

# phn

HUNTER NEW ENGLAND  
AND CENTRAL COAST

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An Australian Government Initiative

HNECC PHN acknowledges the traditional owners and custodians of the land that we live and work on as the First People of this Country.

# Section 1 – Narrative

## *Needs Assessment process and issues*

The Baseline Needs Assessment for Hunter New England Central Coast Primary Health Network (HNECC) is an integrated component of the Strategic Plan for the organisation, and its approach to achieving its vision of “Healthy People and Healthy Communities” for the region. The HNECC Strategic Plan is accessible at the following link: <http://www.hneccphn.com.au/wp-content/uploads/2016/02/013589-PHN-Strategic-Plan-2016-05.pdf>

A phased approach was undertaken to complete the Baseline Needs Assessment (BNA) involving: establishment of governance and project structures; undertaking of a health needs and service needs analysis; triangulation and identification of priority health needs; and options and opportunities analysis. The BNA also drew and built upon the three Medicare Local Comprehensive Needs Assessments undertaken throughout the region in 2012 – 2014, reducing duplication and resulting in a more robust assessment of health needs.

### **Governance and collaborative planning**

A project team, including a project manager, were appointed from within the HNECC Health Planning team to undertake the BNA. Initial project planning was undertaken using the HNECC Project Management Framework.

Strategic direction and advice during the BNA process was provided by the HNECC PHN Board and its Population Health Innovation Research and Service Design subcommittee. The group:

1. Confirmed the objectives, scope and critical focus areas of the BNA
2. Reviewed available data presented in the Health Planning Compass
3. Confirmed priority key health needs and issues for the PHN region
4. Identified health areas for further in-depth investigation
5. Reviewed the strategies and activities listed in Table 3
6. Reviewed the final BNA report.

In addition to the established integrated activities already underway, joint working groups were created between HNECC PHN, Central Coast LHD and Hunter New England LHD for the purposes of collaborative health planning, development and data sharing across health sectors. An overarching data sharing and planning group, and additional groups focussing specifically on mental health and drug and alcohol misuse, have been established to identify and analyse key data and ensure alignment of effort and investment.

Throughout the undertaking of the BNA, the HNECC Community Advisory Committees and Clinical Councils were being planned and recruited. As the councils and committees were not established and fully functional during this time, they were not directly involved in BNA governance processes. However, initial Community Advisory Committee members who had been recruited, were presented with the triangulated high level health needs to confirm and validate. Once fully operational, these committees and councils will be drawn upon to: advise on appropriate methods for PHN-wide community and clinician engagement regarding health needs; provide expert advice and oversight to inform priorities; and inform further investigations undertaken into key priority health areas.

### Health Needs Analysis

To understand the health status and needs of individuals, populations and communities in the HNECC region the project team:

- Compiled and analysed demographic and population health data as held in the HNECC Health Planning and Commissioning Database. At present the database contains over 15,000 statistics collated from a range of publicly available and internal data sources, representing the most important population health, workforce, evaluation and commissioning statistics for HNECC PHN
- Developed the HNECC Health Planning Compass detailing: key demographics, trends and future projections; disadvantaged and vulnerable populations; social determinants of health; screening rates; health risk behaviours; disease incidence and prevalence; child and maternal health; and health service access across the region. The presentation of data mapped by LGA and a comparative data analysis matrix was used to identify patterns of health care needs across the HNECC region and assisted to identify 'hot spots' for further investigation. The Health Planning Compass is accessible at the following link: <http://www.hneccphn.com.au/wp-content/uploads/2015/12/HNECC-PHN-Compass-23-Nov15.pdf>
- Compiled twenty seven LGA population health profiles to provide a useful picture of the local communities within our region. These documents can be obtained from <http://www.hneccphn.com.au/publications/health-in-our-region/> . **Note:** HNECC acknowledges the recommendation to collate and analyse data using Australian Statistical Geography Standard (ASGS) sub-region SA3 and SA2. As population health and demographic data has historically been made available at the LGA level, the data presented in the Compass and Database reflects this. As more data becomes available at the SA3/SA2 level these resources will be updated to reflect this.
- Collated, analysed and built upon qualitative data obtained from previous engagement activities undertaken to inform Medicare Local Comprehensive Needs Assessments. For a full list of engagement activities please see appendix 1.

### Service Needs Analysis

To ascertain the health infrastructure and understand service availability and gaps in our region, the project team:

- Commenced a comprehensive workforce audit and service mapping exercise of general practice services across our region to gain an understanding of the number, distribution, capability and current workforce capacity of GPs and practice nurses. This information is valuable, particularly in informing the Practice Development and Support priorities.
- Collated Health Workforce Australia data to ascertain service provider to population ratio for allied health, pharmacy and specialist services.
- Conducted comprehensive service mapping of mental health and cancer screening services across our region and identified potential service gaps. This information not only informs the commissioning of services for 2016-17 but will feed into the Mental Health Strategic Plan and the Community Cancer Screening Participation Strategy.
- Collated and analysed health service utilisation and accessibility (hospitalisations; MBS; BEACH etc.) information collated from a range of publicly available data sources.
- Is commencing analysis and de-identified benchmarking of general practice data across the region, including patient population demographics and clinical indicators. This is described in more detail in discussion box 3 below.
- Collated and analysed qualitative data including information collected during engagement and consultation with community members, consumers, carers, community service agencies, peak bodies, government services, private sector and primary health care professionals in the region. This focussed on accessibility and acceptability of primary health care services and co-ordination and integration between health sectors.
- Is developing measures for evaluation against the Quadruple Aim approach of:
  - Improving health outcomes

- Improving patient experiences of care
- Improving provider experience
- Reducing the per capita cost of care

#### **Initial prioritisation and confirmation of key health needs**

The triangulation process involved integrating and crosschecking the results from the quantitative data analysis, the service capacity and mapping analysis, and qualitative data collected through community and stakeholder consultations. This process was recorded in a triangulation matrix, and the major themes and key issues for the PHN region identified. HNECC Executive, Board and Population Health Innovation Research and Service Design subcommittee were presented with the triangulated health needs along with a summary of the evidence. An initial process to determine regional health priorities was conducted, with consideration given to the impact and severity of each need, capacity to benefit, and participants own knowledge and expertise. Eighteen high level priority health needs were recognised.

These regional health priorities were then cross-checked and validated with the results from previous Medicare Local Comprehensive Needs Assessments, in which multiple comprehensive prioritisation processes were undertaken during workshops with a range of participants. Priorities were also presented to recruited members of HNECC PHN's Community Advisory Committees along with the HNECC Health Planning Compass to confirm and validate based on the evidence as well as their own knowledge. Committee representation at this point in time included: Education; Local Government (Community Planning and Development), private industry, Local Health District, Community/consumers and Aboriginal communities; and NGO - Cancer Council.

#### **Issues and options analysis**

A rapid literature review aimed at finding high impact review papers and/or Australian examples, was undertaken for particular health issues/needs by the Health Planning team. Only those strategies that had either research evidence or an evaluation were included in this review. A review of the evidence of effective strategies to address need included an assessment of capacity to benefit (economics, effectiveness, appropriateness, feasibility and equity).

In addition to alignment to the vision, scope and objectives of HNECC, the options listed in Table 3 to address regional health priorities were identified by considering:

- Current commissioned programs and activities: building on established success and providing continuity of care/service;
- Evidence base: effectiveness of ongoing and new interventions or activities;
- Avoiding duplication with existing activities across the region;
- Resource feasibility: the resources and primary health care capacity available to make the required changes;
- Risks: the risks that the introduced strategy/activity may pose and how these would be mitigated.

#### **Areas for further development**

The BNA has assisted HNECC to identify key broad health needs for further investigations/deep dives to ensure a greater and more detailed understanding of particular health issues in our region. In addition to the stand alone mental health and drug and alcohol treatment needs assessments outlined below, further targeted work will be undertaken in Aboriginal health, cancer screening, potentially preventable hospitalisations, and maternal and child health – low birthweight babies, and smoking during pregnancy. Further research, consultations and investigations aimed at developing a more accurate and detailed identification of particular issues and needs, are described in more detail in discussion box 3 below.

#### **Mental Health Needs Assessment**

An internal mental health Governance structure has been established, with additional resources identified for the mental health program. To increase the capacity and expertise of the PHN, a Mental

Health Planning and Policy Officer was recruited in September 2015 to assist in undertaking the mental health needs assessment and developing an operational strategy for the region. Additional resources are currently being recruited to and have been aligned with key strategic reform priorities identified by the Government in response to Contributing Lives, Thriving Communities- Review of Mental Health Programs and services and include recruitment of a Suicide Prevention and Intervention Officer, a Stepped Care and Service Integration Officer and a Youth and Early Intervention Mental Health Officer. These positions will also work closely with the Aboriginal Health Team to ensure inclusion of this area of need in planning and service design.

As noted above, a comprehensive service mapping of mental health services has commenced to identify potential service gaps. This data will be utilised to further inform the service needs analysis, particularly in relation to an agreed model of stepped care, which is to be collaboratively developed for the region. This work is not yet included as part of this needs assessment given the timeframe for the initial assessment but will form a significant part of the ongoing needs assessment in the near future. Resources will be analysed with a view to bringing PHN funded services in line with the funding objectives of the PHN, and to develop operational plans for the region which maximise use of resources and provide a continuum of services within a person centred – stepped care approach. In addition, supplementary community and service provider consultation are required and will be scheduled in to the Mental Health operational plan.

Service needs will also be assessed in respect of the Government recommendations regarding system reform in mental health and the principles of program redesign, optimal targeting and availability of self-help and digital mental health services.

