Preamble

The Youth Mental Health Commitments Committee (YMHCC) has been established to implement the Queensland Government election commitments under Rebuilding intensive mental healthcare for young people (the election commitments). The election commitments are aimed at providing enhanced extended treatment and rehabilitation services for young people with severe and complex mental illness.

Queensland Health, through Children’s Health Queensland (CHQ), is currently providing mental health services to this group of young people under the Adolescent Mental Health Extended Treatment Initiative (AMHETI). AMHETI was developed as a service response to the closure of the Barrett Adolescent Centre in January 2014, which was a long stay inpatient facility for young people with severe and complex mental illness. AMHETI is comprised of five key service types being:

- Mobile outreach services [referred to as Assertive Mobile Youth Outreach Services (AMYOS)]
- Residential rehabilitation services
- Day programs
- Step-Up/Step-Down Units
- Subacute beds.

CHQ have prepared a discussion paper on the utility of sub-acute beds in the AMHETI continuum of care. The YMHCC has requested that a literature review be prepared on other contemporary evidence based models (the other key components of the AMHETI) to complement CHQ’s discussion paper on sub-acute care.

Introduction

Current mental health policy approaches focus on provision of mental health services in the least restrictive setting and based in the community (Munton et.al. 2011). The World Health Organisation (WHO) advocates for community based services, as they are more accessible to people with a severe mental illness and are more effective than long stay mental hospitals (WHO 2007). Amongst the proposed actions for member states in the WHO’s Mental Health Action Plan 2013-2020 is to:

“Systematically shift the locus of care away from long-stay mental hospitals towards non-specialized health settings with increasing coverage of evidence-based interventions (including the use of stepped care principles, as appropriate) for priority conditions and using a network of linked community-based mental health services, including short-stay inpatient care, and outpatient care in general hospitals, primary care, comprehensive mental health centres, day care centres, support of people with mental disorders living with their families, and supported housing” (WHO, p. 15).

Aligned with this, the primary aim of Queensland’s AMHETI model is to provide an integrated continuum of care to young people with long term, severe and complex mental health needs, outside of the hospital setting as much as possible. It is recognised that there are several disadvantages to removing young people from their natural environment for inpatient mental health care, including high costs, loss of family and community support, institutionalisation effects, disruption to education (Gill 2014) and stigmatisation...
Components of the Adolescent Mental health Extended Treatment Initiative

(Shepperd et al. 2009). An advantage of community based care is that therapeutic gains may be more likely to be sustained if made in the young person’s natural environment (Shepperd et al. 2009).

Contemporary alternatives to traditional inpatient treatment for young people focus on the development of intensive home and community based care (Gill 2014). There are a number of recent developments in the area of intensive community support, such as the wrap-around model, Multi-Systemic Therapy (MST) and home based models of psychiatric care (Darwish et al. 2006). The wrap-around model is described as a set of policies and processes that are used to develop individualised service responses for children and their families with complex needs (VanDen Berg and Grealish 1996). Service provision is coordinated across multiple agencies (Bruns et al. 2010), is based in the community, is culturally appropriate, and changes with the changing needs of the family (VanDen Berg and Grealish 1996). Similarly, MST is family centred and features intensive home and community based care (Schley et al. 2011). MST services are typically available 24 hours a day, seven days a week and clinicians have a caseload of about three families (Schley et al. 2011). Home based models of psychiatric care merge medical models with developmental and systems theories (Woolston et al. 1998). These services provide staffing 24 hours a day, 7 days a week for on-call crisis intervention (Darwish et al. 2006). The underlying theoretical model behind these approaches is that small changes in the young person in their own environment, may be of more benefit than a larger change in a setting removed from the young person’s natural environment, such as an inpatient unit (Darwish et al. 2006).

A recent review of randomised control trials was conducted by Kwok, Yuam and Ougrin (2015), comparing the efficacy of intensive community based services (including specialist outpatient treatment, multi-systemic therapy, day patient treatment, intensive home treatment and supported discharge services) with inpatient care for young people with mental health problems. The results found that use of intensive community based services showed similar clinical outcomes to inpatient care (Kwok, Yuam and Ougrin 2015). However, intensive community based services were associated with shorter hospital stays, lower costs and greater patient satisfaction (Kwok, Yuam and Ougrin 2015).

**Key components of AMHETI**

**Mobile outreach services**

Many young people are reluctant to seek out professional services for mental health care (Rickwood et al. 2005). In an Australian study, it was found that even though young people have the highest prevalence of mental disorders, service use was low, with over 80% of males and 70% of females with mental disorders aged 16-24 years, not accessing any services (Slade et al. 2009).

