



## First Episode Psychosis

**The Challenge of Schizophrenia:** Schizophrenia-spectrum disorders (hereafter, schizophrenia) are neurodevelopmental illnesses with a lifetime prevalence approaching 1%; they often result in extensive functional impairment and have long carried low expectations for recovery<sup>1</sup>. As few as 10-15% of people with schizophrenia are employed; disability is common<sup>2</sup>. The 2013 total US costs of schizophrenia were estimated at \$155.7 billion<sup>3</sup>. The National Institute of Mental Health's Recovery After an Initial Schizophrenia Episode (RAISE) studies built on national and international studies to help solidify the evidence for the success of a new treatment model, coordinated specialty care (CSC). Community-based CSC teams provide an array of recovery-based services designed for young people with the recent onset of psychosis. Robust evidence suggests that providing CSC to those with early psychosis and reducing their duration of untreated psychosis improves short-term and possibly long-term outcomes<sup>4-11</sup>. In the context of a transformation of the mental health system focused on improving value and outcomes, New York State has been a national leader in the provision of a CSC model called **OnTrackNY** to young people in need. This program has the promise to bend the curve and dramatically improve outcomes for young people living with schizophrenia and their families.

**What Do Effective Early Psychosis Services Look Like? Description of OnTrackNY:** OnTrackNY teams include a team leader, therapists, a supported education, and employment specialist, as well as a part time psychiatrist or nurse practitioner, nurse, and peer specialist. Each team typically serves between 35 and 50 individuals, depending on staffing, and provides a range of evidence-based treatments. OnTrackNY treatment is delivered in a person-centered, recovery-focused, culturally competent fashion and uses a shared decision making (SDM) framework. The team strives to convey hope for recovery and views the client as the central team member. The client's life goals, aspirations, and ambitions drive treatment planning; no treatment component is mandatory. Shared decision making is a collaborative process that provides specific steps for clients and providers to make health care decisions together.

**Description of OnTrackNY Services:** Evidence-based psychopharmacology involves prescribing the lowest effective dose of medication with the fewest side effects with an emphasis on health and wellness. Case management helps individuals and families meet concrete needs (such as health insurance and housing). Cognitive-behavioral-based therapy focuses on engagement with collaborative identification of personal goals. Cognitive-behavioral principles are employed to treat symptoms of psychosis and related conditions (such as substance use and trauma). The overarching focus is training in resiliency, illness and wellness management, and coping skills. The inclusion of families is critical and delivered flexibly. Supported education and employment specialists help patients meet work- and school-related goals. The peer specialist focuses on building a relationship with participants, enhancing outreach efforts to help them stay connected to the program, connecting them to resources in the community, and empowering them to advocate for themselves and effectively use OnTrackNY services. Learn more about OnTrackNY services here: <https://www.ontrackny.org/>

Watch these videos of recipients of OnTrackNY services who share their experience:  
<https://www.practiceinnovations.org/CPI-Resources/First-Episode-Psychosis-Recovery-Stories>

**The Vision of Implementing OnTrackNY Statewide:** From the start, OMH has had a vision of making OnTrackNY's recovery vision available to all eligible New Yorkers. The Center for Practice Innovations at the New York State Psychiatric Institute is home to OnTrackCentral, which provides training and technical assistance to teams. Other key partners include the Office of Performance Measurement and Evaluation (OPME) within OMH and the Data Management Center at the Nathan Kline Institute. State and federal dollars have combined to build programs across the state within Western New York, Central New York, the Hudson Valley, New York City and Long Island. We expect to have 23 sites operational by early 2020. Over time, OMH hopes to double the number of teams to serve the population in need. What does this entail? Creating teams involves identifying and training staff, helping them to liaison with the community and conduct outreach to identify individuals who are eligible. The teams need to serve both teens and young adults, and to provide youth-friendly, recovery-oriented care in the community that focuses on the goals of the clients. Data collection and measurement-based care support a quality and value-driven approach. Clinicians and clients provide data to the NKI data center and OPME which is then fed back to the teams to identify programmatic strengths and weaknesses. Quality improvement is ongoing and dynamic.

**What is the Impact of OnTrackNY?** As of 04/27/2020 there were 1917 participants served by OnTrackNY.

Outcomes include marked improvements in rates of participation in school and work, as well as psychiatric symptoms and social functioning. Approximately 40% of OnTrackNY participants are engaged in work or school at the time of enrollment; by 6 months following enrollment approximately 70% of participants are engaged in work or school. Rates of hospitalization and use of emergency services have also declined markedly. Nearly three-quarters (73%) of OnTrackNY participants are hospitalized in the 3 months prior to enrollment, which drops to 10% per quarter following enrollment.

The OnTrackCentral team has received federal grants to study how to improve engagement in care. Dr. Alice Medalia is leading a study that asks whether the addition of cognitive remediation to CSC improves functional outcome. Dr. Scott Stroup is studying how to use MHealth to maximize prescription of medication. Dr. Barbara Stanley is developing a strategy to reduce suicidal behavior. Dr. Michael Birnbaum is studying how to reduce the duration of untreated psychosis using google search pathways. In another study, Dr. Dixon is assessing the use of an innovative online video game to promote engagement in care. The team was recently awarded a grant recognizing that the program has created a successful learning health care system which will be part of a national healthcare system, designed to improve the care of individuals with early psychosis across the country. (Link to epinet)

### **The Future a Learning Health Care System for CSC- Bidirectional Exchange of Information. Advancing Early Psychosis Service and Research:**

Co-investigators Dixon and Humensky from NYS PI/Columbia in partnership with NYS OMH and NYS NKI were awarded a ~8 million grant to advance a learning health system for early psychosis.

EPINET is comprised of a National Data Coordinating Center (ENDCC) and five regional Coordinated Specialty Care (CSC) networks. In aggregate, EPINET includes 59 CSC programs in 9 states, with approximately 2,500 early psychosis (EP) patients currently enrolled. We expect EPINET to enroll over 5,000 EP patients during the 5-year project period; this level of recruitment will generate an unprecedented volume of data about early intervention in psychosis, with unique opportunities for collaborative research across the regional networks.

The OnTrackCentral team in collaboration with OMH partners have published numerous papers that inform future directions of the program as well as the field.

## Other FEP-related Articles

Marino, L., Scodes, J., Ngo, H., Nossel, I., Bello, I., Wall, M., & Dixon, L. (2019). Determinants of pathways to care among young adults with early psychosis entering a coordinated specialty care program. *Early Intervention in Psychiatry*. doi:10.1111/eip.12877.

This study described the characteristics of the pathway to care for young adults enrolled in OnTrackNY and examines how various factors correlate with the duration of untreated psychosis (DUP). The authors found that referral to coordinated specialty care after individuals had contact with the mental health treatment system were longer than initial help-seeking delays after onset of symptoms. Strategies to reduce treatment referral delays through systems-level interventions may be most likely to reduce the overall DUP in this population.

Rolin, S.A., Marino, L.A., Pope, L.G., Compton, M.T., Lee, R.J., Rosenfeld, B., Rotter, M., Nossel, I., & Dixon, L.B. (2018). Recent violence and legal involvement among young adults with early psychosis enrolled in coordinated specialty care. *Early Intervention in Psychiatry*, 13(4), 832-840.

This study analyzed the prevalence of and risk factors for reports of violence and legal involvement in a sample of young adults enrolled in OnTrackNY. The study reported that up to one-third of individuals experiencing early psychosis report violence and recent legal involvement was strongly associated with substance use. This study presents insight into violence and legal involvement among individuals with FEP and indicates the need for further research.

Humensky, J.L., Nossel, I., Bello, I., & Dixon, L.B. (2019). Supported education and employment services for young people with early psychosis in OnTrackNY. *The Journal of Mental Health Policy and Economics*, 22(3), 95-108.

This paper examined factors associated with the use of Supported Education and Employment (SEE) services and whether use of SEE services was associated with education and employment participation within OnTrackNY. The study found that rates of school and work participation increased over the duration of OnTrackNY participation and clients with lower work/school participation were more likely to use SEE services.

Smith, T.E., Kurk, M., Sawhney, R., Bao, Y., Nossel, I., Cohen, D.E., & Dixon, L.B. (2019). Estimated staff time effort, costs, and Medicaid revenues for coordinated specialty care clinics serving clients with first-episode psychosis. *Psychiatric Services*, 70(5), 425-427.

As coordinated specialty care for first-episode psychosis is implemented nationally, questions arise regarding financial sustainability. To address questions regarding the financial sustainability of coordinated specialty care for first-episode psychosis, New York State undertook a time study in which 13 coordinated specialty care sites reported all activities provided to 75 randomly selected Medicaid clients with first-episode psychosis over a 2-week period. The average estimated cost was \$1,375 per client per month, yet under optimal billing conditions, estimated revenues were only \$662 per client per month, or 48% of the costs. These results underscore the need for continued subsidies and novel payment schemes for coordinated specialty care.

Radigan, M., Gu, G., Frimpong, E.Y., Wang, R., Huz, S., Li, M., Nossel, I., & Dixon, L. (2019). A new method for estimating incidence of first psychotic diagnosis in a Medicaid population. *Psychiatric Services*, 70(8), 665-673.

Early intervention programs for first-episode psychosis (FEP) require population-based methods to identify individuals with FEP. This study adapted a previously published method to estimate incidence of first psychotic diagnosis in a state Medicaid program. Incidence of first psychotic diagnosis in this Medicaid population was higher than previously found in insured populations. Future work will focus on algorithm refinements and piloting outreach. Administrative data algorithms may be useful to providers, Medicaid MCOs, and state Medicaid authorities to support case finding and early intervention.

## Citations

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