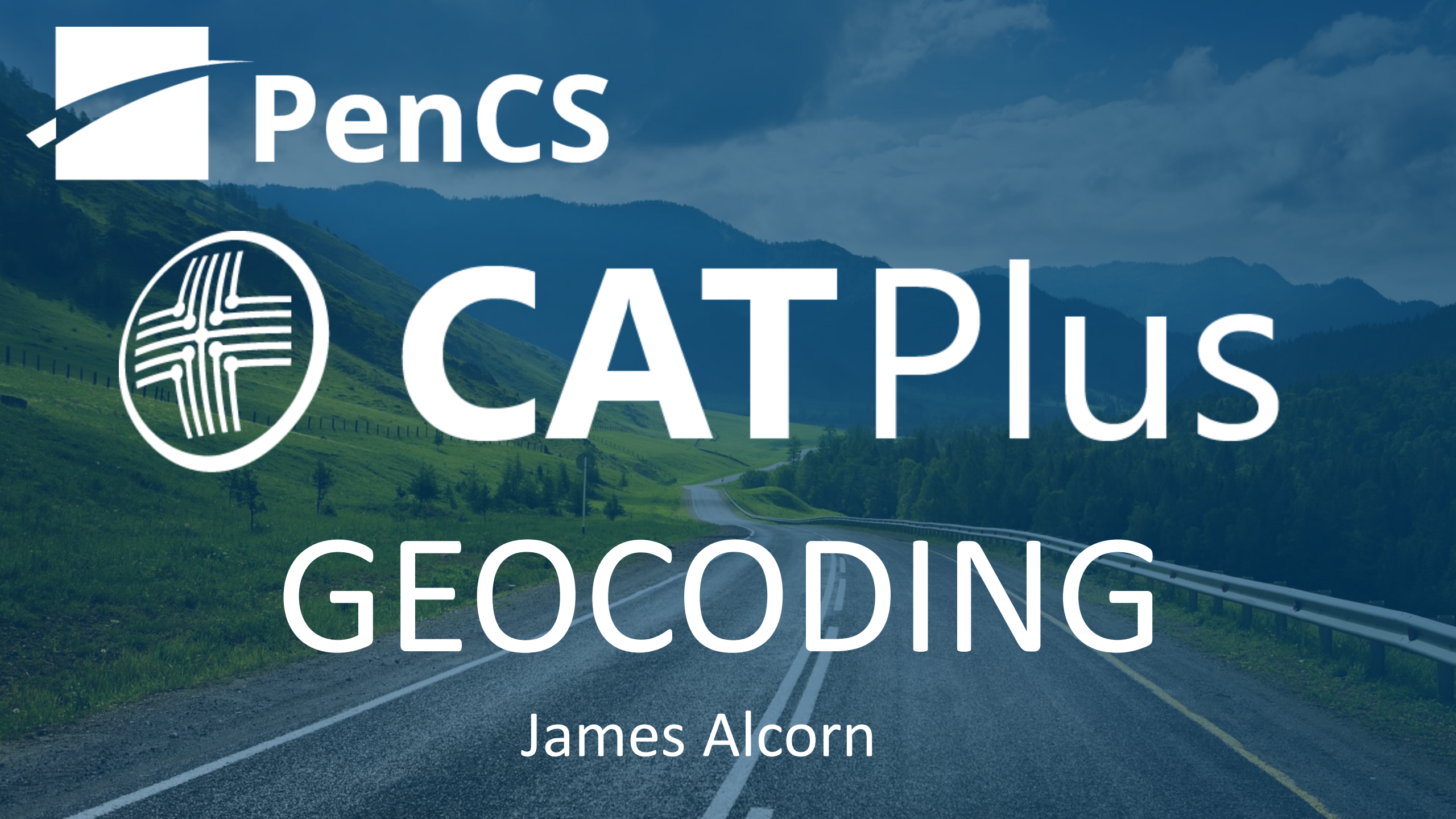

PenCS
CAT Plus
GEOCODING
James Alcorn

Agenda

PAT CAT GEOCODING

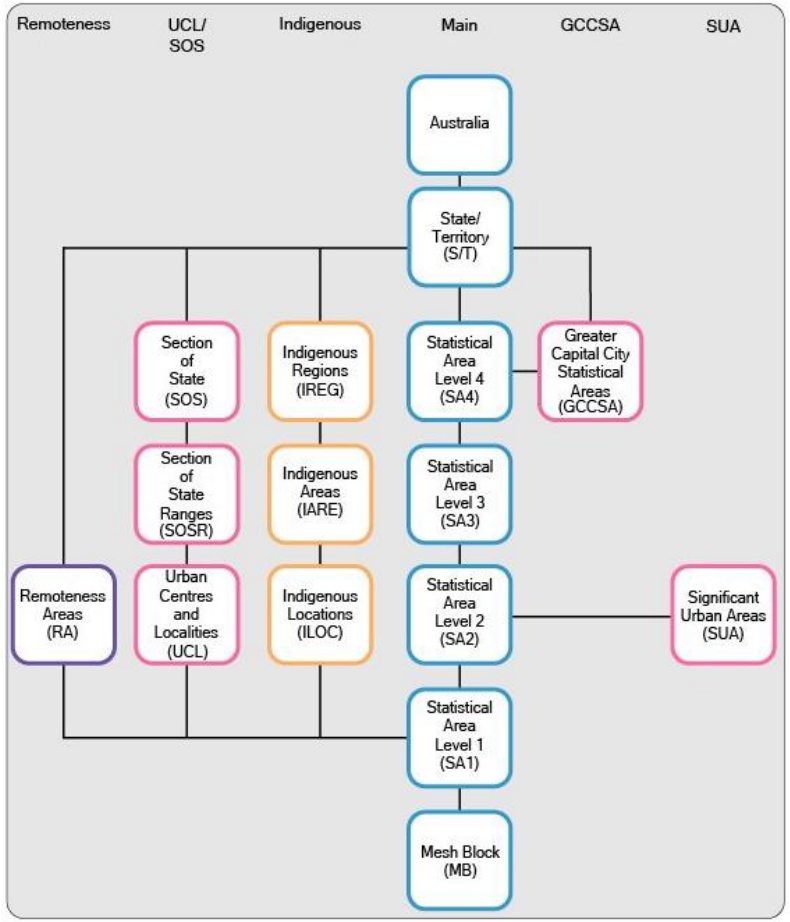
- What is Geocoding
- Privacy Concerns
- ANU Project Study Cooperation
- A brief history of General Practice Geocoding
- What is Different with PENCS Geocoding
- Demonstration & PAT CAT Recipes
- New Provider Mappify
- Free Offer till 30 June 2017
- Questions & Answer Session

What is Geocoding

Also known as geo-attribution, geolinking, g-tags

Geocoding essentially solves the problem of working out where the patients are in the PHN's catchment!

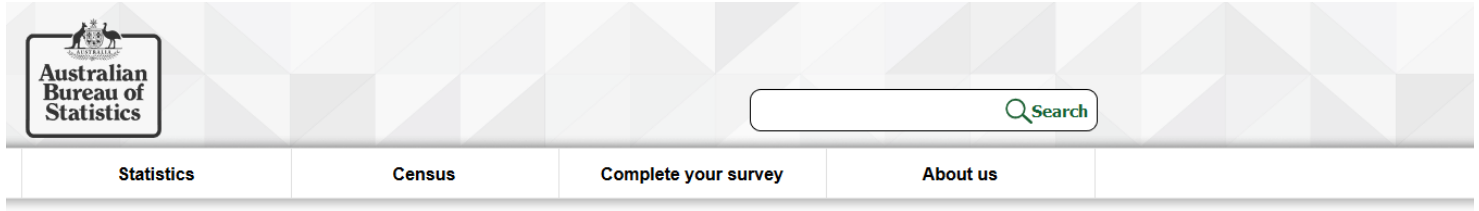
What is Geocoding – Australian Bureau of Statistics



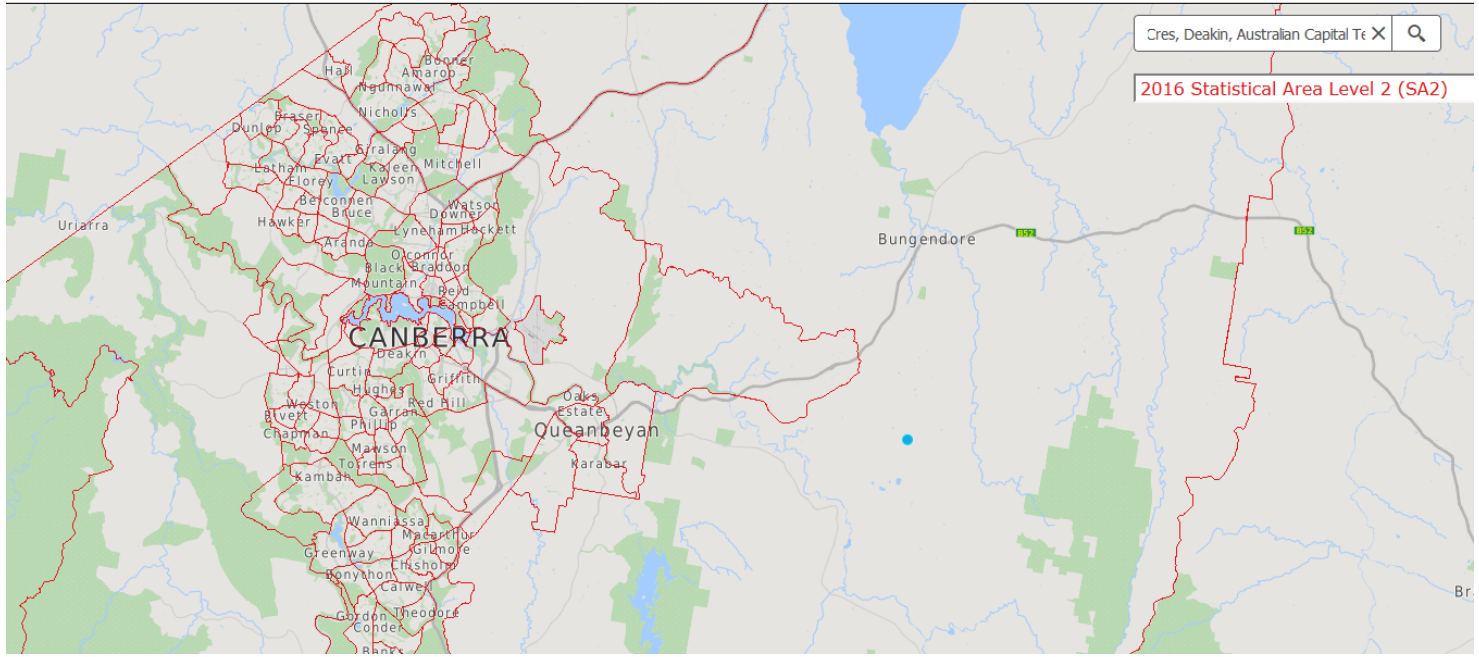
SA	Number	Approximate Population	Average Population
SA4	88	300,000-500,000	Regional 100,000-300,000 Metro 300,000-500,000
SA3	333	30,000-130,000	130,000
SA2	2,196	3,000-25,000	10,000
SA1	Approx 55,000	200-800	400

Postcodes are considered identifiable information.