#### **Drug and alcohol treatment needs assessment**

HNECC PHN have commenced a baseline regional drug and alcohol treatment needs assessment to identify specific drug and alcohol treatment priorities across our region. Within limited timeframes, to date the following key tasks and activities have been undertaken:

- An initial desktop analysis and literature review (summarised in table 1 below) identifying population prevalence of drug and alcohol problems
- An online survey targeting service users and their family members/carers, and providers of drug and alcohol treatment services, to commence the consultation process and obtain local information and knowledge. Survey results will drive further focussed and targeted consultations across our region. Note: survey was reviewed/informed by the Acting General Manager Drug and Alcohol Clinical Services HNELHD and the NSW Drug and Alcohol Network Manager, Agency for Clinical Innovation)
- An analysis of current service provision/utilisation data
- Initial discussion with the peak body for drug and alcohol services, Network of Alcohol and other Drug Agencies (NADA), who have provided an NGO AOD sector minimum dataset to support planning and understanding of services available in the HNECC region.

This information, along with key-informant interviews, will provide an initial snapshot and solid foundation which we will continue to build upon in order to form an initial picture of the treatment population, treatment services, identified service gaps and treatment needs of specific groups across the region. This work will assist in developing evidence-based regional plans to inform effective commissioning of treatment services and programs. In addition HNECC PHN are also recruiting a Drug and Alcohol Planning Officer to increase the capacity and expertise within the organisation.

#### ***Additional Data Needs and Gaps***

##### **PHN Website accessibility**

The PHN website is an ideal portal for PHNs for retrieving data that supports key priorities. As the current site (including the secure data section) continues to grow, accessibility could be greatly improved by:

- Clear labelling of links to data files, including content and publication date
- Publication of data dictionaries and any metadata regarding specific datasets

- Consistent format and layout of spreadsheet (csv, excel) files
- Publication of update schedules for each data set
- Access to a subscription service which alerts subscribers to new and updated data
- A separate subscription service for users with secure area access

#### **Additional data required**

To enhance and strengthen the understanding of our health landscapes, it would be beneficial to see the following data further developed and made available to PHNs:

- Bettering the Evaluation and Care of Health (BEACH) data – We acknowledge that BEACH data is being made available by the NHPA. The majority of this data is currently presented at the peer group level which is not useful for health planning purposes. To gain maximum benefit, data at a more granular level would be required, SA3 level data to align with NHPA would be advantageous
- Medicare Australia (MBS/PBS) – There is a need to make Medicare data more available to support the work of PHNs. In addition to providing more variables, an update to reflect PHN geography would be welcomed
- Dementia statistics - The only available data on dementia prevalence and projections is provided by Deloitte Access Economics, and is reported by Federal Electorate Divisions. This is inadequate and inconsistent with other data and information used for planning and reporting purposes
- Australian Institute of Health and Welfare reports – e.g. 'Australia's Health'; 'The Health of Aboriginal and Torres Strait Islander People'; 'Rural, regional and remote health'. Currently we extrapolate findings from these reports regarding health and social factors to our region. This data made available for PHN areas would be more advantageous
- Health Workforce Australia - This is essential data. When updated and maintained effectively this data set is critical to the PHN needs assessment functions and in further understanding the health landscapes within our region
- Cancer Institute NSW: Currency of data - The most up to date nationally comparable estimates of cancer incidence and mortality are based on 2007-2008 figures
- National Health Service Directory: it would be beneficial if names, locations and service delivery details of health services, General Practice, allied health, pharmacies etc. were available for download for PHN regions
- Generally, for all data sets, information at discrete geography levels, including SA3, will allow better data analysis at local community level.

#### **Mental Health specific data requirements**

- Suicide rates by Local Government Area and/or SA3, by gender, age, and Indigenous status (it would be preferable if this information was obtained from the NSW Coroner's office confirming death by suicide)
- Prescribing behaviour at a local level against psychotropic drug categories available through the Pharmaceutical Benefits Scheme
- Service utilisation rates for public mental health and community based services, at a Local Government Area and/or SA3 level by diagnosis / presenting issue, gender, age group, Indigenous status and area of residence
- Outcomes for patients of public mental health services and primary mental health services (e.g. MH-OAT or other outcome measures, scheduling, community treatment orders, premature mortality, referrals to community care/support, supported accommodation)
- Review of the ATAPS and MHSRRA Minimum Dataset is recommended, with a particular focus on data quality and integrity, and considerations given to analysis of outcome measures, including comparative analysis. This will support the utilisation of the valuable information housed in this dataset for planning and evaluation purposes

#### **Service mapping and capacity analysis**

Whilst a great deal of work has been undertaken into service mapping, due to the resource intensive task, the full range of primary health care services and program types is yet to be covered. In addition,



the availability of data to highlight critical issues in relation to accessibility, responsiveness, acceptability, quality and appropriateness of primary health care services and programs is limited. The PHN will continue to work to undertake service mapping and capacity analysis in particular localities, and for particular populations and health conditions.

In order to ascertain the effectiveness of services across the region, HNECC will initially focus on services we currently commission. Performance measures providing greater insight into service effectiveness, including patient reported outcome and experience measures, will be included in 2016-17 service contracts. In addition, the identification and selection of 'local indicators' as outlined in PHN Performance Framework will assist with establishing baselines and measuring health system performance and effectiveness.

#### **Accessing general practice data to inform population health planning and quality improvement activities**

It is important that the Primary Health Care sector starts to contribute more robust population health and service provision data. HNECC is currently establishing systems and undertaking activities to enable the extraction and compilation of core GP data—as a by-product of information already held by many general practices in their electronic patient records. This will assist HNECC to:

- Analyse the needs of a population within a defined catchment
- Identify and assist general practices to implementing clinical interventions
- Compare chronic disease prevalence with other publically available data sources
- Identify data quality gaps within general practices
- Compare MBS item number utilization
- Map aggregate data with ability to overlay with ABS statistical data

#### ***Additional comments or feedback***

The BNA provides a solid foundation to assist in making evidence and resource based decisions to ensure the needs of local communities are met and access to health services is improved, particularly for populations at risk of poorer health outcomes. Eighteen regional health priorities were identified through this process and have formed the areas for action to improve health in the HNECC region. This work will inform and contribute to the development of the annual plan, commissioning work, local performance indicators and operational approach of the PHN in 2016/17.

The eighteen identified priority health needs however are broad, and some gaps in knowledge still exist to inform service delivery across our region. Further in-depth work targeting specific regional health priorities is required to ensure a greater and more detailed understanding of particular health issues in localities across our region and to ensure appropriate planning and delivery of services.

This resource intensive in-depth work will involve, but is not limited to the following:

- Further focussed and targeted market analysis - Reviewing current capacity of the primary health care system to address the need, including gaps in programs and services, and opportunities to improve coordination and collaboration and the responsiveness of care. This can be undertaken in identified geographical areas of concern and for specific target groups
- Targeted and focussed community and clinician consultation, guided by the Community Advisory Committees and Clinical Councils
  - Community Consultation – Engagement with community and patients on a cohort or disease basis to gain further information on the perceived needs of specific groups and individuals, barriers to addressing the health/service need, consumer and carer perspectives, insights and experience of care, and their perspectives on how primary care could be improved and where it is working well
  - Clinician Consultation - To ascertain perspectives on incidence and prevalence of health conditions and disease trends, barriers to addressing the health/service need, efficiency and effectiveness of current services and improvement opportunities, workforce needs including capacity building and

quality improvement, and contribution to decisions around service planning and resource allocation to find culturally appropriate solutions

- Further data interrogation
- Research and literature reviews of the evidence on cost effective strategies to address health needs - short listing possible interventions and/or service development strategies. Investigating innovative responses to identified health needs including health promotion and prevention activities
- Assessing capacity to benefit including Social Return on Investment
- Considering available financial resources and strategic investment, and disinvestment, of funds to implement and continue strategies and actions
- Collaboration with the LHDs and local health providers.

Future iterations to needs assessments supporting in-depth and targeted analysis will be welcomed by HNECC PHN.

In addition to these comprehensive investigations, the needs assessment will be reviewed and refined as new information, data, and learnings gained from the experience of monitoring and evaluating previous activities and investment, becomes available. HNECC will continue to monitor and adjust strategies to help ensure that integrated, comprehensive primary care services are delivered in a system that supports prevention, health promotion, and multidisciplinary care, whilst addressing health inequities. We will also promote the BNA as a valuable resource to our partners and key stakeholders to further support health service planning in our region.

#### **Mental Health Needs Assessment**

Specific areas of further focus in the needs assessment for mental health, include, Stepped care and service integration, Aboriginal Mental Health and Wellbeing, Suicide Prevention and early Intervention and Suicide Prevention and Intervention across the region. Key to each of these areas will be ensuring that the 6 key objectives of the PHN mental health funding; low intensity mental health services, cross –sectoral approaches for children and young people, rural and remote populations, primary health services for those with severe mental illness including flexible care packages, suicide prevention and Aboriginal Mental Health are considered in service development plans for the region.

Services commissioned or contracted in the 2016-2017 year will need to be engaged in service review, outcome measurement and possible redesign for future commissioning of services.



