



Bridging the Practice Gap in Evidence-Based Schizophrenia Care

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Disclosures

Neither I nor my spouse has a relevant financial relationship with a commercial interest to disclose.

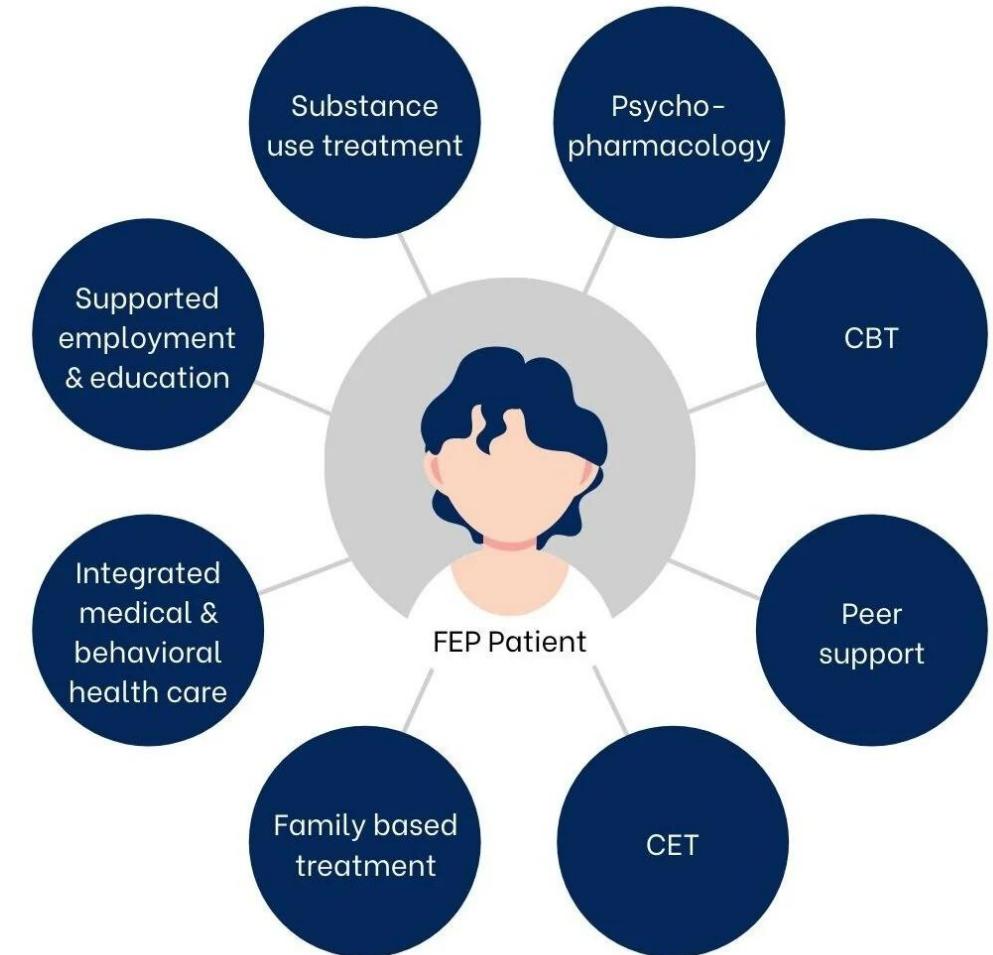


Outline

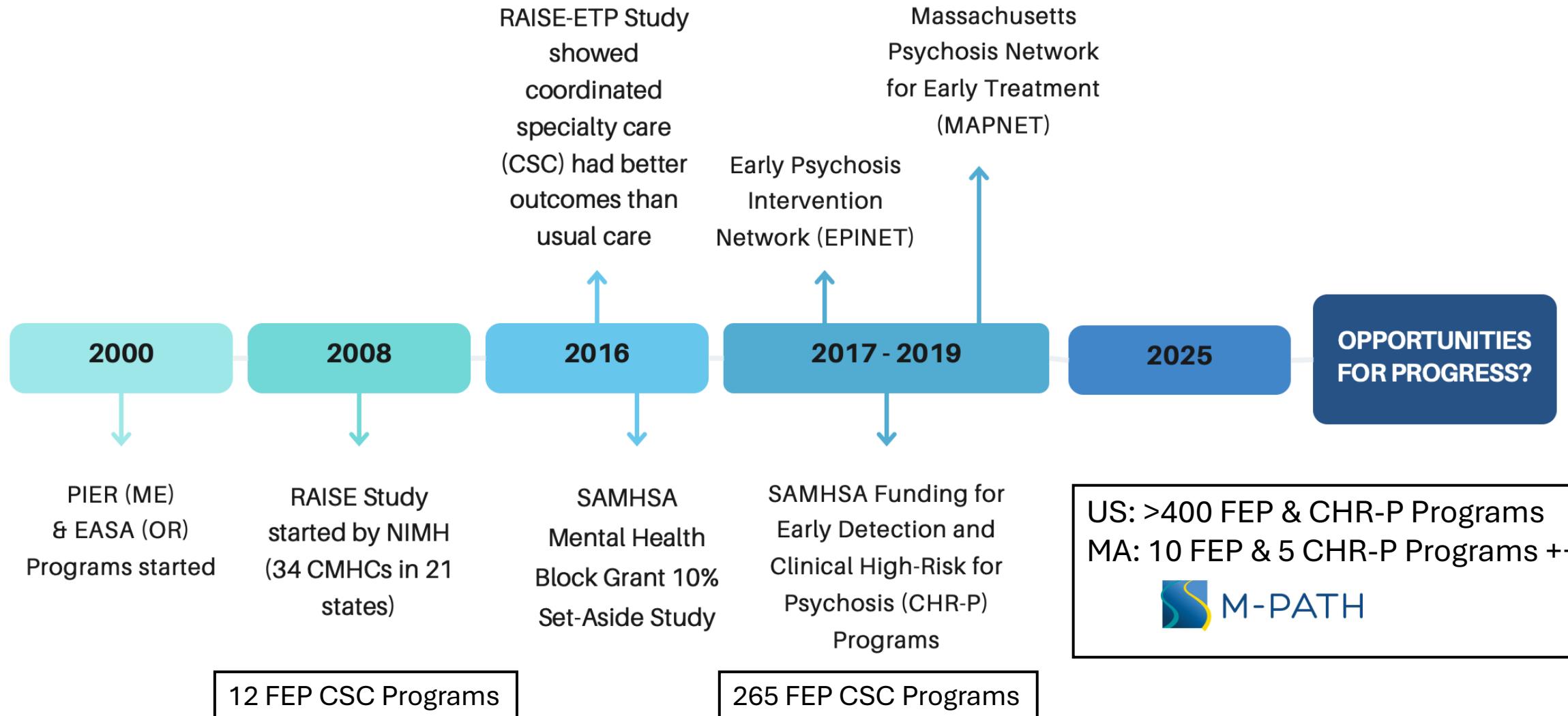
- Schizophrenia Treatment in the U.S.: 2000 - 2025
- How Change Happens
- Addressing Priority Practice Gaps
 1. Life-Saving Pharmacotherapies
 2. Family Involvement & Evidence-Based Family Interventions
 3. Supported Education & Employment
 4. Long-Term Physical Health and Wellness

The Evidence-Base for Schizophrenia Treatment

- First-line antipsychotic medication
- Cognitive-behavioral therapy (CBT) and other evidence-based psychosocial treatments
- Earlier intervention, the better
- Coordinated specialty care (CSC) as gold-standard early intervention