What is Geocoding- ABS Statistical Area Map

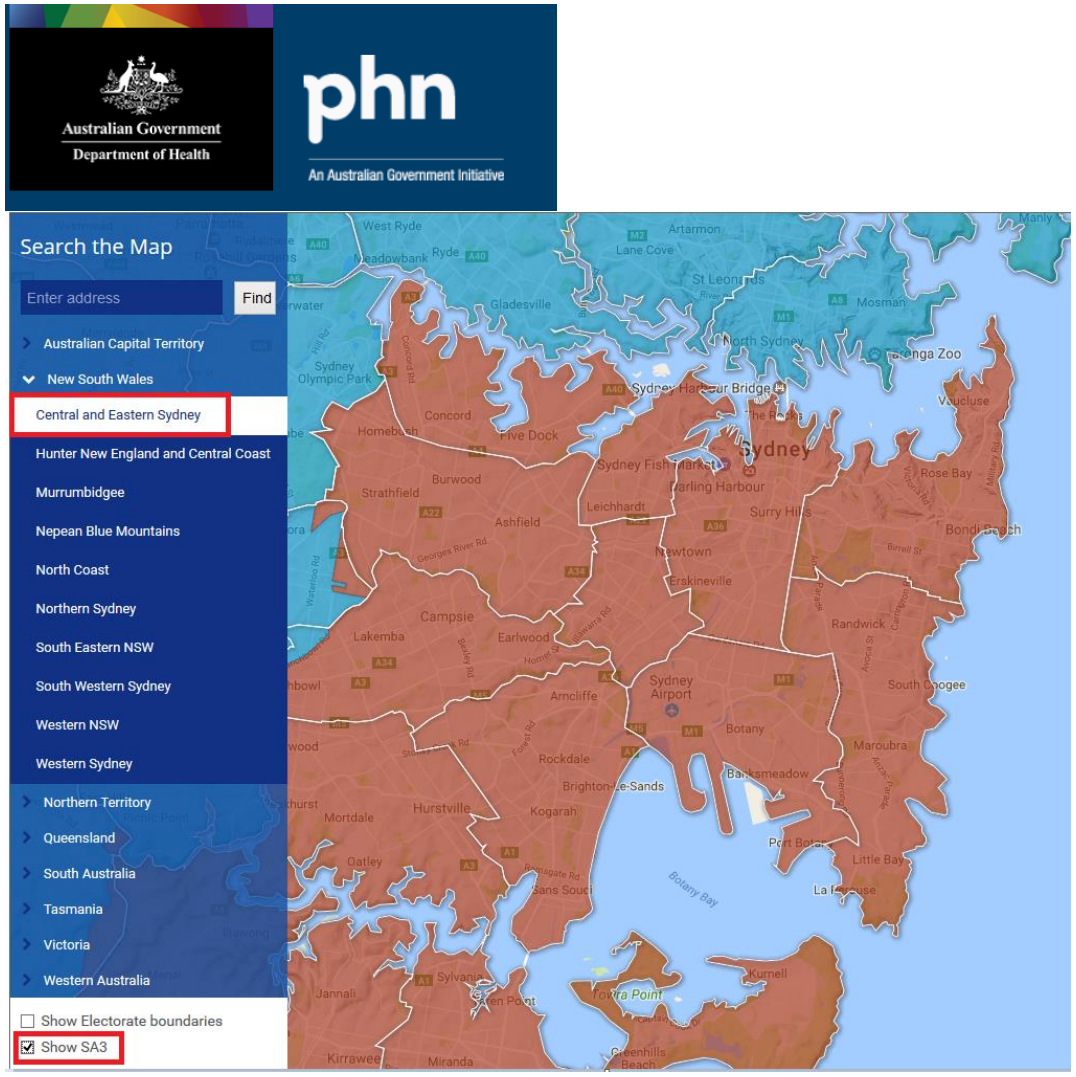


http://stat.abs.gov.au/itt/r.jsp?ABSMaps



Change the Dropdown

What is Geocoding- Example PHN Locator Map



http://www.health.gov.au/internet/main/publishing.nsf/Content/PHN-Locator

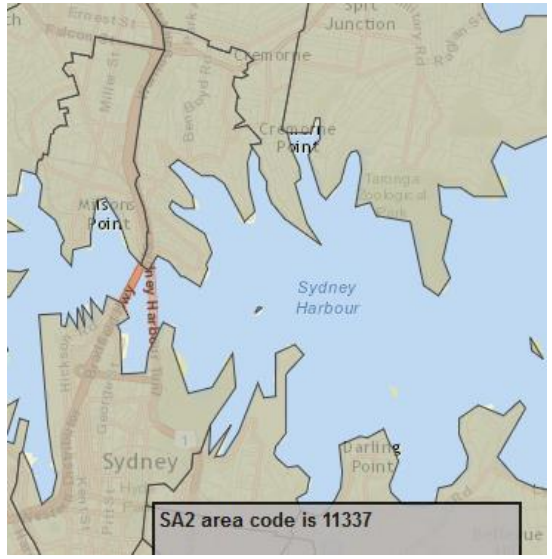
Choose the PHN
Click Show SA3

What is Geocoding – Which SA Does Pat CAT Use

SA1 – Too small, would need ethics approval.
SA4 – Too Big for meaningful use
SA2 – PAT CAT will generally use these codes.
SA3 – As a backup if not enough data.
Will not display SA2/3 if less than 5 patients

State and Territory Codes and Names

Code	S/T
1	New South Wales
2	Victoria
3	Queensland
4	South Australia
5	Western Australia
6	Tasmania
7	Northern Territory
8	Australian Capital Territory
9	Other Territories



SA2 CODING STRUCTURE

An SA2 is identifiable either by a 9-digit fully hierarchical code, or by a truncated 5-digit code comprising the S/T and SA2 identifiers. The SA2 identifier is a 4-digit code, assigned in alphabetical order within an SA3. An SA2 code is only unique within an S/T if it is preceded by the S/T identifier.

9-digit Code

A 9-digit SA2 code is fully hierarchical, and comprises: S/T identifier, SA4 identifier, SA3 identifier, SA2 identifier.

Example:

503021041 Perth City

S/T	SA4	SA3	SA2	SA2 Name
5	03	02	1041	Perth City

5-digit Code

A 5-digit SA2 code is not hierarchical, and comprises only S/T identifier, SA2 identifier.

Example:

