

HSE NATIONAL CLINICAL PROGRAMME FOR EARLY INTERVENTION IN PSYCHOSIS

MODEL OF CARE EXECUTIVE SUMMARY

May 2019





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READER INFORMATION

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EXECUTIVE SUMMARY

The Health Service Executive's (HSE) National Clinical Programme (NCP) for Early Intervention in Psychosis (EIP) has been prioritised within the HSE National Clinical Programme for Mental Health in order to improve services for people who develop, or are identified as being at high risk of developing psychotic disorders in Ireland. The vision of the National Clinical Programme for EIP is that everyone who develops psychosis for the first time or is identified as being at risk of developing psychosis receives the highest quality of care and treatment to achieve their optimal clinical, functional and personal recovery.

The aim of the HSE's Clinical Strategy and Programmes – incorporating all of the HSE's National Clinical Programmes – is to improve health services in terms of:

- Quality and safety;
- Access to services and evidence-based interventions;
- Cost effectiveness.

The Model of Care outlines the HSE's vision for its early intervention in psychosis services in Ireland into the future. It has been compiled by a national multidisciplinary working group within the HSE including service user / carer representation and in collaboration with a Clinical Advisory Group from the College of Psychiatrists of Ireland. An extensive consultation process was also carried out.

THE CONTEXT AND BACKGROUND

Psychotic Disorders: Lifetime Prevalence and Impact

Psychotic disorders, such as schizophrenia and mood disorders (with psychosis) affect about 3% of the population in their lifetime. They are a major source of suffering and disability in society. Schizophrenia is ranked 6th in the global burden of disease. Bipolar disorder incurs similar costs and is ranked even higher (4th) in young people. In Ireland, the cost of schizophrenia alone is €460 million annually (Behan *et al*, 2008).

The First Episode of Psychosis

A first episode of psychosis (FEP) is when a person experiences moderately severe, distressing, and disabling psychotic symptoms for the first time for a period of at least

seven consecutive days. Psychotic symptoms include hallucinations, delusions and thought disorder. These episodes are generally due to either a functional psychotic disorder (e.g. schizophrenia, manic or depressive psychosis, and drug induced psychoses) or an organic psychosis (e.g. secondary to neurological conditions). Schizophrenia spectrum disorders account for a third of FEP, Manic Psychosis one sixth, depressive psychosis one fifth, and other psychoses for the remainder (Baldwin et al 2005). Organic psychotic disorders are less common than functional psychoses and generally better managed by appropriate medical specialties e.g. neurology.

Each year in Ireland, approximately 1,300 adults and 230 adolescents develop a psychotic disorder for the first time. This equates to an incidence of 32 new cases a year per 100,000 population (Baldwin et al, 2005) of which about 15% will be adolescents (Singh et al, 2003). Two thirds are likely to be male. For the majority, these disorders emerge during the adolescence and early adulthood. They are often complicated by pre-existing difficulties and aggravated by either stress, drugs and social deprivation. It is more likely to affect people living in inner cities where incidence can be more than twice as high as rural areas (Kelly et al, 2010). Focussing down to the neighbourhoods, the differences can be 10 fold or more (www.symaptic.org).

Most people experience long delays in accessing treatment and, when they do make contact with services, engagement is often brief and services fall short in meeting their needs. For many people this first episode is often a prelude to a lifetime of further episodes and suffering that could be prevented if their illness was treated earlier and interventions were maintained over a sustained period of time.

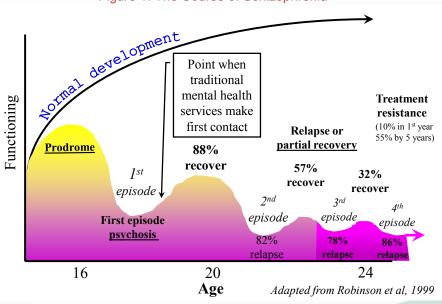


Figure 1: The Course of Schizophrenia

The At Risk Mental State (ARMS)

The At Risk Mental State (ARMS) is a pre-psychotic state that places an individual at ultra-high risk of developing a psychotic disorder (30% risk within 3 years).

It is possible for specially trained senior clinicians to identify a small proportion of FEP patients (aged 14 - 35) in this pre-psychotic state and offer interventions that prevent them from developing a full blown psychotic disorder. At this stage this is limited to 14 - 35 year olds as there is no evidence base yet for those over 35 years olds.

The Evidence for Early Intervention in Psychosis (EIP)

There is now an extensive international body of evidence from studies over the last two decades to show that intervening early in psychotic disorders is associated with:

- Better detection rates and less delays in accessing treatment
- Lower levels of symptom severity, suicidality, and death
- Lower risks of progression to more enduring stages of psychosis
- Better rates of remission, recovery and relapse prevention
- Less hospitalisations and time spent in hospital
- Better satisfaction and engagement with services
- Better levels of functioning and quality of life
- Lower healthcare costs

A recent systematic review and meta-analysis of EIP interventions and services confirms these benefits with EIP services (Correll et al, 2018) and that these improvements are sustained better by having 3 years follow-up.

Context of Early Intervention in Psychosis Service Provision

All elements of service provision for the Early Intervention in Psychosis (EIP) Model of Care are deemed to be in line with the current organization, ethos, national policy and legislative frameworks of mental health service delivery in Ireland. This entails the

provision of a recovery orientated service which is person centred care with treatment provided in the least restrictive setting and with the involvement of family/carers.

