Regional, rural and remote mental health services: challenges, inequities and opportunities
Prepared for the National Mental Health Commission
Technical report to accompany advice and recommendations
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INTRODUCTION AND BACKGROUND

The project brief states that:

The consultancy is to provide expert advice on the current, emerging and potential challenges for regional, rural and remote Australians with a lived experience and their support people accessing mental health programmes and services. This scope includes clinical, non-clinical, community and personal programmes and supports in the health, community and other relevant sectors.

The project is to address the following requirements, in line with the National Review of Mental Health Services Terms of Reference and the Commission’s Contributing Life philosophy.

1. Document and analyse the main indicators of access to mental health services and supports in Australia, and quantify the inequity of access across geographical areas.
2. Examine differences in access across States/Territories, and analyse the factors contributing to these differences.
3. Examine the factors that contribute to the inequity of access to mental health services and supports between metropolitan areas and regional, rural and remote areas in Australia.
4. Provide advice and recommendations on the appropriate use of technology; workforce distribution; access to an appropriate workforce; and models of care in mental health and approaches to address challenges for regional, rural and remote communities.
5. Propose practical ways to minimise factors inhibiting access, and improve service provision and access within current fiscal limits.

Guiding model of Access

A recent review of research papers on access and health care utilisation by Levesque et al (2013) provides a two-component model of access as shown below. This model demonstrates a pathway from health care needs to health outcomes and describes supply-side and demand-side components of access.

Access is understood as the opportunity for needs to be fulfilled and utilisation is understood as service use and outcomes.

This model will be used to identify the components of access and utilisation. We will discuss other components of access in the report and discussion.
METHODS

Review of Literature and Quantitative Data

1. Published reports on service access and utilisation in regional, rural and remote areas are addressed in a number of published reports including those by the Australian Institute of Health and Welfare, the Australian Bureau of Statistics, the National Health Performance Authority, the Council of Australian Governments, the National Mental Health Commission, the Productivity Commission, Health Workforce Australia, international reports such as those prepared by the World Health Organisation, the OECD report in preparation, and reports produced by State and Territory health departments. Analysis of these reports assisted in the identification of gaps in the data and priorities for obtaining primary data.

2. The academic research literature was searched to identify research about access to rural and remote mental health services for those with lived experience and their supporters. Grey literature such as the recent Obsessive Hope Disorder report was included. A separate search building on a recent report by Professor Perkins and colleagues entitled, Rural Mental Health Service Delivery models - a literature review (attached) examined the evidence for service models and for the use of a variety of technologies such as tele-psychiatry and web-based services.

3. Primary data was sought in discussion with the National Mental Health Commission to fill gaps identified in the published data. Primary analysis of data provided by ABS such as the National Survey of Mental Health and Wellbeing or the AIHW were discussed with the Commission. We also used the published results of the Australian Rural Mental Health Study that has five years of data.

Qualitative Data – stakeholder interviews and review of submissions

This analysis was supplemented by key informant interviews and an expert advisory meeting.

Key informant interviews with a number of clinicians, service users and their supporters, determined in discussion with the National Mental Health Commission, were held to clarify the interpretation and implications of the analysis.

An meeting was convened with the National Mental Health Commission to examine the recommendations and practical solutions required in key requirements 4 and 5.

The team used a consistent approach to the conduct of these interviews and consultations via a standardised set of questions and a reporting pro forma to summarise the outcomes of each interview/meeting.
**Main Indicators of Access**

**Introduction**

The main indicators of access to mental health services and supports in Australia, and inequity of access across geographical areas, are considered in this Chapter. The indicators described and discussed were constrained by the availability of data at the time of writing this report, with data requests outstanding and also dependent upon the further provision of information by State and Territory health departments.

In-depth review of differences between States and Territories was not possible within the time frame available for provision of this report and further, was not possible given the lack of availability of data which would facilitate such a review. It is likely that the variety of policy-related, context-related and funding-related variances are significant across the States and Territories and qualitative as well as quantitative data would be required to inform any review. Rather, this report focuses on the factors that contribute to inequity of access to mental health services and supports between metropolitan areas and regional, rural and remote areas in Australia. This analysis will have consequential effects for analysis by State and Territory depending on the proportion of their populations living outside major cities and the distribution of their populations.

The guiding model of access (Levesque et al., 2013) discussed in the introduction (referred to as ‘the Levesque model’) will be used to categorise and analyse the data. The central factors, described in the model, concerning access and utilisation, are as follows:

- Health care needs;
- Perception of needs and desire for care;
- Health care seeking;
- Health care reaching;
- Health care utilisation (primary and secondary access); and
- Health care consequences (economic, satisfaction and health).

This report builds on the foundation of the Interim Report of the Review of Mental Health Programmes and Services prepared by the National Health Commission (the ‘Interim Report’). Accordingly, when considering data reflecting access to mental health services, some underlying themes identified in the Interim Report are considered, as they affect findings about geographical inequity. Consideration is given to the following:

- Differences between impacts and emphasis upon up-stream services (prevention, early intervention and recovery) and down-stream services (crisis intervention, Emergency Department attendances, acute admissions, interactions with police and corrections and welfare support);
• Understanding that measurement of activity and volume in relation to a suite of services and supports does not necessarily reflect added value and improved outcomes;
• Much of what is required to enable a contributing life lies outside the health system in ‘non-health’ systems and programmes across different portfolios e.g. housing, income support, education, employment, welfare, justice;
• Service integration (whole of person/whole of life culture and models of stepped care) will impact on the quality and value add of systems in different areas, not just measures of the availability and use of specific services; and
• The consumer focus of services needs to be considered as an integral part of understanding access and utilisation issues as the presence of this focus affects outcomes.

The Interim Report identified seven strategic priorities in which performance of services and funding programmes can be assessed. These were:

- Commonwealth should use its resources as incentives to achieve measurable results and outcomes;
- A mentally and physically healthy start to life, followed by a whole of person approach as people move through the different stages of their lives;
- People with severe mental disorders should have services ‘wrapped around them’ with a focus on maximising participation and recovery;
- People with moderate or prevalent mental health issues should be supported to stay well and in the community by the most cost effective service platform available;
- All organisations which come into contact with potentially suicidal people should work to a target of “zero suicides in our care”;
- Innovative technologies in eMental Health should be established as first-line responses for primary, secondary and tertiary prevention and intervention; and
- The workforce to support people with a mental illness, their families and carers needs to be supported to change practice to reflect innovative approaches, new service paradigms (e.g., NDIS), and family inclusiveness, and to eliminate the stigma that is still pervasive.

Seven pillars are proposed, in the Interim Report, to guide the future investment plan:

1. Leadership;
2. Workforce;
3. Research;
4. Market;
5. Productivity;
6. Infrastructure; and
7. Technology.
This Interim Report provides a powerful and guiding context for this research which requires that current, emerging and potential challenges for regional, remote Australians, with a lived experience and their support people accessing mental health programmes and services be explored. The foundational themes, strategic priorities and pillars also support the scope of this research which is to include clinical, non-clinical, community and personal programmes and supports in the health, community and other relevant sectors. In order to ensure that this study continues to build on prior work, the learnings contained in the Interim Report, described above, will be used as an underlying framework (referred to as the ‘prior learnings framework’) in respect of which the findings in this report will be discussed. It is noteworthy that the Commission has stated:

“Targets should therefore be about impact and outcomes, rather than input-focused, and should include a combination of long-term or aspirational goals for system reform and population outcomes, as well as short-term and intermediate measure to ensure progress is focused and on track”

While this research is not ostensibly about targets, we will consider the way that identified current, emerging and potential mental health service challenges in regional, rural and remote Australia relate to this issue of short and long-term target setting, with this aspect addressed in the recommendations.

It is suggested in this report, if issues of inequitable access and utilisation are to be addressed meaningfully, the focus for regional, rural and remote Australia must be on the long-term. The evidence gathered in this report and in the course of prior work makes it clear that there are deep-seated systemic issues driving mental health outcomes in many areas outside of the capital cities. These systemic issues are mainly in the form of negative, path-dependent cycles of unfavourable socio-economic circumstances (especially in regions with large Indigenous populations and those experiencing structural adjustment); contributing to and interacting with mental health issues; exacerbated by limited access and treatment options.

The conceptual framework

The main indicators of access will thus be reported with a clear focus on identification and understanding of these deep seated issues. As noted above, the Levesque model will be used to structure the discussion. This model is interpreted, for the purposes of this report, as having two distinct elements – one relates to the manifestation of mental health care in expenditure, service provision and service utilisation. Factors making up this element can be assessed using point-in time assessments, often with the assistance of census or cross-sectional survey data. The other element is process-related and constitutes demand and supply factors which influence manifestations of behaviour and service provision over time. These aspects are influenced by policy and shape changing circumstances and outcomes.
These two distinct elements and their temporal characteristics provide the conceptual framework needed to consider current, emerging and potential challenges, which infer a temporal element in themselves. Inherent in this perspective is the understanding that mental illness emerges in people and communities over time. Addressing access and utilisation issues therefore means addressing the way that demand and supply factors, and therefore communities, evolve over time. People with a lived experience are a subset within this dynamic which is not static, so we need to consider the systemic issues that both drive mental illness and then issues of how treatment is provided.

The focus of the analysis in this paper is that of geographical differences, the way that they shape inequities, and recommendations about how these may be improved over time. Accordingly, the analysis in this Chapter will consider each of the components of access to, and outcomes of mental health care, based on data that is currently available, about differences by geography. The following Chapter will then consider the process-related dynamics and the way that they are likely to affect these components and contribute to any inequities, with a focus on outcomes.

**Focusing on outcomes within the framework**

The focus on outcomes is an important issue highlighted in the prior learnings framework. ‘Health care consequences’ is the last component of the Levesque model and can be characterised as its ‘outcomes’ element. It is difficult to populate due to the scarcity of data, with rates of suicide often used as a proxy for describing the consequences of inadequate mental health care service provision outside of the major cities in Australia.

Expanding on the conceptual framework a little further using the issue of suicide prevention as an example; it can be observed that suicide and attempted suicide are often related to underlying socio-economic, cultural and social realities as well as the adequacy of mental health care service provision. People in communities are affected by the economic, social and cultural fabric of the place where they live. Their ability to respond to change and adversity is affected by their personal attributes including their skills, qualifications and resilience, which will co-evolve with their mental and physical health. The provision of support where required, in the form of mental health services and other services that enable active community and vocational contribution, will then shape the response to change. The development of the economic, social and cultural fabric of the place will occur contemporaneously. Thus, mental health and suicide can be viewed as having multi-faceted roots and influences that evolve and build on one another over time. This is illustrated below.
Figure 1 Systemic model of mental health co-evolving with communities

The cyclical nature of causes and effects described in this model (referred to as the systemic model) means socioeconomic realities (or the shape of economic, social and cultural capital), in themselves, become outcomes. In other words, discarding linearity means that factors we describe as underlying need are also conceptualised as outcomes. Recasting the model in this more holistic way, with the foundation for this laid in the prior learnings framework, allows us to properly contextualise mental health within places. These places are described by physical geography, but, perhaps more importantly, by the economic, social and cultural realities that accompany that geography. Focusing on resilience, adaptation and innovation therefore has the potential to form the basis of more innovative mental health service provision models that empower people to drive change.

This model and conceptual framework, given shape by the Levesque model is a core contribution of this work, as it is pivotal to understanding the current, emerging and potential challenges for regional, rural and remote Australians with a lived experience and their support people accessing mental health programmes and services. As such it enables us to refine the analysis of the main indicators of access to mental health services and supports. The cyclical model implies that we should include aspects of the overall characteristics of communities with which mental health characteristics co-evolve, such as those related, for example, to the characterisation of people as ‘human capital’ in the economic sense – qualifications, skills, employment or alternatively by considering aspects of community wellbeing. Viewing mental health as part of this integrated system provides the starting point for deep seated change.
Data with respect to social and economic characteristics by geography have been discussed with the Commission and are available from the Australian Bureau of Statistics (ABS). Some of this information is discussed below in the ‘needs’ section but is also relevant to ‘outcomes’.

The lens of geography

The foregoing discussion makes it clear that focusing on geographical remoteness alone is a shallow lens and that data analysis related to different levels of remoteness is a complex one. A lot of emphasis is placed on differentiating non-metropolitan areas from the major cities. However, the reality is that non-metropolitan Australia is very diverse. One way of capturing some level of regional differentiation and complexity is by distinguishing between inner-regional and outer regional/remote areas using the ABS classifications. This often does highlight significant differences, because inner regional areas are usually more urban and, also, their proximity enables access to services located in major cities. Nevertheless, this broad brush approach does mask important differences between regions and areas socio-economically, demographically and culturally. The degree of granularity required to underpin policy in specific areas is not available within these data sets. They are therefore essentially a strategic starting point to suggest foundational associations between variables that can inform more place-based inquiry.

