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HSE NATIONAL CLINICAL PROGRAMME FOR EARLY INTERVENTION IN PSYCHOSIS

MODEL OF CARE

May 2019

HSE National Clinical Programme for Early Intervention in Psychosis

MODEL OF CARE

May 2019

National Clinical & Integrated Care Programmes
Person-centred, co-ordinated care

HSE Mental Health Services

READER INFORMATION

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- National Subgroup for CBTp SOP Development;
- National Subgroup for Family / Carer Involvement, Information, Support and Interventions;
- Clinical Leads and Shine in consultation process.

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FOREWORD

On behalf of the HSE National Clinical Programme for Early Intervention in Psychosis I am very pleased to present this Model of Care document which outlines the HSE plan for the development of early intervention in psychosis services in Ireland into the future. Internationally the development of early intervention in psychosis services have become a key priority in mental health service provision over the last twenty to thirty years with an extensive research literature on the health and cost benefits associated with their roll out in many countries.

While there have been welcome developments in this area in a number of mental health services the Model of Care outlines in detail how in Ireland a national comprehensive standardised programme can deliver early intervention in psychosis service provision to service users and their families / supporters. Through its support of the National Clinical Programme for Early Intervention in Psychosis the HSE has prioritised the provision of high quality, accessible mental health service to service users and their families / supporters throughout Ireland which will also be cost effective once established.

Key recommendations are made in relation to models of early intervention in psychosis service delivery, early detection, engagement and pathways to care and a range of multidisciplinary interventions for service users and their families / supporters with a recovery ethos from the outset. In addition investment in supporting and up-skilling clinicians and evaluation of services with continuous quality improvement are key to its success. The involvement of service users and families / supporters throughout all stages of implementation and evaluation is critical also as is the importance of working in an integrated way with our colleagues in primary care as well as well as with other HSE national clinical programmes in mental health, acute medicine, population health etc.

While the resources required are significant, savings will accrue when services are established through the reduced use of inpatient beds, the reduced requirement for long-term residential accommodation within mental health services, and the reduced carer burden, as well as improved participation in the workforce, independent living and active citizenship, all of which will improve the quality of life for service users.

I would like to express my gratitude to all of the multidisciplinary members of the HSE national working group for their commitment, expertise and collaboration in the development of the model of care. I also wish to record my deep appreciation to the Clinical Advisory Group of the College of Psychiatrists of Ireland, led by Dr. Paddy Power, who dedicated considerable time and expertise to reviewing and enhancing the model of care ensuring it could deliver to best international standards for our service users and their families / supporters.

I acknowledge with thanks the leadership and oversight provided by Dr. Ian Daly, Dr. Margo Wrigley and Dr. Philip Dodd in their role as HSE National Clinical Advisor and Group Leads as well as Ms. Rhona Jennings, Programme Manager who has worked tirelessly to progress the work required to develop this Model of Care.

Dr. Katherine Brown

HSE National Clinical Lead for Early Intervention in Psychosis

March 2019

FOREWORD

On behalf of the HSE Mental Health Services I am delighted to present and endorse this Model of Care document as part of the National Clinical Programme for Early Intervention in Psychosis. This document has been developed in close partnership with the College of Psychiatrists of Ireland.

The National Clinical Programme for Early Intervention in Psychosis is part of a family of mental health and other health related Clinical Programmes, created by the HSE Clinical Strategy and Programmes Division as a part of ongoing work to develop high quality health services. It is based on a programmatic approach, with an emphasis on a strong evidence-base, improving patient safety, value and equity of service delivery.

This Clinical Programme and Model of Care is a good example of integrated care planning across the health service, placing the patient at the centre of service delivery. It will span mental health, acute hospital and primary care services and aims to improve patient safety and outcomes.

This Model of Care is a based on interdisciplinary training and working, with clinicians developing skills in response to patient need, with a clear focus on optimising patient and clinical outcomes. The Model was developed using a clear evidence-base, with a designed supervision and support structure to support clinicians to develop competencies in delivering effective interventions.

In anticipation of this publication, the HSE is prioritising investment in the implementation of this Model of Care with significant early intervention in psychosis service development likely in 2019 and beyond.

I would like to thank the College of Psychiatrists of Ireland for their leadership and commitment to this Clinical Programme, and in particular I would like to thank Dr. Katherine Brown, Clinical Lead, and Ms. Rhona Jennings, Programme Manager for their relentless desire and efforts to improve services for people with a first episode of psychosis.

Dr. Siobhán Ní Bhriain

HSE National Clinical Advisor and Group Lead - **Mental Health**

May 2019

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Additional acknowledgements: Professor Gary O'Donoghue and Dr. Hugh Ramsay

GLOSSARY OF ACRONYMS

ADLs	Activities of Daily Living
AMHS	Adult Mental Health Services
APS	Attenuated (Low Grade) Psychotic Symptoms
ARMS	At-Risk Mental State
BFT	Behavioural Family Therapy
BLIP	Brief Limited Interval of Psychosis
BNRS	Brief Negative-Symptom Rating Scale
CAARMS	Comprehensive Assessment of At-Risk Mental State
CAMHS	Child and Adolescent Mental Health Services
CBT	Cognitive Behavioural Therapy
CBTp	Cognitive Behavioural Therapy for Psychosis
CG	Clinical Guideline
CGAS	Children's Global Assessment Scale
CHO	Community Healthcare Organisation
CMHT	Community Mental Health Team
COPE	Cavan/Monaghan Overcoming Psychosis Early
CPD	Continuing Professional Development
CPI	College of Psychiatrists of Ireland
CQI	Continuous Quality Improvement
CROM	Clinical Report Outcome Measure
CSPD	Clinical Strategy and Programme Division
DETECT	Dublin East Treatment and Early Care Team
DoH	Department of Health
DSM	Diagnostic and Statistical Manual

DUP	Duration of Untreated Psychosis
ED	Emergency Department
EIP	Early Intervention in Psychosis
EIPP	Early Intervention in Psychosis Programme
EPSE	Extrapyramidal Side Effects
EQ-5D	Euroqol 5 Dimension Scale
FEP	First Episode of Psychosis
GAF	Global Assessment of Functioning
GDPR	General Data Protection Regulation
HADS	Hospital Anxiety and Depression Scale
HSE	Health Service Executive
HVN	Hearing Voices Network
ICD	International Classification of Disorders
ICP	Individual Care Plan
ID	Intellectual Disability
IPS	Individual Placement and Support
KPI	Key Performance Indicator
LAI	Long-Acting Injectable
MANSA	Manchester Short Assessment of Quality of Life
MCCB	MATRICS Consensus Cognitive Battery
MDT	Multidisciplinary Team
MHA	Mental Health Act
MHC	Mental Health Commission
MHS	Mental Health Services
MIRECC	Mental Illness Research, Education & Clinical Centre

NCHD	Non-Consultant Hospital Doctor
NCP	National Clinical Programme
NICE	National Institute of Clinical Excellence
NIMH	National Institute of Mental Health
NOS	Nottingham Onset Scale (measure of DUP)
OT	Occupational Therapy
PANSS	Positive and Negative Symptoms of Schizophrenia
PIG	Policy Implementation Guide
POLL	Psychiatry of Later Life
PROM	Patient Reported Outcome Measure
PROTECT	Personalised Recovery-Oriented Treatment, Education & CBT
QPSD	Quality Patient Safety Division
REFOCUS	Recovery Experience Forum of Carers and Users of Services
SANS	Scale for Assessment of Negative Symptoms
SAPS	Scale for Assessment of Positive Symptoms
SIPS	Short Instrument for Psychosis Risk Syndrome
SFSS	Short Form SAPS and SANS
UHR	Ultra-High Risk
VFC	Vision for Change
WHO	World Health Organisation
WTE	Whole-Time Equivalent

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CHAPTER 1: INTRODUCTION

The National Clinical Programmes in Mental Health were set up as a joint initiative between the HSE Clinical Strategy and Programmes Division (CSPD) and the College of Psychiatrists of Ireland in 2011. The primary aims of all HSE Clinical Programmes such as the National Clinical Programme for Early Intervention in Psychosis are to standardise quality evidence-based practice, and improve access and cost-effectiveness. The implementation of this Model of Care for Early Intervention in Psychosis will support evidence-based effective change by clinically led multidisciplinary teams in collaboration with service users and their families, with a nationally consistent approach to continuous quality improvement.

Psychotic disorders such as schizophrenia and mood disorders (with psychosis) affect about 3 per cent of the population in their lifetime. A major source of suffering and disability in society, they account for the second highest cause of disability worldwide. Schizophrenia is ranked sixth in the global burden of disease.

Each year in Ireland, an estimated 1,500 people develop a psychotic disorder for the first time. The disorder particularly affects young people. Two-thirds of presentations occur before the age of 35 years.

Most people experience long delays in accessing treatment from the time they first experience psychosis. The Duration of Untreated Psychosis (DUP) is a measure of these delays. Experiencing a long DUP has been shown to result in greater levels of suffering, co-morbidity, suicidality and violence (Melle *et al*, 2006) as well as contributing to poorer responses to treatment, relapses, chronicity, burden on carers and costs to society (Marshall *et al,* 2005). Reducing these delays (i.e. DUP) is a central aim of Early Intervention in Psychosis (EIP). In addition, once treatment has started, long-term outcome is greatly determined by the course of recovery over the first three years of follow-up known as the 'critical period' (Birchwood *et al,* 1998). Recovery depends on maintaining engagement in treatment during this period.

EIP includes strategies to (a) improve the early identification and engagement of people with either an At-Risk Mental State (ARMS) or a first episode of psychosis, and (b) provide a better range of evidence-based interventions to improve recovery and prevent relapse during the initial critical 3-5 years of follow-up.

Such early intervention makes a significant difference to the outcome for those who develop an ARMS or psychotic illness, improving clinical, functional and personal recovery by either preventing or reducing the impact of psychotic disorder on the individuals affected. As well as the benefits for individuals experiencing a psychotic disorder and family members/carers, there are economic benefits both for health services and society (Knapp *et al*, 2014).

In formulating this Model of Care for Early Intervention in Psychosis, the National Working Group has, at all times, been conscious of the perspective of and impact on the service user and their family.

CHAPTER 2: CLINICAL BACKGROUND

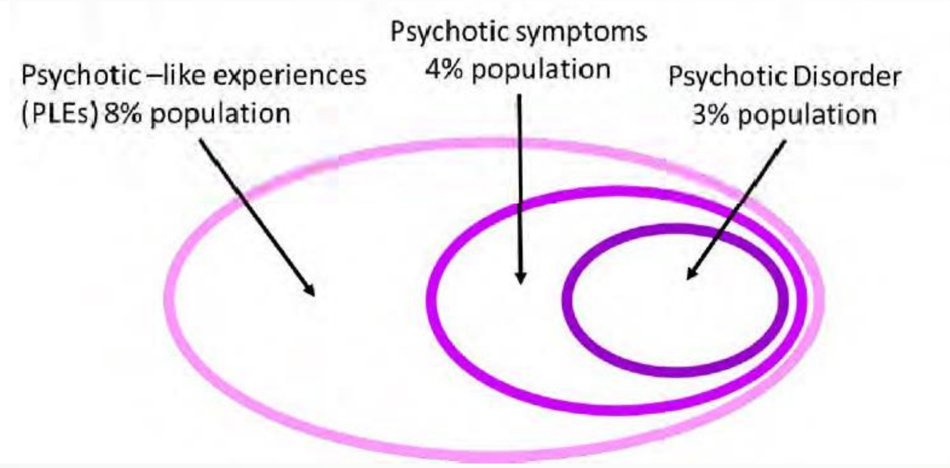
2.1 Introduction

2.1.1 What is Psychosis?

Psychosis is a broad term used to describe a state of mind in which delusions, hallucinations and/ grossly disordered thinking are experienced while in a fully conscious state. It is often accompanied by major changes in mood (elation, depression, emotional blunting), cognitive functioning (neurocognitive deficits in attention, information processing and memory) and occasionally in behaviour (agitation, catatonia, unpredictable aggression).

Like other states of mind, such as anxiety or depression, fleeting mild psychotic-like experiences (PLEs) are common. They are reported by 15 to 17 per cent of the general population (Johns *et al*, 2004; Van Os *et al*, 2009). They are not considered to be of clinical significance until they become intense, persistent or distressing, or are associated with other clinical features or syndromes – for example, affective (mood) disturbance. Clinically significant but fleeting psychotic symptoms are reported in about 25 per cent of service users with anxiety, mood and personality disorders (Kelleher *et al*, 2017) but not to a level that would be considered a *psychotic episode or disorder* unless they meet the criteria outlined in Section 2.1.2 below. However, they are a marker of higher risk for psychotic disorder in the longer term (Kelleher *et al*, 2012).

Figure 1: The prevalence of psychosis in the general population



Adapted from n Os et al 2009 (higher % PLEs i hildren and dolescents)

2.1.2 What is a First Episode of Psychosis (FEP)?

A *first episode of psychosis* (FEP) is the first time that moderately severe psychotic symptoms are experienced for at least seven consecutive days (i.e. hallucinations and/or delusions with or without associated thought disorder) and cause distress or disruption of functioning. These psychotic episodes are generally due to either a functional psychotic disorder (e.g. schizophrenia, manic or depressive psychosis) or an organic psychotic disorder (e.g. secondary to epilepsy or neurodegenerative conditions). Psychotic disorders are classified as mental disorders, using the International Classification of Mental Disorders (ICD 11) and The Diagnostic and Statistical Manual (DSM V).

2.1.3 How common are the different forms of FEP?

First, it is estimated that about 15 per cent of people with psychotic disorders never come to the attention of mental health services (Link, 1980). For those that do, a study in Cavan-Monaghan (Baldwin *et al*, 2005) provides a useful breakdown of the different diagnostic groupings in an Irish FEP sample (aged 16 and over), highlighting the three core diagnostic groups (Schizophrenia spectrum, Manic, and Depressive Psychoses). One-third of cases were diagnosed with Schizophrenia spectrum disorders (Schizophreniform 6%, Schizophrenia 22%, and Schizoaffective Disorder 6%). Another third was diagnosed with Affective Psychoses (either Bipolar 16% or Depressive psychosis 20%). The last third was diagnosed with either a mix of the above complicated by drug use (e.g. substance-induced Schizophrenia spectrum psychosis 6% or substance-induced manic psychosis 3%) or rarer forms of psychosis. Organic psychoses were excluded from the study by Baldwin *et al* (2005) but other studies suggest that organic psychosis is rare in young FEP service users and a small minority of older FEP service users.

2.1.4 What is the At-Risk Mental State (ARMS)?

There are number of ways of identifying who is at ultra-high risk (UHR) for psychotic conditions such as schizophrenia and bipolar disorder. The most studied and widely used method is the At-Risk Mental State (ARMS) (Fusar-Poli *et al*, 2017). It relies on identifying the clinical features of emerging/prodromal schizophrenia in young people.

Before a first episode of schizophrenia, people typically experience a relatively long period of prodromal symptoms (average 1-2 years). However, these pre-psychotic symptoms are often quite non-specific and of limited predictive value on their own (about 50% of the population experience these prodromal symptoms at some stage in their lives) (Yung *et al*, 1996). However, one can improve this predictive value by narrowing the criteria. One such set of criteria is the ARMS (otherwise known as the PACE) criteria (Yung *et al*, 2005). These criteria are restricted to young people aged 14-35 years of age, seeking help either for particular prodromal symptoms, or because they already carry a high genetic risk of psychosis and have recently experienced a significant drop in functioning. Having an ARMS places an individual at 30 per cent risk of developing psychosis within three years (Fusar-Poli *et al*, 2012). For those with an ARMS but who do not develop a psychotic episode, their ARMS features will either (a) persist, (b) remit, or (c) develop into another mental health condition.

Cannabis is a common co-morbid factor in this population. Large meta-analyses reveal that over half (53%) of ARMS service users had used cannabis and half of them were still using it. Those who used cannabis reported higher levels of unusual thought content and suspiciousness (Carney *et al*, 2017).

For other psychotic conditions, new research is helping to identify those at ultra-high risk (UHR) of bipolar disorder. As in schizophrenia, prodromal symptoms commonly precede the onset of manic psychosis by a number of months, and delays in the diagnosis of bipolar disorder are typically seven years on average (Conus *et al*, 2008). Recently, the Bipolar At Risk (BAR) Criteria have been developed (Bechdolf *et al*, 2014) but this is a controversial and still experimental area of research.

2.2 Course of First Episode of Psychotic Disorders

As outlined above (in Section 2.1), first-episode psychosis includes all first episodes of schizophrenia, affective psychoses, substance-induced psychosis and organic psychoses. Some of these conditions are not diagnosed until the psychosis lasts more than one month – e.g. schizophrenia or, unless there is a second episode, e.g. bipolar disorder. If one detects these conditions earlier, then they may only meet the criteria for an acute & transient psychotic episode rather than schizophrenia or a manic episode rather than bipolar disorder. In reality, they are likely to be just earlier stages of the same conditions.

In general, most first-episode psychoses fall into either the 'non-affective' (schizophrenia-like) or the 'affective' (bipolar/unipolar-like) groups. Each has a traditional course and outcome (see below), and treatment implications (see UK NICE guidelines). The course of drug-induced psychosis depends, first, on whether the underlying psychosis triggered by the drugs is 'affective' or 'non-affective', and secondly on whether the person continues to use drugs. The course of organic psychosis depends on the course of the underlying organic condition - e.g. epilepsy.

2.2.1 The natural history of a first episode of schizophrenia

Schizophrenia (and its related psychoses) accounts for one-third to a half of first-episode psychosis (FEP) presentations (Baldwin *et al*, 2005). It is a psychotic disorder that affects 0.4-0.7 per cent of the population (Saha *et al*, 2005) and 50 per cent more men than women (Messias *et al*, 2007). It is rare before puberty. Onset increases sharply in mid-teens, reaching a peak between age 15 and 25 (Messias *et al*, 2007; Kessler *et al*, 2007). Most cases develop before age 35. The earlier the age of onset, the more challenging it is to diagnose, and the worse the prognosis (Gochman *et al*, 2011).

There are multiple causes for schizophrenia. It generally results from an accumulation of factors which come together in the late teens and adulthood such as genetic, environmental, stress, and other factors such as drugs or trauma. Some of these factors are preventable, particularly if detected early.

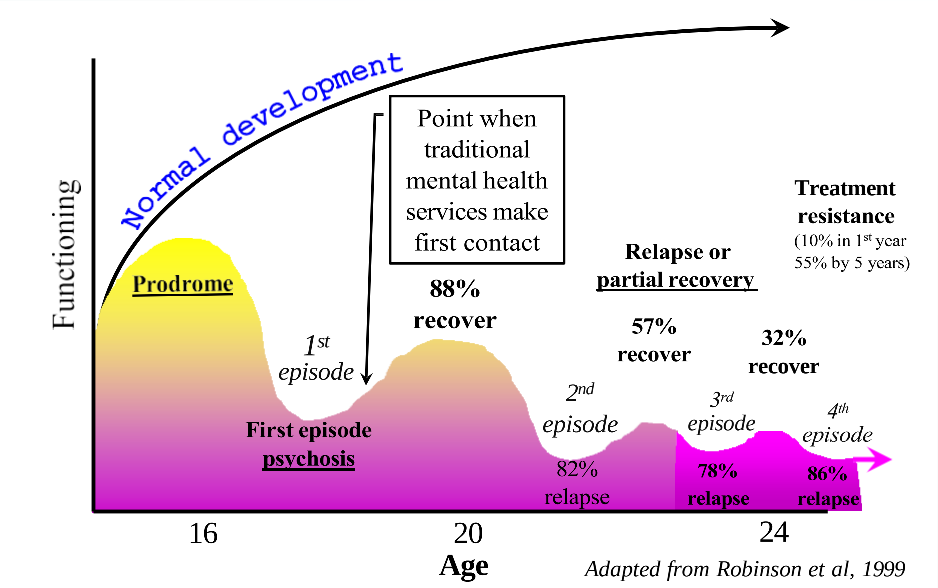
Schizophrenia usually develops slowly with a long prodrome lasting on average two years before the emergence of the first acute psychotic episode (Loebel *et al,* 1992). It is during this period that psychosocial stresses or drugs will often unmask predisposing risk factors. Once FEP emerges, it will generally persist until it is treated. Access to treatment is often very slow, and long delays worsen the prognosis (Marshall *et al*, 2005).

Once established, schizophrenia is characterised by recurrent episodes of psychosis, complicated often by cognitive deficits, negative features and, commonly, depression during the recovery phases. Recovery generally takes two years (Wunderink *et al*,

2009) but over 80 per cent relapse within the first five years of recovery (Robinson *et al*, 1999), typically when service users cease medication prematurely or are exposed to the triggers that prompted the first episode. With each relapse, the prospect of remission diminishes and by five years over 50 per cent of service users have developed treatment-resistant psychotic symptoms (see Figure 2).

During the first psychotic episode of schizophrenia, it is usually not possible to tell whether it will progress along the classic course seen in schizophrenia. It depends greatly on whether it is identified early and treated effectively. Treatment should include evidence-based multidisciplinary interventions and low-dose antipsychotic medication. These first episodes should be treated as if they have the potential to progress to schizophrenia. Moreover, it is important not to dismiss them as drug-induced or stress-induced psychosis and assume that they will remit spontaneously by simply removing the drugs or stress. In fact, service users with acute psychotic episodes complicated by drug use have a worse outcome.

Figure 2: The Course of Schizophrenia



Adapted from Robinson et al, 1999

As Figure 2 indicates, not everyone progresses from the first episode of schizophrenia to more enduring relapsing stages or even the treatment refractory stages of the illness. More benign interventions might be appropriate at earlier stages of illness, and preventative strategies are important throughout (McGorry *et al*, 2006). In early intervention strategies, how much one can reduce the risk of progression from one level of risk to the next is a measure of the success of that strategy.

2.2.2 The natural history of acute and brief psychotic episodes

These non-affective psychotic episodes account for about one-quarter of FEP cases (Coentre *et al*, 2011). Typically, they are too short in duration or not sufficiently pervasive enough to meet the full criteria for schizophrenia. They include Acute & Transient Psychosis and Other/Unspecified Non-organic Psychoses. Whether FEP service users meet these diagnostic criteria hugely depends on which diagnostic system is used and when they are applied during the course of a first episode (Coentre *et al*, 2011). Why episodes are shorter (and don't meet the full criteria for schizophrenia) may be due to a variety of incidental factors such as quicker help-seeking, more accessible services, more acute onset, etc. There course is generally similar to schizophrenia though perhaps a quicker response to treatment and a better prognosis.

2.2.3 The natural history of bipolar disorder with psychosis

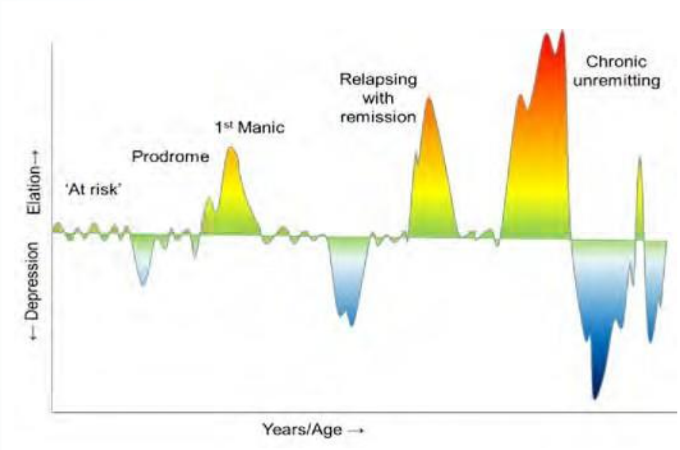
First manic episodes with psychosis account for about 10 to 15 per cent of FEP presentations (Coentre *et al*, 2011; Baldwin *et al*, 2005) and about 50 per cent of affective psychoses presentations. Though not technically meeting criteria for bipolar episode (which requires two episodes) unless a prior depressive episode exists, a manic episode essentially constitutes the first episode of bipolar disorder.

Bipolar disorder affects 1.5 per cent of the population (Conus *et al*, 2006), is ranked fourth in the global burden of diseases in 10 to 24-year-olds, and costs the health system almost as much as schizophrenia (McCrone *et al*, 2008).

Most manic episodes first emerge by an individual's mid-20s, but most people will have already experienced a depressive episode (usually in their teens) that often has gone untreated (Power, 2015). Psychotic symptoms are common (70 to 80%) during manic episodes but rare during depressive phases (Tohen *et al*, 2003). Remission from a first manic episode is usually achieved in 80 to 90 per cent of cases within six months, but levels of residual morbidity are high, with high rates of post-manic depression, neurocognitive deficits (particularly if psychotic symptoms are present) and social disability (Power, 2015). Rates of relapse are as high as in schizophrenia, and accumulating levels of residual chronicity tend to occur with each psychotic episode, though not as frequently as in schizophrenia (Figure 3).

Just as in schizophrenia, early intervention in bipolar disorder is central to the prompt detection, effective treatment, reduction of relapses and prevention of chronic forms of the illness (Power, 2015).

Figure 3: The clinical course of bipolar disorder



2.2.4 Psychotic Depression

First-episode depressive psychosis is a relatively unusual presentation among young adults and more commonly presents among the middle-aged and elderly. It accounts for about 20 per cent of all first-episode psychoses and is more common among women. Usually there have been previous episodes of depression, and episodes are often triggered by major life events. It is frequently accompanied by high levels of agitation and suicidality, complicating medical conditions, and a prolonged course over 6-9 months. Occasionally, severe presentations are complicated by catatonic features. Among more elderly people, neurocognitive deficits are common, and the psychotic depression may be a prelude to early dementia.

2.2.5 Drug / Substance-Induced Psychosis

One area that has traditionally caused controversy is 'drug-induced psychosis'. It assumes that psychosis associated with substance misuse is a self-remitting condition completely separate to schizophrenia and bipolar psychoses. This is not supported by the evidence that between one-third and a half of 'substance-induced psychoses' later convert to either schizophrenia or bipolar disorder (Sta er *et al*, 2017). A more sophisticated view is that these psychotic conditions result from a multitude of overlapping risk factors, including drugs. Drugs like cannabis are an important trigger for all forms of psychosis. Indeed, studies reveal that most FEP service users have a co-morbid substance-use disorder, including cannabis (Lambert *et al,* 2005) and outcomes are as bad as if not worse than 'non-drug-induced psychosis' (Lambert *et al*, 2005). This is not to lose sight of their drug use problem, as persistent use leads to worse outcomes. In practice, early intervention services usually accept those with psychosis complicated by drug use and treat them as they would other forms of psychosis. To exclude this group would be akin to excluding cigarette smokers with heart attacks from coronary care units.

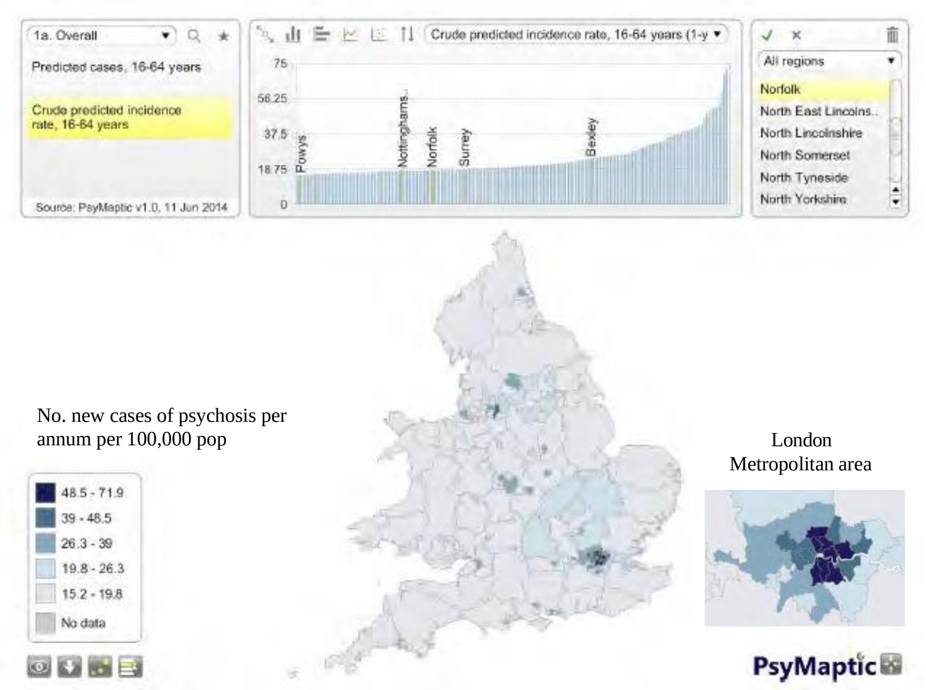
2.2.6 Other forms of psychotic disorder

Other forms of psychosis include organic psychosis. This is rare among young people with FEP but commonly seen in those attending neurology services with conditions such as epilepsy and multiple sclerosis. HIV not infrequently presents as first-episode mania. Auto-immune conditions such as Systemic Lupus Erythematosis occasionally present as psychosis and arthritis. Other rare autoimmune conditions such as Anti-N-methyl-D-aspartate (NMDA) Receptor Antibody encephalitis mainly affect young women and commonly presents acutely with psychosis and confusion/delirium, followed within days by movement disorders. Certain medications carry significant risks of psychosis - e.g. steroids and certain anti-malarial agents such as Mefloquine.

2.3 Incidence of Psychosis

Although the incidence of psychosis at 32/100,000 population per annum is relatively similar across different countries (Baldwin *et al*, 2005: Kirkbride *et al*, 2012), there are wide variations in the incidence at local neighbourhood levels (Bhavsar *et al*, 2014, www.psymaptic.org), particularly with first-episode schizophrenia (it is less evident with bipolar disorder). Studies show that the incidence is particularly high in deprived inner-city neighbourhoods and can be several times higher than in rural areas (Bhavsar *et al*, 2014, Kelly *et al*, 2010; www.psymaptic.org). For example, in England and Wales, Hackney has one of the highest incidences (for 16-64 year-olds) at 72 cases / 100,000 / annum, while Monmouthshire, in east Wales, has the lowest incidence at 15 cases / 100,000 / annum. Over two-thirds of these cases involve 16-34 year-olds (www.psymaptic.org).

Figure 4: PsyMaptic and the predicted incidence of psychosis in England & Wales



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Not only is the incidence higher in deprived inner-city areas, but so are the levels of comorbidity (for example, drug use, offending, violence) complicating the mental health needs of these populations (Crebbin *et al*, 2008). Added to this are the complex social and mental health requirements of migrants, refugees and ethnic minorities in inner-city populations.

In the Republic of Ireland (population: 4.76 million, 2016 Census data), there is no national data or register of new cases of psychosis and, therefore, no reliable source of information on which to base service planning. A few epidemiological studies in localised areas of the country – for example South County Dublin (Kelly *et al*, 2010) and Cavan-Monaghan (Baldwin *et al*, 2005) – indicate similar overall rates of psychosis to those in England. The Baldwin *et al* study (2005) is very informative as it breaks down the age, gender and diagnostic groups in Cavan-Monaghan, where the overall incidence of psychosis in over 15-year-olds is 32/100,000. There is no specific national data for under 18-year-olds but they probably represent about 15 per cent of all cases of psychosis (Singh *et al*, 2003). The elderly (over 65-year-olds) represent about 5 per cent of all FEP cases, while under 35-year-olds represent two-thirds of all cases (Singh *et al*, 2003).

In the average FEP sample, males outnumber females by a ratio of 2:1. In the younger age group, schizophrenia spectrum disorders and first manic psychotic episodes form the largest diagnostic groupings (the former outweighing the latter by a factor of 2-3:1). In the older age group, depressive psychosis and organic psychoses dominate (Baldwin *et al*, 2005).

2.4 What Causes Psychotic Disorders?

If one is to intervene early in psychotic disorders, it is essential to understand the underlying causes. It might then be possible to remove these causes and prevent the disorder developing. However, there is a myriad of putative causes. Their influence is a highly dynamic, multidimensional process, the end result of an accumulation of multiple interacting risk and protective factors over time, such as genes and environment. Each service user is likely to have their own unique combination of factors that will determine the onset, course and outcome of their illness. It's essential to consider these when designing individual treatment and care plans

The best-established risk factor is genetic. However, over 100 different genes are implicated (SWGPGC, 2014). Some may only be of concern if affected by environmental factors or interactions. Indeed, some may prove beneficial in other ways (e.g. by enhancing survival or creativity). Despite many recent advances, using genetic testing in the clinical setting is very much in its infancy and fraught with crude and spurious interpretations.

Apart from genetics, there is a wide range of well-established risk factors for psychotic disorders such as schizophrenia (Radua *et al,* 2018). They include minor physical anomalies, intrauterine infections, winter/spring births, birth trauma, early developmental insults, neurodevelopmental conditions, low IQ, febrile convulsions, childhood traumas, sexual abuse, living in or moving into deprived urban environments, ethnicity, migration, and cannabis use (particularly in teens). More proximal risks include stress, sleep deprivation, drug use, and the development of signs of an ARMS. None is likely to be a simple cause on its own. However, cannabis use has received a lot of attention; in a study by Di Forti et al (2015), they estimated that about 24 per cent of cases of FEP in south London was attributable to cannabis use, with earlier and heavier use attracting an even higher risk.

CHAPTER 3: RATIONALE AND EVIDENCE BASE FOR THE MODEL OF CARE FOR EARLY INTERVENTION IN PSYCHOSIS

3.1 Introduction

Psychotic disorders have potentially the worst outcomes and place the greatest burden on mental health services of any mental illness. In England, it is estimated that one in three attendees of mental health services have psychosis and that 65 per cent of adult acute in-patient bed days are occupied by people with psychosis (Public Health England, 2016 Psychosis Data Report). Those experiencing their first episode of psychosis experience long delays in accessing treatment, high rates of hospitalisation, involuntary detention under mental health legislation, non-youth-friendly settings and interventions, poor engagement in treatments, incomplete recoveries, co-morbidity, recurrent relapses, chronicity, suicidality and violence. Service users in this early phase of illness are generally not prioritised by traditional mental health services and frequently lost to follow-up (Garety & Rigg, 2001). Yet what happens in the first 2-5 years of illness greatly determines the long-term outcome in psychosis (Birchwood *et al*, 1998; Harrison *et al*, 2001).

There is now a strong body of evidence which shows that intervening early in psychotic disorders significantly reduces the suffering experienced by service users, improves recovery, prevents relapse, and is cost-effective. Early intervention in psychosis provides an evidence base for a model of care that provides core clinical interventions that improve the outcomes and quality of life for people experiencing psychosis. As a model, it is now moving beyond psychosis to other forms of mental illness (Byrne & Rosen, 2014).

The move towards early intervention services in psychosis has gained considerable momentum since its origins in the 1990s (McGorry, 2015). There are now well-established Early Intervention in Psychosis (EIP) services throughout the UK, Australia, Canada and Denmark, as well as many other European countries. The core components of EIP services are early detection, ready access to evidence-based interventions and assertive follow-up during the initial 'critical period' of three to five years following first presentation. Most EIP services focus on those with an FEP, while a few also include early detection strategies and interventions for the ARMS group.

The development and evaluation of EIP services internationally over the last 20 years can inform how such services could be developed in the Republic of Ireland. Most work within the overall configuration and governance of state-funded mental health services, with national rollouts being most successful in countries such as the UK, Australia, New Zealand and Canada.

EIP services add to, complement and support specialist services for people with psychosis such as rehabilitation/recovery, addiction, forensic, old-age, learning disability and forensic mental health services.

Most EIP services target adolescents and young adults on the premise that this is the age group at highest risk and that EIP services should be focused on the specific needs of this age group, particularly, in terms of developmental needs and psychosocial interventions. In some countries, EIP services cut across the traditional boundaries of Child and Adolescent Mental Health Services (CAMHS) and Adult Mental Health Services (AMHS), including within their brief those as young as 12 years and restricting their upper age range to 25-year-olds. Some of these services provide continuous follow-up until the age of 25, regardless of age of entry.

The EIP model promoted in England is based on the original Department of Health (DoH) Policy Implementation Guide (PIG), which stipulated an age range of 16 to 35 years old at the point of entry, with a three-year follow-up after the first contact with the service. This model of EIP service has been rolled out nationally across England in the last decade, so that every borough have such EIP teams/services covering them. Most of these EIP services are standalone specialist services but there are good examples of hub and spoke models in more rural areas. (See Chapter 8 for a discussion of these models.)

The NHS recently decided to allocate extra funding to EIP services nationally to expand their remit from 36 to 64 year-olds, which represents an increase of 50 per cent in terms of numbers. There are also calls to extend the early intervention model of care to all mental disorders, but there is as yet limited evidence to support this.

3.2 Clinical Evidence Base for Early Intervention in Psychosis

The evidence for EIP focuses on three main areas:

(a) Early detection and engagement strategies

(b) Interventions for individuals with an At-Risk Mental State (ARMS)

(c) Interventions for individuals during and after their first episode of psychosis (FEP)

3.2.1 Early Detection and Engagement Strategies

The main focus of these strategies is to reduce (a) 'help-seeking' delays and (b) 'health system' delays. Help-seeking delays occur before contact is made with health services while health system delays occur afterwards. Each account for about half of the overall delay experienced during the FEP phase (average 1 year) and possibly even longer during the preceding prodrome phase (average 2 years) (Power *et al*, 2007a).

One measure of these delays is the Duration of Untreated Psychosis (DUP). This refers to the period of time from the emergence of psychotic symptoms to the commencement of treatment. There is well-established evidence that long DUPs result in greater levels of suffering, co-morbidity, suicidality and violence (Melle *et al*, 2006), poorer responses to treatment, relapses, chronicity, burden on carers and costs to society (Marshall *et al*, 2005). There is also good evidence that EIP strategies can reduce DUP and improve clinical outcomes in FEP (Larsen *et al,* 2011), and that specialised clinics for ARMS service users can reduce the DUP to less than two weeks for those who transition to psychosis (Valmaggia *et al,* 2015).

A recent meta-analysis by Oliver *et al* (2018) sought to clarify the impact of various early detection strategies on DUP (in controlled trials) but found the results to be highly inconsistent. This was partly due to the varied nature of interventions but also to differences in the definition of DUP between the studies analysed. The area needs more rigorous trials.

Early detecting and engagement before the onset of psychosis is a complicated and controversial process. It relies on techniques to identify those at ultra-high risk (UHR) of psychosis. As mentioned in section 2.1.3, this strategy identifies a subgroup of the UHR population using the ARMS criteria in a clinical help-seeking population of young people (aged 14-35 years old). This subgroup has a 30 per cent risk of developing a psychotic episode within three years (Fusar-Poli *et al*, 2012). Specialised clinics such as the PACE (Thompson *et al*, 2001) and OASIS clinics

(Fusar-Poli *et al*, 2013) have been shown to be effective in identifying and engaging this clinical help-seeking subgroup. However, these clinics have their limitations, and are only capable of engaging a small minority of people who develop FEP; for example, only 4 per cent of FEP service users in one large study were found to have had prior contact with prodromal/UHR services (Ajnakina *et al*, 2017). The outcomes of those who did are better than those of other FEP service users.

So how can delays in (a) help-seeking and in (b) the health system be addressed?

3.2.1.1 Strategies to Reduce Help Seeking Delays

Most people take about six months on average to see their GP for help with their first episode of psychosis (Power *et al,* 2007a). This delay in getting into the health system may be due to stigma and lack of awareness of how to get help - something that affects not just the individuals themselves but also families, friends, and professionals who come in contact with them as the psychosis emerges (e.g. teachers, police, housing services, etc.). When they do seek help it is often due to complicating crises such as suicide attempts and violence. For those who have already been treated and recovered from a first episode, most will drop out of follow-up treatment (Garety & Rigg, 2001) and only re-present when they have relapsed.

The main early detection strategy here is (a) to educate the public and non-health professionals about mental health issues and psychosis, and (b) to signpost them quickly to appropriate services.

The best-known study of a public health education campaign on FEP comes from Norway: the Scandinavian Treatment and Intervention in Psychosis (TIPS) programme. It combined an extensive public education campaign about psychosis (designed to encourage early referral to mental health services) with easy open access to early-detection (ED) teams. The impact of this programme was compared with two control sites (with no campaign or ED teams). There was a reduction in FEP service users' DUP from a median of 15 weeks to five weeks, lower levels of negative, depressive, suicidal, and cognitive symptoms, and better rates of recovery at 10 years follow-up (Larsen *et al*, 2011; Melle *et al*, 2004; Hegelstad *et al*, 2012). However, there were two major limitations. First, the campaign resulted in eight referrals for every actual case of FEP (placing a considerable burden on services). Secondly, when the education campaign stopped, the DUP reverted back to a median of 15 weeks within several years and FEP service users' clinical measures had deteriorated again (Joa *et al*, 2008).

Therefore, such public health education campaigns need to be combined with screening to reduce the large proportion of inappropriate referrals. Also, such campaigns need to be maintained on an on-going basis as part of a national comprehensive mental health public education programme.

3.2.1.2 Health System Delays

These delays arise once someone has been referred to health services (e.g. GPs, emergency departments, mental health services). These delays (average six months) account for about 50 per cent of DUP. It takes one-third of this time (average two months) for these agencies to make a referral to mental health services. Another quarter of this time (average one and a half months) is spent waiting to be seen by mental health services. Once they are assessed, it takes mental health services on average two and half months to engage service users in treatment (Power *et al,* 2007a). Reducing this second period of the delay so as to ensure effective treatment requires different strategies.

Tackling delays in the health system needs to include:

(a) Raising awareness among health referrers e.g. GPs

There are several ways of raising awareness among referrers, some of which have been evaluated in formal trials. Most focus on primary care, given its pivotal role in referring to secondary care in countries such as Ireland and the UK. Lester *et al* (2009) set up formal EIP workshops and focus groups for primary care in Birmingham. DETECT in Dublin set up a comprehensive training programme for GPs (approved for professional development by the Irish College of General Practitioners) and found this more effective than mailing information packs (Gavin *et al,* 2008). In Lambeth, south London, LEO CAT (Power *et al*, 2007a) rolled out early-detection training sessions in individual GP practices but struggled to engage all GP practices. All three approaches were associated with reductions in delays in referrals.

(b) Providing rapid access and engagement with treatment for FEP

Delays within the mental health system can occur because of waiting times for initial assessment, lack of assertive follow-up, failure to identify psychosis, and internal waiting times for specific interventions once in the system (e.g. cognitive behavioural therapy or Clozapine for treatment-refractory psychosis). The first remedy is to tackle delays at the point of access into mental health services, ensuring quick response times to referrals. The second is to provide the option of assertive outreach and more accessible home-based assessments. The third is to ensure that those undertaking the assessments are competent to assess, accurately diagnose, and collaboratively engage in treating those with ARMS or FEP, Most studies that attempt to evaluate this (such as TIPS, LEO CAT, EPACT, and Birmingham EIS) involve specialist early detection and assessment teams which operate as the front end into EIP services.

(c) Providing specialist assessment and treatment for ARMS

ARMS assessment and treatment services are usually provided by specialist teams in clinics located often in primary care or community settings separate to mainstream community mental health clinics. They typically have separate referrer education programmes, referral pathways (taking referrals directly from primary care), and in many cases are funded by research grants. They are limited to young people. Examples include PACE in Melbourne, OASIS in south London, PRIME in Yale. Their role in mainstream mental health services has been somewhat controversial, but more recently they have been given legitimate status (such as by the UK National Institute for Clinical Excellence). Despite their potential, such ARMS services manage to engage only about 5 per cent of FEP service users, meaning that the vast majority of FEP service users bypass ARMS services (Fusar-Poli *et al*, 2017).

3.2.2 Interventions for those with an At-Risk Mental State (ARMS)

The evidence base for ARMS interventions is limited to studies of young people aged between 14 and 35 years of age. It includes systematic reviews and meta-analyses examining the effectiveness of a wide range of interventions during the 'at risk' states, including antipsychotic medication, psychological, nutritional and / or combinations thereof, as against controls. Evidence is strongest for CBT, less so for complex psychosocial interventions, less still for omega-3 fatty acids. According to Stafford *et al*

(2013), there is "very low quality evidence" for antipsychotic medication. Psychological interventions appear to halve the risk of progression to psychosis (van der Gaag *et al*, 2013; Fusar-Poli *et al*, 2017). However, one of the largest RCTs (n=288) of CBT versus treatment-as-usual in those with ARMS failed to reduce the rate of transition to psychosis (Morrison *et al*, 2012). A recent meta-analysis by Davies *et al* (2018) found no evidence in favour of one type of intervention over another in ARMS service users.

The evidence suggests that those with ARMS should be monitored for at least two years in order to ensure the early detection and early intervention for the 20 to 30 per cent of ARMS service users who later transition to psychosis. If followed up, their duration of untreated psychosis will be substantially lower (11 days compared with one year for FEP service users) and they will be less likely to require hospitalisation and compulsory admission (Valmaggia *et al*, 2015).

From a broader population perspective, health intervention at this early stage also identifies the emergence of a number of other psychiatric diagnoses such as anxiety and depressive disorders in this population, with the provision of appropriate interventions at the earliest stage to optimise recovery. However, there is considerable debate about whether this should be provided through a broader youth mental health model rather than specialist clinics.

3.2.3 Interventions for the FEP Population

The evidence base for treatment interventions in FEP is broadly divided into:

(a) service-wide interventions (see 3.2.3.1)

(b) specific clinical interventions (see 3.2.3.2)

3.2.3.1 Service-wide intervention for the FEP population

There are at least ten reasonably sized randomised controlled trials comparing EIP service models with standard community mental health services (Correll et al, 2018; Fusar Poli et al, 2017). The largest (n=547) is the OPUS trial (Nordentoft et al, 2014). The benefits of EIP services (compared to standard services) include better engagement rates and service-user satisfaction with services, lower doses of antipsychotic medication, lower positive, negative, and total psychotic symptoms, reduced hospitalisation, and improved functioning and quality of life (Correll et al, 2018; Fusar Poli et al, 2017).

In a recent meta-analysis (Correll et al, 2018) of 10 randomized clinical trials (n = 2176), early intervention services (EIS) were associated with better outcomes than treatment-as-usual services. These superior outcomes with EIS included engagement with treatment, less hospitalisation, involvement in school or work, lower severity of total symptoms, and more positive and less negative symptoms. These were evident at 6, 9 to 12 and 18 to 24 months of treatment (except for general symptom severity and depressive symptoms at 18-24 months).

However, one of the findings observed in several follow-up studies of these trials of EIP services is that, when the EIP interventions cease (e.g. after two years), the benefits of EIP begin to disappear (Nordentoft *et al*, 2014). There is an argument for continuing EIP interventions for at least three years or even five years for service users who have not fully recovered within two years. A recent RCT study (Chang *et al*, 2015 & 2018) of an extension of EIP for three versus two years was associated with significant benefits in terms of positive and negative symptoms of psychosis and functioning. Trials of longer extensions are now being carried out (e.g. OPUS trial).

In Chapter 8 of this Model of Care, we consider the different models of EIP service provision and how this issue might be addressed.

3.2.3.1 Specific clinical interventions in FEP

There is now a large body of research into the impact of specific interventions in FEP, which enables systematic reviews and meta-analyses.