# Section 2 – Outcomes of the health needs analysis

*This section summarises the findings of the health needs analysis in the table below.*

**Table 1**

Outcomes of the health needs analysis		
Identified need	Key Issue	Description of Evidence
Health literacy	<p>Low levels of health literacy, particularly in vulnerable and disadvantaged populations, are experienced across the HNECC region. A range of community and service providers in the HNECC region recognised low levels of health literacy as a major challenge in working towards better health outcomes for clients, particularly those from vulnerable and disadvantaged communities, and those in rural locations. Of note was a general lack of knowledge about services and how to access them, along with issues in navigating health services, and a lack of computer literacy.</p> <p>The ability to access and use health information is an important skill, allowing people to make informed decisions about their health and helping them to maintain their basic health. Supporting data suggests that more than half of Australians may be unable to successfully access, understand, evaluate and communicate health information in a way that enables them to promote, maintain and improve health. Low levels of health literacy are more common in people aged over 65 years, and those from culturally and linguistically diverse and socioeconomically disadvantaged populations. Low levels of health literacy is a major challenge in working towards better health outcomes in the HNECC region</p>	<p><i>Australian Bureau of Statistics, Australian Social Trends, 4102, Health Literacy, June 2009</i></p> <p><i>Community consultation; Allied health provider focus groups; Engagement with Home and Community Care (HACC) representatives; Engagement with a range of NGOs Semi-structured interviews with Aboriginal and Torres Strait Islander health service providers and community organisations; Key informant interviews</i></p>
Health Status and life expectancy	<p>In 2010, more than 1 in 7 people aged 15 years and above assessed their health as 'fair' or 'poor' in the HNECC region (15.1%) (Australia 14.6%). LGAs with the highest rates (over 20 per 100) were Cessnock, Glen Innes Severn, Great Lakes, Greater Taree and Tenterfield. The lowest were Armidale Dumaresq and Gosford LGAs at less than 16 per 100.</p> <p>The data for our region from 2009 – 2011 indicates a lower than the national average life expectancy for men and women across all three sub-regions (Hunter, New England and Central Coast).</p>	<p><i>Proportion of persons aged 15 years and above assessing their health as 'fair' or 'poor' 2010 (PHIDU); Life Expectancy at Birth (years) (2009-2011) males and females (NHPA 2015)</i></p>
Aboriginal and Torres Strait Islander health	<p>More than 48,000 people (4.2% of the population) in the HNECC region are of Aboriginal or Torres Strait Islander descent. HNECC PHN has the 7th highest proportion of the population from Aboriginal and Torres Strait Islander background out of all PHNs. Many of our rural areas such as Moree Plains (20.8%),</p>	<p><i>Aboriginal population as a proportion of the total population 2011 (PHIDU); Aboriginal persons, aged 65 years and over as a proportion of</i></p>

## Outcomes of the health needs analysis

	<p>Gunnedah (11.3%), and Liverpool Plains (10.9%) have very high proportions of Aboriginal populations. The Aboriginal population has a considerably younger age profile than the non-Aboriginal population. Socioeconomic disadvantage has an impact on local Aboriginal people who are more vulnerable to poor lifestyle choices and illness. Aboriginal people have notably higher rates of behavioural risk factors, and poorer antenatal and infant health. The Aboriginal population experience far worse health outcomes than non-Indigenous people with earlier onset of chronic disease, such as diabetes, CVD and COPD, and higher rates of hospitalisations and mortality. Increasing chronic disease within Aboriginal communities was highlighted as an area of concern in our region.</p> <p>SEE ALSO 'Aboriginal and Torres Strait Islander services' IN TABLE 2</p>	<p><i>total Aboriginal population 2011 (PHIDU); Aboriginal persons, aged less than 25 years as a proportion of total Aboriginal population 2011 (PHIDU); Population by Aboriginality, age and sex, 2011 (Centre for Epidemiology and Evidence NSW Health); Socio-economic Disadvantage - SEIFA, 2011 (ABS 2015)</i></p> <p><i>Overweight and obesity rates (ABS National Aboriginal and Torres Strait Islander Health Survey 2005-05); Diabetes prevalence in Aboriginal adults 2014 (Centre for Epidemiology and Evidence NSW Health); Diabetes-related death rate Aboriginal population 2013-2014 (Centre for Epidemiology and Evidence NSW Health); Respiratory disease-related deaths 2008-12 (Centre for Epidemiology and Evidence NSW Health)</i></p> <p><i>Percentage of Aboriginal and Torres Strait Islander women who gave birth and smoked during pregnancy (NHPA 2007-2011); Percentage of Aboriginal and Torres Strait Islander women who gave birth and had at least one antenatal visit in the first trimester (NHPA 2010-2011); Percentage of live births that were of low birthweight, Aboriginal and Torres Strait Islander women (NHPA 2007-2011); infant mortality rate (IMR) for Aboriginal and Torres Strait Islander children (ABS 3302.0 - Deaths, Australia, 2012); Aboriginal and Torres Strait Islander national age-standardised death rate (ABS 2010); Consultation with Aboriginal and Torres Strait Islander health service providers; stakeholder engagement through local health committees; semi-structured interviews conducted with members of the Awabakal Aboriginal Medical Service (AMS); Engagement with Aboriginal and Torres Strait Islander community organisations;</i></p>
Socio-economic disadvantage	<p>The HNECC region as a whole is disadvantaged relative to the state and nation, with particular areas and pockets within the region having very high levels of socio-economic disadvantage. SEIFA Index of Relative Socio-Economic Disadvantage (IRSDD) by LGA in the HNECC region, ranges from the most disadvantaged at 914 (Greater Taree LGA) to the least disadvantaged at 1013 (Singleton LGA).</p>	<p><i>Socio-Economic Index for Areas (SEIFA)- Index of Relative Socio-economic Disadvantage (IRSDD) 2011; % Single parent families with children under 15 years, 2011; % Jobless families with children under 15 years, 2011; % Low income welfare dependent families, 2013; % Single parent payment</i></p>

## Outcomes of the health needs analysis

	<p>Across the HNECC region rates of single parent families are high in 23 of the 27 LGAs, compared to the state population. Rates of children in jobless families are also high in Tenterfield, Greater Taree and Great Lakes LGAs. Similarly, the percentage of welfare dependent, low income families across the region are also high and are especially noted in the LGAs of Tenterfield, Greater Taree and Great Lakes. Moree Plains, Great Lakes and Greater Taree LGAs have the highest rates of single parent payment beneficiaries with each more than double the NSW rate. Of those receiving a single parent payment, the percentage of female sole parents is greatest in the Moree Plains, Inverell and Liverpool Plains LGAs, in fact, 26 out of the full 27 LGAs within the HNECC area have a rate of female sole parents higher than the NSW figure. The percentage of low income households across the region which experience mortgage or rent stress, compared to the NSW rate is not significant with only the LGA of Armidale Dumaresq sitting above this rate. Unemployment rates in March 2015 were highest in the LGAs of Cessnock, Glen Innes Severn, and Tenterfield. These were all well above the NSW rate of 5.7%.</p> <p>The spread of disadvantage suggests the need for careful health service planning in these areas, taking particular account of issues related to accessibility, transport, awareness and affordability of primary health care services. The poor health outcomes of the most disadvantaged members of our communities consistently emerge as a theme, and the need for action on the social determinants of health is evident.</p>	<p><i>beneficiaries, 2012; % Low income households under financial stress from mortgage or rent, 2011; % Unemployment rates, (smoothed) March 2015, People receiving unemployment benefits; Age pensioners 2011 (person 65 years +) (PHIDU)</i></p> <p><i>Consultation with community members and service providers (NGOs)</i></p>
Health needs of an aged and ageing population	<p>There is a high proportion of people aged 65 years and over in the HNECC region (18.3%) compared to the state (15.2%), and this population is projected to increase by 2025 to almost a quarter of the total population. We have LGAs with particularly high proportions including: Great Lakes, Gloucester and Gwydir. Over three quarters (75.6%) of the population aged 65 years and over in the HNECC region are aged pensioners. Undoubtedly, ageing will present challenges to the healthcare system, given the larger number of older people, the fact that many health conditions, chronic disease and associated disability become more common with age, and that older people are higher users of health services.</p> <p>SEE ALSO</p> <ul style="list-style-type: none"> <li>- 'Dementia' IN THIS TABLE 1</li> <li>- 'Aged care services/ workforce issues' IN TABLE 2</li> </ul>	<p><i>Proportion (%) of people aged 65 years and over (2013); Projected proportion (%) of people aged 65 years and over (2025); Average Annual Population Growth (%) 2011 -2031; Age pensioners 2011 (person 65 years +) (PHIDU)</i></p> <p><i>Service provider consultation</i></p>
Culturally and linguistically diverse populations and refugee populations	<p>The majority of residents within the HNECC region were born in Australia (84.4%, NSW 68.6%). Those who were born in predominantly non-English speaking (NES) countries account for 4.5% of our population with the highest proportions in Newcastle and Armidale Dumaresq LGAs. Those born overseas reporting poor proficiency in English account for a small proportion (0.4%) of the HNECC region's population compared to the NSW rate of 3.8%. Newcastle LGA and Armidale LGA (0.8%) had the highest</p>	<p><i>People born in predominantly NES countries 2011; People born overseas reporting poor proficiency in English 2011 (PHIDU 2014)</i></p>