A Science-to-Practice Success Story





The Research-to-Practice Gap

Treatments show promise in trials but not in real-world settings =
People don't receive optimal care

Access Gap:

Treatments aren't widely available or easy to access

Adoption Gap:

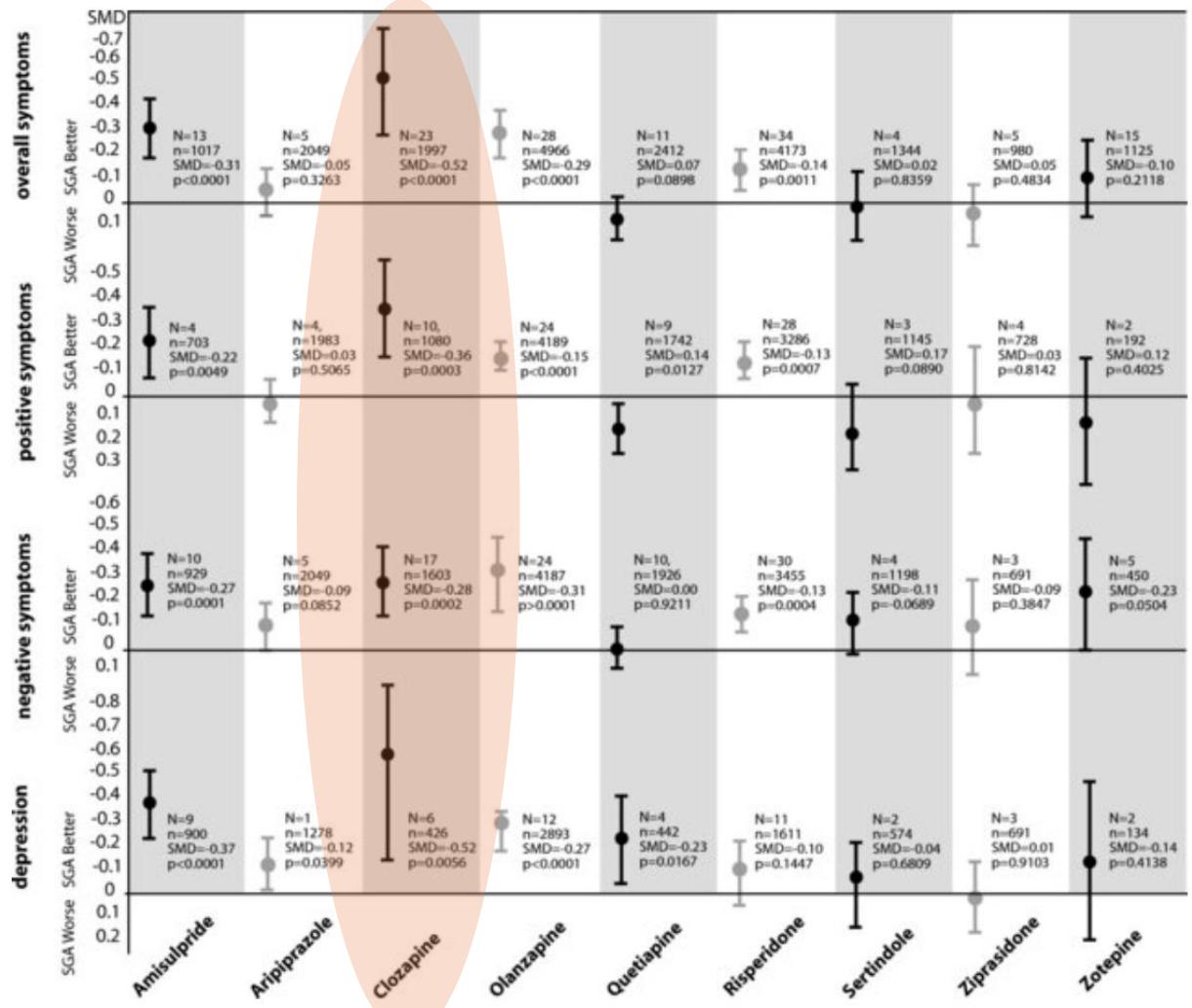
Treatments aren't used enough

Quality Gap:

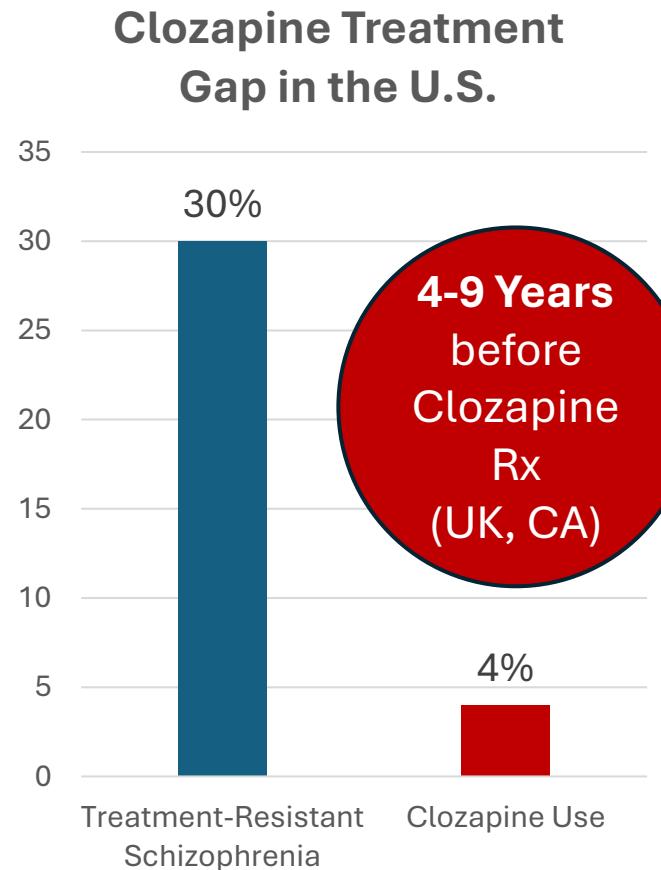
Treatments aren't delivered well

How Change Happens: Clozapine REMS

- Clozapine is most efficacious antipsychotic for managing psychotic symptoms
- FDA-approved and effective for suicidality and treatment-resistant schizophrenia



How Change Happens: Clozapine REMS



- Agranulocytosis risk (<1%, typically in first 4 months)
- No Blood, No Drug
- Missed or delayed clozapine refills
- Routine testing burden
- More unwilling patients and prescribers

How Change Happens: Clozapine REMS

PSYCHIATRIC NEWS

FULL ACCESS | Community | Publication Date: 24 September 2024

Patient Advocacy Groups Demand Significant Changes to Clozapine REMS

Mark Moran | [AUTHORS INFO & AFFILIATIONS](#)

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Start Using Clozapine
and Stop Interrupting It
#endtheclozapinerems

