
Shortening the Road to Recovery: Barriers and Opportunities to Improve Quality of Care for Major Depressive Disorder

Avalere Health and Mental Health America | March 2016



Judit Illes, BCL/LLB, MS
Theresa Nguyen, LCSW
Kelsey Jones Pratt, MPA
Morenike Ayo-Vaughan, MHSA
Jourdan Meltzer
Dayo Jagun, MBBS, MPH

The Takeda/Lundbeck Alliance provided funding for this research.

TABLE OF CONTENTS

Acknowledgements	4
Executive Summary	4
Introduction	6
Rationale and Approach	8
Conceptual Framework	8
Literature Review	9
Key Informant Interviews	9
Definition of High-Quality MDD Care	9
Key Findings: Barriers and Solutions to High-Quality Care	10
A. Access to Care	12
B. Provider Knowledge, Skills, and Tools	14
C. