

Phase III: Country Profiles

Rethinking Schizophrenia in Denmark:
Schizophrenia and Brain Health



Organisations Supporting this Document



European Psychiatric Association - EPA



GAMIAN-Europe



European College of Neuropsychopharmacology - ECNP



Bedre Psykiatri (Better Psychiatry)



Dansk Selskab for Almen Medicin (Danish Society for General Medicine)



Det Sociale Netværk (headspace Denmark)



Psykiatrifonden (The Danish Psychiatry Association)



Skizofreniforeningen (The Schizophrenia Association)



Rethinking Schizophrenia in Denmark: Schizophrenia and Brain Health

Authors

Professor Merete Nordentoft, Director of Research, Copenhagen Research Centre for Mental Health, Copenhagen University Hospital

Consultation

Kristine Munch- Christiansen, Psychologist - Leader of OPUS Young Clinic, Copenhagen University Hospital

Bolette Friedricsen, General Practitioner, Danish Society for General Practice

Rikke Hilker, Associate Professor and Leader of OPUS Clinic, Copenhagen University Hospital

Marianne Skjold Larsen, Director, Danish Psychiatry Foundation

Morten Lorenzen, President, Hjernerådet (Danish Brain Council)

Marianne Melau, Leader of OPUS clinic, Copenhagen University Hospital

Agnetha Vale Nielsen, Director of Hospital Planning and Patient Pathways, Danish Health Authority

Prof. Anne Katrine Pagsberg, Child and Adolescent Psychiatric Center, Copenhagen University Hospital

Poul Nyrup Rasmussen, Founder of Det Sociale Netværk/headspace Denmark

Jane Alrø Sørensen, General Secretary, Bedre Psykiatri (Better Psychiatry - National Association of Caregivers)

Ditte Lammers Vernal, Associate Professor and Leader of OPUS Clinic, Psychiatry in Northern Denmark

Carsten Wilken, Vice Chairman, Skizofreniforeningen (The Schizophrenia Association)

Collaboration

Vinciane Quoidbach, Research Project Manager, European Brain Council

Pavel Mohr, Vice-President, Czech Psychiatric Association; President, Czech Brain Council

Executive Summary

Key insights and challenges:

In Denmark, recent governmental initiatives* will ensure that early intervention services for schizophrenia will be available for all age groups across the country, and together with recommendations for treatment from the Danish Health Authority, this will facilitate access to early diagnosis and evidence-based treatments. This diagnostic process and quality of treatment will be in quality databases. The process is to be guided by national guidelines on diagnostic processes and on treatments of negative symptoms and social cognition. After the first two years in early intervention services, patients with schizophrenia can be treated in assertive outreach teams that can provide home visits and continue to try to involve the patients, in psychiatric specialist practise or by the general practitioner (GP). Preventive initiatives are encouraged and are currently being studied.

Important challenges to address are: low psychosocial functioning, cognitive impairment, co-morbid substance abuse, homelessness, excess mortality from suicide, accidents and medical conditions. There are age-specific treatment gaps in services (e.g., young/early intervention coverage limitations, uneven regional access), a lack of treatment options for trauma and childhood adverse experiences, a lack of more long-term effective psychological and psychosocial treatment, underdiagnosis and undertreatment of somatic disorders. In general, patients with schizophrenia experience lower treatment quality for physical illnesses compared with patients without schizophrenia. Moreover, schizophrenia is still associated with stigma.¹⁻³

From a broader brain health perspective, Denmark's current approach reflects the principles promoted by the study on "Rethinking Schizophrenia: Optimising Care Pathways in Europe: From the First Episode of Psychosis to Long-Term Care" led by the European Brain Council (publication under review) — integrating prevention, early detection, and coordinated care across the life course. By addressing mental, neurological, and somatic health together, these initiatives contribute to protecting and enhancing brain health at both individual and population levels.

- Agreement on a comprehensive 10-year plan for psychiatry Copenhagen:
Ministry of the Interior and Health, 2025.

Emerging opportunities:

Partnerships between mental health services and non-governmental organisations (NGOs) such as the Danish NGO called Better Psychiatry (Bedre Psykiatri) can play a vital role in providing evidence-based psychoeducational programs specifically designed for caregivers throughout Denmark. As part of the Danish national plans for strengthening Danish Psychiatry, a range of initiatives will be implemented in the coming years. Peer support programmes will be nationally implemented. Better transition between child and adolescence services and programmes for adults will be implemented. Preventive interventions such as headspace will be implemented nationwide. Development of services for families with parental mental illness can play a preventive role.

Policy priorities moving forward:

In 2022, the Danish Health Authority presented comprehensive recommendations for a 10-year action plan for strengthening mental health care.⁴ In this document, five key challenges were identified:

- Insufficient service availability, capacity, coordination and cooperation
- Insufficient quality and interdisciplinarity in existing mental health and social care services
- Inadequate prevention and early interventions
- Stigmatisation, lack of prioritisation and equity
- Inadequate research, professional development and lack of prestige

The overarching goal of these recommendations was that treatment and prevention of mental disorders in Denmark should be of the same high level of quality as treatment of cancer. The recommendations for goals presented in the 10-year plan were:

- The mental health of children and young people has improved
- People with mental disorders live longer lives with less illness
- People with mental disorders are included and accepted in society to a higher degree
- People with mental disorders are more likely to stay in school or work and to complete education and secure employment
- People with early signs of or at risk of developing mental disorders receive early preventive intervention
- People with mental disorders experience high quality, care, involvement, coordination and cooperation in the services.

- People with mental disorders are subjected to less coercion and use of force
- People with mental disorders and concurrent substance abuse receive more cohesive and effective treatment, and more of them succeed in quitting their abuse
- Fewer people with mental disorders are sentenced for a crime
- Family and friends are more often given the support they need, and their resources are used more actively in treatment

Key priorities of the Danish recommendations:

- Establishing easily accessible high-quality services in the municipalities for children and young people with mental health conditions
- Strengthened treatment and care for people with severe mental disorders
- Anti-stigmatisation of mental disorders
- Strengthened multidisciplinary and professional environments
- Further research and development in Psychiatry

As Denmark assumed the 2025 Presidency of the Council of the European Union until December 31st, 2025, its national advances in early intervention, integrated psychiatric care, and research excellence positioned it as a key contributor to the European Union's (EU) growing mental and brain health agenda. The Danish model of high-quality, coordinated schizophrenia care can serve as an evidence-based reference for shaping European policy dialogue on brain health and youth mental health.