Psychiatric





How Change Happens: Clozapine REMS

August 27, 2025

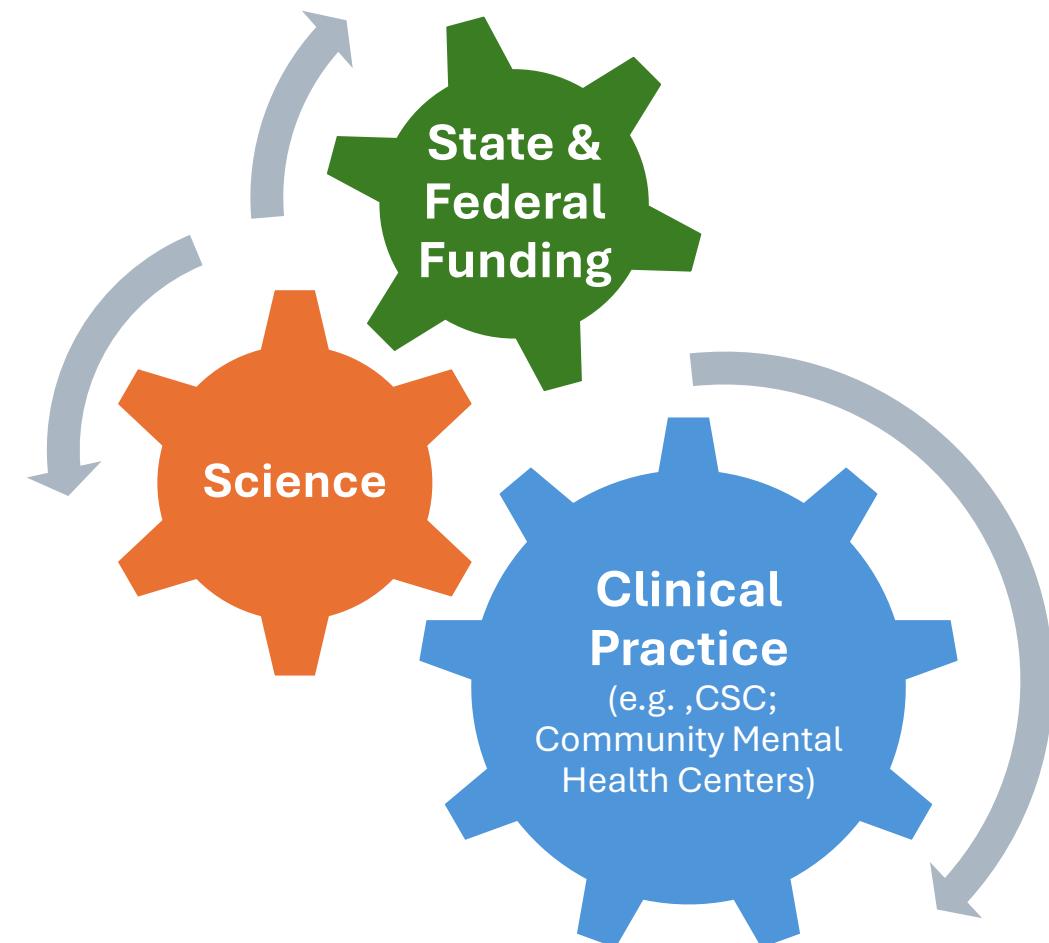
FDA removes risk evaluation and mitigation strategy (REMS) program for the antipsychotic drug Clozapine

Neutropenia Risk Remains, but REMS No Longer Necessary and REMS May Prevent Treatment Access