In Queensland, Community Child and Youth Mental Health Services (CCYMHS) are generally centre-based and rely on clients and their families to attend an office to access the services provided. Although appropriate for the majority of children and young people with mental health difficulties and their families, this model of service delivery has proven to be less suitable for a small group of adolescent clients, many of whom have multiple, complex difficulties. Whilst this group of young people may access mental health care services in periods of crisis, they are often hard to engage in ongoing mental health care for a variety of reasons including ambivalence about treatment or because of significant practical barriers to attending appointments.

Difficulties with the engagement of adults with mental health services has been addressed through changes in service design, by focussing on models of assertive outreach (Assan et al. 2008). Assertive outreach teams can be described as “mobile multi-disciplinary teams that provide intensive care coordination to a relatively small cohort of consumers with complex needs who require ongoing proactive and sustained support and treatment to remain living in the community” (Flannery, Adams and O’Connor 2011, p.52). The
effectiveness of such approaches with adults is well documented (Schley et al. 2011), with assertive community treatment models reducing inpatient admissions, improving accommodation and occupational status and increasing consumer satisfaction (Thornicroft and Tansella 2004). There is now a growing evidence base for the effectiveness of specialist mental health outreach services for adolescents.

For example, the Fife Intensive Therapy Team in the United Kingdom, which focused on providing care to those young people with severe and complex mental health problems in their own homes or in a community facility, found a significant reduction in the Health of the Nation Outcome Scales for Children and Adolescents (HoNOSCA) scores, representing a considerable reduction in social and emotional dysfunction (Simpson et al 2010). In Australia, the Intensive Mobile Youth Outreach Services (IMYOS) (upon which AMYOS is based) were established in Victoria in the late 1990’s and provide,

“intensive outreach mental health case management and support to adolescents who display substantial and prolonged psychological disturbance, and have complex needs that may include challenging, at risk and suicidal behaviours. These services work with young people who have been difficult to engage using less intensive treatment approaches” (Victorian Department of Health 2008).

Retrospective clinical review suggested that IMYOS interventions were effective in reducing risk of harm to self and others, and in lowering the number of inpatient admissions and time spent in hospital (Schley et al. 2008). A subsequent study of IMYOS found high client engagement in treatment, and an increase in wellbeing and functioning on discharge from IMYOS (Schley et al. 2012). Also in Victoria, the effectiveness of the Adolescent Intensive Management (AIM) Team which delivers mental health interventions to adolescents who have been assessed as being at risk and/ or difficult to engage, was examined by Assan et al. (2008) and Chia et al. (2013). Assan et al. (2008) found that intervention from the AIM team resulted in high engagement in treatment and improvement in functioning indicated by the high rate of return to education. These findings were supported and built upon by Chia et al. (2013) who found that young people who engaged with the AIM team experienced a decrease in the rate of hospitalisation, increase in engagement with education and improvements in clinician–rated functioning levels. These positive trends were maintained across a heterogeneous group of young people who had anxiety, mood, psychotic or emerging personality disorders as the primary diagnosis (Chia et al. 2013).

Although a full evaluation of AMYOS is currently being undertaken, there are some preliminary results that point to its effectiveness. Prior to AMYOS intervention, the young people who access the Children’s Health Queensland HHS AMYOS team experienced an average of 1.67 admissions and 5.4 acute/emergency department presentations (CHQ 2016). In the average of 5.3 months since receiving AMYOS support, young people had experienced an average of 1.22 admissions (CHQ 2016). Of these, 54.54 percent were planned, leaving an average of 0.66 unplanned admissions per young person since their commencement with AMYOS (CHQ 2016).

Residential Rehabilitation Services

Housing

The move from psychiatric long-stay institutional care to care in the community has implications for housing for people with a severe mental illness (Bhugra 1996 cited in Chilvers, MacDonald and Hayes 2006). “It is estimated that over 40% of people with severe mental illness are homeless or housed in tenuous forms of accommodation, often interspersed with periods of hospitalisation and sometimes incarceration” (Mental Health and Drugs Division 2009 cited in the Nous Group 2012). In 1989, the National Inquiry into Youth Homelessness noted that:

“the transfer of many young people with intellectual and psychiatric disabilities from institutional to community care, without adequate preparation or support, has led to many becoming dependent on
refuges which are ill-equipped to meet their needs” (Human Rights and Equal Opportunity Commission, 1989, p. 238).