The specific interventions studied (outlined in Chapter 11) fall into five categories:

1. **Pharmacotherapies**
2. **Physical health and lifestyle interventions**
3. **Psychological interventions**
4. **Family interventions and support**
5. **Vocational, educational and psychosocial recovery interventions**

Each of these interventions may target specific aspects of the illness:

1. Type of psychosis, e.g. affective versus non-affective
2. The phase of illness, e.g. acute remission, psychosocial recovery, relapse prevention
3. Co-morbidities, e.g. depression, PTSD or drug use
4. Complications, e.g. suicidality, violence, cognitive deficits, negative symptoms
5. Knowledge, understanding, and self-management

Rather than attempt to systematically review all the evidence from studies, the MoC recommends several key sources of information, updated regularly, as listed in Table 1 below:

Table 1: Treatment guidelines

- Cochrane reviews
- NICE guidelines
    - Psychosis and Schizophrenia in Children and Young People. Recognition and Management: Clinical Guidelines (CG155), 2013.
    - Psychosis and Schizophrenia in Adults. Prevention and Management: Clinical Guidelines (CG178), 2014.
    - Bipolar Disorder: Assessment and Management (CG185), 2014.
- NICE Quality Standards for Mental Health Intervention Service Provision for Adults with Psychosis or Schizophrenia, 2015.
- NICE Implementing the Early Intervention in Psychosis, Access and Waiting Time Standard, 2016.

The treatment guidelines are complemented by several recent systematic reviews and meta-analyses of the effectiveness of these interventions. Some of these inform the best-practice guidelines outlined in detail in Chapter 11.

The following summarises the evidence base for specific interventions in FEP:

1. Antipsychotic medication in first-episode psychosis (FEP)

Antipsychotic medication is significantly more effective than placebo in producing remission of psychotic symptoms (Ratterhalli *et al*, 2016) in FEP. In most cases, this can be achieved very effectively with low-dose antipsychotic medication regimens (McGorry *et al*, 2011). There is no difference in the efficacy of typical versus atypical antipsychotic medication (Crossley *et al*, 2010). The main difference is in side-effect profiles (extra pyramidal side-effect versus weight gain).

FEP service users who stop their medication for more than a month during the first 18 months of follow-up take twice as long to achieve remission and are five times as likely to relapse (Winton-Brown *et al*, 2017). At three-year follow-up, those who stop their antipsychotic medication are twice as likely to relapse as those who remain on medication (Takeuchi *et al*, 2012). One study showed that FEP service users prescribed atypical (2nd generation) antipsychotic medications are significantly less likely to relapse than those on conventional (1st generation) antipsychotics (Alvarez-Jimenez *et al*, 2012).

In first-episode affective psychoses, combined medication regimens are more effective in the acute phase than monotherapies in manic psychosis (mood stabiliser plus antipsychotic) (Ogawa et al, 2014) and in depressive psychosis (antidepressant plus antipsychotic) (Lambert *et al*, 2009). However, in practice, most clinicians start with monotherapy (e.g. antipsychotics such as Olanzapine) (Conus *et al*, 2006) and then add a mood stabiliser (e.g. Lithium) later if monotherapy is ineffective. For mood stabilisers to be effective in the acute phase, doses need to be at antimanic levels. For prophylactic purposes, mood stabilisers are as effective as antipsychotics in preventing relapse, so may be introduced and continued when the antipsychotic is withdrawn a few months after the episode.

2. Physical health and lifestyle interventions in FEP

People with conditions such as schizophrenia and bipolar disorder die up to 25 years earlier than the general population. Suicide or injury account for about one-third of premature deaths, but two-thirds result from physical health problems such as cardiovascular disease, diabetes and respiratory diseases (Shiers *et al*, 2009).

The reasons are complex and have much to do with lifestyle factors, poverty, diet, weight, exercise, unemployment, etc. Cigarette smoking is likely to be a major factor. Three-quarters of service users with FEP smoke cigarettes. This compares with about a quarter of the general population who smoke (Shiers *et al*, 2009).

However, a second major factor is antipsychotic medication, particularly the atypical antipsychotics, which carry higher risks of weight gain, altered glucose metabolism, and lipid profile, resulting in higher rates of diabetes, cardiovascular disease and strokes (Newcomer, 2005).

A third factor is the attitude of health professionals to physical healthcare in service users with psychosis. Evidence suggests that they receive less health promotion, screening and effective physical healthcare (Shiers *et al*, 2009).

Several trials of physical health interventions in FEP have been published, including the INTERACT Trial (Marshall *et al*, 2015), an eight-session individual healthy living programme delivered by support workers in an EIP service. The impact appears to have wider benefits on psychological and physical well-being. Another small trial of a 12-week lifestyle programme (delivered by nurses and dieticians) resulted in lower levels of weight gain (Curtis *et al*, 2016).

3. Psychological interventions in FEP

CBT is one of the most widely recommended psychological interventions in FEP (other psychological interventions are discussed in section 11.5). CBT has a proven track record in anxiety and depressive orders. In recent years, it has been adapted to use in psychotic disorders. Several systematic reviews and meta-analyses have demonstrated a small or moderate effect on symptoms in psychotic disorders (Turner *et al*, 2014; Wykes *et al*, 2008). CBT in these disorders has been adapted further to focus on specific symptoms in psychosis: 'voices' (Thomas *et al*, 2014) and 'paranoia' (Freeman *et al*, 2015). The recommended number of sessions for CBT for psychosis is over 16 sessions, but briefer forms of CBT for psychosis (fewer than 16 sessions) have been reported to be equally efficacious (Hazell *et al*, 2016). However, some meta-analyses of trials of CBT in schizophrenia, bipolar disorder and major depression have not found any benefit in reducing symptoms or relapse, except in major depression (Lynch *et al*, 2010). In addition, a Cochrane review (Jones *et al*, 2012) concluded that there was no clear advantage for CBT over other and sometimes less sophisticated therapies for people with schizophrenia.

Concerning FEP, Bird *et al* (2010) undertook a systematic review of CBT (n=620) and reported individual CBT (including CBT for psychosis) was associated with a reduction in the severity of positive and negative symptoms of psychosis. However, benefits were not sustained two years later, nor did CBT have an impact on relapse or hospitalisations.

Recently, an interesting small randomised controlled trial (Morrison *et al*, 2018), comparing CBT with antipsychotic medication in FEP (n=138), revealed that both treatments were associated with improvements in psychotic symptoms, and there was no difference between the two groups or with a third group with combined treatment (CBT plus antipsychotic medication). The only difference noted in the study related to side-effects. This trial may have been underpowered to detect differences between treatments and thus may require replication with a larger cohort.

CBT also has a role in preventing the onset of psychosis in those at ultra-high risk. A meta-analysis by Hutton and Taylor (2014) demonstrated reduced transition rates to psychosis with CBT over the following two years as well as symptom reduction after one year. Similar findings were reported by Ising *et al* (2016) in a four-year RCT of CBT versus treatment-as-usual, with half the rate of psychosis noted in the CBT group.

4. Family interventions in FEP

Family interventions in FEP have been shown to have beneficial effects in reducing family burden, psychotic symptoms and duration of rehospitalisation (Chien *et al*, 2016). A systematic review by Bird *et al* (2010) of family interventions in FEP (n=288) demonstrated, that if their families received family therapy, their relative with FEP was half as likely to relapse or be readmitted to hospital.

A more recent and larger systematic review and meta-analysis of family interventions in FEP (n=1278) by Claxton *et al* (2017) showed that they improved functioning and reduced the likelihood of relapse by the end of treatment. Families or carers receiving family interventions were more likely to shift from high to low expressed emotion and less likely to report criticism or engage in conflict communication with their family member with FEP. These interventions were with either individual families, multi-family groups, or families with or without their family member with FEP.

One well-developed family intervention is Behaviour Family Therapy (BFT), a skills-based intervention to support families with a member with mental illness. It was developed by the Meriden Family Programme, which has been operating for

20 years (by 2015, over 5,000 people had been trained by 400 supervisors). It has a track record of providing high-quality interventions for families with complex needs. However, it has yet to be evaluated formally in a trial involving people with FEP.

5. Vocational and educational interventions in FEP

The evidence suggests that the Individual Placement & Support (IPS) approach is more effective than other vocational rehabilitation approaches (including more traditional prevocational training) in helping those with severe mental illness to gain and retain employment (Rinaldi *et al*, 2010). IPS takes a 'place and train' approach.

Killackey *et al* (2008) demonstrated, in the Australian context, significantly better outcomes in employment at six-month follow-up in an RCT of Individual Placement & Support (IPS) versus treatment-as-usual for FEP service users. It also significantly reduced their reliance on social welfare.

When IPS is adapted to include educational goals, 69 per cent of young people with FEP gained education and employment compared to 35 per cent of controls (Rinaldi *et al*, 2010).

A recent large cluster randomised trial (n=404) of IPS in the USA in young people with FEP showed that the IPS intervention (NAVIGATE) resulted in better engagement with work/education than treatment-as-usual (Rosenheck *et al*, 2017).

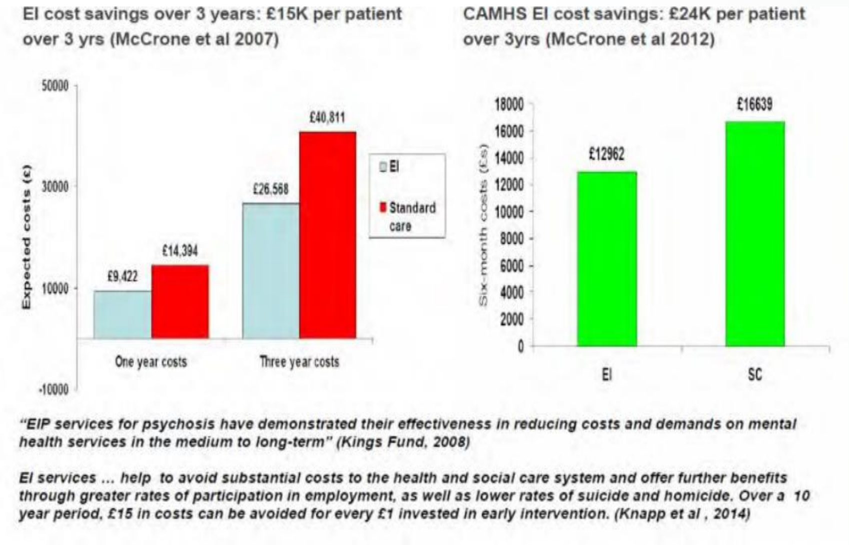
3.3 Economic Evidence Base for Early Intervention

Apart from the clinical evidence base for Early Intervention in Psychosis (EIP), there is now a substantial body of evidence for the cost-effectiveness of EIP. Most of this derives from economic evaluations of the comparative costs and effects of delivering standard care services and early intervention (EI) services to people with FEP. A small number of evaluations have looked at the ARMS group separately. Most of the evidence in favour of early intervention comes from the reduction of in-patient costs associated with early intervention. The following is a summary of the main findings to date.

3.3.1 United Kingdom

Much of the economic evidence base for EIP in the UK comes from a group in the London School of Economics and Institute of Psychiatry, led by Professors Martin Knapp and Paul McCrone (see Figure 5). Using data from the LEO EIP service, they have shown that EIP services have a high probability of being cost-effective in comparison to standard care (McCrone *et al*, 2010), and using decision modelling they have shown that benefits can extend beyond the health service to affect the criminal justice sector, employment, education and mortality (Park *et al*, 2016). Another decision model study (McCrone *et al*, 2013) demonstrated that delivering EI to children and adolescents also had the potential to be cost-effective (see Figure 5).

Figure 5: Cost savings over 3 years with EIP



EI cost savings over 3 years: £15K per patient over 3 yrs (McCrone et al 2007)

CAMHS EI cost savings: £24K per patient over 3yrs (McCrone et al 2012)

"EIP services for psychosis have demonstrated their effectiveness in reducing costs and demands on mental health services in the medium to long-term" (Kings Fund, 2008)

EI services … help to avoid substantial costs to the health and social care system and offer further benefits through greater rates of participation in employment, as well as lower rates of suicide and homicide. Over a 10 year period, £15 in costs can be avoided for every £1 invested in early intervention. (Knapp et al , 2014)

Tsiachristas *et al* (2016) used data linkage in a retrospective study of service use and outcomes data to show that people aged 16-35 receiving EI were more likely to be in education and independent housing and to involve lower costs for the NHS than people attending community mental health teams.

3.3.2 Denmark

The Opus EIP study in Denmark reported savings of €25,000 in respect of each service user in the first five years in their sample, through the reduction in inpatient bed use

(Hastrup *et al*, 2013). The authors concluded that the EIP services paid for themselves through the savings accrued from reduction in hospital usage.

3.3.3 Australia

Mihalopoulos *et al* (1999) compared a cohort of FEP service users undergoing treatment at the Early Psychosis Prevention and Intervention Centre (EPPIC) in Melbourne compared with treatment-as-usual. They found that after one year there were significantly improved functional and symptomatic outcomes at reduced cost, which was mainly associated with lower in-patient costs. More recently, Mihalopoulos *et al* (2009) looked at cost-effectiveness over the longer term of eight years, and found that EIP services can deliver a higher recovery rate, at one-third the cost of standard public mental health services.

3.3.4 Ireland

The total cost of schizophrenia in Ireland was estimated to be €461 million per annum in 2006 (Behan et al, 2008), Of this, a third of the cost was related to direct mental health service costs (€117.5 million) and two-thirds of the cost due to unemployment, absence from work and premature death (€343 million).

A cost-effectiveness study of the Irish EIP service DETECT was carried out comparing length and duration of admissions in people with FEP pre and post introduction of the EIP service. This demonstrated a reduction in admission rates from 82 per cent to 59 per cent and a shortening of admissions from an average of 44 days to 21 days. This represented a reduction in average admission costs from €15,821 to €9,398 (Behan *et al*, 2015). Further work has shown that there is a societal impact beyond the health sector and a very high probability of cost-effectiveness (Behan *et al,* 2017).

In summary, the available evidence points to the conclusion that EI services, when implemented properly, are cost-effective through their effect on hospitalisation and result in both health sector and societal savings.

CHAPTER 4: CONTEXT OF MENTAL HEALTH SERVICE PROVISION IN IRELAND AND THE DEVELOPMENT OF NATIONAL CLINICAL PROGRAMMES

4.1 Introduction

Mental health services in Ireland are undergoing substantial development, including reforms of governance, delivery and financing structures. The HSE National Clinical Programme (NCP) for Early Intervention in Psychosis builds on important reform initiatives affecting mental health service delivery. The following agencies lead in policy and organisational developments.

4.2 Department of Health

4.2.1 *A Vision for Change*: the Expert Group on Mental Health Policy

The national policy for mental health, produced by the Department of Health – the Report of the Expert Group on Mental Health Policy, *A Vision for Change* (DOHC, 2006) – is a progressive, evidence-based document that highlights a model of service delivery that is service-user-centred, community-based and recovery-oriented.

Reference is made in this policy document to the emerging evidence for early intervention in psychosis, recommending the provision of recovery-focused, innovative and youth-oriented approaches to engage young adults and their families in community settings. The two goals of such services are identified as early detection and provision of intensive specialist interventions by multidisciplinary teams. This policy is being reviewed at present. The importance of delivering mental healthcare in a programmatic way, as in all areas of healthcare, is likely to be emphasised.

4.2.2 Healthy Ireland - A Framework for Improved Health and Wellbeing

Healthy Ireland is a national public health framework (Department of Health, 2013) for action to improve the health and wellbeing of the population of Ireland. It is based on international evidence and outlines a new commitment to public health. It places considerable emphasis on prevention, advocates stronger health systems and effective cooperation between the health sector and other areas of government and public services, and promotes partnerships with the private and voluntary sector to achieve its aims.

4.2.3 *Sláintecare* Report, Committee on the Future of Healthcare in Ireland

The Sláintecare Report was developed by an Oireachtas (government) cross-party committee to achieve political consensus on the future of health services in Ireland over a ten-year period. The key recommendations are to provide integrated healthcare, and reorient the model of care towards primary and community care, with access to an affordable universal single-tier system of healthcare based on need. It proposes a reorganised HSE structure, with new legislation to address clinical and managerial accountability for regional bodies. The Community Health Care Organisations and acute hospital networks are to be coterminous. An implementation office and plan will be driven from the Department of Health.

4.3 Mental Health Commission

Established in 2001, following the enactment of the Mental Health Act 2001, this statutory body has an important role in developing quality mental health services in addition to its remit in protecting the interests of those involuntarily admitted and detained in approved centres (inpatient mental health units).

Its core business is to promote, encourage and foster the establishment and maintenance of high standards and good practices in delivering mental health services in Ireland. It has produced a number of key documents, which have informed services since 2001:

- *Quality Framework for MHS in Ireland*, 2007
- *A Recovery Approach within the Irish Mental Health Services: A Framework for Development*, and *The Recovery Journey – A Recovery Approach within the Irish Mental Health Services, a Position Paper*, 2008
- *Team Working within Mental Health Services in Ireland*, June 2010
- *MHC Guidance Document on Individual Care Planning: Mental Health Services*, 2012

- *Your Views of Mental Health Inpatient Services*, 2012

Such documents inform this Model of Care in relation to quality, care planning, service user involvement, recovery ethos and multidisciplinary working.

4.4 Health Service Executive (HSE)

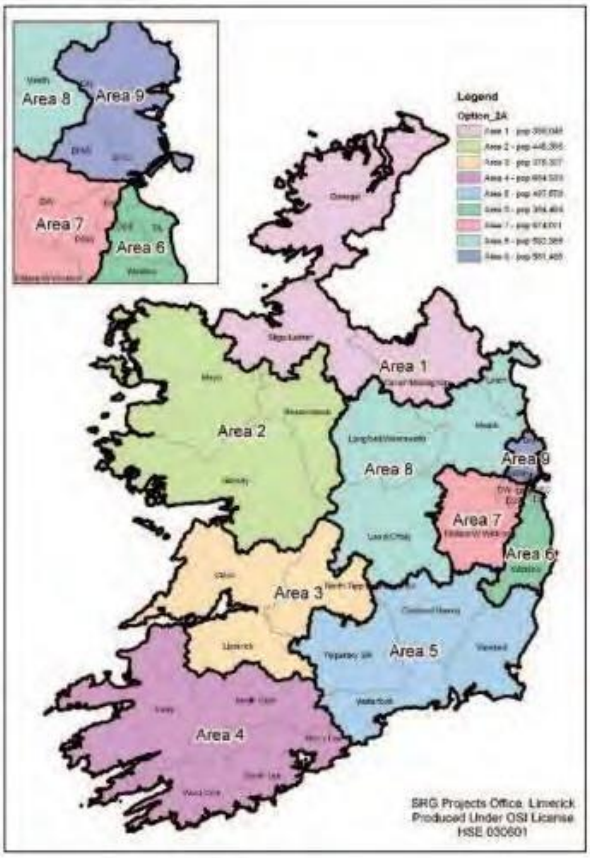
4.4.1 HSE organisation and service delivery

Major changes in HSE structures and service delivery have occurred since the establishment of the HSE in 2006. In 2013, the Health Service Executive commissioned a report, *Community Healthcare Organisation*, which recommended important reforms to the structure and integration of community health services in Ireland. Closer integration of community services across primary care, social care and mental health care is now provided by nine Community Healthcare Organisations (CHOs), each with their own Chief Officer (CO). Each of the nine CHOs has responsibility for a catchment area population of around 500,000 people. They deliver an integrated model of care with approximately ten community healthcare networks in each CHO. They are accountable to the National Director for Community Operations.

Since 2016, each CHO has a dedicated Head of Service for Mental Health who works with the Executive Clinical Director and the CHO Mental Health Management Team, and is responsible for the provision of mental health services for that CHO region.

At a national level, the HSE Leadership Team is undergoing changes, with recent appointments of a Chief Operations Officer, Chief Strategy and Planning Officer, and a Chief Clinical Officer, who will work with the Director General of the HSE. The nine CHOs, with their 96 community healthcare networks, report nationally to the National Director for Community Operations, and are guided by a number of National Clinical Programmes (NCPs) to ensure that standardised integrated models and care pathways are provided for service users with particular illnesses and needs. Early Intervention in Psychosis is one such NCP. Implementation of the Model of Care for Early Intervention in Psychosis will take place within this new governance structure.

Figure 6: Community Healthcare Organisations



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4.4.2 HSE Quality Improvement

The Framework for Improving Quality in our Health Service (2016) highlights certain key issues concerning governance for quality and safety that apply across all services provided by the HSE. Governance for quality and safety is the system whereby healthcare / social teams are accountable for the quality, safety and experience of people to whom they deliver care.

The Best Practice Guidance for Mental Health Services, published in April, 2017, provides guidance to support mental health services to meet the regulatory requirements for mental health services, as well as working towards continuous quality improvement. It informs mental health services about what is required to ensure that children and adults in the care of mental health services receive a quality, safe service that meets their needs. The guidance identifies themes to inform continuous quality improvement and the development of a high-quality, recovery-oriented, effective, safe and reliable mental health service.

These themes are:

- Recovery-oriented care and support
- Effective care and support
- Safe care and support
- Leadership, governance and management
- Workforce

4.4.3 HSE Community Operations - Mental Health

4.4.3.1 Report on the Listening Meetings, 2016

The *Report on the Listening Meetings* convened by the HSE Mental Health Division was published in March 2016, following extensive consultation with service users, family members and carers. Over 1,000 people attended open fora across the country. The views of service users and their supports on the design, planning, delivery, monitoring and evaluation of services were gathered. The feedback, as outlined in the report, has informed the HSE Mental Health Service and Operational Plans from 2015 onwards.

A range of themes were identified in the report, which included developing respectful and empathetic relationships with service user, family and carer involvement, challenging societal attitudes, providing continuity of care, and supporting people in their recovery by providing specialist services, the full range of interventions, access to out-of-hours care, avenues for assessment and admission, and helpful information and peer support.

4.4.3.2 Partnership for Change

Partnership for Change, the Report of the Mental Health Reference Group (2016), sets out the national structures and mechanisms for service users, family members and carer engagement in mental health service provision. It details the way in which mental health services will ensure that the views of service users, family members and carers are taken on board to influence the design and development of services at national, regional and local levels.

4.4.3.3 National Framework for Recovery in Mental Health Services

The *National Framework for Recovery in Mental Health Services* 2018 – 2020 sets out an agreed understanding of recovery in the context of a recovery-oriented service, and outlines four key principles that underpin such a service. The framework, co-produced by service users, family members and service providers, builds on the numerous recovery innovations at both a national and CHO level since the publication of *A Vision for Change* in 2006 (DOHC, 2006). The framework is a further step in ensuring the provision of recovery-oriented mental health services in Ireland by ensuring a consistent, good-quality, evidence-based, co-produced and clinically excellent approach to service delivery.

A recovery-oriented service is built on a culture of hope and expectation that the person can recover from their mental health challenges and build a fulfilling life of their choosing. Such a service is outward-looking and engages with all the aspects and supports that will constitute and sustain recovery in an individual's life.

4.5 Clinical Strategy and Programme (CSP)

4.5.1 Introduction

The HSE Clinical Programme Strategy introduced in 2010 is part of a HSE commitment to improve and reform the health service in Ireland through the use of evidence-based approaches.

The Clinical Strategy and Programmes is focused on bringing clinical leadership to the heart of the clinical decision-making process, with the aims of improving the quality, access and cost-effectiveness of healthcare provision. The development of service-user-centred clinical pathways and provision of evidence-based interventions in a systematic and timely manner guide best practice for identified areas of clinical need. National Clinical Programmes are being developed in all branches of medicine in collaboration with medical colleges. Developments are also taking place in relation to Integrated Care Programmes, emphasising the critical importance of co-ordinated care across HSE services to ensure the provision of a seamless quality service, with the service user at the centre of service delivery.

The HSE National Clinical Programme for Early Intervention in Psychosis is one of the identified National Clinical Programmes in Mental Health. It was developed in collaboration with the College of Psychiatrists of Ireland (CPI). In the work to date, a number of unpublished draft documents have been produced. In November 2015, an Early Intervention Working Group of the CPI produced its 'Submission to the National Clinical Programme, HSE'. This submission and an earlier document, 'A Clinical Programme for Early Intervention in Psychosis' (2012), produced by the HSE (in collaboration with the HSE professional groups involved in mental health service provision as well as service-user representation), are the key documents considered by the National Working Group in developing this Model of Care.

4.5.2 Quality and Safety

Clinical governance and service-user safety are central to HSE service provision. In 2008, the Commission on Patient Care and Quality Assurance noted that "knowledgeable patients receiving safe and effective care from skilled professionals in appropriate environments with assessed outcomes" are the key to achieving a culture of service-user safety.

A comprehensive National Clinical Programme for Early Intervention in Psychosis will identify the physical and mental health needs of service users throughout the duration of the programme. Early identification and the provision of evidence-based multidisciplinary interventions, at the appropriate times, will ensure the provision of a person-centred, quality service with a recovery ethos. EIP service provision will address mental health needs in a timely manner and the Model of Care will reflect the most up-to-date research findings to optimise the care provided.

Such services will cover a wide range of clinical and non-clinician interventions shown to be effective in either preventing or reducing the impact of psychotic disorders during the initial critical period. This includes the At-Risk Mental State (ARMS), as well as the first three to five years after first contact with services. The success of interventions during this critical period determines what happens with long-term outcome.

Individuals with schizophrenia receive poorer medical care for their physical health problems than do members of the general public. To counter the current serious physical health morbidity and mortality associated with schizophrenia, the EIP NCP will also address physical health risks and associated lifestyle factors, in collaboration with key stakeholders in primary care and other stakeholders.

Where EIP services are well established, they are highly valued by service users and families as being non-stigmatising and recovery-focused. In the UK, the Schizophrenia Commission in its report *The Abandoned Illness* (2012) stated that Early Intervention in Psychosis services were:

> *the most positive development in mental health services since the beginning of community care. nowhere else have we seen the constant high standards, recovery ethos, co-production and multi-disciplinary team working.*

4.5.3 Standardisation of Access

At present in Ireland, no comprehensive EIP service is available in any part of the country. For most service users who develop a first episode of psychosis (FEP), access to mental health services occurs following referral by a GP, and often there are health system delays at different points through the pathway of care. While some mental health services have developed innovative components of an early intervention service for service users with FEP, this occurs for less than 25 per cent of the population. In the absence of national guidance, how people with FEP are identified, assessed and offered multidisciplinary interventions varies widely.

The range of comprehensive, evidence-based, multidisciplinary interventions – allocation to a designated EIP Keyworker who engages assertively and follows up, antipsychotic medication, Cognitive Behavioural Therapy for psychosis (CBTp), family interventions, Individual Placement and Support (IPS), physical healthcare, metabolic monitoring and lifestyle advice – are not available in any model of current FEP service for people who develop a psychotic illness.

There is no service available for people with an ARMS that incorporates comprehensive assessment and provision of evidence-based interventions and no national guidance as to how to achieve this. While Early Detection initiatives were commenced in some areas, they have not been sustained, and there have been no national recommendations to standardise best practise for this part of EIP services.

4.6 Cost-Effectiveness

As well as the clinical benefits identified, there is also a strong economic case to support a Model of Care for EIP services. In addition to the clear clinical evidence base that supports EIP, EIP services lead to considerable savings in both health services (primarily through reduced need for in-patient care) and social supports, with increased participation in education and employment. A number of countries have carried out research in this area (key findings were highlighted in Section 3.3).

CHAPTER 5: CURRENT EARLY INTERVENTION IN PSYCHOSIS SERVICE PROVISION IN IRELAND

5.1 Introduction

The first EIP service developments in Ireland started about twenty years ago. They have been very dependent on local champions, expertise and resources. More recently, the HSE Clinical Strategy and Programmes Division (CSPD) for Mental Health, established in 2011, has been providing guidance and preparing the ground for EIP services.

These developments have included appointing consultant psychiatrists as EIP Clinical Leads for local mental health service catchment areas. Some already have a form of *Hub* EIP service. This has been achieved in the main within existing resource provision. However, these EIP services are at various stages of evolution and have not been standardised. The catchment populations they serve vary widely, from under 100,000 to over 500,000 people. Such EIP service developments cannot be sustained without adequate resourcing and support from a national plan.

In addition, the CSPD National Office for Mental Health has set up training for evidence-based interventions for FEP. This includes Cognitive Behaviour Therapy for psychosis (CBTp) and Behavioural Family Therapy (BFT), both of which have been shown to have a favourable impact on outcomes in FEP (Bird *et al*, 2010).

EIP service provision is already embedded as part of standard mental health service provision outlined in the *Vision for Change* national mental health policy (DOHC, 2006), although up to now resource provision has been limited. It recommends providing comprehensive, community-based, recovery-focused, service-user-centred services.

5.2 Treatment-As-Usual

Currently in Ireland, public mental health services for people experiencing a first episode of psychosis (FEP) are provided by either the child and adolescent (0 to 17 years), adult (18 to 65 years) or old age (over 65) community-based mental health teams within the HSE. These multidisciplinary teams, led by consultant psychiatrists, cover defined geographical populations (25,000-75,000) on a sectorised basis, as outlined in *A Vision for Change (DOHC, 2006)*. Keyworking and individual care plans are not universal or standardised except in hospital settings. EIP Keyworkers are generally Community Psychiatric Nurses (CPNs). Details of these services are outlined in the following sections.

In addition to the above, specialist mental health services - including intellectual disability, addiction, forensic, homeless and perinatal mental health services - will treat those who present to these services with FEP.

5.2.1 Adult Mental Health Services

Adult Mental Health Services (18-65 years) operate acute, sectorised, inpatient unit and generic community mental health teams. Some areas have day hospitals, crisis teams, and home-based treatment teams. Referrals to adult mental health services are made to the relevant community mental health team by GPs or acute hospital departments. These are triaged to determine their level of urgency and assessments arranged either in outpatient clinics or in the person's home.

Emergency out-of-hours referrals are directed to the local approved centre or emergency department of the acute hospital for the area or, less frequently, to the local approved centre, depending on local service policy. Self-referrals are also routinely seen in the local emergency department.

Assessments for individuals with psychosis or suspected psychosis are undertaken by the consultant psychiatrist and multidisciplinary team members. This assessment, along with MDT availability, forms the basis of the biopsychosocial interventions offered to the service user and family / carers.

Psychiatric diagnoses are made using the ICD and / or DSM diagnostic system of mental disorders. There is no one specific coding for First Episode of Psychosis (FEP). Nor is there a national database of service users presenting with FEP, the interventions they receive or their outcomes.

For adult mental health services, inpatient care is provided in approved centres (as defined in the 2001 Mental Health Act). The consultant psychiatrist for the sector community mental health team usually provides inpatient care as well. This goes some way to facilitating continuity of care between hospital and community services.

5.2.2 Child & Adolescent Mental Health Services

Child & Adolescent Mental Health Services (CAMHS) are usually provided by multidisciplinary teams working in out-patient settings. The *Vision for Change* (VfC) report (DOHC, 2006) recommended 99 CAMHS teams nationally (based on a population of 3.6 million), with 11 whole-time-equivalent (WTE) clinicians on each team. It also recommended 100 inpatient adolescent beds, day programmes, liaison services, intensive care teams and home-based services.

However, since the VfC report in 2006, the population of the Republic of Ireland has risen by 12 per cent to 4.76 million (www.cso.ie/en/census/) in 2016. The percentage of under 18-year-olds has risen by 17.8 per cent to 25 per cent of the total population.

The most recent report of the Mental Health Division (2016) recorded the actual number of CAMHS teams as 66 (Mental Health Division report, 2016) and the WTE as only 56 per cent of what was recommended by the VfC, varying from 66.3 per cent in CHO 9 to 48 per cent in CHO 5. While there has been an increase in inpatient psychiatric beds for children and adolescents (to 74 beds in four approved centres), there is a considerable shortfall, resulting in a reliance on paediatric beds and adult approved centres for the rest. The overall result is that there is considerable local variation in resourcing, multidisciplinary staffing, access to and waiting times for assessments and clinical interventions, as well as out-of-hours community service provision and inpatient bed availability. Day programmes, intensive treatment teams and home-based treatment are not available.

In CAMHS, referrals of possible ARMS or FEP cases are particularly complicated because of the variable and complex presentations in this age group. A lengthy period of assessment and monitoring is usually required. Organic workups are usually facilitated by urgent referrals to the local paediatric services. Further assessment and initial treatment is often undertaken by admission to adolescent inpatient units. Lack of day programme and step-down facilities, and of intensive treatment and home-based services make transition from inpatient to community services, reintegration in school and support for families extremely challenging.

5.2.3 Psychiatry of Later Life (POLL)

There are no data available in Ireland on the incidence of FEP in the population over 65 years old. Nor are there data on their particular needs, use of mental health services, medical care, social services, home care and nursing homes. What is known from the medical literature is that there are significant differences in the needs of this age group compared with the general adult population.

Most parts of Ireland are served by specialised mental health services for older adults. They are delivered as far as possible in the familiar settings of people's homes, with support from carers. Waiting times are generally short; most people are seen within four weeks of referral. However, there is no specialist service available outside office hours, and many services have no access to psychology and limited access to other therapists. Specialised inpatient beds for the elderly are very limited and most are admitted to general adult inpatient units.

Presentations of FEP in this age group are much more likely to be complicated by organic factors, and need to be comprehensively investigated to identify physical illnesses. Medication side-effects and complications are far more common and often require close liaison with geriatricians and GPs.

Finding the right treatment setting for older people with FEP is complicated. Care at home is the ideal, but requires substantial input from formal and informal carers, particularly during acute episodes. Acute psychiatric inpatient care may be appropriate but not if the person has very challenging physical care needs. Transfers to a nursing home from an inpatient acute psychiatric unit can be protracted and, for people with non-organic FEP, it can be quite inappropriate.

With the right supports, most service users with non-organic FEP can return to a good level of functioning. However, most POLL teams have limited capacity to support this as they have little access to psychological therapies and social workers. Younger, more physically able older adults with FEP often do not 'fit' into community supports for older people such as day centres, and may not meet age criteria to attend mental health services community rehab and recovery services.

5.2.4 Forensic Mental Health Services

In the Republic of Ireland, approximately 12,000 people are committed to prison each year (www.irishprisons.ie/information-centre/statistics). Of these, 2.1 per cent are actively psychotic, 3.9 per cent will have psychosis within six months and 4.6 per cent have a major depressive disorder on committal. On the basis of these figures, about

350 people committed to prison each year are mentally unfit for imprisonment and need hospital treatment. Almost (80%) are already known to local mental health services. The majority have fallen through the net of existing services. About 80 per cent of those with psychosis have been charged with non-violent offences, with a third of offences being so minor that they could safely be diverted to local psychiatric services – conservatively estimated at 100-150 each year.

5.2.4.1 Estimate of FEP in Forensic Settings

Adult prisoners have four times higher rates of psychosis than the general population (Fazel *et al*, 2012). Rates among young offenders range from 1-10 per cent (Teplin *et al*, 2002; Fazel *et al,* 2008; Colins *et al*, 2010; Lader *et al*, 2003). In Ireland, 7.6 per cent of adult prisoners on remand have psychosis (Linehan *et al*, 2005) and 2.6 per cent of male sentenced prisoners (Duffy *et al*, 2006). The prevalence of ARMS in young offenders is 23 per cent (Flynn *et al*, 2012). A long DUP is associated with greater levels of violence and homicide (Melle *et al*, 2006; Large *et al*, 2007; Large *et al*, 2008). Most homicides (69%) associated with psychosis occur during the first episode (Nielssen *et al*, 2007). The rate of homicide is one per 629 FEP cases, equivalent to two per year in Ireland (Nielssen & Large, 2010). In most cases the victims are family members or close friends (Nielssen *et al*, 2007).

5.2.4.2 The National Forensic Mental Health Service (NFMHS)

The National Forensic Mental Health Service (NFMHS) is part of the HSE's national mental health service. NFMHS currently provides tertiary forensic mental health in-reach services to all adult detention centres in Ireland. It provides this alongside psychology and social work services. It also provides a high-security national forensic service for those who require intensive psychiatric treatment and rehabilitation in a structured, secure and therapeutic environment. This is currently based at the Central Mental Hospital, Dundrum, but will move in 2020 to Portrane, Co. Dublin.

5.2.4.3 Forensic Child & Adolescent Mental Health Services (F-CAMH)

There has been no formal forensic mental health service for children or adolescents in the Republic of Ireland. More recently, a specialist multidisciplinary F-CAMH service has been established for children and young people with complex mental health needs and high-risk behaviours. The plan is to develop a national specialist 10-bed residential forensic CAMHS unit, together with a forensic community-based CAMHS team. These are based on the recommendations of the Ryan Report, reviews by the Irish Youth Justice Service and *A Vision for Change* (2006).

5.2.5 Addiction Services

Drug and alcohol problems are very common in FEP, with rates of cannabis use in younger FEP service users being as high as 67 per cent (30% using cannabis daily) (Di Forti, 2015). At the other end of the spectrum, approximately 10 per cent of alcoholics and regular cannabis users will develop a schizophrenia-like disorder Depending on whether individuals with these dual problems end up in an addiction or a mental health service (and that might be a matter of chance) their corresponding problem may not be recognised or treated adequately by that service. Indeed, some mental health services – e.g. some CAMH services – actively exclude those with addictions and, *vice versa*, some addiction services exclude service users with mental health conditions. Service users with these dual problems risk falling between the gaps in these services. They should not be excluded from mental health services such as AMHS or CAMHS.

The HSE has a full range of addiction services available in each CHO area. Across the country, there are 35 GPs, 70 Nurses, 42 outreach workers, 16 social workers and 115 counsellors plus substantial numbers of rehabilitation workers in the HSE addiction services. In the HSE, there are six adult consultant psychiatrists (including one who works in the Mental Health Services) and two child and adolescent consultant psychiatrists. In some areas of the country, addiction services are still placed within mental health services (e.g. CHO 1). There is a shortfall in relation to some areas around the provision of services to those under the age of 18 and attempts are being made to address this.

In addition, there are addiction services provided through the voluntary, independent and private sector, with outpatient and residential detox, maintenance and rehabilitation programmes. Some of this is carried out in conjunction with the HSE by means of specific service-level agreements.

From an organisational perspective, addiction services could be separated into primary addiction services and dual diagnosis services (dual diagnosis being addiction plus another mental health disorder). Dual diagnosis services are very limited in Ireland. However, in 2016, a National Clinical Programme was established with the aim of developing a Model of Care for Dual Diagnosis services. At this stage it is not clear what the relationship will be between these proposed Dual Diagnosis services and EIP services. However, it clearly will need to be considered by the Model of Care for the Dual Diagnosis NCP and will be included in the NCP review of EIP and Specialist Services over the next three years.

5.2.6 Intellectual Disability (ID) Services

There are no data available in Ireland on the incidence of FEP in people with intellectual disability (ID). Nor are there national statistics on the particular health needs of people with ID and FEP. International evidence suggests that the incidence of FEP is very significantly higher for people with ID and it can present quite differently than for the general population. Cooper *et al* (2007) identified the incidence (new cases per annum) for FEP in an intellectual disability (ID) population as one in 400, equivalent to 250/100,000 (ID) population (over seven times the general population incidence), and with a point prevalence for psychotic disorders of 2.6 – 4.4 per cent (depending on diagnostic criteria used).

Mental health services for people with ID in Ireland are currently undergoing considerable change, with recent moves away from institutional settings and towards specialist community services. While much national variation persists, services are developing towards care through geographically defined community-based multi-disciplinary teams. Services aim to provide treatment in the community with the support of families and, where appropriate, social care services. However, teams are only partly formed and currently under-resourced to provide full community treatment. Though clearly needed, there is an absence of acute specialist beds.

The presentation and management of FEP in people with ID is often complicated and depends on factors such as the level of ID, the presence of autism, epilepsy and other neuropsychiatric conditions. Diagnosis is often complicated by developmental problems, communication difficulties, emotional dysregulation, and behavioural problems. Delays in recognition and diagnosis of psychosis are common. Standard diagnostic systems have considerable limitations in ID. Treatment decisions can be more problematic; for example, if service users lack capacity. They are much more sensitive to medication side-effects and their needs may be poorly met by admission to acute adult units.

5.2.7 Rehabilitation Service

These services focus on people with complex mental health needs who have both active symptomatology (positive, negative and/or cognitive symptoms) and impaired social functioning as a result of those symptoms (see Section 11.7.5).

Early referral to the rehabilitation service should be considered for people presenting with an FEP and complex needs. Service users may benefit from joint working between the early intervention and rehabilitation services, particularly in the areas of cognitive remediation and social skills training. Cognitive performance has been shown to be the best predictor of functional outcome in schizophrenia in areas such as work attainment and performance, financial competency, community involvement, social skills and independent living (Buckley *et al*, 2014).

5.2.8 Other Independent Services

Almost half of the population in the Republic of Ireland have private health insurance. Private services are used by a sizeable minority of FEP service users. Historically, private mental health services have been primarily hospital-based but, in recent years, there has been an increase in private-sector day programmes and MDT community clinics. Some of these include elements of EIP interventions.

While private-sector day programmes and hospital stays might be covered by private health insurance, outpatient sessions are not, making any intensive community-based interventions very expensive for service users. Some service users, therefore, opt to attend the state-funded HSE services for community follow-up and reserve the private sector for inpatient and day-patient services (if required, and if covered by their health insurers). While the availability of such services allows for a greater diversity of health service provision and shared care opportunities, it also highlights the need for collaborative working and seamless transition between service providers.

5.3 Early Intervention in Psychosis Service

Several mental health services in Ireland have established elements of EIP interventions or services but none has developed a fully funded and staffed EIP service. Some of these developments ceased operation due to lack of funding or staffing. However, in 2018, three demonstration sites were chosen) by the National Clinical Programme, and staff are being recruited. The services model for these demonstration sites is a hub & spoke. Only one is listed below as they are still in the process of being established.

At present, the Republic of Ireland has no nationally co-ordinated systematic, sustained, information campaign to reduce delays either in help-seeking or in the health system. However, the DETECT service, the first EIP service in Ireland (see below), has led early detection strategies over the last twenty years. It has a strong international reputation for research in this area.

5.3.1 The DETECT Service: SE Dublin & North Wicklow (CHO Area 6)

An important backdrop to the development of early intervention for psychosis in Ireland was the pioneering work of the late Professor Eadbhard O'Callaghan who developed DETECT (Dublin and East Treatment and Early Care Team) with his team in 1999. It covers all of CHO 6 in South Dublin and Wicklow (population of 385,000). Like the 'front end' early detection teams in Rogaland, Norway, DETECT initially provided a comprehensive education campaign to the public and professionals referrers (e.g. GPs). It currently accepts referrals of 18-64 year-olds from GPs and 14 local CMHTs. It provides access (to comprehensive, assessment jointly with the local CMHTs, who retain clinical responsibility. Following assessment, DETECT provides time-limited specific interventions (e.g. CBT) for psychosis and family psycho-education either at its team base or in the CMHTs, akin to a hub & spoke model. Clinical responsibility and follow-up remains with CMHTs at the spokes.

The major strengths of DETECT are its focus on comprehensive assessments, its integration of health service evaluation with the clinical service and its internationally recognised research. In addition, DETECT has provided EIP education, training and expertise to professionals and agencies well outside its clinical remit.

5.3.2 The Protect Team: Bray / North Wicklow (part of CHO 6)

The Protect EIP Service in Bray / North Wicklow, funded by a time-limited grant, was established in 2011 for an adult sector in County Wicklow (one of the CMHT spokes for the DETECT service). Its aim was to follow up and key work all service users with FEP following their assessment by the DETECT team. The Protect team operated as an EIP sub-team within an existing generic team, with leadership provided by the sector consultant psychiatrist. Assertive follow-up and multidisciplinary psychosocial interventions improved the engagement rate and outcomes significantly for service users with FEP. The funding grant has since expired but the service provides a very good example of service innovation.

5.3.3 COPE Programme: Cavan / Monaghan (part of CHO 1)

COPE (Cavan-Monaghan Overcoming Psychosis Early) commenced in 2012. It is a service for those with FEP aged over 15 years (there is no upper age limit) and living within the Cavan / Monaghan Area Mental Health Service's catchment area (population of 132,000). It covers all psychoses.

The COPE team, with health and social care professionals, works in conjunction with the treating community mental health teams (CMHTs), including the Community Rehabilitation Service (CRS), Mental Health Service for the Elderly (MHSE) and the Child and Adolescent Mental Health Service (CAMHS), to provide an integrated service to the service user. The model is a good example of a hub & spoke service. It has four spokes (Cavan, Monaghan, CRS and CAMHS). The COPE team, the hub team, provides an additional programme of interventions to service users with FEP, who are case-managed by the CMHTs. The Cavan-Monaghan service has long-established academic and research links with the Royal College of Surgeons of Ireland and the DETECT service.

5.3.4 Cork North Lee Home-Based Treatment Team (HBTT) (CHO 4)

This team provides an intensive outreach service to an urban population of 100,000 in part of CHO 4. The team has embedded an EIP service for people presenting with FEP. It works closely with primary care and adult sector mental health services, including inpatient services. Intensive key-working is provided for six months followed by joint key-working with the sector CMHT for another two and a half years. The CMHTs retain overall clinical responsibility for the service user for three years. There is variable access to psychosocial interventions, for which there is no extra resourcing. The service has a good data collection system but needs resourcing to be sustained.

5.3.5 Cork South Lee Home-Based Treatment Team (HBTT) (CHO 4)

This HBTT team has incorporated a clinical nurse specialist who is the EIP Keyworker for all FEP presentations to that team (since March 2016). The FEP interventions are provided in accordance with the NICE Quality Standards (2015). The one-year audit of this EIP pilot has been very positive and shows that the majority of service users, some 70 per cent, can be cared for in the community by this team, led by a consultant psychiatrist with EIP expertise. The main limitations are lack of access to timely CBT for psychosis and behavioural family therapy, and an inability to engage service users beyond one year. This is due to resource constraints.

5.3.6 Dublin South City / St James's Hospital & Dublin West & Southwest / Tallaght (CHO 7)

In the past, the mental health services in these two catchment areas (Dublin South City / St James's Hospital, population 140,000, and Dublin West & Southwest / Tallaght, population 270,000 (part of CHO 7) had clinical leads who initiated EIP service developments (for example in a day hospital setting or in a home-based treatment team, in Tallaght). The developments included a standardised assessment process, joint training, and data systems to support an EIP service. This was done by reconfiguring services internally, but it was not sustainable despite local leadership and commitment.

5.3.7 ARMS Services

There is only one research-funded and time-limited research-funded service based in Cork, which provides both specialist assessment and follow-up interventions for people with an at-risk mental state (ARMS). To avail of this service, however, one needs to agree to participate in a randomised controlled trial of Omega 3 fish oils.

A specialist ARMS clinic operated for three years in the private sector as part of a young adult service but it closed in 2014 due to lack of sustainable resources. Its findings were similar to those seen in similar services overseas: 54 per cent of those assessed using the SIPS met criteria for ARMS and only 8 per cent transitioned to psychosis within two years (Ramsay *et al*, 2015).

5.4 Current EIP Services: Key Challenges

EIP service provision in Ireland faces a number of key challenges. None of the current developments outlined in FEP service provision above meet the international standards for fully comprehensive EIP service provision.

The challenges to be addressed in the Model of Care are:

- There are no national epidemiological data available on the incidence of psychosis in Ireland (making it impossible to establish overall needs).
- There is no national system for registering service users with ARMS or FEP.
- In generic services, the range, staffing and quality of services for service users with FEP vary widely.
- Currently less than a quarter of the population have access to any of the range of components of an EIP service.
- There is considerable variation in the current models of service provision and the range of multidisciplinary interventions available for service users with FEP.
- There is no national consensus about the model of service provision for people with FEP or ARMS.
- There is no dedicated FEP service available for children.
- There is no state-funded service for individuals with an At-Risk Mental State.
- No national educational programme exists for the public or non-health professionals to facilitate early detection.
- There are no established national training, education or health promotion initiatives in early intervention for health professionals.

- No national guidance has been provided to advise clinicians on the early detection, assessment and treatment of emerging psychotic disorders.
- There is no standardised training in the use of standardised assessment tools to diagnose and assess symptom severity, functioning, quality of life, etc. for people presenting with psychosis / suspected psychosis / ARMS.
- Very limited national training has been provided to support the provision of evidence-based interventions for service users with ARMS or FEP and for their family members / carers.
- No standardised national system is available to audit and evaluate service provision and clinical outcomes in FEP.