## Outcomes of the health needs analysis

	<p>proportions. There is a small refugee population in the HNECC region, which is a very small proportion of our population compared to the state average.</p> <p>SEE ALSO 'Health literacy' IN THIS TABLE</p>	
Child and maternal health	<p>The rates of immunisation across the HNECC region on the whole are generally better than national rates. In 2014-15 HNECC had: the 2<sup>nd</sup> highest rate (93.1%) nationwide of 1 year olds fully immunised; the 5<sup>th</sup> highest rate (91.3%) nationwide of 2 year olds fully immunised; and the 3<sup>rd</sup> highest rate (94.8%) nationwide of 5 year olds fully immunised. A total of 3,255 children were not fully immunised. Even with these high rates HNECC acknowledges the aspirational target for 95% of children to be fully immunised in line with the National Immunisation Program Schedule and will work towards this.</p> <p>While improvement in all immunisation rates would be beneficial it is Aboriginal and/or Torres Strait Islander childhood immunisation rates, particularly within the New England sub region which need further attention and consideration.</p> <p>The rates of smoking while pregnant across the HNECC region are far from ideal with all three sub-regions reporting rates higher than the national average. For Aboriginal and/or Torres Strait Islander women, the rates of smoking while pregnant are alarming at 42% for the Central Coast, 48.9% in the Hunter and 55.1% in the New England (National rate: 51.7%).</p> <p>Data on the development of children in their first year of school over a number of domains (Communication; Language; Emotional; Social; Physical) show that across the region 20.7% of children were considered vulnerable on one or more domains. The LGAs of Moree Plains, Tenterfield, Armidale Dumaresq and Greater Taree show the greatest percentage of developmental vulnerability on one or more domains of the index.</p> <p>Deaths occurring before 5 years of age are significantly higher in the New England sub-region of the HNECC area (6.1 deaths per 1000 live births compared to the national rate of 4.4 deaths per 1000 live births). The rate in the Hunter sub-region is also above that of the nation.</p>	<p><i>Children fully immunised % aged from 12 months; 2 years; 5 years (Australian Childhood Immunisation register); Children Fully Immunised 2012-2013 1yr, 2yr, 5yrs (NHPA 2015); Aboriginal Children Fully Immunised 2012-2013 1yr, 2yr, 5yrs (NHPA 2015) (ACHIR data)</i></p> <p><i>Total fertility rate births per woman 2011 (PHIDU 2014); Child dependency ratio (proportion of child dependents per 100 working-age population)</i></p> <p><i>% Smoking during pregnancy 2009-2011, all women; % Smoking during pregnancy 2007-2011, Aboriginal and Torres Strait Islander women; % Low birth weight babies, 2009-2011, all women; % Low birth weight babies, 2007-2011, Aboriginal and Torres Strait Islander women; % Antenatal visits in the 1st trimester, all women 2010-2011; % Antenatal visits in the 1st trimester, Aboriginal and Torres Strait Islander women 2010-2011 (NHPA 2015)</i></p> <p><i>Children developmentally vulnerable on one or more domains % 2012 (PHIDU 2014)</i></p> <p><i>Infant and young child mortality rate 2010-2012 Deaths per 1000 live births (NHPA 2015); Infant mortality rate (IMR) for Aboriginal and Torres Strait Islander children (ABS 3302.0 - Deaths, Australia, 2012);</i></p>
Youth health	<p>A significant number of young people do not have adequate family and social support networks. Consequences of this can include presentation to services in crisis, homelessness, disengagement from family and failure to complete education, all of which can lead to adverse health and social outcomes.</p>	<p><i>Proportion of population aged 0-14 years, 2013 ERP (PHIDU 2015); Proportion of Aboriginal population aged 0-14 years, 2013 ERP (PHIDU 2015); Single Parent families with children aged less than 15 years 2011; %</i></p>

Outcomes of the health needs analysis		
	<p>Suicide and risky drug and alcohol behaviours amongst youth are concerning for communities across the region.</p> <p>SEE ALSO 'Mental health services' IN THIS TABLE</p> <p>SEE ALSO 'Youth and family health services' IN TABLE 2</p>	<p><i>Jobless families with children under 15 years, 2011; % Low income welfare dependent families, 2013; (PHIDU 2015)</i></p> <p><i>Intentional self-harm hospitalisations for 15-24yr age group 2001-2002 to 2013-2014, rate per 100,000 population</i></p> <p><i>Discussion with community members and service providers (NGOs)</i></p>
Rural health	<p>Within the Australian Standard Geographical Classification—Remoteness Areas (ASGC-RA) the HNECC region has populations falling within the categories of: Major Cities, Inner Regional, Outer Regional, Remote</p> <p>People living in rural areas tend to have shorter life expectancy and higher levels of illness and disease risk factors than those in major cities. People in regional and remote areas are more likely than their city counterparts to: be a daily smoker; be overweight or obese; be insufficiently active; drink alcohol at harmful levels; and have high blood cholesterol</p> <p>'SEE ALSO 'Rural access' IN TABLE 2</p>	<p><i>Australian Standard Geographical Classification—Remoteness Areas (ASGC-RA); National data on lifestyle risk factors regional/remote compared to urban populations (AIHW 2014)</i></p>
Disability and carers	<p>Over 66,000 (5.8%) people in the HNECC region have a severe or profound disability. This is a higher proportion compared to the state. There are also over 114,000 (12.3%) people aged 15 years and over providing unpaid assistance to persons with a disability.</p> <p>SEE ALSO 'Disability services' IN TABLE 2</p>	<p><i>Number of people with a profound or severe disability (includes people in long-term accommodation), 0 to 64 years, 2011 (PHIDU 2015); Proportion of people with a profound or severe disability (includes people in long-term accommodation), 0 to 64 years, 2011 (PHIDU 2015);</i></p> <p><i>Number of people with a profound or severe disability (includes people in long-term accommodation), all ages, 2011 (PHIDU 2015); Proportion of people with a profound or severe disability (includes people in long-term accommodation), all ages, 2011 (PHIDU 2015); Number of people with a profound or severe disability and living in the community, All ages, 2011 (PHIDU 2015; Proportion of people with a profound or severe disability and living in the community, All ages, 2011 (PHIDU 2015)</i></p>
Dementia	<p>An aged and ageing population presents increased health needs particularly around dementia, with predicted dementia prevalence exceeding state and national predictions. Three Commonwealth Electoral Divisions in the HNECC region ranked in the NSW top ten for dementia prevalence and two in the national top ten. Dementia predictions will also see these Commonwealth Electoral Division Areas in the national top ten in 2050. Primary health care plays a key role in early detection and diagnosis of dementia, and in regular assessment, support and referral for people with dementia and their families.</p>	<p><i>Proportion (%) of people aged 65 years and over (2013);</i></p> <p><i>Projected proportion (%) of people aged 65 years and over (2025);</i></p> <p><i>Predicted increase (%) in dementia prevalence, 2011-2050 by Federal Electorates (Alzheimer's Australia 2011; Deloitte Access Economics 2011)</i></p>

Outcomes of the health needs analysis		
	SEE ALSO 'Dementia services' IN TABLE 2	
Overweight and obesity	<p>Rates of overweight and obesity are high in the HNECC region compared to the average rates for NSW. Over one third of our region (35.1%) are overweight (NSW (34.6%). Twenty of our region's 27 LGAs have levels of overweight greater than the NSW rate. Three in every ten people (30.5%) in the HNECC region are classified as obese, much greater than the NSW (26.4%). All LGAs in our region have rates of obesity that are well above the NSW rate. The Upper Hunter Shire and Narrabri LGAs had the highest rates with one third of the population obese. A reduction in these risk factors will promote health and wellbeing and prevent hospitalisations and chronic disease. Some occupations are also overrepresented in the data. Obesity rates in the mining industry are as high as 80% of the workforce. LGAs affected by this include Singleton, Muswellbrook and the Upper Hunter.</p> <p>SEE ALSO 'Prevention/ healthy lifestyle services' IN TABLE 2</p>	<p><i>People aged 18 years and over who were overweight (not obese) ASR per 100, 2011-13 (PHIDU 2015); People aged 18 years and over who were obese ASR per 100, 2011-13 (PHIDU 2015); High body mass attributable deaths 2011, Rate per 100,000 population, 2011 (Centre for Epidemiology and Evidence NSW Health)</i></p> <p><i>Overweight and obesity rates by industry 2004-2005 (ABS)</i></p> <p><i>High body mass attributable hospitalisations, 2013-14, Rate per 100,000 population (Centre for Epidemiology and Evidence NSW Health)</i></p> <p><i>Stakeholder engagement with multicultural service providers</i></p>
Health risk behaviours (SNAP)	<p>There are high rates of health risk behaviours, contributing to chronic disease and hospitalisations, in our region. Only half of the population are consuming the recommended amount of fruit and only one in ten consuming the recommended amount of vegetables. Smoking rates are high across the region, with all LGAs above the NSW average, and Moree Plains as much as 1.5 times the NSW rate. High physical inactivity rates are seen across the region. With the exception of Armidale Dumaresq LGA, all LGAs across our region are above the NSW average for risky alcohol consumption. A reduction in these risk factors will promote health and wellbeing and prevent hospitalisations and chronic disease.</p> <p>Identified barriers to good nutrition include: cost of healthy food; easy access to fast foods; advertisement of fast foods; limited options for healthy takeaway; awareness of where to shop; and knowledge of how to cook.</p> <p>Identified barriers to being physically active include: limited areas designated for exercise; knowledge of gyms; feeling unsafe exercising; and working hours.</p> <p>SEE ALSO 'Prevention/ healthy lifestyle services' TABLE 2</p>	<p><i>Recommended fruit consumption by Local Health District, percentage of persons aged 16 years and over, 2014 (Centre for Epidemiology and Evidence NSW Health); Recommended vegetable consumption by Local Health District, persons aged 16 years and over, 2014 (Centre for Epidemiology and Evidence NSW Health); Adequate physical activity, persons aged persons aged 16 years and over, 2014 (Centre for Epidemiology and Evidence NSW Health);</i></p> <p><i>Current smoking in adults, persons aged persons aged 16 years and over, 2014 (Centre for Epidemiology and Evidence NSW Health); Percentage of women who smoked at all during pregnancy, 2011-2013 (NSW Centre for Epidemiology and Evidence NSW Health); Alcohol drinking in adults (percentage of people drinking more than 2 standard drinks per day), persons aged persons aged 16 years and over, 2014 (Centre for Epidemiology and Evidence NSW Health); Estimated Population (ASR/100) 2011-2013: Smoking, High Risk Alcohol (PHIDU 2014)</i></p>