51041 Perth City

S/T	SA2	SA2 Name
5	1041	Perth City

Privacy Concerns

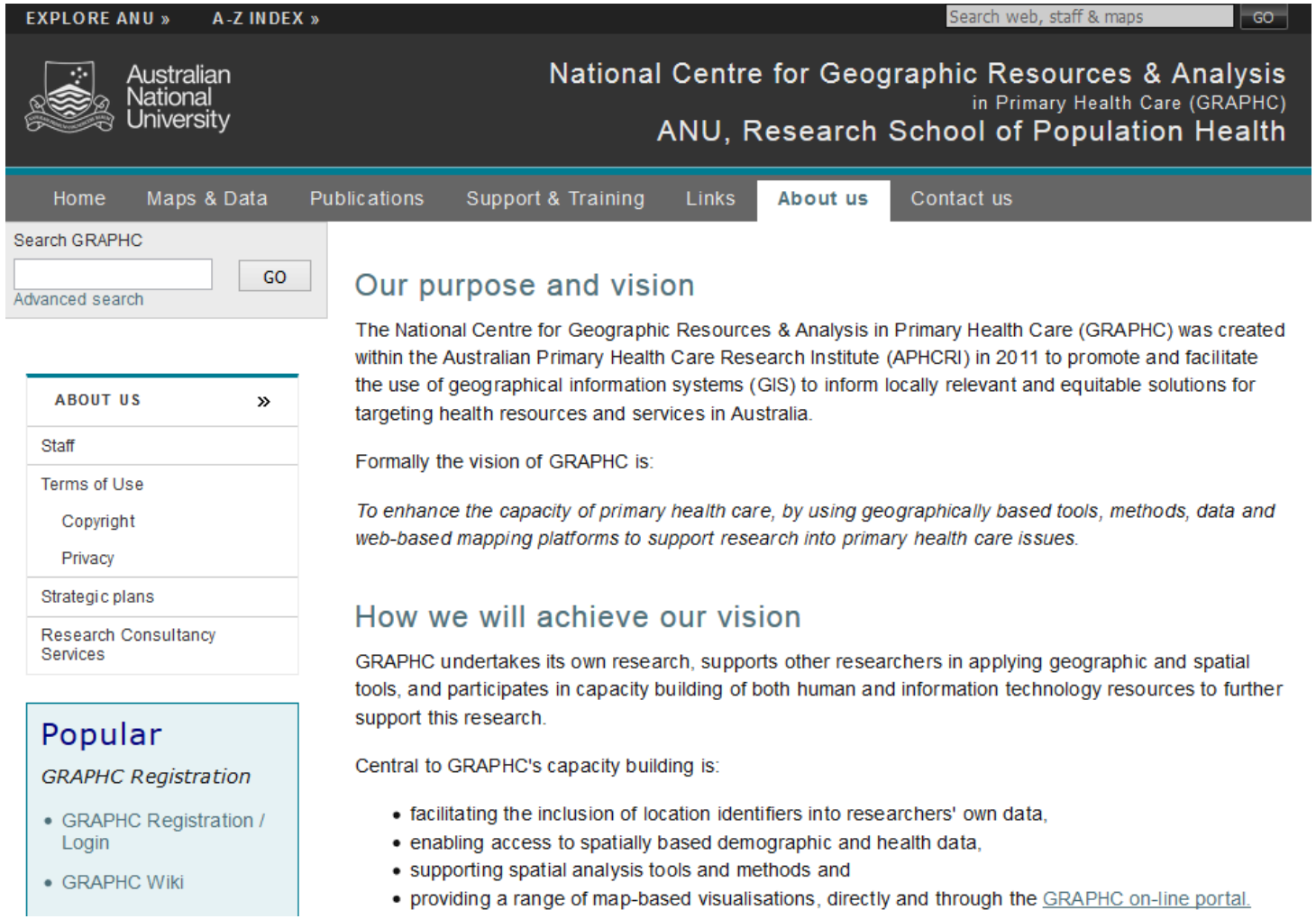
CAT4

- When CAT does a collect, 2 files are created.
- The files are encrypted, and password protected.
- They can only be viewed in PENCS software.

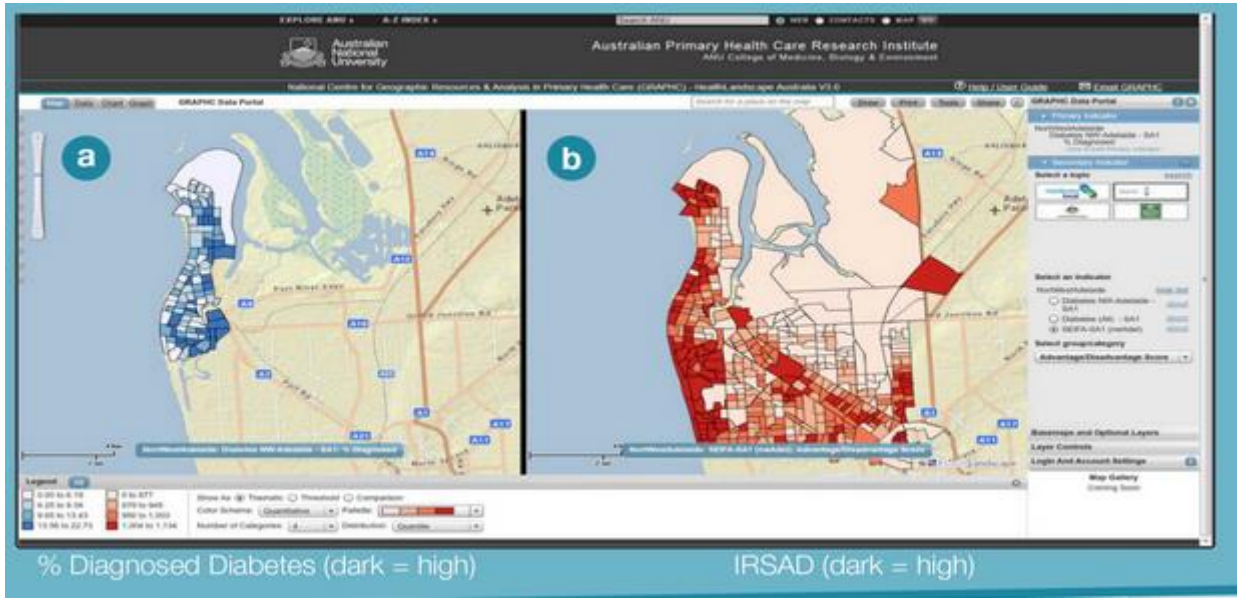
PAT CAT

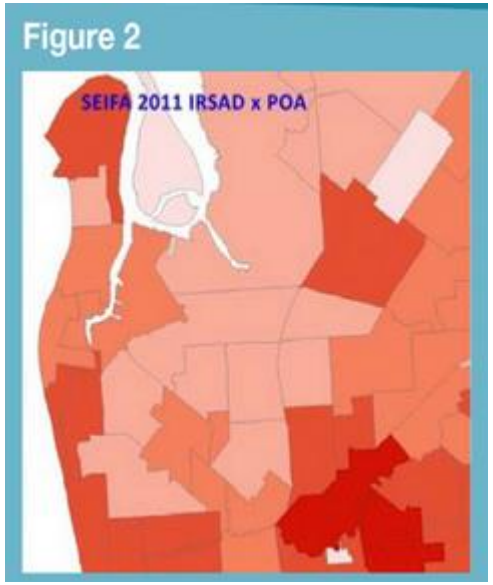
- Less than 5 patients in a SA2 it wont display data.

ANU Cooperation - GRAPHC



ANU - Brief History of General Practice Geocoding





-GP Practice data in North West Adelaide.
-10,000 Patients geolinked with Index of Relative Socio-Economic Advantage and Disadvantage (IRSAD) scores.
-Economically better off seaside residents have lower rates of diagnosed diabetes.
-Figure 1b – SA2 Socioeconomic Data - Dark Red = Well off
-Figure 1a – SA2 % Diagnosed – Dark Blue = High.
-Figure 2 – POA – Statistical approximations of postcodes

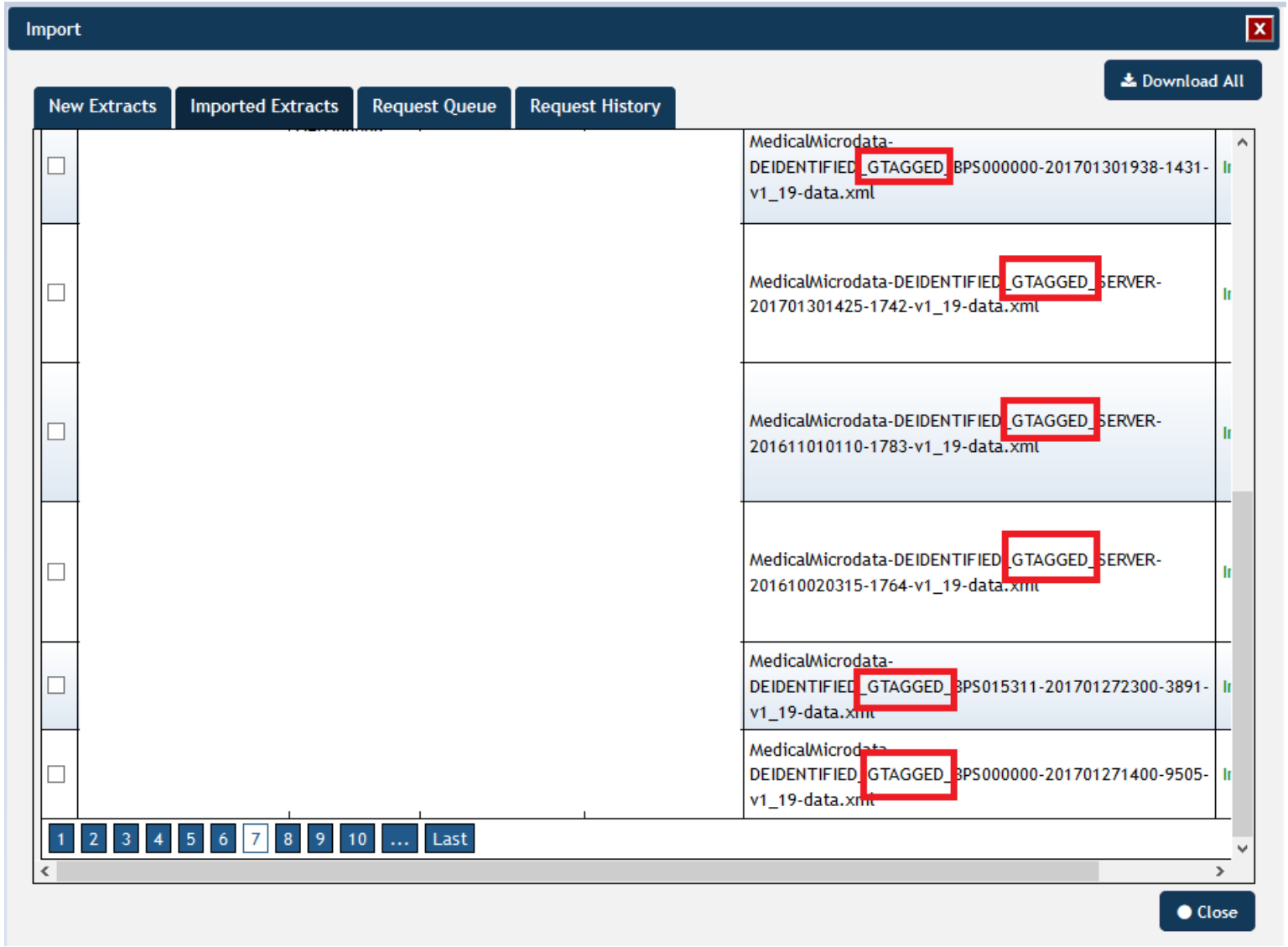
"Had the diabetes research project used POA based aggregations, no relationship would have been established. This example also helps to see that demographic variations within regions are as important as, even more important than, variations between regions."