CHAPTER 6: VISION, MISSION, PRINCIPLES, AIMS AND OBJECTIVES

6.1 Vision

The Vision of the HSE National Clinical Programme for Early Intervention in Psychosis is that everyone who develops psychosis receives the highest quality of care and treatment to achieve their optimal clinical, functional and personal recovery. In addition, young people at risk of developing psychosis will have access to specialist assessments to determine their risk.

6.2 Mission

The mission is that every person aged 14 to 65 years in Ireland who develops a first episode of psychosis will be offered a specialist assessment and early intervention service at the earliest opportunity which is standardised, accessible, cost-effective and sustainable throughout the period of recovery. In addition, young people (aged 14-35) at risk of developing psychosis will have access to specialist assessments to determine their risk, followed by monitoring for two years if the assessment concludes that they are experiencing an At-Risk Mental State.

6.3 Guiding Principles and Core Values

The Guiding Principles and Core Values are outlined below. The core values of the HSE are *care*, *compassion*, *trust* and *learning*. The guiding principles are person-centeredness, with an ethos of hope, recovery, empowerment and choice being central to this, and combined with an integrated approach throughout the lifespan.

The programme's overarching aim is to improve access, quality and safety of service provision as well as cost-effectiveness with the standardisation of early intervention psychosis services.

Table 2: Guiding Principles of the National Clinical Programme for EIP

- Focus on prevention and early detection
- Accessible, responsive and community-based
- Individualised and recovery-focused
- Youth-friendly and age-appropriate
- Clear pathways of care and good working relationships within and outside mental health services
- Family/carer-friendly
- Culturally sensitive
- Skilled clinicians with expertise and competence
- Evidence-based interventions
- Continuous education, training and supervision
- Integrated service evaluation, review and research
- Good governance, communication and accountability

6.4 Aims and Objectives for the Model of Care

The EIP Model of Care has eight main themes, which are summarised below. Each theme has specific objectives, which are outlined in the following chapters (Chapter 7 - 17), which describe how these aims can be achieved.

Figure 7: Aims & Objectives of the EIP MoC's Eight Themes

1.EIP service structure

2. Early detection, assessment, and pathways into care

3. Evidence based interventions

4. Patient & Family/carer centred care and recovery

5. Resources required to deliver the EIP service

6. Skilled workforce development

7. Clinical governance

8. Evaluation and Continuous Quality improvement

6.4.1 Theme 1: EIP Service Structure

One of the main aims of the EIP MoC is to identify who this new initiative is for (see Chapter 7 for details), what EIP service model is most appropriate to meet their needs (see Chapter 8) and how it interfaces with existing services

6.4.2 Theme 2: Early Detection, Assessment and Pathways in Care

The second important aim of the EIP MoC is to recommend strategies that improve awareness and early detection of ARMS and FEP, reduce delays in the pathway into care, and provide prompt, responsive and accessible, high-quality MDT assessments, investigations and diagnosis of FEP (see Chapters 9 & 10) and ARMS (see Chapter 12). For those diagnosed with FEP, the EIP MoC recommends that they have an EIP Keyworker throughout their follow-up with the EIP service.

6.4.3 Theme 3: Evidence-Based Interventions

The third main aim of the EIP MoC is to recommend a comprehensive range of community-based, accessible, multidisciplinary, evidence-based, internationally recognised EIP interventions (including low-dose antipsychotic medication, CBTp, FBT, IPS, and physical health monitoring) during the three-year follow-up, supported by a system of individual care planning and seamless transitions between services (see Chapter 11).

6.4.4 Theme 4: Service User & Family / Carer-Centred Care and Recovery

The fourth aim of the EIP MoC is to establish an ethos of respect, openness and shared and informed decision-making, with a focus on hope, prevention, recovery and service-user-centred care, in age-appropriate user-friendly settings, and including support and information for family / carers (see Chapter 13).

6.4.5 Theme 5: Resources Required to Deliver the EIP Service

The fifth aim of the EIP MoC is to recommend what resources will be required to ensure the proper funding, MDT staffing and resources for the new EIP services to operate effectively (see Chapter 14) within the requirements of the local population needs, which can vary widely.

6.4.6 Theme 6: Skilled Workforce Development

The sixth aim of the EIP MoC is to highlight the requirements of best-quality staffing, training, EIP competencies, supervision and professional development for EIP staff both at local and national level (see Chapter 15).

6.4.7 Theme 7: Clinical Governance

The seventh aim of the EIP MoC is to ensure good governance, oversight, co-ordination, communication and accountability in the planning, establishment, operation and monitoring of EIP services (see Chapter 16). Governance is to include service-user representation.

6.4.8 Theme 8: Evaluation and Continuous Quality Improvement

The last major aim of the EIP MoC is to make service evaluation an integral part of routine service delivery, including recommendations about evaluation, support networks and continuous quality improvement of EIP services (see Chapter 17).

CHAPTER 7: SCOPE OF THE MODEL OF CARE

7.1 Introduction

The EIP Model of Care is to improve the HSE mental health service provision for individuals with a first episode of psychosis (FEP) or an at-risk mental state (ARMS), as well as address health system delays that impede early detection.

This Model of Care is the first stage of EIP service development. Its focus is on mainstream services for adolescents and adults. Any expansion of this into specialist mental health services will be reviewed by the HSE after three years.

7.2 Age Group

This EIP Model of Care applies to HSE mental health service provision for children and adults from 14 to 65 years of age with their first episode of psychosis (FEP).

For children and adults with ARMS the age is limited to 14-35 years of age.

As yet, there is no evidence base for EIP services for those outside these age ranges. However, the NCP will review the evidence for this again in three years' time.

7.3 First Episode of Psychosis (FEP)

For the purposes of this EIP Model of Care, FEP is defined as the first episode of moderately severe psychotic symptoms (i.e. hallucinations and/or delusions with/without thought disorder) lasting for at least seven consecutive days and leading to distress or disruption to functioning.

This includes psychoses of all causes, including bipolar psychoses and other affective psychoses as well as psychotic episodes associated with psychoactive substance use. However, confirmed organic psychotic disorders are excluded if they can be more appropriately managed clinically by medical services.

EIP services will accept referrals if they have experienced their first episode within the last two years (except if a service user is already well engaged with a service and it is in their best interest or preference to remain with their existing service).

7.4 At-Risk Mental State (ARMS)

For the purposes of this EIP Model of Care, ARMS is defined using the PACE criteria and confirmed by a specialist assessment using either the CAARMS or the SIPS semi-structured interview. The PACE criteria are limited to young people (ages 14-35) who are help-seeking and have not experienced a psychotic episode. They must have experienced one of the following:

(a) an extended period of attenuated (low-grade) psychotic symptoms (APS), or

(b) a brief limited interval of psychosis (BLIP) that is self-remitting without treatment and lasts less than seven days, or

(c) a significant drop in functioning (greater than 30 points on a GAF score) in the last year, in someone with either a schizotypal personality or with a first-degree relative with psychosis.

For the purposes of the EIP Model of Care, service users with ARMS must already be attending CAMHS or AMHS.

7.5 Duration of the Early Intervention in Psychosis Service

The duration of the EIP service for FEP service users will be for up to three years from the time of first presentation of psychosis to the EIP services. If a service user moves to another catchment area during this three-year follow-up period, their care should be transferred to that locality's EIP service while they remain there until the end of the three-year follow-up. Special arrangements may need to be made between EIP services for those living between two catchment areas (e.g. students during term time).

For ARMS service users, the follow-up with the local CMHT should be for two years.

7.6 Interface with Specialist Mental Health Services

The EIP Model of Care at this stage does not include the specialist mental health services in its scope. As yet, there is no evidence base developed within the EIP field to guide and recommend what interventions, resources, training and model best meet the needs of service users with FEP / ARMS in specialist mental health services such as learning disability, forensic / prison services, addictions, rehabilitation, and psychiatry of old age.

The NCP will review the evidence base for EIP services within specialist mental health services within the next three years.

7.7 Integration with other National Clinical Programmes, Health Services and other Stakeholders

While focusing on mental health services, the EIP Model of Care also highlights the importance of collaborating with other healthcare providers such as primary care, acute hospital settings, and Population Health and Wellbeing. This is in addition to the other National Clinical Programmes (NCPs) in mental health such as Management of Self-Harm and Dual Diagnosis and other NCPs in medicine, health promotion and primary care.

Moreover, collaboration with relevant statutory and voluntary agencies in the community (e.g. educational bodies, vocational agencies, youth services and community groups) will be needed in order to deliver the model's aims and objectives.

This integrated approach will improve the early detection and referral of individuals with an FEP or ARMS for specialist assessment, as well as optimising treatment for the mental and physical healthcare needs identified and facilitating recovery and social inclusion.

Finally, engagement with the wider community will be necessary to improve knowledge and understanding of psychosis and to encourage early and appropriate help-seeking behaviour. However, this broader remit requires a wide-ranging approach, which is beyond the direct scope of this EIP MoC.

7.8 Interface between EIP Services and Other Agencies

At the individual level, EIP services need to ensure that they interface and work closely with the above agencies (section 7.7) so that the interventions they provide service users are consistently integrated. This will require regular good communication and shared care arrangements between EIP services and these agencies (e.g. college and primary care services). These arrangements should be an integral part of individual care plans.

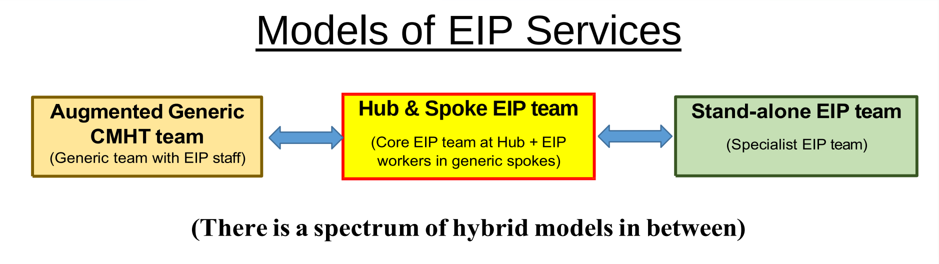
EIP services themselves should interface seamlessly with each other for those who move between catchment areas or live simultaneously in two catchment areas (e.g. students attending college during term time but home at weekends and outside term time). Again, this may require shared care arrangements between EIP teams, with clear communication and care planning between teams, service users, carers and other agencies involved.

CHAPTER 8: MODELS OF CARE FOR EARLY INTERVENTION IN PSYCHOSIS SERVICE PROVISION

8.1 Introduction

A wide range of Early Intervention in Psychosis (EIP) service models exist (Ehmann *et al*, 2004; Harris *et al*, 2009). At one end of the spectrum, there is the Adult Mental Health Service (AMHS) and the Child and Adolescent Mental Health Service (CAMHS) community team, augmented with EIP interventions; at the other end, there is the standalone specialist team model incorporating all of the EIP components and case-managing within the one specialist EIP service (for example, the LEO and OASIS services) (Power *et al*, 2007b). Between these two models are services that combine both generic and specialised EIP roles. These hub & spoke models usually have a central specialist EIP team at the hub and EIP services at the spokes within generic community AMHS and CAMHS. There are numerous variations and hybrids in between. Ultimately, the models need to be flexible to address local circumstances and needs. Regardless of the model, an EIP service should include all components of EIP.

Figure 8: Types of EIP service models



8.2 Comparing the Models of EIP Service Provision

A systematic review of the evidence for the models of EIP service delivery showed that most of the published evidence supports specialist stand-alone centres, with less evidence for hub & spoke models, and no evidence supporting integrated EPI and CMHT services (Behan *et al, 2017).* The strong evidence base for EIP comes mainly from randomised controlled trials of well-established standalone EIP services compared with treatment-as-usual generic services. This model is the most common EIP service model overseas (e.g. in England, Canada, and Australia). The EPPIC service in Melbourne, Australia, with its integration into a youth mental health service, is the model with the strongest international reputation. In the UK, the Birmingham Early Intervention Service and the Lambeth Early Onset (LEO) service are the models given 'Beacon service' status in England. Power *et al* (2007b) describe in detail the development, operation, and evaluation of this model via the LEO service in south London (catchment area population: 265,000).

The evidence base for hub & spoke EIP services is less compelling. However, the model has been shown to be functional and, in one limited study in rural Ontario, it compared favourably with a specialist outreach model (Cheng *et al*, 2014). There is good evidence that the hub & spoke model can work well within rural areas where the incidence of psychosis is low and cases/services are dispersed across wide distances (Cheng *et al*, 2014, Fowler *et al*, 2009). This is not the case in urban areas where the incidence of psychosis is often several times higher and is complicated by high levels of co-morbidity / risk in deprived inner-city populations. For these urban areas, standalone specialist EIP services are logistically more functional, robust and effective.

Although some hub & spoke services have up to eight spokes (Cheng *et al*, 2014), it becomes logistically difficult for the hub to relate effectively to more than three or four spokes.

There is poor evidence for integrated generic / augmented AMHS and CAMHS community services. This model is not recommended. It is difficult to see how it could function logistically as EIP staff would be working in isolation within generic community mental health teams, with competing demands and pressures from within their teams, and little peer support or supervision from other EIP professionals.

The success of both models relies on good communication and clearly defined pathways with sector community MH teams, specialist mental health services, and referral agencies (e.g. GPs and emergency departments).

8.2.1 The Standalone Specialist EIP Model

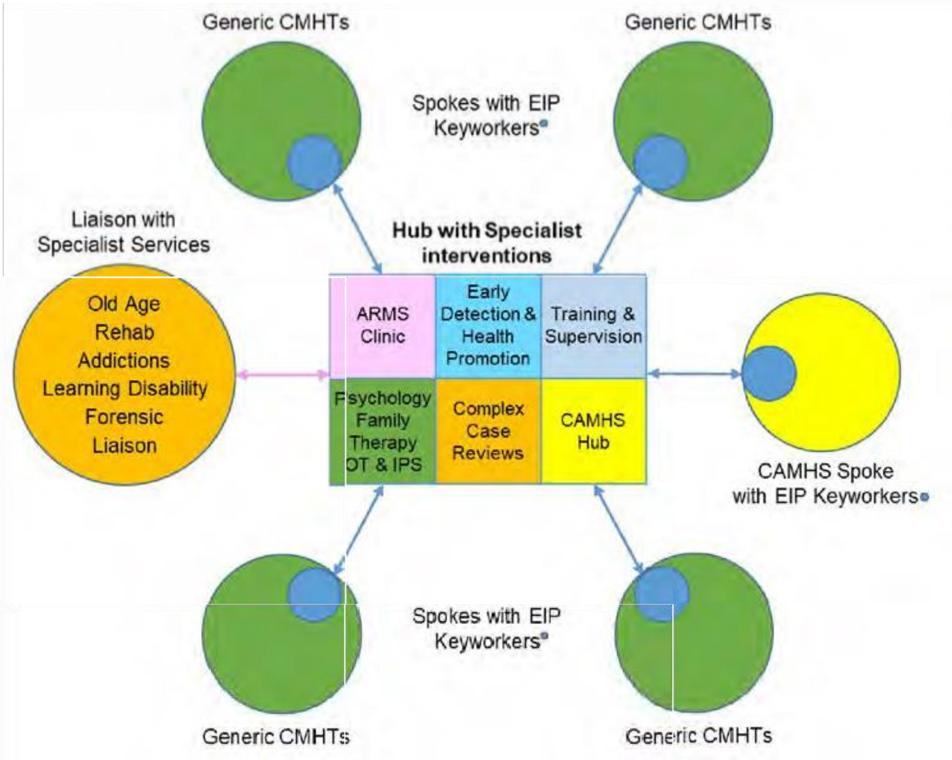
The standalone specialist EIP service is best suited to urban regions where population densities and economies of scale require one integrated and highly responsive service to meet the challenges of inner-city populations. In densely populated areas, standalone teams are likely to be more efficient in their time usage and communication than disparate hub & spoke teams. In the standalone model, early detection, key-working (case management), medical interventions, psychosocial interventions, training and supervision all occur within one clinical team rather than these functions being spread out over several teams as in the hub & spoke model.

On the other hand, standalone teams that try to cover remote rural regions are likely to overstretch themselves, waste time travelling long distances and have limited links with local agencies.

8.2.2 The Hub & Spoke EIP Model

The hub & spoke model is best suited to rural and less densely populated areas where distances and local knowledge become an issue for community follow-up (Dodgson & McGowan, 2010). In such areas, local community mental health services have good knowledge of local needs and the availability of statutory and voluntary services and supports in their area.

Figure 9: Example of hub & spoke EIP service



In the hub & spoke model, key-working (case management) occurs at the spokes in community AMHS and CAMHS by EIP-trained staff working within the community teams. Medical management, by medical staff already working in CMHTs, also occurs at the spokes, in collaboration with the service user's GP and primary care team.

Specialist EIP clinical interventions (such as CBT for psychosis, individual placement and support (IPS) and family interventions) may occur at the hub or spokes, with trained staff at the spokes and extra expertise available at the hub. EIP-trained staff at the spokes may also have generic roles within their CMHT, with caseloads of other service users.

In the hub & spoke model, the CMHT consultant retains clinical responsibility, while the EIP consultant at the hub provides leadership in EIP service development, evaluation (including data management as per GDPR requirements), training, supervision, expert advice, specialist interventions and management of complex cases. Some flexibility should be allowed for local variation – e.g. where a hub EIP consultant is also a CMHT consultant part-time or where one spoke is best co-located at a hub. CAMHS consultants retain clinical responsibility for service users under 18 years of age. For this model to operate effectively, it is essential that both hub and spoke consultant time is adequately resourced and balanced to manage their FEP caseloads as well as their EIP roles.

The hub should be located ideally in regional centres where the needs are greatest and close to other agencies and services, such as inpatient care. Other factors such as local transport, colleges and centres of employment should be considered. If the catchment area has two or more regional centres, variations in the model should be considered – for example, a division into two smaller regional hubs (populations 150,000) with fewer spokes (three) in each region. The model needs to have flexibility and capacity to reconfigure, if necessary.

8.2.3 Models of EI Services in Child & Adolescent Mental Health Services

Approximately 15 per cent of FEP service users will present to services before the age of 18, either with an ARMS or FEP (Singh *et al*, 2003).

As CAMHS structures and staffing are much smaller and more diffusely spread nationally than their AMHS counterparts, it is appropriate to integrate additional EIP resources into existing CAMHS services to support EIP interventions rather than to create separate structures for EIP.

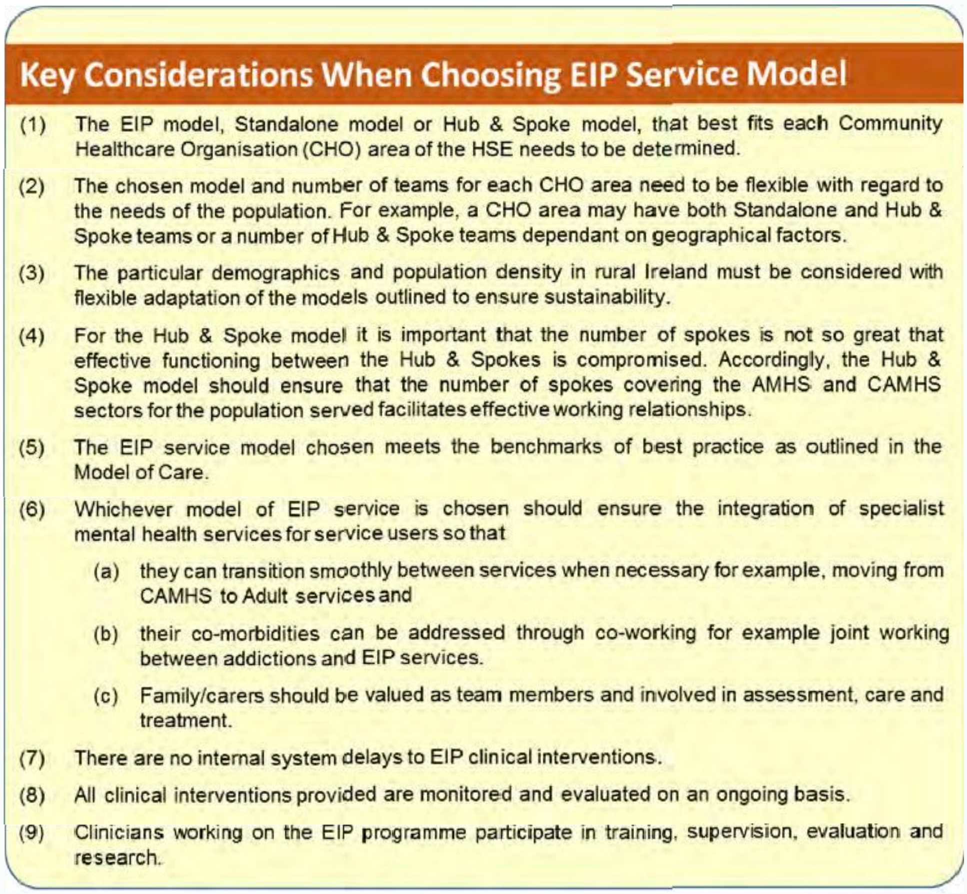
For the standalone model, this would mean that CAMHS would continue to clinically manage FEP service users in CAMHS, but with the addition of EIP interventions from the EIP standalone team (under CAMHS supervision).

For the hub & spoke model, the arrangement is similar, with CAMHS continuing to clinically manage FEP service users but with the addition of EIP interventions from the hub (under CAMHS supervision) (see Figure 9).

8.3 Summary of Key Considerations

The key issues to be considered in deciding the model of EIP services are as follows:

Table 3: Key considerations



Key Considerations When Choosing EIP Service Model

(1) The EIP model, Standalone model or Hub & Spoke model, that best fits each Community Healthcare Organisation (CHO) area of the HSE needs to be determined.

(2) The chosen model and number of teams for each CHO area need to be flexible with regard to the needs of the population. For example, a CHO area may have both Standalone and Hub & Spoke teams or a number of Hub & Spoke teams dependant on geographical factors.

(3) The particular demographics and population density in rural Ireland must be considered with flexible adaptation of the models outlined to ensure sustainability.

(4) For the Hub & Spoke model it is important that the number of spokes is not so great that effective functioning between the Hub & Spokes is compromised. Accordingly, the Hub & Spoke model should ensure that the number of spokes covering the AMHS and CAMHS sectors for the population served facilitates effective working relationships.

(5) The EIP service model chosen meets the benchmarks of best practice as outlined in the Model of Care.

(6) Whichever model of EIP service is chosen should ensure the integration of specialist mental health services for service users so that

  (a) they can transition smoothly between services when necessary for example, moving from CAMHS to Adult services and

  (b) their co-morbidities can be addressed through co-working for example joint working between addictions and EIP services.

  (c) Family/carers should be valued as team members and involved in assessment, care and treatment.

(7) There are no internal system delays to EIP clinical interventions.

(8) All clinical interventions provided are monitored and evaluated on an ongoing basis.

(9) Clinicians working on the EIP programme participate in training, supervision, evaluation and research.

8.4 Recommendations for Model of Service Delivery in Ireland

8.4.1 Summary of recommendation for EIP service model

The model for EIP services recommended in urban areas (population greater than 200,000) is the Standalon Specialist EIP service, and for rural areas is the Hub & Spoke model, for populations up to a maximum of 200,000.

For most areas of Ireland, the hub & spoke model is recommended (see details below).

The standalone model is recommended for large urban areas where the incidence of psychosis is expected to be well above the average due to population density and socioeconomic factors such as social deprivation. These areas with greater concentrations of psychosis cases are also more likely to have higher levels of other psychiatric and social co-morbidity, typical of many inner-city populations. In Ireland, this will only apply to a small number of regions.

Each CHO mental health management team will decide which model is best suited to the needs of their area. Where two or more hub & spoke / standalone models are considered to meet the needs of the CHO population, an overarching governance structure will be required (as outlined in Chapter 16).

Regardless of the model, the EIP service team must be appropriately staffed with all members of the multidisciplinary team, led clinically by a consultant psychiatrist and co-ordinated administratively by a EIP co-ordinator. Each service user will have an EIP Keyworker (maximum caseload of 15) working under the supervision of the treating consultant psychiatrist and responsible for individual care planning.

All staff must have had training and supervision in EIP appropriate to their role in the MDT – for example, those managing service users aged under 18 must have CAMHS competencies and be supervised within the CAMHS governance structures.

Close working relationships with the inpatient units (approved centre/s) is critical to ensure that treatment is provided in the least restrictive environment.

Communication and clearly defined care pathways are essential to the success of this model, both with sector AMHS / CAMHS community teams and specialist mental health services, as well as with agreed referral agencies (e.g. GPs and emergency departments of acute hospitals).

8.4.2 The Hub & Spoke Model in Detail

This model is recommended for a rural or low-density urban population of up to 200,000 maximum. The populations served by the hub & spoke models in the nine CHOs vary (current local areas of mental health service provision vary from less than

100,000 to well over 200,000) depending on local needs, demographics, geography, etc. However, it is recommended that the population served by this model should not exceed 200,000. This is to ensure optimal functioning between the EIP hub team and a maximum of four spokes located in the Adult Mental Health Services (AMHS) and Child and Adolescent Mental Health Services (CAMHS) community mental health teams.

8.4.2.1 Core Services to be Provided by the Hub Team

In the hub & spoke model, the following core components of the EIP service are to be located at the hub (Table 4). These include early detection, complex assessments and interventions, training, supervision, leadership and clinical governance.

Table 4: The core EIP services to be provided by the hub team

1.	**Supervision of and provision of complex FEP assessments, interventions, ARMS and early detection components of EIP service**
(a)	Early Detection-Educator for Health Education/Mental Health Promotion
(b)	ARMS clinicians to provide specialist assessment.
(c)	Consultation and expertise for spoke clinicians, with advice on the range of psychosocial interventions and management of complex cases by intervention leads
(d)	Training and supervision for key psychosocial interventions

2.	**Leadership**
(a)	Championing EIP service provision in area served by hub team
(b)	Communication with AMHS and CAMHS in relation to EIP programme
(c)	Education of EIP principles to AMHS and CAMHS community teams and mental health service management and wider health service providers such as GPs, ED staff, etc.
(d)	Supporting EIP service provision in area served by hub team

3.	**Governance**
(a)	Data collection and analysis
(b)	Quality assurance of all aspects of EIP service provision
(c)	Review and evaluation of EIP progress
(d)	Linkages with Area Advisory Group, Area Management Team and National Clinical Programme Office for all governance issues

8.4.2.2 Membership of the EIP Hub Team

The EIP hub team (Table 5) will be composed of a multidisciplinary clinical team of lead EIP clinicians from AMHS and CAMHS, team co-ordinator, administrative support staff, ARMS clinician and CHO health educator (the latter two staff will be introduced at Stage 2 & 3, respectively, of EIP service implementation). These roles are described in detail in Appendix 1. For the purposes of EIP service development, additional representation will come from service users and carers (see Table 5). Some of the roles will need to be ring-fenced to ensure that adequate EIP representation is preserved in the face of other demands on staff who might be part-time members of the EIP hub (see section 14.3 for details of staffing and Figure 23 for the staff configuration).

The EIP hub clinicians will meet regularly for team clinical meetings. Senior clinicians and leads will carry a caseload of services users (attending the spokes) who have additional needs and require more complex assessments and interventions. Senior clinicians and leads will provide training and supervision for the EIP clinicians at the spokes. They will also be involved in policy and service development, service evaluation and liaison with key stakeholders (e.g. service-user and carer representatives, primary care, etc.). One of the EIP medical staff will lead with the physical health and lifestyle strategies.

Table 5: EIP hub team membership

Hub team membership to include:
• Clinical Lead, Consultant Adult Psychiatrist
• Clinical Lead Consultant Child & Adolescent Psychiatrist
• EIP Co-ordinator
• EIP Keyworkers
• Grade IV Clerical Officer
• CHO Health Educator
• ARMS clinician
• Service User/Carer nominee
• Approved centre nominee
• CBTp & Psychology Lead
• Social Work & Family Intervention (e.g. BFT) lead
• Occupational Therapy (OT) lead
• Individual Placement & Support Lead
• Physical Health and Lifestyle Lead

8.4.2.3 *Core Services to be Provided by Spokes on Adult (AMHS) and Child & Adolescent (CAMHS) Community Mental Health Teams (CMHTS)*

The spokes are where the EIP Keyworkers, medical staff and some members of the MDT may be located (Table 6). It is where the triage, initial assessment, investigations, key-working, care planning, and many of the interventions such as CBTp, FBT, and IPS are routinely provided (unless it is logistically better provided from the hub). More complex cases may have additional assessments and interventions provided from the hubs. Those with suspected ARMS and aged 14-35 years old are referred to the hub to the specialist ARMS assessment clinics.

Table 6: Core services at spokes (hub & spoke model)

Core services provided at the spokes (hub & spoke model)
1. Initial assessment of all individuals referred to inpatient or community AMHS and CAMHS with an FEP or ARMS.
2. EIP Keyworker identified to complete full assessment to confirm diagnosis of FEP or ARMS and liaise with responsible AMHS/CAMHS consultant psychiatrist for review and care planning
3. If diagnosis of FEP is made, the EIP Keyworker engages with the service user and family/carers for up to three years of EIP service provision.
4. Provision of evidence-based psychosocial interventions, psychoeducation physical healthcare and medication management by the sector multidisciplinary team clinicians for service user and family/carers.
5. If diagnosis of ARMS is suspected, referral is made to specialist on hub team who leads out on detailed assessment.
6. If diagnosis of ARMS is confirmed, the person is referred back to the AMHS or CAMHS team for follow-up for a two-year period, with clinical interventions provided as required.
7. If the person referred does not have either FEP or ARMS, the appropriate care pathway is discussed and agreed with AMHS/CAMHS consultant and arranged for the referred individual.
8. Management of service users with complex needs occurs in collaboration with hub team clinicians as well as specialist services such as rehabilitation, addiction services and others.
9. Discharge planning occurs at the most appropriate time as indicated by the service user's clinical progress, illness trajectory and levels of supports and interventions required.

8.4.3 The Standalone Model in Detail

This model is best reserved for densely populated urban areas, with each standalone team providing the EIP service for a population of approximately 200,000-250,000 people. It operates as a specialist team whose sole function is early intervention in psychosis. The team will provide all the EIP interventions, including early detection, assessment, investigations, key-working, care planning, and medical and psychosocial interventions, during normal working hours. The team is led clinically by a consultant adult psychiatrist for those aged 18 or older, and by a consultant child & adolescent psychiatrist for those under 18 years old. The team is managed by an EIP co-ordinator with support from an administrative Grade IV whose role is to support service delivery and evaluation.

Standalone teams usually operate from one team base. This is where much of the service-user contact occurs (some may occur in the service user's home or other community settings). Teams function by having daily handovers and weekly MDT meetings to discuss new cases, urgent cases and routine case reviews. For standalone teams, the hub & spoke functions outlined in the tables above (e.g. training, supervision) will usually occur at the standalone team base.

A typical standalone team will be composed of:

Table 7: Standalone team membership

Stand-alone EIP team membership to include:
• Clinical Lead, Consultant Adult Psychiatrist • Clinical Lead, Consultant Child & Adolescent Psychiatrist • EIP Co-ordinator • Grade IV Clerical Officer • CHO Health Educator (introduced in Stage 3) • ARMS specialist (introduced in Stage 2) • EIP Keyworkers AMHS (CAMHS EIP Keyworkers located in CAMHS) • Registrar/Senior Registrar • CBTp Lead & Clinical Psychologist • Approved Centre Nominee • Service User/Carer Nominee • Occupational Therapist • Social Worker & Family Therapist & Behaviour Family Therapist • Individual Placement & Support • Physical Health and Lifestyle Lead

8.5 Possible Locations for Standalone EIP Teams in Ireland

Based on the above recommendations, standalone EIP teams would be located in the cities of Dublin and potentially Cork. Dublin City has a population of 553,000 (north and south city centre) and the suburbs (Finglas / North, South-West Dublin, and Dun Laoghaire / Rathdown) a population of 792,000. Cork is the next most populous area in Ireland, with a population of 530,000 living in the county and 208,000 living in Cork City. How these teams are configured should be decided at the CHO level.

CHAPTER 9: MODEL OF CARE: EARLY DETECTION OF PSYCHOSIS, RAISING AWARENESS & PATHWAYS INTO CARE

9.1 Introduction

Addressing the help-seeking and health system delays is one of the few potential mechanisms by which detection rates can be improved and early intervention mental health services can be provided at the earliest opportunity for individuals with an FEP or ARMS. This chapter outlines the early detection component for the Model of Care, looking at both the help-seeking and health system delays and how they can be addressed.

9.2 Community Awareness & Health Education Programs

Education campaigns are key to addressing help-seeking delays. They should be on-going and developed as part of a national programme that provides consistent advice across the country about mental health promotion, understanding of psychosis and access pathways. The role of Population Health, Health Promotion, National Office for Suicide Prevention and the Health & Wellbeing Division of the HSE as well as voluntary groups, especially those working with young people, are very important in providing such broad-based educational campaigns and reducing the stigma that still exists, especially about psychosis. Advice to audiences about seeking help should be balanced with advice that a large minority of the general population (up to some 20%) may experience fleeting, brief psychotic-like experiences (Johns *et al*, 2004). It is important to make a distinction between these anomalous experiences and psychotic episodes (Kelleher & Cannon, 2011).

Finally, those conducting education campaigns should be mindful of the impact on local referrals to GPs and mental health services. They should alert such services to scheduled campaigns and monitor the impact on referrals.

Implementation of this early detection component of EIP presents an opportunity to establish linkages and work with key stakeholders in the HSE Population Health and Wellbeing Division as well as statutory and voluntary bodies working with young people.

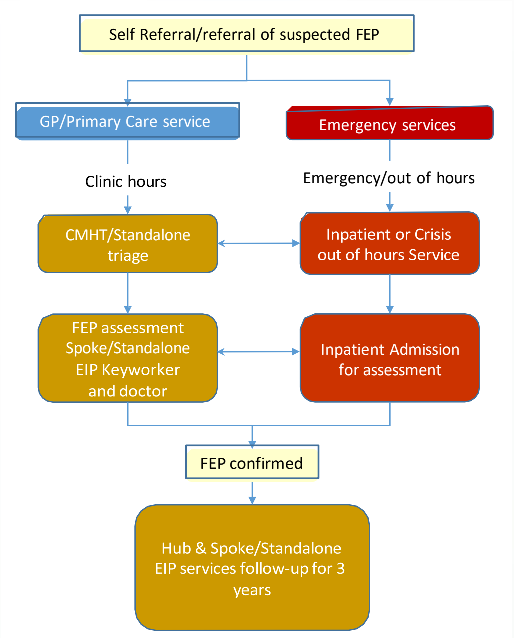
The Model of Care supports this broader remit and considers it essential to improve knowledge and awareness of mental health / ill health and facilitate the early identification of young people who may be at risk of developing psychosis. The expertise of EIP clinicians at local, regional and national levels can inform the content of such educational initiatives and provide shared learning and research findings.

9.3 Education of Referral Agencies and Key Stakeholders

Targeted educational campaigns together with collaboration, and including support of EIP training initiatives with the Irish College of General Practitioners, primary care teams and clinicians in emergency departments in acute hospital settings is required to reduce the health system delays in specialist assessment, identification and treatment of psychosis.

A core focus for the early detection component of the Model of Care is on promoting the education of referral agencies to ensure (a) the early identification of individuals with psychosis or suspected psychosis or with an ARMS and (b) the appropriate use of pathways of care into early intervention services so that a prompt and comprehensive assessment can be undertaken (see Figure 10 below).

Figure 10: Pathways into care for referrals of suspected psychosis



9.4 Recommendations on Early Detection

The following are the recommended actions for the Model of Care to improve the early detection of individuals with FEP or ARMS:

(1) An **engagement and consultation process** should be undertaken by HSE Community Operations (incorporating the National Mental Health Service), Clinical Programmes, together with National Clinical Programmes in population health, primary care, suicide prevention and acute hospitals.

(2) Support should be provided for work already being conducted in broad-based **mental health educational campaigns** by both statutory and voluntary agencies as well as third-level institutions. This should be done by providing information about psychosis and the availability of mental health services to provide early intervention for individuals with ARMS and FEP.

(3) **Joint educational activities**, with information for referral agencies - in particular GPs, primary care services and emergency departments in acute hospitals - should be a priority so as to facilitate the screening and early detection of individuals with psychosis or suspected psychosis and avoid health system delays. This will need to be done in co-operation with the relevant clinical programmes in primary care, mental health and acute hospital settings.

(4) Regular updates about **EIP service referral pathways** and availability should be provided to referral agencies at local level in each CHO to include information on referral pathways and contact details of local mental health services.

(5) A **list of voluntary and statutory agencies**, in particular those working with young people, as well as addiction services, should be compiled at local level within each CHO if not already available.

(6) **Care pathways** for individuals who may have FEP or ARMS should be developed in collaboration with GPs and primary care teams as well as emergency departments of acute hospitals.

(7) For mental health services, the **provision of standards and timeframes** for the assessment, engagement and interventions for individuals presenting with an FEP or ARMS, as outlined in the Model of Care, will address potential health system delays.

(8) To co-ordinate all the above, the EIP MoC recommends that the EIP NCP explore whether (a) creating a role for a **Mental Health Educator** is the best way to co-ordinate all the tasks outlined above, (b) where best to locate such a role (e.g. at the CHO level) and (c) the most appropriate background, training and

skillset that such a role will require. This role will not come into effect until Stage 3 of EIP services implementation (after FEP and ARMS services have been established and are operating effectively).

CHAPTER 10: GUIDELINES FOR FEP ASSESSMENT AND PATHWAYS OF CARE

10.1 Introduction and Overview

This chapter outlines the recommendations on how initial clinical assessments of FEP should be conducted by the EIP multidisciplinary team. As the EIP Keyworker role is central to this, an outline of the EIP Keyworker's role is described first (the role of other disciplines is provided in more detail in the appendices). The aim is for the EIP service to provide a prompt, comprehensive, high-quality clinical assessment so that comprehensive clinical formulation, risk assessment, investigations and diagnosis can be completed, thereby providing the foundation for individual care planning.

There are a number of key points to consider before describing the assessment process. These are outlined in Table 8 below.

Table 8: Key points

A summary of the key points of this chapter
1. A standardised response and pathway should be established for referrals of individuals with suspected FEP.
2. Initial triage should commence within three working days of receipt of referral from inpatient or community settings according to clinical need.
3. EIP Keyworkers have a central role in engagement, clinical assessment and ensuring the delivery of EIP interventions agreed in individual care plans with the service user while with the EIP service.
4. Clinical assessments will adhere to key principles and standards of excellence, drawing on a number of information sources and including assessment modalities by all of the MDT members, thereby informing comprehensive individualised care plans for the service user.
5. The initial assessment will establish whether the service user meets the clinical criteria for the EIP service.
6. Clear communication between the referring agents, community mental health teams or EIP teams (depending on model of service provision) and service users must be ensured.
7. Defined pathways to follow-up care are needed to ensure continuity of care focused on individual need.

EIP Keyworkers are crucial to the successful engagement and clinical assessment of service users presented with suspected FEP. The role of the EIP Keyworker is described in the next section.

10.2 EIP Keyworking: Assessment & Individual Care Planning

The new role of the EIP Keyworker is critical to the successful functioning of EIP services in providing engagement, initial clinical assessments and subsequent individual care planning. The role of an EIP Keyworker in the Irish setting is outlined in the Mental Health Commission's guidance on Key Working and Individual Care Planning (http://www.mhcirl.ie/file/guidanceon_icpmhs.pdf). Full details of the EIP Keyworker role are outlined in Appendix 1, but a summary is given here.

10.2.1 The Clinical Background of EIP Keyworkers

The EIP Keyworker will be a designated member of the multidisciplinary CMHT who, under the clinical supervision of the treating consultant psychiatrist, will have responsibility for co-ordinating the clinical care for service users with FEP. EIP Keyworkers can be from a range of mental health clinical backgrounds such as nursing staff, occupational therapists and social workers. In countries where EIP services are established EIP Keyworkers are usually but not exclusively nursing professionals.

10.2.2 EIP Keyworkers' Clinical Competencies

EIP Keyworkers must be trained, supervised and competent in EIP skills, including assessment of psychosis, relapse prevention, family education, assessment of suicide/violence risk and more. If working with services users who are under 18 years of age, EIP Keyworkers must have CAMHS competencies, training and skills.

10.2.3 EIP Keyworker's Caseload

Each EIP Keyworker will have a caseload of service users with FEP (maximum caseload of 15 service users). This will allow EIP Keyworkers sufficient time for engagement and support of service users and family members in the range of evidence-based interventions available. EIP Keyworkers will be allocated new cases once a referral for assessment has been accepted by the EIP service *and* a diagnosis of FEP has been confirmed.

10.2.4 Clinical Responsibilities of EIP Keyworkers

The clinical responsibilities of EIP Keyworkers include:

(a) Lead on the engagement and initial assessment process

(b) Develop and maintain individual care plans (ICPs) (see section 10.2.5)

(c) Be the key point of contact in the EIP service for service users and carers

(d) Maintain engagement, support and follow-up (with assertive outreach if required)

(e) Provide lower-level psychosocial interventions for service users and family/carers (more specialised interventions will be provided by EIP OTs, social workers and psychologists)

(f) Liaise with GPs and other agencies to ensure co-ordination of care planning. The planned management of transitions and discharges to other services with care planning meetings will ensure seamless transfer of care for service users.

(g) Support the EIP team in providing health education on FEP to referrers (e.g. GPs and other community stakeholders)

10.2.5 EIP Keyworkers and Individual Care Planning (ICP)

EIP Keyworkers will be responsible to the treating consultant psychiatrist for creating and updating their service users' ICPs, starting with an initial ICP completed within the first month and then reviewed six-monthly thereafter.

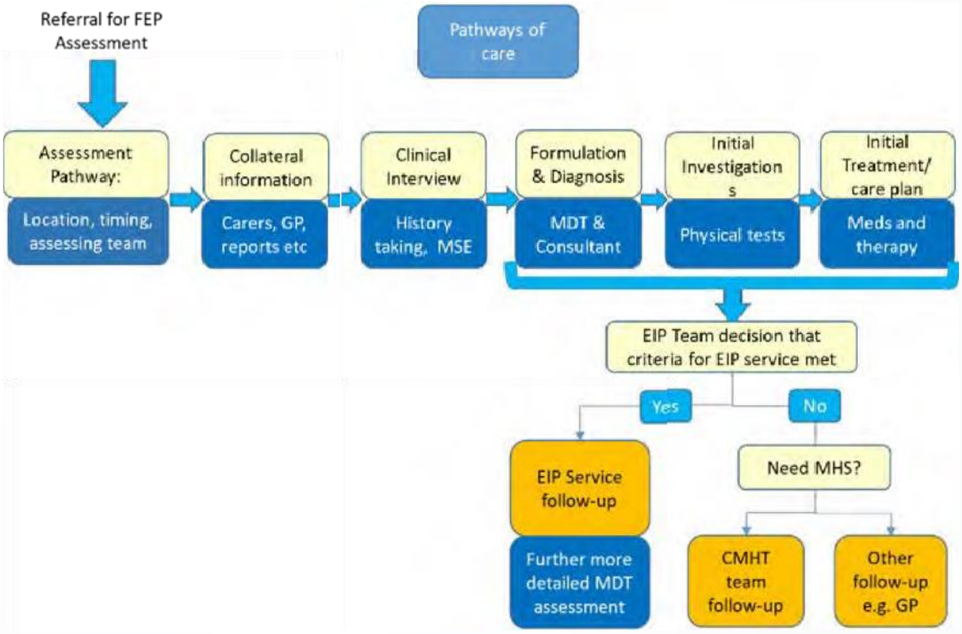
The necessary components of an ICP are outlined in the Mental Health Commission's guidance document on Individual Care Planning MHS, 2012. ICPs should be formulated collaboratively with service users and should involve family members or carers as well as members of the multidisciplinary team.

Such ICPs should include details on identified mental health, physical health, social, functional, educational and vocational needs, and be recovery-oriented throughout. Formulation of a crisis plan should form part of an ICP and include: psychoeducation about early warning signs of relapse and possible coping strategies, identification of community-based supports to help prevent hospitalisation, and signposting to sources of 24-hour help in primary and secondary care in the event that hospitalisation is warranted.

10.3 The Process of Initial Clinical Assessment

Ultimately, the goal is to provide the service user with a prompt, comprehensive high-quality multidisciplinary initial clinical assessment of psychosis, together with a formulation, investigations, diagnosis, agreed initial treatment plan and recommendations to referrers, carers, and any other agencies the service user wishes to be involved. Figure 11 summarises the steps in the initial assessment.

Figure 11: The initial assessment steps



At the end of this initial process, the assessing EIP team in consultation with the treating consultant psychiatrist must decide formally whether the service user's condition meets the criteria for FEP, and thereby follow-up with the EIP service. If not, the assessing team must ensure a smooth transition to the agreed follow-up service. Whatever the outcome, the assessing team must give clear feedback to the service user, their carers, the GP or referring agency, which should be followed by a written formal summary of assessment, conclusion, recommendations and agreed follow-up.

10.3.1 Overarching Principles Underpinning FEP Assessment

A number of overarching principles should underpin the approach to the initial FEP assessment:

(a) Focus on engagement

(b) Collaborative, shared informed decisions

(c) Longitudinal evaluation

(d) Communication and liaison

(e) Comprehensive assessments and record-keeping

(f) Multidisciplinary input

Engagement with the service user presenting with FEP is a critical component of the EIP programme. Positive assertive engagement and the development of a therapeutic alliance with the service user from the outset will improve the service user's opportunities to benefit from the programme and will affect the overall outcome. However, engagement is not always a straightforward process; what is important for the service user is that the EIP Keyworker is always available and continues to encourage engagement, as clinically appropriate when the service user is ready.

Assessments should ideally involve two clinicians from different disciplines. Preferably, one of them may subsequently be their allocated EIP Keyworker (if FEP is confirmed) and the other a doctor from either the AMHS (or CAMHS if under 18 years old) community team (in the case of the hub & spoke EIP team or the standalone team). If not seen medically initially, then a medical assessment by the treating consultant psychiatrist or a non-consultant hospital doctor (under the consultant's supervision) should be undertaken within 24 to 72 hours, or sooner if clinically indicated.

The expertise of all the EIP multidisciplinary team's members should be available in this assessment process, with the routine involvement of the nursing staff, occupational therapist and social worker, and psychological assessment provision as needed. However, this initial clinical assessment is essentially an initial diagnostic assessment aiming to determine whether the EIP service is appropriate. Follow-on discipline-specific assessments by other members of the MDT are essential once the service user is formally offered three years' follow-up by the EIP service.

Initial assessments are likely to take half a day to conclude and can be stressful for all involved. It would not be uncommon for some assessments to take much longer (e.g. several interviews and some service users may have to be crisis-managed by the assessors for a week or more until they are engaged and assessed satisfactorily). Adequate time and resources should be allowed for these initial assessments.