Health care needs

Prevalence of disorders

Data reflecting the prevalence of different kinds of disorders across different geographies is a starting point for understanding health care needs. The 2007 ABS Survey of Mental Health and Wellbeing showed that proportions of people aged from 16 to 85 years who met criteria for diagnosis of a (specific) lifetime mental disorder and had symptoms in the 12 months prior to interview did not vary significantly between major cities, inner regional areas and outer regional/remote areas. The proportions of people with: lifetime affective disorders ranged from 5.1% to 6.5%; lifetime anxiety disorder from 13.1% to 15%; lifetime substance abuse disorder from 4.2% to 5.4%; and lifetime mental health disorder from 18.2% to 20.6%.

Noteworthy observations across geographies by age and sex were:

- Higher proportions of those with a lifetime affective disorder in inner regional areas were male (53.6%) compared to major cities (39.8%) and outer regional/remote areas (34.9%);
- The distribution of those with a lifetime anxiety disorder showed that higher proportions of younger people aged 16 to 24 years and 25 to 34 years had this type of disorder in the major cities and higher proportions of those aged 55 years and over had this type of disorder in inner regional and outer regional/remote areas;
- A similar pattern by age described above for lifetime anxiety disorder was evident for lifetime mental health disorder; and
Higher proportions of people with a *lifetime mental health disorder* in major cities and inner regional areas compared with outer regional/remote areas were male.

**Severity of disorders**

Data regarding severity of disorders, also extracted from the 2007 *ABS Survey of Mental Health and Wellbeing* suggested that there were no significant differences across the different kinds of geography. As a proportion of people with a *lifetime mental health disorder*, those with severe symptoms ranged from 17.4% to 21.7%; those with moderate symptoms ranged from 32% to 37.1%; and those with mild symptoms ranged from 45.5% to 47.8%.

**Socio-economic considerations**

The importance of socio-economic considerations such as education, employment and income (Black et al., 2012) and their relationship to mental health is highlighted in the discussion above. These are often portrayed as factors that underlie many mental health issues, as well as being factors directly influenced by the prevalence of such issues. Some key points from data extracted for this report are discussed in the following paragraphs.

The discussion reflects compositional and other factors which influence both the prevalence of mental health by geography, and the characteristics of the people who have mental health issues by geography. Further information would be required to understand the causation underlying the observations described here.

**Level of educational attainment**

The National Health Survey showed that approximately 13% of the Australian population reported having a mental health condition at the time of the survey (*ABS National Health survey 2007-08*). About 3% of people with the highest educational qualifications (Diploma, Bachelor Degree or higher) and 3.8% of those with the lowest educational attainment (Year 11 or lower) had a mental health condition, while 3.4% of those with *certificate level qualifications* also reported a mental health condition.

In the younger Australian population, that is those aged between 15 to 30 years, the highest proportion (29%) of those with a mental health condition were those with *certificate level qualifications* (3.7% of the total population). This was higher than the next groups; those with a *Diploma, Bachelor Degree or higher* and those *currently studying* at 21.8% and 21.5% respectively. Younger Australians with *certificate level qualification* also had the greatest proportion experiencing *high to very high* psychological distress (*ABS National Health survey 2007-08*).
Interestingly, the results for mental health condition by remoteness in those aged between 15 and 30 years also showed that those living in inner regional and outer regional/remote Australia with certificate qualifications made up the highest proportion of those with a mental illness, with this difference was more pronounced than in major cities. However, at this level of disaggregation many of the results had associated standard errors that made interpretation unreliable (ABS National Health survey 2007-08).

There is a possibility that the associations between those with certificate level qualifications and mental illness described here, is mediated by employment and income outcomes for this group, but this requires further investigation.

The role of education and its interaction with mental illness is an area discussed with many stakeholders and highlighted as a foundational issue. It was seen as an underlying driver in that lower education often related to less favorable employment and income outcomes within communities. Education was also seen as important in that it contributed to people’s ability to understand and seek effective treatment for mental illness. A recent report for the Commonwealth Department of Education, Employment and Workplace Relations (Hancock et al., 2013), highlighted the interaction with socio-economic status (Rothman, 2001) and established that levels of school attendance contributed significantly to educational outcomes. This data and report therefore established the systemic nature of this issue.

Employment status

Data concerning the relationship between mental illness and employment status, at a national level, also captured interesting differences, which may support the thesis that socio-economic disadvantage drives or is driven by having a mental health condition.

The ABS Survey of Mental Health and Wellbeing 2007 showed that those in full-time employment made up the highest proportion of those with 12 month affective disorders, 12 month anxiety disorders and 12 month substance use disorders. Those not in the labour force was the group with the second highest prevalence of all three mental disorders. This reflects compositional factors but may also suggest that people who are neither employed nor looking for work are a vulnerable population group. This proposition was supported by similar data extracted from the ABS National Health survey 2007-08, which revealed that, of those with a mental health condition in the 15-19 and 55-59 age groups, the highest proportions (38.6% and 52.8%) were not in the labour force.

The ABS National Health Survey 2007-08 contained information about the prevalence of mental health conditions by employment status by remoteness. This data showed that in major cities and outer regional/remote Australia those not in the labour force made up the second highest proportions of people with a mental illness, while in inner regional areas those not in the labour force made up the highest proportions of people with a mental health condition. Further data from this survey showed that people not in the labour force
living in areas of the greatest disadvantage (1st and 2nd quintiles of relative disadvantage) made up the largest proportion of those with a mental condition, with the second highest proportion being made up by those working in full-time employment. This pattern was very clearly reversed in the higher SEIFA quartiles. Further data regarding psychological distress showed that those not in the labour force made up the largest proportion of those with very high levels of psychological distress, while those employed and working full-time made up the highest proportion of those reporting all other levels of psychological distress.

Taken together, this data concerning associations between mental illness and employment status suggests that people not in the labour force are a vulnerable group with relatively high prevalence of mental illness, especially amongst specific groups such as younger and older Australians and those living in low SEIFA Index and some regional areas. The data also clearly establishes that having full-time employment does not, per se, lead to lesser incidence of mental illness.

Housing tenure

ABS National Health Survey 2007-08 data also provided insights into the relationship between mental health status and housing tenure. Housing tenure is captured by the groupings: owner with mortgage, owner without mortgage, renter and other.

The data regarding differences by geography and socio-economic disadvantage extracted from the ABS National Health Survey 2007-08 showed that owners with a mortgage and renters in major cities and inner regional areas, made up the largest proportions of those with a mental health condition, due to compositional and other factors. In outer regional/remote areas residents who owned their home with and without a mortgage had approximately equivalent proportions of residents reporting a mental health condition. The proportional share of owners without a mortgage, adjusted for proportion of population, who had mental illnesses, was higher in these areas. Associations between the SEIFA Index of relative disadvantage also shed some interesting light, with renters in the lowest quintile making up a higher proportion of residents with a mental illness than all other groups. Residents who owned their home with a mortgage living in areas categorised as belonging to the 4th and highest SEIFA quintiles made up the highest proportions of residents with a mental illness.

Selected risk factors

Smoking, alcohol consumption, exercise levels and obesity are often considered to be associated with the prevalence of mental health conditions. The ABS National Health Survey 2007-08 showed that for the national population overall, those who had never smoked made up a slightly higher proportion of those with a mental illness (4.8%) than those who currently smoked (4.0%). Remoteness analysis further established that in major cities the highest proportion of residents with a mental health condition were those who had never smoked,
while in *inner regional* and *outer regional/remote* areas the proportions of residents with a mental health condition were more evenly spread between those who *smoked daily* and those who were *ex-smokers* or had *never smoked*.

The association between *smoking daily* and having a mental health condition was stronger in the 1st, 2nd and 3rd, more disadvantaged, SEIFA quartiles (where the proportions of those *smoking daily* and *never smoked* who had a mental health condition were similar) compared with the higher quartiles where the proportion of those who had *never smoked* who had a mental health condition were much higher than for those who *smoked daily*.

There were no identifiable patterns of variation regarding risky alcohol consumption and obesity, for the national population overall or by remoteness area, with mental illness. This is consistent with studies that have found that gender, age, marital status and personality make the largest contribution to at-risk alcohol use (Inder et al., 2012a). However, the data did show that, within the lowest quintile of relative disadvantage the proportion of those with a mental illness who were obese was relatively higher than in all of the other quintiles. This suggests that within this very disadvantaged group obesity was more likely to be associated with mental illness than in less disadvantaged cohorts.

Data regarding levels of exercise of residents nationally showed that those having *moderate* to *high* levels of physical exercise made up lower proportions of those with a mental health condition compared with those who were *sedentary*. Some of the data by remoteness area was difficult to interpret due to small sample sizes but the data showed that groups of residents with *low* levels of exercise made up a higher proportion of people with a mental health condition than those who had a *moderate* level of exercise, and those with a *moderate* level of exercise made up a higher proportion of people with a mental health condition than those who had a *high* level of exercise. This relationship, mediated by compositional and other factors, held true across all the geographical sub-samples and was also supported across all SEIFA quintiles.

Further data regarding health outcomes by remoteness regarding obesity, smoking and risky drinking are contained in the COAG Reform Report *Healthcare in Australia 2012-13: Comparing outcomes by remoteness* (COAG Reform Council, 2014). This supports the general pattern of increasingly unhealthy lifestyle habits by increasing remoteness.

**Illicit drug use**

The *ABS 2007 Survey of Mental Health and Wellbeing* established that the proportion of the population who had *used illicit drugs* and who had *12 month mental disorder* (10.4%) was approximately the same as those who *never used illicit drugs* (9.6%). This was however, not the case in the younger age groups to age 44 years, and particularly in the 25-34 years groups, where those who had used illicit drugs made up a higher proportion of those who had a *12 month mental disorder* compared with those who had not. This relationship was
reversed in the older age groups. The data also suggested that the number of times those who had used illicit drugs was associated with having a 12 month mental disorder, with those who had used illicit drugs more than 5 times much more likely to have mental illness than those who had used them less than 5 times. This relationship became less marked with advancing age. This information was not available by geographical sub-samples.

The Australian Institute of Health and Welfare, in its 2010 National Drug Strategy Household Survey Report (Australian Institute of Health and Welfare, 2011) noted that people living in remote and very remote areas were less likely to use illicit drugs such as cocaine compared with those in major cities and inner regional areas.

Comorbidity

The ABS National Health Survey 2007-08 reported on the levels of comorbidity, and in particular the relationship between having a mental health condition and arthritis, asthma, diabetes, cardiovascular disease and cancer (with these conditions listed in order of proportional comorbidity). No significant differences between comorbidities in major cities and inner regional and outer regional/remote areas were evident from these data.

Suicidal thoughts and behaviour

The ABS 2007 Survey of Mental Health and Wellbeing clearly showed that people with a 12 month mental health disorder were more likely to have suicidal thoughts and behaviour including ideation, plans and attempts. This relationship was relatively consistent across all geographical sub-samples. However data shows that the relationship is more marked in residents with the greatest degree of relative socio-economic disadvantage; suicidal thoughts and behaviour amongst those with a 12 month mental health disorder was higher among this group than in the population overall.

The wellbeing data contained in this survey also established a strong relationship between having suicidal thoughts and behaviour in the last 12 months and high to very high levels of psychological distress.

Homelessness

The ABS 2007 Survey of Mental Health and Wellbeing also included some noteworthy insights about the issue of homelessness. Approximately 8% of people who reported having a mental health disorder stated that they had been homeless, while only 1.8% of people with no disorder reported having experienced homelessness. The proportion of those with a mental health disorder in inner regional Australia having experienced homelessness was approximately half that in major cities, with the statistics for the more remote areas not able to be interpreted reliably due to the small size of the sample. Having experienced homelessness was also strongly associated with very high levels of psychological distress.
Other data regarding mental health needs and community characteristics

The *Interim Report*, at pages 44-45 states the following:

“*Australians residing in more disadvantaged areas experience much higher rates of mental health problems and the most disadvantaged regions are characterised by higher rates of unemployment, people dependent on income support and children living in jobless families.*

*Personal capabilities and family circumstance also affect the likelihood that people experience disadvantage, and disadvantage in these areas starts in early life. People living in families with jobless parents are likely to have lower overall development scores at ages 4-5 than those in which at least one parent is employed......*”

This information is extracted from the Productivity Commission’s report *Deep and Persistent Disadvantage in Australia* (McLachlan et al., 2013) which provides relevant insights into the connections between disadvantage and mental health. This relatively bleak picture is expanded upon by further data reflecting the close connections between remoteness and health outcomes. In many instances such outcomes were less favourable outside metropolitan areas, as reported in the COAG Reform Council’s report; *Healthcare in Australia 2012-13: Comparing outcomes by remoteness* (COAG Reform Council, 2014). The key findings of this report are:

- Australians living outside major cities have a lower life expectancy and higher death rates than their city counterparts, including higher rates of child deaths and low birth weight babies;
- People living outside major cities are more likely to have a long wait time to see a GP, are more likely to delay seeing a GP because of cost, and are more likely to be hospitalised with preventable conditions;
- People living outside major cities are more likely to wait nine months or more to enter high residential care and have a higher rate of hospital days for patients approved and waiting for residential care.