http://graphc.anu.edu.au/graphc2017/mapping-gtagsys.html

What is different with PENCS Geocoding - Process

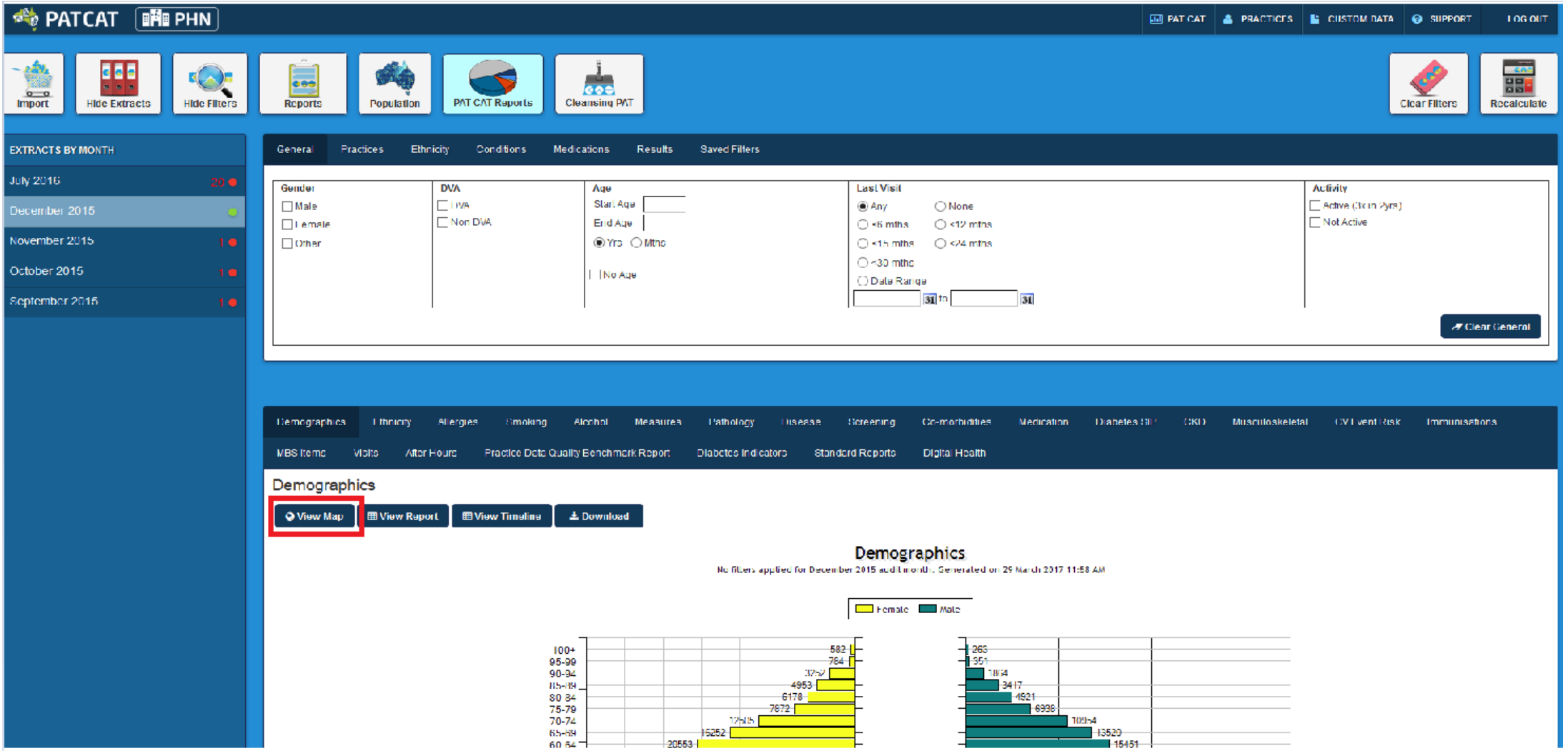
The Practice creates an extract in CAT4
CAT4 Creates an address list
CAT4 Turns the address list into an "A code"
CAT4 Sends the "A code's" to Mapify
Mapify create a unique code using the "A code"
Mapify send the "A codes" and unique code back to CAT4.
CAT4 sends the deidentified extract and unique code to PAT CAT
PAT CAT processes the extract, recognises its geocoded.
PAT CAT gets uses the unique code, and gets it from Mapify
At no point do the clinical, and address information travel together!

PAT CAT Geocoding – Check an Extract has been Geocoded

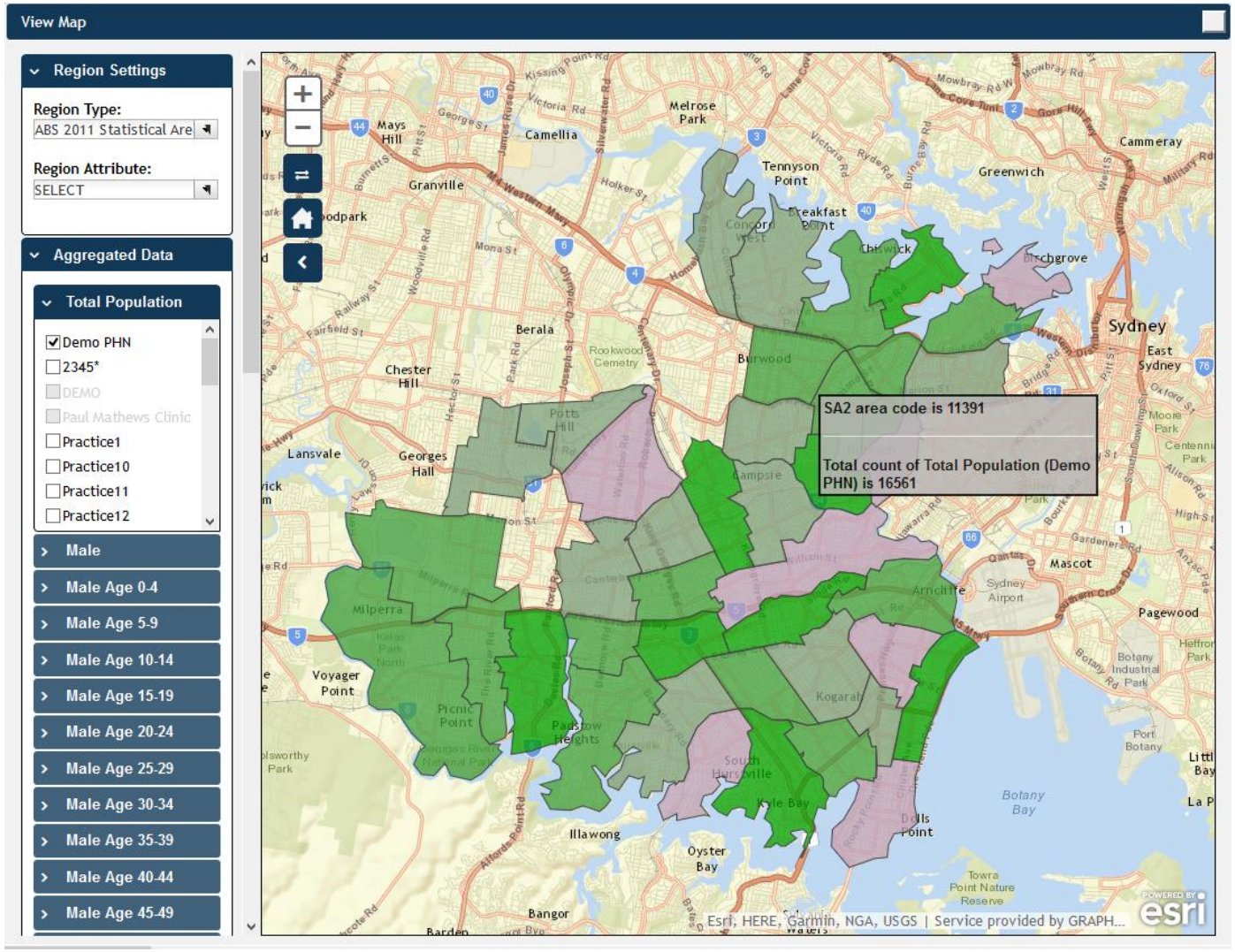


Extracts will have "GTAGGED" in the extract name.