The Vision and Aims of the Model of Care

The overall vision of the Model of Care is that EIP services be established throughout the HSE mental health system in the Republic of Ireland so that everyone between the ages of 14 - 65 presenting with first episode psychosis to adult or child and adolescent mental health services will have access to EIP services for up to three years. EIP services will accept referrals for up to 2 years after their first presentation.

There is not yet an evidence base to advise on which types of EIP service models best suit those with FEP over 65, those in specialist services such as Forensic and Learning Disability services, as well as those with ARMS over 35 years old. The NCP will conduct a review of this in the next 3 years when more evidence may be available.

The Aims of the EIP Model of Care are to:

- 1. Provide an EIP service model that is most appropriate to local needs
- 2. Improve early detection of ARMS and FEP, reduce delays in pathway of care, and provide high quality assessments, investigations and diagnostic services
- Provide a comprehensive range of multidisciplinary evidence-based interventions for the 3 years with EIP services followed by seamless transitions to follow-up services.
- 4. Ensure an ethos of respect and shared decision, with a focus on recovery and person-centred care and including support and information for carers
- 5. Provide the full funding & resources necessary for a comprehensive EIP service
- 6. Provide high quality staff training, supervision.
- 7. Ensure good governance and accountability
- 8. Ensure service evaluation and continuous quality improvement in EIP services

4. Patient & 2. Early detection, 3. Evidence based 1.EIP service Family/carer assessment, and structure interventions centred care and pathways into care recovery 8. Evaluation and 6. Skilled 7. Clinical Continuous required to deliver workforce

governance

Quality

improvement

Figure 2: Aims & Objectives of the NCP EIP Model of Care's Eight Themes

SUMMARY OF RECOMMENDATIONS

Theme 1: EIP Service Structure

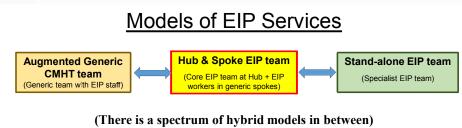
1.1 The recommended model for EIP services is the:

development

- (a) **Standalone** model in urban areas with a population greater than 200,000;
- (b) **Hub & Spoke** model for rural areas and towns with populations below 200,000.

These two models are from a range of Early Intervention in Psychosis (EIP) service models (see Figure 3). At one end of the spectrum there is the *augmented generic service* (Adult Mental Health Teams and Child and Adolescent Mental Health Service teams *augmented* with EIP interventions). At the other end of the spectrum there is the *Standalone model* (a dedicated specialist EIP team). Between the two extremes is the *Hub and Spoke* model. The Hub and Spoke model is managed from a central Hub with specialized interventions/staff located at the hub and day to day clinical management delivered at the spokes by EIP key-workers and medical staff. Clinical responsibility remains with CMHT consultant. The hubs provide additional services and advice.

Figure 3: Types of EIP Service Models



- 1.2 Age range: These EIP services will be made available to all new service users (aged 14 65) presenting to mental health services in the republic of Ireland with a suspected first episode of psychosis. Those requiring specialist services e.g. Learning Disability, Forensic, Addictions, Rehabilitation, Perinatal Mental Health Services, will have standard access to those services.
- **1.3 CAMHS EIP Services:** FEP service users under the age of 18 will be managed by CAMHS until they reach age 18 at which stage they will be provided a well-managed transition of care to Adult Mental Health Services.
- **1.4 A 3 year Service**: EIP services will provide local follow-up care and evidence-based treatment for service users with FEP for up to **3 years** after their first presentation to the EIP service.
- **1.5 MDT teams**: All EIP services will be composed of a full **Multidisciplinary team** (MDT) under the clinical leadership of a consultant psychiatrist and supported by **EIP Keyworkers**.
- 1.6 Consultant roles: For Standalone teams the EIP consultant is the clinical and service development lead. For Hub & Spokes the arrangement is that 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. CAMHS consultants retain clinical responsibility for service users under 18 years of age. For this to operate effectively, it is essential that consultant time at both Hubs and Spokes is adequately resourced and balanced to manage their FEP caseloads as well as their EIP roles (see Section 5.2.10).
- **1.7 EIP Keyworkers** will (under the supervision of the clinically responsible consultant psychiatrist) have a central role in engagement, clinical assessment, reviews, **Individual Care Planning**, and delivery of EIP interventions for the service

user and carers throughout their 3 years with the EIP service. This is a new post recommended in the Model of Care with clear expertise, roles and responsibilities outlined. Each EIP Keyworker will carry a caseload of 15 FEP service users and their carers (see Chapter 14 of the MoC).

1.8 EIP MoC Review: A review will be conducted by the National Clinical Programme **over the next 3 years** to determine the EIP service needs for the FEP population not covered by the new EIP services such as those aged under 14 and over 65, and those attending specialist mental health services etc.

Theme 2: Early Detection, Assessment & Pathways into Care

- **2.1 Reducing the Duration of Untreated Psychosis (DUP)** is one of the core aims of EIP. This depends on (a) raising awareness among referrers, (b) eliminating delays in the pathways into care, and (c) providing prompt comprehensive clinical assessments and access to evidence based treatment.
- **2.2 Early Detection by raising awareness** will be facilitated by encouraging education and training among referrers (including front-line health staff) in recognising the signs of early psychosis and understanding the appropriate pathways into care. Primary Care and Acute Hospital Emergency Department staff will be a priority. Sufficient resources will need to be allocated to educating referrers in recognising FEP and referring to EIP services. At a national level this should include standardised educational material and resources.