**Perception of needs and desire for care, health care seeking and health care reaching**

Many of the factors concerning access to mental health care services, described by these dimensions in the model, are not amenable to quantitative data collection. Despite this they are important factors affecting access to mental health services and supports in Australia, and inequity across geographical areas. A few of the quantitative indicators that are available are discussed below. Further, more detailed discussion is contained in the following Chapter which focuses on inequities, using available grey and academic literature.
The 2007 ABS survey of Mental Health and Wellbeing showed that slightly less than half of the people with a lifetime mental health disorder with 12 month symptoms, that had accessed mental health services during the last 12 months, indicated that their need had been fully met. This did not vary across the different geographies. Questions about the extent to which needs for different kinds of services were met, were also asked of those who had accessed services during the previous 12 months and some noteworthy observations included below:

- Higher proportions of people with a lifetime mental health disorder with 12 month symptoms in outer regional/remote areas than those in inner regional areas and major cities stated that they had no need for information about mental illness, its treatment, and available services;
- People (whether they had a mental illness or not) in major cities were more likely to say that their need for information about mental illness, its treatment and available services was fully met compared to people in inner regional areas;
- People (whether they had a mental illness or not) in outer regional/remote areas were more likely to say their needs were fully met for medicine or tablets than people in major cities and inner regional areas.
- Higher proportions of people with a lifetime mental health disorder with 12 month symptoms in outer regional/remote areas than those in inner regional areas and major cities stated that they had no need for talking therapy;
- People (whether they had a mental illness or not) in major cities were more likely to say that their need for talking therapy was fully met compared to people in inner regional and outer regional/remote areas.
- Higher proportions of people with a lifetime mental health disorder with 12 month symptoms in outer regional/remote areas and inner regional areas than those in major cities stated that they had no need for social intervention; and
- Higher proportions of people in outer regional/remote areas and inner regional areas than those in major cities stated that they had no need for skills training.

There were no significant differences between the proportions of people, across different geographies, with a lifetime mental health disorder with 12 month symptoms, who had not accessed mental health services during the previous 12 months, who stated that they had no need for the different kinds of services described above (rather than stating that they did have a need that had not been met (due to the failure to access services)).

**Health care utilisation (primary and secondary access)**

Data on health care utilisation includes material that directly reflects service use and rates of follow up care, expenditure on different types of services and mental health workforce data. The discussion below is structured to consider different kinds of services (clinical services, MBS services and hospital services) and related expenditure, follow-up care and mental health workforce data, with a focus on differences by geography. First, key points from
government expenditure data are discussed, and then data considering national differences across geographical categories are considered.

**Government expenditure**

In Australia, the per capita total expenditure on mental health related services in 2011-12 by all sources (Federal, State and private health funds) was $321.66, increasing at 3.4 per cent annually from 2007-08 to 2011-12 at constant (inflation adjusted) prices. Approximately 35 per cent of this expenditure came from the Commonwealth Government, 61 per cent from the state and territory governments and approximately 4 per cent from private health funds. The largest expenditure items by the Commonwealth Government in 2011-12 were on the *Pharmaceutical Benefits Scheme* and the *Medicare Benefits Scheme* psychologists/allied health (unpublished data from the Commonwealth Government Department of Health).

Recurrent government expenditure in Australia is spent on:
- Public psychiatric hospitals
- Specialised psychiatric units or wards in public acute hospitals
- Community mental health care services
- Residential mental health services
- Other expenditure including grants to non-government organisations

The table below sets out total government per capita recurrent expenditure on state and territory specialised mental health services by States and Territories for the 2011-12 financial year. Only approximately 2 to 3 per cent of this expenditure was funded by the Commonwealth Government. Expenditure in Western Australia was notably higher than in the other states and territories. The data also showed that the increase in expenditure in constant (inflation adjusted) prices from 2007-08 to 2011-12 was also the highest in Western Australia at 5.8%, with the Queensland increase second highest at 5.5% and the Territory third at 5.2%. However, the table also shows annual average per capita increases for the same period at constant prices, with NSW experiencing the largest increase at 3.6%.

**Per capita recurrent expenditure on specialised mental health services by States and Territories 2011-12 and per capita change in constant prices 2007-08 to 2011-12**

<table>
<thead>
<tr>
<th></th>
<th>NSW</th>
<th>VIC</th>
<th>QLD</th>
<th>WA</th>
<th>SA</th>
<th>TAS</th>
<th>ACT</th>
<th>NT</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>2011-12</td>
<td>191.83</td>
<td>181.65</td>
<td>197.25</td>
<td>243.32</td>
<td>208.00</td>
<td>209.97</td>
<td>213.51</td>
<td>209.06</td>
<td>197.96</td>
</tr>
<tr>
<td>Avg annual change 2007-08 to 2011-12</td>
<td>3.6</td>
<td>1.2</td>
<td>3.3</td>
<td>2.9</td>
<td>1.1</td>
<td>0.1</td>
<td>2.0</td>
<td>3.3</td>
<td>2.6</td>
</tr>
</tbody>
</table>

Source: AIHW *National Mental Health Establishments Database*

Note: Tasmania, Australian Capital Territory and the Northern Territory do not have public psychiatric hospitals as defined in the MHE NMDS. Queensland reports residential mental health facilities as hospital admitted patient services. See the data source section of the Expenditure on mental health services section for information.

Source: National Mental Health Establishments Database.
Nationally, the largest average annual increases in expenditure on mental health public hospital services from 2007-08 to 2011-12 had been in the areas of acute forensic services (12.6%), non-acute services for the general population (9.2%) and acute child and adolescent services (8.3%). By general category (acute and non-acute) the biggest average annual increase in expenditure on specialised mental health services was in the child and adolescent area (6%). There was wide variability between changing patterns on a state and territory basis, with detailed data available in the Australian Government Department of Health, National Survey of Mental Health Services Database (1998–99 to 2004–05); National Mental Health Establishments Database (2005–06 to 2011–12) as reported by AIHW. Additional data by State and Territory is also available regarding different types of expenditure per patient per day, by target population, program type and hospital type, for residential care, for private hospital services.

In addition to recurrent expenditure on specialised mental health services, the Commonwealth also funds mental health through the Medicare Benefits Scheme. National data showing average annual change in expenditure for 2008-09 to 2012-13 in constant prices by provider type shows that the largest increases per capita, nationally have been in expenditure on other allied health professionals (12.7%) and clinical psychologists (12.6%). This pattern is repeated, in all states and territories except Western Australia, where the largest average annual per capita increase has been in expenditure on other psychologists.

The increase in expenditure in other allied health professionals is a significant trend for regional, rural and remote Australia, given the shortage of specialised mental health care workers in many areas outside of the capital cities. These allied health professionals fulfil an important role in bridging the gaps. Up-skilling these workers presents a promising direction for value-adding in non-metropolitan areas. This is reflected in the data which is available by remoteness area. This showed that the average annual per capita increase in Medicare expenditure from 2008-09 to 2012-13 in constant prices on other allied health professionals increased by remoteness (10.9% in the major cities; 18.7% in inner regional; 19.9% in outer regional, 22.6% in remote; and 40.3% in very remote). Increases in Medicare expenditure on clinical psychologists, measured in the same way, were consistently the category where the second largest increases had occurred across all categories. This increasing expenditure was reflected in the total expenditure of the Commonwealth government on mental health service provision, with the average annual increase (2007-08-2011-12 in constant prices) for psychologists/allied health professionals (18.1%) second only to increases in expenditure on the National Suicide Prevention Program (25.4%).

The complexity of the funding for mental health care services throughout Australia is highlighted by the data provided by the Commonwealth Government regarding expenditure on State and Territory specialised mental health services. This complexity and the uncertainty and discontinuity of program funding are issues repeatedly highlighted by stakeholders during interviews for this study. It presents one of the biggest challenges for regional rural and remote service providers. Many of the factors outside of the major
metropolitan centres, which are directly related to mental health, are entrenched, intergenerational and related to socio-economic variables. Changing these underlying dynamics and creating systemic change require a long-term commitment and clear funding arrangements.

**Clinical services**

The expenditure data detailed above translates into people receiving specialised mental health services, with the pattern of access and utilisation significantly impacted by geography. The first salient point evident from the data shown in Figure 2 and the associated table below is the relatively high dependence of those outside the major cities, especially those in remote and very remote areas, on publicly provided clinical services, given the scarcity of private services beyond the inner regional environment. The second is the falling rate of clinical service provided through Medicare and the Department of Veterans affairs, beyond the inner regions. Quite clearly, where you live, matters.

**Figure 2 People receiving clinical mental health services by service type and remoteness area, 2010-2011**

<table>
<thead>
<tr>
<th>Rate per 100 population, 2010-11</th>
<th>Major Cities</th>
<th>Inner Regional</th>
<th>Outer Regional</th>
<th>Remote</th>
<th>Very Remote</th>
</tr>
</thead>
<tbody>
<tr>
<td>Public</td>
<td>1.4</td>
<td>1.9</td>
<td>2.1</td>
<td>2.6</td>
<td>2.5</td>
</tr>
<tr>
<td>Private</td>
<td>0.1</td>
<td>0.1</td>
<td>0.1</td>
<td>0.1</td>
<td>0.1</td>
</tr>
<tr>
<td>MBS and DVA</td>
<td>7.3</td>
<td>7.4</td>
<td>5.4</td>
<td>3.0</td>
<td>1.8</td>
</tr>
</tbody>
</table>


Time line data for the rate of clinical service utilisation from 2007-08 to 2010-11 (data for 2011-12 was incomplete) showed that that in all geographical categories aside from remote
and major cities there was a decline in public clinical service provision rates. This was counterbalanced by increases in MBS and DVA service provision rates in all geographical categories; although in remote areas the rate peaked in 2009-10 at 1.8 per 100 population and declined to 1.4 per 100 population in 2010-11. This data may reflect the impact of Medicare funded programs designed to provide better access to psychologists and other allied health professionals, usually through the referral of a general practitioner.

The pattern of utilisation of MBS mental health services is further clarified through the data in Figure 3 below and the associated table. Progressing from major cities to remote to very remote the data creates a stepped pattern showing declining rates of numbers of people utilising services by different classes of practitioner. The rates of actual services provided per patient by provider type (not shown in the graph), rather than numbers of people using these services, also illustrate this pattern of declining rates of usage. This was the case with the exception that the number of services provided to those in very remote regions by other psychologists and other allied service providers was higher than in remote areas despite lesser rates of numbers of people accessing these services in very remote areas. This demonstrates the more intense patterns of service utilisation of these professionals in very remote areas.
Figure 3 Number of people per 100 population receiving Medicare subsidised mental health services, by provider, by remoteness area, 2012-13

<table>
<thead>
<tr>
<th>Rate per 100 population, 2012-13</th>
<th>Major Cities</th>
<th>Inner Regional</th>
<th>Outer Regional</th>
<th>Remote</th>
<th>Very remote</th>
</tr>
</thead>
<tbody>
<tr>
<td>Psychiatrist</td>
<td>1.6</td>
<td>1.1</td>
<td>0.7</td>
<td>0.5</td>
<td>0.3</td>
</tr>
<tr>
<td>General practitioner</td>
<td>6.2</td>
<td>6.7</td>
<td>4.8</td>
<td>2.7</td>
<td>1.3</td>
</tr>
<tr>
<td>Clinical psychologist</td>
<td>1.6</td>
<td>1.2</td>
<td>0.6</td>
<td>0.3</td>
<td>0.1</td>
</tr>
<tr>
<td>Other psychologist</td>
<td>2.2</td>
<td>2.4</td>
<td>1.4</td>
<td>0.6</td>
<td>0.3</td>
</tr>
<tr>
<td>Other allied health</td>
<td>0.2</td>
<td>0.3</td>
<td>0.3</td>
<td>0.1</td>
<td>0.0</td>
</tr>
<tr>
<td>Total</td>
<td>8.0</td>
<td>8.2</td>
<td>5.7</td>
<td>3.3</td>
<td>1.7</td>
</tr>
</tbody>
</table>


The chart above does show a few exceptions to the stepped decline in service utilisation rates by numbers of people accessing the different types of services. Utilisation of general practitioners and other psychologists is higher in inner regional areas compared with major cities, thus emphasising the caution that needs to be exercised in treating the inner regional classification as part of a broader remoteness classification. In many instances these inner regional areas bear more resemblance to the major cities than to their rural and remote counterparts.
The stark reality of the shortfall of MBS services, generally, in remote and very remote regions is perhaps the most important point.