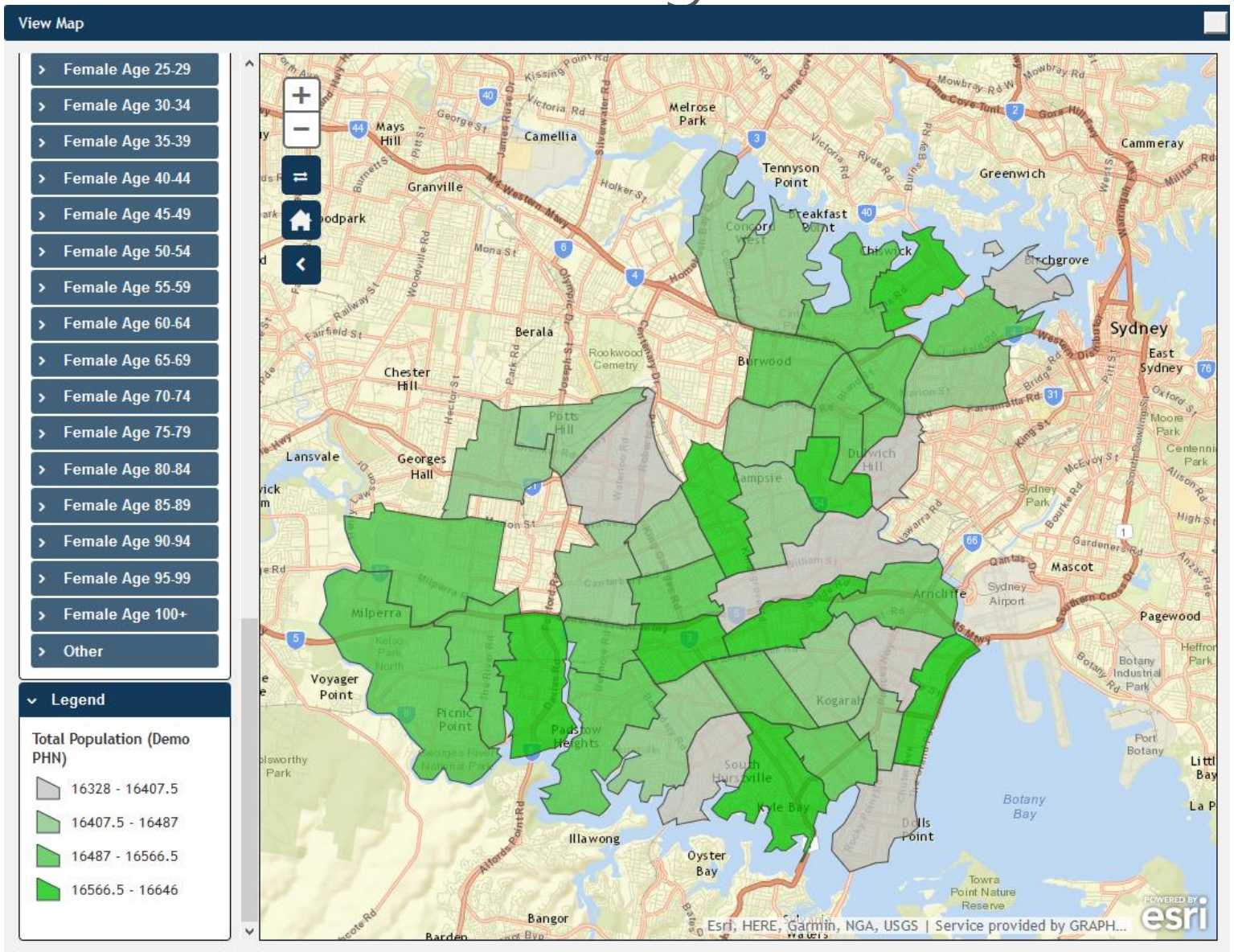
PAT CAT Geocoding – Accessing the MAP



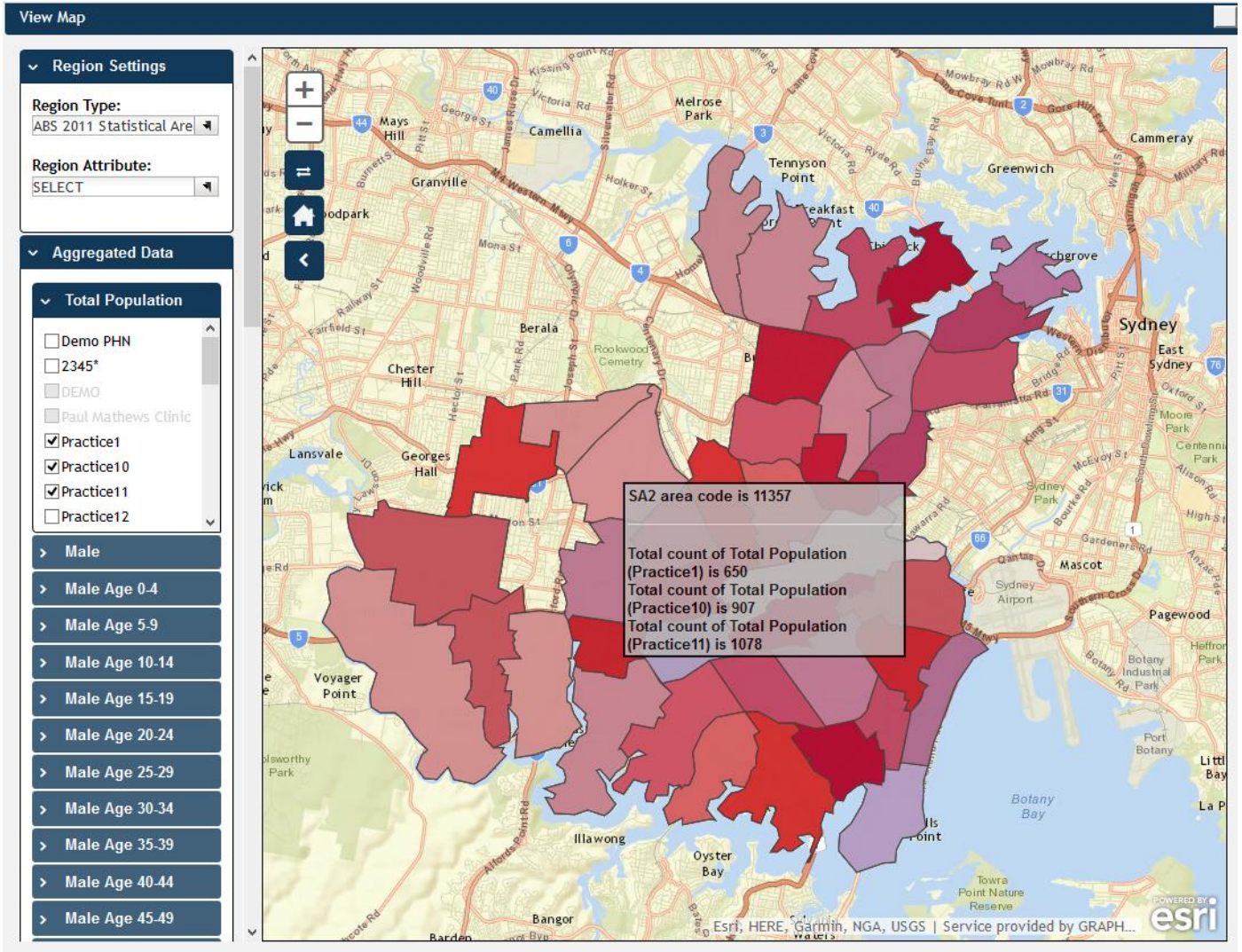
PAT CAT Geocoding – Checkboxes – PHN DATA



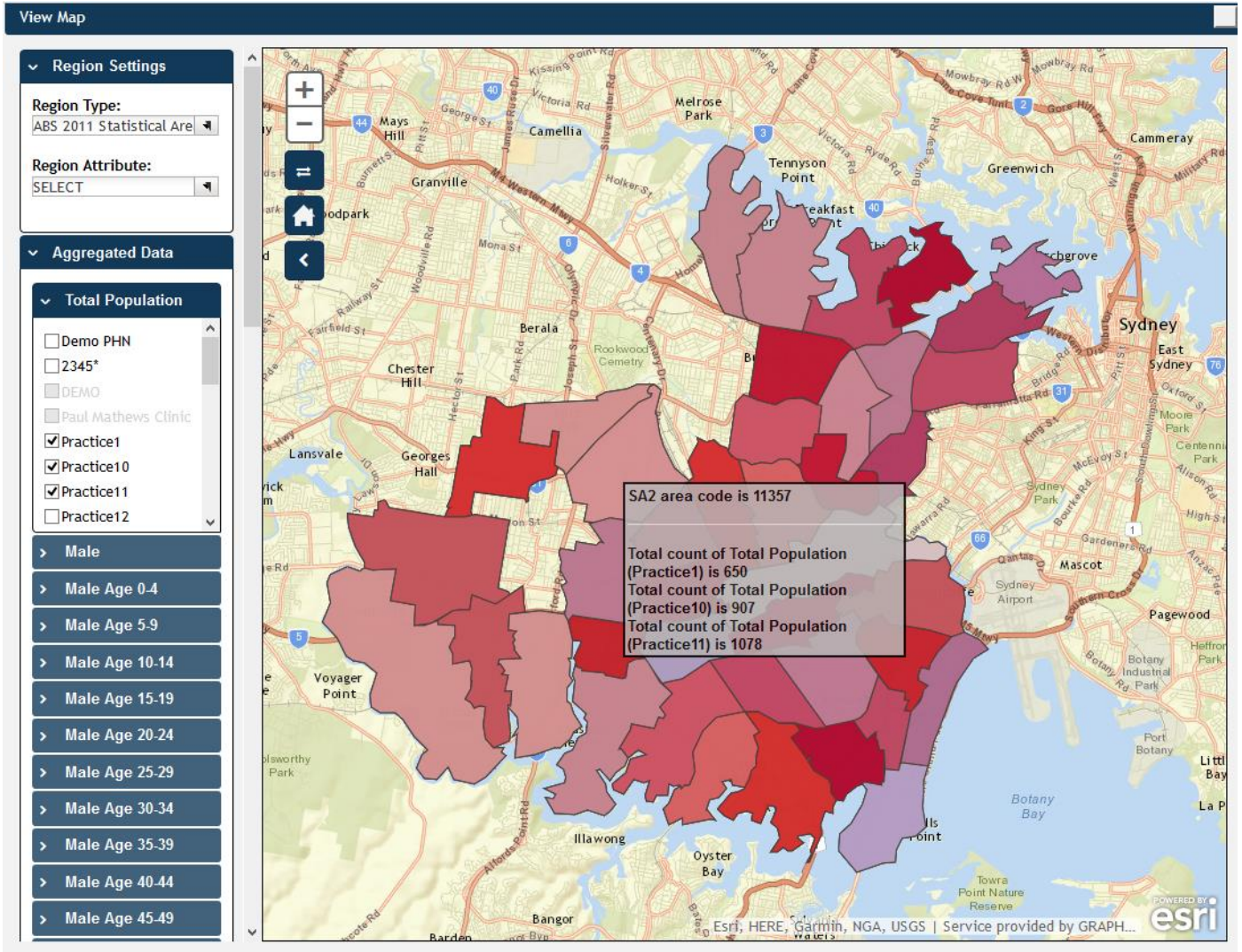
PAT CAT Geocoding – Checkboxes – Legend



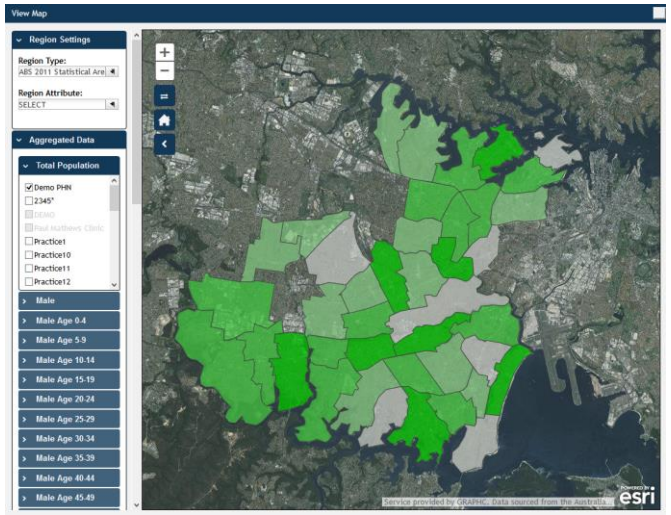
PAT CAT Geocoding – Checkboxes – Practice Data