Background

As a continuation of the recommendations set out in the European Brain Council (EBC) "Rethinking Schizophrenia Care Pathway in Europe" Study Paper, the next phase of the project provides an in-depth analysis of the current state, challenges, and future directions of mental health care, and more specifically, schizophrenia treatment at the country level. Poland, Denmark, and Germany were selected for the initial development of country profiles to conduct a reality check of national mental health systems based on strategic, geographic and policy considerations, including upcoming EU Presidencies, health system strengths, and opportunities for policy dialogue. Ahead of the roundtable in Warsaw, Poland, on 5 June 2025, which focused on improving quality care for child and adolescent mental health with an emphasis on brain health and schizophrenia, a validated template was used to compile a 'country profile' for Denmark, drawing on the most relevant national data and expert input. A webinar entitled "A Comprehensive, High-Quality Approach to the Treatment of Schizophrenia in Adolescents and Young Adults" was organised by the European Brain Council and the Danish Brain Council on 8 December 2025 to discuss the country profile in depth with key Danish stakeholders.

Country overview:

In 2025, Denmark had a population of six million people. Denmark is a welfare state characterised by one of the world's lowest levels of inequality (Gini coefficient = 0.25) and a low level of corruption.⁵ The country also has high levels of safety, minimal crime, low murder rates and a small prison population.^{6,7} Additionally, Denmark has a high literacy rate and, for several years, has consistently ranked as one of the happiest nations in the world according to the World Happiness Report.⁸ Health care is mainly tax-financed and driven mostly by regional institutions.⁹ However, there are also some services, such as supported housing facilities and supportive outreach, used by people with mental illness, driven by the municipalities. There is a private sector, which can be used by people who can pay for the services themselves, have health insurance that can cover the expenses for treatment, or it can be used if the regional health care unit cannot offer evaluation and treatment within 30 days after referral.

Denmark has approximately 14,000 short and long-term supported accommodation facilities for people with severe mental disorders and 3,000 psychiatric beds.¹⁰ The secondary psychiatric healthcare sector employs around 11,000 clinical staff members, including nurses, psychiatrists, psychologists, nurse aides, occupational therapists, social workers and others. However, outpatient services are often perceived as understaffed, while the number of inpatient facilities is frequently considered insufficient to meet the population's needs.¹¹

Mental health policy frameworks:

In 2025, Denmark launched an ambitious 10-year plan for psychiatry. The goal of this plan is to have the same high level of quality of services in mental health and physical health.⁴ All parties in the national parliament agreed on financing the ambitious 10-year plan for Psychiatry.¹² The public-financed health budget in Denmark is 236.3 billion Danish Krone (DKK) (\approx €31.6 billion). The planned investment will allocate 18 billion DKK (\approx €2.4 billion) for psychiatry, which is equal to 6.8%. Therefore, Denmark is in accordance with the WHO policy of 6% of a country's total public health budget towards mental health services (including psychiatry) and is cited as a benchmark.¹³

Prevalence and incidence of schizophrenia in Denmark:

Schizophrenia is hypothesised to be an umbrella term for several different disorders, some of them most likely to be of neurodevelopmental origin. It is recognised that both genetic and environmental factors play a role in the development of the condition. Schizophrenia is emerging in age groups from early adolescence years until late adulthood, but it typically emerges between the ages of 16 and 30 with peak for both sexes at 21 years of age.

According to the Danish Health Authority, around 23,000 adults (aged ≥ 18 years) were living with a schizophrenia diagnosis and were in contact with secondary mental health services (hospital-based inpatient or outpatient care) in 2022, corresponding to a prevalence of 0.5%.¹⁴ Estimates of the total adult population living with schizophrenia, including those with and without contact with secondary mental health services, suggest roughly 44,000 people, equivalent to a prevalence of 0.9%. These figures indicate that there is a large proportion of people with schizophrenia in Denmark who have no contact with secondary mental health services and are either treated by practicing psychiatrists in the primary sector, by GPs, or who are without any contact with health care services.

According to the Danish Health Authority, there were 1,500 incident cases of schizophrenia with first-time contact to hospital-based mental health care in 2022. This corresponds to an incidence of 0.03%, which has also been found in recent epidemiological papers.^{14,15} As with the prevalent cases, this is likely an underestimation of the true population incidence.

Key challenges in Denmark:

There are challenges with early diagnosis of schizophrenia, as the duration of untreated psychosis is still long. The median length for duration of untreated psychosis is above six months. There is nationwide coverage of specialised early intervention teams (The Danish OPUS Early Intervention Services for First-Episode Psychosis teams) in Denmark, but the capacity of the teams is currently estimated to cover about 70% of all incident cases.¹⁴ OPUS is a high-quality service which offers frequent contact to a designated staff member from a multidisciplinary team and systematic involvement of families. The staff/patient ratio ranges between 1:10 and 1:15. There is a substantial service gap after two years of specialised assertive treatment in OPUS teams and later treatment in services with fewer resources.

Impact on Danish society:

In a recent report about the burden of disease from the Danish Health Authority and University of Southern Denmark, schizophrenia was among the top ten disorders when it relates to costs of health care and lost income due to disability.¹⁶ Scientific papers about lost years in the labour market showed that schizophrenia was associated with a total of 19 years lost in the labour market, and schizophrenia was the mental disorder with the highest number of years lost to disability.¹⁷ Schizophrenia leads to the exit of 2,648 full-time employed relatives from the labour force in Denmark.¹⁸ In first early onset psychosis (EOS, <18 years), 19% of individuals appear to not participate in any form of school or employment. Caregivers of people with schizophrenia experience noticeably greater activity impairment, healthcare use, absenteeism, presenteeism, and both direct and indirect costs than non-caregivers and more than caregivers of other conditions overall.¹⁹

Access to early assessment, care & treatment

Shortening the duration of untreated psychosis:

The duration of untreated psychosis, from the onset of psychotic symptoms and initiation of treatment, has been shown to be associated with outcome for patients suffering from schizophrenia. There are Danish initiatives focusing on shortening the duration of untreated psychosis by offering possibilities for early detection and evaluation.

Early intervention services:

Intervening early after the onset of illness, before disability becomes entrenched, can reduce the severity and chronicity of illness. This rationale underpins the development of specialised Early Intervention Services for first-episode psychosis, which have emerged as one of the most significant innovations in psychiatric care in recent decades. Evidence now suggests that timely, intensive and coordinated care can meaningfully improve clinical and functional outcomes.

