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Use of Clozapine for Thriving in the Community

Alexander S. Young, MD MSHS

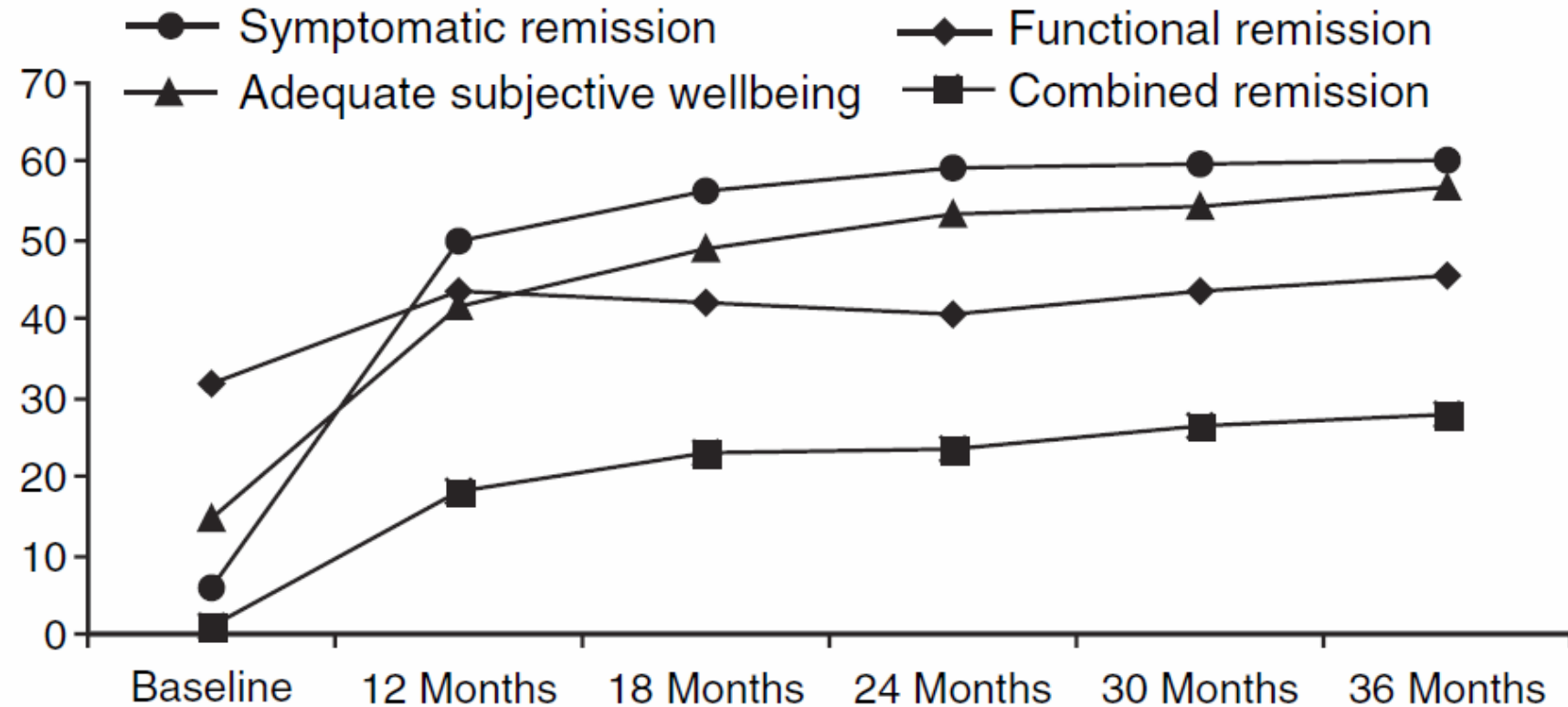
Professor of Psychiatry | UCLA

Funded by
SAMHSA
Substance Abuse and Mental Health
Services Administration

Administered by
AMERICAN
PSYCHIATRIC
ASSOCIATION 

Prevalence of Treatment Resistance in Schizophrenia

- 392 never-treated patients with schizophrenia
- Remission rates during treatment follow-up
- > 90% used 2nd gen antipsychotic medications first line
- 14% never met any remission criteria



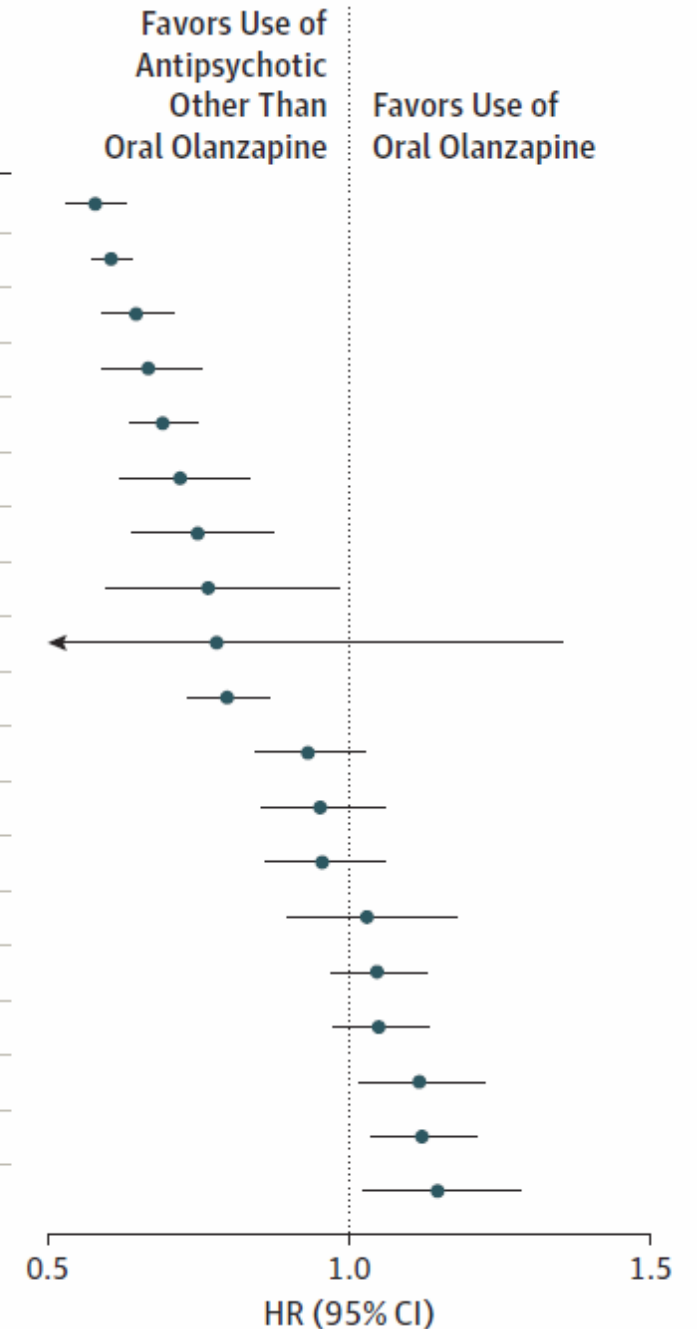
Burden of Treatment Resistance

- High rate of smoking (56%)
- High rate of alcohol abuse (51%) and substance abuse (51%)
- High rate of suicidal ideation (44%)
- Quality of life 20% lower
- Healthcare costs 3 - 11 times higher