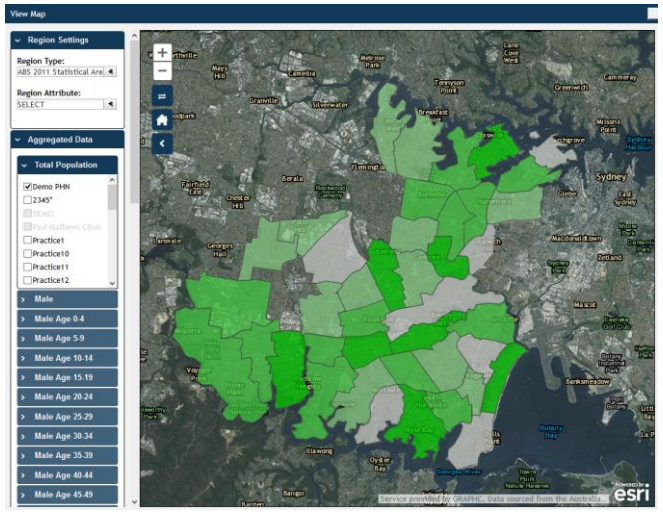


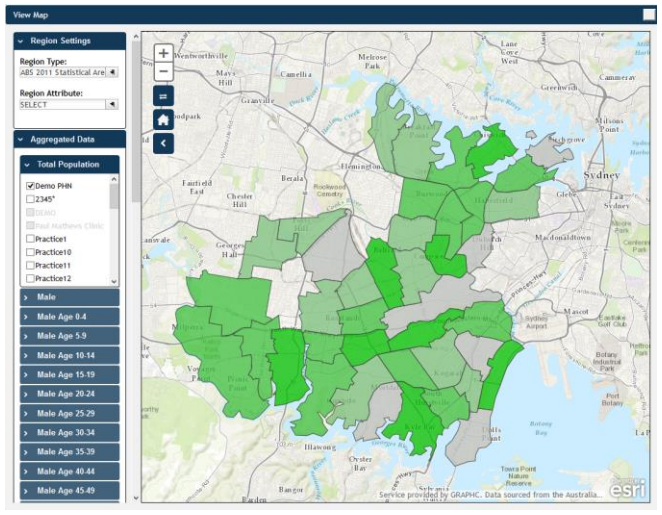
PAT CAT Geocoding – Checkboxes – Practice Data