At a CHO level, it will need resourcing, co-ordination and delivery by health educators. At a local level, EIP team co-ordinators will need to allocate time for senior staff to assist health educators in delivering education effectively to referrers. As part of Stage 3 of EIP service implementation, a **Health Educator** will be appointed to each CHO to co-ordinate and assist with the above initiatives.

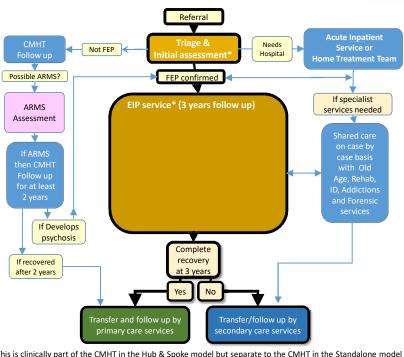


Figure 4: Pathways through EIP service

- * This is clinically part of the CMHT in the Hub & Spoke model but separate to the CMHT in the Standalone model
- 2.3 Pathways into care for individuals with suspected FEP or ARMS will be developed in collaboration with referrers such primary care teams as well as Acute Hospital Emergency Departments. This will include providing standardized systems and timeframes for effective, prompt and appropriate triaging of referrals of suspected first episode psychosis to EIP services for assessment.
- 2.4 Comprehensive Clinical Assessments of referrals by an EIP Keyworker should commence within 3 working days of receipt of referral, whether in inpatient or community settings. The EIP Keyworker should conduct this jointly with the Consultant / NCHD if the person has not already been medically assessed, investigated, and offered treatment choices (e.g. first presentations in the community).

If the assessment confirms that a person is experiencing an FEP, then the **EIP service** should offer a 3 year period of follow-up care and treatment. If not, then transfer and follow-up by the appropriate service should be organised by the assessing clinicians. If the assessment concludes that ARMS is suspected then the follow-up service should organise a specialist ARMS assessment (see Section 2.6).

Comprehensive MDT Formulation and Individual Care Planning: Where appropriate, assessments and reviews of service users with FEP should include other members of the multidisciplinary team as well as information from other agencies so that a **comprehensive biopsychosocial formulation**, **diagnosis**, **and risk assessment** can be achieved promptly. This is particularly important given the high levels of co-morbidities and complications. Such formulations will provide the foundation for constructing a **collaborative Individual Care Plan (ICP)** with the service user and carer. This ICP should be reviewed regularly (at least 6 monthly or when moving between teams). Copies of the assessment summaries and ICP should be made available to the service user, GP, and health agencies involved in follow-up.

2.6 At Risk Mental State Assessments are a specialist tertiary assessment clinic coordinated by the standalone or hub team/s in each CHO and led by consultant psychiatrists with expertise in ARMS assessments. Designated ARMS clinicians will provide prompt and specialist At Risk Mental State (ARMS) assessments to referrals of a clinical population of young people (aged 14-35 years old) already under the care of mental health services and suspected to be at high risk of psychosis.

If **ARMS** is **confirmed** by the assessment, then the advice is for the service user to **follow up for at least two years** with CAMHS / AMHS (depending on age) and engage with clinical interventions appropriate to their mental health needs. The ARMS assessment clinic will offer 6 monthly re-assessments if clinically indicated. Evidence from existing ARMS clinics is that the number of cases detected per 100,000 population is very small – approximately 5 per annum (see **Section 5.2.8**).

- **2.7 Investigations**: The Model of Care outlines the range of **standard investigations** for anyone diagnosed with FEP. **Additional investigations** should be included if patients present with co-morbidities. These investigations may occasionally require access to **specialist services** e.g. forensic assessments and addiction services and may require joint working with these services.
- 2.8 Transitions and Discharges are sensitive and risky times for service users and carers. This is especially after initial assessments, admissions or discharges from inpatient care hospital, transfers between CAMHS and AMHS, and discharges at the end of the three year EIP follow-up period, the Model of Care recommends that these transitions are properly planned, managed and communicated between the

agencies involved and in collaboration with the service users and their carers. Comprehensive transfer summaries and care plans should be compiled in advance by the transferring team in collaboration with the service user and carers. Copies should be made available to the service user, GP, and health agencies involved in follow-up.

Theme 3: Evidence Based Interventions

3.1 Interventions. To achieve the best outcomes in FEP, EIP services need to provide a broad range of **evidence based multidisciplinary interventions** for service users and their family/carers.

They should instil an ethos of hope in recovery, adhere to international standards of best practice, be stage specific and be provided in a timely manner by experienced clinicians trained in that particular intervention. Interventions provided should be age appropriate, based on individual need, and include a focus on young people's needs.

Some of these interventions are **discipline specific** (requiring additional input from MDT members) while others are **generic** and could be provided by all members of the MDT including EIP Keyworkers. These interventions should be available to service users over the 3 years of EIP service follow-up. During this period, follow-up should be assertive in order to minimise the risk of disengagement.

These evidence base interventions in FEP are constantly evolving. They should be reviewed and updated regularly. Changes should prompt modifications in EIP services policy and development. They should also be a central part of continuous professional development for all EIP clinicians.