In the 2008 report of the National Youth Commission’s Inquiry into Youth Homelessness it was noted that,

“[n]early twenty years later [after the 1989 National Inquiry into Youth Homelessness], there continues to be inadequate support for young people with a mental illness who are homeless or at risk of homelessness” (National Youth Commission, 2008, p. 145).

More recently, the National Youth Coalition for Housing note that,

“...Young people with psychiatric disabilities have very few options after they have been discharged from hospital. Many young people need access to support at this stage. Clearly there is a great need to establish more supported housing for young people recovering from a stay in hospital” (2016).

The youth residential rehabilitation model established in Cairns, Greenslopes and Townsville, provides long-term accommodation (up to 365 days) and recovery-oriented treatment, 24 hours a day for 16-21 year olds who have moved out of the acute phase of their mental illness but lack the skills or expertise for independent living, or a stable place of accommodation. Youth residential rehabilitation services contribute to the accommodation options available to young people with severe mental illness.

**Mental health outcomes**

There is however some difficulty in drawing on the literature to establish the effectiveness of residential rehabilitation services for improving mental health outcomes in young people. There is a lack of a consistent definition of residential treatment (Butler and McPherson 2007 cited in Bettmann and Jasperson, 2009). Also, the literature base lacks rigorous experimental design such as across-program and between treatment comparisons (Bettmann and Jasperson, 2009). Despite this, Bettman and Jasperson (2009) note in their review of 13 studies that, “the outcome literature for adolescent residential and inpatient treatment indicates that these therapeutic settings are successful interventions for many clients” (p. 174). It should be noted that not all of the articles reviewed by Bettmann and Jasperson were focussed on mental health care as such.

Of those that were mental health focussed, Lyons et al. (2001) for example, examined the mental health outcomes of 285 young people aged 12 to 17 years who were placed in one of eight residential treatment centres. The results were mixed, showing some reduction in risk behaviours, improvement in depression and psychotic symptoms, but worsening of anxious and hyperactive symptoms (Lyons et al. 2001). Also, Larzelere et al. (2001) studied severely disturbed children and young people aged 6-17 years in a residential treatment centre at Girls and Boys Town. Functioning was measured using scores around intake, and at discharge using the Child Behaviour Checklist (CBCL) and the Children’s Global Assessment Scale (C-GAS) (Larzelere et al. 2001). Results showed improvements in the CBCL and C-GAS as well as life stability (Larzelere et al. 2001). Neither of these studies went into great detail regarding the model for the residential treatment.

The difficulty lies in finding studies that mirror youth residential rehabilitation services, as the definition of residential care varies greatly. In their review of Victorian community based mental health programs, the Nous Group (2012) note that,

“[t]here is no supporting evidence about Youth Residential Rehabilitation services. However, there is broad stakeholder consensus for the bed-based approach. The evidence that does exist supports the importance of an individualised program, flexible support sessions and family inclusion… The general view was that the bed-based approach is necessary given the critical development stage of young people. This approach gives stability, peer support and relative safety.” (p. 125).
Evidence for the efficacy of short term residential programs for young people with mental health problems can also be considered. Previous to being a youth residential rehabilitation service, the service in Cairns was the Time Out House Initiative (TOHI). From 2010 to 2013, the Queensland Department of Communities funded the TOHI in Cairns and Logan (Gendera et al. 2013). The TOHI was designed to provide approximately 3 months outreach and case management support to young people aged 18 to 25 whose circumstances either had an impact on their mental health or, if unaddressed, would be likely to have an impact. An optional component of the support model included a short residential stay of approximately 3 weeks (Gendera et al. 2012). In the evaluation of the TOHI, it was found that, in Cairns, the residential component was highly utilised, and associated with positive feedback from participants and their families (Gendera et al. 2013). By self-report, emotional and overall wellbeing improved for young people in Cairns and Logan who used either outreach or residential support (Gendera et al. 2013). Also, young people in Cairns reported that the residential component contributed to reducing their social isolation and stabilising their mental health (Gendera et al. 2013).

We should also consider, albeit carefully, the literature on adult residential services for an indication of whether residential care works. Munro et al. (2007) cites the study by Hawthorne et al. (1994) which examines two American residential programs, noting that:

"Reported outcomes for the post year follow-up study included significant reductions in admissions to psychiatric hospitals, crisis centres and homelessness as well as significant increases in independent living and vocational outcomes. The authors concluded that residential programs offer a cost-effective and clinically efficacious emerging treatment modality for people with persistent mental illness" (p. 258).