Further data concerning the rate of service provision of Medicare subsidised mental health services by all practitioner types by age showed that the highest rates of use were amongst those in the middle part of their working lives (35-44). It is therefore clear that the lack of this type of service provision in more remote areas is likely to have profound impacts on human capital and economic outcomes, most likely contributing to a negative, self-perpetuating cycle. Transitioning to new economic drivers and industries in areas suffering from structural adjustment issues is likely to be hampered by this lack of support of the working population.

The average annual change in the rates of people obtaining different types of Medicare subsidised mental health services from 2006-07 and 2012-13 reflected the discussion above regarding the increasing importance of allied health professionals. The largest increases in rates of service utilisation were in this category across all geographies except in the major cities with the increases in remote and very remote areas the most marked (33.5% and 45% respectively). Stakeholder interviews revealed that these providers are particularly important in Indigenous mental health care services. It is noteworthy that in 2012-13 allied health professionals were still a small minority of the mental health professional workforce in Australia (a total of 1,639 and 3.6% of the mental health workforce defined as of psychiatrists, clinical and other psychologists, general practitioners and other allied health providers). The second largest rates of annual increase were in the utilisation of clinical psychologists, also reflecting the expenditure data discussed above. The importance of integrating enhanced service provision by these classes of providers into effective, integrated service delivery models is highlighted by this data.

On the issue of models of service provision, there was some data available regarding the provision of telepsychiatry services by psychiatrists. This has increased annually at the rate of approximately 15 per cent from 2008-09 to 2012-13, coming from a very low base. There had also been a 38 per cent average annual increase in case conferencing during this period, possibly reflecting a more collaborative multi-disciplinary approach so essential to service provision in more remote areas.

The data regarding receipt by different populations of Medicare subsidised mental health services is reflected by expenditure on these services discussed above and further explored below. Figure 4 shows that psychiatrists were very significantly better represented in the major cities than anywhere else, with an almost halving of funding each time the degree of remoteness is increased. In other words, highly specialised mental health services of this kind are likely to be hard to access and it is more likely that people in less central areas will have to travel to access them. What is also evident is the importance of the services of general practitioners with increasing levels of remoteness, despite their falling per capita
availability. In many places they represent the most available front line service; an important point when the issue of co-morbidity is considered.

**Figure 4** Per-capita mental health specific MBS expenditure, by workforce group by remoteness area, 2011-12

![Per-capita mental health specific MBS expenditure graph](image)

**Per capita expenditure, 2011-12**

<table>
<thead>
<tr>
<th></th>
<th>Major Cities</th>
<th>Inner Regional</th>
<th>Outer Regional</th>
<th>Remote</th>
<th>Very remote</th>
</tr>
</thead>
<tbody>
<tr>
<td>Psychiatrist</td>
<td>15.5</td>
<td>7.6</td>
<td>3.7</td>
<td>2.2</td>
<td>1.3</td>
</tr>
<tr>
<td>General practitioner</td>
<td>9.2</td>
<td>9.5</td>
<td>6.5</td>
<td>3.5</td>
<td>1.8</td>
</tr>
<tr>
<td>Clinical psychologist</td>
<td>9.0</td>
<td>5.9</td>
<td>3.0</td>
<td>1.5</td>
<td>0.7</td>
</tr>
<tr>
<td>Other psychologist</td>
<td>8.6</td>
<td>8.3</td>
<td>4.7</td>
<td>1.7</td>
<td>1.0</td>
</tr>
<tr>
<td>Other allied health</td>
<td>0.8</td>
<td>0.9</td>
<td>0.7</td>
<td>0.2</td>
<td>0.1</td>
</tr>
</tbody>
</table>


**Community health care services**

The community health care sector is an important adjunct to more specialised mental health care services, providing on-going support for self-management plans, community based programs and home based support services. The growing importance of the sector is shown by the increase, from 2009-10 to 2011-12 in community service contacts in most States and Territories. This data was not available by remoteness area at the time of writing, but the importance of the sector was evident from the literature and stakeholder interviews.
Consideration of the ways to upskill, support and thus leverage these existing resources is regional, rural and remote communities is likely to be an integral element in service enhancement in many non-metropolitan areas including especially given contribution to reduction of acute episodes and hospitalisations and their capacity to provide stable on-going care ‘in-place’.

**Figure 5 Community health care service contacts per 1,000 population, States and Territories, 2009-10 to 2011-12**

<table>
<thead>
<tr>
<th>Year</th>
<th>NSW</th>
<th>VIC</th>
<th>QLD</th>
<th>WA</th>
<th>SA</th>
<th>TAS</th>
<th>ACT</th>
<th>NT</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>2009-10</td>
<td>320.7</td>
<td>319.3</td>
<td>205.5</td>
<td>301.3</td>
<td>346.6</td>
<td>432.8</td>
<td>716.2</td>
<td>162.0</td>
<td>304.4</td>
</tr>
<tr>
<td>2010-11</td>
<td>341.1</td>
<td>362.8</td>
<td>234.9</td>
<td>325.6</td>
<td>355.1</td>
<td>301.8</td>
<td>659.4</td>
<td>168.5</td>
<td>327.2</td>
</tr>
<tr>
<td>2011-12</td>
<td>362.0</td>
<td>274.1</td>
<td>316.8</td>
<td>371.8</td>
<td>200.9</td>
<td>690.4</td>
<td>198.0</td>
<td>333.2</td>
<td></td>
</tr>
</tbody>
</table>


The data on government expenditure described above, illustrates the finite nature of the budgets available, so expenditure in this community service provision area has the potential to create a virtuous circle of reduced hospital admissions and expenditure and thus more resources available for community based support (Health Workforce Australia, 2014). However, stakeholders emphasised the importance of the quality of the programs and supports delivered by such community services if value is to be added, rather than merely entrenching second quality service provision in more remote communities. Additionally, integrating employment services and effective use of technology were noted as two ways of enhancing this added value.
Hospital based mental health care service provision

Hospital based service provision, in respect of mental health services, can be categorised as down-stream service provision, to be avoided where possible, yet essential in many circumstances (Longman et al., 2013). The most pointed illustration of the differences in hospital based services is the rate of separations without specialised psychiatric care. Figure 6 below shows that the rate increases with increasing remoteness and is most marked in outer regional and remote and very remote areas. The rate of ambulatory separations outside of the major cities is relatively low, with a relatively high rate of such separations in remote and very remote areas occurring without specialised care. The relatively low rates of ambulatory equivalent separations outside of the major cities is likely to be related to the dearth of specialist services available in these areas to follow-up patients outside of the hospital environment. As was evident from Figure 3 and Figure 4 above the rate of service provision and expenditure on psychiatrists was significantly lower in non-metropolitan areas.

The relatively low rates of ambulatory equivalent separations mean that more people in regional, rural and remote areas are being admitted to hospital for their mental health issues. This places a strain on local infrastructure, increases costs and stigmatisation. Given that high proportions of these patients are then discharged without specialist care, it is highly likely that this service provision model is contributing to sub-optimal outcomes, which may be ameliorated by increasing acute care service provision in the community with the use of technology and enhanced practitioner skills.
Figure 6 Hospital based mental health service provision by remoteness area, 2011-12

<table>
<thead>
<tr>
<th>Rate per 1,000 population, 2011-12</th>
</tr>
</thead>
<tbody>
<tr>
<td>Major Cities</td>
</tr>
<tr>
<td>Separations – with specialist psychiatric care</td>
</tr>
<tr>
<td>Separations – without specialist psychiatric care</td>
</tr>
<tr>
<td>Ambulatory equivalent separations - with specialist psychiatric care</td>
</tr>
<tr>
<td>Ambulatory equivalent separations – without specialist psychiatric care</td>
</tr>
</tbody>
</table>


Rates of follow-up care, shown in Figure 7 below are directly related to the data on hospital based service provision and discharge, with and without specialist care. The information is shown here by State and Territory, with no data available for Victoria. The variations in discharge rates across the states and territories illustrate the point that the geographies and services within them are not uniform throughout the nation. However, the disadvantage that comes with remoteness is still very clear, with this disadvantage also evident in inner regional areas in South Australia, the ACT and the Northern Territory.
Figure 7 Rates of follow-up care within 7 days of discharge from a mental health admission by remoteness area by State/Territory 2011-12

Percentage rates of follow-up care, 2011-12

<table>
<thead>
<tr>
<th></th>
<th>Major Cities</th>
<th>Inner Regional</th>
<th>Outer Regional</th>
<th>Remote</th>
<th>Very remote</th>
</tr>
</thead>
<tbody>
<tr>
<td>NSW</td>
<td>52.9</td>
<td>54.0</td>
<td>51.7</td>
<td>40.0</td>
<td>41.7</td>
</tr>
<tr>
<td>VIC</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>QLD</td>
<td>62.8</td>
<td>69.7</td>
<td>67.1</td>
<td>65.7</td>
<td>62.2</td>
</tr>
<tr>
<td>WA</td>
<td>52.6</td>
<td>50.8</td>
<td>43.9</td>
<td>48.7</td>
<td>26.3</td>
</tr>
<tr>
<td>SA</td>
<td>52.9</td>
<td>41.2</td>
<td>41.1</td>
<td>34.4</td>
<td>30.5</td>
</tr>
<tr>
<td>TAS</td>
<td>26.5</td>
<td>24.3</td>
<td>37.2</td>
<td>24.9</td>
<td></td>
</tr>
<tr>
<td>ACT</td>
<td>79.5</td>
<td>51.9</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>NT</td>
<td>70.0</td>
<td>50.0</td>
<td>58.1</td>
<td>45.8</td>
<td>26.3</td>
</tr>
</tbody>
</table>


Workforce issues

The distribution and concentrations of the mental health workforce shown in Figure 8 reflect the previous discussion and data regarding service provision and expenditure. The FTE equivalents of psychiatrists, psychologists and mental health nurses all reduce significantly with increasing remoteness, including in inner regional areas. The fall in the concentration of psychiatrists is most marked. Interestingly the rate per 100,000 population for psychiatrists was higher in remote and very remote areas compared with outer regional...
areas. This is likely to reflect the wide dispersion of people in these remote areas, so that even though the workforce rate is higher, issues of travel and accessibility still mean service provision is more limited.

Figure 8 Prevalence per 100,000 population of psychiatrists, mental health nurses and psychologists, by remoteness area, 2012

<table>
<thead>
<tr>
<th>Rate per 100,000 population</th>
</tr>
</thead>
<tbody>
<tr>
<td>Major Cities</td>
</tr>
<tr>
<td>FTE Psychiatrists</td>
</tr>
<tr>
<td>FTE Psychologists</td>
</tr>
<tr>
<td>FTE Mental Health Nurses</td>
</tr>
</tbody>
</table>


Health care consequences (economic, satisfaction and health)

The data on the health care consequences of mental health care services is very limited. The dearth of this outcomes data presents a significant impediment to understanding the differential impact of different kinds of services and service delivery models. This will be further discussed in the Chapter below concerning the interface between utilisation and consequences. The proxy for outcomes or consequences that is often used, is that of rates of suicide, together with statistics such as rate of readmission to acute care within specified time after discharge, and rates of follow-up care. These are discussed below.
As discussed in the introduction and conceptual model sections above, it is arguable that the indicators of consequences of the operation of the mental health care system are also intimately related to the drivers of mental health issues as proposed in the systemic model. This reflects that the mental health system is one of many systems working within a broader context. Mental health outcomes will only improve if services (including prevention, early intervention and other treatment services) work in a co-ordinated way with systems that build capacity and resilience of communities and the economic dimension of human capital. This suggested approach requires the use of indicators of integration of services and multi-disciplinary portfolios, as well as indicators of the way that these integrated approaches are working, to be added to the main indicators of access to mental health services and supports in Australia.

Rates of suicide


“There are stark geographical inequalities in suicide rates……People living in non-metropolitan areas are more likely to die by suicide than those living in capital cities and we know that men not living in major cities are almost twice as likely as their urban counterparts to die by suicide.”

This finding regarding regional inequities was based on analysis of unpublished ABS suicide data. This material also highlighted that rates of suicide in the Northern Territory are almost twice as high as in New South Wales and Victoria, attributable in large part to the high proportion of indigenous Australians living in the Northern Territory.

Studies have highlighted these differential rates in suicide in rural populations, while acknowledging that there is no evidence for higher rates of mental illness in rural communities (Brumby et al., 2011). The cause of these higher rates is attributed to such factors as lack of early diagnosis, restricted access to mental health services, the distance-decay effect, poor physical health and access to firearms. The role of obesity is highlighted in Brumby’s article (Brumby et al., 2011) and the ‘Farming Fit’ study it profiles. This approach is strongly supported by the discussion regarding selected risk factors, above. Cheug (Cheug et al., 2012) adds socio-economic deprivation to the factors spatially associated with high suicide rates in some areas.