## Outcomes of the health needs analysis

		<p><i>People 18 years and over with at least one of four of the following health risk factors; smoking, harmful use of alcohol, physical inactivity, obesity (ASR per 100) (PHIDU 2013)</i></p> <p><i>Smoking attributable hospitalisations, rate per 100,000 population, 2012-13 to 2013-14 (Centre for Epidemiology and Evidence NSW Health; Alcohol attributable hospitalisations, rate per 100,000 population, 2013-14 (Centre for Epidemiology and Evidence NSW Health)</i></p> <p><i>Engagement with community members, NGOs and LHD professionals identified barriers to good nutrition and physical activity in some regions of the PHN</i></p>
Chronic disease	<p>Lifestyle related chronic diseases such as diabetes, cardiovascular disease and chronic obstructive pulmonary disease (COPD) are pressing issues for our communities and are leading to increased premature mortality and hospitalisations in the region. We have one of the highest rates of COPD (2nd highest rate out of the 30 PHNs) and circulatory system disease (6th highest rate out of 30 PHNs) in Australia. In 2011-13 there were an estimated 39,140 people with COPD in our region at a rate of 3.0%. (NSW 2.6%). Ischaemic heart disease (coronary heart disease) which includes both heart attack (acute myocardial infarction) and angina, accounts for the highest rates of premature mortality across our region, and is well above the national average.</p> <p>SEE ALSO 'Chronic disease hospitalisations and services' IN TABLE 2</p>	<p><i>People aged 18 years and over, with diabetes mellitus, ASR per 100, 2011-13 (PHIDU 2015); People aged 18 years and over, with chronic obstructive pulmonary disease, ASR per 100, 2011-13 (PHIDU 2015); People with hypertension, ASR per 100, 2011-13 (PHIDU 2015); People aged 2 years and over, with circulatory system diseases, ASR per 100, 2011-13 (PHIDU 2015);</i></p> <p><i>Causes of Premature Mortality 2008-2012 Average Annual ASR / 100,000 (Ischaemic Heart Disease, Cerebrovascular Diseases, Chronic Obstructive Pulmonary Disease, Diabetes) (PHIDU 2014)</i></p> <p><i>Consultation with service providers</i></p>
Cancer screening and incidence	<p>As a whole there are low participation rates for cervical, breast and bowel cancer screening across our region. Whilst many LGAs in our region have screening rates which are equal to or above the state rate for cancer screening, there are LGAs that have much lower participation.</p> <p>The percentage of women aged 20 to 69 years who participated in the National Cervical Screening Program between 2013 and 2014 in the HNECC region was 59.0% (NSW 57.7%). There were eleven LGAs in the HNECC region with participation rates below the state rate.</p> <p>The HNECC region ranked first out of the NSW PHNs for BreastScreen participation rates during 2013 and 2014, with a rate of 56.9% (NSW 50.9%). LGAs with participation rates below the NSW rate: Moree Plains</p>	<p><i>Cancer incidence (Breast, Bowel, Cervical, Melanoma, Lung, Prostate, rectal) ASR/100,000, by LGA 2004-2008 (Cancer Institute NSW 2015)</i></p> <p><i>Cancer incidence (Breast, Bowel, Cervical, Melanoma, Lung, Prostate, rectal) ASR/100,000, by PHN 2006-2010 (Cancer Institute NSW 2015)</i></p> <p><i>Cancer mortality rate (Breast, Bowel, Cervical, Melanoma, Lung, Prostate, rectal) ASR/100,000, by LGA and PHN 2004-2008 (Cancer Institute NSW 2015)</i></p>



## Outcomes of the health needs analysis

	<p>(44.2%); Gosford (50.1%); and Wyong (50.2%). The BreastScreen participation rate for Aboriginal and Torres Strait Islander women was 46.0% for the HNECC region (NSW 36.3%). There were four LGAs with participation rates below the NSW rate: Gosford (26.5%); Gwydir (26.6%); Wyong (33.5%); and Moree Plains (34.2%). The BreastScreen participation rate for CALD women was similar in the HNECC region (44.9%) to that of NSW (44.8%), with seven LGAs below the NSW average: Gunnedah (32.7%); Cessnock (34.8%); Gosford (40.3%); Great Lakes (41.2%); Wyong (41.3%); Greater Taree (43.2%); and Newcastle (44.5%).</p> <p>The HNECC region ranked fifth out of the NSW PHNs for bowel screening participation in 2014, with a participation rate of 34.7%. There were seven LGAs with a participation rate lower than the NSW average of 32.8%.</p> <p>There are high incidence and mortality rates for melanoma, lung and colon across the HNECC region. The incidence of melanoma and prostate cancer is more than twice the NSW average in some LGAs. Prostate cancer rates tended to be higher in the New England sub-region, while melanoma rates were higher in the Hunter and Central Coast sub-regions. There is a need for prevention in the community and facilitating early screening and detection within primary health care.</p> <p>SEE ALSO 'Cancer Screening services' IN TABLE 2</p>	<p><i>Percentage of women aged 20-60 years, who participated in the National Cervical Screening Program 2013-2014; histologically-reported high-grade intraepithelial abnormalities rate / 1,000 women, 2014; Percentage of women aged 50-69 years, who participated in the BreastScreen NSW program, 2013-2014; Percentage of the eligible population invited to participate in the National Bowel Cancer Screening Program who returned a completed FOBT 2014 (CINSW 2015)</i></p>
Mental health	<p>Mental health is an area of concern in our community, with high rates of chronic mood and behavioural problems for both males and females, as well as high rates of reported psychological distress. Concern around rates of youth suicide and self-harm has been raised by community members in particular parts of the region. Rates of hospitalisations for intentional self-harm for the HNECC region are also well above that of the state. Mental health needs within Aboriginal communities, refugee and immigrant communities, and young people were identified. Those with severe and complex mental illness and suicide risk across population age groups were also identified as areas of need, particularly in the rural and remote areas of the region.</p> <p>SEE ALSO 'Mental health services' IN TABLE 2</p>	<p><i>Number and proportion (ASR/100) of people aged 18 years and over, with high or very high psychological distress based on the Kessler 10 Scale (K10), 2011-13 (PHIDU 2015); Number and proportion (ASR /100) of males with mental and behavioural problems , 2011-13 (PHIDU 2015); Number and proportion (ASR/100) of females with mental and behavioural problems, 2011-13 (PHIDU 2015)</i></p> <p><i>Intentional self-harm hospitalisations for 15-24yr age group 2001-2002 to 2013-2014, rate per 100,000 population</i></p> <p><i>Stakeholder engagement with multicultural community and refugee service providers, and Aboriginal and Torres Strait Islander service providers; Engagement with community members, NGOs and LHDs;</i></p>

Outcomes of the health needs analysis		
		<p><i>Stakeholder engagement (Partners in Recovery program development); Engagement with Home and Community Care (HACC) representatives; Consultation with concerned community members in Port Stephens</i></p>
Alcohol and other drug misuse	<p><b>Alcohol Consumption</b></p> <p>Excessive alcohol intake is a major risk factor for ill health and death. Binge drinking is a major cause of injury and road accidents, violence and is a major link with chronic disease. Adults aged 18-24 were the largest group of the population to drink at harmful levels on a single occasion and males were twice as likely to engage in this behaviour (26% and 9.7% respectively).<sup>3</sup></p> <p>The proportion of Australians aged 14 years and over who consumed alcohol daily decreased between 2010 and 2013. The proportion of the population who exceeded lifetime risk guidelines also declined (from 20% to 18.2%) and single occasion risk guidelines at least once a month (29% to 26%). Between 2010 and 2013 the amount of people abstaining from alcohol rose from 19.9% to 22%. People in NSW recorded the lowest proportion of people consuming 5 or more standard drinks at least once a month (single occasion risk 24%). NSW had the lowest rate of people in their 20s being more likely to drink 5 or more standard drinks at least once a month (38%), however this still equated to almost four in every ten people.</p> <p>The average age for young people (aged 14-24) starting drinking has increased from 14.4 in 1998 to 15.7 in 2013.<sup>1</sup></p> <p>Aboriginal and Torres Strait Islander adults aged 18-24 were the largest group amongst the Aboriginal and Torres Strait Islander population to drink at harmful levels on a single occasion and males were more than two and a half times as likely to engage in this behaviour (26% and 9.7% respectively). Aboriginal and Torres Strait Islander men aged 55 years and over were significantly more likely (46%) than non-Indigenous men to have exceeded the single occasion risk threshold (37%) and Aboriginal and Torres Strait Islander women aged 35 years and over were significantly more likely than non-Indigenous women in this age range to have exceeded the threshold for single occasion risk.<sup>3</sup> Over half (53.5%) of the Aboriginal and Torres Strait Islander people aged 15 years and over, exceeded guidelines for single occasion risk (more than four standard drinks on a single occasion in the last year) in 2012-13. This was highest in males at 64% and 44% for females. This pattern was evident in all age groups, with male rates for single occasion risk more than 20 percentage points higher than the comparable female rates for most age groups. Around one sixth (18%) of the population aged 15 years and over exceeded the lifetime risk guidelines, consuming more than two standard drinks per day on average. The rate was highest in males than females (26%) and 10% respectively).</p>	<p><i>Australian Institute of Health and Welfare 2014. National Drug Strategy Household Survey detailed report 2013. Drug statistics series no. 28. Cat. No. PHE 183. Canberra: AIHW.</i></p> <p><i>Australian Bureau of Statistics. National Survey of Mental Health and Wellbeing: Summary of results, 2007, Cat. No. 4326.0. Canberra: Australian Bureau of Statistics, 2008</i></p> <p><i>Australian Bureau of Statistics. Australian Aboriginal and Torres Strait Islander Health Survey: First Results, Australia, 2012-13. Cat. No. 4727.0.55.001 Canberra: Australian Bureau of Statistics, 2013</i></p> <p><i>Methamphetamine-related Hospitalisations, persons aged 16 years and over, NSW 2009-10 to 2013-14, rate per 100,000 population by Primary Health Network (Centre for Epidemiology and Evidence NSW Health), Methamphetamine-related hospitalisations, persons aged 16 years and over, NSW 2013-14, rate per 100,000 population by Local Health District (Centre of Epidemiology and Evidence NSW Health).</i></p>