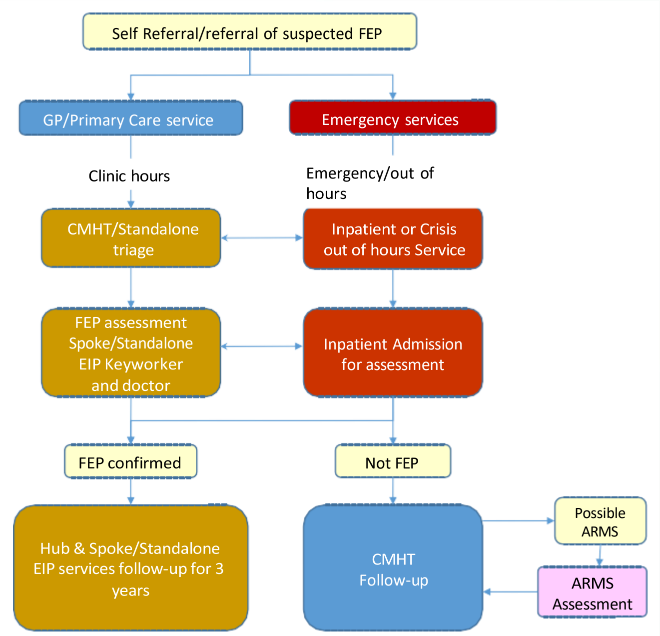
As far as possible, assessments should be performed in a collaborative manner with service users and their families. However, in urgent, high-risk and difficult-to-engage cases, GPs may need to participate, particularly if involuntary admission under the Mental Health Act needs consideration. This can be a distressing and time-consuming process, with the service user and family members requiring considerable support.

The assessment process will usually occur in parallel with treatment, particularly in situations where urgent medical care is needed (e.g. inpatient hospitalisation to manage clinical risk). It is important to note that, due to the acute nature of many FEP cases, it may not be possible to complete a full assessment in the early stages of presentation. Clinicians should adhere to a national standard in bringing the complex assessments to completion within a reasonable period of time.

10.3.2 The Referral Pathway to Assessment

The pathway to assessment depends on whether it is to a hub & spoke or standalone EIP service. If it is a hub & spoke service, then the referral for assessment comes through the normal channels to the CMHT/CAMHS at the spokes. Clinical responsibility and follow-up remains with the assessing clinicians and consultant psychiatrist at the spokes. If the referral is to a standalone EIP service, then the referral can be directed to the standalone EIP team (or indeed made directly to the EIP standalone team by the referrer). The standalone team then is clinically responsible during the assessment process.

Figure 12: Referral for assessment pathway: hub & spoke/standalone EIP service



10.3.2.1 Assessments During Normal Working Hours

During normal working hours, referrals should be made as outlined above. On receipt of a referral with suspected FEP, the service user and GP should be contacted and an appointment for assessment with the EIP Keyworker be agreed within three working days. It is essential that close and regular liaison occur during this initial period between the agencies involved, the person referred and their family (if involved). If the service user is younger than 18, the appointment must be made with a CAMHS clinician and should include a carer or nearest relative. Urgent or emergency referrals are seen more quickly in accordance with local arrangements and may require admission to hospital, sometimes with the use of the Mental Health Act.

Community-based assessments may take place either at the spoke (as in the case of hub & spoke EIP teams) or at the standalone team base. In some cases, it may be possible to conduct assessments outside these settings (e.g. GP clinic or the service user's home), depending on resources and safe clinical practice. Assessments should always be done in pairs in these settings and ideally include a doctor from either the spoke (in the case of hub & spoke teams) or the standalone team.

10.3.2.2 Assessments Outside Normal Working Hours

Outside normal working hours, urgent and emergency referrals are made to the local inpatient unit, the approved centre, usually by way of the local emergency department of the acute hospital. If an FEP or suspected FEP diagnosis is made by the on-call clinician, usually the non-consultant hospital doctor, a decision is made in consultation with the on-call consultant psychiatrist about inpatient or outpatient assessment, care and treatment.

About 50 per cent of people with an FEP are admitted to hospital within days of their first presentation to mental health services. About another 20 per cent are admitted at some stage after that (Power *et al*, 2007b). This has implications for their experience of services and may reduce their engagement. Early involvement of the EIP service may lessen these problems. It is important that the EIP service be contacted within three working days to ensure that appropriate liaison and engagement with the EIP service is provided. This should be led by the EIP Keyworker, who should provide in-reach into the hospital with the service user and be involved in care planning from the outset.

If outpatient follow up is recommended, the local service must ensure that liaison with the relevant AMHS or CAMHS occurs to ensure that the service user is contacted about the agreed plan of care, with an appointment with the EIP Keyworker for further assessment and treatment provided within three working days. Within the limits of resources and safe clinical practice, some community-based assessments may be performed outside of the community services (e.g. in the individual's home or in the primary care setting), which may help to facilitate their engagement with assessment and follow-up.

10.3.2.3 Inpatient Assessments

Hospitalisation can be a particularly stressful experience for service users and families. It is not infrequently complicated by the use of the Mental Health Act and ambulance, police and emergency services. Every effort should be made to de-escalate the situation with clear explanations and reassurance followed by orientation to the hospital environment and staff. For a more detailed account of inpatient care in the first episode of psychosis, see Craig and Power (2010).

Assessments in hospital should involve the same steps (below) as in the community. If an FEP is confirmed, the EIP service should be contacted promptly and an EIP Keyworker appointed. The EIP Keyworker should begin in-reach into the hospital and introduce themselves to the service user and family. The EIP Keyworker liaises with the inpatient treating team in developing the service user's individual care plan. Ideally, a care planning/pre-discharge meeting should take place with the inpatient treating team, service user, carers, support agencies if involved, and the EIP Keyworker to ensure that the follow-up or post-discharge plan is organised and agreed.

10.3.2.4 Non-Attenders for Assessments

If the person referred with suspected FEP does not attend the assessment appointment, a further appointment should be offered at an agreed time and the GP kept informed throughout. Should the person referred not attend the second appointment, clinical judgement should be used about offering subsequent appointments, as it is sometimes necessary to follow up assertively to engage with the person referred and in consultation with the referring GP.

10.3.3 Collateral History and Involving Families / Carers

Background information should be sought from the referral source, usually the GP, as well as family members/carers, and any previous health agencies involved. This should be an integral part of the assessment process, with the agreement of the service user. Involving the family/carer from the outset in the assessment should be seen as a priority, not just because they can inform the overall assessment and care planning process, but so that family members/carers' concerns and needs can be identified from the outset. Any previous records should be sought and reports brought to the initial assessment (e.g. educational psychology reports, blood test results, etc.).

10.3.4 The Clinical Interview

The clinical interview in the initial assessment includes history-taking, mental state examination, risk assessment, initial formulation, differential diagnosis, feedback and agreed initial care plan. Further interviews may be required before firm conclusions can be made, particularly in more complex cases. This may require input from other members of the multidisciplinary team and a more detailed diagnostic assessment by the consultant psychiatrist.

10.3.4.1 Key Aspects of the Clinical History

The initial assessment should routinely include:

1. A detailed account of the **emerging psychosis**: This should include the onset, course, duration, severity, related mood changes, triggers, aggravating factors, alleviating factors, complicating risks, pathways to care, any treatment interventions and their response. The duration of prodrome, date of transition to psychosis, and duration of psychosis (DUP) should be ascertained.
2. Any **co-morbid** mental health or addiction issues and treatment
3. Any **risk behaviours**, suicidality, forensic issues

4. Any **medical conditions**, treatment, and allergies
5. A detailed **developmental history**, including the identification of any developmental problems, pre-morbid adjustment/emotional difficulties, trauma, and personality factors
6. A comprehensive **family history**, including a genogram of the immediate family, problematic dynamics, family history of medical and mental health problems, and confirmation of consent to involve (or not) members of the family in communication about their care
7. A comprehensive **social history** to include social networks and supports, living situation and relationships, as well as financial situation
8. **Educational and occupational history**, including premorbid attainment and future plans

A national standardised template will be available if required to ensure collation of all relevant details relating to the onset of the psychosis, such as obstetric history, psychosocial factors, full details of past and current substance misuse, educational and occupational functioning, etc. However, local services may have developed and require their own particular clinical record format for clinical governance purposes.

10.3.4.2 Mental State Examination

A comprehensive mental state examination during the clinical interview is a critical part of the assessment process. The following summarises the standard best-practice format for recording mental state observations, with particular reference to psychosis. Some are merely observational during the interview while other signs and symptoms have to be explored by direct inquiry to determine extent and severity.

1. **Appearance and behaviour**: Signs of neglect, unusual or bizarre behaviour, perplexity, hostility, suspicion, anxiety, catatonia
2. **Communication and rapport:** Eye contact, guardedness, paucity or pressure of speech
3. **Affect:** labile, reactive, flat, blunted, incongruous
4. **Mood:** Mood: euthymic, depressed, elated, or mixed

5. **Thought stream and form:** Thought disorder: loosening of associations
6. **Thought content:** Delusions: evolving or residual, fleeting or persistent, simple or complex, unsystematised or systematised, non-bizarre or bizarre, severity of distress induced or likely to be acted upon, and type: paranoid, grandiose, morbid, guilt, nihilistic, or somatic; extent of general worries and anxieties
7. **Perceptions:** Hallucinations: for each modality: auditory, visual, tactile, olfactory, gustatory. Hallucinations can be measured by their frequency, duration, intensity, distress, and whether in internal or external space. Also important is their content and whether they are commanding and likely to be acted upon.
8. **Risk behaviours:** frequency, duration and intensity of thoughts and urges such as suicide or violence: ideation, intent, plans, and actions. Concerns for consequences and any deterring effect or willingness to seek help.
9. **Cognitive function**: Concentration, memory and executive functions, capacity to make decisions
10. **Insight and motivation to engage:** One measure of insight into psychosis has three levels: (a) awareness that one is unwell, (b) that it is due to psychosis and (c) that evidence-based treatment is needed (David, 1990). However, it is also important to try to understand the service user's experience, rationale, and perspective of their problems and potential solutions.
11. **Willingness to engage**, communicate concerns, seek help, and follow advice given.

In conclusion, a number of important points from the mental state examination (MSE) need to be considered:

(a) Are the MSE features consistent with the clinical history and collateral?

(b) Is there evidence that the psychosis is active or in remission?

(c) Is the psychosis affective, i.e. driven by the mood state, or not?

(d) Is the psychosis acute or chronic, mild or severe, simple or complex?

(e) Is there evidence of potential organic factors that need investigating?

(f) Is there evidence of co-morbid conditions and complications?

(g) If not psychosis, might the service user have an ARMS?

(h) Is there significant impairment of functioning?

(i) What is the capacity of the person to recognise, cope, seek help, and follow advice

(j) Can the person be safely managed in the community or not?

(k) Does the person require admission for inpatient care and treatment in an Approved Centre to manage the serious risks associated with the psychosis and is use of the Mental Health Act 2001 required,(this is the legal framework in Ireland in which service users with serious mental illness may be admitted for involuntary treatment to an Approved Centre under the care of a consultant psychiatrist)?

Newly formed psychotic experiences differ from chronic psychosis in that they tend to be less fixed, entrenched, bizarre and systematised. Functioning may be less impaired and insight may be relatively more intact.

10.3.4.3 Assessment of Psychiatric Co-Morbidity

Assessment of psychiatric co-morbidity is required from the outset, given its prevalence and impact on the course of illness and need for clinical interventions. As well as identifying affective disorder associated with psychotic symptoms, other affective illnesses as well as anxiety disorders are often present and may be associated with poorer outcomes. This reinforces the importance of appropriate assessment and treatment from the outset.

(a) Assessment of co-morbid substance misuse

Substance misuse assessment is a critical part of the assessment process because of its high prevalence in individuals with psychosis (Hambrecht *et al*, 2000). While substance misuse typically precedes the onset of psychosis, the direction of any causal relationship is often unclear. However, cannabis use specifically is likely to be a contributing factor to psychosis onset (Arseneault *et al*, 2004) as well as being associated with earlier age for development of psychosis.

Substance misuse includes alcohol and all psychoactive substance use as identified in the ICD or DSM Classification of Mental and Behavioural Disorders. Moreover, the use of other prescription and non-prescription medications and herbal medicines should be noted. A detailed history about the age of first use, patterns and amount of any substance misuse, as well as the association with psychotic symptom development and effects on psychotic symptoms, should be taken.

(b) Assessment of co-morbid intellectual disability (ID) & developmental disorders

Individuals with intellectual disability have an increased risk of co-morbid major mental illness, and schizophrenia is approximately three times more common in individuals with ID than in the general population (Hemmings *et al*, 2003). In most cases of those with mild ID, mainstream mental health services are normally accessed. However, for this cohort as well as for those presenting to EIP services with autism spectrum disorders, care planning and treatment needs should be identified at the outset.

(c) Assessment of co-morbid cognitive deficits

Clinical assessment of cognitive functioning should be carried out as part of the assessment process, with further specialist psychological assessment as indicated. This is because cognitive deficits frequently predate the onset of psychotic symptoms and influence functional outcome as well as insight, substance misuse, medication adherence and participation in interventions. Most cognitive deficits appear to remain stable. However, there is uncertainty about the trajectory of specific cognitive domains after illness onset (Kenney *et al*, 2015).

Since cognitive performance may differ by subtype of psychosis, a crucial consideration in assessing cognition is the description of the particular deficit and how a specific domain is affected. The early identification of deficits allows interventions to be tailored to the needs of the individual, while also identifying the requirements for psychological interventions such as cognitive remediation to improve functioning.

This requires specialist assessment by psychologists trained in such assessment.

10.3.4.4 Assessment of Risk

Psychosis is associated with significant risks, particularly at the point of first assessment. Referrals are often precipitated by a risk event such as a suicide attempt and referrals typically will come via emergency services. Therefore, risk assessment is an essential part of all initial assessments. It includes:

(a) Suicide risk assessment

The risk of suicide is especially high in the first few years (approximately 1% per year in the first 5 years) following a diagnosis of psychosis, particularly in those with additional risk factors (Power, 2009). It is important to routinely assess where an individual is along a continuum of risk for suicide, from thoughts and intent plans and actions. Also important are additional risks such as depressive symptoms, hopelessness, command hallucinations, and the effect of regaining insight. Risk assessment should include general suicide risk indices such as past suicide attempts, co-morbidities and demographic risks. One should also take into account the fluctuating nature of suicidality and likely reaction to potential losses in the future such as relationship breakdowns, job losses, etc. Risks are highest around initial engagement, after discharge from hospital and early relapse (Power, 2009).

(b) Assessment of risk of violence

While most people with serious mental illness are not aggressive, there is an established association between schizophrenia and increased rates of violence and criminal offending. There is an increased risk of harm to others particularly where there is a longer duration of untreated psychosis. Co-morbid substance misuse may also play a role here (see previous section and section 5.2.4.1).

(c) Risk of neglect and victimisation

This risk is common for those with psychosis. For example, up to 25 per cent of service users with schizophrenia are reported to be victims of aggression at some stage. Accordingly, this needs to be assessed regularly.

(d) Risk of non-adherence to treatment and service disengagement

For service users with FEP, this risk is significant even without other complicating factors such as substance misuse. This is why assertive engagement by the EIP Keyworker with the service user and family or carers is so important from the outset. In addition, the EIP Keyworker working with the other EIP clinicians ensures that service users are given every opportunity to avail of the interventions provided.

(e) Other risks

These include homelessness, substance use, exploitation (sexual or otherwise), wandering and absconsion from hospital, responding to delusions or hallucinations in a risky manner (e.g. fire-setting).

10.3.4.5 The Use of Standardised Assessment Tools

The use of standardised assessment tools complements the clinical assessment of the service user's mental state and allows monitoring of symptomatology and functioning over the course of the EIP programme provided. It is important to note that most standardised assessments require a degree of training in order to ensure reliability in the assessment process as well as taking time to carry out.

In support of structured diagnostic tools is the fact that, when delivered by trained clinicians, they provide reliable diagnostic information and can identify co-morbid psychiatric disorders in addition to identifying the subtype of psychotic disorder.

A commonly used diagnostic tool in clinical and research settings is the Structured Clinical Interview for DSM-5 Disorders (SCID).

Measurement of cognitive functioning in psychosis is challenging. The diversity of findings in research literature may be in part due to the lack of a congruent set of cognitive tests. One measure to address such concerns is the MATRICS Consensus Cognitive Battery (MCCB) (Marder *et al*, 2004; August *et al*, 2012; Roseberry *et al*, 2014), which was developed by the US National Institute of Mental Health (NIMH). This provides an evaluation of seven key cognitive domains relevant to schizophrenia and related disorders. It also addresses the need for an outcome measure for cognitive remediation and for cognitive change in repeated testing.

The full range of assessment tools are available as outlined in Chapter 17 (with references in Appendix 3) but the following assessments should be carried out as a minimum requirement:

Table 9: Routine assessment measures for all service users

Area of Focus	Clinical Rating Scale
Diagnosis	Clinical assessment at a minimum***** Preferably SCID (adults) or K-SADS (children)
Duration of untreated psychosis	Clinical rating at a minimum* Preferably Nottingham Onset Scale (NOS)
Psychotic symptoms:	
Positive symptoms	SFSS at a minimum* (SAPS preferable)
Negative symptoms	Brief Negative Symptom Scale (BNSS)*
Depression in psychosis	Calgary Depression Scale*
Mania	Young Mania Rating Scale (YMRS)
Quality of life	EQ-5D-5L at a minimum* (subjective QoL) (include MANSA for objective QoL)
Assessment of need	CANSAS (short version)*
Functioning	GAF-MIRECC (adults)* or CGAS (children)*
Alcohol and drug use	Clinical record - alcohol, cannabis, other drugs*
Physical health	Height, weight, BMI (adults) or %BMI (children), waist circumference, BP, fasting bloods*
Cardiometabolic health risk	PCHR (Lester UK Adaptation)

* Clinical measures that are required as a minimum (rest are optional – see Table 26).

(References for the above clinical rating scales are given in Appendix 3)

10.3.5 Formulation and Diagnosis

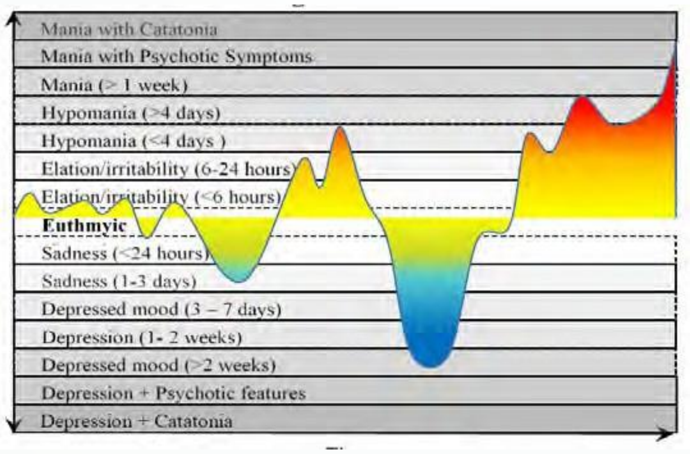
Formulation and diagnosis is a critical aspect of the clinical assessment and will determine whether follow-up by the EIP service is appropriate or not.

10.3.5.1 Diagnosis

This is essentially an extension of a diagnostic assessment. It draws together the information from the clinical interviews/assessment to determine which Axis 1, 2 and 3 conditions are met by the service user's clinical presentation. It includes co-morbid disorders, differential diagnoses, and any concurrent medical conditions. Clinicians should use all five axes of the International Classification of Diseases (ICD). Some instruments may give a DSM IV diagnosis (e.g. SCID) and clinicians will need to convert this to the ICD system. ICD version 10 or 11 which is due to be released shortly.

Most psychotic disorders fall into two main types: affective psychosis (manic psychosis & depressive psychosis) and non-affective psychosis (schizophrenia spectrum disorders). Affective subtypes (see Figure 13) depend on duration and character of mood states.

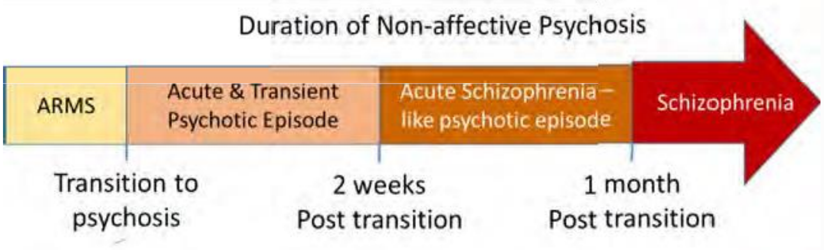
Figure 13: Course and diagnostic distinctions in affective psychosis



Example of emerging first episode manic psychosis (meeting criteria for bipolar)

Likewise, non-affective psychoses subtypes are each differentiated by how long the psychosis lasts **(**see Figure 14).

Figure 14: Diagnostic distinctions with duration of non-affective psychosis



10.3.5.2 Formulation

The formulation should draw together the information available to identify predisposing, precipitating and perpetuating factors relevant to the diagnosis and future management. In addition to this diagnostic formulation, a risk formulation should be concluded. This should identify potential risks and inform a risk management plan that should be an integral part of the individual care plan. The formulation should provide an explanation for why the psychosis has developed, what are the risks and what are the important factors to consider in treatment, recovery and prevention of further episodes/complications. Ideally, formulations and diagnoses should be undertaken in an open and collaborative manner with the service user and carers, using terminology that is understandable to non-health professionals.

10.3.5.3 Who Decides on the Diagnosis and Formulation?

This process will normally require the input of experienced medical staff in the assessment process and, in more complex cases, should involve the consultant psychiatrist before conclusions are made, feedback given, and treatment recommended or started. The essential diagnostic decision is to determine what condition the service user is experiencing, whether it is a first episode of psychosis, and what recommendations to make. However, it is important that the conclusions include the perspectives of the whole MDT as different members may place greater or lesser weight on the relevance of specific factors (e.g. trauma, developmental factors, personality factors, stress, family dynamics). It's an important but sometimes difficult process to develop shared understanding of presentations but it is essential if the team is to provide the service user (and carers) with a coherent opinion and understanding of the main issues.

10.3.5.4 Feedback about the Diagnosis and Prognosis

If the service user's condition meets the criteria for follow-up by an EIP service, this should be offered and explained as soon as it is confirmed by the team/consultant. The EIP Keyworker and doctor should provide the feedback and advice about treatment and sources of further information for service users and families. It is essential to explain that the EIP service is for three years, and what would happen after that if further follow-up is required. It is not possible at this stage to make inferences about prognosis apart from covering basic facts about remission, recovery and relapse rates. The relative benefits of treatment interventions and their impact on these rates should also be explained.

Formal feedback (including a formal written summary of the clinical assessment) should also be provided promptly to referrers and the service user's GP (preferably supplemented with a phone call). With the service user's consent, feedback should include any other health agencies involved. Service users should receive a copy once the content has been explained by their treating clinicians.

10.4 Physical Health Assessment and Investigations

10.4.1 Introduction

The World Health Organisation in 2015 highlighted the fact that individuals with severe mental disorder have a reduced life expectancy of 15 to 25 years. Suicide accounts for only a fraction of this; most of the reduced life expectancy is caused by physical health problems and lifestyle. Heavy smoking is two to six times more common among people with schizophrenia. Obesity exists in 45-55 per cent of cases, diabetes in 10-15 per cent, and hypertension in 19-58 per cent. Individuals with severe mental illness receive poorer medical care for their physical health problems than do members of the general population.

The role of anti-psychotic medication routinely used to treat psychotic symptoms is also a very important contributory factor in the development of the metabolic syndrome. This is considered in detail in Chapter 11.

For all these reasons, comprehensive physical healthcare assessment and monitoring, proactive management of physical health problems and engagement with service users in relation to lifestyle issues all need to be addressed from the outset.

10.4.2 Liaison with Primary Care

Primary care has a pivotal role in physical healthcare. The EIP Keyworker and medical staff must ensure that close liaison is maintained with service users' GPs throughout their time with the EIP service. GPs may well know the service user, their family and circumstances long before they are referred to EIP services. Such background information is very helpful for EIP clinicians when determining baseline functioning both physically and mentally. EIP clinicians should establish contact with GPs from the start and determine what role the GP wishes to play in care planning.

Assessing EIP staff have a responsibility to co-ordinate the investigations with GPs and to communicate the results promptly. They should facilitate follow-up with the GP for any abnormal findings that might require investigation and treatment, and not go beyond their area of expertise. They should liaise with GPs about on-going physical health monitoring, medication prescribed, and the emergence of any side-effects (see Chapter 11 for physical health monitoring).

10.4.3 Baseline Physical Investigations and Health Needs

All service users with FEP should have details of any relevant medical history, including family history of cardiac, lipid abnormalities or diabetes, documented. For women, menstrual history and possibility of pregnancy should be noted. Lifestyle risk factors should also be identified, including:

- Smoking history
- Detailed history of alcohol and other drug use
- Diet
- Physical activity levels

A complete physical examination forms part of the initial assessment in order to:

- Identify any organic cause for symptoms as happens in at least 3 per cent of FEP cases
- Detect medical co-morbidities
- Identify risk factors for future medical disorders

- Provide baseline assessment prior to psychotropic medication usage

Table 10: Baseline physical health parameters

Routine/baseline measures	Additional investigations (if clinically indicated)
Vitals: • Weight in Kg • Height in meters • Body Mass Index (BMI) Kg/m^2 • Pulse/heart rate (per min) • Blood pressure (mm Hg)	*Blood tests*: ESR, autoimmune screen for SLE, and Anti-NMDA-Ab STI screen & HIV test (high-risk groups)
Urine: Drug screen Pregnancy test (women age 16-45)	Neuro-imaging: CT/MRI brain scan Other neurological investigations (e.g. EEG) as clinically indicated
Blood tests: Full blood count, fasting glucose and lipids, HbA1c, renal, liver, and thyroid function tests, serum prolactin levels	
Baseline ECG (prior to starting meds)	

Local and regional services have templates usually as part of the clinical file for documenting the physical examination, which should routinely include a record of weight, height, waist circumference, body mass index (BMI), pulse and blood pressure.

Laboratory tests (FBC, fasting glucose, HbA1c, lipids {total cholesterol, non-HDL, HDL, triglycerides}, renal function and LFTs) should be performed as part of the initial assessment process to provide baseline data. Additional medical investigations may also be required depending on history and clinical presentation. For example, clinical features suggestive of autoimmune conditions such as Systemic Lupus Erythematosis or Anti N-methyl-D-aspartate (NMDA) Receptor Antibody Encephalitis. HIV screening should be undertaken for individuals from areas with a high prevalence of HIV (e.g. parts of Africa) or high-risk groups such as drug users.

A baseline ECG should be performed if there is a history of cardiovascular disease (CVD), a family history of CVD, where examination reveals an irregular pulse or if the service user is to commence antipsychotics or take other medications known to cause ECG abnormalities.

CT or MRI brain scanning is usually carried out to rule out an organic aetiology. Other neuroimaging/neurological investigations should be performed as clinically indicated (e.g. clinical features suggestive of multiple sclerosis). At this stage, neuro-imaging has limited clinical value apart from ruling out neurological conditions. Numerous studies suggest more subtle brain changes with first psychosis and with treatment, but none is specific to psychosis.

10.5 Initial Care Plan

The initial care plan may commence from the first clinical interview and evolve as the clinical assessment proceeds. However, once the initial assessment is concluded and if the service user is offered follow-up by the EIP service, time and effort should be put into explaining the range of interventions available within the service. Some of these interventions may only be appropriate at certain stages in the service user's recovery. The EIP Keyworker and doctor involved in the assessment play an important role in providing an initial explanation of these interventions, which team member provides them, what their role is, and how they would be accessed. The explanation should include the purpose and process of individual care plans.

Initial care plans should include a crisis plan for emergencies. Service users and carers should be given details of who to contact and when, in case of an emergency. This should also be communicated to referrers and GPs and any other agencies involved in the person's care.

The following chapters outline the range of evidence-based interventions.

10.6 Pathways of Care following Assessment

Following completion of this detailed assessment process and discussion and/or review by the consultant psychiatrist, a decision is made in relation to the diagnosis and most appropriate care pathway for the service user (see Figure 15). If the service user meets the criteria for the EIP programme, the EIP Keyworker leads out the care planning process with the consultant psychiatrist.

Should inpatient care be necessary for this acute phase of treatment, it is critical that the community AMHS or CAMHS CMHT be kept informed, with the EIP Keyworker providing the critical liaison, including attendance at both inpatient care planning and pre-discharge meetings to ensure provision of EIP interventions as well as a seamless transfer of care between the inpatient and outpatient components of the service.

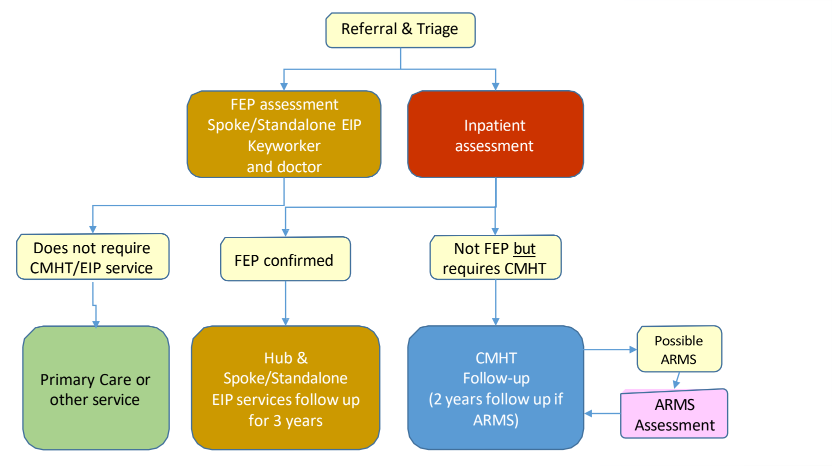
If the service user does not meet the criteria for FEP, this should be clearly fed back to the service user, carers and referrer at the time, and the clinical file should clearly document this and the outcome. The individual is then referred and followed up by the appropriate alternative service, either in primary or secondary care as clinically indicated. This may include continuing to attend the community mental health team for alternative clinical interventions required.

If the service user is considered to have an ARMS, the EIP Keyworker should follow the care pathway as outlined in Chapter 12.

The findings of the assessment should be discussed with the service user and family or carers. As the assessment process may take time to complete, the GP should be kept informed throughout this process by the EIP Keyworker.

A full report detailing the assessment and plan of care should be provided within one week to the GP or other referral agency.

Figure 15: A summary of the pathway of care following assessment



In the following chapters, the provision of specialist, evidence based multidisciplinary interventions is described, starting with the First Episode of Psychosis in Chapter 11 and then the At Risk Mental State (ARMS) in Chapter 12.

CHAPTER 11: EVIDENCE-BASED MULTI-DISCIPLINARY INTERVENTIONS FOR SERVICE USERS WITH FEP

11.1 Introduction

This chapter outlines key evidence-based interventions (available at the time of publication of this document) that are recommended for service users experiencing psychosis for the first time. Information on all key interventions should be provided and discussed with the service user and family/carer. Treatment decisions should be made collaboratively. Services should have a recovery-based ethos, with a focus on evidence-based multidisciplinary interventions.

11.1.1 Goals of Treatment

To optimise the outcome for all service users who experience a first episode of psychosis (FEP), assertive engagement, prompt evidence-based treatment and follow-up for up to three years is recommended.

The available evidence (Correll *et al*, 2018) indicates that evidence-based intervention is associated with:

1. Better detection rates and fewer delays in accessing treatment
2. Lower levels of symptom severity, suicidality, and death
3. Lower risks of progression to more enduring stages of psychosis
4. Better rates of remission, recovery and relapse prevention
5. Less hospitalisation and time spent in hospital
6. Better satisfaction and engagement with services
7. Better levels of functioning (social & occupational) and quality of life
8. Lower healthcare costs
9. Reduced physical complications
10. Early detection of complex needs requiring specialist interventions

Moreover, it is important that there is no internal waiting list for any of the evidence-based multidisciplinary interventions that should be available to the service user throughout their period of engagement with the EIP service.

11.1.2 Principles of EIP Service Interventions

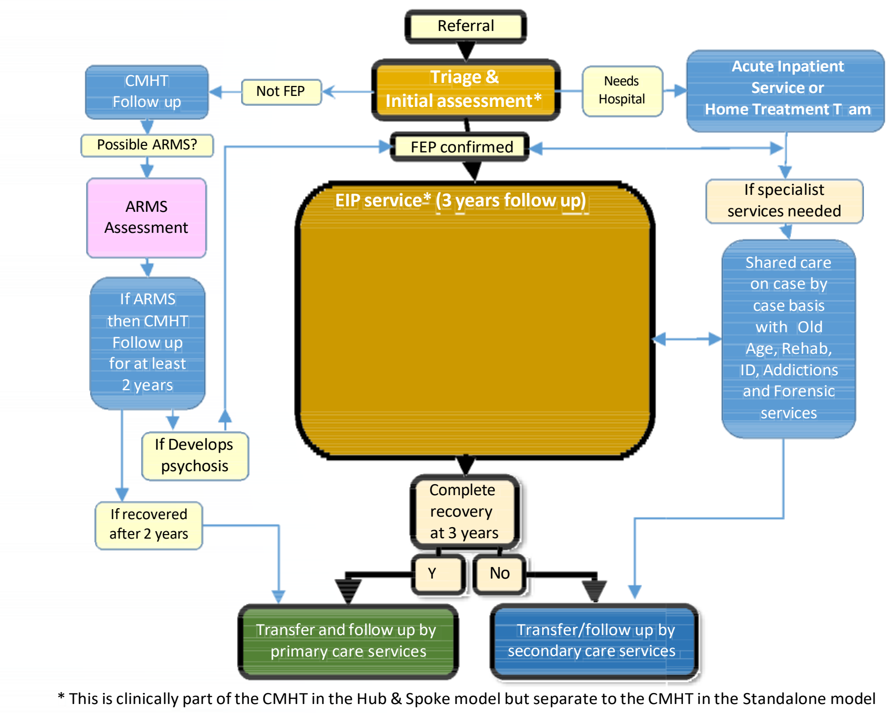
For all service users with FEP, the following treatment principles should be followed:

1. Detailed assessment and care planning should take place from the outset, with the service user supported to make treatment decisions.
2. Individual care planning should be based on a comprehensive multidisciplinary assessment of the service user and family/carer needs (including medical, OT, social work, psychology, nursing, etc).
3. Interventions offered should be evidence-based and individually tailored from a broad range of multidisciplinary interventions.
4. Interventions should be provided at the appropriate time and, if not availed of, should be offered again during this critical period of the EIP programme.
5. Physical healthcare/lifestyle issues identified at assessment should be actively monitored and managed in collaboration with the GP and primary care teams.
6. There should be active management and treatment of co-morbidities alongside the treatment of psychosis. Of particular importance is the treatment of substance misuse.
7. Family members/carers should be involved in family education, support and family interventions.
8. Educational and/or vocational options should be actively assessed and pursued at the earliest stage to maintain contact and prevent disengagement.
9. Collaboration with employment specialists should take place as required to facilitate re-engagement with education or employment.
10. Links should be available to voluntary support groups in the community for service users and family/carers (e.g. Shine and Hearing Voices).

11.1.3 Overview of the Pathways into Treatment

Initial contact with the EIP service is via the EIP Keyworker and EIP doctor during the initial assessment. Further MDT assessment may involve contact with other members of the MDT team. This may occur at any stage during the follow-up by the EIP team.

Figure 16: FEP care pathways



* This is clinically part of the CMHT in the Hub & Spoke model but separate to the CMHT in the Standalone model

11.2 Core Evidence-Based Interventions in FEP

There are a number of core evidence-based interventions specifically for FEP (outlined in more detail in the following sections). Some are delivered by specific members of the MDT and some are more generic (provided by all MDT members). Some are phase-specific – i.e. limited to certain phases of illness, such as the recovery phase – while others should be maintained throughout (e.g. physical healthcare and lifestyle). These core interventions include:

1. **Medication management**
2. **Physical healthcare and lifestyle**
3. **Psychological Interventions**
4. **Family interventions**
5. **Supported employment and education**

11.3 Medication Management

11.3.1 Introduction

Medication is a first-line, evidence-based treatment for a psychotic disorder. Ideally, a psychiatrist must be involved in the decision to commence antipsychotic treatment for a service user with FEP. In some cases, it may be desirable to delay the introduction of antipsychotic medication, particularly in cases of diagnostic uncertainty, to facilitate a detailed assessment process and establish a comprehensive diagnosis. However, this needs to be balanced with the timely introduction of medication to alleviate the distress, risks and functional effects of the psychosis for the service user.

In all cases, the prescribing medical practitioner should discuss the use of appropriate medication with the service user and family/carer, highlighting both the benefits and expected side-effects of the medication, including effects on appetite, weight, sleep, extrapyramidal symptoms and the known metabolic effects of many antipsychotic medicines.

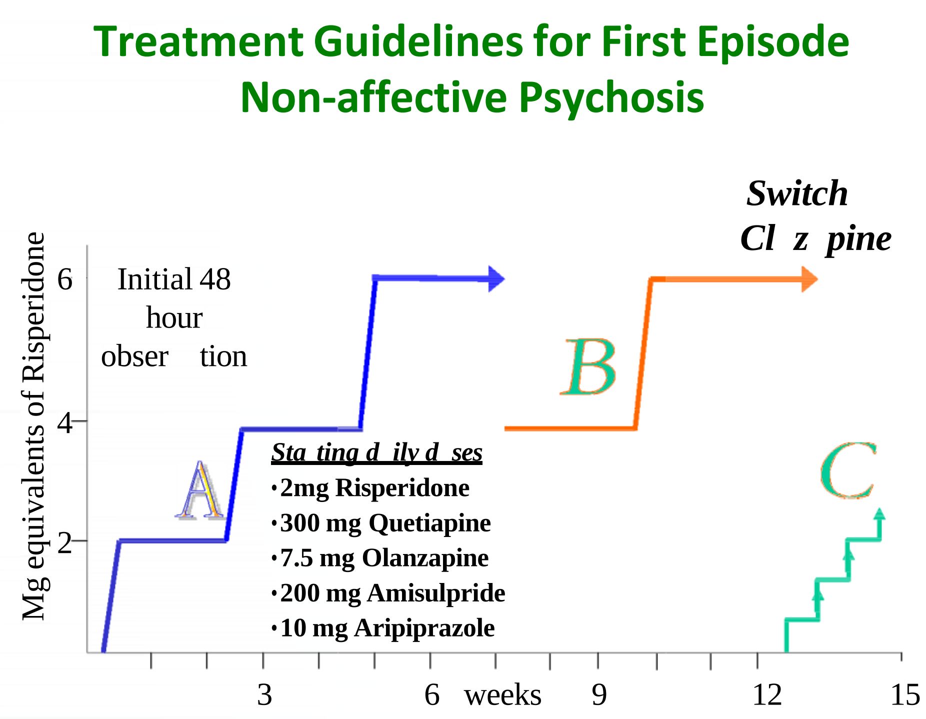
It is important to ensure that FEP service users and family members/carers have a good understanding from the outset of the medication prescribed, as this is likely to encourage medication adherence. Young people in particular may be reluctant to take medication, often perceiving it as stigmatising. Issues such as choice of medication, dose escalation, sensitivity to side-effects, weight and metabolic effects and advance planning in the event of relapse or discontinuation all require expert consideration and discussion.

Finally, antipsychotic medication should always be offered as part of a range of evidence-based interventions, with care plans reflecting this. If a service user decides not to take medication, possible reasons for this decision should be explored and addressed over time. All of the other available interventions should be offered and the service user encouraged to remain fully engaged with the EIP programme. If, however, there are serious risks/distress associated with the psychosis that cannot be otherwise managed, urgent medical treatment is required.

11.3.2 Basic Principles of Medication Management in FEP

The following are the basic principles for medication management in FEP:

Figure 17: Principles of medication management



11.3.3 Considerations for Treating FEP Individuals Compared to those with Established Psychosis

A number of factors need to be considered, including:

(a) Individuals are usually neuroleptic-naïve.

(b) The first experience with antipsychotic medication, inclusive of both response and adverse effects, may influence treatment adherence (Abdul-Bakl *et al*, 2012).

(c) Treatment response is often at lower dose in FEP (Barnes, 2011; Lambert, 2009).

(d) Treatment response is often more rapid in FEP (Barnes, 2011).

(e) Individuals with FEP may be particularly sensitive to antipsychotic associated extra-pyramidal effects (Lambert, 2009; Masi & Libni, 2013; Lambert *et al*, 2003; Lambert & Naber, 2012), and tolerability of second-generation antipsychotics (SGAs) appears to be greater than first-generation antipsychotics (FGAs) in FEP (Kumar *et al*, 2013). Haloperidol should be avoided as it is most prone of all antipsychotics to inducing extrapyramidal side-effects (EPS).

(f) Individuals in their FEP are often more susceptible to antipsychotic induced weight gain and metabolic effects (Lambert & Naber, 2012).

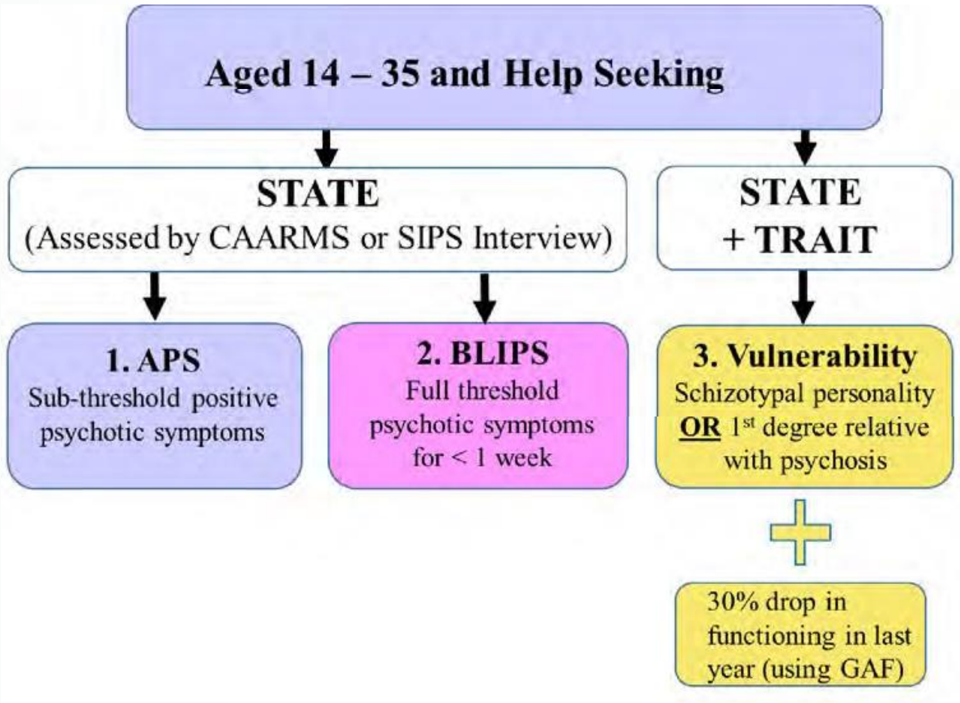
See also the guidelines below.

11.3.4 Starting Antipsychotic Medication

Once a decision has been agreed about starting antipsychotic medication, and a baseline physical healthcare assessment completed and agreeing with the service user which one to choose, the following regimen should be followed:

1. 'Start low and go slow', particularly in those who are at extra high risk of side-effects. Starting doses should be a half dose – i.e. 1mg Risperidone (5mg Aripiprazole, etc) for the first day, increasing to 2mg of Risperidone (or its equivalent) the next day and remaining at that dose for 2-3 weeks (depending on severity and length of DUP). About 60 per cent will respond to the initial dose (McGorry, 2011).
2. If no improvement in positive symptoms is observed (i.e. 25% reduction in the scores of positive symptoms), the dose should be increased every 2-3 weeks (if no response) until an adequate trial of the top dose is completed (e.g. 6mg of Risperidone daily).
3. Failing this (and reviewing the reasons why), then a switch to a mid-range dose of second antipsychotic (e.g. Olanzapine 10-15mg daily). If there is no response after two weeks, increase every 2-3 weeks up to the top dose (e.g. 20mg Olanzapine daily).
4. If no response, switch to Clozapine (see Figure 18).

Figure 18: Starting antipsychotic medications in non-affective psychosis



If treating an acute affective psychosis, combination pharmacotherapy with an antipsychotic provides the best response - i.e. in manic psychosis, a mood stabiliser (Lithium or Valproate in anti-manic doses) plus the above regimen (not including Clozapine) or in depressive psychosis an antidepressant (titrating up to high doses) and the above regimen (not including Clozapine), with ECT as the third-line option if medication is ineffective.

With this treatment approach to affective psychosis, psychotic features will usually remit first within 1-4 weeks and the mood features then remit after several more weeks. Residual problems with concentration and impaired insight might persist for a short period and there is a risk of post-manic depression. Gradually reducing doses of antipsychotic medication during this phase will reduce the risk of side-effects and it may be possible to withdraw antipsychotic medication altogether 2-3 months after affective psychosis. However, it is important not to stop mood stabilisers (following a manic psychotic episode) or antidepressants (following a depressive psychotic episode.

Rather than attempt to replicate the wide variety of medication regimens recommended in FEP, it is far better to refer directly to the sources as the recommendations are superseded by new medications or alerts (e g Valproate . While there are good medication guidelines on FEP (see next section), the evidence base required to answer key questions in first-episode schizophrenia is limited (Keating *et al*, 2017).

11.3.4.1 Medication Guidelines on FEP

A number of published medication guidelines include prescribing for service users with FEP. They reflect the summary outlined above but some need updating. They include:

(a) The International Clinical Practice Guidelines for Early Psychosis (IEPA WG, 2005)

(b) National Institute for Health and Care Excellence. *Psychosis and schizophrenia in adults: treatment and management*, CG178. 2014

(c) Royal Australian and New Zealand College of Psychiatrists *Clinical Practice Guidelines for the Management of Schizophrenia and Related Disorders* (Galletly *et al*, 2016)

(d) *Medical Management in Early Psychosis: a Guide for Medical Practitioners*. Orygen Youth Health Research Centre (ENSP Medical Management Writing Group, 2014)

(e) Initial Assessment and Initial Pharmacological Treatment in the Acute Phase (Lambert M (2009) in *The Recognition and Management of Early Psychosis* (2nd edition), Eds Henry J Jackson & Patrick D McGorry, Cambridge University Press, UK, ISBN 978-0-521-61731-4

(f) *Practical Management of Bipolar Disorder*, Eds Allan Young, Nicol I Ferrier, Erin E Michalak, Cambridge University Press, UK, ISBN 978-0-521-73489-9

11.3.5 Duration of Antipsychotic Medication in Non-Affective Psychosis

Follow-up studies demonstrate that most FEP service users will achieve remission within a few months of starting antipsychotic medication. However, the majority will relapse usually during the second or third year of follow-up, and usually after stopping medication (Robinson, 1999). This suggests that, ideally, service users should continue antipsychotic medication for up to three years and, if full recovery is achieved, then medication should be withdrawn slowly (to avoid precipitating a relapse) by the end of the third year. This applies to all forms of psychosis, including substance-induced psychosis (the exceptions are service users with affective psychosis stabilised on therapeutic doses of mood stabilisers such as Lithium or Valproate). Any reduction or discontinuation in antipsychotic treatment should be a shared decision with the service user. A comprehensive evaluation of the risks and benefits of on-going medication in each particular case should inform treatment decisions.

11.3.6 Weight Gain, Metabolic Syndrome, and Diabetes

Most antipsychotic medications are associated with the risk of weight gain, metabolic syndrome and diabetes. This risk varies with each antipsychotic but is highest for Olanzapine and Clozapine. Consequently, consideration should be given to using Olanzapine as a second-line agent (Fleischacker *et al*, 2013; Patel *et al*, 2009; Perez-Iglesias *et al*, 2014). However, this should be balanced by the relatively lower risk of EPSE (e.g. Tardive Dyskinesia with SGAs compared with FGAs).

11.3.7 Emergency Management

Where significant aggression or agitation is present in the context of FEP, the principal goal is to assure safety of the individual and others. Where 'de-escalation' strategies are not successful, medication to reduce agitation should be offered.