The value of social integration and support in suicidal ideation among rural communities has, however, been identified as a countervailing positive influence (Handley et al., 2012). Accordingly the importance of improving underlying social cohesion is apparent, as is the need to understand individual places rather than take a ‘one-size-fits-all’ approach in policy making and designing interventions (The Senate Community Affairs References Committee, 2010). For instance in some rural communities social isolation and alienation have been
found to be significant contributing factors to suicide (Inder et al., 2012b) particularly in men aged 65 and over and in avoidable hospitalisations (Longman et al., 2013).

**Rates of readmission and follow-up care**

The indicator which is often used in this area is ‘per cent of people readmitted to an acute psychiatric in-patient unit within 28 days of discharge’. This is reported in the Interim Report but the data was not available by remoteness area.

The data regarding patients leaving acute in-patient care who are followed up by a community mental health service contact within seven (7) days of discharge is discussed in conjunction with Figure 7 above. The data revealed significant variation across states and territories and, generally, illustrated the disadvantage of remoteness concerning the adequacy of follow-up care.

**Conclusions regarding the main indicators of access**

The conclusions are:

- Current indicators of access are limited because they are devised based on available data and an underlying conceptual framework emphasising volume and activity which is often unacknowledged;
- Data regarding possible relationships between education, employment, housing, risk factors and homelessness are suggestive of the relationship between socio-economic disadvantage and mental illness in non-metropolitan areas;
- Despite the focus of current measures of service provision on volume and activity rather than outcomes and quality they nevertheless graphically illustrate the disadvantage experienced in regional, rural and remote areas (particularly outer regional and remote) in respect of per capita service provision;
- A conceptual framework which describes place-based dynamics and the way that mental health issues interact with other issues provides a reference point for guiding change in volume and activity and also in quality and outcomes;
- Regional, rural and remote Australia is very diverse and broad brush national measurement and policy approaches are limited in their ability to drive change;
- More work needs to be done with data to extract key inter-relational dynamics but this is likely to be most effective if carried out by regions rather than extrapolating from broad brush patterns of difference across the nation;
- Outcome-oriented project, program and place-based indicators need to be developed through pilot projects to create a more robust, meaningful measurement framework, as what we measure guides what we do; and
- Indicators of integration of mental health services with other regional service provision, to reflect the systemic framework, would be beneficial.
INEQUITY OF ACCESS ACROSS GEOGRAPHICAL AREAS

In this Chapter we address the requirement to consider the factors that contribute to inequity of access to mental health services and supports between metropolitan areas and regional, rural and remote areas in Australia. This analysis provides the evidentiary basis, together with the data described in the previous Chapter, of advice and recommendations for ways forward to improve service provision in regional, rural and remote areas.

The following quote taken from the Interim Report suggests an important issue when considering issues of inequity – the availability of both ‘downstream’ and ‘upstream’ services and supports needs to be considered, not just the availability of supports overall.

“Systems with stronger upstream services – prevention, early intervention and recovery, integrated on a whole of system and whole of life basis – deliver better outcomes at lower cost over time than those with a higher focus on ‘downstream’ services – crisis intervention, ED attendances, acute admissions, interactions with police and corrections, and welfare support.”

This discussion almost seems gratuitous in many rural and remote areas where base-line services of every description often fall far short of the standards in the major cities and where the proportions of people in need are often equivalent or greater. As a result of this deficit emphasis is placed upon innovative ways of achieving parity with regard to the volume of utilisation of treatment services. However, the discussion above suggests that this more short-term orientation related to volume and activity needs to be augmented and shaped by a long-term orientation on quality and outcomes.

Given the clear necessity for better approaches in many regional, rural and remote areas they provide a unique opportunity to approach problems more holistically; an opportunity that is being seized in many places around the country. This often involves implementing approaches based on integration of mental health approaches with community based approaches that confront issues relevant to underlying disadvantage.

The factors that contribute to inequity are therefore identified as factors related to treatment and the integration of down-stream service provision (this is usually the context through which the concept of integration is viewed in accordance with social inclusion models), and factors related to prevention, early intervention and recovery and the integration of up-stream service provision.

Policy in mental health care service provision is traditionally/frequently focused on the health care system itself. However, to be truly innovative in mental health care, we have to look beyond the health care system to take a whole-of-life perspective. Upon doing this ‘inequity’ may be viewed as inequity in the opportunity for regional, rural and remote
people to live a ‘contributing life’. It is arguable that this inequity is another deep seated systemic issue that needs to be addressed.

Addressing the first component in the Levesque model, reducing need for treatment services (which are also outcomes of systemic change), particularly down-stream services, is one of the key ways forward over the longer-term. Addressing characteristics of service provision itself, and its appropriateness and effectiveness, in the short-term, will also involve consideration of this broader perspective. This applies equally to major cities and regional, rural and remote areas, but the issues are likely to be very different. They are also more pressing in regional, rural and remote areas because treatment options are less available and in many of these places the social, cultural and economic fabric creates unique and significant stressors that are likely to have direct and indirect impacts on the mental health of populations (Kelly et al., 2011).

This is borne out by a wide range of recent research. In his 2012 article concerning depression in rural adolescents Black (Black et al., 2012) summarises the previous research regarding particular rural community characteristics relevant to mental health outcomes. He identifies these as:

- Poorer physical health (Judd et al., 2002, Australian Institute of Health and Welfare, 2003, Brumby et al., 2011);
- The health status of indigenous people (Australian Institute of Health and Welfare, 2003, Rajkumar and Hoolahan, 2004);
- Rapid social change caused by globalisation (Judd et al., 2002, Ryland and Kruesi, 1992);
- Higher poverty and unemployment compounded by higher priced commodities (Judd et al., 2002, Australian Institute of Health and Welfare, 2003, Rajkumar and Hoolahan, 2004, Boyd et al., 2006);
- Fewer educational opportunities (Australian Institute of Health and Welfare, 2003);
- Fewer social opportunities and social exclusion for defying community norms (Boyd et al., 2006);
- Youth migrating to cities (Judd et al., 2002, Rajkumar and Hoolahan, 2004);
- The poor migrating to rural areas (Judd et al., 2002);
- Unpredictable environmental issues (i.e. drought and bushfire) (Rajkumar and Hoolahan, 2004);
- Lack of facilities and specialists (Rajkumar and Hoolahan, 2004);
- Risky employment (i.e. mining) and health practices (i.e. increased alcohol consumption and tobacco use (Rajkumar and Hoolahan, 2004); and
- Socioeconomic status (Sawyer et al., 2000, Eckert et al., 2006).

Many stakeholders discussed these issues underlying inequities between regional, rural and remote areas and major cities, with an emphasis on the role of socio-economic issues (including issues of employment and education) and the impact of climate change, being...
most pronounced. There was also discussion of the issue of ageing and the impact this would have, especially with regard the desire of people to age and be treated for illness in place, rather than having to travel to access the services they need.

The particular predicament and issues experienced by mining communities has also been a focus for much research given the extreme dislocation, rapid change and displacement that mining activities can cause. Increased costs of living through rental and goods and services costs, reduced housing availability and reduced ability to engage in meaningful succession planning are identified as stressors in such communities affected by the mining and coal seam gas industries (Hossain et al., 2013). The need for pro-active approaches for diagnosing the onset of mental illness and the importance of supporting community cohesion are identified as priorities (Hossain et al., 2013).

This broader conception of ‘inequity’ as inequity in the opportunity for regional, rural and remote people to live a ‘contributing life’ is a therefore a useful starting point. This is supported by research, with the following quote, which focuses on ageing in rural areas, providing a useful summary:

“Ageing in rural areas poses challenges related to social isolation, reduced mobility, more chronic disease and comorbidity and limited access to community and health services….Furthermore, economic adversity and climate-related adversity may be disproportionately affecting many rural regions, with their greater reliance on primary industry.” (Inder et al., 2012b)

In practice integration therefore entails taking mental health care perspectives into broader cultural, social and economic domains and taking cultural, social and economic perspectives into the mental health care domain. This will now be given practical shape using the factors that make up the process related element of the Levesque framework and thus shape change over time. The discussion will focus on the factors contributing to inequity and then discuss possible approaches to address this.

Health care needs interface with perception of needs and desire for care

Reconceptualisation inequity in accordance with the conceptual framework, as inequity in the opportunity for regional, rural and remote people to live a ‘contributing life’, is highly relevant to this up-stream ‘needs’ area of the Levesque access model. This is therefore initially discussed more generally before analysing the demand and supply components of the Levesque model. The factors contributing to inequity are identified as those often associated with living in regional, rural and remote areas, discussed above.

Possible approaches to addressing these inequities and their impact on mental health, requires a deepening of analysis of outreach based on an understanding of underlying
stressors which drive the need for care in regional, rural and remote environments. For example, community based interventions based on multi-portfolio, multi-disciplinary responses to rapid social change, poverty and unemployment, lack of educational opportunities and adverse environmental conditions could be developed. The potential, and ongoing, mental health issues which often co-evolve with such disadvantage may be addressed through supply side initiatives such as outreach (including such things as vocational and other counselling services, promoting increased physical exercise, providing mental health first aid to a diverse range of front-line community workers (Perceval et al., 2011); and provision of information to address demand side issues of ‘desire for care’ in the face of adverse circumstances and events.

One stakeholder stated that the essential question was:

“How do we create a sense of hope and opportunity in these places?”

An emphasis on ‘integrated prevention and early intervention’ strategies, based on the systemic model, require a less ‘medicalised’ approach to mental health provision and less of a division between clinical and non-clinical services. It was suggested by numerous stakeholders that this would lead to more consumer and carer driven approaches.

**Supply side issues - approachability:**

Supply side issues regarding ‘approachability’ are identified in the Levesque model using the following categories. The issues are described using the perspective of the conceptual framework applied to learnings from relevant literature and the prior learnings framework. The descriptions therefore implicitly address possible approaches for improving equity:

- **Transparency** (clarity about the nature of services, costs and access);
- **Outreach** (providing wellbeing and lifestyle services to the community generally or to vulnerable groups within the community, based on understanding of economic, social and cultural characteristics that drive need support (Isaacs et al., 2013); coordination of mental health outreach with vocational and educational outreach support services and opportunities; availability of telephone crisis lines; understanding comorbidity and the need to treat the whole person). Stakeholder interviews consistently focused on the need for more generalised social and emotional wellbeing approaches alongside more traditional treatment approaches;
- **Information** (includes the ability of people, especially vulnerable groups like school children and adolescents to access information, advice and support about mental illness; ability of people to access information about vocational, educational and social support; information provision in community forums about specific community issues which have the potential to impact on mental health). Technology in the form of web based information and tools and on-line ‘apps’ is likely to play an increasingly important role in this domain; and
Screening (whether groups such as those with substance abuse issues are disqualified from accessing such services and whether tailored, alternative services are available). The potential to use screening (for alcohol and drug use and depression amongst groups such as at-risk adolescents) as a form of preventative intervention, and as a basis for the development of integrated service interventions dealing with co-morbidities has been explored and appears to be a promising direction (Nagel et al., 2011).

**Demand side issues – ability to perceive:**

Demand side issues regarding the factor of ‘ability to perceive’ include health literacy, health beliefs and trust and expectations. Participation in lifestyle and wellbeing programs is one of the potential indicators of health literacy and health beliefs which form the foundation for health seeking (Isaacs et al., 2013). Paradoxically, lower ability to perceive the need for care is likely to be associated with social, economic and cultural factors which generally increase the likely need for care, and which are particularly prevalent in regional, rural and remote areas. This in turn is likely to reduce health care seeking behaviour and result in significant underlying unmet need (Perkins et al., 2013). The long term consequence may be erosion of the resilience, wellbeing and productivity of the population. Approaches to address this source of inequity are educational outreach and treatment of comorbidity in mentally ill people.

Trust and expectations are also relevant from a demand side perspective and often reflect the customer focus and quality of mental health care being delivered in the relevant regional, rural and remote community (Perkins et al., 2013). The importance of ensuring appropriate, effective, integrated services is important to building trust by addressing long term, underlying needs as opposed to a focus based upon crisis management.

**Perception of needs and desire for care interface with health care seeking**

**Supply side issues - acceptability:**

The supply side issues making up the factor of ‘acceptability’ are identified as professional values, norms, culture and gender. They play an important role in determining whether people who perceive a need for, and desire care, actually seek it. These are essentially mental health workforce issues that become evident through stigmatisation of mental illness (which may be observed in primary care environments such as hospitals), tolerance of suicide by health and social service agencies as well professional behaviour associated with comorbidity such as appropriate referral and treatment practices (Jelinek et al., 2011). The importance of an appropriately skilled and educated workforce, and the pivotal role that support professionals such as nurses can play (Happell et al., 2012), is highlighted by this dimension.
The role that nurses, their level of knowledge, understanding and acceptance of mental health issues, can have in determining the acceptability of non-metropolitan mental health services is highlighted by the following quote:

“A lot of older nursing staff didn’t have any training in mental health at all. The broken body was something that was drummed into us but not necessarily the broken spirit so it’s really an area that you don’t feel that you have any comfort zone at all. So immediately someone comes in and they’re talking about their depression it sets off a sense in the nurse that already we’re in trouble just by the sheer nature of what it is. It might turn out to be nothing but the anxiety level goes up straight away.” (Kidd et al., 2012)

Stakeholders discussed similar points relevant to general practitioners, asserting:

“There are general practitioners in a lot of places who don’t understand mental health and make the wrong referrals and rely too heavily on prescriptions. It can be very problematic with them at the front line if they are not up to speed and don’t have a patient focus”

Education and training, within the mental health workforce and allied professionals, and the synergies that this may have with community education more generally (Nankivell et al., 2013), are issues that could be explored to address this source of inequity. This approach can ensure that existing health workforce resources are leveraged alongside more general community enhancement. The potential role of technology in improving workforce education and support also suggests promising directions for cost-effective service enhancement (Loi, 2014).