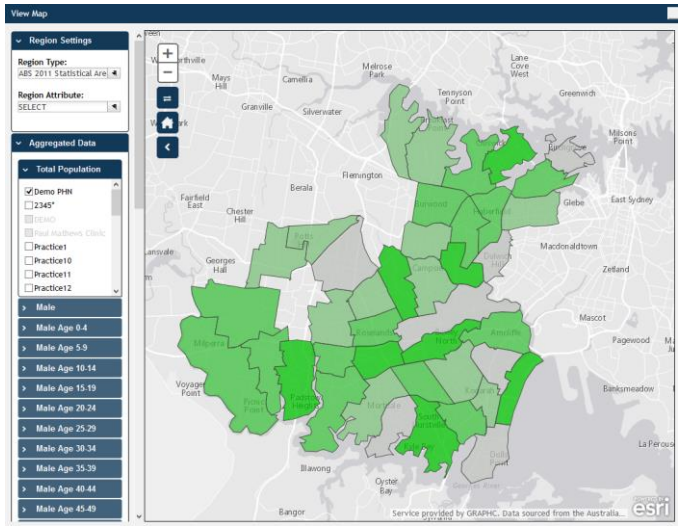


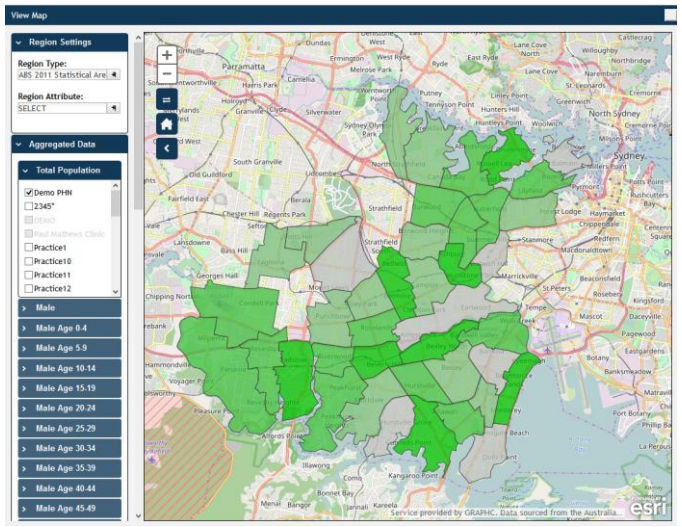
PAT CAT Geocoding – Terrain Map Views



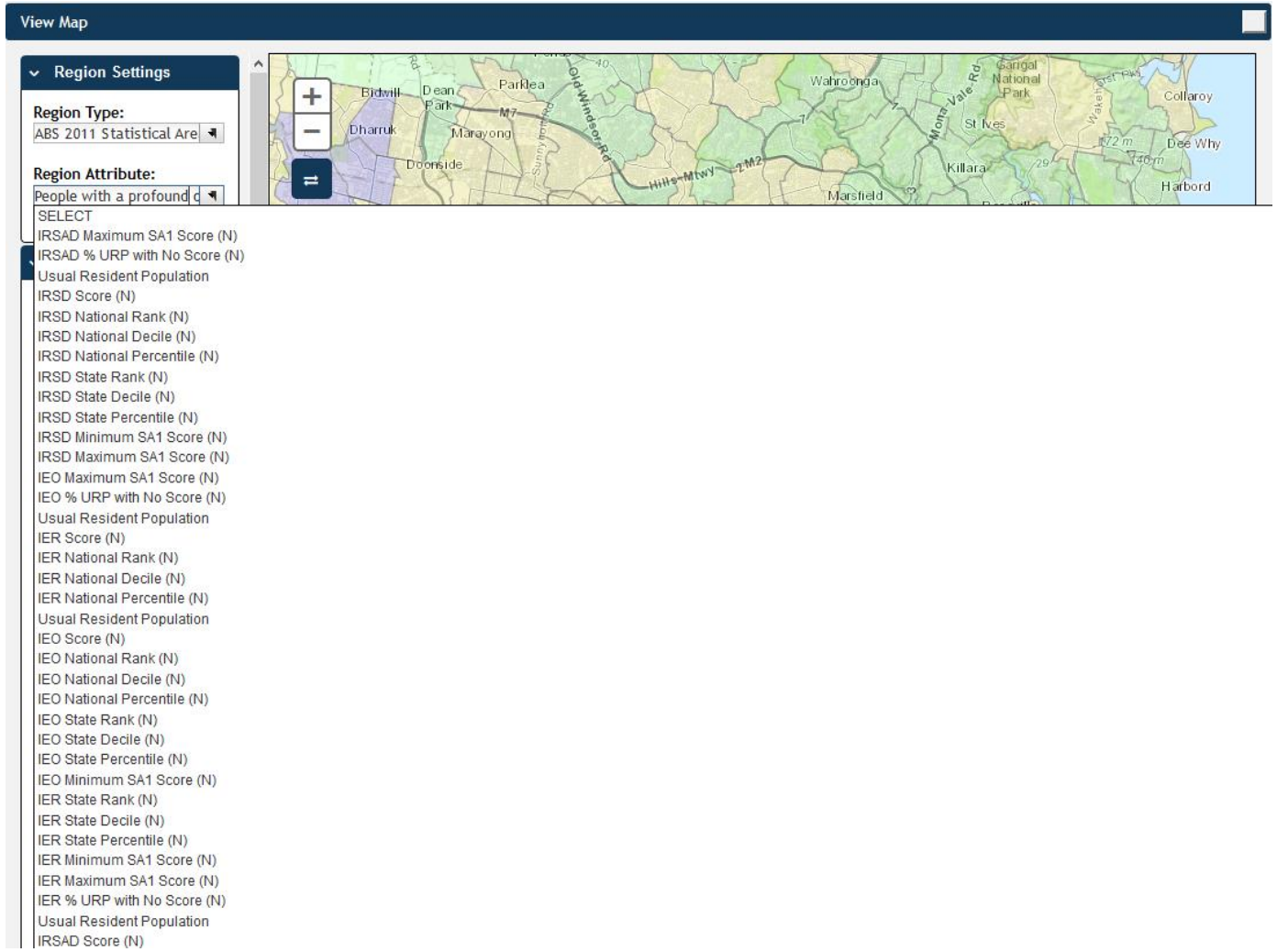




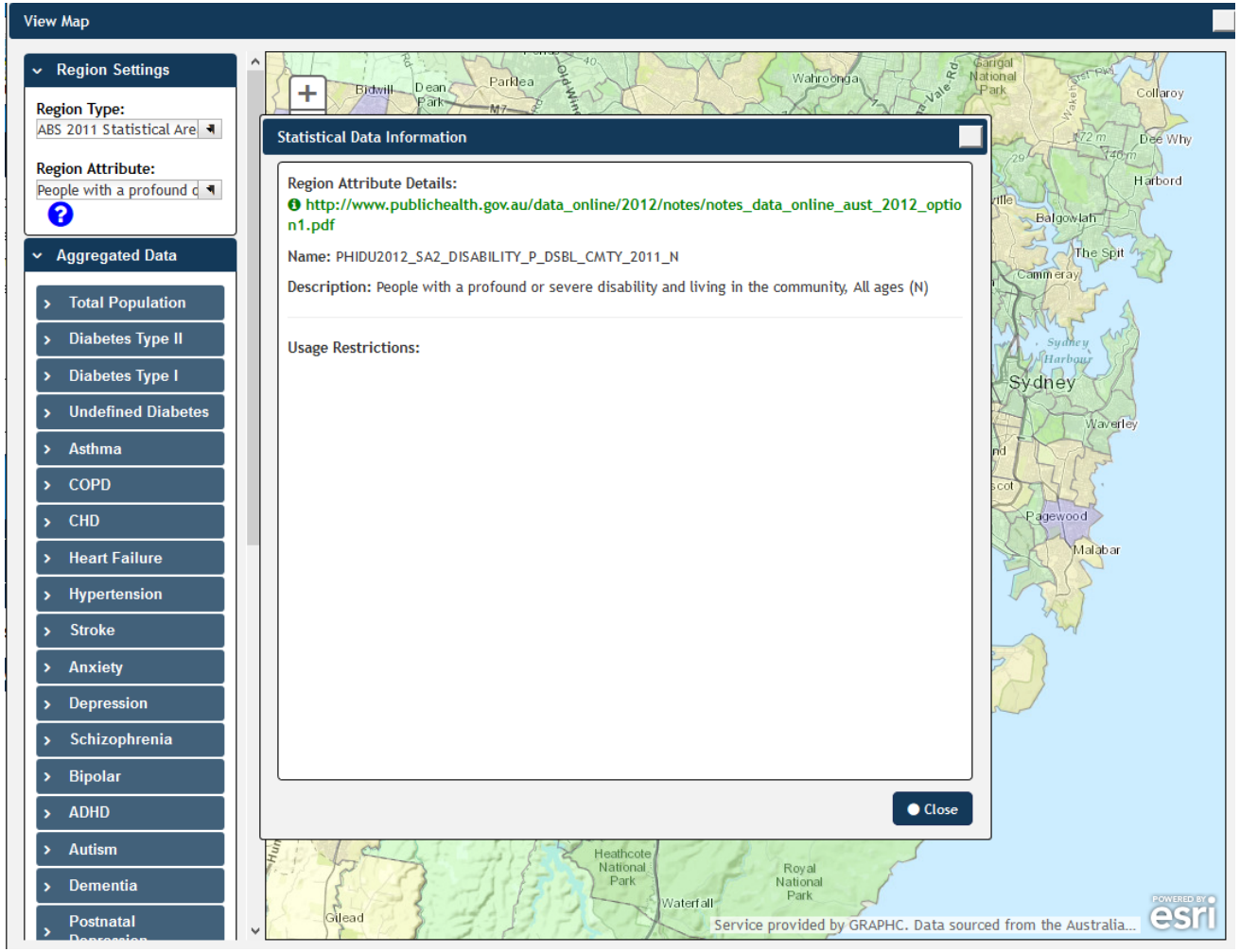




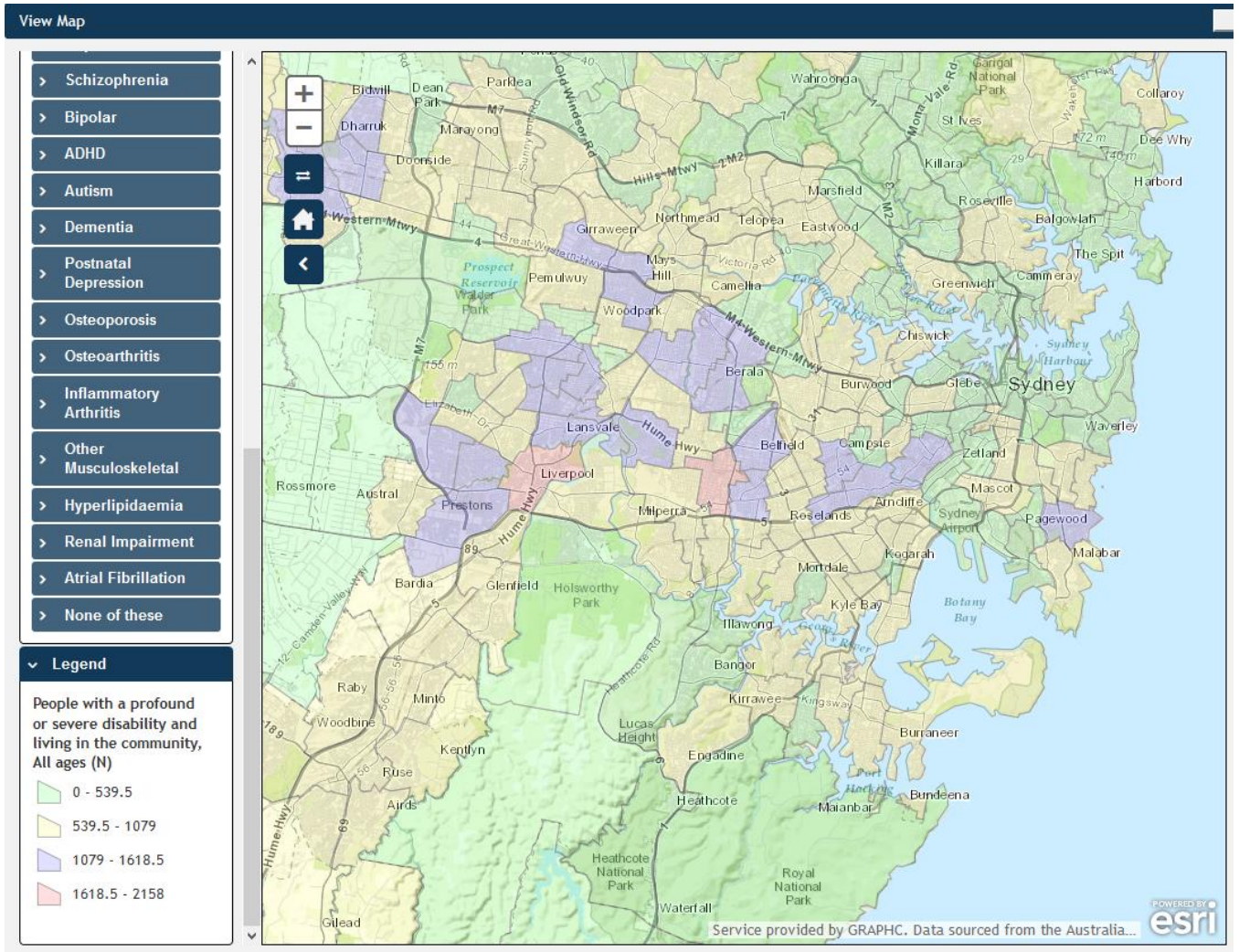
PAT CAT Geocoding – ABS Data – Selecting Attributes



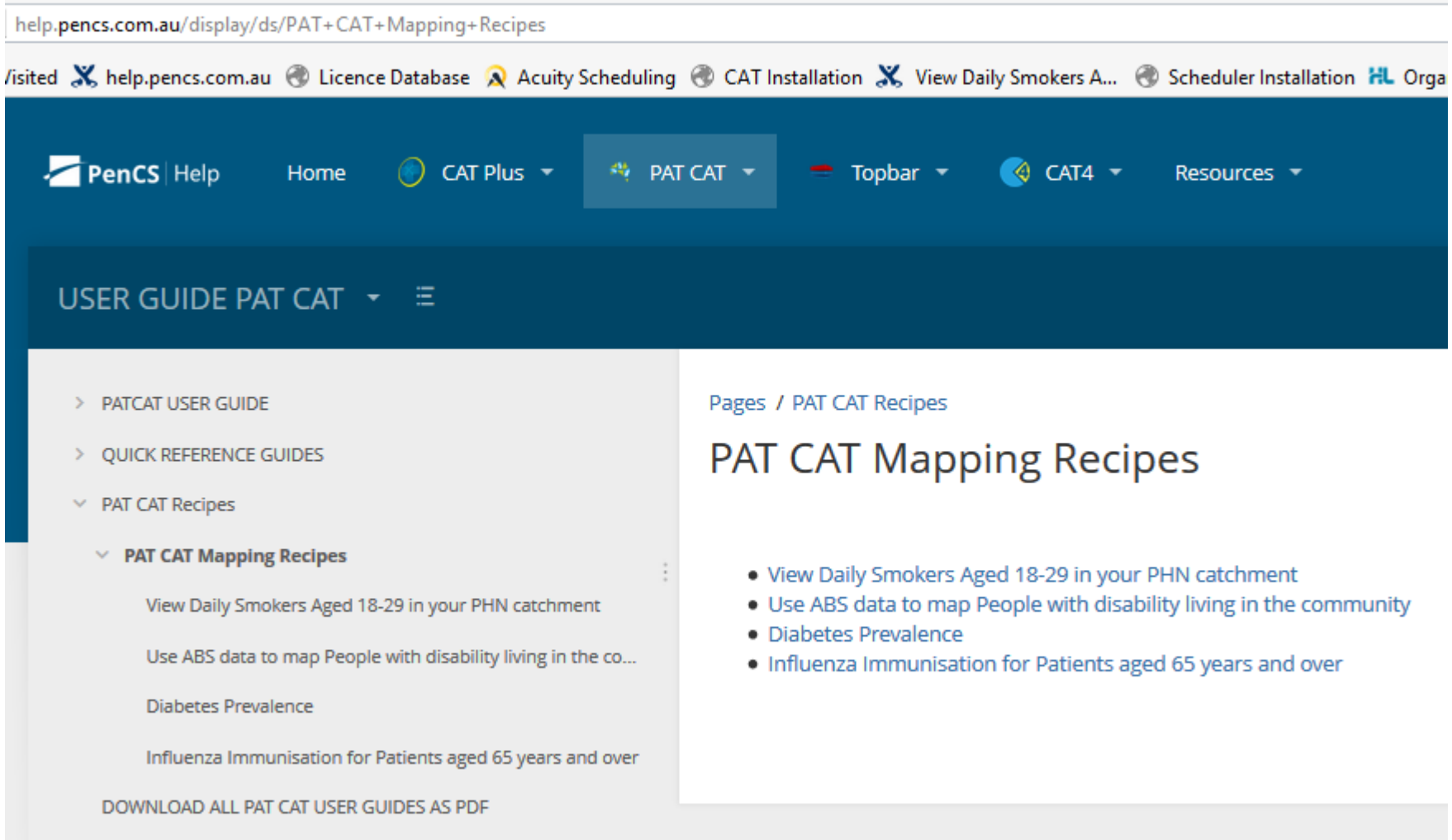
PAT CAT Geocoding – ABS Data – Reference