## Outcomes of the health needs analysis

In 2007, people who reported that they drank nearly every day had more than 10 times the prevalence of 12-month Substance Use disorders (10.5%) compared with people who reported that they drank less than once a month (1.0%). Almost half (49%) of the people who misused drugs nearly every day had a 12-month Substance Use disorder.<sup>2</sup>

### Illicit Drug Use

Illicit drug use is a major risk factor for morbidity and mortality. There is a strong relationship between illicit drug use and mental health issues. People using meth/amphetamines in the past year were more likely than any other drug users to have a mental illness (29% compared with 13.5% of non-users) and have greater levels of high or very high psychological distress (27% compared with 9.6%).<sup>1</sup>

In 2007, one in five (20%; 3.2 million) Australians aged 16-85 years, had a 12-month mental disorder, that is, persons with a lifetime mental disorder who experienced symptoms in the 12 months prior to the survey interview. Of these people, 5.1% (819,800) had a 12-month Substance Use disorder. Substance Use disorders involve the harmful use and/or dependence on alcohol and/or drugs. Alcohol Harmful Use was the most prevalent Substance Use disorder (2.9%), followed by Alcohol dependence (1.4%) and Drug Use disorders (1.4%). People in the 16–24 years younger age groups had higher prevalence of 12-month Substance Use disorders (12.7%), compared with 25–34 year age group (7.3%), 35–44 year age group (4.6%) and 45–54 year age group (3.8%).<sup>2</sup>

Males had twice the rate of 12-month Substance Use disorders (7.0%) compared with women (3.3%), and men aged 25–34 years had more than three times the prevalence compared with women in the same age group (11.3% and 3.3% respectively).

People who reported ever being homeless had over three times the prevalence of 12-month Substance Use disorders (17.6%), compared to those who had never been homeless (4.7%). The population who reported that they had ever been incarcerated experienced almost five times the prevalence of 12-month Substance Use disorders (22.8%) compared to those who had not been incarcerated (4.7%).<sup>2</sup>

People living in group households were more likely to have a 12-month Substance Use disorder (13.2%), compared with one parent family with children (9.1%), lone person household (5.7%), a coupled family with children (4.5%), and couple only households (2.7%).

People who had never been married were more than four times more likely to have a 12-month Substance Use disorder (11.1%) than people who were married or living in a de facto relationship (2.5%). This may be partly explained by the number of young people who have never been married, and their higher prevalence of 12-month Substance Use disorders.<sup>2</sup>

## Outcomes of the health needs analysis

Unemployed people experienced almost twice the prevalence of 12-month Substance Use disorders (11.1%) than employed people (6.0%).<sup>2</sup> Those people who identified as being homosexual or bisexual had higher rates of illicit drug use and were more likely to smoke daily and drink alcohol in risky quantities compared to heterosexual people.<sup>1</sup>

In 2013 meth/amphetamine use did not increase (stable at around 2.1%), however the main form of use changed from powder (51% to 29%) to ice (or crystal methamphetamine) which more than doubled, from 22% in 2010 to 50% in 2013.<sup>1</sup> Rates of Methamphetamine-related hospitalisations in the HNECC region have increased dramatically from 2009-10 (7.4 rate per 100,000 population) to 2013-14 (46.8 rate per population).<sup>4</sup>

Cannabis use within the Indigenous Australian community remained stable, but Indigenous Australians were twice as likely to use cannabis as non-Indigenous Australians (19.0% compared to 10.0%). Cannabis was the most used illicit drug of people aged 14 or older (around 9.8%); cocaine was most likely to be used in NSW than other states and territories (2.7%); ecstasy (2.1%); meth/amphetamines was less likely to be used (1.4%) than in other areas and around 4.2% of any pharmaceutical. 51% of meth/amphetamine users and 53% of synthetic cannabis users smoked daily.<sup>1</sup>

The use of ecstasy decreased (from 3.0% to 2.5%), heroin (from 0.2% to 0.1%) and gamma hydroxybutyrate (GHB). Victims of an illicit drug-related incident in 2013 (8.3%) was similar to 2010 (8.5%) whereas the proportion experiencing physical abuse by someone under the influence of illicit drugs rose from 2.2% (2010) to 3.1% (2013). Verbal abuse was the most reported incident. There was a rise in the misuse of pharmaceuticals from 4.2% in 2010 to 4.7% in 2013 due mainly to an increase in males in their 30's (4.5% in 2010 to 6.9% in 2013) and females in their 40s (3.1% in 2010 to 4.5% in 2013) misusing these drugs.<sup>1</sup>

Rates of Methamphetamine-related hospitalisations in the HNECC region have increased dramatically from 2009-10 (7.4 rate per 100,000 population) to 2013-14 (46.8 rate per population). More promotion and support is required for services to treat substance misuse, including programs that target Indigenous Australians, to provide better outcomes for individuals and communities affected by alcohol and drug misuse.

# Section 3 – Outcomes of the service needs analysis

*This section summarises the findings of the service needs analysis in the table below.*

**Table 2**

Outcomes of the service needs analysis		
Identified need	Key Issue	Description of Evidence
Service integration and coordination	It is recognised that a lack of integration and coordination of services, and information exchange in the health system is making the system difficult for patients to navigate and affecting continuity of care, particularly for those living in regional and rural areas. Patients, health professionals and other stakeholders highlighted the lack of collaboration occurring between services and individual providers across the region, particularly with multiple agencies working in 'silos', and poor communication between hospitals and primary care services. There is a need to improve the patient journey, enhance information management and information sharing, and increase service integration and coordination	<p><i>Mapping system and patient flow</i></p> <p><i>Consultation with service providers; Engagement with NGOs and LHD professionals; Allied health provider focus groups; Engagement with refugee and multicultural service agencies</i></p>
Health Workforce	<p>Our primary care workforce will be challenged in coming years by the projected population growth, projected growth in numbers of people aged 65 years and older, and increasing rates of chronic disease. In addition to this, a number of workforce capacity issues have been identified in our region, including: a limited number of GPs and health professionals; an ageing GP workforce; changing hours of work for younger GPs; reliance on international medical graduates in areas of shortage; and an expansion of corporate general practices often requiring additional support for non-vocationally recognised doctors. These challenges also impact on small hospitals where GPs often provide VMO and procedural services.</p> <p>We also have a workforce that is inequitably distributed across our region. In some areas (generally rural) we have fewer health professionals, including GPs, practice nurses, dentists and allied health practitioners, than other areas. There are particularly low rates of GPs in the LGAs of Tenterfield, Uralla, Guyra and Dungog. Some clinician groups are also poorly represented in metropolitan or urban districts of the region, and when compared to NSW as a whole. Medical workforce shortage and geographical distribution are critical factors in accessing primary health care. Inequitable distribution of allied health providers is evident in rural areas of the HNECC region. Outreach clinics/services are limited and significant additional workforce across all allied health types is required. Supporting current practitioners is similarly important.</p>	<p><i>General Medical Practitioners, Rate per 100,000 population, 2011 (PHIDU 2015; HWA 2012); Number of General Medical Practitioners, 2011 estimate (PHIDU 2015); Waiting time data (NHPA); The average age of General Practitioners (GPs) in 2011; Proportion of GPs in the region aged 55 years and over 2011</i></p> <p><i>Nurses (Registered and enrolled) in general practice, rate per 100,000 population, 2012 (Health Workforce Australia); Nurses (Registered and enrolled) in general practice per General Practitioner, 2012 (Health Workforce Australia, PHIDU 2015)</i></p> <p><i>Allied health workforce data for the PHN region; Dentists, Rate per 100,000 population, 2012 (Health Workforce Australia); Number of dentists, 2012 (Health Workforce Australia)</i></p> <p><i>Community consultation; Consultation with service providers; Engagement with NGOs and LHD professionals; Allied health provider focus groups; Engagement with refugee and multicultural service agencies</i></p>
Access to Aboriginal and	Multiple barriers exist to accessing primary health care services for the Aboriginal and Torres Strait Islander population, including	<i>Aboriginal and Torres Strait Islander hospitalisations</i>