**Demand side issues – ability to seek:**

Demand side issues related to ‘ability to seek’ are identified as personal and social values, culture, gender and autonomy. To a significant degree many of these issues are influenced by the communities that people live in (Gunn et al., 2013). For example stigma associated with mental illness and associated attitudinal barriers to help seeking continue to be significant problems in many rural and remote areas (Handley et al., 2014).

Education, community forums, healthy workplaces and employers that promote them are factors that impact upon demand side behaviour. Activities designed to educate and inform may gradually change the culture of a place (including social proximity issues related to population size and fear of gossip (Boyd et al., 2011, Perkins et al., 2013)) over time. Such education and information may include new ways of approaching not only mental health issues and their associated stigmatisation, but also community, social and economic issues
more generally. In the absence of opportunity and hope, motivation and help seeking is likely to be diminished.

A recent study concerning health seeking behaviour titled Depression in rural adolescents: relationships with gender and availability of mental health services (Black et al., 2012) provides some insight into the issue of help seeking in rural environments. Its findings relate to the effect of limited access to services. The results showed that depression among rural Australian adolescents was significantly related to perception of long waiting lists and fewer mental health professionals. Significantly there was no association between depression and the degree of remoteness or SES status.

The authors conclude that:

“Further understanding of the relationship between the perception of rural community characteristics, help-seeking behaviours, and service availability may enhance service utilisation and provision according to population characteristics”

The research suggested that continuing health initiatives were required to enhance the mental health of rural South Australian adolescents. These could include:

- Improving the availability of mental health services
- Improving mental health literacy
- Promoting awareness of available mental health services within regions; and
- Promoting help seeking behaviour for those with mental health difficulties.

This study, and other cited research validate the importance of community characteristics to health seeking behaviour and their interaction with lesser availability of services.

**Health care seeking interface with health care reaching**

**Supply side issues – availability and accommodation:**

Geographic location is one of the key issues relevant to this factor which shapes access to, and utilisation of, health care services over time. The data concerning this issue and the way that it contributes to inequity is set out in the previous chapter. In addition, all dimensions and components of the model are being considered in this report from the perspective of the impact of geographic location. Consideration and identification of the core services which should be available (Carey et al., 2013) is discussed; augmented by the standpoint of the conceptual framework and emphasising the importance of integrated approaches with a strong focus on up-stream initiatives. For the purposes of this section, geography is dealt with as referring to the characteristics of distance and low population density.

Accommodation, hours of opening and appointments mechanisms are further supply side issues which impact upon the ability of those who seek mental health care to actually
receive it. These are likely to vary considerably across geographies and were noted by many stakeholders as being deficient in regional, rural and remote environments.

The issues of:
- Barriers to gaining entry to services;
- Barriers to engagement with services;
- Staffing problems in services (Lewis, 2012); and
- Insufficient flexibility of services

were identified as key supply side issues for Aboriginal people attempting to access mental health services (Isaacs et al., 2012). It is likely that they affect many regional, rural and remote residents more generally and thus contribute to inequity.

Possible approaches to resolving issues of distance from services and barriers to access feature technology. Increasing the availability of acute diagnosis services through telepsychiatry, as well as enhancing mental health workforce and patient support (Loi, 2014, Wade et al., 2012); improving the coordination of services with a single point of communication; and the potential role of 24 hour access (Saurman et al., 2011) and crisis lines are promising directions in this area. Tele-health has been reported as being successful by reducing adverse events, improving health outcomes, offering increased patient choice of service delivery and improving access to services and home care (Wade et al., 2012). The study suggested that rapport was not reduced through the use of video-link, and in some cases was even improved. The use of technology was considered to enable improved quality, integration and implementation of evidence-based care, and to be a major support for the rural health workforce. Potential ethical, medico-legal and governance issues were reported to be easily managed in practice.

A further study considered the use of video conferencing to support staff in isolated regional areas in the provision of mental health services to children and youth (Wood et al., 2012). The model used in this case incorporated multidisciplinary video conferences, phone consultations, face to face consultations and outreach visits, with a central point of co-ordination. The conclusion was that the service contributed to a level of parity between metropolitan, regional and remote services through the provision of regular video-conferencing services with child and adolescent psychiatrists and senior allied health clinicians. The key features which were considered to underpin the success of the service were:

- Central co-ordination;
- Flexible timing of video-conferencing;
- Routine outreach visits to facilitate community capacity building.

The authors concluded that the success of the service and others like it would mean that the trend towards increasing implementation and use of telepsychiatry services, as a credible
alternative to traditional means of patient care would be likely to continue. The value of tele-health and tele-psychiatry were also validated in stakeholder consultations, with emphasis placed on composite care models employing on-site and remote components.

Alongside the considerable potential represented by innovative and integrated use of technology, the potential value add which may be achieved through strengthening the availability and depth of community services and mental health liaison officers has also been highlighted in the research (Isaacs et al., 2012). The pitfalls of bringing people in using ‘visiting specialist’ models, which were identified by stakeholders as often being associated with lack of empathy and understanding of cultural and contextual issues, can be ameliorated by these supportive community based approaches. However, the need for constant support and on-going education and training were also discussed, otherwise leveraging community resources was viewed as potentially entrenching low quality service provision and burn-out.

Workforce issues are a significant factor impacting upon the availability and quality (Kidd et al., 2012) of mental health services in areas with lesser concentrations of population and higher levels of remoteness (Crotty et al., 2012). The difficulties in recruiting and retaining staff with specific mental health experience were also discussed and highlighted as an underlying systemic issue in many of the stakeholder interviews. The issue of burn-out was repeatedly raised. This may be eased and improved through various innovative measures to support practitioners living and working outside metropolitan centres (such as assisting the spouses of practitioners to find work, increasing specialist support and continuing education for rural practitioners (Jelinek et al., 2011)). However, the geographical inequities are unlikely to change very significantly unless the amenity of regional, rural and remote areas is improved, requiring a simultaneous long-term perspective focused on economic and community enhancement.

**Demand side issues – ability to reach:**

These issues which affect the factor of ‘ability to reach’ are living environments, transport, mobility and social support. These issues are strongly associated with a combination of geography and socioeconomic characteristics, with their impact flowing through to inequity of access to, utilisation of, mental health care services.

The relationship between housing and mental health is reciprocal, with evidence of this relationship considered in the previous Chapter. Accordingly the integration of treatment approaches and with housing related issues may serve to combat inequity. Transport options are also often dictated by income. Subsidised transport travel schemes are therefore an important ingredient within this domain (Boyd et al., 2011) as are the availability of different housing options such as integrated housing for those who are mentally unwell. Some stakeholders noted that subsidised travel was often available in acute and crisis
situations but not available for transport to access rehabilitation services. This illustrates the need for funding models to be structured to support non-acute service delivery.

Social support, the final issue in this factor of ‘ability to reach’, refers to the need identified in the prior learnings framework for integrated community support services where the broader social support system works in tandem with the income support system. This includes well-functioning employment services, housing assistance, child care and early intervention and integrated services for people and families with complex needs, such as homelessness, mental health conditions and drug or alcohol addiction. Providing this level of integration can present real challenges in regional, rural and remote communities, given the range of support services that need to be coordinated. Integration of these portfolios and services across all factors within the process-related dimension, not just in relation to treatment of acute mental health issues, as proposed by the systemic model, is therefore a useful perspective. This is the case because it is unrealistic to expect integration around acute mental health care if there are no established, ongoing relationships.

Health care reaching interface with health care utilisation (primary and secondary access)

Supply side issues - affordability:

Direct costs, indirect costs and opportunity costs are the supply side issues which determine affordability. The requirement to ensure cost effectiveness and efficiency are pervasive considerations across all aspects and portfolios of government. At present the per capita provision of services to people living in regional and remote Australia are less than those in the major cities. Affordability of service provision is eroded due to the dispersal of populations across wide geographical areas, reducing the ability to reap the benefits of economies of scale. As a result affordability issues contribute significantly to inequity.

Ways of addressing this inequity require cost effective short and long term solutions to the provision of mental health services and supports to people in regional, rural and remote Australia. The foregoing discussion provides some indications of the way integrated approaches and community based initiatives may be evolved in the long term, combined with and the innovative use of technology. In the short-term these approaches may also be used to increase activity, volume and quality. These are the practice based solutions that will bring about change, but this will only be supported and understood if the issue of ‘affordability’ is more closely examined.

First, the difficulty in assessing efficiency and effectiveness must be highlighted. The focus on activity and volume can be misleading when it comes to consideration of long-term effectiveness and both short and long term patient outcomes. The tendency to aim for ‘quick wins’ stands in the way of establishing more strategic long-term focused funding
models based on ‘practice based evidence’. A great deal more work and research needs to be carried out in this area, with pilot models and programs rigorously evaluated.

Second, the balance between up-stream and down-stream services needs to be considered. Involvement of police and ambulance in acute mental health crisis situations often represent systemic failure and drive ballooning costs (Longman et al., 2013). This may be ameliorated by providing access to acute mental health services such as access to acute crisis teams or specially formed multi-disciplinary teams. In regional, rural and remote settings this is far more difficult than in major cities. The importance of up-skilling regional and remote practitioners emerges as a key direction, as do ‘hub and spoke’ approaches (combining on-site services, visiting services, fly-in-fly-out and tele-health (Carey et al., 2013)) including consideration of the role that technology can play in delivering support in acute crisis situations (Saurman et al., 2011). Further, community initiatives aimed at reducing social isolation can also play an important role in reducing avoidable hospitalisations, particularly amongst older patients (Longman et al., 2013). Affordability needs to be measured by recognizing these trade-offs, as well as the considering longer-term patient outcomes from different approaches.

Third, the systemic model, viewing mental health care as part of the overall engine driving social, economic and cultural capital accumulation, alongside human capital approaches, suggests that we need to measure cost-effectiveness more holistically. The aim would be to consider the impact of integrated approaches to both prevention and treatment in terms of identified measures of the economic, social and cultural fabric that we are trying to influence. This affects our conceptualization of ‘opportunity cost’. Unless this more integrated measurement approach is taken mental health service delivery will remain moored, stiflingly, in treatment paradigms that do nothing to address underlying dynamics.

**Demand side issues – ability to pay:**

Income, assets and health insurance are the elements of people’s socio-economic circumstances that affect their ability to use mental health care services. As discussed earlier these issues often drive demand for services. They may contribute to the need for services and also the lack of ability to pay for them. In regional, rural and remote areas this cycle can be magnified.

“…..the highest prevalence of persistent and deep exclusion is recorded by Australians living in outer regional areas, followed by those in inner regional areas and major cities…..” (McLachlan et al., 2013)

There is evidence that provision of Medicare subsidised services through programs facilitating better access to psychologists, with some tailored specifically for non-metropolitan contexts, have helped ease the negative consequences of this cycle (Morley et al., 2007, Centre for Health Policy Programs and Evaluation et al., 2011) . Initiatives that
increase the ability of people to pay for services, especially for conditions that affect a broad cross-section of the population, are invaluable.

Social capital is another issue relevant to this dimension of accessing and using health services. It has a potentially positive influence in regional, rural and remote areas that have close communities (Burton and Walters, 2013) which provide a valuable safety net and increase the effectiveness of care, particularly in relation to self-management. The importance of sense of community to mental health and wellbeing is well recognised. Some stakeholders noted that this should not be used as an argument to reduce services in regional, rural and remote areas. Nevertheless, this observation regarding the role of social capital in building resilience can be used to shape policies prioritising enhancement of community connectedness and combatting social isolation (Kelly et al., 2011).

**Health care utilisation (primary and secondary access) interface with health care consequences (economic, satisfaction and health)**

This interface between utilisation and consequences is the other main area where, within the mental health care treatment paradigm the systemic model can be used to directly influence the way care models are constructed, in order to reduce inequity. Using the model in this way would drive integrated treatment programs and approaches to improve the quality of mental health services, their patient centred outcomes and also community outcomes.