Early intervention services deliver:

- Comprehensive case management
- Assertive outreach
- Psychoeducation and family involvement
- Social skills training
- Evidence-based pharmacotherapy

Multidisciplinary teams provide these services in a cohesive, integrated format, leading to greater effectiveness than fragmented care. A 2018 meta-analysis including 10 Randomised Controlled Trials (RCTs) and 2,176 patients showed that Early Intervention Services were associated with superior outcomes compared with treatment as usual regarding all analysed outcomes, including: hospitalisation risk, bed-days, global functioning, total symptom severity, psychotic and negative symptoms, and recovery.²⁰

In the area of child and adolescent mental health care, Denmark is in the process of building an equally extensive Early Intervention Services (OPUS YOUNG program), but the availability is still limited and unevenly distributed across regions.



In Denmark, the quality of assessment and elements related to assessment and treatment are monitored through a schizophrenia database with quality standards for diagnostic procedures and neuropsychological assessment among others. It is specified that 90% of patients with incident schizophrenia in Denmark should be assessed with a systematic semi-structured diagnostic interview, and 80% should undergo a neuropsychological assessment during the first two years of treatment. The proportion of patients meeting the recommended standard for assessment and treatment is improving, but quality standards have not yet been met.

Cognitive Behavioural Therapy:



Cognitive behavioural therapy for psychosis (CBTp) is the most extensively studied psychological intervention for schizophrenia. Together with family interventions, it has among the strongest evidence for reducing symptoms and lowering relapse risk.^{21,22} Meta-analyses generally show small-to-moderate effects on psychotic symptoms (particularly positive symptoms) and distress, which highlights the need to refine delivery, better understand mechanisms of change, and identify who benefits most—especially in relation to long-term outcomes.^{23,24} Evidence for CBTp effectiveness in young people is more limited, but adapted CBT approaches and family-focused interventions for children and adolescents with psychotic symptoms or at clinical high risk can reduce symptoms and relapse risk, and may help prevent transition to full psychosis.^{25,26}

In Denmark, CBTp is integrated into early intervention services (EIS) through psychotherapy and/or cognitive behavioural case management, alongside psychoeducation, family interventions, and social skills training. However, access to psychological treatment remains limited for patients outside EIS.

Assertive Community Treatment:



Assertive Community Treatment (ACT) is focused on maintaining engagement, reducing hospital stays, and improving outcomes such as social functioning and quality of life. Assertive outreach is central to this model, with teams proactively visiting patients at home to establish and maintain contact. To ensure intensive and personalised care, ACT teams maintain small caseloads—typically no more than 15 patients per case manager. This allows for comprehensive, integrated support, including medication management, practical assistance, and help with social inclusion efforts, such as accompanying patients to community spaces.



Most services are provided directly by the ACT team to promote continuity of care, and responsibilities are shared among team members to ensure consistent support. In Denmark specifically, ACT teams have been gradually replaced with Flexible Assertive Community Teams (F-ACT) teams with a broader target group and higher caseload.

Vocational and educational support:



Employment and education play a vital role in recovery for people with severe mental illness, offering not only financial stability but also a sense of purpose and improved well-being. Despite this, unemployment, school absence, and lack of educational adherence remain high in this group, with significant personal and societal costs. To address this, the "Individual Placement and Support" (IPS) Model was developed. Unlike traditional vocational rehabilitation, IPS focuses on rapid access to competitive employment or education based on individual preferences, integrates with mental health services, and includes ongoing job support and benefit counselling. Several meta-analyses have shown beneficial effects of the IPS model.²⁷ A Danish randomised trial involving 720 participants showed better affiliation with employment and education than standard services after 18 months.²⁸

Housing First:



A particularly vulnerable subgroup includes individuals with severe mental illness who are homeless or unstably housed. Traditional service models often fail to engage these individuals who face complex barriers including substance use, trauma and legal issues.

Evidence supports the effectiveness of the "Housing First" approach, which prioritises immediate access to stable housing without preconditions. Once housed, individuals receive coordinated mental health, substance use and social support. Internationally, this model has been shown to reduce hospitalisations, improve housing stability and enhance quality of life.^{29,30} "Housing First" is now the official Danish policy for people experiencing homelessness, and a recent finance act has granted financial support to NGOs and civil society to improve interventions for people experiencing homelessness and other vulnerable groups.

Supported accommodation:

Mental health supported accommodation is a key resource for people with severe mental illness, many of whom have complex physical and psychological needs. Since 1986, the number of residents in such facilities has risen sharply, with around 14,000 in Denmark people currently living in temporary or long-term accommodation. This population has significantly reduced life expectancy compared with others in psychiatric care.³¹ Recently, designated GPs have been assigned to supported housing facilities nationwide throughout Denmark to improve physical health care amongst these populations.

For children and adolescents with extensive treatment needs, specialised residential facilities throughout the country provide 24-hour care and therapeutic milieu interventions, often integrated with educational programs. Similarly, specialised treatment schools combine standard education with structured therapeutic support.

Physical health:

For people experiencing mental illness, the excess risk of dying from physical diseases is high and has not declined in recent years. Structural barriers such as availability of services, transportation difficulties, physical and mental disabilities contribute to this disparity. While GPs are often the first point of contact, they may lack the necessary resources to manage complex psychiatric needs. Effective treatment for severe mental illness requires cross-sector coordination. In many psychiatric in- and outpatient settings in Denmark, GPs or specialists in internal medicine are employed to reduce underdiagnosis and undertreatment.³²

Different collaborative models (where GPs or specialists in internal medicine work closely with psychiatric in and outpatient services) have been tried out, but none of them have been implemented all over Denmark. Specialised clinics focus on the most functionally impaired patients with both schizophrenia and diabetes, through collaborations between psychiatry, endocrinology, and other specialties as needed. From 2022, GPs in Denmark have had the possibility of offering yearly extended consultations to improve the relationship between patients with severe mental illness and their GPs to also improve their physical health.

Pharmacological treatment:

Antipsychotic medication remains a cornerstone in the treatment of schizophrenia.³³ It plays a crucial role in reducing positive symptoms such as hallucinations and delusions, preventing relapse, facilitating adherence to psychosocial interventions, and enabling recovery. For individuals who do not respond sufficiently to standard antipsychotic treatments, clozapine is the recommended option due to its superior efficacy in treatment-resistant cases.³⁴

To address challenges with patient adherence, especially in individuals with recurring relapses, long-acting injectable formulations can be particularly effective. These ensure a more stable delivery of medication and reduce the risk of unintentional discontinuation.³⁴

However, antipsychotic treatment is associated with adverse effects such as neurological symptoms, sexual side effects, cardiometabolic symptoms including weight gain, and sedation.³⁵ These adverse effects will in some cases be reasons for non-adherence. Actions to prevent and counteract adverse effects is therefore crucial. As such, there is a need for development of new antipsychotic medication with fewer side effects.