Oral medication should be offered in the first instance. Benzodiazepines appear to be as effective as antipsychotic agents (Gilles *et al*, 2013) and may have fewer adverse effects. Where parenteral (medication is administered other than by the oral route) antipsychotics are also required, IM SGAs appear to be as efficacious as IM FGAs (Bosanac *et al*, 2013). High doses of IM FGAs (e.g. Haloperidol) should be avoided because of their significantly high risk of side-effects such as Neuroleptic Malignant Syndrome and EPSE.

11.3.8 Factors Associated with Medication Adherence

The factors associated with medication adherence include:

(a) Environmental support (Abdel-Bakl *et al*, 2012)

(b) Housing stability (Abdel-Bakl *et al*, 2012; Lambert, 2009)

(c) Family attitude to mental illness (Barnes, 2011)

(d) Sensitivity to medication adverse effects

(e) Awareness of illness and need for treatment (Taylor & Ng, 2013)

(f) Substance misuse and treatment of co-morbid conditions (Buhler *et al*, 2002; Green *et al*, 2004)

Adherence rates are particularly low in individuals with FEP (approximately 60%) (Timlin *et al*, 2014). The aim should be to include the service user with FEP and their family in decision-making in relation to the goals of treatment. This may increase medication adherence (Montreuil *et al*, 2012). Psycho-education on the importance of medications and why they should be continued after treatment response is also important. Service users should be informed that, if intolerable adverse effects are present, alternative treatment options are available.

Long-acting injectable (LAIs) antipsychotic or depot medications may be considered in FEP if adherence to antipsychotic medications is associated with on-going difficulty. Some individuals may also express a preference for LAI over oral treatment to reduce their risk of non-adherence. A collaborative decision in relation to LAIs and including families, where appropriate, is important.

11.3.9 Treating Children and Adolescents

The evidence for best practice for adolescent onset psychosis is continuing to evolve. It is more problematic than adult onset psychosis, partly because it tends to be a more severe illness in adolescents, with poorer response to medication (James & Broome, 2017). Children and adolescents may be more susceptible to EPSE caused by FGAs and metabolic syndrome secondary to SGAs compared to adults, with childhood obesity resulting in an increased risk of future cardiovascular adverse outcomes (Almandil *et al*, 2011; Almandil *et al*, 2013; Correll *et al*, 2010). Caution with agents associated with increased prolactin is also suggested, given potential adverse effects on physical growth and bone mineralisation (Almandil *et al*, 2011). There may be an increased risk of rashes secondary to lamotrigine with children (Aspen Pharmacare, 2013).

A recent study (James & Broome, 2017) compared the use and side-effect profile of quetiapine and aripiprazole in this age group. As a consequence of these concerns, suggested first-line antipsychotic agents include quetiapine, risperidone and aripiprazole. In choosing a medication for children and adolescents, it is recommended to follow NICE guidelines and discuss the relative side-effect profile of the different medications with the young service user and parents. This is to ensure fully informed understanding of the benefits and side-effects of the medications discussed before deciding what medication is chosen, if required.

11.3.10 Women of Child-Bearing Potential

The risk of foetal malformations is greatest in the first trimester. The possibility of pregnancy should be considered in all potential childbearing women who present with an FEP. The risks of prescribing or continuing with medication need to be carefully determined in each individual presentation. Specialist pharmacist input is advised along with discussion with the person and their family. Certain medications (e.g. sodium valproate and lithium) are not recommended if the risk of pregnancy is high. Women who are prescribed them should be made aware of their teratogenic potential in the first trimester and the possibility that pregnancy may not be recognised until after this time. Sodium valproate should also be avoided in young women because of its additional risk of polycystic ovarian disease.

11.4 Physical Health Monitoring and Lifestyle Interventions

11.4.1 Introduction

Life expectancy for adults with psychosis and schizophrenia is between 15 and 20 years shorter compared with the general population. This is partly attributable to increased rates of suicide and deaths by accidental injury. However, the major cause of morbidity and mortality in schizophrenia relates to physical health issues (Foley & Morley, 2011). Cancer, cardiovascular, respiratory and metabolic disturbance including diabetes are the main causative factors. These are exacerbated by antipsychotic medication and lifestyle factors such as tobacco smoking, poor diet and sedentary lifestyle.

11.4.2 Reasons for differences between the health status of people with serious mental illness and the general population

There is a wide range of reasons for the higher rates of physical health problems seen in people with psychotic disorders. They include:

(a) Genetic factors: there appears to be a genetic association between diabetes and schizophrenia that is independent of medication.

(b) Environmental factors: Inner-city populations are at higher risk of schizophrenia, cardiovascular disease, and cancer.

(c) Lifestyle factors: cigarette smoking, alcohol and drug misuse, poor diet, sedentary lifestyle and unemployment.

(d) Poor access to medical care and physical health monitoring, resulting in:

  (i) Poor engagement with preventative care (e.g. hypertension, vaccines, etc.)

  (ii) Later presentations of illnesses such as cancer

  (iii) Poor engagement with treatments (e.g. cardiovascular disease and diabetes)

  (iv) Poor oral and dental hygiene resulting in threefold risk of loss of dentition

(e) The effects of medications

  (i) Arrhythmias (ECG: dose-related QT prolongation with certain anti-psychotics)

  (ii) Weight gain

  (iii) Metabolic Syndrome (includes weight gain, raised glucose, lipids, and blood pressure (increases the risk of cardiovascular disease and Type II Diabetes)

  (iv) Greater risk of diabetes (particularly Olanzapine and Clozapine)

  (v) Abnormal Lipid Profile (without weight gain)

  (vi) Extra-pyramidal side-effects (including Neuroleptic Malignant Syndrome and Tardive Dyskinesia)

  (vii) Sexual Dysfunction: often, but not always, a side-effect of medication and can contribute to poor compliance with medication.

11.4.3 Recommendations for Physical Health Monitoring and Interventions

This component of FEP service provision requires close collaborative working relationships with GPs and primary care teams as well as access to specialist medical services, as required. The key recommendations are as follows:

- ***National clinical protocols for GPs and MH services*** for physical health monitoring of service users with FEP. The National Clinical Programme should facilitate the development of national protocols between GPs and mental health services in relation to physical health monitoring of service users with FEP.
- ***Physical examination and baseline blood screening*** should be completed as part of the initial assessment carried out by mental health services (as outlined below).
- ***On-going monitoring & documentation of physical health parameters*** should be carried out after three months and then annually or more frequently if indicated. This should include weight, body mass index, pulse, blood pressure and full physical examination and routine blood parameters, including fasting blood glucose, HbA1c and blood lipids (as highlighted above).
- ***Shared care with GPs***. At the time of first presentation and treatment, the service user and EIP doctor need to decide how physical health needs can be monitored and managed. For example, some mental health services have on-site phlebotomy services, while others rely on primary care or hospital services. The importance of collaborative working with the service user's GP and primary care team is essential, with local arrangements put in place to facilitate efficient communication of cardiovascular and metabolic parameters so that any treatment required and/or specialist referral can be agreed and actioned. Local protocols should be developed to ensure clarity in relation to the identified service responsible for leading out on this, but with flexibility and good communication to facilitate the identified needs of service users. Shared care arrangements should also be in place to ensure results are shared and acted on appropriately and in a timely manner.
- ***Monitoring side-effects:*** Prescribers should monitor, discuss and proactively address the known side-effects of medication that can affect physical health. Pharmacist expertise should be available to provide advice about such concerns.

- ***Physical health screening*** must be accompanied by the appropriate interventions. The Positive Cardiometabolic Health Resource" (Lester UK Adaptation, 2014 update; download at: www.rcpsych.ac.uk/quality/NAS/resources) is an intervention framework for people experiencing psychosis and schizophrenia. It supports the recommendations on monitoring physical health in the NICE Guidelines on Psychosis and Schizophrenia in Adults and Young People as well as the NICE Quality Standards for Psychosis and Schizophrenia in Adults (NICE, CG 178,155 and QS 80, 2015).

11.4.4 Lifestyle Interventions

The consensus statement 'Healthy Active Lives' (HeAL) (www.iphys.org.au) and 'Right from the Start, Keeping Your Body in Mind', developed by clinicians in the Australia and UK, has been endorsed internationally and adopted by a number of countries. This is a guide for people experiencing psychosis for the first time and for those who care for them.

Moderating lifestyle is difficult in any population, but there is evidence in the literature that behavioural interventions can achieve clinically significant reductions in obesity and cardiovascular risk for people with FEP.

The target areas to be addressed are weight and smoking.

11.4.4.1 Behavioural Interventions to Address Weight Gain

Weight gain prevention, with individual psychoeducational programmes that include diet and/or exercise, seem to have the highest impact. They include:

(a) Nutritional counselling;

(b) Interventions to avoid the weight gain that occurs when people commence on medication. Weight should be assessed weekly in the first six weeks of taking a new antipsychotic as rapid early weight gain may predict severe weight gain in the longer term;

(c) Physical activity - daily exercise of 30 minutes a day;

(d) Awareness and addressing social determinants that contribute to poor physical health; for example, poor housing conditions, unemployment, lack of cooking skills, limited budgeting for food and exercise programmes;

(e) Identifying and addressing some of the functional difficulties associated with mental ill health that may make it more difficult for a person to engage in activities that enhance physical health such as lack of energy, fatigue and poor motivation;

(f) Weight management programmes that last at least 20 weeks and provide follow-up consisting of booster sessions for behavioural control and for diet and physical activity controls.

> *"Operation Recovery was a multi-disciplinary, multi-agency exercise and physical health programme run by the COPE First Episode Psychosis team, Cavan Monaghan Mental Health Service in 2016. One participant who engaged in the programme was a 39-year-old unemployed mother, who had been accepted to the team several months prior to the programme commencing. She reported weight gain from commencing medication. She had engaged in very little exercise prior to the programme commencing and lacked confidence to attend the gym. This participant attended all personal training sessions and groups during the programme. At the end of the eight weeks she reported that she felt her confidence had greatly improved and that she now got enjoyment out of exercise, feeling the benefit of same. On completion of the programme she participated in the Dublin Mini Marathon and some other local running events in her community along with another participant in the programme. After following up with this participant one year on from the programme she is still engaged in regular exercise. She has recently taken up employment, stating the programme helped her gain the confidence to achieve this goal."*

11.4.4.2 Addressing Smoking Cessation

The pharmacological and behavioural treatments used in the general population are effective in reducing smoking among those with serious mental illness and should be provided at the earliest opportunity for service users with FEP.

11.4.5 Recommendations on Lifestyle Interventions

- Service users should be encouraged and supported to take ownership of their physical health, with provision of information and support.

- Members of the AMHS and CAMHS multidisciplinary team - in particular, occupational therapists, dieticians and community nursing staff - should lead out on lifestyle interventions such as healthy eating, physical activity and smoking cessation and encourage participation in community lifestyle initiatives.
- The provision of lifestyle interventions should be done in tandem with the statutory and community supports available, such as smoking cessation programmes.

11.5 Psychological Interventions

11.5.1 Introduction to Psychological Interventions in FEP

A range of psychological interventions should be made available routinely and promptly to service users depending on their clinical needs and their engagement with the psychological intervention being offered. The following is a summary of the symptom clusters being targeted, the types of interventions to offer and the evidence base for their effectiveness. A number of sources are recommended for further reading. They include: *Psychological Interventions in Early Psychosis: A Treatment Handbook* (Gleeson & McGorry, 2004); *Psychological Interventions: Why, How and When to Use in Early Psychosis: A Treatment Manual*

(https://www.orygen.org.au/Education-Training/Resources-Training/Resources/Paid/Manuals/Psychological-Interventions)

(a) For positive psychotic symptoms

Cognitive Behaviour Therapy for Psychosis (CBTp) has been widely evaluated in both randomised control trials and meta-analysis, particularly as a treatment for positive symptoms (CBTp). See 15.5.2 below for more details.

(b) For negative symptoms

Social skills training, which often incorporates CBT principles, has been used in treating both negative symptoms and difficulties with processing social information (e.g. emotion recognition). **Cognitive Remediation Training:** Cognitive remediation has been evaluated as a means of addressing the cognitive deficits that strongly predict social and occupational function. See 11.5.3 below for more details.

(c) Other symptom groups and co-morbidities

A variety of psychological therapies, including CBT, have been evaluated for treating co-morbid conditions frequently associated with psychosis, including depression, anxiety disorders, substance dependence, and post-traumatic stress disorder both preceding and arising from the experience of psychosis. Cognitive-oriented interventions for specific subgroups of patients with FEP have also been developed and evaluated in RCTs. See 11.5.4 below for more details.

Relapse prevention counselling is described in section 11.8.1 as it should be considered in the broader context of psychosocial recovery, medication adherence, and psycho-education (including carers).

All service users with FEP should be offered psychological interventions during their initial MDT assessment and during the early recovery phase of their FEP. This should include an initial psychological assessment and formulation. These assessments may be particularly helpful in younger service users with co-morbid developmental disorders, learning difficulties, emerging personality disorders, and trauma histories. This should inform other team members of the service user's psychological needs and guide the MDT care planning.

The psychological assessment should also determine the service user's capacity to engage with and respond to the process of therapy chosen. The choice of psychological intervention should depend on the service user's phase of illness, symptom profile (active positive symptoms, negative symptoms, or co-morbid conditions) and how the intervention will integrate with the other MDT interventions being offered. The intervention should complement rather than substitute for other evidence-based interventions such as medication.

Therapists should be cautious about introducing certain therapies while the person is still acutely psychotic or manic. If the person doesn't avail of the therapy or is too unwell at the time, the option should be still available at a later stage if they change their mind, achieve remission and it is clinically indicated.

Low-intensity psychological interventions such as psychoeducation, relapse prevention and problem-solving strategies should be offered to all services users with FEP during their recovery. These low-intensity interventions may be provided by suitably trained EIP Keyworkers and MDT clinicians. However, more formal CBTp and related therapies (e.g. trauma-focused therapy) should only be provided by clinicians formally trained in these interventions. These are interventions with active components that have the capacity for good but also for harm if inappropriately applied.

Emerging evidence/expert consensus supports such 'low-intensity' and 'brief session' CBT-informed interventions (Turkington *et al*; 2014) although there are no studies yet to compare 'brief CBTp' (6-10 sessions) with 'standard CBTp' (12-20 sessions) (Naemm *et al*, 2015).

11.5.2 Psychoeducation for Service Users:

The potential value of psychoeducational programs for service users has been recognised since Early Intervention services were first developed (McGorry 1995), and is included in Best Practice Guidelines as a core component of the interventions made available to users of EIP services (e.g. Australian Clinical Guidelines for Early Psychosis: Orygen; 2016). One of the primary factors which limits the value of EIP services is the significant risk of premature disengagement from follow-up, which has been estimated at around 30% in systematic reviews of available research (Doyle et al 2014). The main risk factors contributing to disengagement included lack of understanding of the illness and treatment, lack of family support and ongoing substance misuse. The main value of psychoeducation is to improve engagement and the quality of collaborative relationships between service users, family and clinical team and ultimately to bring about better clinical outcomes.

Psychoeducation is provided on a one-to-one basis by the service user's key worker and psychiatrist as part of standard clinical practise in EIP and generic Adult Mental Health Services. Group psychoeducation is also now well established as an invaluable strategy for equipping service users with the knowledge and confidence they need to work collaboratively with the EIP clinical team to develop and implement a plan for recovery. In addition, group psychoeducation provides an opportunity to engage with and learn from peers, which has been identified by Lal et al (2015) as a potentially valuable approach to improving service user engagement. The EOLAS Programme for Service Users is a group psychoeducation programme for psychosis, and is now available in most mental health services in the country, and its continued roll-out is part of the HSE National Plan for Mental Health Services in Ireland.

11.5.3 Cognitive Behavioural Therapy for Psychosis (CBTp)

CBTp is primarily a CBT for psychotic symptoms (e.g. delusional beliefs and hallucinations) and complicating mood and anxiety that often occur with these experiences. Formal CBT for psychosis **(CBTp)** should be provided for those who engage well with the therapy process and have on-going positive symptoms (Garety *et al*, 2008; Dunn et al, 2012). It is not indicated for routine relapse prevention (Garety et al, 2008).

CBTp is one of the key psychosocial interventions recommended by the NICE Guidelines for Children and Adolescents (2014) and Adults (2015) as well as in the NICE Guidance Document, Implementing the Early Intervention in Psychosis Access and Waiting Time Standard (2016). It usually requires 16-25 sessions with a clinical psychologist or CBT clinician trained in CBTp. However, recent reviews of CBTp have questioned the evidence base for the efficacy of CBTp. These include a Cochrane Review (Jones *et al*, 2012) and a systematic review by Jauhar *et al* (2014). The debate about the evidence base is not helped by one of the largest RCTs of CBT for psychosis remaining unpublished despite completion by Klingberg *et al* a decade ago (https://doi.org/10.1186/ISRCTN29242879.

Like all psychological therapies, the collaborative therapeutic relationship is the foundation on which these interventions rely. CBTp departs from the traditional wisdom of a hands-off approach to exploring the content of delusions and hallucinations. There is an emphasis on normalising and destigmatising the experience of delusions and hallucinations that can readily be triggered by bereavement, stress, sleep deprivation and other life experiences. The stress-vulnerability model (Myin-Germeys & van Os; 2007; Gispen-de Wied & Jansen; 2002) is part of an explanatory framework that formulates how psychotic symptoms may be generated and maintained without dismissing or challenging the reality of these experiences for the individual. CBTp aims to reduce the distress associated with the presence of psychotic symptoms and improving coping skills and functioning. Measures and scales are often used to complement the therapy process and track progress over the course of the therapy.

Many elements of the CBTp model have been manualised to ensure therapists' effectiveness and fidelity to the model (Smith *et al*; 2003) and to facilitate good training of clinicians in CBTp.

11.5.3.1 Personal Story from Service User

"After an altercation in a local bar Gerard began to feel that a gang were following him and monitoring his movements and phone calls. He was fearful that this gang would hurt him or his family and suspected that they were trying to infiltrate his workplace and cause others to think ill of him. Gerard became increasingly more preoccupied with the actions and motivations of this gang and gradually became more withdrawn from work and family life. Eventually he became so distressed that he needed to be admitted to hospital.

"Gerard agreed to meet with a CBTp therapist and to discuss his concerns. Initially they spent time trying to identify the thoughts Gerard was experiencing and to understand the worries and fears connected with his interpretations of the events he felt were happening. Gerard was facilitated to understand how and why he interpreted the events in the way he did and how, why this may have initially seemed reasonable, anxiety, previous experiences and beliefs had shaped an interpretation of events that may be out of proportion and unhelpful. Gerard and his therapist worked to uncover alternative explanations for what was happening and to find ways for Gerard to manage his suspicious thoughts and anxiety. Gerard was also assisted to identify possible future challenges and to develop skills and strategies to manage these."

11.5.4 Social Skills Training and Cognitive Remediation Training in FEP

Deficits in cognitive and social function are found in a large proportion of first-episode cases (Bora & Pantelis *et al,* 2015) and predict recovery and later functional outcome independent of clinical symptoms (Santesteban-Echarri *et al*, 2017).

Meta-analytic reviews of both social skills training and cognitive remediation training for people with schizophrenia show benefits in reducing cognitive and social cognition deficits (Wykes *et al*, 2011) and social skills and negative clinical symptoms (Turner *et al*, 2017). However, the evidence from other studies has been inconsistent and further RCTs are recommended. Cognitive remediation training (CRT) involves drills and strategy training to address deficits in either general cognitive functioning or targeted aspects of cognition, such as memory function. Social skills training (SST) is an intervention focusing on the development or improvement of social interaction, social performance, or interpersonal skills.

11.5.5 Other Psychological Interventions

A range of other psychological interventions have been developed and studied. Some target particular subgroups with cognitive-oriented therapies – LifeSPAN targets acute suicidality in FEP (Power et al, 2003), COPE targets adjustment and recovery post-FEP (Jackson *et al*, 2005), STOPP targets treatment-refractory psychosis (Edwards *et al*, 2011), and CAP targets cannabis use in FEP (Edwards *et al*, 2006). The impact of these individual psychological interventions has been studied in relatively small RCTs. The outcomes with these interventions when compared with the control groups (e.g. treatment-as-usual or psycho-education) have shown few if any advantages. However, these trials were probably too small to reveal significant effects.

There are a few published studies of psychological interventions in first-episode manic psychosis. Two small studies (Jones *et al*, 2008; Macneil *et al*, 2012) found that modified cognitive behavioural therapy for EI in bipolar disorder was efficacious and well tolerated.

In bipolar disorder more generally, Oud *et al* (2016) reported favourable findings in a metanalysis of 55 trials with 6,010 participants showing moderate-quality evidence associated individual psychological interventions with reduced relapses at post-treatment and follow-up, and collaborative care with a reduction in hospitalisations. Low-quality evidence associated group interventions with fewer depression relapses at post-treatment and follow-up, and family psycho-education with reduced symptoms of depression and mania at post-treatment.

11.6 Family / Carer Information, Support and Interventions

11.6.1 Introduction

In recent decades, there has been increased recognition of the impact of a diagnosis of psychosis on the whole family and the role played by families in the service user's treatment and recovery. The evidence supporting effectiveness of family intervention in reducing the diagnosed person's risk of relapse of psychotic symptoms and hospitalisation is well documented internationally (McFarlane, 2016; Pharoah *et al*, 2010; Bird *et al*, 2010; Smith *et al*, 2007; Penn *et al*, 2005; Haddock and Lewis, 2005; Pitschel-Walz *et al*, 2001; McFarlane, 1994; Leff, 1994; Falloon, 1993) and in Ireland (Cassidy *et al*, 2001; McWilliams *et al*, 2010; McWilliams *et al*, 2012).

Contemporary mental health policy guidelines (Department of Health and Children, 2006; NICE, 2014) acknowledge the need to address the impact of a diagnosis of psychosis on the whole family, both in a practical way, in terms of finances, household routine, employment and social life, and at an emotional level in relation to stress, grief, loss, confusion, guilt and stigma.

The Mental Health Commission (2012) recommends that family members be consulted as members of the clinical team, receiving information, advice and support as appropriate. Assessment of family support needs and provision of appropriate family interventions, in light of these recommendations, should be prioritised by the clinical team as early as possible.

11.6.2 Principles for Family Interventions

The following principles should underpin family interventions in early psychosis:

1. Families are valued by clinical teams, and a collaborative working relationship between the family and the clinical team is in place from the assessment stage and throughout the service user's ongoing care.
2. The perspective of the whole family should be included in the assessment process and the ongoing care planning process, whenever possible.
3. Family support needs are assessed and addressed by CMHT at an early stage.
4. Every family is informed about and offered evidence-based individual family interventions & carer-focused interventions as early as possible post-diagnosis.
5. Evidence-based family interventions are delivered by qualified staff on CMHTs.
6. The training and supervision needs of staff delivering family interventions are supported.
7. Confidentiality and sharing of information is managed by CMHTs in a way that respects the rights and wishes of each service user, while also considering the family's need for appropriate information and support as well as interventions to help with communication skills and problem-solving in supporting a family member experiencing psychosis.

11.6.3 Guidelines for Sharing Information with Family Members

There is a growing body of literature on the boundaries of service-user confidentiality and their impact on family members. A service user's right to privacy and confidentiality must be protected in keeping with both medical ethics and data-protection laws. Despite these legal and ethical constraints, there is increased recognition in the literature that appropriate information-sharing is necessary to support the whole family's recovery. Provision of general information about mental illness and emotional and practical support to family members does not breach confidentiality and should be provided to all families (Royal College of Psychiatrists, 2015). Each mental health service should also develop a protocol for information-sharing when there is full or partial absence of consent. Such protocols should allow for the possibility of "bounded confidentiality" (REFOCUS, 2013) where service users can indicate what information they want shared with their family.

Carer Experience

"It is only with the benefit of hindsight that I now know that 20 years ago I was dealing with an adolescent boy displaying a lot of the signs of mental health difficulties. At the time, perhaps I was too willing to allow my concerns about his challenging behaviour, his problems at school and his experimentation with drugs to be explained as the behaviour of a rebellious teenager. Despite my efforts to talk to him in order to understand what was going on for him, neither he nor I had the language or skills to communicate effectively. Over a period of 5 to 6 years the services of various General Practitioners, Consultant Psychiatrists or Social Workers did little to help the situation. During this time, the nature of my relationship with the professionals can best be summarised as one where I deferred to professional views and advice in a desperate effort to do what was right for my son. At the same time my son's self-medication with alcohol and drugs increased and our lives became more and more chaotic. His abuse of alcohol and drugs became the main concern and all our efforts were aimed at getting him to stop his destructive behaviour. When I look back at this very difficult time I recognise the absence of a willingness or any encouragement from the professionals to either seek or listen to the family's views or opinions on how best to address our son's complex mental health needs. Also at the time I felt ill-equipped to articulate his and our needs. At the end of each hospital stay, we found that while the medication had in some way alleviated his distressing symptoms little or no progress had been made in terms of a recovery plan and we, his family, were left on our own to cope until the next crisis.

> *"Now I can see that we were cut out from helping with my son's care but at the same time somehow expected to know what to do when he was discharged from his various hospital stays without any support or information. If I knew then what I know now in terms of the crucial role of family members in dealing with mental health issues of a family member I would have fought harder to become more actively involved from the outset in order to support my son's recovery. We still encounter a lot of resistance from the Mental Health Services when it comes to recognising the family as part of the decision-making process for my son's care. In particular, I have come across the use of 'patient confidentiality' to justify lack of communication with me. I absolutely respect the need for doctor/patient confidentiality and don't want to intrude on this but I also want to do anything I can to support my son and the mental health team towards a better outcome for all of us."*

Obtaining informed consent should not be viewed as a once-off activity. Indeed, consent is less likely to be refused if it is sought at an appropriate time, the service user understands the reason for asking, the information is sought in a positive manner and it is rechecked on a regular basis (MIND Australia, 2016).

11.6.4 Psychoeducation for Families:

Family supporters of people attending general mental health services consistently report feeling excluded from needs assessment, care planning and involvement in the service user's recovery plan (A Vision for Change nine years on: Mental Health Reform; 2015). Group psychoeducation programmes for family supporters provide an excellent opportunity to meet this challenge. As with service user programmes, group psychoeducation for families equips participants with the knowledge and confidence they need to work collaboratively with the EIP clinical team to support the service user's recovery, while also helping families to develop their own coping and self-care skills. The value of this approach has been confirmed in a number of studies, both in Ireland (McWilliams et al 2010) and elsewhere (Claxton et al 2017). The benefits of group psychoeducation for families include decreased risk of relapse and re-hospitalization, decreased carer burden and improved family engagement with clinical teams, resulting in net savings in the cost of service provision (Breitborde et al 2009). For these reasons, access to family psychoeducation is included in Best Practice Guidelines as a core component of EIP interventions (e.g. Australian Clinical Guidelines for Early Psychosis: Orygen; 2016).

The EOLAS Programme for Families and Friends is a group psychoeducation programme for psychosis, and is now available in most mental health services in the country, and its continued roll-out to remaining areas is part of the HSE National Plan for Mental Health Services in Ireland.

11.6.5 Guidelines for Provision of Family Interventions

Regarding the provision of family interventions, each CMHT should consider who the most appropriate staff member(s) is to work with each family. Staff members' training and experience in providing evidence-based family interventions should be taken into account. All disciplines on CMHTs may train in and deliver specific evidence-based family interventions.

Evidence-based approaches to family work for psychosis should include education, skills training, communication, problem-solving, stress management, relapse prevention, sharing information and crisis intervention, and should be recovery-focused (McFarlane, 2016; NICE guidelines 2014; Fadden & Smith 2009, Smith *et al* 2007, Thorsen *et al*, 2006).

Family interventions for psychosis should include both whole-family interventions and carer-focused interventions, and be offered to 100 per cent of families (NICE, 2014). Whole-family intervention includes the service user and their family members. It may also include significant others who do not identify themselves as being in a caring role. Moreover, as well as whole-family interventions, carer-focused interventions, such as support, information and skills groups, should also be made available as soon as possible following diagnosis.

Carer-focused interventions refer to interventions that may not include the diagnosed person. In the NICE (2014) guidelines, the term 'carer' is used to apply to everyone who has regular close contact with the diagnosed person, including advocates, friends and family members, while recognising that some family members may not identify themselves as carers.

11.6.5.1 Whole-Family Interventions

Research supports whole-family interventions, such as single-family approaches (Fadden, 2009) and those that include two or three families in multifamily group work, (McFarlane, 2016). Whole-family interventions should consist of at least ten sessions over three months to one year, and include the service user whenever possible (McFarlane, 2016, NICE, 2014). Whole-family interventions for psychosis that have the strongest evidence base include Behavioural Family Therapy (BFT) (Fadden, 2009), and McFarlane's multifamily group approach (McFarlane 2016: 1994). Other evidence-based whole-family interventions are the Somerset Model (Burbach & Stanbridge, 2006), and Systemic Family Psychotherapy (Carr, 2016).

Behavioural Family Therapy meets the NICE (2014) criteria for whole-family intervention. It is the recommended mode of whole-family intervention supported by the HSE National Clinical Programme Office. However, where clinicians have training and supervision in other evidence-based approaches to family intervention for psychosis, these approaches should also be considered by CMHTs. For example, systemic family psychotherapy (Carr, 2016; Sydow *et al,* 2010; Bertrando *et al,* 2006) is also an important resource relevant for many families.

Service User Experience of BFT

> *"For the last 7 months I have been attending BFT sessions along with my family. I found the team to be both friendly and encouraging. With their help my family has become closer and communication with each other has improved. Following a six week stay in hospital I attended BFT which was held in my family home.*
>
> *"Through informal discussion each person was given an opportunity to express their feelings with regards to the events of the previous months. This helped me to understand the situation from another person's point of view which improved relationships with my family. We also took part in a series of exercises to improve our communication skills. Some of these exercises were designed to create a deeper understanding of the triggers which may affect mental health and how to avoid or deal with them appropriately.*
>
> *"I believe the sessions were well received by my family and helped to build a constructive, positive environment. With the help of BFT sessions I feel more confident, supported and ready to continue on with my life. For me this means continuing old relationships and building new ones as well as continuing my education, finishing the final year of my undergrad and applying for a Master's. I would also like to add that I felt both BFT staff went beyond the call of duty. I felt fully supported at a time when I needed it most."*

BFT, or a similar evidence-based whole-family approach, should be offered to all service users and their families in the first instance. Where there are more complex ongoing needs after family work intervention, some families may benefit from a subsequent referral to systemic family therapy. The EIP Keyworker for the family on the CMHT should discuss this with the family, where applicable.

11.6.5.2 Carer-Focused Interventions

NICE guidelines recommend that in addition to whole-family interventions, carer-focused interventions should both be provided to all of families as early as possible following diagnosis. Carer-focused interventions include support, information and skills groups and services for family members, which may not include the diagnosed person. Evidence-based carer-focused interventions currently available in Ireland include family group information and skills programmes, such as the DETECT family information and skills programme (McWilliams *et al*, 2010; 2012), the Eolas Project (2012) and Shine (2015) programmes (see Appendix 1). Many mental health services also provide family support groups that are facilitated by CMHT staff who also regularly provide single-family liaison and family meetings.

Finally, online courses - such as that provided by King's College London (2016) - can also be a helpful resource for families.

Carer-focused interventions are an especially useful resource for families whose diagnosed relative may have disengaged from services, or where there is lack of consent or engagement for a whole-family intervention.

Family** Member's Experience **of a Carer-Focused Intervention

> *"Before we did the family education course we were all over the place, we didn't really know what questions to ask the professionals. It was all a bit of an emotional roller coaster. The course really did help us and gave us a better understanding of things. The sharing with other people and the additional knowledge I gained is what I found good. It also made it that bit easier for me to talk with my son, about his symptoms of psychosis, whereas before I was kind of, not sure whether I was saying the right thing or the wrong thing." (Mother)*

11.6.5.3 Family Peer Support Services

Family peer support refers to informal informational and emotional support offered to family members from other families who have experienced psychosis. It is provided at family/carer support groups. In the past decade, family peer support services have also developed where family members train to provide individual peer support to members of other families. There is emerging international evidence for family peer support services (Leggatt, 2007; Kutash *et al*, 2011; Duckworth & Halpern, 2014), recognising that family peer supporters are uniquely positioned to bring their own experience of psychosis to their interaction with other families.

Family Member's Experience of Family Peer Support

> "*I found peer support meetings very helpful, because you get to hear first-hand how other families got through the whole situation and how they were dealing with it – it was like talking to an old friend, a confidant, someone who had been through the experience and was happy to listen and to share their experience rather than being judgmental. I could be totally open and honest with them as they were with me which was actually quite endearing and refreshing. to have someone who understood, understood exactly at that time what I was going through, having been through it themselves.*" (Father)

Family peer support services are available in Ireland through the HSE and Shine in Mayo and Limerick; Carers (& Friends) Liaison and Support Service (CLASS) in Kilkenny, South Tipperary and Carlow, and, in South Dublin, through the DETECT service. Evaluation of these services is currently underway. Families should be informed of the local availability of such services.

11.6.6 Recommendations

The following recommendations should be taken into account when dealing with families of service users with FEP:

1. The perspective of the whole family should be included in the assessment process and the ongoing care planning process, whenever possible.
2. Each family should have a designated contact and support person on the CMHT.
3. Families should be given the name and contact details of this staff member as early as possible following diagnosis.
4. Based on local Mental Health Service guidelines, at the earliest possible stage following diagnosis, each CMHT should have a clear discussion on confidentiality and sharing information and how this can be best managed with each service user and their family.
5. Where there is a full or partial absence of consent from the service user to share some or all confidential information with family members, services should develop and continually review appropriate protocols to meet family support and information needs.
6. CMHTs should ensure that BFT or evidence-based whole-family intervention is offered to all families as soon as possible following diagnosis.

7. CMHT should provide all families with information on how to access evidence-based carer-focused interventions in their local community; for example, Eolas, Shine or DETECT family information and skills programmes. If these programmes are not available in the local area, services should develop evidence-based carer-focused information and skills services in their area, availing of the support and advice of existing services.
8. CMHTs should inform families of additional supports such as online courses and family peer support services, where available.

11.7 Education, Supported Employment & Functional Recovery

11.7.1 Introduction

Psychosis has peak onset in late adolescence and early adulthood, which is also when many of the key developmental stages of life occur, such as the beginning of career pathways (e.g. Killackey, 2008), the completion of education, and establishing oneself independent of parents and family. Due to both the timing and nature of psychosis, achieving these key developmental milestones during this crucial stage of life can be more challenging than for the rest of the population.

An episode of psychosis is likely to cause major disruption to an individual's education, causing them to have to move back to their families for lengthy periods while they recover. It may also mean having to change services as students move from home to college between term times. Strong links with college and university supports are crucial for service users returning to courses.

In Ireland over the past decade, there has been a growing focus on recovery in mental health services. All policy documents have shifted from focusing exclusively on the elimination of symptoms and increased emphasis on rebuilding a valued life, reclaiming valued social roles, and establishing a positive self-identity (*A Vision for Change*, 2006). Functional recovery is understood as reintegration and return to previous roles, habits and meaningful activities as well as the development of new skills, roles and interests. It incorporates the journey of personal recovery during which the service user is able to make sense of their experience and move forward towards a personally fulfilling life.

11.7.2 Employment, Supported Employment and IPS

The 2011 census of Ireland showed that 23 per cent of people with mental health difficulties of working age were in work, compared to 66 per cent of general population. Behan *et al* (2008) estimated the unemployment rate for people with schizophrenia to be 73 per cent. A lack of employment leads to other losses such as of income, social contact and structure, and lowers the self-esteem and quality of life for service users.

The Individual Placement and Support (IPS) model is the most standardised and researched model of supported employment. IPS is a well-defined approach, using a proven methodology, to help people with mental illness find and keep competitive employment. 'Competitive employment' means work in the community that anyone can apply for and pays at least the minimum wage (Becker, *et al*, 2011).

IPS is a vocational rehabilitation approach that eschews prevocational training in favour of rapid job search for competitive work and follow- along supports to sustain employment.

A systematic review showed that adding IPS to early psychosis teams increased the rate of competitive employment. In eight studies, the mean competitive employment rate for supported employment participants was 49 per cent compared with 29 per cent for participants receiving clinical services only (Bond *et al*, 2015).

IPS is based on eight key principles:

1. Zero exclusion
2. Competitive employment is the goal.
3. An employment specialist is integrated in the mental health treatment team.
4. Rapid Job Search – the person does not have to be 'work ready,' instead the principle is to 'place and train' on the job.
5. Individual job preferences
6. Employers are approached with the needs of the individual in mind.
7. Ongoing time-unlimited support is provided.
8. Personalised benefits

A number of pivotal reports recommend that IPS should be offered to service users with mental health conditions. They include: *A Vision for Change* (DOHC, 2006); the

Sainsbury Centre for Mental Health Briefing (2009): Doing what works - Individual Placement and Support into Employment, and the NICE Guidelines (2015) for Early Intervention in Psychosis.

11.7.3 Education

Return to school, college or university is a common goal for young people with FEP because the first episode often occurs in the midst of continuing education as well as vocational development. Most young adults strongly desire to pursue further education (e.g. complete school, go to college). Attending school or college is developmentally appropriate for this age group, a place for young adults to be with their peers and to facilitate the transition to employment.

A first episode of psychosis often disrupts academic work, contributing to poor performance and high dropout rates from high school and college (Goulding *et al*, 2010). In the US, over 4m young adults fail to graduate from college due to an early onset of mental health disabilities (Mowbray *et al*, 2006). Educational attainment is critical for obtaining meaningful jobs and developing social and occupational networks. Educational attainment predicts higher lifetime earnings and other positive employment outcomes in people with severe mental illness, even more strongly than in the general public (Luciano & Meara, 2014).

The IPS model for service users for FEP has been adapted internationally (Australia, America, Canada, Scandinavia, UK) to include supported education. This has shown some promising results. However, supported education does not yet have as robust an evidence base (Becker *et al*, 2015) and many studies aggregate educational and employment outcomes, which complicates interpretation of results (Bond *et al*, 2015).

Support from the MDT for the person and close collaboration between EIP services and schools and colleges to facilitate return to education should be developed.

11.7.4 Alternatives to Employment and Education

The NICE guidance (2014, 2016) recommends that, if the individual does not wish to pursue education or work, alternative activities should be explored. This should be based on the individual's needs and capacity to engage with such activities, and have an ultimate goal of returning to mainstream education, training or employment.

11.7.5 Rehabilitation: Negative Symptoms and Neurocognitive Deficits

About 20 per cent of FEP service users experience relatively high levels of negative symptoms and neurocognitive deficits during and after their first episode of psychosis. This is not just a feature of first-episode schizophrenia but also can occur in first-episode manic psychosis, where the prevalence falls between that seen in first-episode schizophrenia and normal healthy controls (Demmo *et al*, 2014). Negative symptoms appear to follow a somewhat separate course to positive symptoms; that is, positive symptoms may remit while, in a minority of cases, negative symptoms may predate psychotic symptoms and persist afterwards.

It is important to rule out post-psychotic depression, which is common after the first episode, occurring in as many as 50 per cent of services users, as it may well respond to antidepressant medication and cognitive therapies.

Neurocognitive deficits in FEP include a wide range of cognitive functions such as attention span, information-processing, memory and other executive functions. Many of these improve slowly during the recovery phase. They are generally not responsive to medications. However, relapses in the first year (e.g. due to stopping medication) are a major determinant of persistent neurocognitive deficits a decade later (Barder *et al*, 2013).

Gee *et al* (2016) found in a large study of over 1,000 cases of FEP in England that 22 per cent were experiencing high levels of negative symptoms at entry into services but most (17%) had low levels by 12 months follow-up, leaving 5 per cent with persistently high levels. The vast majority (77%) had few negative symptoms at entry into services and most (64%) had even lower levels by 12 months follow-up. High levels of persistent negative symptoms were associated with males and a family history of non-affective psychosis. In summary, only a small percentage of service users with FEP develop negative symptoms, but, since this is associated with poor rates of functional recovery, targeted rehabilitative interventions for this group may improve outcomes.

When such concerns about negative symptoms arise, service users should be offered more formal assessments of occupational and social functioning, such as Activities of Daily Living (ADL), Habituation (roles & routines), Leisure and Environment. Thus, if the individual is unable to engage with IPS interventions, they may still benefit from occupational therapy or rehabilitative interventions to address these functional deficits.

These rehabilitative interventions might include individual interventions in service users' homes attendance at day-hospitals, day-programmes, group activities at team bases, and stays in residential rehabilitation units.

11.7.6 Recommendations

1. A record of education and employment status should be recorded at the initial assessment process.
2. All service users with a FEP should be offered, as early as possible, an assessment of work and education needs. There must be no internal delays to treatment.
3. Early intervention services should support the service user in maintaining their work or educational roles if they are at risk of disengagement due to their mental health difficulties (Krupa, 2010).
4. IPS should be offered to service users who express an interest in gaining employment.
5. To support commencing or continuing in education, close partnerships are needed between the service user, families, educational institutions (and all of their support structures for people with disabilities) and the early intervention services so as to support the service user in staying in education and meeting educational demands (exams, projects, etc).
6. Following assessment, if the service user does not wish to pursue education or work, facilitation of alternative educational or occupational activities should be explored.

11.8 Other Clinical Interventions

Beyond the core interventions listed above, there is a range of clinical and non-clinical interventions that might assist with recovery and relapse prevention. They include Art Therapies, Music, Wellness Recovery Action Plan (WRAP) and non-specific interventions for stress or anxiety associated with the psychosis. One intervention that should be delivered by all EIP staff is Relapse Prevention Therapy.

11.8.1 Relapse Prevention in FEP

11.8.1.1 Introduction

Psychotic symptoms will remit in most individuals presenting with an FEP but there is a high rate of subsequent relapse. Using a systematic review and meta-analysis, Alvarez-Jimenez *et al* (2012) found relapse rates of 28 per cent at one year follow-up, 43 per cent at two years and 54 per cent at three years. Relapse can vary from mild to severe, with warning signs often preceding such relapses. A number of factors may increase the risk of such relapses, including non-adherence to medication, substance use, and poor premorbid adjustment.

Following initial recovery from FEP, the possibility of relapse should always be discussed with service users and their family/carers. They should be educated about risk factors, early warning signs and the development of relapse prevention planning.

Relapse risk needs to be managed very proactively by the treating EIP team, given the trajectory of relapsing illness as outlined in Chapter 2, section 2.2 which highlights the negative impact of successive relapses on the overall recovery prospects for this cohort of service users. Risk factors for relapse – e.g. drug use, stress, medication adherence – should be monitored closely and interventions offered to reduce these risks.

The pros and cons of prophylactic antipsychotic medication should be outlined clearly. Mechanisms to maximise the benefits of medication adherence should also be discussed and reviewed with service users and their carers. Depot antipsychotic medication should be advised for those whose engagement with oral medication is poor.

The role of specific psychological interventions (e.g. CBTp) has been found to benefit a subgroup of service users with FEP by reducing the risk of relapse (Dunn *et al*, 2012), but not those who do not engage with the intervention.

11.8.1.2 Recommendations for Relapse Prevention

The recommendations relating to relapse are:

1. Medication should be recommenced or increased if early signs of relapse are noted.

2. The advantages of maintenance antipsychotic medication in relapse prevention should be weighed against side-effects, including metabolic effects.
3. Specialist FEP interventions for the service user and family/carers should include a focus on relapse prevention.
4. Relapse prevention strategies should be agreed with the service user and family/carers as part of FEP service provision.
5. Agreed care pathways for rapid access and review by EIP Keyworker/team should be provided for if any warning symptoms of relapse are suspected.
6. More regular review should be carried out by the EIP Keyworker if medication doses are decreased or discontinued.

11.9 Treatment-Resistant or Complex Psychosis

11.9.1 Introduction

Treatment-resistant or complex psychosis occurs in around one in ten service users who experience their first episode of psychosis. It is often associated with illness chronicity and impairment of functioning affecting recovery potential, and it needs to be proactively addressed.

11.9.2 Factors Associated with Treatment Resistance or Complex Psychosis

A range of factors contribute to the development of complex/treatment-resistant psychosis. These include:

(a) Psychiatric comorbidity such as substance misuse / addiction; intellectual disability; developmental difficulties such as autism / autistic spectrum; ADHD; emerging personality difficulties; personality disorder, and post-traumatic stress disorder;

(b) Physical illnesses such as epilepsy; neurological symptomatology;

(c) Cognitive impairment associated with psychosis;

(d) Treatment resistance;

(e) Predominant negative symptomatology;

(f) Serious risks associated with psychosis;

(g) Psychosocial factors such as homelessness and membership of minority / ethnic groups affecting engagement and social supports.

11.9.3 Specialist Input in Treatment-Resistant or Complex Cases

It is essential that those with complex needs, treatment resistance, chronicity and higher suicidal risk are identified early so that extra specialist input can be provided as soon as possible during this critical period of early intervention.

At this stage, a more comprehensive assessment process should be undertaken in relation to the psychosis, associated negative symptoms or cognitive impairment, psychiatric co-morbidity, substance misuse, co-morbid medical / neurological illness, psychosocial factors and serious risks associated with the psychosis or other factors.

This should be done as a formal MDT case review by the relevant spoke or hub MDT clinicians / specialists involved, under supervision of the treating consultant psychiatrist. When it is considered that additional expertise is required, the expertise available on the hub team and / or specialist services – e.g. addiction services, rehabilitation / recovery mental health services, forensic services, etc. – should be accessed at the earliest stage following assessment, engagement and provision of FEP standard interventions.

The early involvement of properly resourced rehabilitation / recovery mental health services should be sought when it is evident that sustained intensive rehabilitative input is required. A range of other clinical interventions need to be considered as needed; for example, optimisation of medication management, cognitive remediation for cognitive impairment, CBT for co-morbid anxiety or depression, DBT for co-morbid personality disorder, etc.

11.9.4 Clozapine Use in Treatment-Resistant FEP

The early use of Clozapine has been shown to be effective in treatment-resistant first-episode schizophrenia. Ajid et al (2007) found that 76 of first-episode patients (n=123) responded to a first-line atypical antipsychotic medication (Risperidone / Olanzapine), 6 per cent responded to a second-line atypical, leaving 19 who failed to respond to both. Of this remaining treatment-resistant group (unresponsive to 2 trials of antipsychotics), 56 agreed to Clozapine. Their mean symptom ratings improved significantly on Clozapine (from severely ill to mildly ill) while the treatment-resistant group refusing Clozapine did not improve on alternative antipsychotics.

Ballon *et al* (2018) recommend a slow titration up to a low-maintenance dose of Clozapine (less than 100 mg/day) in their treatment guidelines for Clozapine in FEP with treatment resistance. Response to low doses was, however, less favourable in those with longer DUPs. Doyle *et al* (2017) highlight the importance of physical health monitoring in FEP treated with Clozapine.

11.10 Support Organisations for Service Users and Carers

A number of support agencies are also available in the community. Some provide support groups for service users and carers while all provide online advice and information. The first two organisations (below) are specifically aimed at helping those with psychosis.

11.10.1 Hearing Voices Network Ireland (HVNI)

The Hearing Voices Network Ireland (HVNI) is one of over 20 nationally based networks around the world with shared goals and values, incorporating a fundamental belief that there are many ways to understand the experience of hearing voices and other unusual or extreme experiences. It is part of an international collaboration between people with lived experience, their families and professionals to develop an alternative approach to coping with emotional distress that is useful and empowering, and does not start from the assumption that they have an illness.

Website: http://hearingvoicesnetworkireland.ie/

11.10.2 Shine

Shine (formerly Schizophrenia Ireland) provides support groups, advocacy services and counselling services for people affected by mental health difficulties. This includes family and friends. The information line provides general information, a listening ear and specific information about Shine services.

Website: www.shineonline.ie

11.10.3 GROW

GROW was founded in Australia in 1957 by former mental health service users. It has a national network of over 130 groups in Ireland. Its principal strength is the support members give each other based on their own experience in matters to do with mental health. It provides a helpline and information, and has regular meetings. It has recently established meetings for young adults.