Outcomes of the service needs analysis		
Torres Strait Islander PHC services	<p>cost, transport, health literacy, lack of culturally friendly services and mistrust of mainstream service providers. Delivery of, and access to, culturally appropriate health initiatives and services were perceived as areas of need across the region. Other barriers identified included access to afterhours GP services particularly where upfront fees are required, as well as access to GPs and outreach services in rural areas. Closed books and waiting times have been identified as barriers to booking timely appointments with GPs, both at Aboriginal Medical Services and in mainstream GP practice. Both the cost of appointments and the cost of medications were considered to be major barriers to accessing a GP, despite a number of programs in place to reduce the costs of health care to Aboriginal and Torres Strait Islander people. System complexity, particularly in the provision of health services and initiatives to Aboriginal people with complex needs, was also identified as an area of need.</p> <p>It has been reported at a national level that Aboriginal people are not benefiting from mainstream health services as much as other Australians due to barriers accessing services or issues of cultural acceptability.</p>	<p><i>Potentially preventable hospitalisations 2013-14 (Centre for Epidemiology and Evidence NSW Health,); Diabetes hospitalisations 2013-2014 (Centre for Epidemiology and Evidence NSW Health); hospitalisations attributable to overweight and obesity across NSW; Smoking attributable hospitalisations 2013-2014 (Centre for Epidemiology and Evidence NSW Health); Hospitalisations for respiratory disease 2013-2014 (Centre for Epidemiology and Evidence NSW Health)</i></p> <p><i>Discussion with Aboriginal and Torres Strait Islander health service providers; stakeholder engagement through local health committees; semi-structured interviews conducted with members of the Awabakal Aboriginal Medical Service (AMS); Engagement with Aboriginal and Torres Strait Islander community organisations</i></p>
Dementia services	Lack of dementia awareness, dementia specific services and GP involvement in dementia care have been identified as gaps in working towards better health outcomes for patients with dementia.	<i>Engagement with Home and Community Care (HACC) representatives</i>
Prevention/ healthy lifestyle services	Services that prevent illness or the formation of long term health conditions, or assist in the early detection of health problems within the region are limited for some population groups. There is reported restricted capacity for service providers to provide prevention or early intervention. There is a gap in knowledge about where and how to access health lifestyles programs and advice, and gaps in drug and alcohol services.	<i>Engagement with community members, NGOs and LHD professionals</i>
Chronic disease hospitalisations and services	<p>High rates of chronic disease are placing a burden on the health of our community and on the health system, resulting in an increase in hospitalisations, in particular hospitalisations which could have been prevented if the chronic disease had been treated and managed within the community or primary care setting (Potentially Preventable Hospitalisations). COPD was the number two cause of potentially preventable hospitalisations in our region in 2013-2014, and diabetes the 6th highest. Hospitalisation rates for diabetes for Aboriginal and/or Torres Strait Islander people are around five times greater than those for the non-Aboriginal population and twice as high for COPD.</p> <p>There appears to be limited access to chronic disease management programs in rural areas, with limited health workforce available to fill this gap. Also within the current rural GP workforce the proportion of GP consultations during which chronic conditions are actively managed by the GP is significantly less in the New England sub-region compared to the rest of the HNECC region.</p>	<p><i>Percentage of GP consultations in which no chronic conditions were managed 2009–2013; Percentage of GP consultations in which one chronic condition was managed 2009–2013; Percentage of GP consultations in which two chronic conditions were managed 2009–2013; Percentage of GP consultations in which three or more chronic conditions were managed 2009-2013 (Customised analysis of BEACH data prepared by the NHPA)</i></p> <p><i>Potentially preventable hospitalisations – all causes 2013-2014; Potentially preventable hospitalisations, diabetes complications, rate per 100,000 population, 2013-14; Potentially preventable hospitalisations, COPD rate per 100,000 population, 2013-14; Potentially preventable hospitalisations, Congestive cardiac failure, rate per 100,000 population, 2013-14; Potentially preventable</i></p>

Outcomes of the service needs analysis		
	<p>Additionally, there appears to be substantial variability in models of care and clinical management in general practice and associated providers throughout sub-regions of the PHN area.</p>	<p><i>hospitalisations, Hypertension, rate per 100,000 population, 201-14 (Centre for Epidemiology and Evidence NSW Health)</i></p> <p><i>Percentage of GP consultations in which a selected cardiovascular risk condition was managed, by Medicare Local catchment, 2009–2013 (NHPA); Percentage of GP management occasions in which statins were prescribed in the management of a selected cardiovascular risk condition, by Medicare Local catchment, 2009–2013 (NHPA)</i></p> <p><i>Workforce and service mapping</i></p>
Cancer Screening services	<p>The area identified as having the poorest access to breast screening services is Forster-Tuncurry, which was confirmed through discussion with BreastScreen NSW.</p> <p>In contrast to the BreastScreen Australia program, cervical screening does not occur outside of the national screening program, with women who choose to have a Pap test through any health care provider automatically taking part in the program. In order to obtain a clear picture of cervical screening services across the HNECC region, comprehensive workforce information is being collected.</p>	<p><i>Mapping of relative accessibility of breast screening services, including BreastScreen NSW and private services, based on distance and demand; Engagement with BreastScreen NSW</i></p> <p><i>GP coverage; female GP coverage; and number and location of practice nurses who have completed the Well Women's Screening course. Service availability could then be mapped against target population size at a local level, and a possible relationship between screening participation and service availability examined.</i></p>
Drug and alcohol treatment services	<p>Data regarding services and treatments for people with drug and/or alcohol-related issues were reviewed from a range of sources (listed to the right). Information and data at local or PHN levels was not available in the majority of data reviewed, with the exception of ATAPS MDS data. At a state-wide level, data regarding 'met needs' confirms alcohol, cannabis and amphetamines as the most common drugs of concern treated by substance abuse organisations. State-wide numbers of clients and episodes of care by in-hospital, residential settings, community health and some NGO settings was reviewed, but without small area data it is difficult to make conclusions about met need in the HNECC PHN. Limited information was available regarding alcohol-specific treatments generally, although all funded Aboriginal and Torres Strait Islander substance abuse organisations reported alcohol within the top 5 most important issues and included sobering-up as a commonly provided treatment in NSW. Opioid treatment programs are better reported (e.g. the submission of the NSW NMDS to NADA by all government and non-government drug and alcohol agencies receiving NSW Ministry of Health funding to provide specialised drug and alcohol services ) but information at local or small areas was not available at the time of this review.</p>	<p><i>AIHW (AODTS-NMDS, NOPSAD, NHMD-NMDS, Aboriginal and Torres Strait Islander Online Statistics Report, Community Health and Residential Mental Health NMDS), BEACH (General Practice Activity) and the Department of Health ATAPS MDS.</i></p>
Disability services	<p>A lack of carer recognition, a lack of respite services and a decrease in the number of volunteers, have been identified as challenges in the disability sector. There is a need for additional programs for active individuals with mild cognitive impairment.</p>	<p><i>Service mapping and community and provider consultation</i></p> <p><i>Engagement with HACC representatives, service providers and consumer carers</i></p>



## Outcomes of the service needs analysis

	<p>There are capacity issues in smaller rural communities, limited residential facilities and an ageing workforce (including carers) and lack of respite services. Service providers, consumers and carers reported concerns about the potential impact on accessibility of services for people living with a disability with the implementation of the NDIS including: need that is currently not visible (e.g. elderly parents that have always cared for their child and asked for no help from the system) placing demands on the system; lack of capacity and skilled workforce in the NGO sector to take on this type of work; change for service providers from just delivery of services to brokering and negotiating with clients and families regarding services; and loss of skilled Allied Health workforce in the transition.</p> <p>The NSW Government has been progressively phasing out Large Residential Centres (LRCs) over the past decade, with the Hunter sites being some of the last centers to close. The residents of the three LRC being closed in the Hunter are generally older people (aged 50-59 years) with an intellectual disability. Many LRC residents have been living in these Centers for many years and most have limited social and family networks outside the Center. The support needs of LRC residents vary in type and intensity of support, however many residents have significant support needs in the areas of personal care and social activities. Residents are also more likely than the general NDIS population to require a combination of disability and health services as many experience poor health with some requiring regular nursing care. Some residents also have challenging behaviours which will require specialist support and may require specialist housing designs. The challenges this presents to the health community and the limited capacity (notably general practitioners) to meet this new demand has been reinforced by discussion with the GP collaboration unit members.</p>	<p><i>Engagement with members of GP collaboration unit</i></p>
Mental health services	<p>We heard from the community that there were a number of barriers to accessing mental health services including: time, cost, distance and lack of transport. There also appears to be a lack of knowledge of available services and where to seek help. Limited access to mental health services reported, particularly in the rural areas, corresponds to the low numbers of mental health service providers in rural areas. There appear to be low numbers of social workers, psychologists and psychiatrists in rural areas. In particular there are few or no (&lt; 5) clinical or general psychologists in private practice in Gloucester, Guyra, Gwydir, Liverpool Plains, Moree Plains, Muswellbrook, Narrabri, Tenterfield and Walcha. Also noted are gaps in services for youth mental health and suicide prevention. There is an identified need for ongoing training of health professionals in suicide prevention. System complexity and poor coordination of services have also been identified as barriers to accessing mental health services. Referral pathways are unclear and mental health services are siloed, with poor access to health records. This lack of service</p>	<p><i>Service mapping; Consultation with community members and community organisations</i></p> <p><i>Percentage of GP consultations in which depression or anxiety were managed 2009–2013 (Customised analysis of BEACH data prepared for the NHPA)</i></p> <p><i>Stakeholder engagement with multicultural community and refugee service providers, and Aboriginal and Torres Strait Islander service providers; Engagement with community members, NGOs and LHDs; Stakeholder engagement (Partners in Recovery program development); Engagement with HACC representatives</i></p>