These interventions include the following and are summarised in the next sections:

- (a) Pharmacotherapy;
- (b) Physical health monitoring and lifestyle interventions;
- (c) Psychological therapies;
- (d) Family interventions;
- (e) Social, Occupational and Educational interventions.

3.2 Pharmacotherapy should follow internationally recommended **medication regimens** for the particular type of psychotic disorder and its phase/stage (NICE, 2014). Medications should be individually tailored with collaboratively informed treatment decisions with service users (and carers). They should be prescribed at the **lowest effective dose** and the medication that is **best tolerated**. Medications should be **reviewed regularly for treatment response and side effects.** The physical complications of medication should be monitored regularly and collaboratively between the EIP Key worker as well as treating doctor and the GP.

In first episode schizophrenia, antipsychotic medication is currently recommended for 3 years to reduce the risk of relapse. When ceased it should be withdrawn gradually. Antipsychotic medications should be avoided in ARMS unless they have additional high risks or are unresponsive to psychological interventions.

Table 1: Summary of Evidence Based Interventions

First Episode Psychosis interventions include:

- Psycho-education
- Pharmacotherapies: See best practice guidelines for first episode psychoses:
 - Atypical antipsychotics (starting low and going slow)
 - Mood Stabilisers (Manic and Bipolar psychoses) combined with antipsychotics
 - Antidepressants (SSRIs/SNRIs) for complicating depression
 - · Benzodiazepines (acute phase agitation and insomnia only)
- Psychological interventions (provided 1:1)
 - · Psychological assessments
 - CBT for psychosis (CBTp)
 - Other Psychological Interventions such as Relapse Prevention counselling, Social Skills Training for negative symptoms and social deficits and Cognitive Remediation for neurocognitive deficits
- · Recovery group programs:
 - Psychosocial recovery programs
- Treatment of co-morbidities:
 - Addictions interventions
 - Depression and anxiety disorders
- Supported Employment/Education
 - Individual Placement and Support (IPS)
- Family & carer interventions
 - Behaviour Family Therapy (BFT)
 - Systemic Family therapy
 - Carer Psycho-education sessions and Family peer support
- Physical Health Monitoring
 - · Baseline and follow-up investigations & health monitoring
- Discharge and follow-up planning
 - Prognostic estimates, long-term recommendations and advice re contingencies e.g. pregnancy and postnatal risks and prevention in offspring

- **3.3** Physical health monitoring and lifestyle interventions should occur at baseline, 3 months, and then annually thereafter (or more frequently if clinically indicated). They should be accompanied by appropriate interventions e.g. as outlined by the Lester UK Adaptation guide (Shiers et al, 2014). Lifestyle interventions should include smoking cessation, sleep hygiene, nutritional advice and routine physical activity. Joint working with primary care services is essential.
- **3.4** Psychological therapies include a variety of specific interventions for psychotic disorders that include Cognitive Behaviour Therapy (CBTp) for positive psychotic symptoms, Social Skills Training for negative symptoms and social deficits, and Cognitive Remediation for neurocognitive deficits and Relapse Prevention Therapy. Other standard forms of CBT may be appropriate in complicating depression, co-morbid anxiety disorders, etc. All FEP patients should have access to these interventions but the timing and appropriateness should be based on clinical need as judged by the treating MDT. Psychological assessments may aid in this process and therapeutic engagement is critical to their success. Only a minority of patients will engage successfully and benefit from these therapies while for others, who are difficult to engage, they may even be counterproductive (Dunn et al., 2012).
- **3.5 Family interventions** range from carer **psychoeducation** sessions to **Behaviour Family Therapy** (BFT) and **systemic family therapy**. Psychoeducation should be made available to all carers as soon as possible after initial diagnosis and provided by EIP Keyworkers and medical staff. BFT should be offered routinely to all families (not just parents) with the service user's agreement and provided by BFT trained therapist (ideally with the service user's EIP Keyworker). Systemic family therapy should be reserved for family with additional difficulties and provided by systemic family therapists.
- **3.6 Social, Occupational and Educational interventions** include interventions aimed at enhancing recovery and reintegration back into work, education, and social life. They should take into account the likely persistence of residual positive and negative symptoms of psychosis, neurocognitive deficits and emotional and traumatising impact of psychosis on self-esteem and confidence. These interventions,

including Individual Placement and Support (IPS), should be provided over the course of two to three years and should start soon after the acute psychosis has remitted.

EIP Keyworkers should be trained in providing the more basic components of these interventions. They should be informed about social welfare services, accommodation services, social services, etc. While some of the more sophisticated aspects of the interventions may be reserved for Occupational Therapists (OTs) and for **Individual Placement and Support (IPS)** employment specialists under the guidance of OTs.

Theme 4: Person & Family / Carer Centred Care & Recovery

4.1 Ethos: The Model of Care emphasises the importance that the EIP service are **recovery oriented**. Recovery takes into account the extent to which EIP services support the person "to do the things they want to do and lead the life they want to lead" (Davidson, 2006). It should be built on a **culture of hope** and expectation that, with the right kind of help, a person experiencing FEP can overcome their mental health challenges and be provided the opportunities to fully recover. Such a service should be outward-looking to engage with all aspects and supports that will help to achieve and sustain recovery throughout their life. The importance of the service user leading out on their plan of care is central. This should be supported by informed clinical best practice and an understanding of the person's lived mental health experience.

Table 2: Person Centred Care and Recovery

The principles of self management and recovery: 1. The service user is enabled and supported to take responsibility for informed decisions about his/her treatment and care. 2. Key to this is the provision of information by clinicians to the service user throughout their time with the EIP service 3. Relationships between service users and providers are based on mutual respect and a partnership approach. 4. A central focus on service user's strengths, solutions, health and wellness. 5. Working towards service users goals including housing, education/ training/employment, involvement in community activities etc. 6. Respecting the service user choice of Family/carers/others as partners in care and treatment.

The EIP Model of Care also emphasises the important role that families (parents, siblings, etc.) and carers play in recovery. EIP services should be family sensitive and should promptly offer interventions that address the needs of families (parents,

siblings, children, partners, etc.) carers and friends in assisting with a service user's recovery.

Table 3: Principles of Family / Carer Interventions

The Principles of Family/Carer Interventions in FEP

- Families/carers perspective should be valued and they should be included as partners in the assessment and care planning process
- Family/carer support needs should be assessed and addressed by EIP service at an early stage.
- Family/carers should be offered evidence-based family/carer interventions as early as possible following diagnosis of FEP
- Evidence based family/carer interventions should be delivered by trained/qualified EIP clinicians
- Training and supervision needs of staff delivering family/carer interventions should be supported by the service.
- Confidentiality and information sharing should respect the rights and wishes of the service user, while also considering families/carers' need for appropriate information and support.

Theme 5: Resource Requirements

5.1 What to Consider when Estimating Resources Needed

5.1.1 Invest to save. When the EIP NCP is resourced and established, there will be substantial savings downstream because of better outcomes and reduced demands on inpatient and continuing care services. Not only will it better meet the needs of service users and family/carers but there is a well-established economic evidence base and rationale for EIP investment (McCrone *et al*, 2008). The staffing estimates should be viewed in the context this "**invest to save**" clinical programme.

Table 4: Estimating Resources Needed for EIP Services

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
- Protected time/dedicated posts for EIP Key Workers, Clinical Leads and Intervention Leads
- 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

5.1.2 Needs Assessment. An essential preparatory step is for the NCP to commission a national epidemiological data analysis to determine the variation

across the country in the incidence of psychosis. This will ensure that the amount of EIP resources allocated will be appropriate to the needs of the local population given that there is likely to be 3 -4 fold difference in the incidence of psychosis between rural and urban areas.

5.1.3 Funding. The model of care for early intervention in psychosis (EIP) will require significant start up investment funding. A staged implementation plan is recommended with funding to match (see figure below). This would begin with funding for those who present with a first episode of psychosis (FEP) followed by adding funding for assessment services for those with an At Risk Mental State (ARMS) and finally progressing to include early detection components.

Figure 5: Staged Implementation of EIP strategies



- **5.1.4 Implementation.** Detailed plans for a **phased rollout for EIP services** will need to be developed by the HSE at national and CHO levels. Particular planning will be needed to organise how these new resources will be integrated and will operate alongside existing mental health services such as AMHS, CAMHS, Specialist services, Inpatient and day-hospital services, and primary care/counselling services such as GPs, Jigsaw, student health services etc.
- **5.1.5 Achieving Goals**. The success of the national roll-out of EIP services will rely on proper resourcing, management, training, provision of evidence-based interventions, clearly defined care pathways, integration with existing services, good communication, and effective service evaluation.

5.2 EIP Staffing Requirements

5.2.1 Estimate of number of FEP cases. Pending a comprehensive scoping exercise of need, the following staffing estimates are based on the expected incidence of first episode psychosis with EIP services providing follow-up for 3 years. These estimates

(see Table 6) are based on an average incidence nationally of 32 new cases of first episode psychosis per year per 100,000 population) (Baldwin et al, 2005; Kelly, 2010). About 15% of FEP cases will present to services before the age of 18 (Singh et al, 2003). This equates to an average of 5 new adolescent cases and 27 new adult cases per 100,000 population per annum.

When estimating incidence at a local CHO level, it is essential to take into account the local variation in incidence as there may be a several fold difference depending on whether the local population is rural, urban, inner city, and variations in social deprivation, age and gender (see www.psymaptic.org).

Table 6: Number of New Cases of FEP

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 years follow-up). The estimates are:

Table 7: EIP Caseloads

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 basic staffing requirements for EIP services will be almost the same regardless of whether the EIP service is a Hub & Spoke or a Standalone EIP model (assuming all of the EIP components are identified and resourced properly). The difference is where staff are located (whether situated in a standalone team or in a Hub & Spoke service).

5.2.2 Staffing of AMHS and CAMHS teams for the Hub & Spoke model. The core multidisciplinary staffing of adult and child services must be in line with the *Vision for*

Change recommendations to provide the range of expertise and standard assessments and interventions for service users with FEP. The staffing estimates below rely on a calculation of the average incidence of psychosis.

While standalone teams will have dedicated staffing this is not the case for AMHS and CAMHS teams who will provide EIP services as part of the Hub & Spoke model. The Hub & Spoke extra requirements from CMHTs will need to be identified and resourced. These extra requirements can be estimated by subtracting the staff / resources already devoted to FEP service users in the first three years from that outlined in the EIP Staffing Estimates (see Section 5.2.10 and Table 9) e.g. if only 50% of the required WTE staff member (for FEP) in situ (based on estimates in Table 9) then that EIP service requires the other 50% to be resourced.

5.2.3 Inpatient Requirements. The Model of Care for EIP does not outline the inpatient requirements for the FEP population even though most FEP service users will be hospitalised during their first episode of illness. Inpatient care and treatment will continue to be provided in catchment area Approved Centres although the demands are likely to lessen as the impact of EIP services consolidate.

The EIP MoC recommends that Approved Centre staff also provide EIP interventions while EIP service users are in hospital. Some inpatient staff, e.g. medical staff, usually work across community and inpatients settings but most staff, e.g. nurses, are purely hospital based. Provision will need to be made to ensure all inpatient staff caring for FEP service users are properly trained in the EIP interventions. Inpatient treatment protocols should reflect EIP guidelines and Individual Care Plans should be compatible with those used by EIP services.

CAMHS inpatient services are provided by four regional dedicated CAMHS Approved Centres. Crisis admissions also occur to other non-approved settings such as adult Approved Centres and Paediatric Units. CAMHS teams will need to decide how FEP interventions are best provided in these units. It is possible that this will require extra resourcing.

5.2.4 EIP Keyworker Requirements. The EIP Keyworker is a new post which is critical to the success of the EIP Model of Care. The following are estimates based on the core requirement that each EIP Keyworker has a maximum caseload of 15 FEP

service users. Based on the previous estimates in **Section 5.2.1** the number of EIP Keyworkers required nationally to provide 3 years follow-up is:

Table 8: 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	

5.2.5 Medical Staffing. Adequate medical staffing skilled in EIP is essential for the successful and safe provision of EIP services. It will determine the capacity of the service to respond quickly to referrals and manage caseloads.

Service users with FEP require a significant amount of extra medical interventions and expertise from initial assessment, investigations, formulation, diagnostic interviews, liaising with carers, prescribing, medical reviews, monitoring and urgent crisis reviews as needed. In addition, physical health monitoring, overseeing and reviewing Individual Care Plans regularly, preparing discharge plans as well as ongoing communication with GPs in relation to relevant mental health issues as well as physical healthcare will also be required. As noted in **Section 5.2.2** above, Stand-alone EIP teams will have dedicated medical staffing (see **Section 5.2.10**) while Hub & Spoke teams medical requirements will need to be calculated depending on what is already available for FEP service users.

- **5.2.6 Evidence based psychosocial interventions that require additional resourcing.** There are three standard EIP psychosocial interventions that will require additional resourcing. They are:
 - Psychological interventions for psychosis (e.g. CBT for psychosis);
 - Family interventions (e.g. Behaviour Family Therapy);
 - OT and Employment Support (e.g. Individual Placement & Support).

These interventions are not discipline specific. But it is essential that EIP Staff providing these interventions have regular supervision from accredited supervisors of these interventions even if they are not from the same discipline. The supervisors /

senior clinicians will be expected to assess and manage the more complex cases with these interventions. Staffing estimates for this are outlined in **Table 4**.

5.2.7 Multidisciplinary Staffing: Specific Assessments & Interventions. In addition to the above standard interventions, there is also a need for more discipline specific assessments and therapies. EIP services will require a full complement of psychology, social work and OT staff to meet these discipline specific needs. Internal referrals to these discipline specific team members should be initiated by the EIP Keyworker / MDT in consultation with the responsible consultant psychiatrist. Referrals for these interventions should be provided promptly and there should be no internal waiting list. Staffing levels are outlined in Table 4 (below).

5.2.8 Staffing requirements for At Risk Mental State (ARMS) assessments. Specially trained experienced senior staff will be required for a specialized assessment ARMS clinic serving the CHO's population. They will need to be 'CAMHS competent' as assessments of adolescents with ARMS will prove particularly challenging due to high levels of co-morbidity and developmental disorders. Assessments should be conducted in pairs and in consultation with a consultant specializing in ARMS. On the basis of figures from ARMS clinics elsewhere, one half day specialist assessment clinic would accommodate the estimated number of referrals for a population of 200,000 (approximately 50 assessments per annum with 10 meeting ARMS criteria). A minority will be with CAMHS.

5.2.9 Staffing Requirements for Early Detection. This is specifically to reduce health system delays by ensuring that potential referrers (i.e. GPs / Primary Care Teams as well as Acute Hospitals, especially Emergency Departments) are 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 health education of referrers. This will be managed by EIP service Team Co-ordinators. As part of Stage 3 implementation, a Health Educator will be appointed to each CHO to co-ordinate health education strategies.

5.2.10 Overall Staffing and HR requirements for FEP (including ARMS assessment). The following is the approximate staffing requirements for a *Stand Alone* EIP service covering a catchment area population of 200,000 with an incidence of 27 adult and 5 adolescent cases per 100,000 per annum. The service provides 3 years follow-up.

Table 9: 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
Team Co-ordinator	0.7	(1/200)	0.3	(1/90)	1.0
EIP Keyworkers** Senior / CMN2	10	(1/15)	2.0	(1/15)	12.0
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
ОТ	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)	<u>0.7</u>	(1/200)	0.3	(1/90)	<u>1.0</u>
Total Whole Time Equivalents (WTE)	20.0 WTE		5.7 WTE		25.7 WTE

^{*} 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)

The EIP staffing requirements for a Hub & Spoke model will be very similar, but the EIP Keyworkers and Medical staff will be based mainly in the CMHT spokes while specialist staff (e.g. ARMS specialist) will be based at the Hubs. For this model to operate effectively, it is essential that both Hub & Spoke consultant time (see **Table 9**) is adequately resourced and balanced / split in order to manage their FEP caseloads (e.g. at the spokes) as well as the EIP roles (e.g. at the Hubs).

The WTE/t CAMHS staff will be based in CAMHS services. Other disciplines (e.g. psychology, social work and OT) may be based at both Hubs and Spokes. Health Educators (see **Section 2.2**) may be based at the CHO.

^{**} For Hub & Spoke model then 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 then 2 IPS specialists will be required

5.3 Support Services and Facilities for EIP Services

Infrastructure and facilities will be needed for the extra clinicians and administrative 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 welcoming and calm, reflecting an ethos of hope in recovery and open access to services. They should ensure proper interview space for privacy. Hubs should have adequate office space for Hub clinicians and administrative staff as well as interview rooms for family meetings and MDT meetings. Similar considerations should be provided for Stand-alone teams.

Theme 6: Skilled Workforce Development

6.1 Skills & Training.

All clinicians working in EIP services are to be highly trained and well supervised (to the appropriate level of their seniority) so that they can deliver EIP interventions in a highly competent manner and in a spirit of optimism and collaboration with FEP service users and their carers.

6.2 National Training Plan

The HSE National Clinical Programme in EIP will adopt a strategic approach to develop an education and training plan. A *National Oversight Group* will be established involving the professional disciplines, service users and family / carers. It will oversee and support training and education of EIP staff with support from a National EIP Staff Training and Education Network (see **Section 7.3** below). In addition professional bodies such as the College of Psychiatrists of Ireland will be encouraged to develop training programmes in EIP for their members.

Figure 10: The National EIP Training and Education Plan

The Role of the Training & Education Network

- To review the training resources, expertise & capacity available locally in Ireland.
- 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
- To explore and develop opportunities for undergraduate and postgraduate training in EIP within the HSE, professional bodies, universities etc.
- 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.

Theme 7: Clinical Governance

7.1 Components

The EIP NCP includes a number of components to ensure that the key pillars of clinical governance are established in order to deliver high quality, safe and reliable healthcare. The HSE National Clinical Programme Office and Mental Health Services 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.

7.2 HSE Management Structures and Responsibilities

A project management structure to support clinical governance will be developed at both National and Community Healthcare Organisation (CHO) levels with clearly outlined roles and responsibilities identified for the following:

- National Clinical Programme Office;
- CHO Area Management Team for each CHO;
- EIP Advisory Group for each CHO;
- Standalone or Hub & Spoke EIP Teams.

7.3 Best Practice and Clinical Effectiveness

The National Clinical Programme Office will encourage the establishment of the following three national networks. These will be overseen by the *National Oversight Group* established by the NCP and involving the professional disciplines, service users and family / carers. It will oversee and support the full implementation of the EIP Model of Care (with support from the three networks) to ensure high quality standardise practices and interventions, to provide training and education of EIP staff, and to support EIP service audit and research evaluation.

The three networks are:

- (a) EIP Clinical Service Network;
- (b) EIP Staff Training and Education Network;
- (c) EIP Research Network.

Service Network

National Oversight Group

EIP Research Network

EIP Staff Training and Education Network

Figure 6: National Networks for EIP

The networks (above) should guide and facilitate the implementation of the EIP MoC. Ideally, the networks should work alongside each other and include representation (depending on the network) from identified management, clinical and training / professional development leads in each CHO region as well as representation from the professional bodies, research centres, service users and their families.

The EIP Research Network will be represented by academic leads from EIP research centres around the country. It will foster interdisciplinary and collaborative research in EIP. It will encourage links with the recently formed Irish Psychosis Research Network (IPRN) and with international bodies such as the International Early Psychosis

Association (IEPA). 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 care and treatment.

Each network should include representation from service users and carers. They should form an integral part of the functioning and priorities of each network.

Table 11: Service Users and Carers' Consultation & Representation

Service users and Carers involvement in the MoC

- 1. Service users/ family representative to be involved and consulted in the development and implementation of the Model of Care.
- All EIP clinicians to be provided training, e.g. recovery principles and ethos, that includes a service user and carer component so that clinicians can develop a deep understanding of the experience of living with, and caring for, someone living with psychosis.
- 3. Service evaluations e.g. core evidence based interventions to include evaluations of the service user/carer experience

Theme 8: Evaluation

8.1 Evaluation Aims

To ensure that the National Clinical Programme for Early Intervention in Psychosis improves access, 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.

8.2 Standardised Metrics

The EIP Model of Care recommends a standardised set of metrics to be used uniformly by all EIP services nationally. It includes (a) **national case registry** for the purposes of registering eligibility with EIP services (b) **clinical metrics** (**Table 12**) for clinicians to measure clinical outcome and (c) **service metrics** (**Table 13**) for service evaluation.

8.3 National Case Registry

A Registry is recommended 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.

8.4 Clinical Metrics

The EIP MoC recommends a minimum set of **clinical measures** to be used by clinicians. 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 12**).

Table 12: Recommended Clinical Metrics

Each case	"		
	/hat? /hich clinical tool or instrument?	Why? Domain being considered	How to gather?
Demographics		<u> </u>	
End 1, 2, 3 years or at end of engagement (*** only need to be recorded once) Ec Et CC Mi	ender atte of Birth larital status mployment status ducation status thnicity ountry of birth igrant status ccommodation status	Socio-demographics Full time or part time employment >16 hours per week In education leading to a nationally recognised qualification& stage Census definition** -Alone/with family/with others -Rent/own home/co. Council: stable/unstable	Collected by individual clinicians to evaluate progress for each case
	lectoral area		data collated by
Minimum Clinical Measures (Required)	CD-10/11 clinical diagnosis	Diagnostic classification	team co-ordinator monthly for local
Initial assessment CI 6 months	linical rating at a minimum, leally NOS below	Duration of untreated psychosis	clinical evaluation, clinical audit and service improvement
or at end of attendance - E	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)	
	AF-MIRECC or CGAS (child) ANSAS (short version)	Measure of functioning (CROM) Measure of functioning and for care planning (CROM)	
	ubstance use	Substance use – cannabis, alcohol, other	
BN	hysical health measures MI (or % BMI for child) /aist circumference, pulse, BP, fasting oods	Physical health parameters (health, risk and safety)	
Me	edication and doses	Other treatments	
Di	ate ischarge destination eason	Engagement and discharge information	
	SAPS/SANS or PANSS	Symptoms	
(Suggested) -M	oung Mania Rating Scale //ANSA quality of life //UDIT, CUDIT version //ADS, Birchwood, DAI,	Affective disorders Quality of Life (CROM)	
NOS) SO	CID / K-SADS	Diagnosis	
, No	ottingham Onset Scale (NOS)	Duration of untreated psychosis	
	ardiometabolic Health Risk	PCHR (Lester UK Adaptation)	
At risk mental state evaluation where appropriate	AARMS or SIPS*	IF ARMS SUSPECTED	

BNRS: Brief Negative Symptom Rating Scale; CAARMS Comprehensive Assessment of At-Risk Mental States; CGAS: Children's Global Assessment Scale; CROM: Clinical reported outcome measure; GAF-MIRECC: Mental Illness Research, Education, and Clinical Centre Global Assessment of Functioning Scale; EQ-5D: Euroqol 5 dimensions scale; HADS: Hospital Anxiety and Depression scale; MANSA: Manchester Short Assessment of Quality of Life; NOS: Nottingham Onset Schedule; PANSS: Scale for the assessment of positive and negative symptoms; PROM: Patient reported outcome measure; SANS: Scale for the assessment of Negative symptoms; SAPS: Scale for the Assessment of Positive Symptoms; SFSS: Short Form SAPS and SANS; SIPS: Structured Interview for Psychosis-Risk Syndrome;

^{*} If an 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; - Chines

e Asian or Asian Irish; Any other Asian background; Other including mixed background

8.5 Service Metrics & Targets

The proposed **service metrics** are sufficiently robust to provide a framework for the EIP National Clinical Programme to set targets for EIP service evaluation. The targets will focus on all aspects of the EIP service provision from early detection, access, clinical outcomes, cost effectiveness as well as acceptability to service users and families. These targets will include collaborative working other key stakeholders e.g. Primary Care (see **Table 13**).

Table 13: Recommended EIP Service Metrics

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8.6 Data Collection, Management and Feedback

A data sheet for each service user is being developed for the EIP National Clinical Programme. This will record the information needed for the Service Metrics (Table 13). The EIP service Administrator (Grade IV) and the EIP Team Co-ordinator will be responsible for (a) the recording, collation, and management of these data at a service level, (b) the regular reporting of these anonymised data centrally to the CHO and NCP, (c) evaluating the EIP service with the EIP Clinical Lead (d) reporting back to the EIP service any clinically and operationally useful feedback from national evaluations so that improvements can be made to local service delivery.

Service metrics (see **Table 13**) will need to be recorded and stored electronically. This will require **ICT oversight** and appropriate security and governance. The clinical metrics (see **Table 12**) are part of the patient record and come under the provision of the Data Protection Amendment Act 2013 in terms of safety, storage, etc. All forms of data collected by the EIP service on service users (including referrals not seen, and carers) will need to be GDPR (General Data Protection Regulation, 2018) compliant.

8.7 Overall Review of the EIP National Clinical Programme

Formal review of the EIP National Clinical Programme will take place initially at three years and then every two years. It will also include a review of the EIP needs of specialist mental health services and include the age groups under 14 and over 65 years of age. It should include a review of the programme evaluation process: metrics, measures and timeframes that have been recommended in the EIP Model of Care as a starting point. This should include feedback from clinicians, service users and families using their lived experiences.

LIST OF ABBREVIATIONS

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
СВТ	Cognitive Behavioural Therapy
СВТр	Cognitive Behavioural Therapy for Psychosis
CG	Clinical Guideline
CGAS	Children's Global Assessment Scale
СНО	Community Healthcare Organisation
СМНТ	Community Mental Health Team
COPE	Cavan/Monaghan Overcoming Psychosis Early
CPD	Continuing Professional Development
СРІ	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
МССВ	MATRICS Consensus Cognitive Battery
MDT	Multidisciplinary Team
МНА	Mental Health Act
мнс	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)
ОТ	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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