Antipsychotic Medication Comparative Effectiveness

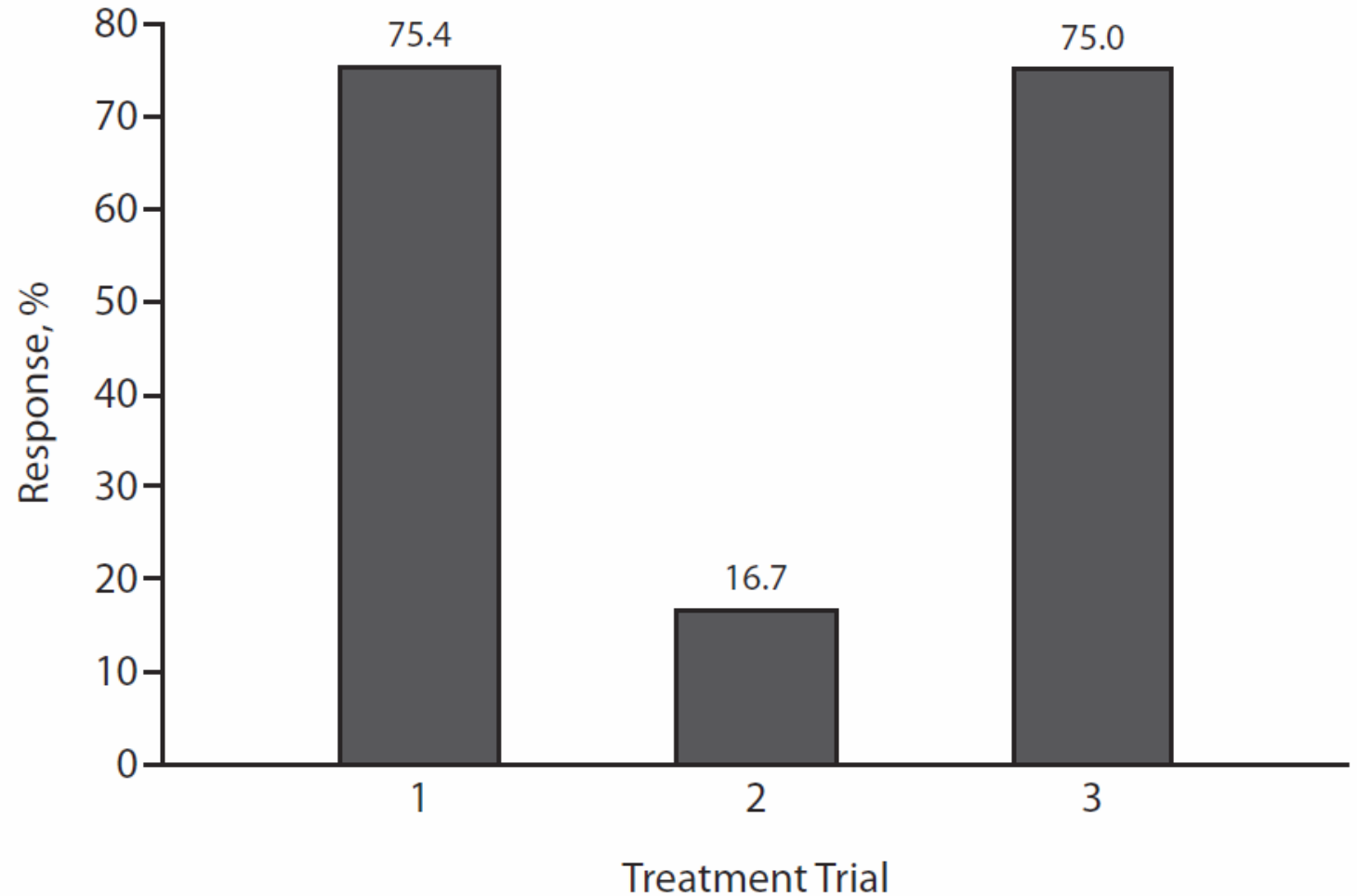
- Odds of treatment failure compared with oral olanzapine
- All adults in Sweden
- 2006-2013

Treatment	HR (95% CI)
Oral clozapine	0.58 (0.53-0.63)
Polytherapy	0.61 (0.57-0.64)
LAI perphenazine	0.65 (0.59-0.71)
LAI haloperidol	0.67 (0.59-0.75)
LAI zuclopenthixol	0.69 (0.64-0.75)
LAI paliperidone	0.72 (0.62-0.83)
LAI flupentixol	0.75 (0.64-0.87)
LAI olanzapine	0.77 (0.60-0.98)
LAI fluphenazine	0.78 (0.45-1.35)
LAI risperidone	0.80 (0.73-0.87)
Oral perphenazine	0.93 (0.84-1.03)
Oral zuclopenthixol	0.95 (0.85-1.06)
Oral haloperidol	0.96 (0.86-1.06)
Oral flupentixol	1.03 (0.90-1.18)
Oral quetiapine	1.05 (0.97-1.13)
Oral risperidone	1.05 (0.97-1.13)
Other oral formulations	1.12 (1.02-1.22)
Oral aripiprazole	1.12 (1.04-1.21)
Oral levomepromazine	1.15 (1.02-1.28)



When Should We Use Clozapine?

- 244 patients
- First episode schizophrenia
- Medication algorithm
 - Trials 1&2: risperidone or olanzapine
 - Trial 3: clozapine



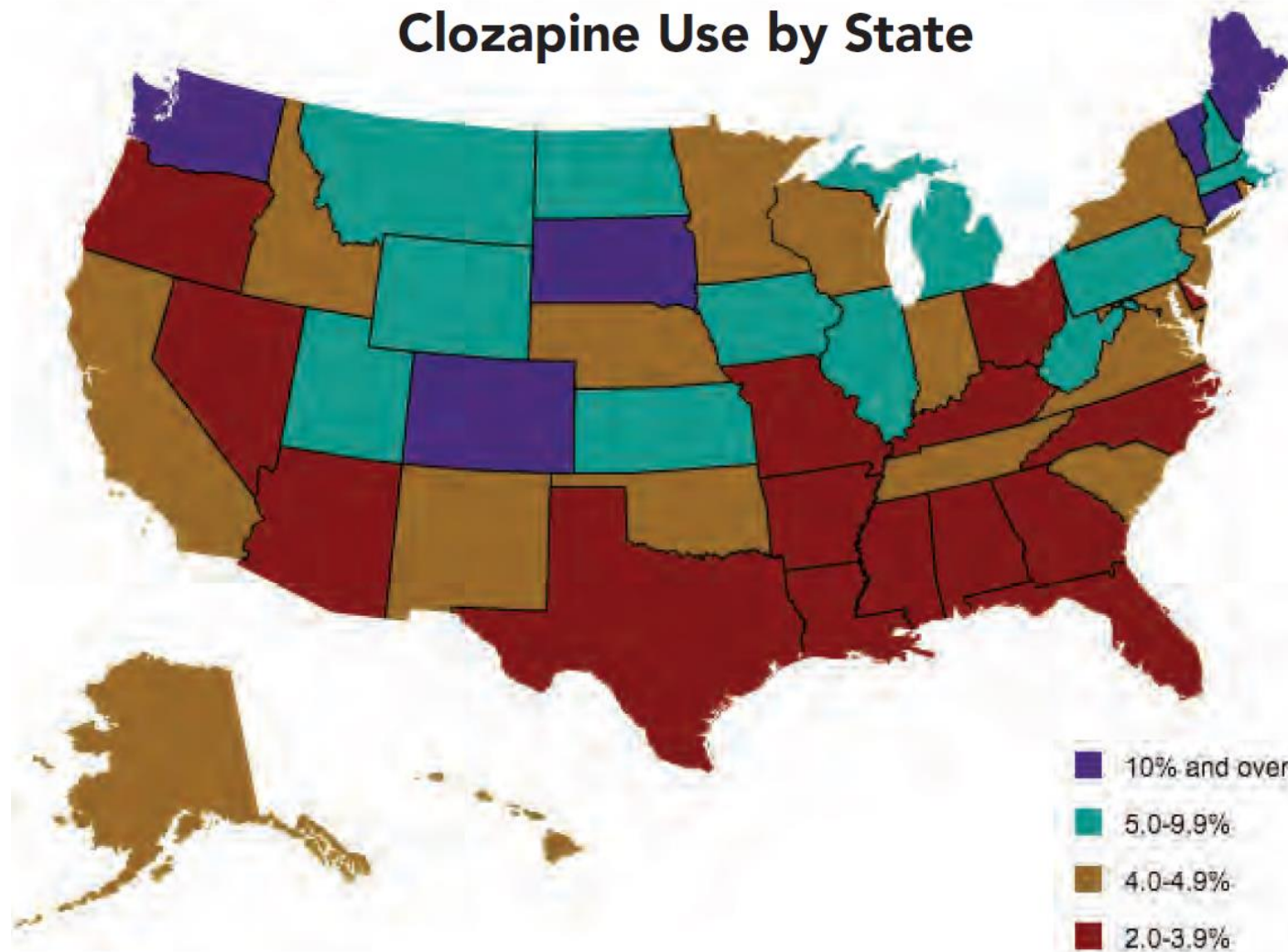
Treatment Guidelines

- Patients with schizophrenia are appropriate for clozapine when
 - treatment-resistant: significant symptoms despite trials of two other antipsychotic medications
 - risk for suicide attempts or suicide remains substantial despite other treatments
 - risk for aggressive behavior remains substantial despite other treatments

Clozapine Use for Schizophrenia

Australia	35%
China	30%
England	23%
Germany	20%
Denmark	10%
Malaysia	4%
U.S.	4%

Clozapine Use by State



CSS-SMI GRANT GOALS

Support implementation of evidence-based, person-centered pharmacological and psychosocial interventions for individuals with serious mental illness (SMI), and increase access to care that includes a set of recovery support services provided by professionals including peer support specialists.

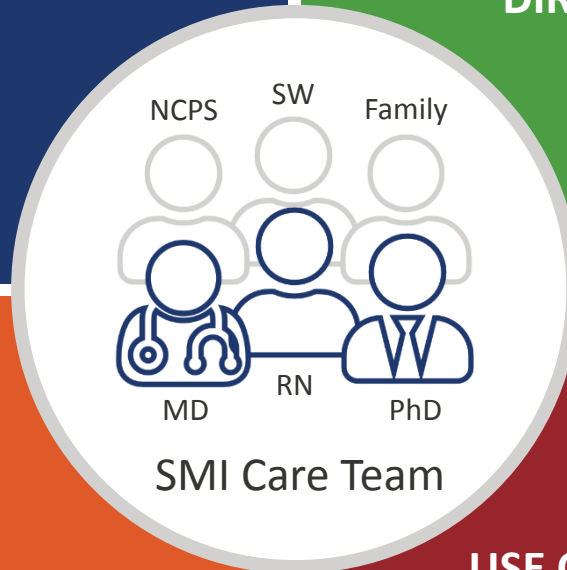
SMI ADVISER PROJECT AIMS

EDUCATION ON EVIDENCE-BASED PRACTICE

Content Partners

DIRECT CONSULTATION TO CLINICIANS

SMI Experts



REALTIME AND ONGOING NEEDS ASSESSMENT

Psychpro Registry / Communities

SUPPORT IMPLEMENTATION AND USE OF TECHNOLOGY TO ENHANCE CARE



An APA and SAMHSA Initiative



CLINICIANS PATIENTS + FAMILIES ABOUT US CONTACT

A BETTER TOMORROW

Find answers that help people with serious mental illness live their best lives.

Clinicians & Providers

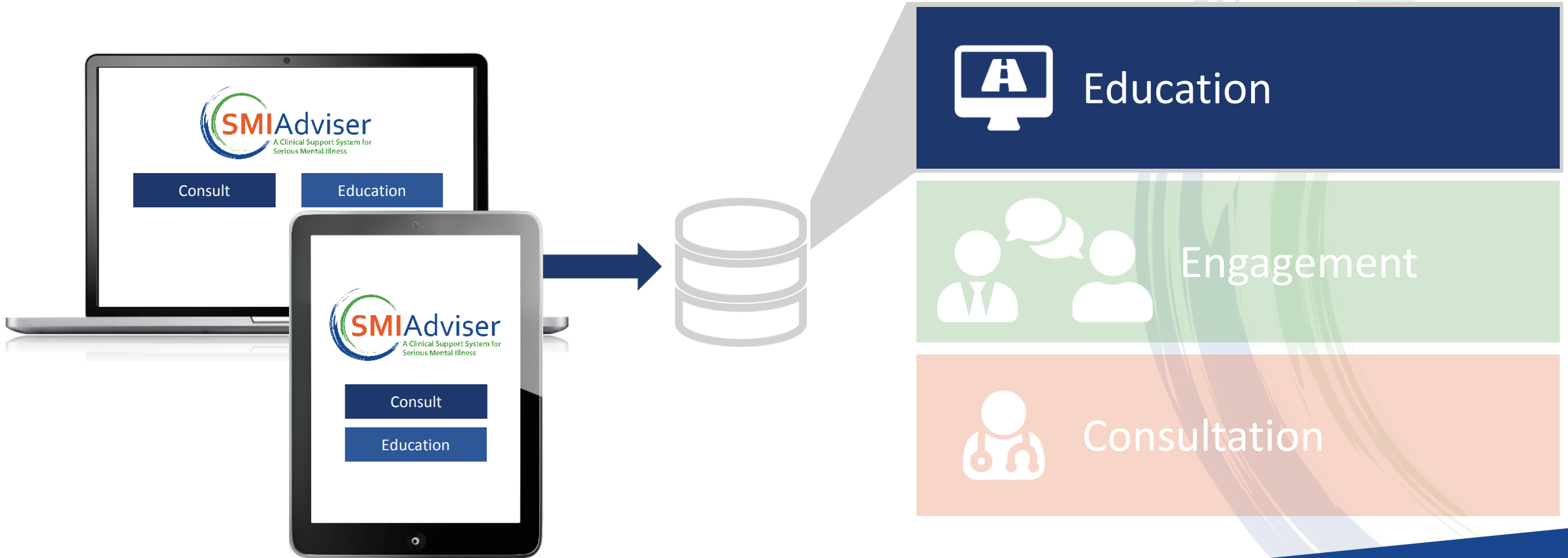
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Patients & Families