## Outcomes of the service needs analysis

	<p>coordination and the shortage of services in some regions has been blamed for high levels of acute mental illness.</p> <p>Key areas of need for mental health in relation to service needs have been identified, with a greater need for integrated services, greater availability of self-help services for the mild and moderately affected population and increased person centered care.</p>	
Youth and family health services	<p>There is a significant gap in the region for affordable and timely services for children aged 5 to 12, particularly related to mental health, dental services and family based therapies. Barriers include cost, waiting periods, transport and a lack of suitable services. Lack of available mental health services are concerning for communities across the region. There is a lack of understanding of the range, type and availability of health services in the region as well as no central point for accessing this information.</p>	<p><i>Consultation with service providers including NGOs</i></p>
After hours GP access	<p>Limited access to a GP outside standard operating hours has been reported as a barrier, particularly in rural areas where there is no assigned after hours service such as GP Access After Hours (GPAAH) which currently operates in Newcastle, Maitland and Lake Macquarie.</p> <p>A Hunter based survey identified that over a quarter of people in rural areas reported that after hours services were not available in their area, and half believed that the current range of local after hours services did not meet their needs. These residents were far more likely to present to their local hospital emergency department in the afterhours period for problems that did not require emergency treatment. There were also fewer rural residents that knew how to contact an afterhours GP service compared to their urban counterparts. Nearly a quarter of respondents in rural areas believe that a lack of awareness of local After Hours services was a barrier to access. Interviews with service providers identified a lack of afterhours GP services; limited information about the availability of afterhours GP services; and a lack of workforce coordination and collaboration in sharing after hours availability, as barriers to providing after hours care in rural and regional locations.</p> <p>Extensive 6 month consultation on the Central Coast, highlighted key areas for establishment of extended hours services or growth of existing services, primarily within the northern half of the region. Analysis of the region's Emergency Department presentation data (triage categories 4 and 5) and the high utilisation of existing face to face clinics in combination with a decreasing trend for residents to call their own GPs after hours, demonstrates the population's preference for face to face medical opinion and support in the after-hours period.</p> <p>Support to RACFs was found to be of variable quality across the area. Without reliable and effective support RACF residents are disadvantaged compared to the rest of the population, and often reliant on presentation to the local Emergency Department rather than care in place. It was recognized a solution to support both</p>	<p><i>Service mapping across the PHN region</i>  <i>Urgent After-Hours Services Delivered by GPs &amp; Medical Practitioners July'14 – Jun'1</i>  <i>(Australian Government Department of Human Services 2015)</i></p> <p><i>Health Behaviours and Health Care Needs of Hunter Residents Report (Hunter ML 2012)</i></p> <p><i>An extensive 6 month consultation process regarding after hours services was undertaken by CCNSWML covering the whole Central Coast region. The consultation included: Community based surveys identifying awareness and availability of afterhours services, ability of current serviced to meet community needs, and actions taken in the after- hours for a non-emergency health need;</i>  <i>Interviews with service providers (LHD, RACFs, pharmacies); forums; Consultation with community (Mingaletta Aboriginal Health services day, Rotary meetings, Probus meeting, community centre mother's groups) and individual interviews with GPs</i></p>

Outcomes of the service needs analysis		
	GPs and RACFs was required to improve outcomes for this high need group. It will also improve capacity to meet increased need into the future as the population continues to age.	
Emergency department presentations	Semi-Urgent and Non-Urgent ED attendances are often considered best managed in the general practice setting. Emergency Departments can be a preferred option for care for some people if a timely appointment is not available, and for those community members who are financially disadvantaged, as medications and diagnostic services are provided at no cost in a single visit. A heavy reliance on emergency departments leads to higher health care costs.	<i>Emergency Department Presentations 2013 – 2014 (triage 1- triage 5) (NHPA 2015)</i>
Aged care services/ workforce issues	<p>Service provider consultation has revealed that older people in the community can experience difficulties accessing health and community care services. Barriers to accessing GPs for older people include cost, transport and waiting times for an appointment.</p> <p>Residential aged care places within the HNECC region vary considerably. The areas with the lowest care places per 1000 people aged 70 years and over are Maitland, Dungog and Liverpool Plains LGAs. Similarly, Tamworth Regional, Muswellbrook and Gloucester LGAs also experience low rates of care places for their aged populations. Residents in aged care facilities also often struggle to access GP services, allied health and mental health services, which can result in poorer health outcomes and unnecessary visits to hospital emergency departments. On the Central Coast prior to the implementation of the currently commissioned mobile X-ray program RACF residents were required to attend the Emergency Department for X-Rays.</p> <p>Workforce capacity and the ability to attract and retain skilled and suitably qualified staff in aged care (due to wages, ageing workforce, and lack of understanding or expertise in the existing workforce) are major gaps and challenges in working towards better health outcomes for this population. There is a need for improved care planning and management of older people.</p>	<p><i>Total residential aged care places per 1,000, aged 70 years and over, 2011 (PHIDU)</i></p> <p><i>GP attendances in residential aged care facilities (per person with at least one GP attendance, 2011-12; Community care places (rate per 1,000 people aged 70 years and over, 2011); Community and provider consultation and data on number of funded care packages and placement</i></p> <p><i>Service provider consultation; Stakeholder engagement with local health committees; Engagement with NGOs and RACFs</i>  <i>2 RACF forums central coast region.</i></p>
Rural access	People living in rural and remote areas have reduced access to health services and travel greater distances to seek medical attention. GPs, practice nurses, dentists and private allied health providers are not spread evenly across the region, with fewer health professionals per head of population in some of our rural areas. Geographical location and isolation in rural areas limits access to face-to-face services and is seen as a major gap and challenge in working towards better health outcomes, particularly for people who are disadvantaged or vulnerable. Common barriers to accessing care in the rural areas include difficulty getting an appointment, transport and the time taken to travel to services.	<p><i>Australian Standard Geographical Classification—Remoteness Areas (ASGC-RA); National data on access to health services regional/remote compared to urban populations (AIHW 2014); Travel time to access a GP 2012 (Health Behaviours and Health Care Needs Report, Hunter ML)</i></p> <p><i>Percentage of Adults Who Saw a GP in the Past 12 Months by sub-region 2012-2013; Average Number of GP Attendances per Person 2012-2013 (NHPA 2015)</i></p> <p><i>Engagement with a range of NGOs; Engagement with local health committees; Engagement with Aboriginal and Torres Strait</i></p>

Outcomes of the service needs analysis		
		<i>Islander service providers and community organisations Engagement with rural communities and local health committees; Engagement with HACC representatives</i>
Transport	<p>Access to transport has a significant impact on the health and wellbeing of the population. Limited transport was consistently identified as a significant barrier to accessing health services in our region, particularly for Aboriginal peoples, for older persons and those residing in rural areas. A specific challenge is the coordination of transport services with timing of medical appointments.</p>	<p><i>HACC Transport instances, ASR per 100, 2012/13 (PHIDU 2015); Number of HACC Transport instances, 2012/13 (PHIDU 2015); Persons aged 18 years and over who often have difficulty or can't get to places needed with transport, ASR per 100, 2010, (PHIDU 2015); Number of Persons aged 18 years and over who often have difficulty or can't get to places needed with transport, 2010, (PHIDU 2015)</i></p> <p><i>Consultation with community members, Service providers; Engagement with a range of NGOs; Engagement with HACC representatives</i></p>
Cost of healthcare	<p>Cost of accessing health care for consumers is a major barrier and is highlighted as one of the most prominent frustrations across the HNECC region. Additionally, there appears to be substantial differences in the per capita costs of care between similar services in the region.</p>	<p><i>Persons aged 18 years and over who delayed medical consultation because they could not afford it, ASR per 100; Persons aged 18 years and over who delayed purchasing prescribed medication because they could not afford it, ASR per 100, 2010 (PHIDU 2015; Percentage of GP Attendances Bulk Billed (NHPA 2015)</i></p> <p><i>Community consultation</i></p>

## APPENDIX 1

Engagement activities which were used to inform the BNA included:

- Targeted consultation (2015-2016) undertaken by the PHN with general practices across the region, obtained from practice visits and regular engagement with Practice Nurses and General Practitioners. This information is recorded and stored in HNECC Customer relationship management software
- Targeted consultation in 2016 with Cancer Institute of NSW regarding Cancer Screening
- LHD Committee Meetings 2013 – 2014 covering 16 LGAs with regular attendance
- 15 forums covering 16 LGA's, were held with over 700 participants in 2012-2015. Representatives were from a range of health and community service providers including: Non-Government Organisations (NGOs); primary care providers; Specialists; LHD representatives; community and local councils
- Community surveys with over 3,500 participants (After Hours, psychology patients, community phone surveys, Aboriginal community and allied health professional surveys).
- Targeted consultations between 2012 – 2014 with GPs, LHD service providers, allied health providers, Rural Doctors Network, NGOs, community, Practice Nurses, Farmers, Refugee Support Groups, Teachers, high school students, Clinicians, Specialists, Consumers, Police, Pharmacies, Seniors groups and playgroups
- Semi-structured interviews with 3 refugee and multicultural community service providers
- Aboriginal and Torres Strait Islander community and health service providers
- Local Councils and Naomi Councils Alliance, 2013-2014
- Focus groups with 52 allied health professionals, NGOs, young people and community members
- Interviews with clinicians at 20 rural practices about mental health services
- 30 Community and Clinical Advisory Group meetings 2013 – 2014 with regular attendance



The background of the entire page is a vibrant Indigenous Australian artwork. It features a dark blue upper section and a lower section with swirling green and blue patterns. A prominent dark brown, curved shape, possibly representing a boomerang or a stylized animal, is positioned horizontally across the middle. The bottom of the image is filled with intricate, colorful patterns in shades of blue, green, and white, suggesting a landscape or a body of water.

**phn**

HUNTER NEW ENGLAND  
AND CENTRAL COAST

An Australian Government Initiative