Website: www.grow.ie

11.10.4 AWARE

AWARE, founded in 1985 in Dublin by Dr Patrick McKeon and a small team of volunteers (many of whom were service users), is more specifically aimed at mood disorders. Its aim is to provide information, education and support, both for individuals diagnosed with depression or bipolar disorder, and family members. It provides education and training programmes for schools and workplace.

Website: www.aware.ie

11.10.5 Reachout.com

Reachout Ireland is an online youth mental health advice service that aims to help young people (12-25 years old) with mental health information. It was originally set up in Australia in 1996 and has a branch in Cork, Ireland from where it plays an active role in youth mental health advocacy and development.

Website: https://ie.reachout.com

11.10.6 Advancing Recovery in Ireland

Advancing Recovery in Ireland (ARI) is a National Mental Health Division initiative that brings together people who provide HSE services, those who use them and their families and community supports, to make HSE mental health services more recovery-focused.

Website: www.hse.ie/eng/services/list/4/mental-health-services/advancingrecoveryireland/

11.10.7 HSE Mental Health Engagement

While not strictly a support organisation this Office encourages service users and families to give feedback on their experience of mental health services and the Office then follows up engaging with the service users and families throughout this process.

11.10.8 EOLAS

The EOLAS Programme for service users and their families/carers is a group psychoeducation programme for psychosis, and is now available in most mental health services in the country, and its continued roll-out is part of the HSE National Plan for Mental Health Services in Ireland.

11.11 Culturally and Linguistically Diverse Communities

The last two decades have seen major changes in the demographic of the Irish population, with a large influx of immigrants from a diverse variety of cultures. They are a heterogeneous group with widely different reasons for migrating and from varied socioeconomic backgrounds. Research in other countries suggests that the incidence of psychotic illness among some immigrant populations is higher than in the rest of the population (Fearon *et al*, 2016). Despite the higher incidence of psychosis, help is frequently not sought at an early stage by ethnic groups (NICE, 2014). Furthermore, there is evidence of healthcare inequality for members of these communities in relation to access and engagement with treatment in mental health services (Agius *et al*, 2010). One reason suggested for this is that individuals from ethnic groups feel that services do not understand their personal, religious, spiritual and cultural needs (Mead *et al*, 2009).

These issues are also highly relevant to the Irish Traveller Community, which is recognised as a distinct ethnic group in Ireland since 2017, with over 30,000 members recorded in the 2016 census. There is a paucity of mental health research among this population, although there is evidence of frequent mental distress (McGorrian *et al*, 2013) and higher suicide rates (Malone *et al*, 2017).

A further important group for consideration is asylum seekers who continue to come to Ireland for refuge.

Language barriers can have a major impact on both assessment and treatment in early psychosis. During assessments, interpreter services must be readily available and be acceptable to service users, so that they are not reliant on family members to enable assessments be conducted to the required standard. It should also be noted that recent legislation change recognises the need for Irish sign language interpreters. Furthermore, the use of interpreters may be necessary when engaging with family members, and when providing family interventions such as behavioural family therapy. Consideration could also be given to providing English language teaching where available.

Understanding of cultural differences needs to be addressed to facilitate the identification and proper assessment of ethnic minority groups presenting with FEP. There is evidence that cultural competence training may be beneficial in terms of cultural sensitivity and staff knowledge (Bhui *et al*, 2007). Such training could be delivered in early psychosis services, particularly for regions with a relatively high immigrant population. Early psychosis services should also seek out collaboration and liaison with local voluntary and charitable organisations that may have expertise in enabling improved cultural interactions.

In terms of treatment options, the provision of the range of interventions should be available to the same standard for those with limited English language skills. Extra supports should be provided where necessary to facilitate the uptake of these interventions, both for the service user and their families. Peer support worker intervention may be offered to engage individuals with assessment and treatment. Cultural, spiritual, religious and linguistic issues should be considered when delivering pharmacological and psychosocial interventions. Healthcare professionals with limited experience in treating individuals from diverse ethnic and cultural backgrounds should seek out advice and supervision from those more experienced in this area.

Given the lack of knowledge in relation to this area, particularly in an Irish context, it should be considered a topic of key importance for national audit and research, particularly as migration has become a prominent feature of modern societies. Areas of research relating to ethnic communities could include measuring the incidence of psychosis, access to and engagement with treatment, and research about healthcare inequalities among these populations. Audit and research could act as a catalyst for service development in this area, which should be considered a priority. Such service development could include provision of culturally appropriate psychosocial interventions, peer support workers with training in cultural issues, and the provision of culturally appropriate information leaflets and online resources in a broad variety of languages. Some of these could be considered as projects to be delivered at a national level and should include immigrant organisations and service users during development.

11.12 Transitions and Discharge Planning

11.12.1 Introduction

The Model of Care recommends that the EIP programme be provided for up to three years, with the EIP Keyworker and consultant psychiatrist being involved with the service user and their family as appropriate throughout this period.

Transfer of care for the service user may take place for many reasons, including:

(a) Age

(b) Change of domicile

(c) Requirements for other specialist mental health services (e.g. Rehabilitation, Addiction, Forensic Services)

(d) Service user transitions between public and private mental health service providers and service-user preference

11.12.2 Transfer of Care Between Adult Mental Health Services

In all such cases, the over-riding concern should be meeting the mental health needs and wishes of the service user in the most appropriate setting, with adequate time given for planning, communication and joint meetings to ensure a seamless transition of care.

The EIP Keyworker has a pivotal role at the time of transition to co-ordinate all stages of the process in order to:

(a) Co-ordinate the discharge process with the treating team and relevant agencies

(b) Ensure all documentation is up to date and completed

(c) Co-ordinate planned handover (ideally face to face) to follow-up agencies with all the appropriate documentation and care plans outlining recommendations for future management and relapse prevention. This ideally should occur at a care planning/transfer of care meeting with the service user, carer, EIP Keyworker, registrar/consultant, health and social agencies involved and the clinicians responsible from the new service.

11.12.3 Transitions from CAMHS to Adult Mental Health Services

The seamless transfer of care from the CAMHS to the AMHS is particularly sensitive for the service user and their family/carers. Most adolescents have a poor experience of transferring from CAMHS to AMHS, and many fall between the gaps (Singh *et al*, 2010). Well-documented guidelines are available (Singh *et al*, 2008) and local services must have agreed local protocols in place to address this in an active and positive manner. The consultant psychiatrists and EIP Keyworkers from both CAMHS and AMHS need to have good communication with joint care planning meetings to agree how this can best be achieved for each service user and their family/carers. An agreed timeframe of three to six months should be standard for this transition process. The best interests of the service user with psychosis should be the central consideration, with some flexibility of service provision to facilitate this, if required.

11.12.4 Discharge Planning from the EIP Service

Discharge planning should be considered even from the very start in the EIP service. This will ensure that service users and carers are able to consider their options for follow-up after the three years with the service. It should include all members of the MDT involved in a service user's care and be concluded well in advance of the discharge date. It should be decided upon collaboratively with the service user and carer as part of a formal review of their individual care plan.

The discharge should include a comprehensive 'episode' summary of the course of illness, complications, care and treatment provided, outcomes, and recommendations for the future. This should be forwarded to follow-up services (such as primary care) and service users should routinely receive a copy for their own records. This may not be necessary in the hub & spoke model where a more seamless transition of care to the community mental health team might involve the same staff - e.g. when the same consultant psychiatrist provides follow-up.

If the service user has made a good recovery and has not experienced a relapse after three years of treatment, in most cases it will be appropriate to discharge back to primary care with recommendations for long-term prevention of relapse. This occurs for approximately 40 per cent of service users with FEP (Power *et al*, 2007b).

Otherwise, follow-up after the EIP service should be transferred to the local adult mental health team, if the service user has experienced at least one relapse, has not achieved full remission, or poses a high risk of relapses. Service users with treatment-resistant psychosis may be transferred to specialist rehabilitation/recovery services possibly earlier than the standard three-year engagement with the EIP service, as clinically indicated.

Unplanned discharges may also occur throughout the three-year period. It is very important that the service user be given another opportunity to engage with and benefit from the EIP service available. This also applies to those who may have difficult social circumstances such as homelessness, as well as those in custodial settings which have reduced their ability to participate in a structured EIP service.

CHAPTER 12: MODEL OF CARE – GUIDELINES FOR INDIVIDUALS WITH AN AT-RISK MENTAL STATE (ARMS)

12.1 Introduction

The EIP Model of Care recommends establishing a specialist ARMS assessment clinic on the basis that there is sufficient evidence to demonstrate that it is possible to identify help-seeking services users who are at ultra-high risk of developing a psychotic illness within the subsequent two to three years. However, beyond standard clinical care, there is little evidence base for specific EIP interventions for these service users. The EIP Model of Care therefore recommends that ARMS service users receive follow up monitoring for two years by their CMHT/CAMHS team (not the EIP team). The numbers involved are small (see section 14.3.11).

If initial triage or initial assessment (Chapters 9 & 10) reveals that a person (aged 14-35 years old) may not be experiencing first-episode psychosis (FEP) but instead an At-Risk Mental State (ARMS), he/she should be referred to the CMHT/CAMHS team first (in the case of hub & spoke the person will already be registered with their CMHT/CAMHS at the spoke). Once registered with the CMHT/CAMHS, the specialist ARMS assessment can proceed.

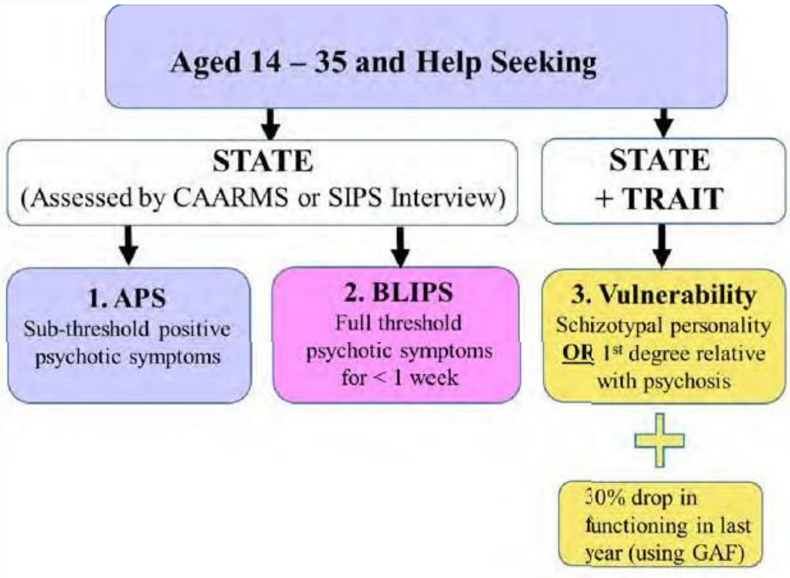
This specialist ARMS assessment should be located ideally in a tertiary clinic located at the hub/CHO and run by senior clinicians with specialist training in diagnosing ARMS. These assessments should be undertaken promptly and, if ARMS is confirmed, appropriate interventions should be offered by the adult CMHT or CAMHS.

12.2 What is an At-Risk Mental State (ARMS)?

Having an ARMS carries a 30 per cent risk developing a psychotic disorder within the following three years (Fusar Poli *et al*, 2012). It is defined by the following criteria, called the PACE criteria. This is limited to young people who are aged 14-35 years of age, are clinically unwell, and are help-seeking. They must be experiencing at least one of the three features outlined in Figure 19 below.

ARMS can be assessed using semi-structured interviews such as the CAARMS (Yung *et al*, 2005) and the SIPS (Miller *et al*, 2003). It is important to note that these criteria and the assessment interviews have only been validated in a clinical help-seeking population of young people (aged 14-35) and there is insufficient evidence base for their application in younger or older individuals or in a non-clinical population of young people (aged 14-35). These ARMS criteria have been developed with schizophrenia in mind and not specifically for other forms of psychotic disorder such as affective psychoses (see below) or for other age groups such as older adults. There have been attempts to develop similar measures in bipolar disorder – e.g. the Bipolar At-Risk criteria (Bechdolf *et al*, 2014) - but these are as yet experimental (see section 2.1.4).

Figure 19: The PACE criteria for an At-Risk Mental State



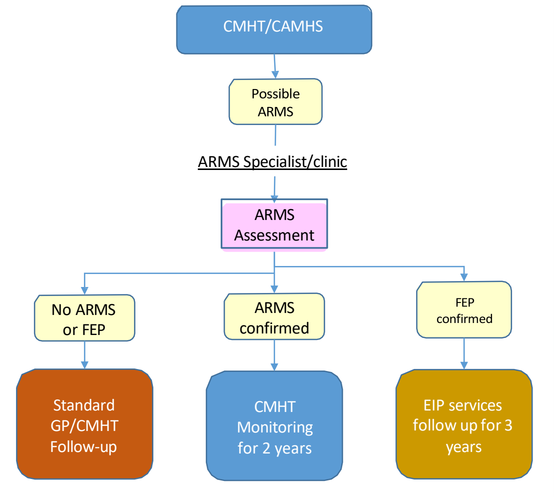
There are other limitations to relying on ARMS. Not enough is known about its use in other mental health disorders (e.g. Anxiety and Mood Disorders, Emotionally Unstable Personality Disorder) where a substantial minority also experience psychotic features. For example, 25 per cent of those with anxiety disorders have at least fleeting psychotic-like experiences (Kelleher *et al*, 2017). However, for the present, the ARMS criteria are the most commonly used system internationally and the one recommended in the EIP Model of Care.

12.3 Clinical Pathway for Individuals with ARMS

As noted in the introduction above, all referrals should be made once the service user has been (a) assessed and FEP has been ruled out, and (b) registered for follow-up by their CMHT/CAMHS. This is to ensure that service users are not lost to follow-up or fall between two services. The ARMS assessment is a specialist tertiary assessment only and there are three main outcomes (see Figure 20 below).

Because of the estimated small numbers of referrals for ARMS assessment (5-10% that of referrals with FEP), this specialist assessment service is best located in a clinic located at a hub and serving a region the size of a CHO. This clinic might operate one or two sessions a week depending on the number of referrals. The clinic should be staffed by senior clinicians with special expertise and training in ARMS assessments. These clinics should be consultant-led, with assessments carried out ideally in pairs (one clinician interviewing the service user and the other interviewing the family - this is essential with younger service users). The consultant then should review the conclusions with the assessors and decide on recommendations before providing feedback to the service user and the family. This may include a review ARMS assessment in six or 12 months. The ARMS assessment will generally take about three hours to complete.

Figure 20: Care pathways for those with ARMS



The consultant psychiatrist for the relevant CAMHS or AMHS CMHT retains overall clinical responsibility for the service user with suspected ARMS throughout this process. It is essential that there be good communication and feedback from the ARMS assessors and the referring team/consultant regarding recommendations. The service user should be reviewed promptly by the treating team as soon as possible after the assessment.

Service users diagnosed with ARMS should be followed up by the CAMHS or AMHS community mental health teams for a two-year period and provided with appropriate clinical interventions. Younger service users with ARMS often have complicating co-morbid conditions such as developmental and emerging personality disorders; these should be addressed as required. Family members/carers should be involved throughout their follow-up. If the service user develops psychosis over the two-period year, he/she should be referred and engaged with the EIP Keyworker and EIP service.

If the service user referred for ARMS assessment does not meet the criteria for ARMS, then referral back to the appropriate AMHS or CAMHS CMHT also occurs. Depending on the mental health needs, they may then be discharged to their GP or receive clinical interventions in secondary care for a period, as decided by the consultant psychiatrist.

Where a specialist assessment service for ARMS is not available, such service users should be followed up by the AMHS or CAMHS community team if there is a clinical suspicion of ARMS.

After two years, the decision is made to discharge to primary care or to continue with mental health services, depending on the identified mental health needs.

12.4 ARMS Assessment Tools

ARMS status is assessed in full accordance with EPA guidance (2013) on early detection of psychosis. The screening assessment tools recommended are:

- the Comprehensive Assessment of At-Risk Mental State (CAARMS);
- the Structured Instrument for Psychosis-Risk Syndrome (SIPS);
- the Scale for the Assessment of Negative Symptoms (SANS).

Assessments should include a comprehensive assessment summary, outlining the nature and extent of the psychosis risk, and the contributing factors identified, along with recommendations for reducing the risk. This should be communicated in full to the service user and carers. The report should be made available promptly to the follow-up clinicians (including the GP) to ensure that any interventions recommended are provided quickly and the risk of deterioration is monitored closely.

12.5 ARMS Treatments

The recommendations for early intervention in ARMS outlined here are derived from the current evidence base and are in line with the European Psychiatric Association treatment guidelines (EPA, 2013):

http://www.europsy.net/wp- content/uploads/2013/11/2.-EPA-Guidance-on-the-early-intervention-in-clinical-high-risk-states-of-psychoses.pdf

12.5.1 Non-Specific Interventions

Given the high levels of co-morbidity in service users with ARMS, it is essential that service users receive good, evidence-based clinical care and treatment of these conditions. Interventions should not be limited to preventing the development of psychosis. They should be multidisciplinary in nature and aim for optimum psychosocial recovery, involving carers throughout the process.

A recent large meta-analysis highlighted the importance of cannabis use in service users with ARMS. It is recommended that cannabis use be targeted as a significant risk factor for ARMS and psychosis (Carney *et al*, 2017).

12.5.2 Monitoring for Emerging Psychotic Symptoms

Treating clinicians should regularly monitor ARMS features and, if they fail to remit over the following year, a repeat ARMS assessment may identify the reasons why and what interventions might be indicated.

If psychosis does emerge during the two-year follow-up, the service user should be promptly referred to the EIP service. There is good evidence that ARMS services can reduce the DUP markedly through such monitoring and thereby reduce admissions and improve outcomes (Valmaggia *et al*, 2015)

12.5.3 Specific Psychological Interventions for ARMS

Cognitive behavioural therapy (CBT) has been shown to significantly reduce transition rates from ARMS to psychosis (Hutton *et al*, 2014) and for the effect to be sustained at 12 months' follow-up. Typically, the courses of CBT in ARMS service users should consist of at least 15-30 sessions and be offered for a minimum of 12 months. Another intervention recommended is cognitive analytic therapy (CAT). A number of treatment manuals have been published, including one of the 24 manuals produced by Orygen (e.g. *A Stitch in Time: Interventions for Young People at Ultra-high Risk for Psychosis*'; https://www.orygen.org.au/Education-Training/Resources-Training). There are also several handbooks such as *The Recognition and Management of Early Psychosis* (Jackson & McGorry, 2009), *Psychological Interventions in Early Psychosis: A Treatment Manual* (Gleeson & McGorry, 2004) and *Promoting Recovery in Early Psychosis* (French *et al*, 2010) (see recommended reading list in Appendix 2).

12.5.4 Specific Medication Interventions

The routine use of antipsychotic medication is not recommended as a first-line treatment as in some studies psychological interventions have been shown to be as effective and more enduring. However, when psychological interventions are not proving beneficial or when attenuated psychotic/BLIP symptomatology is worsening, low-dose second-generation antipsychotics should be used for a limited duration and be provided in combination with CBT (see above). Long-term antipsychotic treatment with a primarily preventive purpose is not recommended.

Preliminary trials of Omega-3 fish oils reported significant and sustained reductions in the rate of transition to psychosis in service users with ARMS (Amminger *et al*, 2010). However, the most recent multicentre study has replicated these findings. The recommendations for Omega – 3 fish oils remains controversial.

Co-morbid mental health conditions should be treated using recommended medication guidelines but certain medications should be used with caution as they have potential to increase the risk of psychosis or mania – e.g. stimulants in those with ADHD and antidepressants or Ketamine in those with a strong family history of bipolar disorder.

CHAPTER 13: SELF-MANAGEMENT AND SERVICE-USER JOURNEY OF RECOVERY THROUGH THE EIP SERVICE

13.1 Introduction

Self-help, self-management and health literacy are key components of illness recovery and improved clinical outcomes. For example, service-user education and shared decision- making has been associated with service-user enablement, satisfaction, better coping and adherence to treatment both across healthcare (Adams, 2010) and, specifically, in the mental health arena (Hamann, 2006).

Traditionally, there has been a trend of poor help-seeking and engagement by young people in particular in mental health services (Biddle L, 2004). There is a need for greater public awareness and a reduction in stigma regarding mental health and mental illness. Encouraging help-seeking behaviour and reducing health system delays, as outlined in section 10, are key to engagement and early detection for people with psychosis or an ARMS.

The Model of Care highlights the primacy of the service user in their engagement and active involvement with the EIP service where the emphasis is on recovery, as defined by the service user him or herself.

13.2 What is Recovery?

According to the World Health Organisation (WHO), the concept of recovery has become the dominant model for mental health systems internationally in the 21st century.

> *"Recovery is a deeply personal unique process of changing one's attitudes, values, feelings, goals and/or roles. It is a way of living a satisfying, hopeful and contributing life even with the limitations caused by illness. Recovery includes the development of new meaning and purpose in life as one grows beyond the catastrophic effects of mental illness."* (Anthony, 1993).

Recovery represents a positive, hopeful outlook for persons dealing with mental health challenges. It is not just about clinical recovery, such as a reduction of symptoms, important though that can be. It is also about personal recovery where a service user can use their own innate strengths to build or rebuild a meaningful and contributing life. It is not just clinical recovery. It includes learning from, emotionally processing and adjusting to the experience in order to move on with one's life and protect oneself from it happening again (Power, 2017).

A recovery-oriented mental health service emphasises the expectation of recovery from mental ill health and promotes both enhanced self-management for mental health service users and the development of services that facilitate the individual's personal journey towards recovery (Mental Health Commission, 2005).

The recovery ethos of mental health services in Ireland is underpinned by the HSE Mental Health Management in its service planning and support of Advancing Recovery in Ireland (ARI), a national initiative aimed at bringing about the organisational and cultural change in mental health services that support a recovery orientation.

The development of the 'National Framework for Recovery in Mental Health 2018-2020' is a further step in ensuring the provision of recovery-oriented services in Ireland. A recovery-oriented service is built on a culture of hope and expectation that a person can recover from their mental health challenges and build a fulfilling life of their choosing. Such a service is outward-looking, engaging with all the aspects and supports that will constitute and sustain recovery in an individual's life.

A recovery-oriented service adopts the following principles:

(a) The centrality of the service user's lived experience

(b) The co-production of recovery-promoting services between all stakeholders – i.e. service users, family members/carers, mental health service providers and the voluntary/community sector

(c) An organisational commitment to developing recovery-oriented mental health services

(d) Supporting oriented learning and practice across all stakeholder groups

From the time of initial engagement with service users to diagnosis, treatment and support, EIP mental health services should be considered in terms of how far they support and help the person "to do the things they want to do and lead the life they want to lead" (Davidson, 2006). Slade *et al* (2011) identified key elements of recovery from the service user's perspective as connectedness, hope, identity, empowerment and having a meaningful role.

Recovery is not confined to the service-user experiencing mental health difficulties. It can, and often is, a journey that family members/ carers also undertake.

13.2.1 Principles for Self-Management and Recovery

For the EIP Model of Care, the following principles are key to self-management and recovery:

- The service user is enabled and supported to take responsibility for informed decisions in relation to the care and treatment provided. Key to this is the provision of information at every stage, from initial engagement throughout the assessment process and for interventions offered throughout the three years of the EIP. This needs to be tailored to the mental health needs of the service user and should be reviewed on an ongoing basis.
- Relationships are developed between service users and service providers based on mutual respect and a partnership approach.
- A focus on strengths, solutions, health and wellness of the service user is central.
- Working towards personal goals as identified by service users. This includes housing, education/training/employment, involvement in community activities, etc.
- Including family/carers/others as identified by the service user as partners in care and treatment.
- Involving service users (and family members/carers) in the planning, evaluation and training components of the Model of Care.

13.3 The Service User's Journey Through the EIP Service

A core value of the national programme for early intervention in psychosis, as with other recently promulgated HSE care models in respect of mental health challenges of a different kind, is that the Model of Care will provide the opportunity and environment for early intervention – ideally, in the prodromal or ARMS stage. The objective is to ensure that those in the prodromal stage, if such can be identified, or who have a first psychotic episode are given the best possible early care so that their outcomes can be optimised. At the heart of such a model resides the belief that, if implemented consistently, recovery that is meaningful for the service user is achievable.

This is an important point as, traditionally, for example, some of the positive symptoms of psychosis (such as hearing voices) have been seen as a feature that has to be addressed or suppressed. The Hearing Voices Network in Ireland has found that suppression is not always appropriate and, in circumstances where the voices are not threatening to the service user, can, in fact, be a useful tool to work with in the recovery process.

The staged approach of ARMS and, then, the formal EIP approach are seen to be optimal from the service-user perspective provided these stages, where relevant, can be implemented across all nine CHO areas, consistently with the primacy of the hub & spoke model and the provision of properly trained staff to provide the necessary engagement and clinical interventions.

The crucial role of the EIP Keyworker highlighted in the Model of Care at various points cannot be underestimated. What is most important to the service user is that he or she has a reliable, informed and trained contact point throughout the journey. Moreover, such a contact point can be a valuable resource to family members or other supporters where the service user provides consent for this. Even where confidentiality is invoked, the EIP Keyworker should be able, at the very least, to listen to what families have to say about the experiences they have had in relation to the service user they are supporting. Often family members have felt that the face presented by their loved one to the services is not the face they experience themselves. Finally, invoking confidentiality (by the service user or clinician) does not have to be a 'once and for all' decision. In other jurisdictions, for example, mental health services have indicated that it should be revisited sensitively on occasions where the service user may have begun to recover and see the benefit of family or supporter involvement.

The experience of the EIP Keyworker concept in the wider mental health services in Ireland has been patchy at best. All the more reason, then, to take the opportunity that this new national Model of Care presents to place the EIP Keyworker at the centre of care for, and with, the service user.

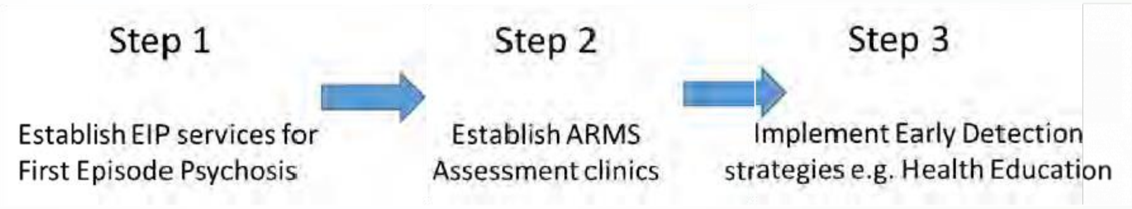
CHAPTER 14: PLANNING, STAFFING, TRAINING AND OTHER REQUIREMENTS TO DELIVER THE EIP PROGRAMME

14.1 Introduction

The EIP Model of Care will require substantial start-up investment funding. All those involved in developing this model are aware of the many demands on the Exchequer and the limited funding available for mental health service provision, as well as the current recruitment challenges. However, to be successful, this national clinical programme must be realistically funded.

A staged implementation plan is recommended over several years to allow each stage to consolidate before introducing the next stage (as each subsequent stage will affect the preceding stages). This would begin with funding initially for those who present with a first episode of psychosis (FEP) followed by funding of assessment services for those with an At-Risk Mental State (ARMS), and then progressing to include Early Detection components (e.g. educating refer ers).

Figure 21: Staged implementation of EIP strategies

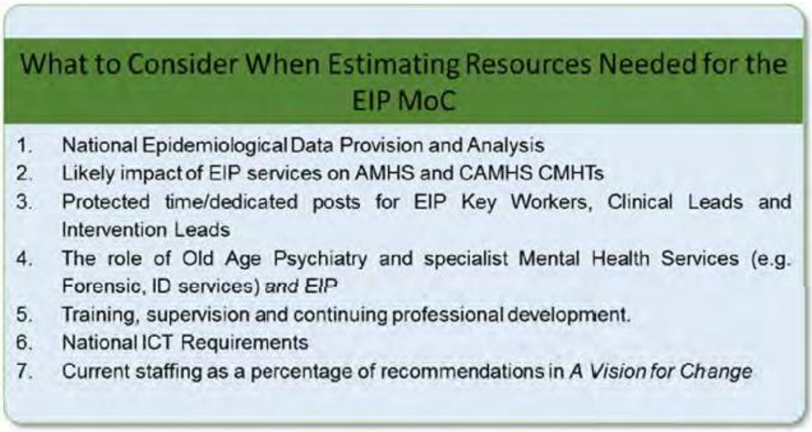


Detailed plans for a phased rollout of EIP services will need to be developed by the HSE at national and CHO levels, taking account of the issues outlined in this chapter.

When this clinical programme is resourced and established, there will be substantial savings because of better outcomes and reduced demands downstream on inpatient and continuing care services. However, these savings will take several years to realise. The clear economic rationale and economic evidence base for EIP investment (as outlined in section 3.3) is now internationally accepted. EIP services, once established, will pay for themselves. At the same time, they will provide improved outcomes and better meet the needs of service users and family/carers. It is a clear case of the advantages of an 'invest to save' programme. Staffing estimates in this chapter should be read in that context.

14.2 What to Consider when Estimating the EIP Model of Care Resource Requirements

Table 11: Estimating resources



What to Consider When Estimating Resources Needed for the EIP MoC

1. National Epidemiological Data Provision and Analysis
2. Likely impact of EIP services on AMHS and CAMHS CMHTs
3. Protected time/dedicated posts for EIP Key Workers, Clinical Leads and Intervention Leads
4. The role of Old Age Psychiatry and specialist Mental Health Services (e.g. Forensic, ID services) *and EIP*
5. Training, supervision and continuing professional development.
6. National ICT Requirements
7. Current staffing as a percentage of recommendations in *A Vision for Change*

14.2.1 National Epidemiological Data Provision and Analysis

Estimates of the incidence figure for FEP are based on limited data for Ireland as well as the much more comprehensive data available in England and other countries (as detailed in section 3.3). At present, since we do not know the incidence of FEP/ARMS in Ireland, it is not possible to accurately estimate the detailed requirements. We do not have the detailed local data on FEP presentations at either community or inpatient locations of mental health service provision. This is due to the number of ICD/DSM diagnostic groupings in which FEP cases are found and the lack of a comprehensive data system to capture data at local, regional or national levels. There are virtually no data available on the number of ARMS cases presenting to services in Ireland.

A national scoping exercise should be carried out under the direction of the National Clinical Programme Office. This should be undertaken in collaboration with the specialist mental health services. Ideally, it should also be in collaboration with the proposed national EIP networks (see Chapter 17) and might include other research groups. Some of this may be beyond the scope of the NCP office but the exercise should include the following:

(a) Commission a comprehensive national mapping of the statistics for FEP in order to estimate the local incidence of psychosis and make projections for the number of cases for both local (CHO) and national mental health service needs of FEP service users for their first three years of treatment and care (within CAMHS and AMHS separately)

(b) Make projections for staffing needed at local and national level to meet the needs of the caseloads identified in (a) above. Tools have been used in England to estimate the local incidence (e.g. PsyMaptic, see Chapter 2.3) and local EI staffing requirements (e.g. the NHS EIP Workforce Calculator: https://www.myhealth.london.nhs.uk/your-health/psychosis/workforce-calculator/). They would need to be adapted to the Irish context.

(c) Undertake a national audit of current mental health service usage by FEP service users during their first three years of treatment. This audit should include a breakdown of service provision, staffing and costs at local CHO level for both CAMHS and AMHS separately. Additional service demands and costs in sub-specialist mental health services – for example, Forensic, Old Age, Addictions and Learning Disability – also need to be examined.

(d) Identify areas of unmet need not provided for by existing services for people with emerging psychosis, for example prison populations, homeless people, etc

(e) Identify EIP services currently provided by independent/private mental health services

(f) Conduct an audit of current EIP services' fidelity to the EIP model and requirements to provide an EIP service that meets all the standards outlined in the Model of Care. Similar audits have been very helpful in planning EI services in England (Penfold *et al*, 2007).

14.2.2 Choosing the EIP Model Configuration for Each CHO Region

The overall staffing required will depend on the size of the catchment population, the incidence of psychosis locally, based on available data, population density, indices of deprivation, levels of expected co-morbidity, specific identified needs of the local population, the time spent travelling to see service users and their families/carers in the community and in hospital, and the number of clinicians/services already providing EIP interventions. The needs and resources will be virtually the same regardless of the EIP model chosen. The difference will be how each model delivers its own efficiencies depending on its location, the distribution of local population served, and availability of existing services.

14.2.3 Likely Impact of EIP Services on AMHS and CAMHS CMHTs

By setting up a separate standalone service as recommended for urban centres with a population greater than 200,000 the workload for CMHT staff will potentially be reduced. This may produce spare capacity in the CMHTs and inpatient services, providing opportunities to shift resources in the future.

When establishing a hub & spoke model, it is important to note that it is already the 'core business' of existing CMHTs to provide services for those with FEP. However, it is necessary to take into account the large increase in demands that the EIP MoC will place on these CMHTs through the setting of rapid response times, key-working, medical demands with medication and physical health review guidelines, assertive outreach (e.g. shifting engagement rates from 30% to 80%), the requirements in terms of family, psychological and occupational therapy, and lifestyle interventions. These will all need to be adequately resourced. In addition, the EIP MoC will require a substantial change of culture within CMHTs if its goals are to be achieved. This change process will involve leadership as well as education and training of staff in EIP service provision.

The EIP MoC does not at this stage include those presenting with FEP under the age of 14. There is little literature to date about the needs of this small group of service users, but they are likely to be highly complex with high levels of co-morbidity. Until there is a better evidence base to guide EIP services about their particular needs and the best interventions in the special group, the EIP MoC cannot advise on the particular EIP resources required. However, this will be included in the EIP MoC review in three years' time.

14.2.4 Protected Time / Dedicated Posts for EIP Keyworkers, Clinical Leads and Intervention Leads

The Model of Care requires significant changes by the AMHS and CAMHS teams for the hub & spoke model to function effectively and enable the provision of a comprehensive EIP service in a programmatic manner. Leadership, expertise and support will be essential to ensure that this transformational change can occur. The role of the EIP Keyworkers, clinical leads and professional leads are key to the success of the rollout of this EIP national clinical programme. Protected time must be made available for this.

14.2.5 The Role of Old-Age Psychiatry and Specialist Mental Health Services

At this stage, old-age psychiatry and specialist mental health services (addictions, forensic, learning disability, rehabilitation and homeless services) are not included in this national rollout of EIP services. Although there may be a *prima facie* case, there is as yet no evidence base for EI in these specialist services. There are few if any estimates of their particular EIP needs. Also, modifying and integrating EIP interventions for these specific populations is likely to be more complicated and require careful planning.

Before planning a rollout of EIP services for these specific populations, it is therefore essential to:

(a) Undertake a review of the international literature and source examples of EIP services in these specialist areas

(b) Establish a scoping exercise to determine the number of FEP cases and the service needs of those attending these specialist services

(c) Provide estimates of the service requirements and funding needed to provide the EI components to these specialist service-user populations

14.2.6 Training, Supervision and Continuing Professional Development

Details of the extensive general and specific requirements are outlined in Chapter 15. Dedicated funding is required at national, CHO and hub & spoke/standalone service provision level to facilitate this. This should be ring-fenced and provided on an ongoing basis. Initial seed funding will also be required.

Video and teleconference facilities to facilitate training locally, regionally and nationally will be required and will be cost-effective.

14.2.7 Collaboration with other HSE Clinical Programmes, Statutory and Voluntary Agencies

Collaboration with other HSE National Clinical Programmes (NCPs) is necessary to deliver an integrated model of care, with education, joint training and continuing professional development across the following clinical programmes:

1. Mental Health - Dual Diagnosis, Self-Harm, and Eating Disorder
2. Health and Wellbeing / Population Health
3. Primary Care
4. Emergency Department / Acute Medicine

In addition, such collaboration with other statutory and voluntary organisations working in the mental health area and with young people must be supported by joint education and training, collaborative working and clear pathways of care (e.g. student mental health services and Jigsaw).

14.2.8 National ICT Requirements

To enable the HSE EIP National Clinical Programme to measure its impact and progress in relation to the stated aims of quality, access and cost-effectiveness, it will need to have the ability to evaluate itself at local, CHO and national levels. To do this effectively will require the systematic, comprehensive and feasible collection of activity and clinical data.

Ideally, a dedicated HSE Early Intervention in Psychosis website would provide an efficient resource for information, education and training purposes (e.g. standard protocols), as well as providing a valuable reference point for service users and their family/carers (e.g. local service details, support groups, resources, etc). One of many options is to link this HSE website to other websites such as the Irish Psychosis Research Network (IPRN) website where similar and complementary information (e.g. research studies, news, latest findings, etc) is already available. Good examples of such websites include the DETECT website (www.detect.ie) and the Orygen website (www.orygen.org.au), with links to clinical services, training, research, support groups and resource material.

14.3 EIP STAFFING REQUIREMENTS

14.3.1 Introduction

The basic staffing requirements for EIP services will be almost the same regardless of whether the EI service is a hub & spoke or a standalone EIP model, if all of the EIP components are to be resourced properly. The difference depends on what is already being provided for FEP service users (i.e. treatment-as-usual) by existing AMHS and CAMHS services and how much more resources they require to meet the EIP staffing requirements (assuming that the *A Vision for Change* levels are already in place).

The successful implementation of this will require considerable investment to meet international standards for EIP service delivery. Essential to this is to get it right from the start by appointing or identifying key personnel such as the consultant psychiatrist and team coordinator. They will be the culture-bearers and must be involved directly in service planning staff recruitment / selection and orientation, developing protocols, liaising with agencies and setting up systems for service evaluation (see Chapter 17).

The EIP Model of Care does not outline the requirements for inpatient care and treatment for service users with FEP even though most will be hospitalised during their first episode. This is because, in the HSE, some members (e.g. consultant psychiatrists) of the same AMHS team look after service users when in hospital. Where this does not occur, local protocols and service arrangements should be reviewed to ensure that EIP interventions are provided in hospital in accordance with the recommendations of the Model of Care. The EIP teams will be expected to provide in-reach services to their service users when in hospital such as key-working and discipline-specific interventions.

What is important to note is that EI services have been shown to reduce the demands on inpatient care by as much as 30-40 per cent as EIP services become established, though this may take several years to consolidate (Power *et al*, 2007b).

14.3.2 Estimates of Caseloads and New Cases

Until a comprehensive scoping exercise is undertaken (as recommended in section 14.2.1), the following staffing and caseload estimates are based on an expected incidence of 32 new FEP cases per 100,000 population per year, with EIP services providing follow-up for three years (see section 2.3). They also rely on the latest census data (www.cso.ie) for the total population of the Republic of Ireland being 4.76 million.

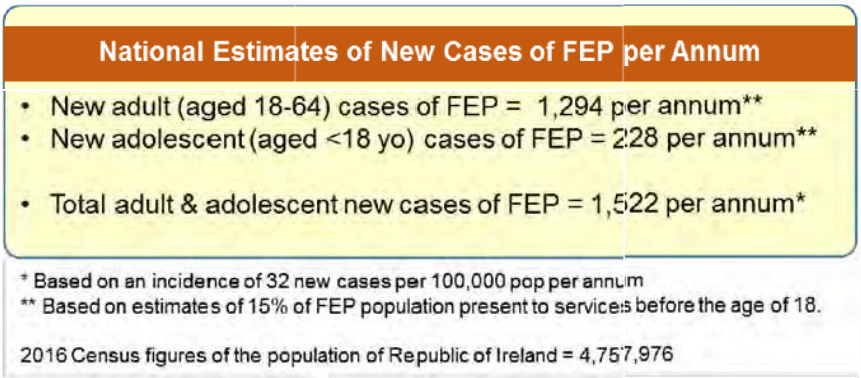
This estimate of 32/100,000/year is an average for the country and is the figure quoted for England by Kirkbride *et al* (2012) and supported by Irish studies by Baldwin *et al* (2005) and Kelly *et al* (2010). Under-18s represent about 15 per cent of this figure – i.e. five of the 32 cases (Singh *et al*, 2003) – but this varies greatly depending on the age and gender of the local population. This needs to be taken into account when estimating local EIP CAMHS needs and staffing.

Another factor that is important to note is there is at least a three- to fourfold variation in the incidence of psychosis at a local level for adults (Kirkbride *et al*, 2017; O'Donoghue *et al*, 2016a). Some of this variation is due to levels of urbanicity. But even within urban areas, three- to fourfold differences in incidence occur between affluent and socially deprived areas (Bhavsar *et al*, 2014; O'Donoghue *et al*, 2016a). And if incidence varies between neighbourhoods, relapse rates are likely to mirror this effect as well (Power *et al*, 2016). Indeed, social deprivation may have more pervasive effects, such as effects on DUP (O'Donoghue, 2016a), cannabis use and lifestyle factors, that affect physical health. The net effect of this is that EIP teams covering these inner urban socially deprived areas are likely to be particularly pressed to manage higher volumes of cases with higher levels of co-morbidities, complications and worse outcomes (O'Donoghue *et al*, 2016b).

Haase and Pratsche (2008) have developed a census-based deprivation index for the Republic of Ireland. Details were published in *Planning for Health: Trends and Priorities to Inform Health Service Planning,* 2016 (HSE, Health and Wellbeing)).The Irish census-based indices can thus be used to replicate the algorithms used in England by Psymaptic (www.psymaptic.ac.uk).

Given these factors, and since the estimates are likely to change over time (e.g. as local population demographics and affluence evolve), the estimates will need to be reviewed regularly by the NCP as the Model of Care is introduced over several years.

Table 12: Number of new cases of FEP each year



National Estimates of New Cases of FEP per Annum

- New adult (aged 18-64) cases of FEP = 1,294 per annum**
- New adolescent (aged <18 yo) cases of FEP = 228 per annum**
- Total adult & adolescent new cases of FEP = 1,522 per annum*

* Based on an incidence of 32 new cases per 100,000 pop per annum
** Based on estimates of 15% of FEP population present to services before the age of 18.

2016 Census figures of the population of Republic of Ireland = 4,757,976

National EIP caseloads will therefore be a little less than three times this annual incidence (assuming a dropout rate of 10%/year during the three-year follow-up). The estimates are:

Table 13: National caseload

National Estimates of EIP Service Caseloads

- National Adult (aged 18-64) EIP Service Caseload = 3,507 cases
- National Adolescent (aged <18) EIP Service Caseload = 618 cases
- Total National (Adolescent & Adult EIP) Caseload = 4,125 cases

The above estimates distinguish between adult and CAMHS requirements. It is difficult to accurately predict the CAMHS requirements as transition to AMHS will often occur when the service user reaches 18 years of age within the three-year follow-up period. Further data are required from CAMHS both for the numbers making the transition at age 18 to AMHS and the number of cases presenting before the age of 14. There is also an argument for the EIP services to continue up to age 18 for adolescents presenting earlier than 15 years of age, since these early onset cases are often more complicated, and moving from the EIP service before age 18 would only introduce another transition before age 18.

The following sections in this chapter outline (a) the generic staffing requirements (b) the estimates for staffing required to provide specific EIP interventions and (c) the overall staffing for EIP services.

14.3.3 *A Vision for Change* and Generic Staffing Requirements for FEP Care

Staffing levels, resources, expertise and the basic provisions of treatment-as-usual for FEP service users vary considerably across the country (see Chapter 5). There are areas of the country that still fall well short of the benchmarks set by *A Vision for Change* (VfC) (DOHC, 2006) recommendations on staffing and resources. The EIP Model of Care is not a substitute for VfC; the recommendations of VfC are as important as ever to achieve. This is particularly relevant to the EIP hub & spoke model which will rely on existing CMHT staff to provide the general services for EIP service users. The hub & spoke EIP model will top up these generic services with additional EIP-specific resources to ensure the delivery of the key EIP interventions outlined in Chapter 11. In the standalone model, the EIP teams will be resourced to provide both the generic and EIP-specific interventions for their FEP service users.

14.3.4 EIP Teams' Multidisciplinary Staffing and Seniority

It is essential that EIP teams be composed of the full complement of clinical disciplines of nursing, medical, psychology, social work, OT, IPS and dietician, as well as administrative and management support. EIP Keyworkers may be from a range of professional backgrounds namely nursing, social worker or occupational therapist professionals. Similarly BFT and CBTp leads may be from a range of clinical backgrounds. EIP teams will have a lead EIP consultant psychiatrist (e.g. based at the hub) as well as an EIP Co-ordinator (with a clinical background) who are responsible for day-to-day management and running of the service, staffing, etc. Each discipline must have its own professional supervision structure but there will be cross-discipline teaching and training.

14.3.5 EIP Medical Staffing Requirements

Adequate medical staffing is essential for the successful and safe operation of EIP services. It will determine the capacity of the service to respond quickly to referrals and manage caseloads. All EIP service users will be under the care of a designated consultant psychiatrist supported by non-consultant medical staff under their direct clinical supervision. In the hub & spoke model, these medical staff may be located at the spokes/CMHTs. In the standalone model, the medical staff must be based within the standalone team. All service users under the age of 18 must be medically managed by CAMHS competent medical staff under the direct clinical supervision of a CAMHS consultant.

Service users with FEP require extra medical interventions and expertise, from initial assessment, investigations, formulation, diagnosis, liaising with carers and prescribing to monitoring, reviewing care plans regularly, and overseeing discharge plans. Physical health monitoring, management and lifestyle advice and interventions will be carried out collaboratively by both mental health service team members, GPs and primary care teams, as outlined in the Model of Care.

As far as possible, FEP service users should remain under the care of one consultant psychiatrist for the duration of their follow-up with the EIP service. They should work closely with EIP Keyworkers, who ideally should attend all their service users' medical reviews so they are kept well informed of their medical management.

The medical caseloads of service users with FEP should be maintained at about 80 cases per medical whole-time equivalent (WTE). This caseload should be a balanced mix of new and follow-up cases; otherwise there will not be capacity to respond quickly to new assessments. If non-consultant doctors are carrying a caseload, this should be reflected in the consultant caseload – i.e. the numbers should be included in the consultant caseload but shouldn't extend beyond 100 cases per consultant WTE.

In addition to this allocation of medical time for clinical roles, non-consultant medical staff should have specific time or sessions allocated for training and supervision needs. For consultant psychiatrists, adequate time and seniority should be allocated for training, supervision and audit, as well as the specialist roles of the EIP lead consultant.

The EIP consultant psychiatrist lead (regardless of EIP service model) will need adequate allocated time to provide leadership in EIP service development, evaluation (including data management as per GDPR requirements), training, supervision, expert advice, specialist interventions, and management of complex cases.

14.3.6 EIP Keyworker Requirements

The following are estimates based on the core requirement that each EIP Keyworker has a maximum caseload of 15 service users with FEP. The estimates assume that all existing FEP service users will have access to these new services if they are in treatment for less than two years (see Chapter 7). This means that EIP caseloads will quickly reach full capacity by the end of year one of operation. The estimates do not take into account additional requirements for covering EIP Keyworkers on leave. The staffing estimates will also need to be confirmed by a national scoping exercise (see section 14.2.1 above).

14.3.6.1 Adult Mental Health Services (AMHS) EIP Keyworker Estimates

The table below calculates the EIP Keyworker WTEs and number of cases per EIP service (in brackets) each year for the first three years until the EIP team reaches a steady state after that. This is based on an expected incidence of 27 new adult FEP cases (aged 18-65) per year for an adult population of 100,000, a follow-up period of three years (assuming a drop-out rate of 10% per year of follow-up) and a caseload of 15 cases per full-time EIP Keyworker.

Table 14: EIP Keyworker WTE (and caseloads) - for adult teams

Fully Operational	Adult Sector team (population 50,000)	Hub & spoke/standalone team (pop 200,000)
After 1st year of operation*	**2.5 WTE (37 cases)**	**10 WTE (148 cases)**

Based on an annual number of 27 new adult cases per 100,000 population per annum and receiving EIP service for 3 years.