Many examples of innovative *treatment* approaches are already present around Australia. They include such things as combining traditional mental health services with a community garden, integrating vocational and employment services with mental health services, providing educational opportunities as part of ongoing treatment. Stakeholders made various suggestions in this area, including programs promoting and supporting exercise as prevention and treatment for mental illness, and teaching entrepreneurial training to regional, rural and remote residents. One interviewee noted:

“We need wellbeing based models to supplement the treatment based models and build social and emotional capacity within communities….we need to give people a sense of worth and income. Ground up services supported by effective funding models and infrastructure”

The deep seated underlying socio-economic issues that pervade life for many people in regional, rural and remote Australia, and which are, to varying degrees associated with mental illness in these environments, require long-term, integrated solutions. Understanding possible drivers of opportunity and economic revitalisation lie at the heart of the issue and are thus beyond the remit of mental health policy makers. Nevertheless, enhancing community capabilities to consider how more holistic approaches may be employed within this policy area has the potential to begin to break down silos. The
potential for developing innovative approaches through collaboration of different agencies inside and outside of the ambit mental health care services arguably has considerable potential to drive innovation and change.

Supply side issues - appropriateness:

The issues which make up the supply side factor of ‘appropriateness’ are technical and interpersonal quality, adequacy, coordination and continuity.

Appropriateness is about ensuring that services delivered to people are the best fit for their needs. It entails delivery of tailored services and may include consideration of alternative care models outside of prescriptions and referrals including enablement of lifestyle modification programs (Jelinek et al., 2011). Appropriateness of services also entails understanding, referral and treatment of co-morbidity (Burton and Walters, 2013). Due to the lower levels of service provision, lesser variety of treatment and support services and the fact that many care models are more appropriate for metropolitan than regional, rural and remote environments, this factor contributes very significantly to inequity.

The issues of technical and interpersonal quality, adequacy, co-ordination and continuity contained with the dimension of ‘appropriateness’ are all related to quality and integration of mental health service delivery, rather than volume. Together with the issues discussed in the ‘needs’ dimension such as outreach, prevention and early intervention, addressing these concepts can be used to actively shift the focus in regional, rural and remote Australia away from being solely about volume to value-adding and improving outcomes (Carey et al., 2013), as emphasised in the prior learnings framework. In many places this process is already relatively advanced.

Indicators of appropriateness as outlined in the Interim Report include: evaluating the roles of GPs, practice nurses and allied professionals; whether those with severe mental disorders have a single care plan, single eMental health record and single point of contact; the availability of step-down care after acute episodes (may be measured by quality of discharge plans and ongoing case management and provision of essential services (housing employment, education and relationship counselling – stakeholders referred to this ‘wrap-around services’) as well as rate of readmissions and rates of follow-up care); and the use of self-care support services. The availability of e-mental health services and applications also needs to be considered as a way of enhancing treatment options, especially in regional, rural and remote Australia, where the desire to be treated and get well within community is often not matched by service capability.

Indicators of the stepped care model may include: measures associated with family and child health, youth and young adults; adults and older people; involvement of maternal and child health care nurses, presence of schools based programs such as KidsMatter and MindMatters; engagement in early childhood education (enrollments); indicators of the way
common mental disorders are treated; indicators of the availability of specialist aged care services and whole of life approaches to an ageing population.

Indicators of better integration of services, including services relevant to both prevention and treatment, are not often discussed (although there has been foundational work in this area (Nagel et al., 2011) and have not been comprehensively formulated (and yet, as an example, one study has shown that the simple step of co-locating some complementary services, can have a significant positive impact (Lewis, 2012)). Stakeholders from remote areas with large Indigenous populations emphasised the need for integration of mental health services with those relating to drug and alcohol abuse to reflect the entrenched relationship between mental health and associated risk factors. On the other hand, other stakeholders noted that many problems which were portrayed as mental issues were actually drug and alcohol problems, highlighting the importance of drug and alcohol services more generally, within and outside the mental health system.

The tolerance of failure and a culture of continuous learning and improvement is required if appropriateness is to be increased through innovative approaches. Such approaches need to be tested, within effective evaluation frameworks, and given life. It is suggested that the primary accountability should be to evaluate and learn rather than requiring new approaches to deliver significant results in the short-term. This is where the importance of continuity, especially with respect to funding models, is highlighted. One stakeholder quote provides a useful touch point:

“It takes at least a couple of years to find your feet here – only then can you start being really effective. We work hard with limited resources and are successful because of the continuity that we have provided – the need is for more sustained long-term funding – not just 2 or 3 years. We need funding for at least five to ten years. Only then can we start working on the longer term approaches associated with enhancing wellbeing.

...We need a long-term, 5 to 10 year plan, without that nothing will really work.”

The issue of co-ordination is also pivotal when considering integration and also evaluation and thus ultimately, the issue of inequity. Used in this context it refers to the co-ordination of mental health services such as GP services, psychologist, psychiatrists, community and outreach services; but also to co-ordination across portfolios of health, housing, education, income and child and youth services. The need for a central point of co-ordination and oversight was identified by many stakeholders as the cornerstone of bringing a more innovative, outcomes focused approach to life. Some discussions focused on the difficulty present within current mental health service delivery systems made up of public and private components; exacerbated by the fact that within the public components, some were State and others Federally funded, some delivered by State services and others delivered by Non-Government Organisations (NGOs). The challenges of adopting an even wider concept of
integration meaningfully into the system is therefore considerable, but placing this issue of integration and co-ordination at the centre of the policy reform agenda could provide increased impetus concerning this issue.

**Demand side issues – ability to engage:**

Empowerment, information, adherence, and caregiver support are the demand side issues in this interface which make up the factor ‘ability to engage’. These demand side issues are directly influenced by the appropriateness of the services provided (Gunn et al., 2013). There will also be a degree to which these things are beyond the control or influence of service providers and will be determined by patient’s personal histories and circumstances. As such there will always be an extent of service failure, which may be minimised by enhancing information flows, education and community support. The relevance of reducing the clinical and non-clinical divide is evident in this context, with a partnership approach aimed at empowering patients noted by stakeholders as most likely to deliver customer and carer focused outcomes.

**Conclusions regarding factors contributing to inequity of access**

The conclusions are:

- The unique geographic, cultural, social and economic characteristics of places in regional, rural and remote Australia provide the basis for understanding the factors that contribute to inequity and how they may be addressed.
- Placing mental health services within the broader contexts of these places and understanding systemic change over time suggests that approaches based on integration of mental health approaches with community based approaches that confront issues relevant to underlying disadvantage may be useful to addressing issues of inequity.
- Consideration of each of the factors and their constituent issues, within the process related element of the Levesque model, enabled an understanding of how underlying place-based systemic characteristics, especially socio-economic and cultural characteristics, can interact with dimensions of service provision to drive inequity.
- All of the Levesque supply and demand side factors have the potential to contribute to increasing or reducing inequity in regional, remote and rural areas. Inequity in the opportunity for regional, rural and remote people to live a ‘contributing life’ was the most useful way of understanding the concept within the conceptual framework, but the observations apply equally to inequity of access to mental health services and supports.
- Examination of each of the demand and supply side factors enabled understanding of the way in which the issues contribute to inequity, and possible approaches to addressing this through development of priorities, approaches and models.
- The discussion provides some indications of the way integrated approaches and community based initiatives (leveraging community based resources) may be
developed to combat inequity over the long term, combined with the innovative use of technology. In the short-term these approaches may also be used to increase activity, volume and quality and to ensure synergy over time.

- Development of effective evaluation and measurement frameworks, and testing practice based models within these frameworks was identified as an important way of moving forward.
PRACTICAL DIRECTIONS AND MODELS TO ADDRESS INEQUITIES

This Chapter deals with the requirement to:

- Provide advice and recommendations on the appropriate use of technology; workforce distribution; access to an appropriate workforce; and models of care in mental health and approaches to address challenges for regional, rural and remote communities; and
- Propose practical ways to minimise factors inhibiting access, and improve service provision and access within current fiscal limits.

Comprehensive discussion of these project requirements and detailed recommendations are contained in a separate advice paper. This Chapter is intended to provide technical observations to provide a background and framework.

As a precursor it is useful to make a few observations about goals. It would be unfortunate to set goals merely by reference to comparisons between metropolitan areas and those ‘outside the inner ring’, in regional, rural and remote settings. It may be more beneficial to understand directly what good mental health means for regional, rural and remote residents and work towards that over both the short and long term. That will involve reducing inequity, but it is suggested that the process and the measurement of progress will be markedly different. The concept of a contributing life has been developed to express the general desire of people to live good lives where they feel valued and are able to contribute. That is a universal phenomenon. However, what has become evident through this research is that people outside the major cities face a unique blend of stressors that need to be addressed if mental health outcomes are to be improved.

We suggest that an appropriate goal may be less about inequity and more about

improving the social, economic and cultural fabric of regional, rural and remote communities, and working together to improve mental health and wellbeing.

To achieve such a goal both bottom-up and top-down long-term approaches must be adopted and policy, for the short and long term, shaped accordingly. These approaches are briefly described below. As noted in the conclusion to the previous Chapter the discussion of factors that contribute to inequity and how they may be addressed provides some indications of the way integrated approaches and community based initiatives (leveraging community based resources) combined with the innovative use of technology may be developed to combat inequity over the long term. In the short-term these approaches may also be used to increase activity, volume and quality and to ensure synergy over time.
The major directions in practice:

Continued development of models based on learnings from practice in regional, rural and remote Australia is the most important action that will improve the quantity and quality of mental health service provision in these areas. The appropriate use of technology; workforce distribution; access to an appropriate workforce; and models of care will vary based on different places, needs and dynamics. However the following three areas have been identified through this research as having the greatest potential to contribute to more effective and innovative service delivery:

- Technology – information, service delivery, workforce support, connecting people to broader networks and the digital economy including job, educational and business opportunities – needs to be integrated with on-ground services
- Integration of economic, social and cultural programs and approaches to mental health services delivery in areas of prevention and early intervention, and treatment
- Leverage existing health workforce and community resources (upskilling and supporting) – particularly relevant in view of suggested more systemic approach

There is no shortage of models – there is a lot of information gathering, forums and research but not enough exploration of which service models actually work. Ideally models would incorporate strong elements of all of the above three factors, in a manner adapted to place-specific need. It was also observed by many stakeholders that rigorous measurement of model specific outcomes was the optimal situation but that relatively simply measurement tools and observation often revealed whether a program was effective. The essential piece of information that more rigorous measurement provides is why a program or practice is working and therefore whether it is replicable in other situations. There is also a shortage of information about whether better patient outcomes, rather than just increased volume of service delivery are being achieved.

Suicide prevention is one priority area where integrated responses are being built – this approach could be extended. Approaches developed around emergency responses to droughts and floods are also useful but stakeholders commented that they have to be extended beyond the end of the emergency to have enduring value.

Government framework:

- Funding stability and longevity;
- Multi-portfolio integration – DO IT and build it into KPIs – stakeholders noted that this has been tried before and failed before because it was not properly built into departmental systems and evaluation and measurement frameworks;
- Central point of co-ordination for integrated approaches;
- Develop robust, applied measurement and evaluation frameworks relevant to improving outcomes in the place where a project or program is being delivered;
Commitment to road-testing and evaluating innovative models and building an evidence base about what works in practice in non-metropolitan areas of different kinds; and

Understanding and allowing failure and continuous learning – moving beyond the ‘quick fix’.

Examples of Models

Some examples of models are included below. They have been extracted from the literature considered for this report and stakeholder discussions. Further examples of models have been taken from a number of submissions made to the National Mental Health Commission as part of its consultation process. They represent a starting point for the collation of a database successful models and analysis of the factors that underlie their success. The importance of close collaboration between health consumers, clinicians and other community members in ensuring effective design, delivery and management of mental health programs that are fit for purpose in rural and remote areas, was highlighted by stakeholders.

Remote nurses outreach services

Based on group interview with Northern Territory Mental Health Nurses, 3 September 2014:

Description of model: Remote specialist outreach service by mental health nurses (MHN) / mental health nurse practitioners (MHNP). This service is an element of a multidisciplinary team (MDT).

The model incorporates best use of specialist nurses (MHN / MHNP) based in Darwin in the Northern Territory, alongside other MDT members (psychiatrists, psychiatric registrars, occupational therapists and social workers) and the local primary health care providers to deliver an outreach service using a consultation-liaison model / case coordination model of service. The Darwin Remote Mental Health Team (the DRMT) is an example of the application of the model.

The MHNs / MHNPs travel to remote communities to provide care. Clinicians generally travel alone. A psychiatrist or psychiatric registrar may, however, also visit a community as clinically required and or as this resource is available. The DRMHT collaborate closely with the primary health care providers, specifically the remote area nurses (RANs), aboriginal health workers (AHWs), general practitioners (GPs) (who may be either resident or fly-in), and any NGO agency based in each community. Other specialists (e.g. alcohol and other drug services, child and adolescent mental health team, psychologists) are accessible but are predominantly based in Darwin.