Queensland has provided community based residential care for adults with serious mental illness in the form of Extended Treatment Rehabilitation Units (ETRUs) and Community Care Units (CCUs) since 1994 (Munro et al. 2007). Whilst ETRUs are based on hospital grounds, CCU’s are based in the community and more closely resemble a residential rehabilitation service model (with some points of difference). Apart from CCU’s catering for adults as opposed to young people, the key differences between CCU’s and youth residential rehabilitation facilities are that CCU’s:

- are operated by Queensland Health whilst youth residential rehabilitation facilities are operated by a contracted community organisation.
- provide 24 hour clinical care onsite, whilst youth residential rehabilitation facilities work with the young person’s Child and Youth Mental Health Service treating team.
- are purpose built facilities, whilst youth residential rehabilitation facilities occupy an existing dwelling.

The Queensland model of service describes the CCU as a,

"community based facility for mental health consumers who are in recovery, but require additional support and life skills to successfully transition to independent community living… with access to 24 hour mental health care, peer support and supervised consumer rehabilitation…to consumers who require medium to long term mental health care and rehabilitation" (Queensland Health 2015).

In their one year follow-up of patients who moved from hospital care to CCUs in Victoria, Trauer et al. (2001) found that although mental health symptoms and disability remained unchanged after move to the CCUs, there was a notable improvement to quality of life.

**Day programs**

Although day treatment (also known as ‘day hospitalisation’ or ‘partial hospitalisation’) for adults has been used since the 1940’s, the use of day treatment services for young people is a relatively recent service addition (Fothergill 2015). Day programs for children and adolescents provide an alternative to inpatient...
Components of the Adolescent Mental health Extended Treatment Initiative

In their review of eight day program studies, Deenadayalan et al. (2010) found that day programs provided positive effects of varying degrees in areas such as social skills, anxiety, aggression, and Obsessive Compulsive Disorder symptoms. In a study by Lenz et al. (2014) significant improvements in symptoms and relationships were found in a brief six week program for adolescents, predominantly with mood disorders (cited in CHQ 2016). Focus groups noted a subjective sense of renewed well-being, improved peer relationships, and an endorsement of the programs’ individual therapy, group interventions and art therapy (Lenz et al., 2014 cited in CHQ 2016). In comparing continued inpatient care with day patient treatment after a short inpatient admission for young people with anorexia nervosa, Herpetz-Dahlmann et al. (2014) found day patient care to be comparable to continued inpatient treatment in terms of weight gain and maintenance between the time of admission and in 12 months follow-up. Added to this, Herpetz-Dahlmann et al. (2014) argue that day programs may be of particular importance to young people:

"the development of treatments such as [day patient treatment] which facilitate autonomy and self-confidence, are arguably more important for young people than for adults in view of developmental significance of the adolescent period“ (p. 1227).

Therapeutic benefits have also been noted in an Australian context, with Forthergill (2015) finding comparable clinical improvements amongst young people treated in either an outpatient or day program setting in Canberra but with greater school/work re-engagement associated with day program participation. In their evaluation of Victorian Adolescent Day Programs, Kennair, Mellor and Brann (2011) compared adolescents that received day program services with those that received outpatient treatment and found that day programs are an effective intervention for adolescents with mental health problems. Adolescents reported significant improvements in peer relationships, school relationships, and overall mental health functioning with day program support (Kennair, Mellor and Brann 2011). In addition, compared with the group of adolescents that did not receive day program services, day program participants reported improved scholastic/language skills and improvement to family relationships after treatment (Kennair, Mellor and Brann 2011).

Step-Up Step-Down Services

In providing options to inpatient care, services have been developed which provide a bridge between acute and community mental health services (Lee et al. 2014). “Advocates for such stepped-care models have argued that offering an array of intervention options with different intensities (and requiring different costs) broadens the access to mental health care that is tailored to people’s needs” (Lee et al. 2014, p.481-482).

Such stepped care services can be broadly referred to as sub-acute care. Sub-acute care can be defined as:

“care for a person who is either becoming acutely psychiatrically unwell (whether or not they have previously been acutely mentally ill) or who is recovering from an episode of acute psychiatric illness. Several different types of services already provide this type of care across Australia. This includes home-based treatment and support, short-term emergency respite and community-based residential ‘step-up/step-down’ services such as Victoria’s Prevention and Recovery Care (PARC)” (Mental Health Council of Australia, 2010, p.4).