→

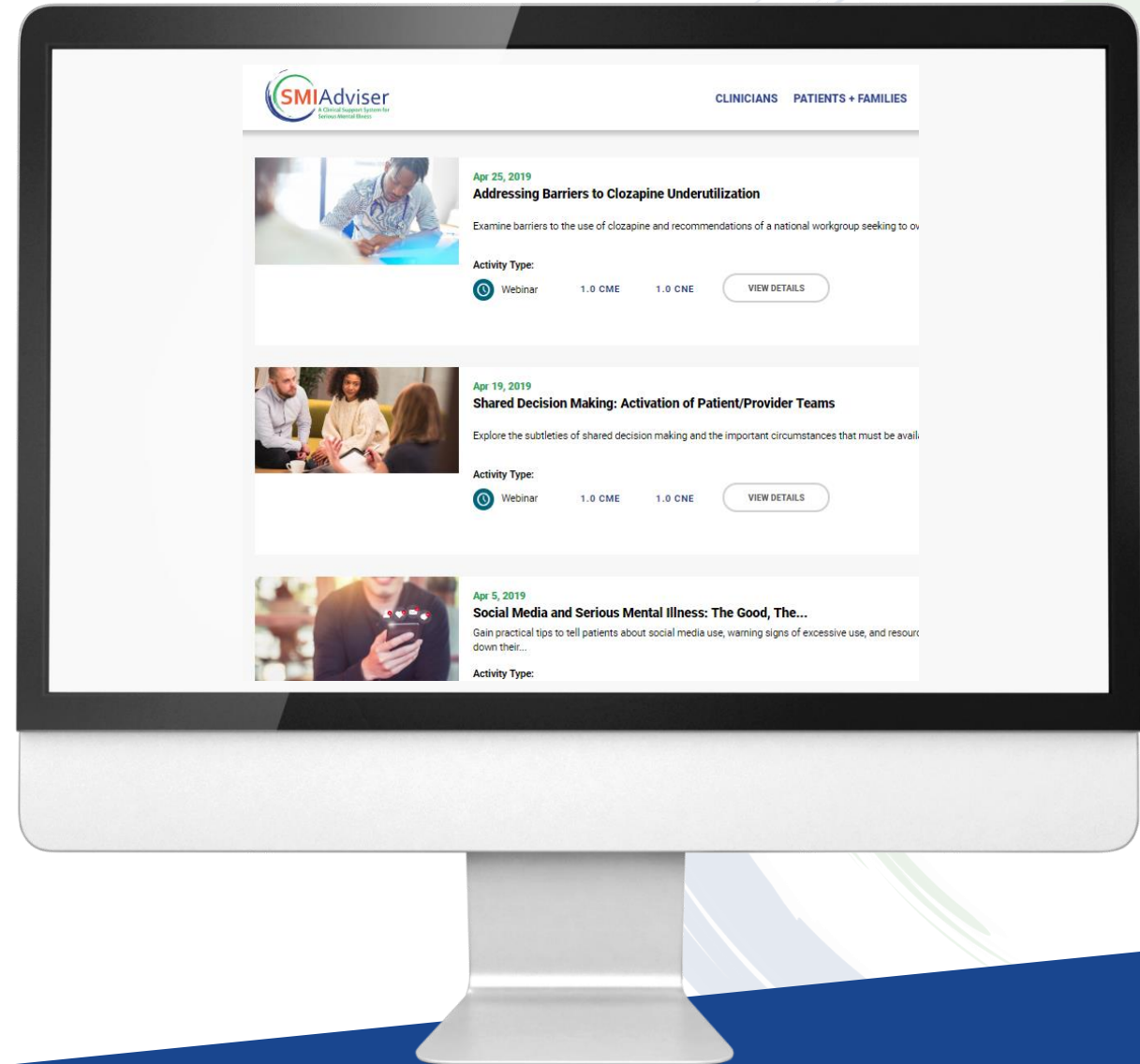
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SMI ADVISER STRATEGIC APPROACH



EDUCATION CATALOG

- **23 courses** currently available.
- Courses available as “live” or “on-demand” to meet learner availability
- Continuing education credits available for physicians and nurses
- All **weekly** webinars include live Q&A sessions with our faculty experts
- **Free** educational resources for clinicians

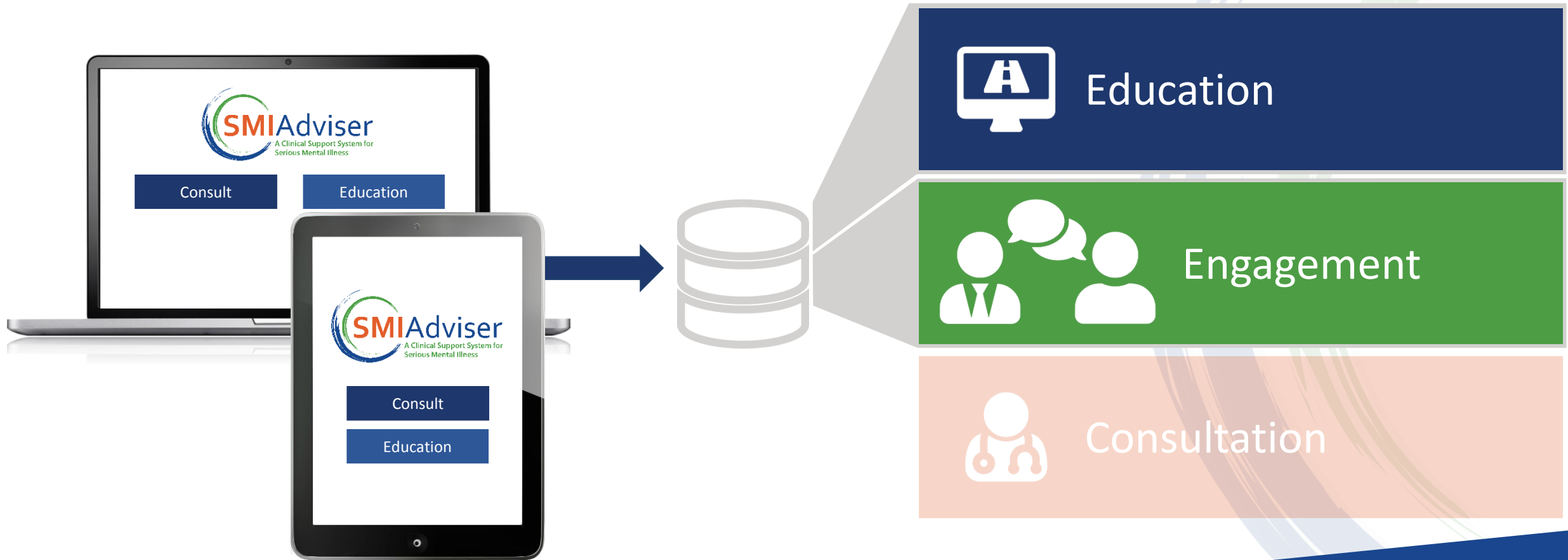


CLINICAL WEBINARS

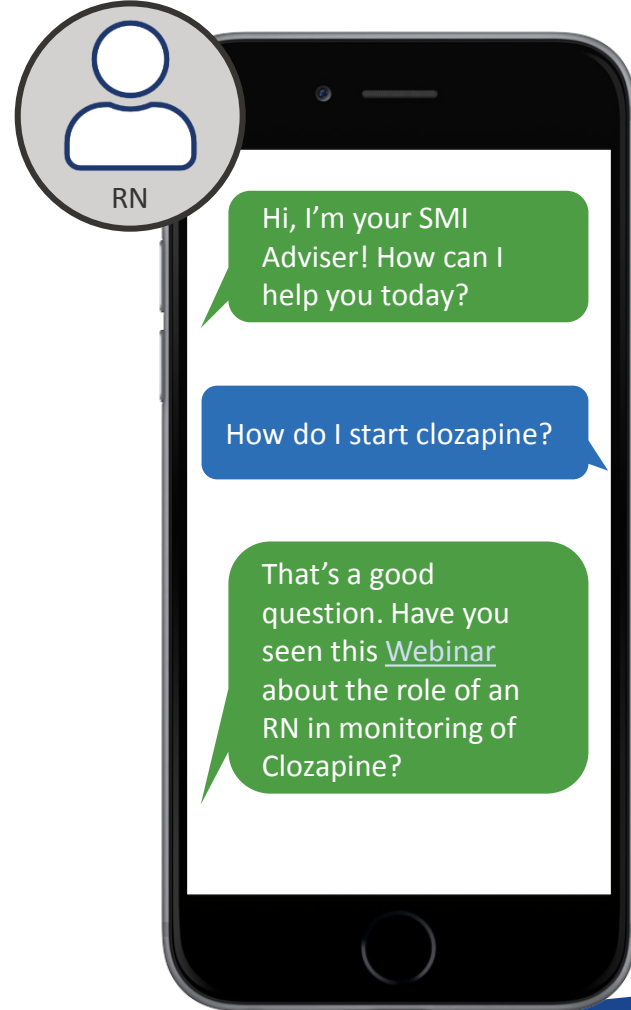
IMPLEMENTATION	TECHNOLOGY	PSYCHOPHARMACOLOGY	RECOVERY	ACCESS TO CARE
Addressing Weight in the Population With Schizophrenia	Informed Decision Making for Picking SMI Smartphone Apps	Addressing Barriers to Clozapine Underutilization	How Peer Support Complements Clinical Practices	Addressing the Public Health Epidemic of Premature Mortality in People with SMI: Evolving Roles for Mental Health Clinicians
Fostering Organizational Change to Promote Uptake of Evidence-Based Practices: Lessons and Tools	Meeting the Challenges of Security and Privacy When Using Digital Technology Tools	Adherence to Antipsychotics in Schizophrenia: Clinical Considerations	Peer Support as a Profession	Cognitive Behavioral Therapy for Psychosis: Understanding the Basics
Treatment and Risk Prediction: Clinical Informatics for Care of Serious Mental Illness	Social Media and Serious Mental Illness: The Good, The Bad, and The Unknown	Psychotropic Medications and Older Adults: Update on Safety Considerations	Shared Decision Making: Activation of Patient/Provider Teams	Psychiatric Mental Health Advanced Practice Registered Nurses (PMH-APRNs): Evolving Roles