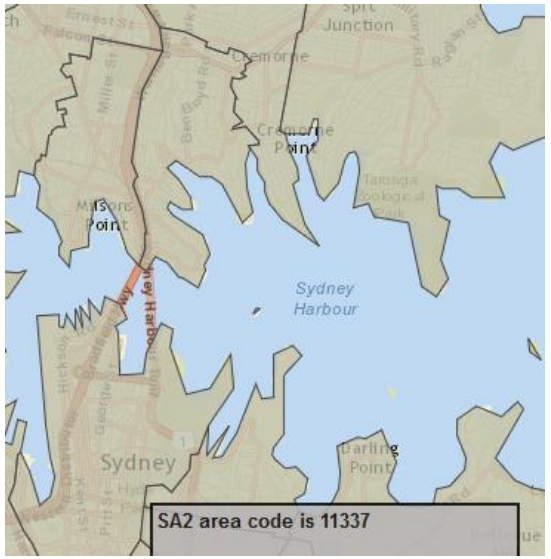
PAT CAT Geocoding – ABS Data – Legend



PAT CAT Geocoding – Demonstration & Recipes



PAT CAT Geocoding – Concordances



Related Websites Follow

Australian Government
Department of Health

phn
An Australian Government Initiative

About | Maps | Data | Tools and Resources | Links | Contacts

Primary Health Networks / Maps / PHN Concordances /

PHN Concordances

Page last updated: 31 August 2016

Accessibility

The documents on this page may not be accessible. If you need help please contact us using the enquiries form.

The following concordance files are provided for people undertaking geospatial and data analysis and have been updated to reflect boundary changes announced in April 2015 and PHN name changes announced in September 2015.

- PHN 2015 - ASGS SA1 2011 - concordance - Excel 5707 KB
- PHN 2015 - ASGS SA2 2011 - concordance - Excel 358 KB
- PHN 2015 - ASGS SA3 2011 - concordance - Excel 135 KB
- PHN 2015 - LGA 2011 - concordance - Excel 164 KB
- PHN 2015 - POA 2011 - concordance - Excel 341 KB

Home Insert Page Layout Formulas Data Review View Tell me what you want to do...

From Web | From Text | From Other Sources | Existing Connections | New Query | Show Queries | From Table | Recent Sources | Refresh All | Connections | Properties | Edit Links | Sort | Filter | Clear | Reapply | Advanced | Text to Columns

Get External Data | Get & Transform | Connections | Sort & Filter

Sydney - Haymarket - The Rocks

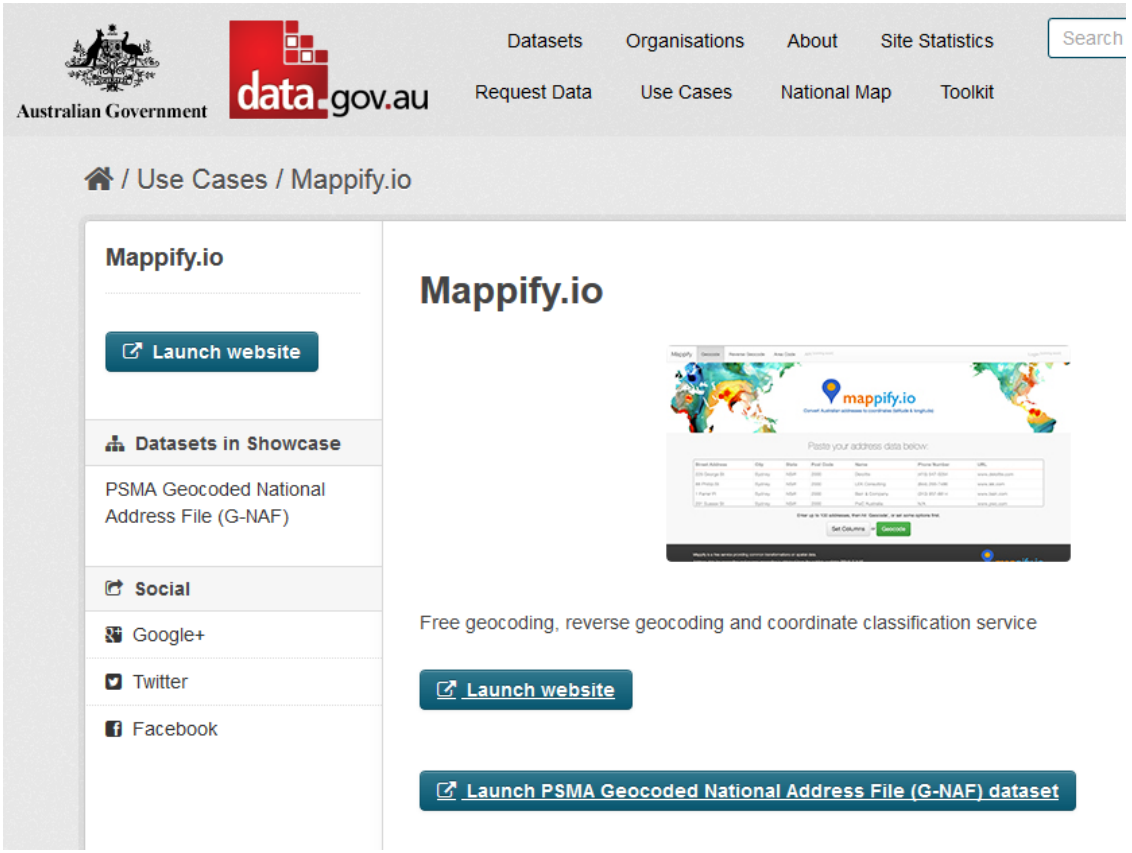
Australian Bureau of Statistics

tatistical Area Level 2 2011 to Primary Health Networks 2015

ble 3 Correspondence

117031335	Redfern - Chippendale	PHN101	Central and Eastern Sydney	1	100
117031336	Surry Hills	PHN101	Central and Eastern Sydney	1	100
117031337	Sydney - Haymarket - The Rocks	PHN101	Central and Eastern Sydney	1	100
117031338	Waterloo - Beaconsfield	PHN101	Central and Eastern Sydney	1	100
118011339	Bondi - Tamarama - Bronte	PHN101	Central and Eastern Sydney	1	100
118011340	Bondi Beach - North Bondi	PHN101	Central and Eastern Sydney	1	100
118011341	Bondi Junction - Waverly	PHN101	Central and Eastern Sydney	1	100
118011342	Centennial Park	PHN101	Central and Eastern Sydney	1	100
118011343	Double Bay - Bellevue Hill	PHN101	Central and Eastern Sydney	1	100
118011344	Dover Heights	PHN101	Central and Eastern Sydney	1	100
118011345	Paddington - Moore Park	PHN101	Central and Eastern Sydney	1	100
118011346	Rose Bay - Vaucluse - Watsons Bay	PHN101	Central and Eastern Sydney	1	100
118011347	Woollahra	PHN101	Central and Eastern Sydney	1	100
118021348	Coogee - Clovelly	PHN101	Central and Eastern Sydney	1	100
118021349	Kensington - Kingsford	PHN101	Central and Eastern Sydney	1	100
118021350	Malabar - La Perouse - Chifley	PHN101	Central and Eastern Sydney	1	100
118021351	Maroubra	PHN101	Central and Eastern Sydney	1	100
118021352	Randwick	PHN101	Central and Eastern Sydney	1	100
119011355	Chullora	PHN101	Central and Eastern Sydney	0.0009947	0.0994695

PAT CAT Geocoding – New Provider Mappify



As of 1 January 2017 there was a change in the funding of ANU GRAPHC, and to support existing projects a new provider had to be sourced.

Key Criteria that they were Australian based, and able to do Statistical Area Lookups.

PAT CAT Geocoding – Cost - Existing

500,000 Patients in PAT CAT

250,000 Addresses (families)

250,000 X $0.07 = $35,000

PAT CAT Geocoding – Cost - NEW

As a rule of thumb there are about 2.6 patients per address, so divide the number of patients in PAT CAT by 2.6, then times by $150 to get an estimate of the annual storage fee.

Free till 30th of June 2017

Unlimited Use

July 2017 – June 2018 - Subscription
$6,000 +GST If taken up with contract renewal.
$12,000 + GST If taken up after contract renewal

+$150 + GST Per 10,000 patients stored.
e.g. 250,000 pts = $6,000 + $3,750+GST.

Questions and Answers

Support

- Account Managers
  - NSW/ACT James Alcorn
  - QLD/NT Matthias
  - VIC/SA/WA/TAS Manfred

- Pen CS Support Line
  1800 762 993

- Email
  support@pencs.com.au

Web

- Help.pencs.com.au

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