**All existing FEP cases attending MHS for less than 2 years will be eligible within the first year for EIP services.*

14.3.6.2 CAMHS EIP Keyworker Estimates

For a CAMHS service covering a population of 200,000 (with an incidence of 5/100,000 FEP cases per year of under 18-year-olds), the EIP Keyworker WTE requirement (and cases) is calculated in Table 15 below (assuming a caseload of 15 per EIP Keyworker and a 10% dropout rate per year).

Table 15: CAMHS EIP Keyworker estimates (and caseloads) - for CAMHS team covering 200,000 pop

Years of operation	CAMHS team (population 200,000)
After 1st year of operation*	**1.8 WTE (27 cases)**

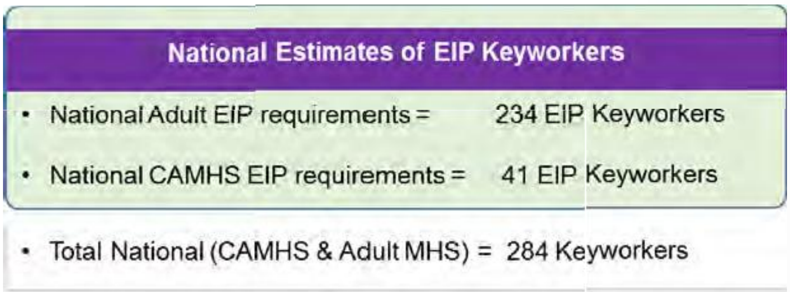
Based on 5 new adolescent cases (aged <18) per 100,000 population per annum and receiving EIP service for 3 years.

**All existing FEP cases attending MHS for less than 2 years will be eligible within the first year for EIP.*

14.3.6.3 National Total Estimates for CAMHS and AMHS EIP Keyworkers

Rolling out the above estimates nationally (population 4.75 million), and assuming a drop-out rate of 10 per cent per year, the estimated annual number of new adult cases would be 1,294 cases, resulting in a caseload (after the first year of operation) of 3,507 adult service users with FEP. That will require 234 EIP Keyworkers nationally.

Table 16: Summary of national requirements for EIP Keyworkers



National Estimates of EIP Keyworkers

- National Adult EIP requirements = 234 EIP Keyworkers
- National CAMHS EIP requirements = 41 EIP Keyworkers
- Total National (CAMHS & Adult MHS) = 284 Keyworkers

Similarly, for adolescents (under-18s) with FEP, the estimated number of new adolescent cases annually will be 228 nationally, resulting in a total national caseload (assuming a drop-out rate of 10% per year) of 618 adolescents with FEP, requiring a total of 41 EIP Keyworkers in CAMHS. Table 16 summarises the national estimates. The estimates also assume that the size of the population at risk will remain the same and the incidence of psychosis will not change.

14.3.7 Cognitive Behaviour Therapy for Psychosis (CBTp) and Other Psychological Interventions

CBTp is one of the core EIP interventions recommended by NICE from a range of psychological interventions recommended in FEP (see Chapter 11). NICE recommends that CBT therapy should be available to all service users with FEP and that it should involve about 16 to 25 sessions. Briefer forms of CBTp (less than 16 sessions) should be provided on a case-by-case basis (depending on clinical indications). In EI services (in the UK) where CBTp is available, there is about a 30-40 per cent take-up rate by service users. To provide for this, it is estimated that would require one CBTp therapist for 77 cases. For a caseload of 148 (see Table 17), one CBTp therapist and one clinical psychologist/senior CBTp supervisor would be needed.

Other psychological interventions recommended in the Model of Care (see Chapter 11) include cognitive remediation and social skills training. These would be delivered by clinical psychologists, the EIP psychology lead, and therapists with specific training in that intervention. Lower-level cognitive-oriented therapies, such as relapse prevention therapy, would be provided by EIP Keyworkers trained in these therapies.

In hub & spoke EIP services, the lead for psychological interventions will be located at the hub while CBTp therapists could be located either at the spokes or hubs or both depending on local service configurations and geography. In standalone EIP services all levels of CBTp therapy will be located within the one EIP standalone team.

Table 17: CBTp and psychology requirements for EIP services covering population of 200,000

	EIP hub & spoke/standalone EIP CBTp requirements (population: 200,000)*	CAMHS EIP CBTp requirements (population: 200,000)*
CBTp therapist	1.0 WTE	0.5 WTE
Clinical psychologist/ CBTp lead	1.0 WTE	0.5 WTE

**This is based on a team caseload of 148 EIP cases in adult EIP services and 27 CAMHS EIP cases. Assuming an average of 16 CBTp sessions for 25% of adult cases (47/148)and 85% of adolescent cases (23/27). Clinical psychology WTE is for psychology assessments, other interventions and complex cases.*

14.3.8 Family Interventions

A range of family support, education and interventions are identified in the Model of Care to address the needs of service users and families/carers. Members of the CMHT multidisciplinary team already work, in many cases, with family members/carers to provide support, education and family work as well as signposting to services and voluntary groups in the community. Nurses, social workers and family therapists on multidisciplinary teams as well as EIP Keyworkers should lead out on these interventions. The uptake rate for these interventions is about 50 per cent of service users' families and carers .

The HSE Mental Health Division has supported training to provide single family intervention and behavioural family therapy (BFT) for all service users with FEP and their families/carers. To date, this has been done within existing resources, with external training and supervision provided by Meriden in the UK (www.meridenfamilyprogramme.com). Developments up to now have relied on the enthusiasm, commitment and goodwill of local clinicians, with line manager support.

With the development of the EIP Model of Care, specific resources will need to be allocated (see below) to ensure sustainable and equal access to family interventions.

Table 18: BFT clinician requirements for EIP services covering population of 200,000

	EIP hub & spoke/standalone EIP BFT requirements (population: 200,000)*	CAMHS EIP BFT requirements (population: 200,000)*
BFT Clinician	1.0 WTE	0.4 WTE
BFT Lead/Social Worker/Family therapist	0.7 WTE	0.3 WTE

**This is based on a team caseload of 148 EIP cases in adult EIP services and 27 CAMHS EIP cases. Assuming a 50% take-up rate on family interventions (including BFT) for adult FEP cases and 100% take-up rate for adolescent FEP cases*

14.3.9 Occupational Therapists

OT caseloads and staffing are based on the premise that most FEP service users will require OT services (Lloyd *et al*, 2008) and about five sessions for assessment and interventions. OTs in EIP services will need to link closely with IPS specialists in following through on their clinical recommendations for work, education and rehabilitation (see Role of OT in Appendix 1).

In hub & spoke EIP services, OTs will be located within generic AMHS and CAMHS teams but have designated time allocated to EIP service users and EIP team meetings. In a standalone EIP team, these staff will have designated time with and function as an integral part of the standalone team.

Table 19: Occupational therapy (OT) requirements for EIP services covering population of 200,000

	EIP hub & spoke/standalone EIP OT requirements (population: 200,000)*	CAMHS EIP OT requirements (population: 200,000)*
Occupational therapist	0.7 WTE	0.3 WTE

**This is based on a team caseload of 148 EIP cases in adult EIP services and 27 CAMHS EIP cases. Assuming a 70% take-up rate on OT interventions for adult FEP cases and 100% take-up rate for adolescent FEP cases.*

14.3.10 Individual Placement and Support Specialist

The Model of Care highlights the importance of individual placement and support (IPS) employability specialists in supporting EIP service users in achieving a good recovery and reintegrating back into society.

IPS specialists are not clinicians, and come from an employment support and advice background. They should have additional training in education support (see Appendix: Role of the IPS Specialist). However, they will rely on OTs and other EIP clinicians for advice and recommendations about service users' functional ability, expected recovery, supports required and limitations (e.g. capacity to drive, operate machinery, special needs in education, etc.).

Specific resources need to be allocated to EIP services for IPS specialists who will work mainly with adult EIP services. Most adolescent FEP service users will be too young (and in some cases too complex clinically) to require their services and instead may require additional support from school, college or career guidance/educational psychologists and occupational therapists.

In hub & spoke EIP services, IPS specialists will be located within generic AMHS and CAMHS teams but will have designated time allocated to EIP service users and to EIP team meetings. In a standalone EIP team, these staff will have designated time with and function as an integral part of the standalone team

Table 20: IPS requirements for EIP services covering population of 200,000

EIP hub & spoke/standalone EIP IPS requirements (population: 200,000)*	
IPS Specialist	1 - 2 WTE*

This is based on a team caseload of 148 EIP cases in adult EIP services.

**WTE provision should be double in areas of high unemployment and educational challenges.*

Table 20 outlines the IPS staffing allocation. This is based on the estimated uptake of this intervention: approximately 40 per cent of service users with FEP. The expected capacity would be a caseload of 25 cases per IPS worker. In areas with more deprivation, unemployment and educational challenges, up to double the number of IPS specialists will be required for the same EIP caseload (see Table 20).

14.3.11 Staffing Requirements for an ARMS Assessment Clinic

An ARMS specialist/lead (0.5 WTE) is required in each EIP service, with availability of AMHS and CAMHS clinicians to provide specialist joint tertiary assessments with the ARMS lead for the population served by hub. These ARMS and CAMHS staff would need protected time for ARMS assessments. Each ARMS assessment takes about 3-4 hours to complete, and should be conducted in a clinic and under the supervision of a consultant psychiatrist with expertise and training in ARMS assessments in adults *and* adolescents.

Based on overseas figures from the OASIS clinic in London (Fusar Poli *et al*, 2013) and local data from ARMS clinics in Ireland (Ramsay *et al*, 2015), the expected number of adult referrals (aged 18-35) assessed for ARMS in a catchment area with a population of 200,000 is 50, of which 15 people would meet ARMS criteria. With a 20 per cent conversion rate to psychosis, this would equate to three of the 15 cases converting to psychosis each year. Based on an average incidence of 32/100,000, these three cases represent 4 per cent of the overall 64 FEP cases in that catchment area. This estimate is supported by studies such as Ajnakina *et al* (2017) which reported that 4.1 per cent of FEP cases will have made contact with ARMS services along their pathway into care. With a 10 per cent drop-out rate annually and a two-year follow-up, that would equate to a caseload of 24 cases of ARMS that would need to be managed and followed up by the local CMHT.

Table 21: Expected number of ARMS referrals and cases for an EIP service with catchment area population of 200,000

	Number of new adult ARMS referrals annually (population: 200,000)*	Number of new adolescent ARMS referrals annually (population: 200,000)*
Referrals for assessment/year	56	19
ARMS assessments/year	45	14
Meet ARMS criteria/year	15	10
ARMS caseload	24	18
Cases becoming psychotic/year	5	4

**This is based on an incidence rate of 32 FEP cases/100,000, a follow-up period of 2 years for ARMS, a dropout rate of 10% per year and a transition rate of 20% over 2 years.*

Similar for CAMHS, covering a population of 200,000, the expected number of ARMS referrals (aged 14-17) would be 20 of which 10 would meet ARMS criteria. Again, with a 10 per cent drop-out rate and two-year follow-up, this would result in a caseload of 18 cases of adolescent service users with ARMS that would need to be followed up by the CAMHS service for two years (some will require transfer to adult services during that period if they turn 18 years old).

If the ARMS tertiary assessment clinic is limited to assessments only, the demand for assessments from a population of 200,000 will be about 60 (adolescent and adult) ARMS assessments per year. This equates to about 0.2 WTE ARMS assessors and about 0.05 WTE consultant time.

This clinic should be established as a formal ARMS assessment clinic to ensure good governance and management; informal arrangements are likely to break down.

The AMHS/CAMHS consultant psychiatrist and team have clinical responsibility for following up service users with ARMS for a two-year period, with clinical interventions as indicated. Service users with ARMS should be clearly identified as such and systems should be in place to ensure they are not lost during the two years of follow-up.

14.3.12 Staffing Requirements for Early Detection Training

To reduce health system delays, potential referrers (i.e. GPs and primary care teams as well as acute hospitals, especially emergency departments) need to be well informed about detecting the early signs of FEP and local referral pathways to mental health services. The NCP will encourage a range of information dissemination initiatives to achieve this goal. This will be done in collaboration with EIP services and CHOs. EIP teams will play an active role in the health education of referrers. Engaging primary care in this process and establishing close liaison with EIP services is essential. This will be managed by EIP service team co-ordinators at the local level and supported by health educators at the CHO and national levels.

14.3.12.1 Health Educator

The role of the health educator is yet to be defined in detail. It will not be established until Stage 3 of EIP service implementation so as to ensure that EIP services are up and running effectively first. The EIP MoC recommends that the EIP NCP explore how this important role might be best used and link with referrers, EIP services, CHOs and other public health education initiatives. Particularly important is the background, training, clinical and educational skills and expertise in developing online health information services. Health educators will need to work closely with senior staff in EIP services and with their colleagues nationally so they can pool resources, materials and expertise.

Table 22: Early detection educator requirements

The educator will be a member of the standalone/hub & spoke teams in a CHO
1 WTE per CHO initially, allocated across EIP teams in the CHO

14.3.13 Overall Staffing Requirements for Adult & CAMHS EIP Service

The following is a summary of the overall staffing requirements for the two models of EIP services: (a) the hub & spoke model and (b) the standalone model. It does not include the requirements for ARMS and early detection components (outlined above).

14.3.13.1 Differences in Staffing Between Hub & Spoke and Standalone EIP Services

Both models require similar staffing. However, in the hub & spoke model, some of the EIP staffing requirements are accounted for by existing staffing in AMHS and CAMHS (if staff levels are consistent with *A Vision for Change* requirements) as service users with FEP are already receiving generic services (e.g. medical). Thus, in practice, the extra EIP staffing needed will be to bring VfC levels up to EIP service requirements.

14.3.13.2 Calculating Hub & Spoke EIP Staffing Requirements

The EIP staffing requirement in hub & spokes is the difference between the EIP WTE target for each team member (see Tables 23 & 24) and what WTE is already accounted for by existing team members (assuming *A Vision for Change* staffing levels). If, for example, there is no existing staff member WTE for service users with FEP (e.g. IPS), then the full complement of WTE for IPS will be required. However, if one WTE adult consultant psychiatrist time is already taken up with managing the caseload of service users with FEP, only the shortfall will need to be added to achieve EIP staffing requirements.

Table 23: Estimating therapy whole-time equivalents (WTE)

One family therapist/psychologist/OT can see about 4 patients per day for an hour to 90 mins each. If they do that 4 days a week, that is 16 therapy sessions per week and 736 sessions per year (excluding 6 weeks' holidays).

If the psychologist/CBT therapist sees clients for a total of 16 sessions each, then 1 psychologist/CBT therapist can see 46 clients per year – e.g. 25% of a team's caseload of 150 cases (see Table 24).

If the OT sees clients for 5 sessions each, then that is 147 clients a year – e.g. almost 100% of the caseload of 150 cases (see Table 24).

If the social worker sees families for 10 sessions each, then that is 74 families - e.g. 50% of the team's caseload of 150 cases (see Table 24).

The easiest way to calculate each EIP staff requirement is to estimate the caseload for the EIP service (if possible from data of new cases of FEP in the last year X 3) and then calculate each team member's WTE required based on the ratio of that staff member/team caseload (see Table 23 & Table 24) – e.g. one consultant WTE per 100 cases. If there is only 0.5 consultant WTE for the 100 cases, then the team is short 0.5 WTE of a consultant for their EIP services.

The example in Table 24 (below) is the estimate for an EIP service (either hub & spoke or standalone model) covering a population of 200,000 (served by 4 adult CMHTs and 2 CAMHS teams) with an average incidence of psychosis, drop-out rate of 10 per cent per annum and follow-up for three years. These estimates are derived in part from the NHS EIP Workforce Calculator: www.myhealth.london.nhs.uk/your-health/ psychosis/ workforce-calculator/.

Table 24: Example of EIP staffing (hub & spoke or standalone) 200,000 population (including CAMHS)

	Adult	Ratio***	Adolescent	Ratio***	Total
***Caseloads:**	148		27		175
Staff (WTE)					
Consultant psychiatrist**	1.5	(1/100)	0.5	(1/60)	2.0
Registrar**	1.5	(1/100)	0.5	(1/60)	2.0
EIP co-ordinator	0.7	(1/200)	0.3	(1/90)	1.0
EIP Keyworkers**	10	(1/15)	2.0	(1/15)	12.0

senior/CMN2					
Psychologist**/CBTp lead	1.0	(1/150)	0.5	(1/60)	1.5
CBTp trained staff**	1.0	(1/150)	0.5	(1/60)	1.5
Social worker/BFT lead	0.7	(1/220)	0.3	(1/90)	1.0
BFT trained staff**	1.0	(1/150)	0.4	(1/70)	1.4
OT	0.7	(1/220)	0.3	(1/90)	1.0
IPS (vocational/educational)	1****	(1/75)	-	-	1.0
Dietician	0.2	(1/750)	0.1	(1/300)	0.3
Admin (Grade IV)	0.7	(1/200)	0.3	(1/90)	1.0
Total Whole-Time (WTE) Equivalents	**20 WTE**		**5.7 WTE**		**25.7**

**Based on an EIP service covering a population of 200,000 with an annual incidence of psychosis of 27 adult cases/100,000 and 5 adolescent cases /100,000 with a 3-year follow-up and 10% drop-out each year. Referrals each year of possible FEP adults = 108 (possible FEP CAMHS = 20). Number of new FEP assessments each year of adults = 81 (CAMHS = 15).*

** For hub & spoke model, divide the number WTE by number of spokes to determine each spoke's WTE.*

****Ratio of staff member WTE per team caseload.*

*****In areas of high unemployment and educational challenges, 2 IPS specialists will be required.*

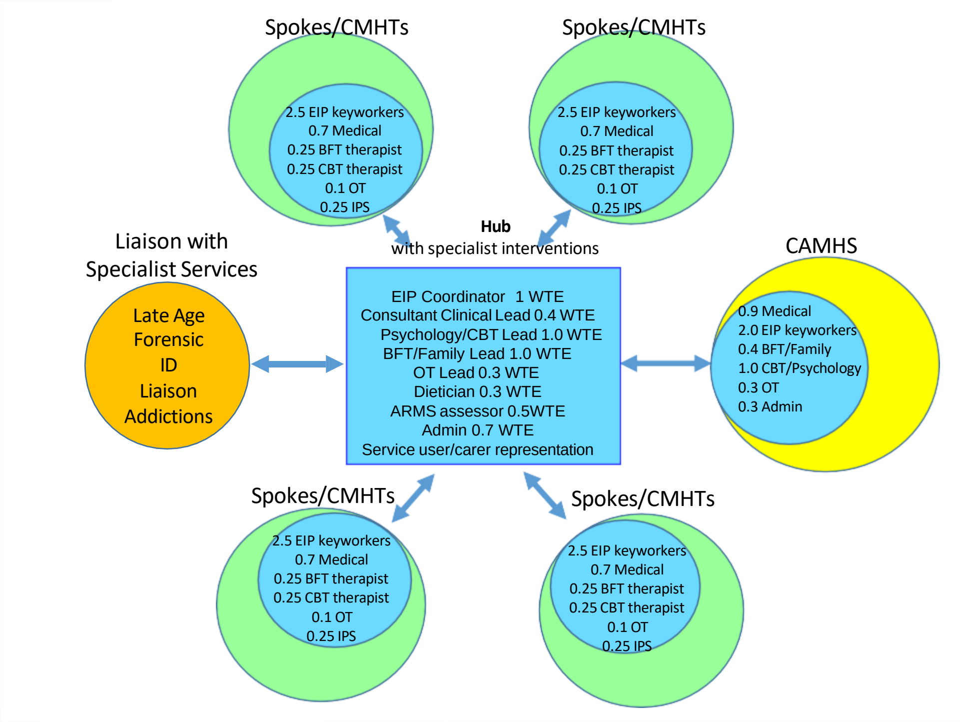
The lead consultant psychiatrist accounts for 0.4 WTE of the overall consultant psychiatrist allocation. In the hub & spoke model, this 0.4 WTE should be 'ring-fenced' and based at the hub. The 0.4 WTE should be taken from the consultant time above from adult and adolescent allocations (0.3 and 0.1 WTE respectively). The rest of the consultant psychiatrist time should ensure that the spokes are resourced sufficiently for consultants to clinically manage their EIP caseload there, including their routine duties.

14.3.14 Distribution of EIP Staff in Hub & Spoke EIP Vs Standalone Services

In the hub & spoke model, some EIP staff (e.g. EIP Keyworkers and medical staff) will be distributed in the spokes while others (BFT leads) will be located at the hubs (see Figure 22). It would be overly prescriptive to suggest where every EIP team member should be located as each locality is unique and needs its own configuration. In standalone services most or all of the EIP team will be centralised in one base.

In hub & spoke teams, spoke staff would be expected to attend weekly/fortnightly face-to-face contact with hub staff (e.g. MDT meetings) either at the spokes or the hubs depending on the convenience of location. For standalone teams, there are efficiencies in communication, supervision and training to be gained by operating as one team with daily team handover meetings and weekly MDT meetings.

Figure 22: Example of hub & spoke EIP staffing (including CAMHS) for catchment area of 200,000 population



As noted above, some of the WTE time is already accounted for in existing CMHTs and CAMHS by way of staffing time devoted to EIP services users. So, where this is already in place (and at levels consistent with *A Vision for Change*), the pre-existing WTE (already devoted to FEP service users) needs to be subtracted from the EIP MoC recommended WTE for each post above (e.g. medical time).

14.4 Support Services and Facilities for EIP Services

Infrastructure and facilities will be needed for the extra clinicians and admin staff required for these EIP services. These should include buildings, office space, interview rooms, clinical rooms, office and clinical equipment, IT services, equipment, software, secure internet/intranet services, transport for home visits, etc. The clinic facilities should be welcoming and calm, reflecting an ethos of hope in recovery and open access to services, and be age-appropriate (e.g. for adolescents). They should ensure quiet interview space for privacy, family interview rooms and office space with whiteboards, etc. for team meetings. Hubs should have adequate office space for hub clinicians and admin staff as well as interview rooms for family meetings and MDT meetings. Similar infrastructure and facilities should be provided for standalone teams.

CHAPTER 15: EDUCATION, TRAINING AND CONTINUING PROFESSIONAL DEVELOPMENT

15.1 Introduction

Education, training and continuing professional development in Early Intervention in Psychosis (EIP) services is one of the most important areas to invest in for the successful implementation of the Model of Care. It will ensure that service users, family/carers and referrers have access to highly trained and competent clinicians to deliver the EIP programme. To achieve this, there needs to be investment in a robust system of ongoing training, supervision and professional development for all staff working to ensure the provision of high-quality, safe and sustainable EIP services.

15.2 Training Currently Provided in Ireland

Since Early Intervention in Psychosis (EIP) was identified as one of the National Clinical Programmes for Mental Health, the National Clinical Programme Office has staged a number of training events in Ireland for clinicians interested in EIP. The focus to date has been on training in evidence-based interventions for service users experiencing a first episode of psychosis (FEP) and their family members/carers.

One such intervention is training in behavioural family therapy (BFT). Training in this intervention began in 2013, with training and supervision accessed in the UK (NHS Meriden Family Programme, Birmingham: www.meridenfamilyprogramme.com). This family intervention is being rolled out nationally together with ongoing specialist training and accreditation for experienced BFT clinicians.

The DETECT service in Dublin, now operating for ten years, has contributed to the postgraduate training of doctors and other clinicians in EIP as well as leading out on national educational and training events in EIP.

Finally, a number of mental health services and professional groups have provided broad-based training in psychosocial interventions, early intervention and recovery principles.

15.3 Education & Training Requirements for EIP Service Provision

McGorry and Jackson (2000) have highlighted that "investment in staff in terms of training and education is probably one of the single most important factors to consider when setting up an early intervention service".

As the hub & spoke model of EIP service provision is recommended for most areas, education in the core EIP principles will be required for all clinicians working in AMHS and CAMHS, both in the community and in in-patient settings. It is important that the principles and recovery ethos of early intervention services, the pathways of care and the benefits of providing a comprehensive programmatic service to all individuals presenting with FEP or an ARMS are fully understood.

As close working relationships and collaboration with GPs and other referral agencies are critical for the success of the Model of Care – both for early detection and intervention – education and training will also be required at a broader level.

Clinicians will need to be trained in phases as it would not be possible for services to release staff for extended periods of time, although local training can be supported once it is consistent with agreed national standards.

A training programme for EIP should aim to develop generic competencies for all members of the mental health service as well as providing more focused training to specific members of the team charged with the provision of specialised interventions. The EIP training programme needs to ensure that a cultural change process takes place, particularly for staff working in hub & spoke settings. It also needs to include staff working in approved centres and inpatient units so that they are educated and trained in core basic information about EIP. This should cover subjects such as FEP, ARMS and the causes of psychosis (i.e. the subjects covered in Chapters 2 & 3 of the EIP Model of Care).

As part of their orientation, all members of the EIP team should expect to receive basic evidence-based training in:

- **The philosophy underpinning EIP service provision**
- **Models of psychosis**
- **Recovery principles training**

- **Team working**
- **Assessment and care planning**
- **Engagement**
- **Relapse prevention**
- **Treatment adherence**
- **CBT for psychosis model and basic skills**
- **Family engagement and interventions**
- **Working in a culturally sensitive way with ethnic minority groups**

Identified clinicians on the EIP team should receive comprehensive evidence-based training in specific interventions such as CBT for psychosis, family interventions and supported employment (that is, the individual placement and support approach).

NICE recommends that CBT therapists be trained (e.g. 1-year diploma in CBT plus 6 months' training in CBT for psychosis) and supervised by a clinical psychologist or formally registered and trained CBT therapist in CBTp. In the UK an expert group led by Professors Steve Pilling and Anthony Roth (both psychologists) have outlined the core competencies for clinicians working with service users with psychosis (see www.ucl.ac.uk/CORE/). This has been extended to cover the core competencies clinicians need in order to provide CBTp (see www.ucl.ac.uk/clinical-psychology/competency-maps/psychosis-bipolar-framework).

15.4 Key issues to Consider in Education and Training

A number of key issues need to be considered in an education and training strategy for the EIP Model of Care.

15.4.1 The Critical Importance of Multidisciplinary Working in EIP Services

It is essential that EIP service team members all work together to ensure that treatment and care is provided to the service user and their family/carers in an integrated and consistent manner. The FEP or its antecedent ARMS can be a confusing and frequently traumatising time for service users and families/carers. Team members need to embrace a biopsychosocial and recovery-focused model in the understanding and treatment of FEP/ARMS, and be mindful of any biases arising from their own professional backgrounds and training when communicating information to service users and family/carers.

Interprofessional learning (defined as two or more professionals learning with, from and about each other to improve collaboration and the quality of care) has been endorsed by the World Health Organisation in its *Framework for Action on Interprofessional Education and Collaborative Care* (WHO, 2010). It identifies this as key to increasing workforce capacity and improving collaborative practice. Studies on the impact of such training with health professionals have reported higher team satisfaction, improved implementation of evidence-based practice and lower need for inpatient stays (WHO, 2010; Hammick *et al*, 2007; Brock, 2013). This would not in any way replace or reduce the need for specialist professional skills, but it would improve overall team effectiveness.

15.4.2 Ensuring that Services are Ready to Facilitate EIP Programme Implementation

Organisational preparation and embedding of new ways of working require the support of line managers and the area management team to ensure that skills and competencies, as they are developed, are used appropriately for the benefit of service users.

At the outset, clinicians who have experience working in mental health services and with service users with psychosis, and who have an interest in developing expertise as well as a commitment to working in EIP services, should be identified.

The provision of training programmes, however, is not in itself sufficient to ensure change in clinical practice. Fadden (1997) demonstrated that, following training in family work, most clinicians were not able to put the training into practice because of systemic barriers in operation. Appropriate operational and organisational structure and support is required so that such clinicians, when trained, are able to use and develop these skills further in the workplace to advance the EIP programme at local level.

15.4.3 Supervision and Support

Supervision and support is essential, both clinically and professionally, as well as ongoing continuing professional development to ensure the sustainability of the expertise acquired. The provision of ongoing supervision by competently trained and experienced supervisors is a key organisational element to facilitate integration of training into clinical practice. Implementing this organisational element will require support from line managers and local service management with the requisite planning, development and resourcing. With the hub & spoke model of service provision, it is essential that EIP clinicians ensure that the ethos and culture of EIP is maintained in busy AMHS and CAMHS services, which have many competing demands. The EIP team co-ordinator will play a crucial role in ensuring this.

15.4.4 Providing Education to Others

A key role of clinicians involved in EIP service provision and the HSE National Clinical Programme will be to champion and support the importance of early intervention in psychosis both within mental health services and the wider health services, such as GPs, primary care and acute hospitals.

Collaboration with the Irish College of General Practitioners, primary care teams and hospital-based staff should be a feature.

At a wider level, engagement should take place with statutory and voluntary agencies at local level in the community, particularly those working with young people.

The HSE Clinical Strategy and Programme Division (CSPD) for Mental Health will support this work by working across clinical programmes in an integrated and collaborative manner.

15.5 Education and Training Plan for the EIP NCP

15.5.1 EIP Training Initiatives Arising from the NCP

The HSE EIP National Clinical Programme will adopt a strategic approach to develop an education and training plan to include identified needs (as outlined above). A *National EIP Training and Education Network* (with assistance from the NCP National Oversight Group) will be established, involving the professional disciplines, service users and family/carers. The core work of this group will be to:

1. Review the range of resources available. There are well-established EIP training programmes in centres in the UK and Australia, as well as EIP development manuals, job descriptions, protocols, clinical record templates, clinical and service evaluation rating scales, health information booklets, leaflets, lists of recommended websites and resource material relevant to EI services, service users and carers. The expertise and capacity available locally in Ireland will also be explored to support the work of this group.
2. Develop an education and training plan that is comprehensive, evidence-based and sustainable, with inbuilt review and evaluation. The plan will include decisions about:
   - (a) Local, regional and national levels of training
   - (b) Multidisciplinary and unidisciplinary requirements
   - (c) Core and specialist training
   - (d) Availability of training expertise nationally and the possible need for outsourcing and commissioning experts internationally
   - (e) Use of educational material, hard copy/online resources
   - (f) Education and training required for different components of the EIP programme
   - (g) Identification of specific needs for CAMHS services
3. Decide how the EIP training plan should be rolled out at local, regional and national levels. Use of video conferences and teleconferencing will be maximised for training, and supervision and peer support.
4. Explore and develop opportunities for undergraduate and postgraduate training in EIP within the HSE, professional bodies, universities and so on
5. Evaluate and seek continuous quality improvement to ensure that all of the training initiatives are progressed and lead to measurable improvement in the quality of EIP service delivery and provide value for money. In this context the training needs to be linked to EIP service developments with associated key performance indicators and ongoing audit and evaluation.

15.5.2 EIP Training Initiatives of the College of Psychiatrists of Ireland

The College of Psychiatrists of Ireland should take an active role in delivery of EIP training to its members. This should include providing lectures and e-learning modules to all its members. Learning outcomes dedicated to EIP should be included as part of the curriculum for Basic Specialist Training and Higher Specialist Training.

CHAPTER 16: CLINICAL GOVERNANCE OF THE HSE NATIONAL CLINICAL PROGRAMME FOR EIP

16.1 Introduction

Clinical governance is the application of a systemic approach to continuous quality improvement in health services. The Model of Care for the HSE National Clinical Programme for Early Intervention in Psychosis adopts the clinical governance standards set out in the following documents:

- Quality Framework for Mental Health Services in Ireland (Mental Health Commission (MHC), 2007)
- Achieving Excellence in Clinical Governance: Towards a Culture of Accountability (HSE, 2010)
- The Code of Governance Framework for the Corporate and Financial Governance of the HSE (HSE, 2011)
- Checklist for Quality & Safety Governance, HSE Clinical Strategy and Programme Division (CSPD) and the Quality & Patient Safety Division (QPSD), 2014
- Framework for Improving Quality in our Health Service (HSE, 2016)
- HSE Best Practice Guidance for Mental Health Services (April 2017)

16.2 The Principles of Good Clinical Governance

10 Principles for Good Clinical Governance

- **Patient first**
- **Safety**
- **Personal responsibility**
- **Defined authority**
- **Clear accountability**
- **Leadership**
- **Interdisciplinary working**
- **Supporting performance**
- **Open culture**
- **Continuous Quality Improvement**

Table 25: Principles of good clinical governance

The HSE Checklist for Quality and Safety Governance produced by the Clinical Strategy and Programmes Division (CSPD) and the Quality and Patient Safety Division (QPSD) in 2014 describes Clinical Governance and Governance for Quality and Safety as *"corporate accountability for clinical performance"*. It is built on a model of CEO/GM/area manager and service/professional leads. The checklist document further defines the reach of clinical governance for the service provider as *"effective governance arrangements which recognise the interdependencies between corporate, financial and clinical governance across the service and integrates them to deliver high-quality, safe and reliable healthcare".*

16.3 Legal and Ethical Considerations

As well as the issues addressed in section 16.1, there are statutory requirements of particular relevance for mental health service provision in Ireland. The EIP Model of Care will operate under the following legislation and frameworks so that it fulfils the legal and ethical obligations and ensures that the clinical needs, rights and safety of service users are respected by the EIP National Clinical Programme. These are as follows:

- The Mental Health Act 2001 and associated Regulations, Rules and Codes of Practice
- The Assisted Decision Making (Capacity) Act 2015
- The Judgement Support Framework (JSF) - Mental Health Commission
- The Children First Act (2015)
- United Nations Convention on the Rights of Persons with Disabilities, UN CRPD
- Professional Guidelines for Clinicians
- The Data Protection Act 1998 and 2003
- The European Union's General Data Protection Regulations (GDPR) (2018)

The Mental Health Act, 2001 provides, among other things, the legislative framework for individuals with mental disorder that require detention and treatment in mental health inpatient units or approved centres, and for the establishment of the Mental Health Commission whose principal functions are to "promote, encourage and foster the establishment and maintenance of high standards and good practice in the delivery of mental health services", as well as protecting the interests of persons detained in approved centres.

The HSE, in its recently produced *Best Practice Guidance for Mental Health Services,* 2017, includes best practice in line with these statutory requirements. All adult service users who are over the age of 18 and have capacity may consent to psychiatric treatment once they are fully informed. Where capacity is lacking or if the service user meets the criteria for mental disorder, as defined in the Mental Health Act 2001 which provides for involuntary admission, the appropriate legislation applies, with family/carer involvement. At all times treatment should be provided in the least restrictive environment and reviewed on a frequent basis.

For mental health treatment to be provided to children and adolescents under the age of 18, their parents or legal guardian must consent to their receiving inpatient assessment and/or treatment.

16.4 Clinical Governance Structure for the EIP NCP

16.4.1 Introduction

The EIP National Clinical Programme includes a number of components to ensure that the key pillars of clinical governance facilitating quality, safety and effective service provision are developed and maintained. The HSE National Clinical Programme Office and National Mental Health Service will monitor the programme on a regular basis to support and review progress towards the identified standards, identify issues of concern and lead out on future developments.

16.4.2 Management Structure and Responsibilities

To support the clinical governance, a project management structure will be developed at both national and Community Healthcare Organisation (CHO) levels, with the following roles and responsibilities:

(a) National Clinical Programme Office to have responsibility for:

- Oversight and governance of the establishment and implementation of EIP services nationally. A National Oversight Group will assist with this.

- Support services to deliver on EIP objectives
- Developing national training plans in accordance with the Model of Care
- The collation of national data for the programme
- Ongoing review and evaluation of the EIP NCP with reference to the MoC

(b) The CHO Area Management team to have responsibility for:

- Recognising the importance of this programme in improving service provision for the CHO population, and providing leadership and support to ensure implementation
- Designing, setting up, recruiting, managing and overall governance of EIP services within their region
- Ensuring that all line managers are aware of the requirements of the EIP programme for their staff
- Establishing EIP teams in accordance with the Model of Care
- Establishing and supporting a CHO EIP Advisory Group
- Having systems in place locally for accurate, comprehensive and timely data collection to facilitate audit and evaluation locally and nationally
- Allocating of resources to cover supervision and training requirements
- Collating and feeding back to the National Clinical Programme Office on key performance indicators
- Identifying, with the support of the CHO Advisory Group, issues affecting delivery of the programme at CHO level

(c) The CHO EIP Advisory Group

Each of the nine CHOs will appoint and be supported by a local EIP Advisory Group, comprising representation of the CHO EIP teams, which will provide:

- A quality assurance function for the CHO Area Management team monitoring the fidelity and consistency of EIP services to agreed national standards in accordance with the model of care
- Highlighting of local issues affecting EIP service provision

- Fostering of the development and support of networks to provide peer support for clinicians and management in setting up EIP services at CHO level (see 16.6 below)
- Facilitation of agreed protocols for pathways of care and physical health monitoring for FEP service users

(d) CHO EIP Hub / Standalone Teams

The leadership and governance roles of EIP teams (as outlined in previous chapters) are:

- Leadership and championing of EIP service provision
- Education
- Support for sector teams in AMHS and CAMHS in EIP service delivery
- Monitoring and ensuring best practice for all interventions
- Maintenance of database of staff trained in each intervention
- Collation of data as required by the National Office
- Analysis and review of data for EIP locally to evaluate service standards
- Regular communication with the CHO Advisory Group, with representation from each hub team on the Advisory Group.
- Reporting to the CHO Area Management Team

(e) Clinical Leads / EIP Keyworkers / Intervention Leads

Clinical Leads, EIP Keyworkers and Intervention Leads, as well as providing clinical expertise, have the following roles:

- Leadership
- Education
- Support for sector teams in AMHS and CAMHS
- Monitoring and ensuring best practice in their area of expertise
- Maintaining a database of staff trained in particular interventions
- Collation of data as required by hub/standalone teams
- Attendance at hub/standalone team meetings

(f) Adult and CAMHS Sector Teams

- Each sector team that is providing EIP services as part of the hub & spoke model is responsible for providing all components of these services at sector level, as outlined in the Model of Care.
- There should be no internal waiting times for assessment and interventions.
- Effective linkages with referral agencies should be developed to facilitate pathways of care throughout the programme and particularly at times of transition and discharge.
- Data collation must be facilitated and provided to the hub team as well as local management structures.

16.4.3 National Oversight Group

A National Oversight Group will be established by the NCP, involving the professional disciplines, service users and family/carers. It will oversee and support the full implementation of the EIP Model of Care. It will also oversee the planning, co-ordination and provision of training and education for EIP staff with support from a National EIP Staff Training and Education Network (see section 16.5 below). It will also have oversight and support EIP service audit and evaluation (see Chapter 17). The National Oversight Group will encourage the establishment of an EIP Research Network, partnering with academic bodies to promote interdisciplinary research in EIP. This will include the HSE Head of Research.

16.5 Support Networks: Fostering Best Practice & Effectiveness

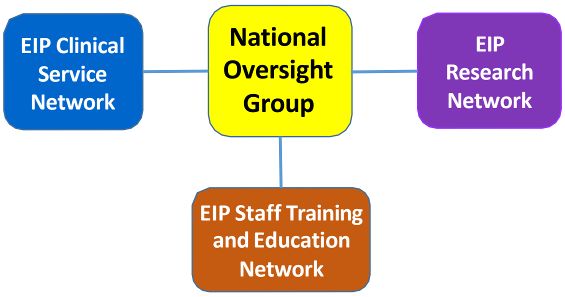
The National Clinical Programme Office, with assistance from the National Oversight Group, will foster the establishment and support of three support networks (see Chapter 17). The National Oversight Group will provide overarching governance in relation to EIP training and education as well as EIP service audit and evaluation. An independent EIP research network will be encouraged to have close links. The three networks are:

(a) EIP Clinical Service Network

(b) EIP Staff Training and Education Network

(c) EIP Research Network.

Figure 23: The EIP networks



Ideally, these three networks will have close links with each other and include representation from identified clinical leads in each CHO region and research leads from academic institutions, as well as representation from the professional bodies and service users and their families. This will ensure that the focus of the EIP National Clinical Programme continues to be informed by the most up-to-date literature and research and is providing best-practice standards of service. The networks could also host or facilitate training and professional development opportunities (e.g. regular workshops). They will link with similar international networks such as the International Early Psychosis Association (IEPA: www.iepa.org.au).

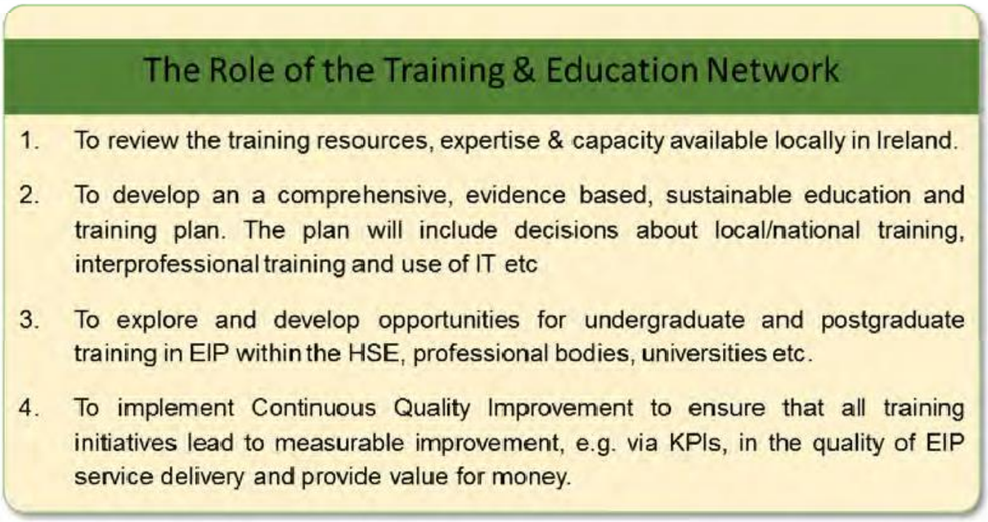
16.5.1 The EIP Clinical Service Network

The purpose of the EIP Clinical Service Network is to bring together the key players who use, provide and commission the EI services. It could also inform the National Clinical Programme of resource and strategic planning needs in the delivery of local EI services (see, for example, the service mapping exercises undertaken in England) (Penfold *et al*, 2007). The network would have senior clinical, managerial, service-user and carer representation from each of the CHOs. Close links would be established with training and research networks to highlight particular areas of need for development. Links should also be established with similar networks overseas. Service audit and evaluation will be routinely integrated into service planning and delivery (see Chapter 17). The National Oversight Group would oversee the governance of this network.

16.5.2 The EIP Staff Training and Education Network

The aim of the EIP Staff Training and Education Network (described in Chapter 15) is to co-ordinate ongoing education and training to support and educate in HSE staff to deliver high-quality EIP services as outlined in the Model of Care. Clinical governance, leadership and resourcing are all critical to support staff training, development and maintenance of the EIP skillsets required. The NCP National Oversight Group will oversee governance of this network.

Table 26: EIP Staff Training and Education Network



The Role of the Training & Education Network

1. To review the training resources, expertise & capacity available locally in Ireland.
2. To develop an a comprehensive, evidence based, sustainable education and training plan. The plan will include decisions about local/national training, interprofessional training and use of IT etc
3. To explore and develop opportunities for undergraduate and postgraduate training in EIP within the HSE, professional bodies, universities etc.
4. To implement Continuous Quality Improvement to ensure that all training initiatives lead to measurable improvement, e.g. via KPIs, in the quality of EIP service delivery and provide value for money.

16.5.3 The EIP Research Network

The EIP MoC recommends the establishment of a national EIP clinical audit and research network. It will support clinical and health service research in EIP, and establish close links with the other EIP networks (see above) and with EIP research networks overseas. Similar successful EIP research networks have been operating for the last two decades overseas, providing collaboration and support between different centres and services.

It is envisaged that this EIP Research Network would have senior research and academic representation from research centres and universities around the country as well as service-user and carer representation. It will foster collaboration between research groups, different disciplines and funding bodies. It will encourage a culture of research and audit in EIP services. Data collected by the HSE will contribute to the national body of evidence and inform future planning and resourcing of EIP services in Ireland.

The EIP NCP was awarded a grant in 2017 by the Health Research Board and has started working on a project with researchers from University College Dublin. In addition, the EIP NCP is undertaking a process evaluation with researchers from Trinity College Dublin of the EIP demonstration sites that are using a hub & spoke model.

A national research network, the Irish Psychosis Research Network (IPRN), already exists (http://www.psychosisireland.ie/). Research links with this network should be explored with a view to incorporating EIP research. This would facilitate research opportunities at national level, particularly as the IPRN already has representation from Northern Ireland, from clinicians, professional bodies, services users and families. Given its well-established reputation and broad representation, joint collaborations would have much greater potential for attracting international-calibre research funding and developments.

16.6 Service User and Carer Involvement

Service-user and carer involvement has informed the Early Intervention in Psychosis Model of Care throughout all stages of its development and will continue during its implementation. The features of this past and future involvement are:

- Membership of the National Working Group in development of the MOC
- Membership of further reviews as the programme is implemented
- Consultation process with voluntary support groups in development of the MOC
- At CHO level, involvement of the area lead for Mental Health Engagement
- Involvement in national clinical and research networks
- Involvement in training programmes
- Obtaining of feedback from service users and family/carers in relation to experience of the EIP programme, using qualitative feedback in the HSE '*Your Service, Your Say*' comments and complaints procedure

16.7 Clinical Audit and Evaluation

The National Clinical Programme Office will establish and maintain a standardised database system (as outlined in detail in Chapter 17). The recommended metrics outlined in the Model of Care will enable clinicians, teams and the national EIP clinical service network to track progress and inform the effectiveness, quality and efficiency of service provision. Key performance indicators will be collected nationally to assist oversight and governance at the national level. This will support audit and evaluation at local, regional and national levels, with prompt feedback to the services being provided.

A key to such data collection will be the availability of IT systems and provision of administrative support and training to collate data in a timely manner at both CHO and national levels.

16.8 Alignment with other Clinical Programmes and Agencies

The EIP NCP should ensure alignment with other national clinical programmes and with key stakeholders in healthcare for services users with EIP. The EIP National Clinical Programme Office will need to collaborate with HSE National Clinical Programmes such as Dual Diagnosis in order to design and deliver consistent and integrated models of care for service users associated with more than one NCP.

This will be led by the National Office but will also require engagement and collaborative working relationships at CHO and service level. For example, for physical healthcare provision, national protocols need to be developed collaboratively at national level and then must be rolled out at CHO and service levels.

Communication and collaborative working will also be required with voluntary groups and educational bodies, in particular those working with young people at all educational levels.

CHAPTER 17: PROGRAMME METRICS AND EVALUATION

17.1 Introduction

To ensure that the HSE National Clinical Programme for Early Intervention in Psychosis improves access and outcomes, and is cost-effective, it will require a robust evaluation framework from the outset. This will allow for benchmarking internally and against international standards.

The current lack of standardisation of treatment for psychosis in Ireland leads to variation in service provision and the experience of that variation by service users and families/carers. To address this, the Model of Care has clearly identified the targets for early detection, assessment and provision of evidence-based interventions in the community setting where possible. The targets set are ambitious, focusing on mental health services as well as collaborative working with GPs, primary care and key stakeholders in the community.

As outlined in section 2.3, at present there are no comprehensive data about the incidence of FEP or ARMS in Ireland. Such data are needed to properly inform service planning. Illustrative of this point is the fact that in the UK, the National Mental Health Intelligence Network – in 'Psychosis Data Report: Describing variation in the numbers of people with psychosis and their access to care in England' (October 2016) – highlights the gaps in routine data relating to psychosis and the quality issues with current data collection, despite the developments in the UK's EIP service provision over the last two decades.