**Non-Webinar Event – Clinician Q&A: Clozapine REMS Program*

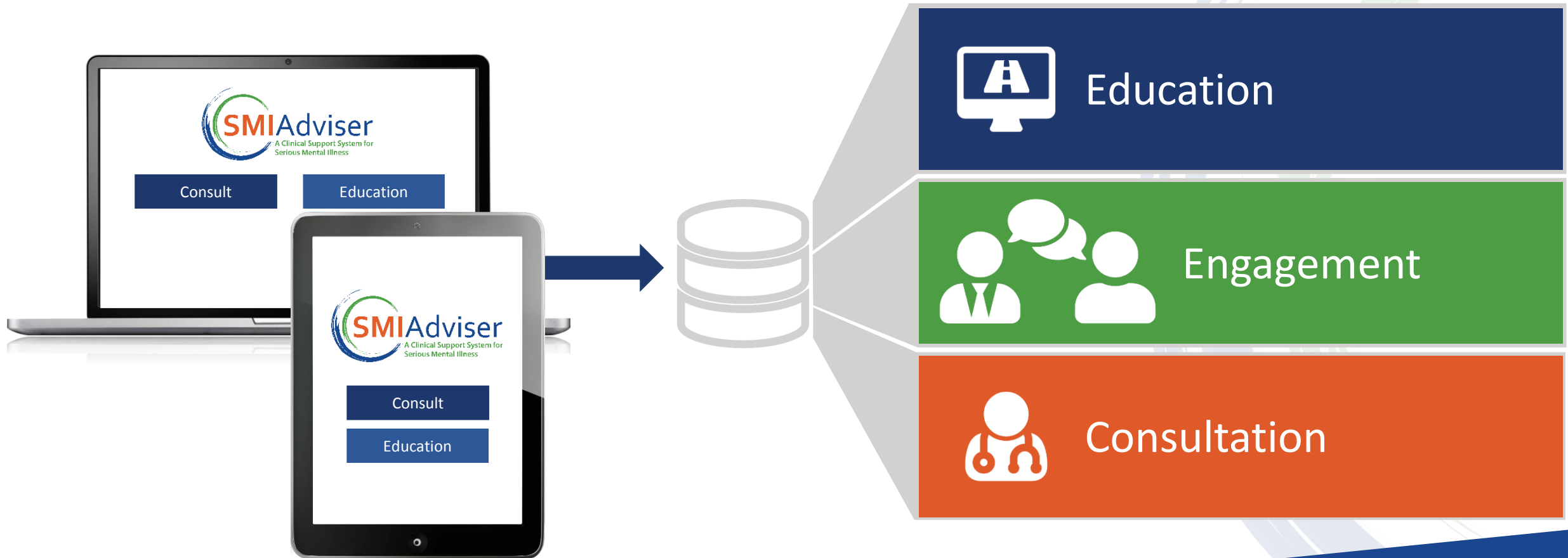
SMI ADVISER STRATEGIC APPROACH



SMI ADVISER ANSWER ENGINE CHAT BOT

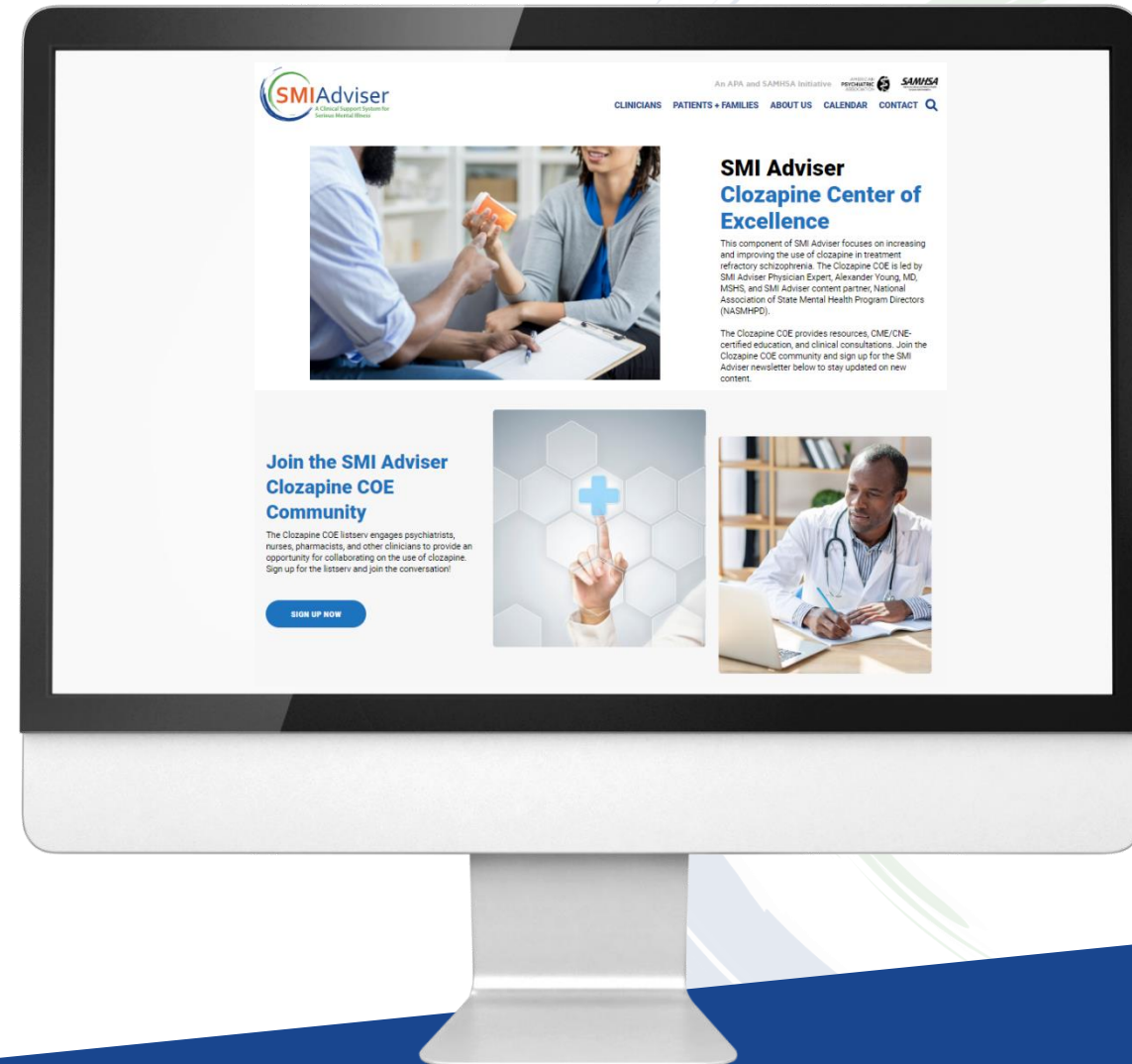


SMI ADVISER STRATEGIC APPROACH



CLOZAPINE CENTER OF EXCELLENCE (COE)

- Increase and improve the use of clozapine
- Led by Alex Young and NASMHPD
<http://SMIAdviser.org/clozapine>
- Workgroup: Brian Hepburn, Tony Battista, Rob Cotes, Doris Fuller, Deanna Kelly, Ray Love, Jonathan Meyer, Debra Pinals, Donna Rolin, Gopal Vyas
- Resources, clinical tips, CME/CNE education, clinical consultations
- Engage with the clozapine community through the Clozapine COE Listserv
<http://apapsy.ch/clozapine-list>



FIND ANSWERS IN OUR KNOWLEDGE BASE

SMIAdviser
A Clinical Support System for Serious Mental Illness

An APA and SAMHSA Initiative

CLINICIANS PATIENTS + FAMILIES ABOUT US CALENDAR CONTACT

FIND THE ANSWERS YOU NEED IN OUR KNOWLEDGE BASE

Search topics, find resources, and enhance what you know about SMI.

Knowledge Base

Search ...

Clozapine

- What is clozapine REMS?
- Clozapine Blood Count Monitoring
- Clozapine Blood Levels
- Clozapine Dosing
- Clozapine Orthostatic Hypotension, Bradycardia, Syncope Side Effect:

[VIEW ALL](#)

Co-Morbid Disorders

- If marijuana use is common for people with serious mental illnesses?
- Is substance abuse common in people with schizophrenia?
- What are smoking cessation tools for those with schizophrenia?
- What are the best ways of helping people with serious mental illnesses quit tobacco?

[VIEW ALL](#)

My friend/family member doesn't want to participate in any kind of treatment (therapy or taking medications). What can I do?

Answered by: Teri Brister, PhD, LPC, SMI Patient and Family Engagement Expert - National Alliance on Mental Illness
Date Answered: February 15, 2019
Tags: Bipolar, Clinical High Risk, Depression, Family Involvement, First Break Psychosis, Peer Engagement, Psychopharmacology, PTSD, Schizophrenia, Shared Decision Making, Substance Use Disorders

Are there support groups or help for families experiencing...

Answered by: Donna Rolin, PhD, APRN, SMI Nursing Expert - University of Texas, Austin
Date Answered: February 27, 2019
Tags: Clinical High Risk, Family Involvement, Level of Care, Support of Families

What is Shared Decision Making and what are its benefits?

Answered by: Patrick Hendry, SMI Recovery and Peer-to-Peer Engagement Expert - Mental Health America
Date Answered: March 25, 2019
Tags: Complementary Approaches (CAM), Family Involvement, Health Navigator, Integrated Care, Outreach, Shared Decision Making, Support of Families, Trauma-Informed Care, Wellness

What is Family-Focused Therapy for bipolar disorder?

Answered by: Amy N. Cohen, PhD, Implementation Scientist and SMI Psychological Treatment Expert
Date Answered: March 26, 2019
Tags: Bipolar, Family Involvement, Support of Families

Engagement: A New Standard for Mental Health Care

Publisher: National Alliance on Mental Illness (NAMI)
Year of Publication: 2016
Tags: Family Involvement, Health Navigator

What is Shared Decision Making and what are its benefits?

A 2001 report of the Institute of Medicine defined patient centered care as "care that is respectful of and responsive to individual patient preferences, needs, and values," and stated, "that patient values guide all clinical decisions." In stating these principles, the report emphasized "the importance of clinicians and patients working together to produce the best possible outcomes."

This process, whereby patients and clinicians work together as partners in making healthcare decisions, is called Shared Decision Making. While the partnership may include multiple clinicians and/or family members, the person receiving services is the one who determines what values drive the decision-making. While clinicians are experts in their fields and family members can play essential support roles, if the patient is not at the center of the process and recognized as an equal partner, then they are far less likely to participate with their own treatment. When individuals feel ownership of their own condition and actively begin the process of learning about and understanding the purpose and possible outcomes of the choices available to them, they are far more likely to follow through with treatment plans. When clinicians step outside the traditional role of paternalistic authority and assume the role of a partner based on the patient's needs and values, and the clinicians training and knowledge, a true "shared decision making" process begins, and desired outcomes become increasingly possible.

