differ by less than one standard error from the number that would have been obtained if all dwellings had been included, and about 19 chances in 20 (95%) that the difference will be less than two standard errors.
Statistical Area Level 3	Statistical Areas Level 3 (SA3s) are geographical areas defined in the ABS Australian Statistical Geography Standard (ASGS). The aim of SA3s is to create a standard framework for the analysis of ABS data at the regional level through clustering groups of SA2s that have similar regional characteristics. There are 351 SA3s covering the whole of Australia without gaps or overlaps. They are designed to provide a regional breakdown of Australia. SA3s generally have a population of between 30,000 and 130,000 people. There are approximately 50 with fewer than 30,000 people and 35 with more than 130,000 as at 30 June 2011. In the major cities, they represent the area serviced by a major transport and commercial hub. They often closely align to large urban local government areas (e.g. Parramatta, Geelong). In regional areas, they represent the area serviced by regional cities with populations of more than 20,000 people. In outer regional and remote areas, they represent areas which are widely recognised as having a distinct identity and have similar social and economic characteristics (e.g. Macedon Ranges in Victoria, Southern Highlands in NSW). There are a small number of “zero SA3s”. These have an effective design population of zero and represent very large National Parks close to the outskirts of major cities.

Abbreviations

#	Patient Experience Survey 2010-11 results for Medicare Locals denoted with this symbol are statistically different (at the 95% confidence level) from the peer group percentage.
†	Medicare Locals and peer groups denoted with this symbol have greater than 5% of their population in very remote areas which were not included in the ABS Patient Experience Survey 2010.
ABS	Australian Bureau of Statistics
ACT	The Australian Capital Territory
ARIA+	Accessibility/Remoteness Index of Australia plus
ASGC	The Australian Bureau of Statistics Australian Standard Geographical Classification
ASGS	The Australian Bureau of Statistics Australian Statistical Geography Standard
Central & NW Qld	Central and North West Queensland (ML309)
Central Qld	Central Queensland (ML308)
Darling Downs-SW Qld	Darling Downs-South West Queensland (ML306)
DHS	Australian Government Department of Human Servcies
ERP	Estimated Resident Population statistical series published by the Australian Bureau of Statistics.
Far North Qld	Far North Queensland (ML311)
GP	General Practitioner
Inner NW Melbourne	Inner North West Melbourne (ML201)
IRSD	Index of Relative Socio-Economic Disadvantage
Macedon Ranges & NW Melb	Macedon Ranges and North Western Melbourne (ML204)
MBS	Medicare Benefits Schedule

NSW	New South Wales
Qld	Queensland
RA	The Remoteness Area structure in the Australian Bureau of Statistics Australian Standard Geographical Classification
SA	South Australia
SA3	Statistical Area Level 3 in the Australian Bureau of Statistics Australian Statistical Geography Standard
SEIFA	ABS Census of Population and Housing: Socio-Economic Indexes for Areas
SES	Socioeconomic status
Sthn Adelaide-Fleurieu-Kangaroo Is.	Southern Adelaide-Fleurieu-Kangaroo Island (ML403)
Sydney North Shore & Beaches	Sydney North Shore and Beaches (ML108)
WA	Western Australia