Antipsychotic treatment must always be tailored to the individual. While continuous pharmacological treatment is necessary for many, over time, some people with schizophrenia may successfully reduce or discontinue antipsychotic medication without relapse. This process—referred to as deprescribing—should be approached cautiously, gradually and under close clinical supervision. Success is more likely experienced in individuals with sustained remission, strong support systems and low risk factors for relapse.

Acknowledging that long-term needs vary across individuals, treatment plans should balance the benefits of medication with side effects, patient preferences and functional outcomes. A collaborative and flexible approach is essential, combining pharmacological strategies with psychosocial support to promote long-term recovery and autonomy.

Crisis response and acute outreach services:

People with severe mental disorders often experience crises that require urgent care. In response, regions like the Capital Region of Denmark have developed Acute Psychiatric Outreach teams. These mobile units include a psychiatrist and a specifically trained ambulance driver and are equipped to respond directly to people in their homes or community settings. These teams can assess patients, initiate treatment, and coordinate referrals. The service also works closely with the police in potentially dangerous situations to both ensure safety and facilitate care. This model represents a scalable solution for crisis response that balances patient needs with public safety concerns.

Integration with primary care:

The GPs play a key role in early detection, timely and precise referral, treatment follow-up of medication for psychiatric and physical conditions, and coordination with mental health services. GPs can provide targeted physical health assessments for people with severe mental illness, helping to reduce excess mortality—particularly premature deaths due to preventable physical health conditions. GPs can also offer talk therapy for people with mild to moderate mental disorders, and a broader use of this approach could help with earlier detection and referral in cases of severe mental illness, while also enhancing social functioning in individuals who are medically well-treated but still struggling.

Family caregivers of someone with schizophrenia often carry heavy emotional, psychological, social, practical, physical, occupational and economic burdens.^{19,36-39} They also frequently experience stigma and blame.⁴⁰ Although strong evidence supports the effectiveness and cost-efficiency of family involvement and support interventions for both the person with schizophrenia and their caregiver, implementation remains limited, and the quality of caregiver involvement varies considerably. This is unfortunate, as involving families and networks in mental health care clearly benefits both the person with schizophrenia—through improved treatment outcomes, fewer relapses, hospital admissions and better medication adherence—and the caregivers, by reducing psychological stress, improving family functioning, and enhancing overall quality of life.^{21,41-43}

Barriers:

Barriers for implementing the planned improvements in Denmark include staff shortages, especially psychiatrists. However, to address this, it has been decided to increase the training capacity to educate more psychiatrists and child and adolescent psychiatrists in the future.

Promising new areas of treatment:

School-based programmes:

There are no school-based programmes in Denmark currently aiming to prevent schizophrenia, but there are school-based research programmes aiming to reduce suicidal ideations and mental well-being in adolescents.⁴⁴

Headspace Denmark

Headspace Denmark is a nationwide preventive and mental health-promoting service for young people. It is an adaptation of the Australian headspace model, but with a greater emphasis on involvement of volunteers. The headspace intervention has been shown to positively impact young people's well-being.⁴⁵ It is an easy-accessible and acceptable intervention by the target group and considered a health promoting and disease preventing service for young people, as well as an important stakeholder in efforts to identify and support young people with low well-being. Whether headspace contributes to preventing the development of mental disorders in the long term will need to be further investigated.

Evidence-based psychoeducation for informal caregivers:

Research shows that family interventions—including psychoeducation—reduce relapse and hospitalisation in schizophrenia, with psychoeducation alone often just as effective as more complex models.^{21,41} As part of Denmark's 10-year plan for psychiatry, nationwide psychoeducation for relatives is being implemented by Better Psychiatry (Bedre Psykiatri) in collaboration with regional psychiatric services, and based on Danish Health Authority guidelines. A recent evaluation by the University of Southern Denmark found the program clinically relevant, improving relatives' well-being, coping, and collaboration with mental health services.⁴⁶

Evidence-based psychoeducation for informal caregivers:

Research shows that family interventions—including psychoeducation—reduce relapse and hospitalisation in schizophrenia, with psychoeducation alone often just as effective as more complex models.^{21,41} As part of Denmark's 10-year Psychiatric Plan, nationwide psychoeducation for relatives is being implemented by Better Psychiatry (Bedre Psykiatri) in collaboration with regional psychiatric services, and based on Danish Health Authority guidelines. A recent evaluation by the University of Southern Denmark found the program clinically relevant, improving relatives' well-being, coping, and collaboration with mental health services.⁴⁶

Familial risk and early intervention:

Children of parents with severe mental illness—particularly with schizophrenia and bipolar disorder—are at a significantly increased risk of developing psychiatric conditions themselves.

Studying these children provides a unique window into the early processes that precede the onset of mental disorders, allowing for the identification of modifiable risk factors and the development of targeted preventive interventions.

The Danish High Risk and Resilience Study – VIA7 is a landmark example. This study provides a robust framework for early detection and intervention strategies aimed at altering the long-term course of severe mental illness.⁴⁷

Social & economic determinants:

Risk factors such as poverty, social marginalisation, substance use and homelessness are strong determinants of unfavourable outcomes. Special services are developed in Denmark to mitigate the effects of these risk factors.

Denmark has a social security system aiming to ensure that people with severe mental illness can live a decent life. It includes possibilities for early age retirement, social benefits, and support for part-time and protected labour market affiliation. However, some social benefits are at a low level, and it can be challenging to be able to pay for food and housing. The Individual Placement and Support Program (IPS) is being rolled out nationally to improve employment rates.⁴⁸

Policy & innovation - national mental health strategy:

In 2022, the Danish government made the landmark decision to permanently increase the mental health care budget by approximately 35%.⁴⁹ Several factors contributed to creating the political momentum necessary for this achievement. Factors that played a crucial role in securing this success included: efforts to combat stigma, the presentation of compelling evidence on the burden of mental illness, a united front among stakeholders, and active lobbying all played crucial roles in securing this success.

The 10-year plan for psychiatry has several main priorities which will improve capacity and quality in already existing services and improve research overall. Together with a strong focus on the improvement of treatment for children and adolescents with mental health conditions, the highest priority was to strengthen treatment and care for people with severe mental disorders. This will be ensured by implementing well-described quality standards and requirements for the patient pathway and for the collaboration between professionals and sectors involved during the entire pathway.

Acute psychiatric helpline and acute outreach:

As part of Denmark's 10-year plan for psychiatry, a national acute psychiatric telephone helpline will be established in 2026, along with strengthened acute outreach services. The World Health Organization recommends such helplines as a key element of national suicide prevention strategies.⁵⁰ A professional helpline can facilitate timely interventions, including outreach, follow-ups, and referrals to other services. It can also manage frequent callers effectively, addressing a common challenge for helplines. The overarching goal of this Danish Plan is to create more integrated services by coordinating existing resources, such as crisis teams, assertive outreach teams, psychiatric emergency services, suicide prevention clinics, and NGO-run helplines. An ambition with a professionally managed psychiatric crisis hotline is to ensure that help and treatment are organised following an acute mental health crisis, and that no one falls through the cracks of necessary support.