17.2 International Standards

A number of international best-practice standards have been identified to inform the Model of Care for EIP. In particular, the following clinical guidelines and standards from the UK and Australia were considered:

- *Psychosis and schizophrenia in children and young people: recognition and management,* NICE Clinical Guideline CG 155, January 2013
- *Psychosis and schizophrenia in adults, prevention and management,* NICE CG 178 February, 2014

- *Psychosis and schizophrenia in adults,* NICE Quality Standard QS80, February, 2015
- *Implementing the Early Intervention in Psychosis, NICE Access and Waiting Time Standard Guide*, NICE, April 2016
- *Australian Clinical Guidelines for Early Psychosis*, Orygen, 2nd edition, June 2016
- *Early Psychosis Declaration: An International Consensus Statement about Early Intervention and Recovery for Young People with Early Psychosis.* This declaration was jointly issued by the World Health Organisation and International Early Psychosis Association. It sets out five-year targets for EIP services to achieve and five-year outcomes that service users and carers can expect (Bertolote, & McGorry, 2005).

17.3 EIP Fidelity Measures

There are at least seven measures of the extent to which a service contains and delivers all the elements required of an EIP service (Addington *et al,* 2018). These are essentially fidelity measures, used for quality improvement purposes to support the implementation of EIP services. The measures are listed in Table 27:

Table 27: EIP service fidelity measures

EIP fidelity measure	Reference
FEP fidelity measure	Addington et al (2016)
Early intervention service fidelity scale	Lester, Birchwood, Marshall (2006)
Danish FEP fidelity scale	Nordentoft et al (2015)
Recovery after an initial schizophrenia episode - connection fidelity scale	Essock et al (2015)
Early assessment and support alliance fidelity scale	Melton et al (2012)
EPPIC model integrity tool (EMIT)	Hughes et al (2014)
The Early Psychosis Declaration Self-Assessment Toolkit	www.iris-initiative.org.uk/silo/files/epd-poster.pdf

A recent review of these EIP service fidelity measures, conducted by an international taskforce of the International Early Psychosis Association, came to a consensus about a number of common key performance measures (Addington *et al*, 2018).

17.4 Key Performance Indicators

Key performance indicators (KPIs) and outcome measures should reflect service provision by all of the stakeholders involved, including service users, family/carers, clinicians and service management. Collation of data will facilitate service evaluation, benchmarking and audit of the components of EIP. There is no specific national data available on EIP service provision. In view of this, KPI targets will need to evolve and be developed as EIP service implementation progresses from Stage 1 to 3.

The following need to be considered in developing KPIs in EIP services:

- **Early detection:** Address health system delays by enhancing and developing the EIP skills of GPs and other referral agencies and providing clear care pathways from referral sources. This should be accompanied by fast-tracking of referrals with FEP or ARMS for rapid assessment by mental health services.
- **At- Risk Mental State (ARMS):** Specialist skilled staff should be in place for service users in order to assess and identify ARMS. Follow-up by mental health services should take place for two years and identify transition to psychosis at the earliest stage.
- **Access & wait times:** External and internal access times for service users, as well as access to the most evidence-based treatments within teams, and access to inpatient care when needed. There should be no delays to treatment or internal waiting lists outside the agreed waiting times.
- **Clinical outcomes:** Obtaining timely feedback on clinical outcomes is key to enable services to evaluate the effectiveness of the treatment they are providing
- **Resource evaluation:** Include information on caseload, level of care and cost so that managers and clinical teams are accountable for decision-making in clinical resource allocation at national and local level.
- **Training:** Evaluating the translation of knowledge from training into performance and service-user care in clinical practice to ensure that it is effective.

- **Feasibility and acceptability for service users and families:** Providing information that will help the recovery path for service users and their families.
- **Research and audit:** A research and audit function should be established within services to share findings and enhance confidence in the programme.
- **EIP programme evaluation:** Clinician and service-user/family input into the process to ensure the evaluation component of the Model of Care is working optimally.

17.5 Metrics

17.5.1 Introduction

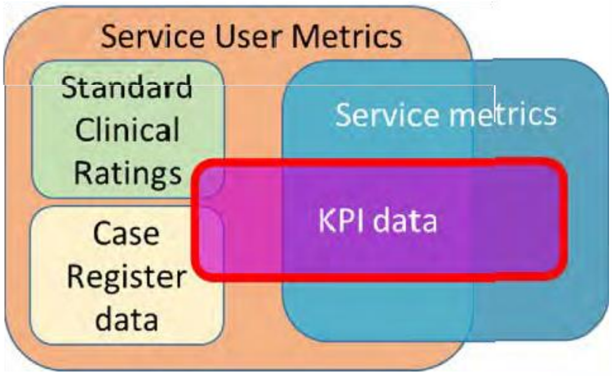
KPIs will rely on standardised data being collected by EIP services about service users with FEP or ARMS, about the interventions/services provided to them, and about more general service-wide activities (e.g. training/education). While some of the general data required is already collected by HSE services, it needs to be adapted specifically to the EIP National Clinical Programme. It is essential that there be a two-way flow of information and that EIP services receive regular feedback on their performance, so that any problems identified can be addressed quickly. This will require clinicians, managers, service users, carers and collaborating agencies to work closely on improving the service.

Administrative support and an electronic format for data collection will be required to facilitate this process. The database of metrics should be an integral part of each EIP service's operation and each member of staff should have responsibility for collecting and inputting the relevant information in a timely manner. This can only be facilitated with administrative support.

17.5.2 Standardised Metrics

To achieve the above goal, the EIP Model of Care recommends a standardised set of metrics to be used uniformly by all EIP services nationally. It will provide a standardised template for each EIP service. These data will be recorded by each EIP service in a Minimum Dataset (Figure 25). This will include (a) an **EIP case registry** for the purposes of registering eligibility with EIP services, (b) **clinical metrics** (Table 28) for clinicians to measure clinical outcome, and (c) **service metrics** (Table 29) for service evaluation.

Figure 24: Minimum database of metrics



17.5.3 National EIP Case Registry

An EIP Case Registry will be established within the HSE of all service users who have been accepted by EIP services. Each service user will have a national unique identifier/medical record number. The register will include the start date with the EIP service, the name of that service, any subsequent moves, and the end date of EIP service provision. This is to ensure that service users are not lost to follow-up and their eligibility to EIP services is maintained through the three years of follow-up even if they move services.

At present there is no national case registry available for people with a first episode of psychosis. This, in addition to the lack of a unique service user identifier, greatly limits the ability of the NCP to (a) assess the local needs of this important group of service users, (b) identify the gaps in service provision and (c) evaluate overall EIP service provision.

A national case registry would greatly facilitate EIP service planning, audit, quality improvement, safety oversight, health service research and outcomes. It will help maintain service-user engagement in EIP services and facilitate transitions between services - e.g. inpatient to community, CAMHS to AMHS, and AMHS to primary care - reducing the potential for service users being lost to the system.

The Model of Care recommends that options for a national case registry/database for FEP be explored by the NCP to see how best it can be established and managed for this NCP.

A number of well-recognised registers/case registry and databases are used in Ireland such as the National Cancer Registry, the National Self-Harm Registry and the National Drug Treatment Reporting System.

The most complete register is the National Cancer Registry, with data on cancer incidence, treatment and survival. It is mandated by the Minister for Health by statutory instrument and funded by the Department of Health.

The National Self-Harm Registry of Ireland was established by the National Suicide Research Foundation at the request of the Department of Health and Children. It is funded by the HSE's National Office for Suicide Prevention. It collects data on people presenting to hospital emergency departments. Its remit is to monitor trends in hospital-treated deliberate self-harm in Ireland. This contributes to policy development and helps research.

The Health Research Board (HRB) operates the National Drug Treatment Reporting System, an epidemiological database on treated drug and alcohol use in Ireland. Information collected, by online web-based forms, includes administrative details; demographic, social and economic characteristics; parameters to measure access to treatment; treatment status (new versus previously treated cases); ranked problem substance use in the month preceding the current treatment contact; risk behaviours (associated with injecting drug use) and initial treatment type.

Other national registers include the National Intellectual Disability Database.

17.5.4 Clinical Metrics

The EIP MoC recommends a set of core clinical measures to be used by clinicians in their routine clinical practice. Many clinicians already use a wide variety of clinical ratings as part of good clinical practice. However, these are often not used in a standardised manner, severely limiting their usefulness. The aim, therefore, is to recommend a core set of clinical measures that are used in a standardised manner at set time-points (see Table 28). The timeframes are based on current recommendations from NICE in 'Implementing the Early Intervention in Psychosis Access and Waiting Time Standard Guidance' (April 2016). The data from these clinical metrics will assist in evaluating the clinical effectiveness at an individual level of the EIP Model of Care and interventions, and their impact on service users' outcomes.

Clinicians may wish to use other screening instruments or measures of outcome for their particular clinical assessments or interventions. Each may have an additional bespoke set of measures.

Table 28: Recommended Clinical Metrics

Purpose

- To enable the individual clinician and EI team to clinically audit their work
- To enable progress tracking and collaborative care planning for individuals with their clinician and at team level
- To assist the EI team in collaborative decision-making around service evaluation, improvement and professional development and learning
- To facilitate a recovery focus

Each case When?	What? *Which clinical tool or instrument?*	Why? *Domain being considered*	How to gather?
Demographics			
Initial assessment	Gender Date of birth Marital status	Socio-demographics	Collected by individual clinicians to evaluate progress for each case
End 1, 2, 3 years or at end of engagement *(only needs to be recorded once)*	Employment status	Full time or part time employment >16 hours per week	
	Education status	In education leading to a nationally recognised qualification & stage	
	Ethnicity Country of birth Migrant status	Census definition**	
	Living status	Alone/with family/with others	
	Accommodation status	Rent/own home/co. council: stable/unstable	
	Electoral area		
Minimum Clinical Measures **(required)** Initial assessment 6 months End 1, 2, 3 years or at end of attendance	ICD-10/11 clinical diagnosis	Diagnostic classification	Anonymised team data collated by team co-ordinator monthly for local clinical evaluation, clinical audit and service improvement
	Clinical rating at a minimum, Ideally NOS below	Duration of untreated psychosis	
	SFSS/ BNSS EQ-5D-5L (EQ-5D-Y child version) Calgary depression scale	Symptoms (CROM) Quality of life (PROM) Measure of depression in psychosis (CROM)	
	GAF-MIRECC or CGAS (child)	Measure of functioning (CROM)	
	CANSAS (short version)	Measure of functioning and for care planning	

		(CROM)	
	Substance use	Substance use - cannabis, alcohol, other	
	Physical health measures BMI (or % BMI for child) Waist circumference, pulse, BP, fasting bloods	Physical health parameters (health, risk and safety)	
	Medication and doses	Other treatments	
Discharge / disengaged	Date Discharge destination Reason	Engagement and discharge information	
Additional Clinical Measures (suggested) Initial, 6 months End 1,2,3 years or end of attendance (except NOS)	SAPS/SANS or PANSS -Young Mania Rating Scale MANSA quality of life AUDIT, CUDIT version HADS, Birchwood, DAI	Symptoms Affective disorders Quality of life (CROM)	
	SCID / K-SADS	Diagnosis	
	Nottingham Onset Scale (NOS)	Duration of untreated psychosis	
	Cardiometabolic Health Risk	PCHR (Lester UK Adaptation)	
At-risk mental state evaluation (where appropriate)	CAARMS or SIPS*	IF ARMS SUSPECTED	

* *If At-Risk Mental State suspected, otherwise not to be used.*

** *Census definition of ethnicity: White Irish; White Irish Traveller; Any other white background; Black or black Irish; African Black or black Irish; Any other black background; Asian or Asian Irish; - Chinese Asian or Asian Irish; Any other Asian background; Other including mixed background.*

17.5.5 Service Metrics

The proposed service metrics are sufficiently robust (see Table 29) to provide a framework for the EIP National Clinical Programme to set targets and KPIs for EIP service evaluation. The service metrics will focus on all aspects of the EIP service provision from early detection, access and clinical outcomes to cost-effectiveness and acceptability to service users and families. These metrics will include measures of collaborative working with other key stakeholders (e.g. primary care). The service metrics include the following categories:

(a) Measures of Service Provision to Service Users and Carers

These measures include the range of services provided for service users during their time with the EIP service (see Table 29). This includes interventions such as CBTp, BFT and IPS as well as inpatient and day hospital services. The data from these service metrics will assist in determining the extent of services received and associated costs.

(b) Indicators of Team Staffing and Resourcing

These measures will periodically record the EIP team fidelity to the EIP model in terms of staffing and resources, and assist in determining whether they match the demands for the EIP service.

(c) Measures of Education and Training

These service measures will record EIP staff core training and education in EIP interventions such as CBTp or BFT, as well as mandatory training requirements such as child protection training and Basic Life Support.

(d) Measures of EIP Service Development and Inter-agency Liaison

These measures will include records of referrer health education sessions provided by the EIP service and any inter-agency.

(e) Measure of EIP Service User Satisfaction And Complaints

This is the process by which feedback and complaints can be monitored and evaluated, and outcomes reviewed

(f) Incident Reporting

This is the system for analysing patterns in incidents involving service users or carers so that problem areas can be identified and strategies put in place to reduce risks.

Table 29: Recommended EIP service metrics

Purpose National evaluation of the HSE EIP programme to ensure its goals of: access, safety & quality, and value for money			
Each EI team **When?**	**What?** **What domain?**	**Why?** **How to gather?**	**How often?**
Assessment	No. referred and source of referrals	Access to assessment	Collated by team administrator and coordinator
	No. of consultations (face to face or by phone)		
	No. of assessments offered		Submitted monthly by the coordinator to leadership / management for the purpose of evaluation and service improvement and to facilitate KPIs
	No. of assessments attended		
	Location of assessment		
	No. of cases of FEP	Access to assessment	
	No. of cases of ARMS		
	Time from referral to assessment		
	No. of assessment DNAs		
	No. of interviews with individual		
	No. of interviews with family / carer		
Treatment	Total no. of clinical appointments offered and by type (individual or group)		
	No. of first treatment appointments offered		
	Time from assessment to first intervention		
	No. of treatment appointments not attended	Access, quality, effectiveness, value	
	No. of clinical sessions offered	Access, quality, effectiveness, value	
	No. clinical sessions attended	Access, quality, effectiveness, value	

Purpose National evaluation of the HSE EIP programme to ensure its goals of: access, safety & quality, and value for money			
Each EI team **When?**	**What?** **What domain?**	**Why?** **How to gather?**	**How often?**
	No. of inpatient admissions (voluntary and involuntary) and length of stay	Access, quality, effectiveness, value, safety	
	No. of home-based care admissions and length of stay	Access, quality, effectiveness, value	
	No. of residential rehabilitation admissions and length of stay	Access, quality, effectiveness, value	
	No. of day hospital admissions and length of stay	Access, quality, effectiveness, value	
Interventions			
Cognitive behaviour therapy for psychosis	No. of sessions offered and attended	Access, quality, effectiveness, value	
IPS	No. of sessions offered and attended	Access, quality, effectiveness, value	
Family intervention	No. of sessions offered and attended	Access, quality, effectiveness, value	
Physical health check	No. conducted	Access, quality, effectiveness, value for money	
Other interventions	Type, number of sessions offered and attended	Access, quality, effectiveness, value for money	
Adverse incidents	Suicide/self-harm episodes, number and type	Safety, quality	
	Deaths	Safety, quality	

17.6 Data Collection

The EIP MoC recommends that the EIP Service Team Coordinator play a central role in ensuring that clinical metrics (Table 28) and service metrics (Table 29) are collated from clinicians with support from admin (Grade IV) and team co-ordinator. Monthly returns will be co-ordinated by the term co-ordinator. The EIP NCP will work with HSE ICT to develop an ICT solution that will allow data to be collected electronically at service-user and clinician level, collated anonymously and submitted monthly nationally. This data will be analysed by the EIP NCP and used to develop KPIs over the lifetime of the clinical programme.

17.7 Data Protection

The clinical data collected through evaluation of the programme, whether on paper or in electronic form, are part of the service-user record and come under the provisions of the Data Protection Amendment Act 2013 in terms of safety, storage, etc. The Data Controller will ensure compliance with the General Data Protection Regulation (GDPR) effective from May 25th, 2018.

17.8 Audit and Research

Where education, training, clinical evaluation and audit are being undertaken by the team as part of ongoing service development and improvement, any data included in an analysis will be anonymised to protect individual service-user confidentiality.

Where research is carried out using data either within the team, by the EIP network or in collaboration with third-level institutions, it will be subject to the usual formal ethical approval by the relevant local ethics committee(s) in order to ensure that appropriate ethical standards are met.

17.9 Review of the EIP National Clinical Programme

The formal review of the EIP National Clinical Programme will initially occur at three years and then every two years thereafter. It should include a review of the programme evaluation process – the metrics, measures and timeframes that recommended in the EIP Model of Care as a starting point. It should also include a review of any KPIs developed. Finally, it should include feedback from clinicians, service users and families, in terms of their lived experiences.

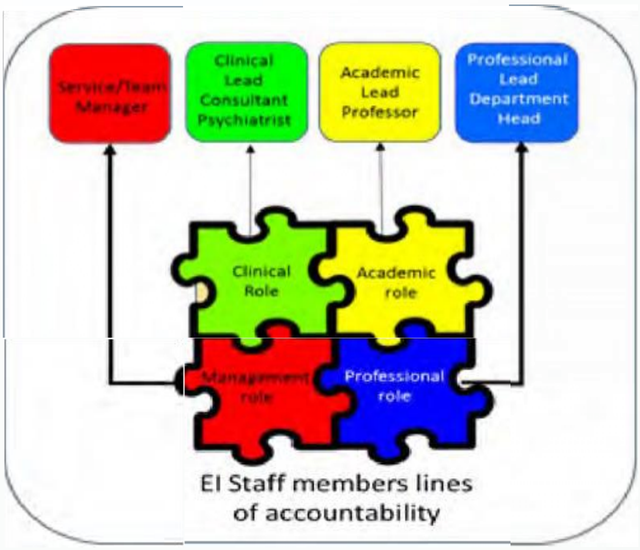
These reviews will ensure that a process of monitoring and continuous improvement will help health services across the country to achieve their goals in providing service users with FEP and their carers with the best standards of care and service provision.

APPENDIX 1: THE ROLES OF STAFF IN EIP SERVICES

This appendix describes briefly the role of several members of the EIP team. The normal professional roles of staff such as psychologists, social workers and occupational therapists are beyond the scope of this report. Helpful background reading about professional roles in EIP teams includes sources such as Stavely *et al* (2013) and Wright (2010). The central figures providing clinical care are the EIP Keyworker and the consultant psychiatrist, with additional members of the team providing clinical input at appropriate stages in the person's pathway through the service. This additional input may be either to support the roles of EIP Keyworker and consultant psychiatrist or to provide additional specialist interventions. Further interventions from outside the team may be sought at various stages by the EIP Keyworker and consultant psychiatrist as required, such as inpatient and social services.

It is essential that these team members all operate in unison, maintaining close communication, and ensure that a well-integrated and consistent package of care is delivered to the service user and their carers. The first episode of psychosis is a confusing and frequently traumatising time for service users and families. It requires a considerable degree of skill from team members to ensure that they don't add to that confusion and trauma by giving inconsistent and contradictory information. Team members need to embrace the bio-psychosocial model in their understanding and treatment of psychosis. They need to be mindful of the undue biases arising from professional backgrounds and training when communicating information to service users and carers.

Figure 25: Lines of accountability and supervision



A.1 Lines of Accountability

In addition to the clinical roles that EI team members might have, there are the roles of training (Davis *et al*, 2010), supervision (Gillam, 2010), peer support, administration, management, and for some team members research and teaching. It's important to allow for flexibility in these roles across professional boundaries to avoid rivalries developing between professional groups, but it is also important to ensure that key roles are not confused by conflicts of interest (e.g. research versus clinical prerogatives). Lines of accountability should be transparent from the outset and all team members should be clear about who they are accountable to clinically, professionally, administratively and academically (see Figure 25).

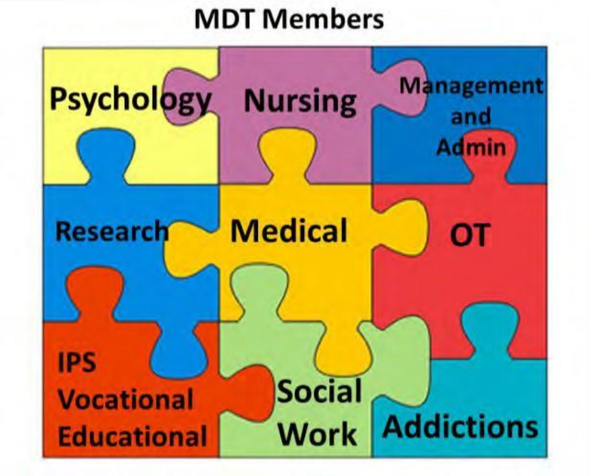
A.2 Roles of Multidisciplinary Team Members in EIP Services

In the hub & spoke model, all service users with FEP or ARMS should have access to assessment and interventions by EIP-trained medical, nursing and health and social care professionals on the CMHT multidisciplinary team (MDT) in the CAMHS and AMHS spokes and to EIP professionals in the EIP hub. In the standalone teams access is within the EIP team.

Description of the details of the professional roles of all MDT members is beyond the scope of this document. The central figures providing clinical care are the EIP Keyworker and the consultant psychiatrist, with additional members of the multidisciplinary team providing clinical input at appropriate stages in the service user's pathway through the EIP service.

It is essential that EIP MDT members maintain close and up-to-date contact with other members of the MDT involved directly in the care of a service user, and that they record all clinical notes and correspondence in a single clinical file for a service user.

Figure 26: EIP multidisciplinary teams



A.3 The Role of the EIP Keyworker

The role of an EIP Keyworker in the Irish setting is outlined in the MHC's guidance on Key Working and Individual Care Planning (http://www.mhcirl.ie/file/guidanceon_icpmhs.pdf).

The new role of EIP Keyworker is considered critical to the successful rollout of Early Intervention in Psychosis services. This role is primarily for First Episode of Psychosis (FEP) service provision.

The **responsibilities of the EIP Keyworker** are to:

(a) Be the consistent point of contact between the service user (and family/carers), the EIP service, and other agencies involved from the point of initial assessment to discharge from the EIP service

(b) Provide basic psychosocial interventions of EI in psychosis for their service users

(c) Ensure the organisation and implementation of individual care plans for their service users in conjunction with other members of the MDT and under the supervision of the responsible consultant psychiatrist

EIP Keyworkers can come from a range of mental health clinical backgrounds but need to be of a certain level of seniority. In other countries where EIP services are established EIP Keyworkers are usually but not exclusively from the nursing profession. They must be trained in and maintain competencies in EIP skills, including assessment of psychosis, relapse prevention, family education, assessment of suicide/violence risk and more.

Ideally, the EIP Keyworkers should be involved from the outset, leading out on the initial assessment as agreed with the consultant psychiatrist. However, this may not always be possible; for example, where an out-of-hours assessment is needed. Nonetheless, an EIP Keyworker should be allocated to each new first-episode case within three working days of an initial referral being made.

A.3.1 The EIP Keyworker's clinical duties

The EIP Keyworker has a range of clinical duties, as follows:

(a) Initial engagement and assessment

Engagement with the service user presenting with FEP is a critical component of the EIP programme. Positive assertive engagement and the development of a therapeutic alliance with the service user from the outset will improve the service user's opportunities to benefit from the programme and will affect the overall outcome. However, engagement is not always a straightforward process; what is important for the service user is that the EIP Keyworker is always available and continues to encourage engagement, as clinically appropriate when the service user is ready.

The goals at this stage should be to:

(i) Ensure that the agreed assessment protocol for first-episode cases is completed

(ii) Conclude the initial formulation, risk assessment and diagnosis with the consultant/registrar

(iii) Agree an initial treatment/management plan with the service user and family/carer following discussion and/or review by the responsible consultant psychiatrist

(b) Provide the day-to-day clinical service to a caseload of 15 FEP service users (reduced pro rata for part-time staff)

The goals at this stage are to:

(i) Assertively develop and maintain collaborative therapeutic relationships, with an emphasis on engagement of the EIP service user and family/carers

(ii) Work closely and collaboratively with the consultant psychiatrist

(iii) Organise, document and regularly review their service users' individual care plans at care planning meetings with the service user, family/carer, registrar/consultant and other health and social care agencies involved (for example at 1 month, 3 months, 6 months and, then, six-monthly thereafter)

(iv) Provide the service user and their families with information on psychosis and the likely pathway through the service, and copies of their individual care plans

(v) Provide ongoing, easily accessible information and support to service users and family/carers about basic psychosocial interventions; for example, psycho-education, relapse prevention planning and family education

(vi) Assist with engaging the person in the standardised treatments provided such as medication, metabolic monitoring, CBTp, family and vocational interventions, and lifestyle interventions

(vii) Attend EIP hub team meetings

(viii) Act as the liaison person between GPs, primary care services and mental health services for FEP service users, and, in relation to physical healthcare and lifestyle interventions, ensure excellent communication to enable all requirements to be met

(ix) Work with other team members of the MDT to ensure that liaison with relevant agencies (such as the addiction services) takes place

(c) Co-ordinate all stages of the service user's **transfer to another service**

The objectives here are to:

(i) Co-ordinate the discharge process with the treating team and relevant agencies

(ii) Ensure all documentation is up to date and complete

(iii) Co-ordinate a planned handover (ideally face to face) to follow-up agencies with all the appropriate documentation and care plans, outlining recommendations for future management and relapse prevention (this ideally should occur at a care planning or transfer of care meeting with the service user, carer, key worker, registrar/consultant, health and social agencies involved and the clinicians responsible from the new service)

(d) Education, audit and research

The intentions here are to:

(i) Provide educational support to interdisciplinary team members on EIP services

(ii) Participate in the education of other disciplines such as GPs on the particular needs of EIP service users

(iii) Participate in audit, evaluation and research activities

A.4 The Role of the Consultant Psychiatrist in the CMHT for the Hub & Spoke Model

Consultant psychiatrists at the EIP spokes are responsible for the overall clinical care of service users with FEP at their spokes/CMHTs.

Their main responsibilities are:

(a) Clinical inputs for service users with FEP and ARMS include diagnosis of mental illness and comorbidities, risk assessment, leading out on care planning, medication management and monitoring physical healthcare, the latter in collaboration with the service user's GP

(b) Ensuring that all service users attending the EIP service and under his/her care are offered the appropriate range of evidence-based, phase-specific interventions for early psychosis in a timely manner as recommended by the EIP Model of Care

(c) Working with the EIP Keyworker and multidisciplinary team to ensure quality care is delivered to service users and their families. The consultant is the clinical lead. He/she is responsible for the overall clinical care of the FEP service users at CMHT level.

(d) Implement the relevant clinical policies, procedures, and programmes

(e) Work closely with the lead EIP consultant psychiatrist at the hub and the management in the areas of staff management, training, education, quality assurance, data management, and service improvement activities, and ensure the delivery of an effective EIP service

(f) Consult with the lead EIP consultant psychiatrist at the hub regarding complex cases and cases requiring specialist interventions from the hub

(g) Support clinical training and continuing professional development throughout the EIP service at CMHT level

A.5 The Role of the EIP Team Co-ordinator

The role of EIP team co-ordinator is central to the successful setting-up, resourcing, recruitment, operation, linking, monitoring and evaluation of the EIP service. They should be located at the hub in hub & spoke services and work closely with their CAMHS and AMHS counterparts in the spokes. Their role is:

(a) To act as the single point of contact for mental health services; to work with the clinical lead and hub team in overseeing the management and recruitment of resources including staffing, and to facilitate communication across the team, and across care groups

(b) Playing a pivotal role in service planning and development, co-ordinating activity and resources for Early Intervention in Psychosis

(c) As their key role, co-ordinating the provision of resources to ensure the implementation of interventions and care plans as agreed by the multidisciplinary team

(d) Responsibilities also include, in conjunction with heads of discipline, the development and implementation of policy and procedures and the monitoring of activity and delivery of agreed levels of service for the EIP service

A.6 The Role of Nursing Staff in EIP Services

Nurses play a pivotal role throughout the pathway of the service user with FEP, including triage, assessment, engagement and interventions. They receive professional training in the area of engagement, assessment of a person's mental state and potential risks. Nurses (staff nurses, clinical nurse specialists and CNM2s) are well placed to be involved in the FEP/ARMS assessment process both in the community and inpatient settings, as well as in the emergency departments of acute hospitals where they work as liaison and self-harm nurses. The nurses' skills in mental state examination and use of standardised assessments as well as in assessing and managing risk are key here.

Nurses also play a key role in case management and providing evidence-based interventions for service users with FEP, as follows:

(a) Medication management: Nurses have extensive knowledge and experience of medications and are skilled in facilitating conversations with service users and family members regarding medication, continually assess the impact of medication and potential risks, provide education on possible side-effects and benefits, discuss adherence issues and provide relevant blood screening and monitoring services (see medical management guidelines: www.hseland.ie). This is in addition to their roles as nurse prescribers as well as in the administration of prescribed long-acting injections.

(b) It is within the nurse's scope of practice to carry out physical assessments, including regular weight monitoring, blood monitoring, ECGs and urinalysis, as well as provide lifestyle advice and ongoing liaison with GPs and primary care teams, dieticians, family members and other agencies.

(c) As many service users with FEP present with co-morbid difficulties, including substance misuse, the nurse is well placed to identify these and provide psychoeducation and psychosocial interventions here.

(d) Many nurses are qualified CBT therapists with skills in working with symptoms of psychosis.

(e) Many nurses are qualified in family therapy and/or behavioural family therapy, working as both clinicians and supervisors. Working with the family with the consent of the service user has always been a key role of the nurse.

Emerging roles within nursing should be considered for this programme as it is developed and evaluated.

A.7 The Role of Occupational Therapist (OT) in EIP Services

The role of occupational therapy in EIP services is primarily focused on functional assessments and recovery (Lloyd *et al*, 2008). Occupational therapists (OTs) work with individuals on their functioning in areas of everyday life such as taking care of themselves and their family, carrying out paid or unpaid work, or participating in leisure activities. Therapy can help the person to deal with the challenges of mental ill health and still lead a full life.

Psychosis has peak onset in late adolescence and early adulthood, which is also when many of the key developmental stages of life occur, such as the completion of education, the beginning of career pathways and establishing oneself independent of parents and family (e.g. Killackey *et al*, 2006). Psychosis can make achieving these key developmental milestones during this crucial stage of life a little more complicated.

In their qualitative study, Krupa *et al* (2010) found that the period following first acute episode can be characterised as a stage of high risk of disengagement from activities and social participation. Young people with psychosis may experience a lack of confidence, a sense of disorganisation, a lack of motivation, a loss of self-esteem, inactivity, a loss of skills, a separation from former social groups, social relationship difficulties and increased anxiety in social situations. Furthermore, formerly valued occupational roles may be lost and the ability to work and study is often affected due to positive symptoms as well as ongoing cognitive difficulties and poor motivation (Basset *et a*l, 2001). Woodside *et al* (2007) present evidence to suggest that people downgrade career and personal plans even before the first episode of psychosis in response to functional problems that begin to occur.

The OT working within first-episode services (Lloyd *et al*, 2008; O'Leary & Turner, 2008) will work with service users to address difficulties in occupational engagement and performance that could place them at risk of disconnection from activities, valued roles and social participation. The basis of OT practice is to enable participation in everyday activities or occupations that are relevant and meaningful to the individual (Hinojosa *et al,* 2003; Roley *et al*, 2008).

The occupational therapist in first-episode psychosis (FEP) will primarily be concerned with promoting recovery through assisting the individual to maintain their functional abilities and develop the new skills they need in order to make progress in life in order to avoid damaging functional, occupational and role deficits. As well as this, the therapist will work with the individual and their support network to adapt tasks and the environment if this is necessary to assist them in meeting their goals.

Alongside the standard professional skills, the occupational therapist in first-episode psychosis's knowledge is aware of the developmental stages of adolescence, early adulthood and further on into the lifespan, and has a thorough understanding of the functional impact of a psychotic experience on the multitude of skills necessary to achieve the milestones that occur at these stages. By applying their expertise, OTs can work with the person to achieve the personal, social, educational and vocational goals and milestones that are relevant and meaningful to them.

Emerging roles within OT should be considered for this programme as it is developed and evaluated.

A.8 Individual Placement and Support (IPS) Specialist Role

IPS adopts a 'place and train' approach, with adaptations to include education as well as vocational goals. The goal is to gain mainstream employment or education as quickly as possible rather than the traditional 'train then place' approach with its lengthy pre-sheltered employment training or preparation. The IPS specialist (in employment and education) works full-time within the team. He/she is not a clinician but a person with knowledge of mental health and experience in the employment/education sector, is trained in both vocational and educational IPS approaches and has access/training in specialist welfare benefits advice. The IPS specialist helps the person to gain open employment or mainstream education, focusing on enhancing and preserving their educational or vocational developmental trajectory.

The IPS specialist works to the seven evidence-based principles of the IPS approach (Bond, 2015):

(a) The goal of open employment or education (building up gradually and flexibly)

(b) Job or educational searches starting rapidly, within one month

(c) Eligibility based on the service user's choice

(d) Job or education search or choice determined by the service user's preferences

(e) Support that is not time-limited and is based on the needs of the service user

(f) Integrating vocational/education and mental health services

(g) Providing high-quality welfare benefits advice and counselling

The IPS specialist does not act as a EIP Keyworker, but has a caseload of up to 25 of the EIP team's service users at any one time, engaging them on vocational/educational issues, assessing vocational needs, proactively helping them to gain and retain work/education courses, providing welfare benefits advice, and addressing support needs, including adjustments to enable people to retain work or education.

Within the EIP team, the IPS specialist has a key role to coordinate all vocational/educational plans with other members of the EIP team and to ensure vocational goals are given a high priority in the care planning process. The IPS works closely with the MDT, ensuring good communication to ensure that care planning is integrated and congruent with expected recovery trajectories. The IPS specialist needs to have good working relations with the rest of the EIP team, working alongside them (e.g. EIP Keyworkers, OTs, medical staff and carers) to ensure that obstacles to education and employment are identified and addressed promptly.

Outside the EIP team, the IPS specialist needs to develop good working relationships with local employers, statutory and non-statutory employment agencies, social security agencies, youth careers services, colleges and mainstream education and training providers, and specialist employment/training services.

A.9 The Role of the Clinical Psychologist in EIP Services

The role of a clinical psychologist in a First Episode Psychosis (FEP) service is an essential element of any Early Intervention model, whatever its configuration. The 'Division of Clinical Psychology Psychosis and Complex Mental Health Faculty Briefing Paper' (Leadley *et al*, 2005) reflects the diversity of the role of clinical psychology and highlights specific areas where psychologists contribute to EIP services such as indirect and direct clinical work, and research and evaluation.

Indirect clinical work is a key focus for clinical psychologists in EIP services. Their training and expertise in formulation-driven approaches, which are an essential element in EIP models, when coupled with their understanding of the psychosocial issues involved in the transition from adolescence to adulthood, places psychologists in a unique position to contribute to the assessment and treatment functions of EIP services. Similarly, they play a key role in understanding and managing challenging behaviour and are well placed to advise on strategies and protocols to cater for such incidents.

The direct work of a clinical psychologist in EIP services involves a systemic approach to deliver many of the key competencies associated with the therapeutic process, including engagement, assessment, formulation, intervention, relapse prevention and evaluation. Through developing a collaborative relationship with the service user, tailored psychological intervention is provided to people with psychotic experiences. Currently, the best evidence base is for CBT, and NICE guidelines require access for all service users to CBT/and or family interventions as a minimum standard (NICE, 2014). However, it is important to note that the evidence base for CBTp is limited and best reserved for those with persistent psychotic symptoms. Other psychological approaches can also be helpful and many are being evaluated as an emerging research base is established.

Psychologists also have a key clinical role in assessing complex and/or psychiatric co-morbidity as well as cognitive impairment. Their expertise in interventions for FEP service users and family/carers includes CBTp and/or family intervention.

The research base to demonstrate the effectiveness of EIP services is continually evolving, and clinical psychologists possess the research skills to contribute further to such studies. Using both qualitative and qualitative methodologies, clinical psychologists are well placed to audit and evaluate clinical and social outcomes, and to establish local research capacity.

In summary, the role of a clinical psychologist in an EIP service is multifaceted and many of the core functions of optimal EIP services use clinical psychology skills. Clinical psychologists contribute to team functioning and work alongside other professional disciplines to deliver the core clinical interventions for service users experiencing an FEP.

Emerging roles within psychology should be considered for this programme as it is developed and evaluated.

A.10 The Role of the Mental Health Social Workers (MHSWs)

Mental health social workers work in partnership with the service user, family and community to address environmental factors connected to mental health. Social workers are committed to the values of human rights, dignity, social inclusion and justice within an anti-discriminatory framework (Irish Association of Social Workers, 2017).

Mental health social workers assert the rights of people with mental health problems to be treated, both by the healthcare system and the wider society, in a way that maintains their dignity, respects their right to make personal decisions, and maximises their quality of life.

The concept of 'person in environment', which emphasises the role that environmental factors can have in creating, maintaining and resolving personal problems, is fundamental to social work. It underlies the social-work commitment to working collaboratively with the families of those with mental health problems. It alerts mental health social workers to the value of assessing mental illness in a broad, contextual way. It sensitises social workers to the negative effects that low income, poor housing, inadequate educational provision and discrimination can have on a person's mental health (Irish Association of Social Workers, 2017).

In practice, mental health social workers carry out a range of functions as members of mental health teams (AMHTs), including:

(a) **Assessment of psychosocial needs:** Through collaborative assessment, social workers aim to gain an understanding of how the service user relates to their daily living environment and the social systems they interact with. Supports required to enable the service user to achieve good mental health and meaningful quality of life are identified through this collaborative process.

(b) **Case management:** Since service provision can become fragmented, mental health social workers are committed to what is known as 'case management' (Irish Association of Social Workers, 2017). This refers to working with individuals with a view to ensuring continuity of care and the co-ordination of services to maximise their well-being and quality of life. Case management involves the integration of health services with a range of other services, such as housing, social welfare, statutory and voluntary agencies, all of which may contribute to positive mental health.

(c) **Promotion of recovery and wellness:** Person-centred counselling, emotional support and therapeutic groupwork are provided to individuals and families in relation to issues such as social isolation, loss and adjustment, and relationship difficulties.

(d) **Mobilising resources and advocacy:** Social workers work with individuals and families to ensure access to relevant community services. They support services users to advocate for themselves regarding housing, social welfare and legal matters, providing assistance and advocacy where required.

(e) **Family support and intervention:** Social workers work with both individual families and multifamily groups. One aspect of family work is to provide information and education on mental health and signposting to relevant community services. Social workers also work with families to enhance communication and identify and negotiate issues that may be causing stress or conflict in the family system.

In the context of early intervention for FEP, social workers will be concerned with ensuring that evidence-based approaches to family intervention for FEP are provided to all families. These include whole-family approaches and carer-focused approaches (NICE, 2015) (outlined in detail in Chapter 11).

Emerging roles within SW should be considered for this programme as it is developed and evaluated.

APPENDIX 2: RECOMMENDED READING

- The International Clinical Practice Guidelines for Early Psychosis (2005).
- National Institute for Health and Care Excellence. Psychosis and schizophrenia in adults: treatment and management. CG178. 2014.
- Royal Australian and New Zealand College of Psychiatrists Clinical Practice Guidelines for the Management of Schizophrenia and Related Disorders (Galletly *et al*, 2016).
- Medical Management in Early Psychosis: a Guide for Medical Practitioners. Orygen Youth Health Research Centre (ENSP Medical Management Writing Group, 2014).
- Promoting Recovery in Early Psychosis: A Practice Manual. Eds Paul French, Jo Smith, David Shiers, Mandy Reed, Mark Rayne. Wiley-Blackwell. ISBN: 978-1-405-14894-8.
- Initial Assessment and Initial Pharmacological Treatment in the Acute Phase, Lambert M (2009) in The Recognition and Management of Early Psychosis (2nd edition), Eds: Henry J Jackson & Patrick D McGorry, Cambridge University Press, UK. ISBN 978-0-521-61731-4.
- Practical Management of Bipolar Disorder, Eds: Allan Young, Nicol I Ferrier, Erin E Michalak, Cambridge University Press, UK, ISBN 978-0-521-73489-9.
- First Episode Psychosis, Kathy J Aitchison, Karena Meehan, Robin M Murray (1999) Martin Dunitz, London.
- Psychological Interventions in Early Psychosis: A Treatment Handbook. Ed John FM Gleeson & Patrick P McGorry (2004), John Wiley & Sons Ltd, England.
- Implementing Early Intervention in Psychosis: A Guide to Establishing Early Psychosis Services. Jane Edwards & Patrick P McGorry (2002). Martin Dunitz, London.
- Lester UK Adaptation 2014: Positive Cardiometabolic Health Resource: An intervention framework for people experiencing psychosis and schizophrenia www.rcpsych.ac.uk/quality/NAS/resources.

Twenty-three treatment manuals on different aspects of early psychosis are available for purchase online via Orygen, the National Centre for Excellence in Youth Mental Health (formerly EPPIC) in Australia (https://www.orygen.org.au/Education-Training/Resources-Training/Resources/Paid/Manuals/Psychological-Interventions).

The National Institute for Clinical Excellence (NICE), UK regularly updates its guidance on treatment and interventions for conditions such as Psychosis and Schizophrenia in Adults (CG178) and Psychosis and Schizophrenia in Children and Young People (CG155). London RCPsych Publications.

(https://www.nice.org.uk/guidance/cg178 or https://www.nice.org.uk/guidance/cg155).

APPENDIX 3: REFERENCES FOR CLINICAL RATINGS / MEASURES / METRICS

Brief Negative Symptom Scale (BNSS): Kirkpatrick B, Saoud JB, Strauss GP, Ahmed AO, Tatsumi K, Opler M, Luthringer R, Davidson M. (2017). The brief negative symptom scale (BNSS): Sensitivity to treatment effects. Schizophr Res pii: S0920-9964(17)30729-6. doi: 10.1016/j.schres.2017.11.031. [Epub ahead of print]

CAARMS Comprehensive Assessment of At-Risk Mental States: Yung AR, Yuen HP, McGorry PD, et al. Mapping the onset of psychosis – the Comprehensive Assessment of At Risk Mental States (CAARMS). ANZJP. 2005; 39:964-71.

CGAS: Children's Global Assessment Scale: Shaffer, David; Gould, M.S.; Brasic, J.; Ambrosini, P.; Fisher, Prudence; Bird, Hector; Aluwahlia, S. (1983). "A children's global assessment scale (CGAS)". Archives of General Psychiatry. 40: 1228-31.

EQ-5D-5L: Euroqol Five dimension five levels scale: Herdman, M.; Gudex, C.; Lloyd, A.; Janssen, Mf; Kind, P.; Parkin, D.; Bonsel, G.; Badia, X. (2011-12-01). "Development and preliminary testing of the new five-level version of EQ-5D (EQ-5D-5L)". Quality of Life Research: An International Journal of Quality of Life Aspects of Treatment, Care and Rehabilitation. 20 (10): 1727-1736.

EQ-5D_Y: EuroQol youth-friendly version: Wille, Nora; Badia, Xavier; Bonsel, Gouke; Burström, Kristina; Cavrini, Gulia; Devlin, Nancy; Egmar, Ann-Charlotte; Greiner, Wolfgang; Gusi, Narcis (2010-04-20). "Development of the EQ-5D-Y: a child-friendly version of the EQ-5D". Quality of Life Research. 19 (6): 875-886.

GAF-MIRECC: Mental Illness Research, Education, and Clinical Centre, Global assessment of functioning scale: Niv, N., Cohen, A.N., Sullivan, G., & Young, A.S. (2007). The MIRECC version of the Global Assessment of Functioning scale: reliability and validity. Psychiatric services, 58 4, 529-35.

Lester UK Adaptation: Positive Cardiometabolic Health Resource, National Institute for Health and Care Excellence, November 2015. Download: www.rcpsych.ac.uk/quality/NAS/resources.

MANSA: Manchester Short Assessment of Quality of Life Scale: Priebe S, Huxley P, Knight S, Evans S (1999). "Application and results of the Manchester Short Assessment of Quality of Life (MANSA)". Int J Soc Psychiatry. 45 (1): 7-12.

NOS: Nottingham Onset Schedule: Singh SP, Cooper JE, Fisher HL, Tarrant CJ, Lloyd T, *et al* (2005), Determining the chronology and components of psychosis onset: The Nottingham Onset Schedule (NOS). Schizophr Res 80: 117-130.

PANSS: Positive and negative syndrome scale: Kay SR, Fiszbein A, Opler LA (1987). "The positive and negative syndrome scale (PANSS) for schizophrenia". Schizophr Bull. 13 (2): 261-76.

SANS: Scale for the assessment of negative symptoms: Andreasen NC: Scale for the Assessment of Negative Symptoms (SANS). Iowa City, University of Iowa, 1984.

SAPS: Scale for the assessment of positive symptoms: Andreasen NC: Scale for the Assessment of Positive

Symptoms (SAPS). Iowa City, University of Iowa, 1984.

SIPS: Structured Interview for Psychosis-Risk Syndrome: T. McGlashan, B. Walsh, and S. Woods, The Psychosis-Risk Syndrome: Handbook for Diagnosis and Follow-Up, Oxford University Press, Oxford, UK, 2010.

APPENDIX 4: PREVIOUS ADVISORY COMMITTEES

Prior EIP Working Group Membership (2015) College of Psychiatrists of Ireland

Dr. Paddy Power	Chairperson, Child & Adolescent, Adult Psychiatrist
Dr. Zetti Azvee	Senior Registrar
Dr. Caragh Behan	Adult Psychiatrist
Professor Mary Clarke	Academic Faculty
Dr. Ciaran Corcoran	Chair of the Faculty of Adult Psychiatry
Dr. Maeve Doyle	Child & Adolescent Psychiatrist
Dr. Catherine McDonough	Faculty of Social and Rehabilitation Psychiatry
Dr. Mia McLaughlin	Chair of the Faculty of Psychiatry of Old Age
Dr. Paul O'Connell	Forensic Psychiatrist
Dr. Ray Paul	Liaison Psychiatry Faculty
Dr. Mike Scully	Chair of the Faculty of Addictions Psychiatry
Ms. Miriam Silke	Chief Executive, College of Psychiatrists of Ireland
Ms. Karen Smith	Administrator, College of Psychiatrists of Ireland

International Advisors:

Professor Pat McGorry	Professor of Youth Mental Health University of Melbourne, Australia
Professor Jo Smith	Professor of Early Intervention and Psychosis, University of Worcester, UK
Dr. David Shiers	Former Joint Lead of UK's Early Intervention in Psychosis Programme

Membership of the original 2012 EIP Working Group

Dr. Mary Clark	**(Chair) College of Psychiatry of Ireland**
Ms. Cathy McBrearty	**CAMHS Nursing Representative**
Ms. Eimear Connaughton*	Association of Occupational Therapy of Ireland
Ms. Deirdre Dunne**	Psychological Society of Ireland
Mr. Patrick Egan	Irish Association of Social Workers
Dr. Blanaid Gavin***	College of Psychiatry of Ireland
Mr. Michael Hyland	Mental Health Nurse Managers of Ireland
Ms. Dolores Keating	Pharmaceutical Society of Ireland
Dr. Ena Lavelle	College of Psychiatry of Ireland
Dr. Fiona McKenna	Irish College of General Practitioners
Mr. John Redigan	National Service Users Executive
Ms. Laoise Renwick	DETECT early intervention for psychosis service
Mr. Niall Turner	DETECT early intervention for psychosis service

* replaced Mr Clement McLoughlin

** replaced Ms Caroline O'Connor

APPENDIX 5: REFERENCES / BIBLIOGRAPHY

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