How Change Happens

People with
Lived
Experience
and Families





Priority Practice Gaps



Long-Acting Injectable Antipsychotic (LAI) and Clozapine Use



Family Involvement and Evidence-Based Family Interventions



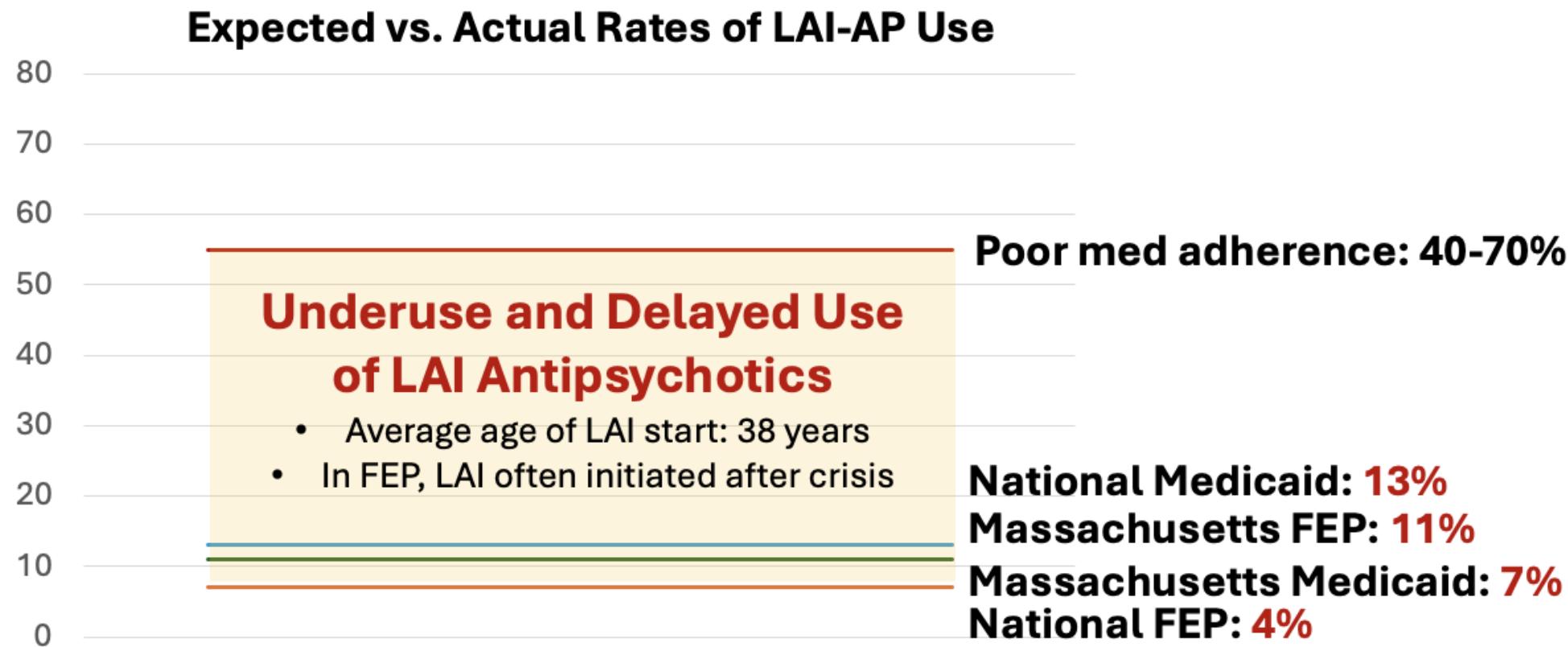
Supported Employment and Education



Long-Term Health Promotion and Illness Management

Why LAI Antipsychotics Matter

- Prevents relapse and hospitalizations via medication adherence

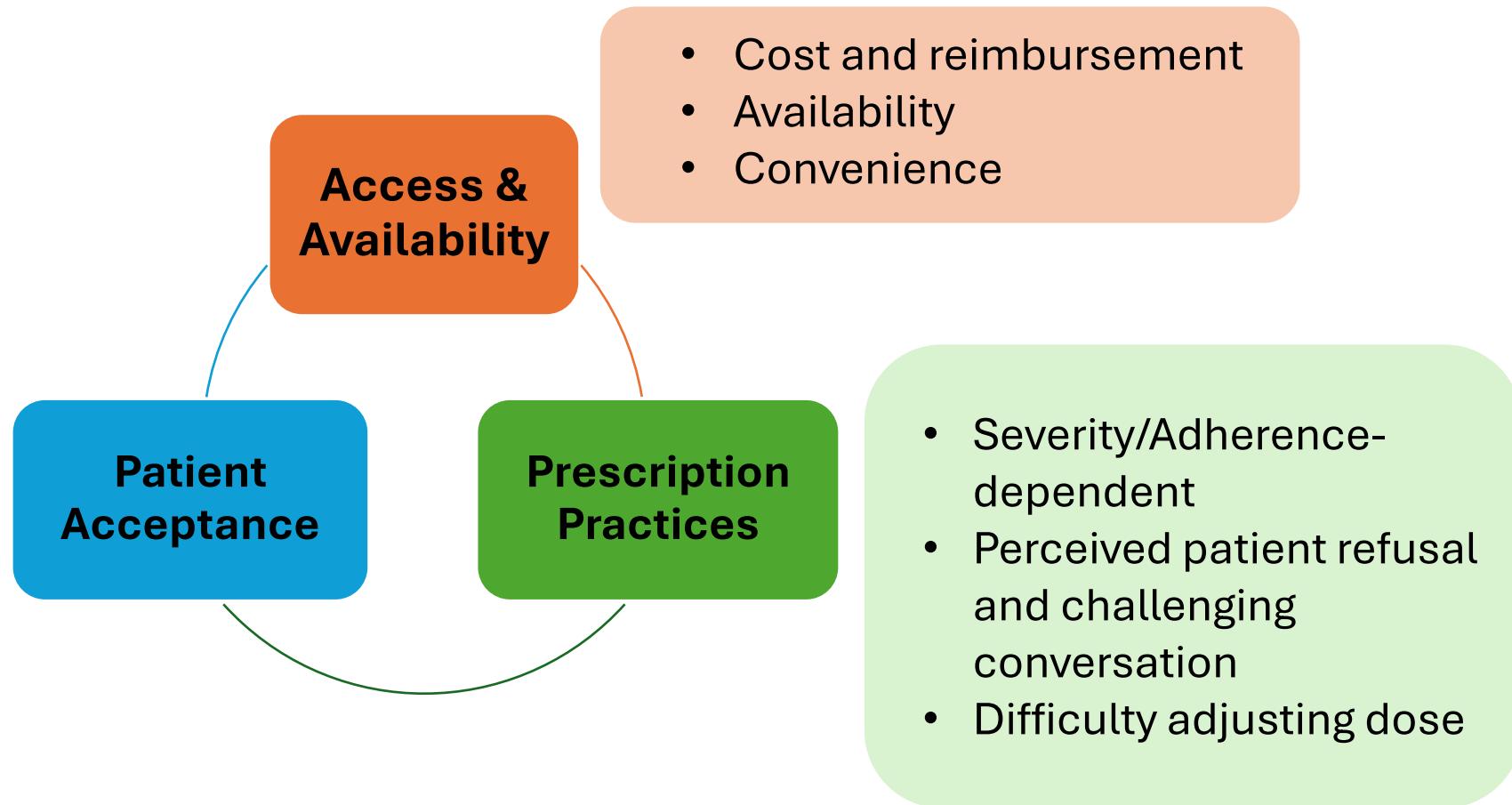


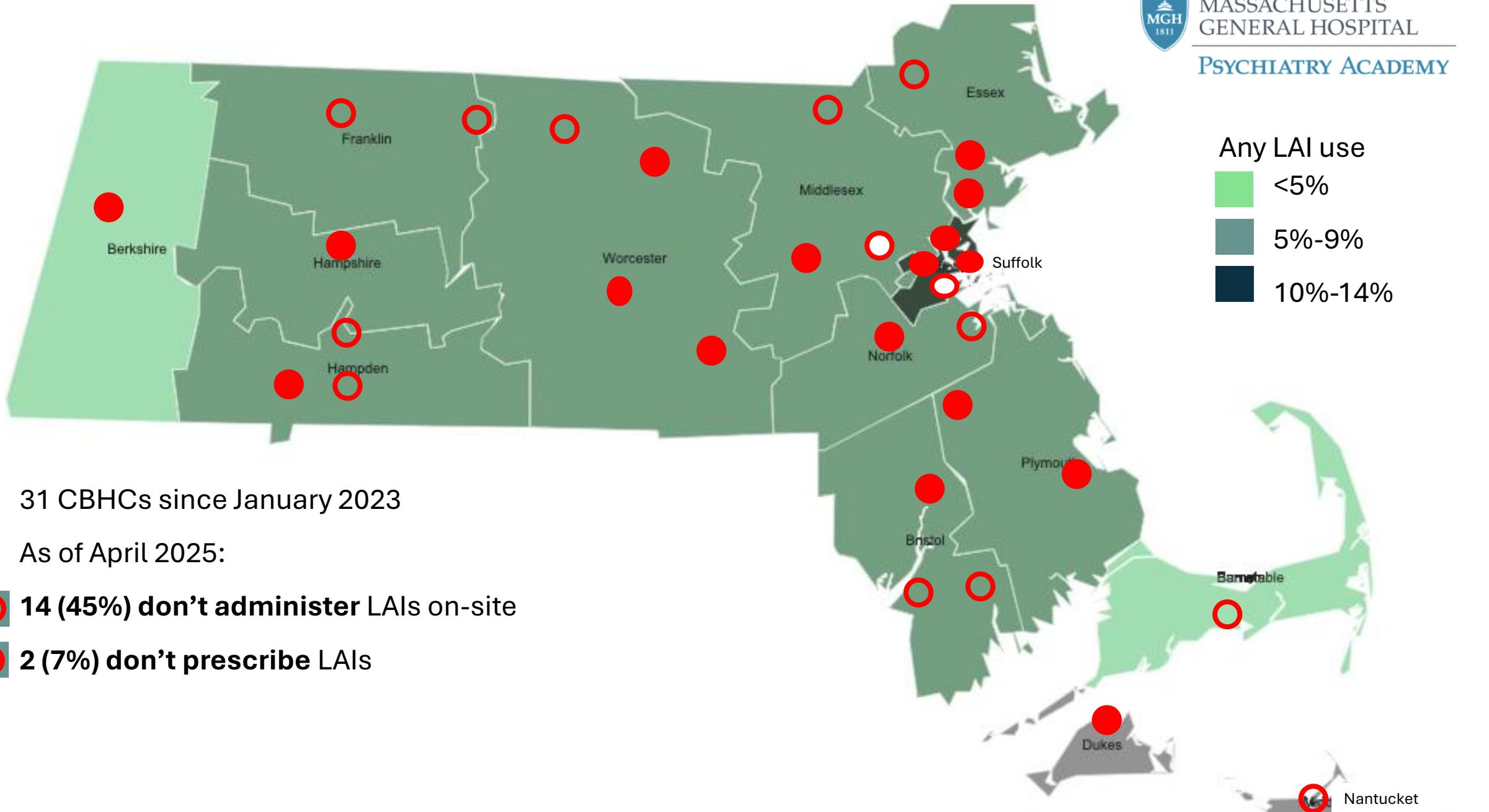
Multilevel Barriers to LAI use

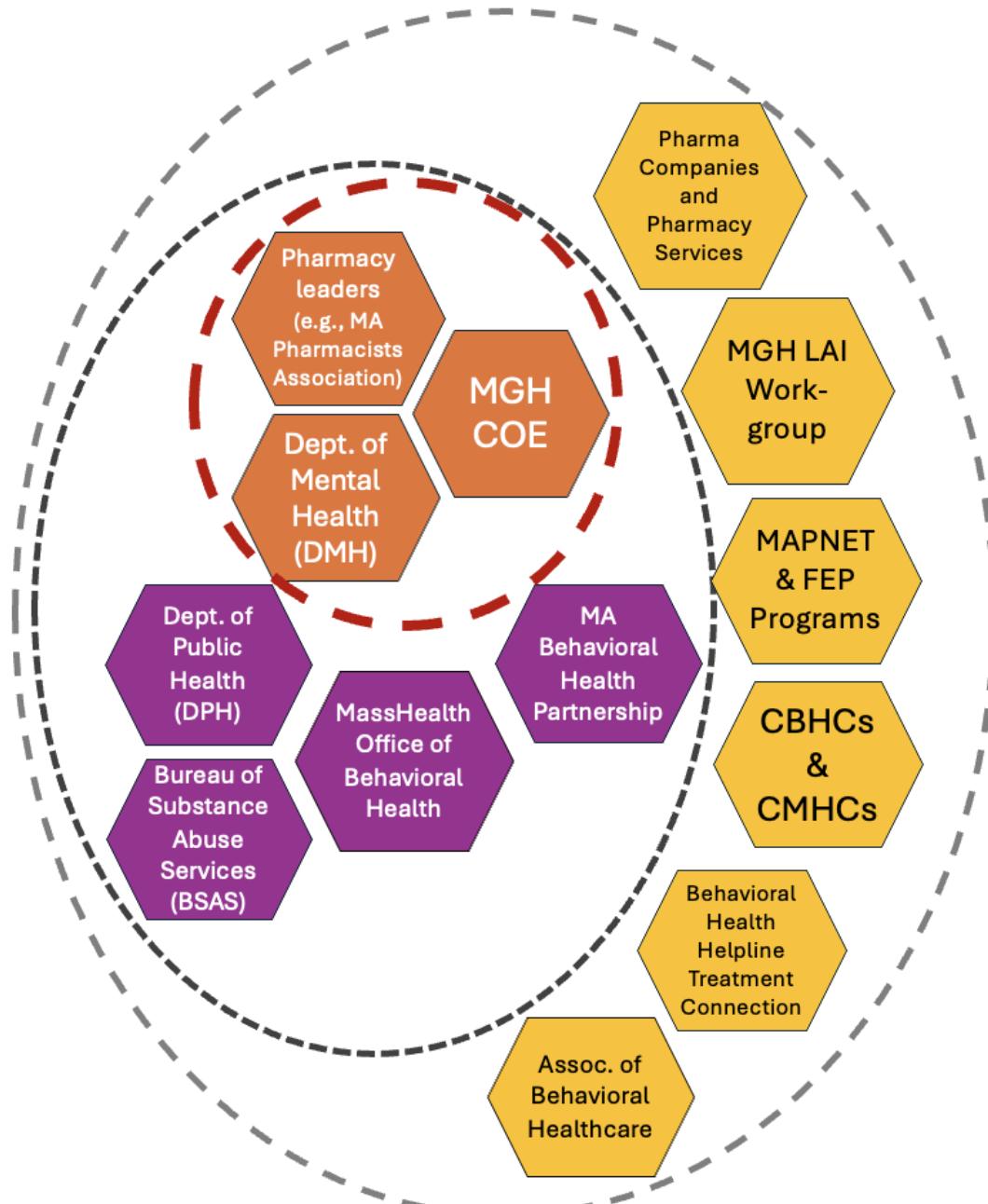
Different concerns:

- Injection pain
- Loss of autonomy/control (“liquid handcuffs”)

But majority accept when informed, and prefer it







A System-Wide Coalition to Improve LAI Access and Use in Massachusetts





Developing a Strategic Plan and Tools to Improve LAI Access



Strategic Plan for Expanding LAI Access in key community mental health settings
(CBHCs, FEP programs, inpatient settings)



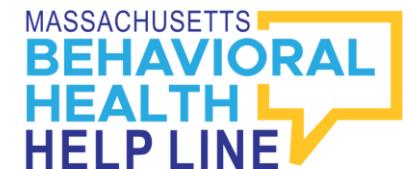
Statewide LAI-AP administration site directory via
MA Behavioral Health Help Line Resource Directory



Provider LAI Toolkit for evidence-based prescribing,
including a *LAI Treatment Decisions Provider Pocket Card*



LAI-AP Decision Aid Tool for shared decision-making



Call or text now
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Treatment-Resistant Schizophrenia and Clozapine: TRS ACCESS Network

- Post-REMS: Fewer barriers with simpler monitoring requirements
- **MGH TRS ACCESS:** Advocacy, Clinical Consultation, Education, and Support Service (www.mghaccess.org)
- Mission: To build a network of clozapine-capable clinicians and clinics

LAI Antipsychotic and Clozapine Use: What You Can Do



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KNOW

ADVOCATE

CONNECT &
SHARE

CONTRIBUTE



Priority Practice Gaps



Long-Acting Injectable Antipsychotic (LAI) and Clozapine Use



Family Involvement and Evidence-Based Family Interventions



Supported Employment and Education



Long-Term Health Promotion and Illness Management



Family Involvement Matters

- Evidence-based psychoeducation and support for families
(e.g., *NAVIGATE Family Psychoeducation*, *McFarlane Multi-Family Group*, *Family Focused Therapy*)
- Up to 50% reduction in relapse/hospitalization rates vs. control
- Reduced caregiver burden and distress
- Improved family communication and family relationships
- More family sessions attended, better treatment engagement



Family Engagement Gap

- >90% patients prefer some family involvement
- **22-46%** families receive evidence-based family intervention in the U.S.
- MA FEP: **40%** of clients' families attended ≥ 1 family session

Barriers

- Limited trained staff and family services
- Limited family-friendly hours
- Families may fear judgment or blame
- Family cultural and language barriers

Family Engagement Strategies

- **First 6 months of care:** critical window for treatment engagement

In Massachusetts FEP programs, high family engagement teams (N=4) compared to low engagement teams (N=4) were more likely to have:



Case management and practical support (75% vs. 40%)

“The family's going to gravitate to the person who's going to meet their immediate need... then we'll roll in psychoed.”