Furthermore, there is a pressing need to strengthen acute psychiatric outreach services in Denmark, particularly for individuals in severe crises or experiencing acute mental illness. To address this, the Danish 10-year plan for psychiatry has allocated state funding to implement and expand acute psychiatric outreach services across the country. The inclusion of psychiatrists and ambulance drivers in outreach teams ensures that emergency visits are both feasible and effective, even in complex and high-risk situations.

Increased capacity for assertive outreach and inpatient facilities:

The above-described teams will receive more government funding to meet the needs of the most severely ill people in society. This will increase the capacity in OPUS, Flexible Assertive Community Teams (F-ACT) and outreach teams for people experiencing homelessness. There will also be governmental investments in specialised in-patient units. Already specialised units for people with non-suicidal self-harm have been established in the Danish context.

Suicide prevention:

A national plan for suicide prevention was endorsed by the Danish parliament, prioritising funding of suicide preventive clinics and services for those at the highest risk of suicide, immediately after discharge, and after having contacted psychiatric emergency department.^{51,52} Trends over time in overall suicide rates and post-discharge suicide rates will be monitored annually by a Council for Suicide Prevention. Targeted interventions for individuals engaging in non-suicidal self-harm, such as cutting, are being introduced across several Danish regions.⁵³

Danish Multidisciplinary Psychiatric Groups guidelines:

Danish Multidisciplinary Psychiatric Groups was established as an umbrella organisation. The primary task of the organisation is to develop clinical guidelines, providing clinicians across the country with an updated, evidence-based foundation for maintaining high standards of care. Monitoring is conducted through clinical databases, allowing for professional reflection and ongoing improvement. In the future, the organisation aims to focus on knowledge dissemination and research across the field of psychiatry.

Research

As part of the 10-year plan for psychiatry, research in the field has been prioritised in Denmark. A permanent allocation of 165 million DKK (22 million Euros) per year has been secured in the Danish state budget. This initiative aims to establish a stronger framework for research into both the prevention and treatment of mental disorders. The goal is to ensure high-quality care for individuals with mental health challenges while simultaneously advancing research into the prevention of mental disorders and improving treatment outcomes.



Additionally, the initiative will aim to contribute to strengthening academic and scientific environments, as well as improving the recruitment and retention of employees across the entire field of psychiatry. Moreover, significant contributions from large Danish private funds will further enhance the financial foundation of Danish psychiatric research, making it better funded than in most other countries. This will enable Danish researchers to lead more global epidemiological research and conduct some of the world's largest clinical trials, despite Denmark's small population of six million.

Virtual reality and artificial intelligence:

Severe psychotic symptoms, such as persistent auditory hallucinations, can significantly impair daily functioning and social interaction. For some individuals, these symptoms make it difficult to leave home or use public transport. Auditory verbal hallucinations—often derogatory or threatening—affect 60–70% of people with schizophrenia. While medication helps many, around 25% continue to experience these symptoms despite treatment. Several clinical trials have shown that using virtual representations of hallucinatory content can effectively reduce distress and improve outcomes.^{54,55} This approach is particularly helpful for individuals with treatment-resistant schizophrenia but can also be used alongside medication in early-stage psychosis.

While its use has primarily been limited to research settings, growing evidence supports the effectiveness of immersive exposure therapy.^{54,56} In Denmark, two regions are now implementing virtual reality (VR) as a treatment option for auditory hallucinations, and as this evidence continues to grow, it is likely that VR will be implemented in clinics across the country for selected conditions.

Artificial intelligence (AI) is increasingly being used as well in psychotherapy, offering tools to enhance mental health care.⁵⁷ AI-powered applications, such as chatbots and virtual assistants, deliver evidence-based techniques like cognitive behavioural therapy (CBT), providing immediate support and making therapy more accessible. AI can also aid therapists by analysing patient data—such as speech, behaviour, and emotions—to tailor treatments and monitor progress. AI should complement, not replace, human therapists, as the therapeutic relationship is central to care.

Successful programs and best practices:

Since 2003, Denmark has scaled the OPUS model nationally. The Danish OPUS I trial demonstrated superior outcomes over two years in symptomatology, substance use, treatment adherence, use of bed days and social functioning compared to treatment as usual.⁵⁸ Moreover, over five years, OPUS treatments were more effective and less costly, largely due to reductions in inpatient care and supported housing utilisation.⁵⁹ In a register-based study, it was examined whether treatment effects were sustainable after OPUS had been implemented as standard care. The study was based on a 5-year follow-up of 3,328 patients. In patients treated in OPUS there were fewer psychiatric bed-days, higher rates of employment or education participation, and a trend toward reduced mortality. Compared to trial participants, real-world patients achieved equal or better outcomes.⁶⁰

Further, Early Intervention Services have revolutionised the treatment landscape for psychosis, offering hope for improved outcomes in a traditionally high-burden condition. To maximise their impact, health systems must ensure high program-fidelity implementation, provide adequate staffing and training, and support more intensive treatment beyond two years.

Key recommendations for policy action:

The Danish Health Authority's policy document for the 10-year action plan sets out five priority areas to guide implementation. These include:

- Strengthening municipal, low-threshold support for children and young people;
- Improving treatment and continuity of care for people with severe mental disorders;
- Scaling up anti-stigma efforts;
- Reinforcing multidisciplinary capacity and professional environments;
- Investing in research and development.