Sub-acute care was identified in 2008 as requiring attention in Australian health service design:
“sub-acute care is a vital element of the patient journey, often providing the connection between acute care in hospitals and care in the community and in people’s homes. Many parts of Australia have limited or poorly developed sub-acute care services. The inability of many patients to access a comprehensive range of sub-acute services represents a significant ‘missing link’ in the care continuum. This service gap seriously erodes the effectiveness of other services, such as acute hospital care, as well as causing poorer outcomes for patients” (National Health and Hospitals Reform Commission 2009, p. 11).

Further to this, in the National Health and Hospitals Reform Commission’s (2009) final report it is noted that, “We are recommending that there needs to be a major expansion of multidisciplinary community-based sub-acute services that are effectively linked in with hospital-based mental health services. These sub-acute services can help manage the care of people living in the community before they become acutely unwell (step-up care) and provide an alternative to support recovery and better functioning after an acute hospital admission (step-down care). This ‘prevention and recovery’ model is a vital element in effectively supporting people with a mental illness living in the community. Investing in community-based outreach, sub-acute services and earlier intervention will help free up existing acute mental health services for more optimum use of these services. While some additional investment in acute mental health services may be warranted, the balance of future investment should seek to reorient mental health services with a greater focus on prevention, early intervention and sub-acute services in the community (p.107).

There is clear policy direction for sub-acute services in Queensland, Australia and internationally. In terms of whether they produce positive mental health outcomes, two studies during the 1990’s in America found that sub-acute residential services for adults provided care that was comparable to inpatient treatment, whilst being more cost effective (Fenton et al. 1998; Hawthorne et al. 1999). In the study conducted by Hawthorne et al. (1999) it was found that the residential alternative provided a better result than inpatient care on the daily living skills subscale for people with major depression.

As noted by the Mental Health Council of Australia, one type of sub-acute care is the Prevention and Recovery Centre (PARC) model developed for adults in Victoria. PARC services were piloted in 2003 and introduced as part of the acute end of the service continuum (Victorian Department of Health 2010). A consistent finding in the evaluation of the PARC pilot sites was that PARC services improved people’s wellbeing, were highly regarded by consumers and carers, and that clinicians believed that continuity of care improved (Nous Group, 2013). In the study conducted by Lee et al. (2014) it was found that the PARC model can produce positive outcomes for people with a mental illness, including improvement to psychosocial functioning and less time in hospital based mental health care.

A total of four Youth focussed Prevention and Recovery Centres (Y-PARCs) have also been established throughout Victoria, upon which the Queensland Step-Up/ Step-Down model for young people is based. There is no apparent academic research regarding the effectiveness of Y-PARCs. However, a recent study examined the lived experience of young people aged 14 to 18 years who were residents of a youth stepped care mental health service in the Australian Capital Territory called the STEPS program (Magor-Blatch and Ingham 2015). STEPS is a sub-acute residential facility for young people with moderate to severe mental illness who don’t require admission to an inpatient unit, and provides accommodation for up to 3 months to ensure a smooth transition in stepping down from hospital inpatient units, or stepping up from home to mental health services (Magor-Blatch and Ingham 2015). Young people were interviewed on a range of questions regarding their experiences in the STEPS program in their first week of residency and at 3 months post-admission, and a thematic analysis was undertaken of the results (Magor-Blatch and Ingham 2015). Young people reported that they learnt new skills (communication, conflict and time management skills) and had improved relationships due to their time in the STEPS program (Magor-Blatch and Ingham 2015).
Conclusion

Current mental health policy approaches focus on provision of mental health services in the least restrictive setting and based in the community (Munton et al. 2011). For young people, care in the community may be particularly important as it allows them to maintain the support from their family and remain engaged with mainstream education and employment. Aligned with this, the primary aim of Queensland’s AMHETI model is to provide an integrated continuum of care to young people with long term, severe and complex mental health needs, outside of the hospital setting as much as possible.

The evidence for the components of the AMHETI model is varied. Mobile outreach services (such as AMYOS) seem to be highly effective in engaging with, and producing positive outcomes for young people with severe and complex mental illness. There is also substantial evidence to support the use of day programs for young people. There is however some difficulty in drawing on the literature to establish the effectiveness of residential rehabilitation services for improving mental health outcomes in young people. Despite this dearth of evidence, there is a recognised need for tailored accommodation options for young people with a serious mental illness, and youth residential rehabilitation services can fill this gap. Added to this is the success of extended care facilities such as CCU’s for adults and their resemblance to the youth residential rehabilitation model. Finally, there is policy support and emerging research to suggest that step-up/step-down services would be of benefit in the service continuum to respond to the needs of young people with severe and complex mental illness.

References