Type: Knowledge Base
Answered by: Patrick Hendry, SMI Recovery and Peer-to-Peer Engagement Expert - Mental Health America
Date Answered: March 25, 2019
Topic: [Family Involvement / Engagement](#)
Tags: [Complementary Approaches \(CAM\)](#), [Family Involvement](#), [Health Navigator](#), [Integrated Care](#), [Outreach](#), [Peer Engagement](#), [Peer Navigators](#), [Peer-led Interventions](#), [Practice](#), [Self-management](#), [Shared Decision Making](#), [Support of Families](#), [Trauma-Informed Care](#), [Wellness](#)

[f](#) [t](#) [in](#) [e](#) [KNOWLEDGE BASE](#)

- 1 Go to SMIadviser.org/knowledge-base
- 2 Browse any subject area, ask a question, or search for a specific topic





Education Activities

Slide through upcoming event dates or click  to view full calendar



Addressing Barriers to Clozapine Underutilization



Addressing Obesity in the Population with Schizophrenia



Evaluating Adverse Drug Effects



ANSWERS FOR INDIVIDUALS AND FAMILIES

SMIAdviser
A Clinical Support System for Serious Mental Illness

CLINICIANS ▾ PATIENTS + FAMILIES ABOUT US CALENDAR CONTACT 🔍

FIND THE ANSWERS YOU NEED IN OUR KNOWLEDGE BASE

Search topics, find resources, and enhance what you know about SMI.

🏠 Knowledge Base (Families+Patients)

Search

Clozapine as part of the treatment plan

E.g., schizop...

- How does clozapine work and how is it different from other medications?
- What are the issues regarding families and caregivers supporting clozapine treatment?
- What should be done if the clozapine treatment of a patient is interrupted, or they do not take their...
- When to Use Clozapine
- Which patients are eligible for clozapine?

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SMIAdviser
A Clinical Support System for Serious Mental Illness

CLINICIANS ▾ PATIENTS + FAMILIES ABOUT US CALENDAR CONTACT 🔍

What are smoking cessation tools for those with schizophrenia?

Answered by: John Torous, MD, MBI, SMI Technology Expert - Harvard Medical School
Date Answered: June 5, 2019
Tags: Apps, Bipolar, Depression, Research Studies, Schizophrenia, Self-management

Is substance abuse common in people with schizophrenia?

Answered by: John Torous, MD, MBI, SMI Technology Expert - Harvard Medical School
Date Answered: June 5, 2019
Tags: Bipolar, Depression, Schizophrenia

If marijuana is legal, is it ok for patients with serious mental illness to use it?

Although marijuana may be legal, it is increasingly recognized as dangerous for people with serious mental illness: including depression, bipolar disorder, schizoaffective disorder, and schizophrenia. While new research is constantly coming out, today there is strong data to suggest that those with SMI are at high risk for the negative effects of marijuana use including worsening of schizophrenia symptoms, worsening of mood, and even triggering of manic symptoms in bipolar disorder.

Type: Knowledge Base
Answered by: John Torous, MD, MBI, SMI Technology Expert - Harvard Medical School
Date Answered: June 5, 2019
Topic: [Co-occurring Substance Use Disorders](#)
Tags: [Bipolar](#), [Clinical High Risk](#), [First Break Psychosis](#), [Schizophrenia](#), [Substance Use Disorders](#)

[f](#) [t](#) [in](#) [e](#) [KNOWLEDGE BASE](#)

What are available practice guidelines for substance abuse

Answered by: John Torous, MD, MBI, SMI Technology Expert - Harvard Medical School
Date Answered: June 5, 2019
Tags: Guidelines, Practice, Psychopharmacology, Risk Factors, Substance Use Disorders, Tobacco

Can effective peer support be provided for individuals with disorders?

Answered by: Patrick Hendry, SMI Recovery and Peer-to-Peer Engagement Expert - Mental Health America
Date Answered: June 5, 2019
Tags: Crisis Management, High Utilizers, Peer Engagement, Peer Navigators, Peer-led Interventions, Self-help

- In lethal opioid overdoses, how do you differentiate between suicide by overdose and...
- Is substance abuse common in people with schizophrenia?
- What are the best ways of helping people with serious mental illnesses quit tobacco?
- What are the challenges of patients accepting medication assisted treatment (MAT) for their opiate use...

[VIEW ALL](#)

- 1 Go to SMIadviser.org/knowledge-base-fp
- 2 Browse any subject area, ask a question, or search for a specific topic



After 30 years,

clozapine is still best for treatment-resistant patients

Clozapine Resources

Browse resources and find answers from the SMI Adviser Knowledge Base

CLINICAL TIPS



FREQUENTLY ASKED QUESTIONS



GUIDELINES, RESEARCH, & TOOLS





Clozapine Resources

Browse resources and find answers from the SMI Adviser Knowledge Base

CLINICAL TIPS

Clozapine blood count monitoring

Clozapine blood levels

Clozapine dosing

Constipation side effect of clozapine

Myocarditis side effect of clozapine

Orthostatic hypotension, bradycardia, and syncope side effects of clozapine





Clozapine Resources

Browse resources and find answers from the SMI Adviser Knowledge Base

CLINICAL TIPS



FREQUENTLY ASKED QUESTIONS



How does clozapine work and how is it different from other medications?

What is clozapine REMS?

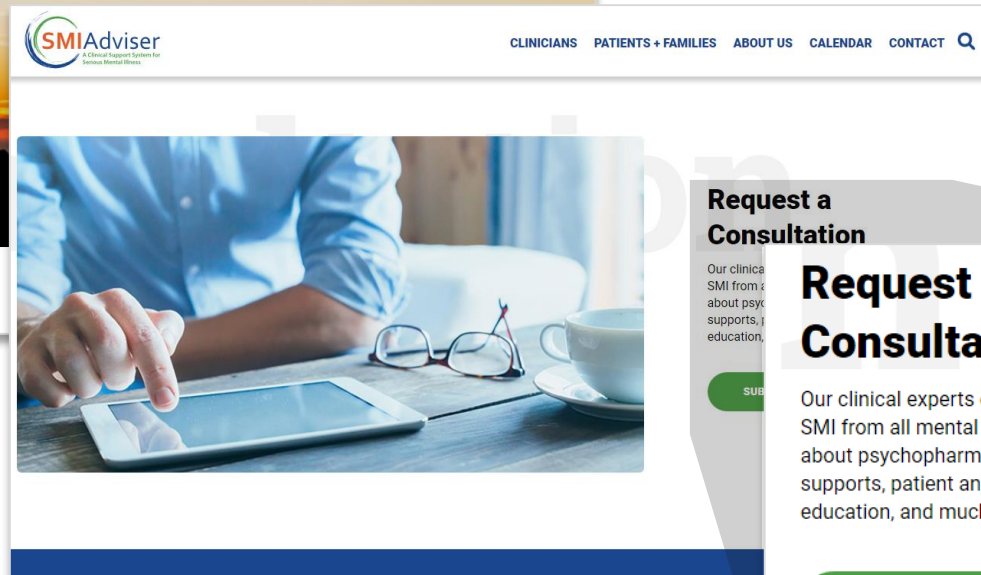
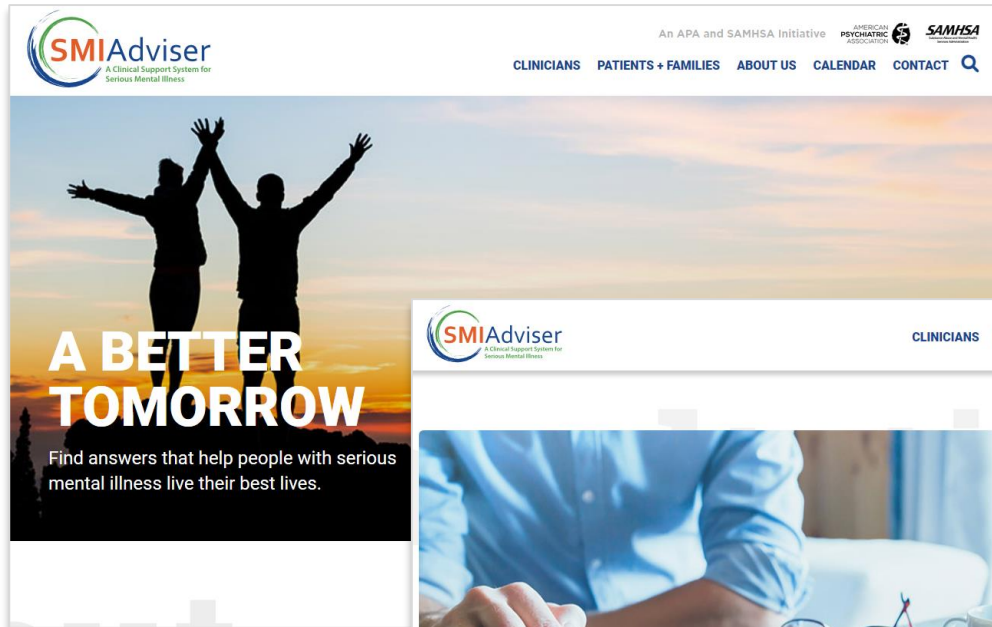
Which patients are eligible for clozapine?