The DRMHT visiting clinicians provide specialist assessment, inform management and intervention strategies for clients/families and review continuing care for those with ongoing
or enduring mental health/mental illness problems/conditions. An additional emphasis is the provision of psycho-education and mental health literacy/capacity building for individuals who are experiencing MH/MI problems, their families, and the wider community and for primary health care providers. Stable clients, where possible, receive a comprehensive mental health review/assessment by a visiting clinician 3 monthly and the psychiatrist once or at best twice a year.

Clients who are acutely unwell, relapsing, recently discharged from the mental health inpatient service in Darwin, in early stages of recovery or subject to Mental Health Act provisions (Involuntary - Community Management Orders) are generally reviewed each visit (if locatable) and 3 monthly (when resources/priorities allow) by a psychiatrist or psychiatric registrar.

One DRMHT clinician (located in Nhulunbuy) made an observation that video-conferencing had been successfully utilised to access specialists, obtain assessments and conduct specialist reviews. It was observed that video conferencing is increasingly being used, where possible, to facilitate reviews of clients by the psychiatrist in Darwin or Nhulunbuy when the visiting MH clinician is present in the community. However, it was also noted that technology is not always appropriate/suitable for interviews with remote Indigenous clients, as it relies on the client attending the primary health care centre at a specific time for the video conference. In practice most remote clients are seen / outreached opportunistically when they can be located & are agreeable to review, at their homes with their families or other locations within the community. Video conferencing is also reliant on Internet connection/power which can be variable, particularly in the wet season.

**Key attributes to make model work:** Collaboration and good communication between the MHN / MHNP and the primary health care providers; use of aboriginal interpreters and having a sensitivity to / knowledge / respect for local indigenous beliefs; retention of specialist mental health staff with well-developed relationships within communities (both primary health care providers and the Aboriginal community members); the ability to access specialist support via phone and video-conference facilities; ongoing high level of support from the other MDT members of the DRMHT, and related teams, within the Top End Mental Health Service (specifically the support of acute care systems based in Darwin).

**Key ways model could be improved:**

- Less emphasis on acute care;
- More emphasis on up-skilling and supporting community based workers to work with general social and emotional wellbeing approaches to increase community resilience;
- Focus on wider aspects / determinants of health, such as: stable housing; employment / training opportunities; continued review / development of local strategies that help indigenous community members work towards self-determination; awareness of local (indigenous) beliefs that inform communities’
specific beliefs around wellness, as such beliefs can have an impact on how community members access / utilise the health care provided by services;
- Access to psychologists as well as psychiatrists;
- Pressing need for better drug and alcohol and youth services, with drug and alcohol abuse considered to be co-morbid with mental health issues for the overwhelming majority of clients;
- Better integration of NGO services with government services;
- Ongoing, stable funding of services;
- Clinicians having realistic ratios of clients – to optimise safe / timely / thorough care provision;
- MH clinicians having adequate resources to undertake role in communities (e.g. provision of a designated vehicle to facilitate timely home visits etc versus a clinician spending prolonged period trying to source such resources)

The importance of mental health nurses to effective service delivery throughout regional, rural and remote Australia was highlighted by many stakeholders. The Mental Health Nurse Incentive Program was therefore one that was highly valued. The Country Health SA Mental Health Service, a community based sub-acute care service, is a further example of a nurse-led service enabling people to be cared for within their own communities.

**Drought Mental Health Assistance Program – Farmlink**

Based on an article in the International Journal of Mental Health by Perceval, M; Fuller, Jeffrey D. and Holley, A-M: Farm-link: Improving the Mental Health and Wellbeing of People who Live and Work on NSW Farms (Perceval et al., 2011).

**Description of model:** The Farm-link Program (now the Rural Adversity Mental Health Program) was an application of a suicide prevention model. It involved educating and equipping front-line community members likely to interact with ‘at-risk’ population groups (in this case drought-affected farmers) in mental health and mental health first aid practices. The aim was improve access and responsiveness of mental health services to the needs of people who live and work on farms. Networks and pathways to care consistent with suicide prevention principles were established. The program also contributed to the identification and establishment of mental health service development interventions in target communities (Perceval et al., 2011).

One key attribute of the model involved leverage of existing community based resources to develop intervention and treatment strategies. This was especially important given the particular help-seeking behaviour patterns of the rural communities, which emphasised self-reliance and stoicism. Another key attribute was the establishment of cross-agency networks and links with community organisations that allowed integration of approaches.
Key attributes to make model work: The program was based on a rigorously evaluated and sound educational model, adapted for maximum relevance and impact on varying audiences, and ongoing communication and support of people receiving the Mental Health First Aid Training; strong co-ordination and oversight was also required (in this case provided by the Rural Mental Health Network); as was the willingness to adapt the program as new priorities emerged. A clear agenda and focus was required to maximise the cross-agency network building, as was the ability to communicate values that were relevant and held in high regard by people across such agencies. The ability to cultivate local knowledge, local people and local experience were the attributes most critical to the program’s success.

Key ways model could be improved: The major issues that needed to be addressed to improve the program were greater co-ordination between existing mental health services and community participants, who needed support to create better pathways to care. The importance of program development over an extended period was also highlighted, with relationship building something that required sustained engagement over time (Perceval et al., 2011).

Another program focusing on delivery of Mental Health First Aid is the Royal Flying Doctor Service Social and Emotional Wellbeing Program: Covering the Central West.

Rural South Australian Mental Health Network

Based on an article in The Australian Journal of Rural Health by Crotty, Mikaila M; Henderson, Julie and Fuller, Jeffrey D: Helping and hindering: Perception of enablers and barriers to collaboration within a rural South Australian mental health network (Crotty et al., 2012).

Description of model: This model was of a rural mental health network and is not put forward because of its uniqueness but because literature highlights what makes these networks work. It therefore provides guidance regarding essential characteristics that are likely to enhance networks and service delivery models in regional, rural and remote settings more generally. The model considered in the literature (Crotty et al., 2012) was a network including representatives of the mental health team, general practice, hospital, community health and non-government organisations.

Discussion of the model highlighted the importance of factors including leverage of community resources and the importance of integration across a multi-modal network.

Key attributes to make model work: Strength of relationships between services in the network, often facilitated by historical personal relationships; strong community support and connectedness; informality of working relationships to facilitate collaboration, with such informal relationships supported by more formal meetings when required.
Key ways model could be improved: Difficulties in staff recruitment and retention need to be more pro-actively addressed, emphasising the importance of up-skilling and continually supporting existing staff and creating benchmarking processes which allow staff to measure their performance within the service network context. The strengths provided through co-location of services, as exemplified by the Wudinna Health Centre (Lewis, 2012), is another approach which can be used to strengthen network models through consolidation of resources and facilitation of close supportive relationships. The higher level of access that co-location provides may lead to greater use of services and the ability to recruit more staff.

The Personal Helpers and Mentors Program is another example of a community based, shared care model based on successful networks and collaboration. The Department of Veterans Affairs also has successful mental health programs for eligible people that could be used as templates for model development based on community care and integrated approaches. The Housing and Accommodation Support Initiative between NSW Health, Housing NSW and various NGOs is an example of a model based on cross-portfolio collaboration. The Mental Health Professional Network provides an example of a local community development approach to building mental health care teams which provides promise in seeding a more collaborative, cross portfolio, integrated approach to service delivery and model development. The central role of Medicare Locals in providing coordinated, local solutions is also noteworthy.

Other models of service delivery that highlight up-stream, place-based support and intervention, and integrated community based approaches are:

- SNAP Gippsland – a mental health community support service;
- SNAP Gippsland Prevention and Recovery Care (PARC) – service aimed at providing support to avoid admission to acute mental health facilities;
- Rehabilitation and Recovery models in Broken Hill and Dubbo;
- SHIPS Program in Orange;
- Port Augusta Whyalla Intermediate Care Service – sub-acute mental health service;
- Mental Health Support for Secure Tenancies – good example of cross-portfolio integration;
- MHSST in Victoria – outreach program based on integration of mental health care treatment with issues such as homelessness, housing, health and community services. The program has a comprehensive partnership network facilitating collaboration;
- SHINE Mental Health Project, Victoria – services for children and parents where mental health issues are already a concern within the family;
- The Neami NGO - parenting service for those with a serious mental illness;
- Bullroarer Program, Victoria – empowering young aboriginal men;
- Red Dust Healing – addressing grief, loss and healing for indigenous men;
- Maari Aboriginal Corporation, Broken Hill – social and emotional wellbeing program.
Dementia Behaviour Management Advisory Service Northern Territory Pilot

Based on an article in Asia-Pacific Psychiatry by Loi, Samantha M; Dementia Behaviour Management Advisory Service, Northern Territory pilot program: Reaching out to rural communities using technology (Loi, 2014).

**Description of model:** This model uses technology to provide support to rural and remote workforces dealing with issues of dementia amongst an ageing population. The Dementia Management Advisory Service was established collaboratively between government departments to address gaps of minimal specialist consultation, provide education and opportunities for discussion of complex cases. Teleconferencing was used.

The model highlighted the importance and success in using technological solutions to address service gaps contributed to by geographical remoteness and a shortage of local specialist staff.

**Key attributes to make model work:** The model was capable of filling gaps that otherwise would have remained unfilled and eroded the quality of service delivery and staff morale. It was cost-effective and capable of meeting learning goals, with the need to have these clearly defined. The model brought local workforce together for the sessions, facilitating information sharing, gaining support and validation, and this was an important element of its success. The effectiveness of technology based models in improving service delivery directly to patients (using video-conferencing) has also been validated by research (Wade et al., 2012). Ethical issues, medico-legal and clinical governance matters arising from service delivery were shown to be effectively addressed across a range of service providers.

**Key ways model could be improved:** Technological limitations were identified as a major issue.

Mental Health Emergency Care – Rural Access Project

Based on article in the Journal of Emergency Nursing by Saurman, Emily; Perkins, David; Roberts, Russell; Roberts, Andrew; Patfield, Martyn; and Lyle, David: Responding to Mental Health Emergencies: Implementation of an Innovative Telehealth Service in Rural and Remote New South Wales, Australia (Saurman et al., 2011).

**Description of model:** This model was developed to provide 24 hour access to mental health specialists in rural and remote New South Wales using video conferencing equipment. The aim of the project was to improve access, safety and service co-ordination by supporting generalist staff in rural and remote locations with timely delivery of expert mental health assessment and advice on request and to enhance the skills of the local workforce in dealing
with mental health emergencies. The evaluation showed that there was increasing uptake of the service after its introduction, especially in remote zones, and that this usage led to a reduction in the number of people referred to a mental health inpatient unit (Saurman et al., 2011). The conclusion was that:

“... video conference technology is acceptable and offers responsive specialist emergency mental health care to rural and remote communities”.

This evaluation highlighted that mental health treatment, especially in emergency situations is often governed by lack of resources and the confidence and attitudes of staff in dealing with mental health issues. This may lead to transfers out of a remote locality to a mental health inpatient unit, which could be avoided if there was better access to specialist services. This access can be provided through video conferencing technology. The study also showed that it takes time to establish a video-conferencing facility and gain acceptance, with a two year lead time for these services to become established in this case.

The model highlighted the importance and success in using technological solutions to address service gaps contributed to by geographical remoteness and a shortage of local specialist staff.

**Key attributes to make model work:** Clear guidelines regarding when the use of the tele-health service was appropriate; effective, robust quality improvement program; ongoing education and training of Emergency Department staff; effective promotion of the service; good centralised co-ordination and integration with local services; follow-up video assessments to support continued ‘in-place’ management. The importance of these attributes was further highlighted in a child and youth telepsychiatry model referred to in the body of this report (Wood et al., 2012), with the flexible timing of video-conferencing and routine outreach visits to facilitate community capacity building also identified as crucial for the effectiveness of tele-health models.

**Key ways model could be improved:** The importance of follow-up care was one aspect identified by the evaluation, if avoiding transfer to a specialist facility was to provide an effective solution for patients who required ongoing management. Continued roll-out of video-conferencing equipment was also an essential part of the project to ensure continual improvement and expanded access.

The importance of embedding and integrating new approaches including tele-health initiatives and programs into overall clinical care approaches was emphasised by stakeholders as crucial to their success.

**Further examples of technology enabled service delivery are:**

- **I-bobby app** designed for aboriginal people – delivers treatment based on mindfulness and value-based action and draws on stories and imagery;
- **CRANAplus Bush Support Service** – telephone support service for isolated professionals and their family members;
- Telephone, email and on-line counselling services supporting centre-based services such as Early Psychosis Prevention and Intervention Centre and Headspace
- **ANU’s E-hub** – on-line self-help services
- **MindMatters** – professional development for school staff
- **MHED-RAP Tele-video service** – comprehensive 24 hour mental health service providing advice, emergency assessments and arranging transport and admission.
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