References

1. Fenger-Grøn M, Vestergaard CH, Ribe AR, Johnsen SP, Frost L, Sandbæk A, et al. Association between bipolar disorder or schizophrenia and oral anticoagulation use in Danish adults with incident or prevalent atrial fibrillation. *JAMA Netw Open*. 2021 May 17;4(5). doi: 10.1001/jamanetworkopen.2021.10873
2. Mackenhauer J, Christensen EF, Andersen G, Mainz J, Johnsen SP. Disparities in reperfusion therapy and time delays among patients with ischemic stroke and a history of mental illness. *Stroke*. 2022;53(11):3375-3385. doi: 10.1161/STROKEAHA.122.038591
3. Mackenhauer J, Valentin JB, Mikkelsen S, Steinmetz J, Væggemose U, Christensen HC, Mainz J, Johnsen SP, Christensen EF. Emergency medical services response levels and subsequent emergency contacts among patients with a history of mental illness in Denmark: a nationwide study. *European Journal of Emergency Medicine*. 2021 Oct;28(5):363-372. doi: 10.1097/MEJ.0000000000000806
4. Sundhedsstyrelsen. Fagligt opfølge til en 10-års plan. Bedre mental sundhed og en styrket indsats til mennesker med psykiske lidelser. København: Sundhedsstyrelsen; 2022. Retrieved from https://www.sst.dk/-/media/Udgivelser/2022/psykiatriplan/10AARS_PSYK-PLAN_260122_LOW.ashx?sc_lang=da&hash=AAEF690AFCD2E7998A4E687613C905ED
5. Transparency International. Corruption Perceptions Index 2016. 2016. Retrieved from <https://www.transparency.org/en/cpi/2016>
6. Thomsen AH, Leth PM, Hougen HP, Villesen P, Brink O. Homicide in Denmark 1992-2016. *Forensic Sci Int Synerg*. 2019 Aug 24;1:275-282. doi: 10.1016/j.fsisyn.2019.07.001. PMID: 32411980; PMCID: PMC7219188.
7. World Prison Brief. Denmark. Institute for Crime & Justice Policy Research. Retrieved from <https://www.prisonstudies.org/country/denmark>
8. Helliwell JF, Layard R, Sachs JD, De Neve JE, Aknin LB, Wang S. World Happiness Report. United Nations; 2021.
9. Nordentoft M, Krantz MF, Hageman I. Right-based mental health care—advantages of tax-financed universal mental health care: lessons from Denmark. *JAMA Psychiatry*. 2022;79(1):7-8. doi: 10.1001/jamapsychiatry.2021.3167
10. Social- og Boligstyrelsen. Kort fortalt: Udviklingen i botilbud og botilbudsliignende tilbud. København: Social- og Boligstyrelsen; 2021. Retrieved from <https://www.sm.dk/publikationer/2021/jun/kort-fortalt-udviklingen-i-botilbud-og-botilbudsliignende-tilbud>
11. Sundhedsstyrelsen. Fagligt opfølge til en 10-års plan. Bedre mental sundhed og en styrket indsats til mennesker med psykiske lidelser. København: Sundhedsstyrelsen; 2022. Retrieved from https://www.sst.dk/-/media/Udgivelser/2022/psykiatriplan/10AARS_PSYK-PLAN_260122_LOW.ashx?sc_lang=da&hash=AAEF690AFCD2E7998A4E687613C905ED
12. Ministry of Interior and Health. Aftale om en samlet 10-årsplan for psykiatrien. Copenhagen: Ministry of Interior and Health; 2025.
13. Patel V, Saxena S, Lund C, Thornicroft G, Baingana F, Bolton P, et al. The Lancet Commission on global mental health and sustainable development. *The Lancet*. 2018;392(10157):1553-1598. doi: 10.1016/S0140-6736(18)31612-X

14. Sundhedsstyrelsen, Boligstyrelsen, Socialstyrelsen. Beskrivelse af forløb for voksne med psykoselidelser. Anbefalinger til tilrettelæggelse af tværsektorielle indsatser. Sundhedsstyrelsen; 2024. Retrieved from <https://www.sundhed.dk/sundhedsfaglig/information-til-praksis/syddanmark/almen-praksis/patientbehandling/patientforloeb/forloebsbeskrivelser/icpc-oversigt/p-psykisk/psykose-voksne-18-plus-aar/>

15. Momen NC, Beck C, Lousdal ML, et al. Mental health disorder trends in Denmark according to age, calendar period, and birth cohort. *JAMA Psychiatry*. 2025;82(2):161-70. doi: 10.1001/jamapsychiatry.2024.3723

16. Statens Institut for Folkesundhed. Sygdomsbyrden i Danmark – sygdomme. København: Sundhedsstyrelsen; 2023.

17. Plana-Ripoll O, Weye N, Knudsen AK, et al. The association between mental disorders and subsequent years of working life: a Danish population-based cohort study. *Lancet Psychiatry*. 2023;10(1):30-39. doi: 10.1016/S2215-0366(22)00376-5

18. Dansk Erhverv. Stort arbejdsudbudspotentiale for pårørende til personer med kroniske sygdomme; 2023.

19. Gupta S, Isherwood G, Jones K, Van Impe K. Productivity loss and resource utilization, and associated indirect and direct costs in individuals providing care for adults with schizophrenia in the EU5. *Clinicoecon Outcomes Res*. 2015;7:593-602. doi: 10.2147/CEOR.S94334

20. Correll CU, Galling B, Pawar A, et al. Comparison of early intervention services vs treatment as usual for early-phase psychosis: a systematic review, meta-analysis, and meta-regression. *JAMA Psychiatry*. 2018;75(6):555-65. doi: 10.1001/jamapsychiatry.2018.0623

21. Bighelli I, Rodolico A, Garcia-Mieres H, et al. Psychosocial and psychological interventions for relapse prevention in schizophrenia: a systematic review and network meta-analysis. *Lancet Psychiatry*. 2021;8(11):969-80. doi: 10.1016/S2215-0366(21)00243-1

22. Hong Y, Chen Y, Bai Y, Tan W. Cognitive-behavioral therapy for the improvement of negative symptoms and functioning in schizophrenia: a systematic review and meta-analysis of randomized controlled trials. *PLoS One*. 2025;20(5):e0324685. doi: 10.1371/journal.pone.0324685

23. Jauhar S, McKenna PJ, Radua J, et al. Cognitive-behavioural therapy for the symptoms of schizophrenia: systematic review and meta-analysis with examination of potential bias. *Br J Psychiatry*. 2014;204(1):20-9. doi: 10.1192/bjp.bp.112.116285

24. Berendsen S, Berendse S, van der Torren J, et al. Cognitive behavioural therapy for the treatment of schizophrenia spectrum disorders: an umbrella review of meta-analyses of randomised controlled trials. *EClinicalMedicine*. 2024;67:102392. doi: 10.1016/j.eclinm.2023.102392

25. Gergov V, Milic B, Loffler-Stastka H, et al. Psychological interventions for young people with psychotic disorders: a systematic review. *Front Psychiatry*. 2022;13:859042. doi: 10.3389/fpsyg.2022.859042

26. Devoe DJ, Farris MS, Townes P, Addington J. Interventions and transition in youth at risk of psychosis: a systematic review and meta-analyses. *J Clin Psychiatry*. 2020;81(3). doi: 10.4088/JCP.17r12053

27. Bond GR, Al-Abdulmunem M, Marbacher J, et al. A systematic review and meta-analysis of IPS supported employment for young adults with mental health conditions. *Adm Policy Ment Health*. 2023;50(1):160-72. doi: 10.1007/s10488-022-01228-9

References

28. Christensen TN, Wallstrom IG, Stenager E, et al. Effects of individual placement and support supplemented with cognitive remediation and work-focused social skills training for people with severe mental illness: a randomized clinical trial. *JAMA Psychiatry*. 2019. doi: 10.1001/jamapsychiatry.2019.2291

29. Tsemberis S, Gulcur L, Nakae M. Housing First, consumer choice, and harm reduction for homeless individuals with a dual diagnosis. *Am J Public Health*. 2004;94(4):651-56.

30. Nilsson SF, Laursen TM, Osler M, Hjorthoj C, Benros ME, Ethelberg S, et al. Vaccination against SARS-CoV-2 infection among vulnerable and marginalised population groups in Denmark: a nationwide population-based study. *Lancet Reg Health Eur*. 2022;16:100355. doi: 10.1016/j.lanepe.2022.100355. PMID: 35350631; PMCID: PMC8948003.

31. Nordentoft M, Pedersen MG, Pedersen CB, et al. The new asylums in the community: severely ill psychiatric patients living in psychiatric supported housing facilities. A Danish register-based study of prognostic factors, use of psychiatric services, and mortality. *Soc Psychiatry Psychiatr Epidemiol*. 2012;47(8):1251-61.

32. Plana-Ripoll O, Nordentoft M, Lousdal ML, Tarp MEK, Momen NC. Time trends in the mortality gap for individuals with mental disorders in Denmark: a population-based cohort study over 2010-2023. *Acta Psychiatr Scand*. 2025. doi: 10.1111/acps.70056

33. Markota M, Morgan RJ, Leung JG. Updated rationale for the initial antipsychotic selection for patients with schizophrenia. *Schizophr*. 2024;10:74. doi: 10.1038/s41537-024-00492-y

34. Medicinrådet. Medicinrådets behandlingsvejledning vedr. antipsykotika til voksne, vers. 1.0. Retrieved from https://medicinraadet.dk/media/agfcugdi/medicinr%C3%A5dets_behandlingsvejledning_vedr_antipsykotika_til_voksne_-_vers-1-0-adlegacy.pdf

35. Leucht S, Cipriani A, Spinelli L, Mavridis D, Orey D, Richter F, et al. Comparative efficacy and tolerability of 15 antipsychotic drugs in schizophrenia: a multiple-treatments meta-analysis. *Lancet*. 2013;382(9896):951-962.

36. Tulliez S, Girardi A, Ridley M, et al. Primary and secondary caregiver burden of cognitive impairment associated with schizophrenia: a qualitative study based on caregiver interviews. *Schizophrenia (Heidelb)*. 2025;11(1):127. doi: 10.1038/s41537-025-00675-1

37. Awad AG, Voruganti LN. The burden of schizophrenia on caregivers: a review. *Pharmacoeconomics*. 2008;26(2):149-62. doi: 10.2165/00019053-200826020-00005

38. Gupta S, Isherwood G, Jones K, Van Impe K. Assessing health status in informal schizophrenia caregivers compared with health status in non-caregivers and caregivers of other conditions. *BMC Psychiatry*. 2015;15:162. doi: 10.1186/s12888-015-0547-1

39. Hastrup LH, Simonsen E, Ibsen R, et al. Societal costs of schizophrenia in Denmark: a nationwide matched controlled study of patients and spouses before and after initial diagnosis. *Schizophr Bull*. 2020;46(1):68-77. doi: 10.1093/schbul/sbz041

40. Manesh AE, Dalvandi A, Zoladl M. The experience of stigma in family caregivers of people with schizophrenia spectrum disorders: a meta-synthesis study. *Helicon*. 2023;9(3):e14333. doi: 10.1016/j.heliyon.2023.e14333. PMID: 36938397; PMCID: PMC10015248.

28. Christensen TN, Wallstrom IG, Stenager E, et al. Effects of individual placement and support supplemented with cognitive remediation and work-focused social skills training for people with severe mental illness: a randomized clinical trial. *JAMA Psychiatry*. 2019. doi: 10.1001/jamapsychiatry.2019.2291

29. Tsemberis S, Gulcur L, Nakae M. Housing First, consumer choice, and harm reduction for homeless individuals with a dual diagnosis. *Am J Public Health*. 2004;94(4):651-56.

30. Nilsson SF, Laursen TM, Osler M, Hjorthoj C, Benros ME, Ethelberg S, et al. Vaccination against SARS-CoV-2 infection among vulnerable and marginalised population groups in Denmark: a nationwide population-based study. *Lancet Reg Health Eur*. 2022;16:100355. doi: 10.1016/j.lanepe.2022.100355. PMID: 35350631; PMCID: PMC8948003.

31. Nordentoft M, Pedersen MG, Pedersen CB, et al. The new asylums in the community: severely ill psychiatric patients living in psychiatric supported housing facilities. A Danish register-based study of prognostic factors, use of psychiatric services, and mortality. *Soc Psychiatry Psychiatr Epidemiol*. 2012;47(8):1251-61.

32. Plana-Ripoll O, Nordentoft M, Lousdal ML, Tarp MEK, Momen NC. Time trends in the mortality gap for individuals with mental disorders in Denmark: a population-based cohort study over 2010-2023. *Acta Psychiatr Scand*. 2025. doi: 10.1111/acps.70056

33. Markota M, Morgan RJ, Leung JG. Updated rationale for the initial antipsychotic selection for patients with schizophrenia. *Schizophr*. 2024;10:74. doi: 10.1038/s41537-024-00492-y

34. Medicinrådet. Medicinrådets behandlingsvejledning vedr. antipsykotika til voksne, vers. 1.0. Retrieved from https://medicinraadet.dk/media/agfcugdi/medicinr%C3%A5dets_behandlingsvejledning_vedr-antipsykotika_til_voksne_-vers-1-0-adlegacy.pdf

35. Leucht S, Cipriani A, Spinelli L, Mavridis D, Orey D, Richter F, et al. Comparative efficacy and tolerability of 15 antipsychotic drugs in schizophrenia: a multiple-treatments meta-analysis. *Lancet*. 2013;382(9896):951-962.

36. Tulliez S, Girardi A, Ridley M, et al. Primary and secondary caregiver burden of cognitive impairment associated with schizophrenia: a qualitative study based on caregiver interviews. *Schizophrenia (Heidelb)*. 2025;11(1):127. doi: 10.1038/s41537-025-00675-1

37. Awad AG, Voruganti LN. The burden of schizophrenia on caregivers: a review. *Pharmacoeconomics*. 2008;26(2):149-62. doi: 10.2165/00019053-200826020-00005

38. Gupta S, Isherwood G, Jones K, Van Impe K. Assessing health status in informal schizophrenia caregivers compared with health status in non-caregivers and caregivers of other conditions. *BMC Psychiatry*. 2015;15:162. doi: 10.1186/s12888-015-0547-1

39. Hastrup LH, Simonsen E, Ibsen R, et al. Societal costs of schizophrenia in Denmark: a nationwide matched controlled study of patients and spouses before and after initial diagnosis. *Schizophr Bull*. 2020;46(1):68-77. doi: 10.1093/schbul/sbz041

40. Manesh AE, Dalvandi A, Zoladl M. The experience of stigma in family caregivers of people with schizophrenia spectrum disorders: a meta-synthesis study. *Helijon*. 2023;9(3):e14333. doi: 10.1016/j.heliyon.2023.e14333. PMID: 36938397; PMCID: PMC10015248.

References

41. Rodolico A, Bighelli I, Avanzato C, et al. Family interventions for relapse prevention in schizophrenia: a systematic review and network meta-analysis. *Lancet Psychiatry*. 2022;9(3):211-21. doi: 10.1016/S2215-0366(21)00437-5
42. Yesufu-Udechukwu A, Harrison B, Mayo-Wilson E, et al. Interventions to improve the experience of caring for people with severe mental illness: systematic review and meta-analysis. *Br J Psychiatry*. 2015;206(4):268-74. doi: 10.1192/bjp.bp.114.147561
43. Murray-Swank AB, Dixon L. Family psychoeducation as an evidence-based practice. *CNS Spectr*. 2004;9(12):905-12. doi: 10.1017/s109285290000972x
44. Jeppesen P, Wolf RT, Nielsen SM, et al. Effectiveness of transdiagnostic cognitive-behavioral psychotherapy compared with management as usual for youth with common mental health problems: a randomized clinical trial. *JAMA Psychiatry*. 2020. doi: 10.1001/jamapsychiatry.2020.4045
45. Bjorkedal STB, Christensen TN, Poulsen RM, et al. Study protocol: an effectiveness, cost-effectiveness, and process evaluation of headspace Denmark. *Front Public Health*. 2025;13:1491756. doi: 10.3389/fpubh.2025.1491756
46. Jensen RAA, Ovesen JH, Stenager E. Evaluering af PårørendeKurset: For pårørende til personer med psykisk lidelse eller udviklingsforstyrrelse. 2025. doi: 10.21996/8387-2071
47. Thorup AA, Jepsen JR, Ellersgaard DV, Burton BK, Christiani CJ, Hemager N, et al. The Danish High Risk and Resilience Study - VIA 7 - a cohort study of 520 7-year-old children born of parents diagnosed with either schizophrenia, bipolar disorder or neither of these two mental disorders. *BMC Psychiatry*. 2015;15(1):233. PMID: 26432691.
48. Styrelsen for Arbejdsmarked og Rekruttering. Pulje til IPS-ambassadørkorps. Retrieved from <https://star.dk/da/tilskud/2025/pulje-til-ips-ambassadoerkorps>
49. Nordentoft M, Rasmussen M, Hogh L, et al. How come Denmark is planning to increase the annual budget for psychiatry with almost 20 percent? *Eur Psychiatry*. 2023;1-10. doi: 10.1192/j.eurpsy.2023.2409
50. World Health Organization. National suicide prevention strategies: progress, examples and indicators. 2018.
51. Sundhedsstyrelsen. Prevention of suicide and suicide attempt. Copenhagen: Sundhedsstyrelsen; 2024. Retrieved from <https://www.sst.dk/udgivelser/2024/forebyggelse-af-selvmord-og-selvmordsforsoeg>
52. Nordentoft M, Erlangsen A, Madsen T. More coherent treatment needed for people at high risk of suicide. *Lancet Psychiatry*. 2022;9(4):263-64. doi: 10.1016/S2215-0366(21)00449-1
53. Sundhedsstyrelsen. Forebyggelse af selvmord og selvmordsforsøg. Copenhagen: Sundhedsstyrelsen; 2024. Retrieved from <https://www.sst.dk/udgivelser/2024/forebyggelse-af-selvmord-og-selvmordsforsoeg>
54. Garety PA, Edwards CJ, Jafari H, et al. Digital AVATAR therapy for distressing voices in psychosis: the phase 2/3 AVATAR2 trial. *Nat Med*. 2024;30(12):3658-68. doi: 10.1038/s41591-024-03252-8
55. Smith LC, Villaume DL, Mariegaard L, Christensen AG, Jansen J, Schytte G, et al. Virtual reality-assisted therapy targeting persistent auditory verbal hallucinations in patients diagnosed with schizophrenia spectrum disorders: the Challenge single-blind, randomized clinical trial. *Lancet Psychiatry*. 2025;in press.

56. Craig TK, Rus-Calafell M, Ward T, et al. AVATAR therapy for auditory verbal hallucinations in people with psychosis: a single-blind, randomised controlled trial. *Lancet Psychiatry*. 2018;5(1):31-40. doi: 10.1016/S2215-0366(17)30427-3
57. Bhatt S. Digital mental health: role of artificial intelligence in psychotherapy. *Ann Neurosci*. 2025 Apr;32(2):117-127. doi: 10.1177/09727531231221612. PMID: 39544658; PMCID: PMC11559931.
58. Petersen L, Jeppesen P, Thorup A, et al. A randomised multicentre trial of integrated versus standard treatment for patients with a first episode of psychotic illness. *British Medical Journal*. 2005;331(7517):602.
59. Hastrup LH, Kronborg C, Bertelsen M, et al. Cost-effectiveness of early intervention in first-episode psychosis: economic evaluation of a randomised controlled trial (the OPUS study). *Br J Psychiatry*. 2013;202:35-41.
60. Posselt CM, Albert N, Nordentoft M, Hjorthoj C. The Danish OPUS early intervention services for first-episode psychosis: a phase 4 prospective cohort study with comparison of randomized trial and real-world data. *Am J Psychiatry*. 2021. doi: 10.1176/appi.ajp.2021.20111596

Funding

This project was supported with a grant from Boehringer Ingelheim. The company was not involved in the research nor the drafting of the report. All outputs are non-promotional and non-specific to any treatment or therapy.



Phase III: Country Profiles

Rethinking Schizophrenia in Denmark:
Schizophrenia and Brain Health



European Brain Council
Rue d'Egmont 11
1000 Brussels
Belgium

Tel: + 32 (0) 2 513 27 57
info@braincouncil.eu



European Psychiatric Association
Rue d'Egmont 11
1000 Brussels
Belgium

Tel: +32 2 511 02 30
[Contact form](#)