Why is clozapine not the first medication chosen to treat schizophrenia for everyone?

GUIDELINES, RESEARCH, & TOOLS



REQUEST A CONSULTATION RIGHT NOW



- 1 Go to SMIadviser.org/submit-consult
- 2 Log in or create an account
- 3 Request a consultation and receive guidance from an SMI expert

Ask us about psychopharmacology, therapies, recovery supports, patient and family engagement, education, and more.

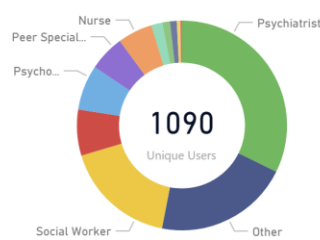
REAL-TIME DATA FOR REAL-TIME DECISIONS



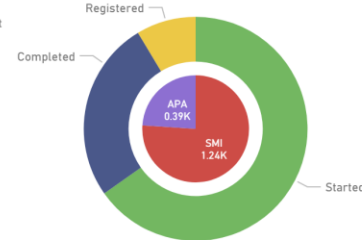
LMS Activity Data since January 1, 2019

Title_activityId	Completed	Registered	Started	Total
Addressing Barriers to Clozapine Underutilization (6579 - Webinar)		4		4
Addressing Obesity in the Population with Schizophrenia (6446 - Webinar)	22	50	67	139
Addressing Obesity in the Population with Schizophrenia (6451 - On Demand)	4	2	9	15
Addressing the Public Health Epidemic of Premature Mortality in People with SMI: Evolving Roles for (6526 - Webinar)	9	2	78	89
Addressing the Public Health Epidemic of Premature Mortality in People with SMI: Evolving Roles for (6580 - On Demand)	6		6	12
Adherence to Antipsychotics in Schizophrenia: Clinical Considerations (6524 - Webinar)	14		44	58
Adherence to Antipsychotics in Schizophrenia: Clinical Considerations (6574 - On Demand)	5	1	11	17
Assessment and Prescribing in Correctional Settings (5940 - On Demand)	9	3	7	19
Cognitive Behavioral Therapy for Psychosis: Understanding the Basics (6455 - Webinar)	37	10	232	279
Cognitive Behavioral Therapy for Psychosis: Understanding the Basics (6493 - On Demand)	16	1	31	48
Evaluating Adverse Drug Effects (6172 - On Demand)	30	6	20	56
Fostering Organizational Change to Promote Uptake of Evidence-Based Practices: Lessons and Tools (6527 - Webinar)	10	1	71	82
Fostering Organizational Change to Promote Uptake of Evidence-Based Practices: Lessons and Tools (6581 - On Demand)	2			2
How Peer Support Complements Clinical Practices (6525 - Webinar)	18	5	54	77
How Peer Support Complements Clinical Practices (6575 - On Demand)	8		10	18
Identifying and Managing Cardiac Safety Risks of Psychotropic Drugs (5934 - On Demand)	68	12	47	127
Informed Decision Making for Picking SMI Smartphone Apps (6450 - On Demand)	2		5	7
Ketamine for Treatment-Resistant Depression (6039 - On Demand)	44	5	35	84
Total	428	141	1067	1636

Profession



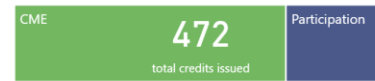
Activity Status



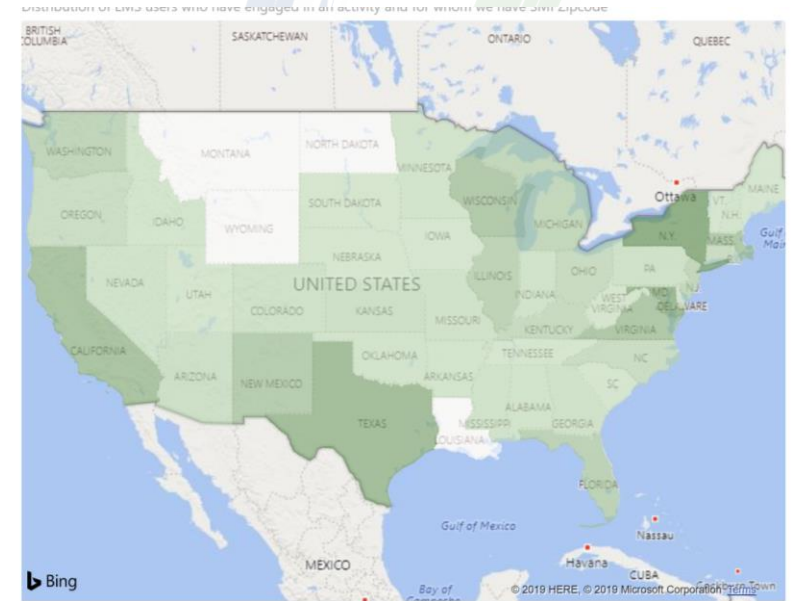
Format Type



Issued Certificates



Activity Registration by Date



Data as of 4/2/19 at 4:00AM

Current Activities

- Identify sites that want to start, expand, or improve their clozapine program
 - solo practitioners, clinics, agencies, hospitals, chronic care facilities
- Consultation and mentorship
- Learning Collaboratives will be starting
 - start or build a clozapine program
 - cohort of learners: physicians, nurses, medical directors
 - 12-week collaborative, 1 hour per week
 - tools, syllabus, collaboration
 - live sessions, office hours, activities

VIRTUAL LEARNING COLLABORATIVES



- * 12-week online courses led by faculty experts
- * Topics include clozapine, measurement-based care, mortality, telemental health
- * CME-accredited courses open to all clinicians

To learn more and sign-up to receive information on collaboratives, visit <http://SMIadviser.org/learning-collaboratives>