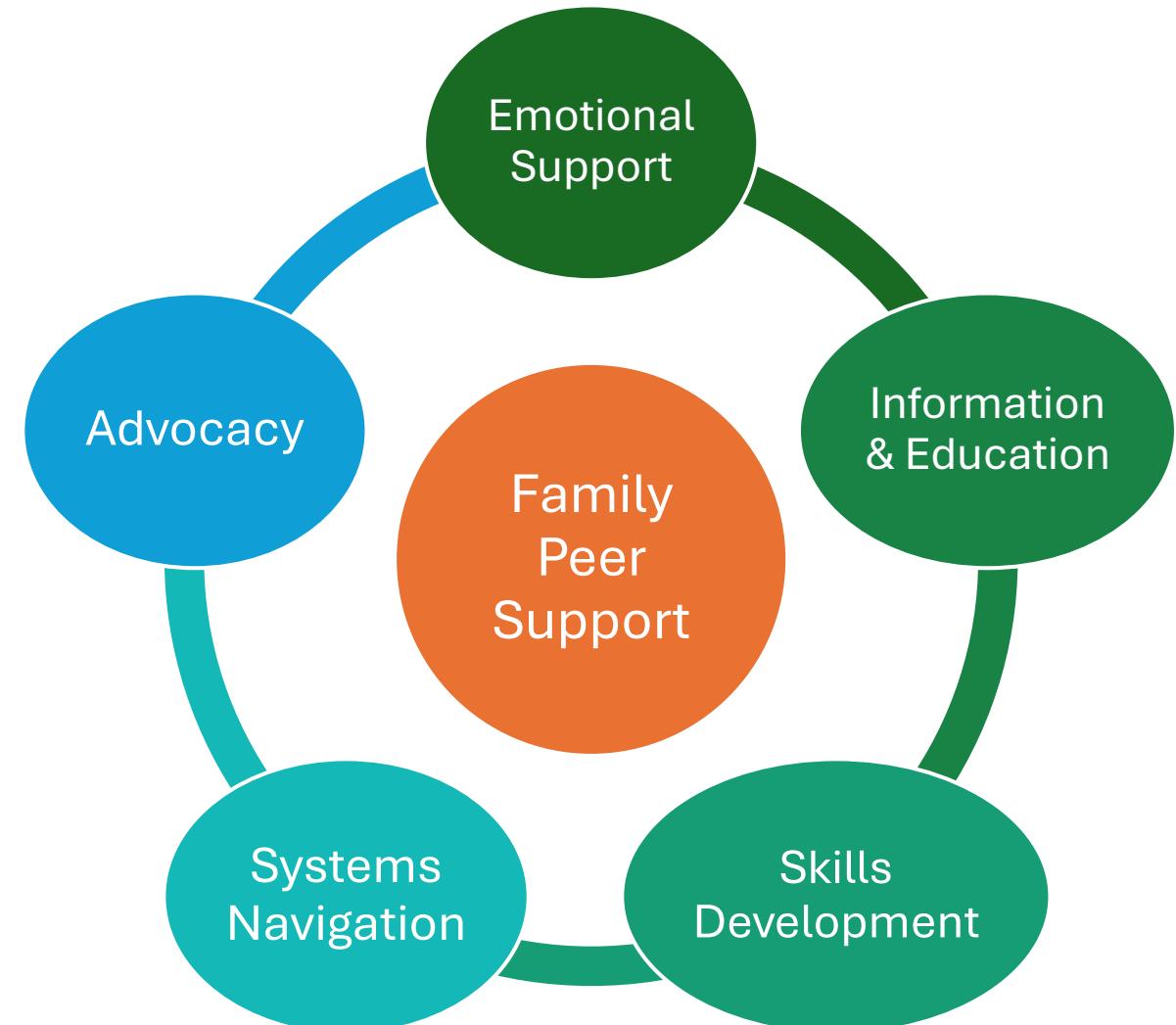


Proactive recommendation with educational framing (100% vs. 40%)

“The key is approaching all families from the perspective of providing support and education rather than fixing, blaming, or pathologizing the family.”

Family Peer Support

- Serves multiple valuable functions, including community outreach
- Promising evidence:
 - NAMI Family-to-Family Education Program
 - Psychosis REACH Family Ambassador Peer Training in CBTp
 - Family Peer in CSC (FAMES)
- **MAPNET Talk:**
December 19, Friday, 11:30am – 1pm





Family-Inclusive Care: What You Can Do

PARTICIPATE

CONNECT
WITH THE
TREATMENT
TEAM

CONNECT
WITH OTHER
FAMILIES

CONTRIBUTE



Priority Practice Gaps



Long-Acting Injectable Antipsychotic (LAI) and Clozapine Use



Family Involvement and Evidence-Based Family Interventions



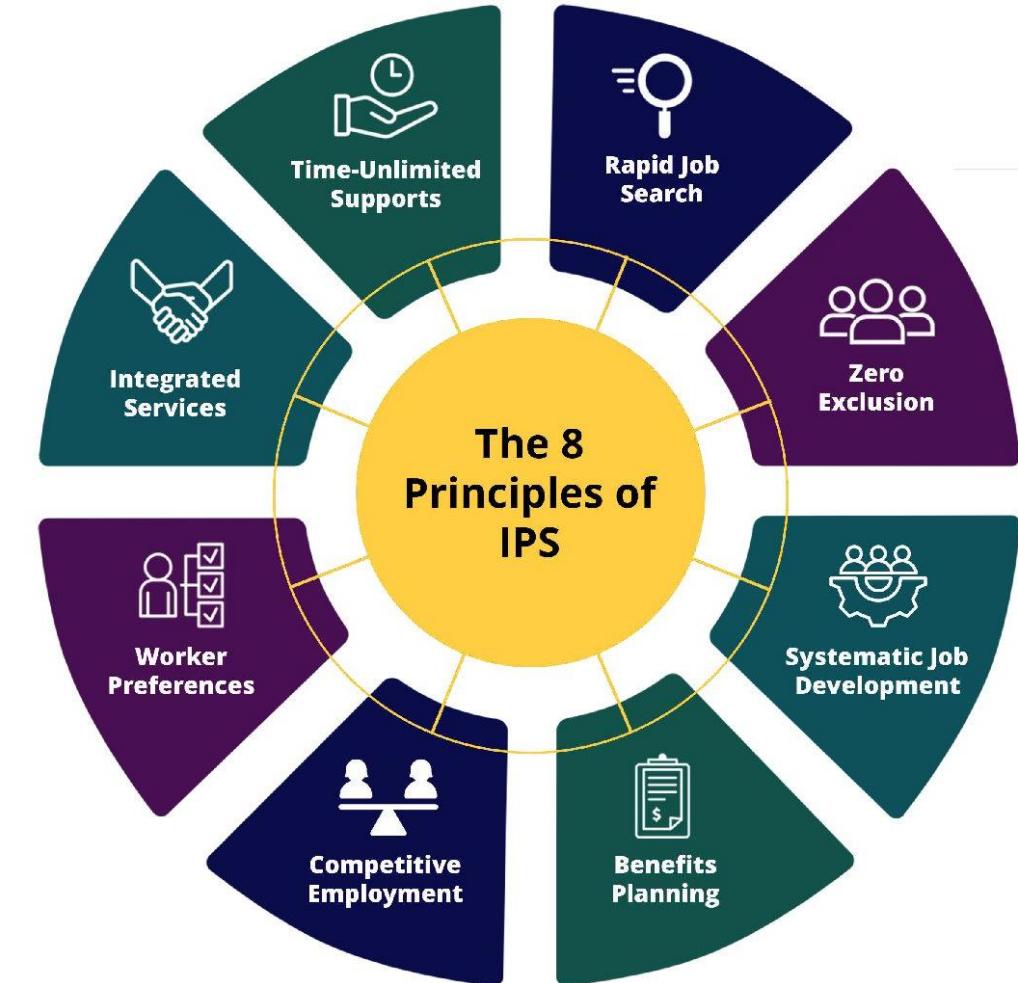
Supported Employment and Education



Long-Term Health Promotion and Illness Management

Supported Education and Employment (SEE)

- Realistic and meaningful goal
- Cognitive rehabilitation and skills training during placement
- Evidence-based SEE have higher rates of work/school involvement vs. standard vocational support





Education & Employment Gaps

- Employment rate remains low despite desire to work
- Educational attainment gap compared to general population
- Very few have access to evidence-based SEE services
- Cognitive strategies & executive functioning skills coaching needed

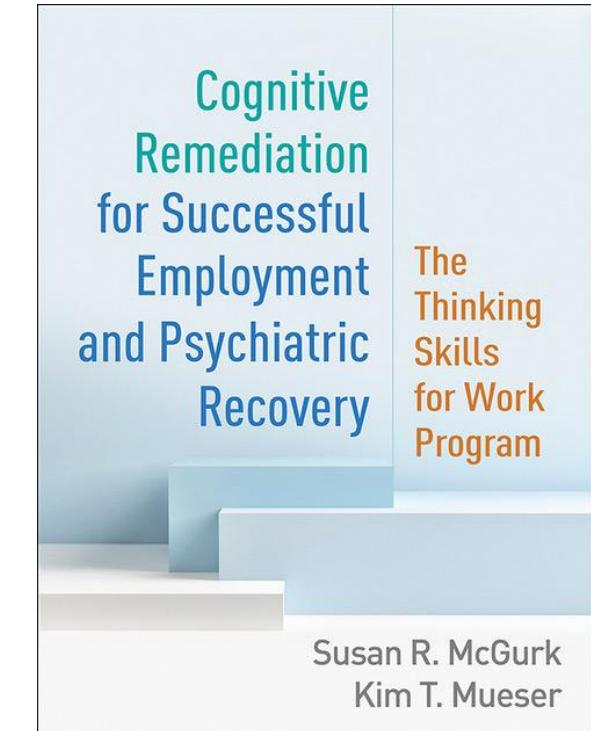
Barriers

- Employers reluctant to hire
- Providers underestimate “readiness”
- Insufficient scaffolding and support when starting work/school
- Limited SEE/IPS services
- Limited funding mechanism for SEE/IPS



Supported Education & Employment: Making it Better

- Integrating cognitive self-management strategies and executive functioning coaching
- School placements, learning accommodations (IEP/504), benefits counseling
- Local resources and programs: *MassAbility*, *MassEducate*, *NITEO*, *Recovery Learning Communities* (peer-run services and support), *McLean WellSpace Peer & Vocational Groups*
- Job development and partnerships with local jobs or educational institutions



Achieving Academic and Work Goals: What You Can Do



**SUPPORT
YOUR LOVED
ONE'S
ASPIRATIONS**

KNOW

ADVOCATE

**SHARE &
CONTRIBUTE**



Priority Practice Gaps



Long-Acting Injectable Antipsychotic (LAI) and Clozapine Use



Family Involvement and Evidence-Based Family Interventions



Supported Employment and Education



Long-Term Health Promotion and Illness Management



Paying Attention to Physical Health

Common Medical Issues:

- Cardiovascular diseases
- Metabolic syndrome (overweight/obesity; high blood pressure; high cholesterol, high blood sugar; abnormal lipid levels)
- Type 2 Diabetes
- Respiratory diseases
- Cancer

Shared Biological Vulnerability

Antipsychotic Side Effects

(e.g., sedation, metabolic, prolactin-related effects)

Social Determinants

(e.g., care access)

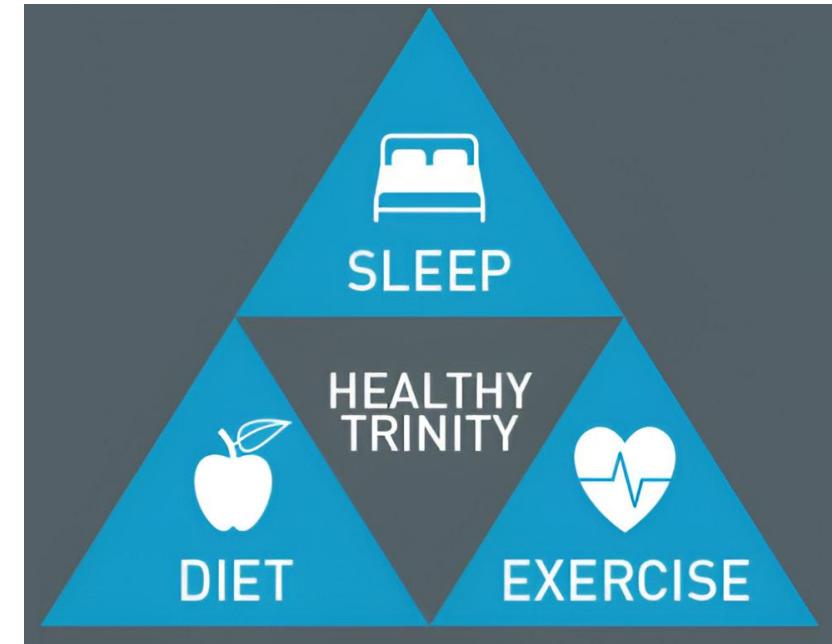
- Tobacco/substance use
- Physical Activity
- Nutrition and Diet

Lifestyle
Factors



Protecting Physical Health: Prevention and Effective Treatments

- **Best Prevention and Management: Healthy Lifestyle Habits**
 - Balanced, nutritious diet; regular physical activity; good sleep hygiene
 - Tobacco/substance use cessation or harm reduction
 - **Tobacco cessation medications (e.g., varenicline) combined with behavioral support are safe and effective**





Protecting Physical Health: Prevention and Effective Treatments

- **Routine, annual physical health screening and medical monitoring, especially for cardiometabolic risk factors**
- **Use lowest effective antipsychotic dose**
- **Metformin prevents and treats antipsychotic-induced weight gain**
 - Second-line: GLP-1 receptor agonists
- **Primary care <> Psychiatric Care**
- **Long-term health promotion and management**



Promoting Long-Term Health: What You Can Do

KNOW

DISCUSS
WITH LOVED
ONES

DISCUSS
WITH
TREATMENT
TEAMS

ENGAGE IN
HEALTHY
HABITS AS A
FAMILY



You are Key to Bridging Gaps

Effective treatments for schizophrenia exist.
With your advocacy, your loved one and many others can more
readily access and use these treatments.



Bridging Gaps: Key Takeaways



Expect Recovery and Demand Integrated, Holistic Care



Know the Evidence



Be Involved in Treatment Decisions



Connect and Share Perspectives with other Families



Collective Advocacy is Powerful



MASSACHUSETTS
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Thank You!

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References (in order of appearance):

- 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):555-565. doi:10.1001/jamapsychiatry.2018.0623
- Kane JM, Robinson DG, Schooler NR, et al. Comprehensive Versus Usual Community Care for First-Episode Psychosis: 2-Year Outcomes From the NIMH RAISE Early Treatment Program. *Am J Psychiatry*. 2016;173(4):362-372. doi:10.1176/appi.ajp.2015.15050632
- Read H, Kohrt BA. The History of Coordinated Specialty Care for Early Intervention in Psychosis in the United States: A Review of Effectiveness, Implementation, and Fidelity. *Community Ment Health J*. 2022;58(5):835-846. doi:10.1007/s10597-021-00891-w
- Heinssen RK, Azrin ST. A National Learning Health Experiment in Early Psychosis Research and Care. *Psychiatr Serv*. 2022;73(9):962-964. doi:10.1176/appi.ps.20220153
- Smith RC, Leucht S, Davis JM. Maximizing response to first-line antipsychotics in schizophrenia: a review focused on finding from meta-analysis. *Psychopharmacology (Berl)*. 2019;236(2):545-559. doi:10.1007/s00213-018-5133-z
- Kelly DL, Wehring HJ, Vyas G. Current status of clozapine in the United States. *Shanghai Arch Psychiatry*. 2012;24(2):110-113. doi:10.3969/j.issn.1002-0829.2012.02.007
- John AP, Ko EKF, Dominic A. Delayed Initiation of Clozapine Continues to Be a Substantial Clinical Concern. *Can J Psychiatry Rev Can Psychiatr*. 2018;63(8):526-531. doi:10.1177/0706743718772522
- Patel C, Pilon D, Gupta D, et al. National and regional description of healthcare measures among adult Medicaid beneficiaries with schizophrenia within the United States. *J Med Econ*. 2022;25(1):792-807. doi:10.1080/13696998.2022.2084234
- Kane JM, Mychaskiw MA, Lim S, Suett M, Tian M, Rubio JM. Treatment Journey From Diagnosis to the Successful Implementation of a Long-Acting Injectable Antipsychotic Agent in Young Adults With Schizophrenia. *J Clin Psychiatry*. 2023;84(3):22m14544. doi:10.4088/JCP.22m14544
- Velligan D, Salinas GD, Belcher E, et al. Clinician differences in attitudes and perceptions on the use of long-acting injectable antipsychotic agents in treating patients with schizophrenia: results from the US DECIDE survey. *BMC Psychiatry*. 2025;25:232. doi:10.1186/s12888-025-06565-1
- Weiden PJ, Roma RS, Velligan DI, Alphs L, DiChiara M, Davidson B. The challenge of offering long-acting antipsychotic therapies: a preliminary discourse analysis of psychiatrist recommendations for injectable therapy to patients with schizophrenia. *J Clin Psychiatry*. 2015;76(6):684-690. doi:10.4088/JCP.13m08946



References (continued):

- Foo CYS, MacLaurin SA, Angelini MC, Abrams R, Hoffman D, Guyer-Deason M, Saleh A, Cather C, and the Massachusetts General Hospital Long-Acting Injectable Antipsychotic Working Group. Building a System-Wide Coalition to Improve Long-Acting Injectable Antipsychotic Use in Massachusetts. Poster presented at: The 6th Annual Mass-STEP Conference — Building Bridges for Psychosis; November 3, 2025; Waltham, MA.
- Yeo V, Dowsey M, Alguera-Lara V, Ride J, Lancsar E, Castle DJ. Antipsychotic choice: understanding shared decision-making among doctors and patients. *J Ment Health Abingdon Engl.* 2021;30(1):66-73. doi:10.1080/09638237.2019.1630719
- Kane JM, Schooler NR, Marcy P, Achtyes ED, Correll CU, Robinson DG. Patients With Early-Phase Schizophrenia Will Accept Treatment With Sustained-Release Medication (Long-Acting Injectable Antipsychotics): Results From the Recruitment Phase of the PRELAPSE Trial. *J Clin Psychiatry.* 2019;80(3):18m12546. doi:10.4088/JCP.18m12546
- Claxton M, Onwumere J, Fornells-Ambrojo M. Do Family Interventions Improve Outcomes in Early Psychosis? A Systematic Review and Meta-Analysis. *Front Psychol.* 2017;8:371. doi:10.3389/fpsyg.2017.00371
- Gleeson JFM, Ludwig K, Stiles BJ, et al. Systematic review and meta-analysis of family-based interventions for early psychosis: Carer and patient outcomes. *Schizophr Res.* 2025;276:57-78. doi:10.1016/j.schres.2025.01.006
- Jones N, Basaraba C, Piscitelli S, et al. Clients' Preferences for Family Involvement and Subsequent Family Contact Patterns Within OnTrackNY Early Psychosis Services. *Psychiatr Serv.* 2021;72(4):399-407. doi:10.1176/appi.ps.202000241
- Breitborde NJK, Bell EK, Dawley D, et al. The Early Psychosis Intervention Center (EPICENTER): development and six-month outcomes of an American first-episode psychosis clinical service. *BMC Psychiatry.* 2015;15(1):266. doi:10.1186/s12888-015-0650-3
- Glynn S, Gingerich S, Meyer-Kalos P, et al. T255. WHO PARTICIPATED IN FAMILY WORK IN THE US RAISE-ETP FIRST EPISODE SAMPLE? *Schizophr Bull.* 2018;44(Suppl 1):S216-S217. doi:10.1093/schbul/sby016.531
- Foo CYS, Leonard CJ, McLaughlin M, Johnson, KA, Ongur D, Mueser KT, Cather C. (2025). Sessions Abstracts. "Paper: Enhancing Patient and Family Engagement in Early Psychosis Care: Identifying Program-Level Factors and Strategies." *Early Intervention in Psychiatry*, 19: e70046.
- Oluwoye O, Stokes B, Stiles B, Monroe-DeVita M, McDonell MG. Understanding differences in family engagement and provider outreach in New Journeys: A coordinated specialty care program for first episode psychosis. *Psychiatry Res.* 2020;291:113286. doi:10.1016/j.psychres.2020.113286
- Hoagwood KE, Cavalieri MA, Serene Olin S, et al. Family support in children's mental health: a review and synthesis. *Clin Child Fam Psychol Rev.* 2010;13(1):1-45. doi:10.1007/s10567-009-0060-5



References (continued):

- Dixon LB, Lucksted A, Medoff DR, et al. Outcomes of a Randomized Study of a Peer-Taught Family-to-Family Education Program for Mental Illness. *Psychiatr Serv Wash DC*. 2011;62(6):591-597. doi:10.1176/ps.62.6.pss6206_0591
- Vaswani-Bye A, McCain C, Blank JM, Tennison ME, Kopelovich SL. A Thematic Analysis Investigating the Inaugural Psychosis REACH Family Ambassador Peer Training Program. *Neuropsychiatr Dis Treat*. 2024;20:233-245. doi:10.2147/NDT.S432255
- Rosenheck R, Mueser KT, Sint K, et al. Supported employment and education in comprehensive, integrated care for first episode psychosis: Effects on work, school, and disability income. *Schizophr Res*. 2017;182:120-128. doi:10.1016/j.schres.2016.09.024
- Holm M, Taipale H, Tanskanen A, Tiihonen J, Mitterdorfer-Rutz E. Employment among people with schizophrenia or bipolar disorder: A population-based study using nationwide registers. *Acta Psychiatr Scand*. 2021;143(1):61-71. doi:10.1111/acps.13254
- Crossley NA, Allende LM, Czepielewski LS, et al. The enduring gap in educational attainment in schizophrenia according to the past 50 years of published research: a systematic review and meta-analysis. *Lancet Psychiatry*. 2022;9(7):565-573. doi:10.1016/S2215-0366(22)00121-3
- McGurk, S. R., & Mueser, K. T. (2021). *Cognitive remediation for successful employment and psychiatric recovery: The Thinking Skills for Work program*. The Guilford Press.
- Halstead S, Yap CX, Warren N, et al. Holistic prevention and management of physical health side-effects of psychotropic medication: second report of the *Lancet Psychiatry* Physical Health Commission. *Lancet Psychiatry*. 2025;12(9):673-699. doi:10.1016/S2215-0366(25)00162-2
- Evins AE, Benowitz NL, West R, et al. Neuropsychiatric Safety and Efficacy of Varenicline, Bupropion, and Nicotine Patch in Smokers With Psychotic, Anxiety, and Mood Disorders in the EAGLES Trial. *J Clin Psychopharmacol*. 2019;39(2):108-116. doi:10.1097/JCP.0000000000001015
- Evins AE, Cather C, Pratt SA, et al. Maintenance treatment with varenicline for smoking cessation in patients with schizophrenia and bipolar disorder: a randomized clinical trial. *JAMA*. 2014;311(2):145-154. doi:10.1001/jama.2013.285113
- Cather C, Pachas GN, Cieslak KM, Evins AE. Achieving Smoking Cessation in Individuals with Schizophrenia: Special Considerations. *CNS Drugs*. 2017;31(6):471-481. doi:10.1007/s40263-017-0438-8
- Carolan A, Hynes-Ryan C, Agarwal SM, et al. Metformin for the Prevention of Antipsychotic-Induced Weight Gain: Guideline Development and Consensus Validation. *Schizophr Bull*. Published online December 9, 2024:sbae205. doi:10.1093/schbul/sbae205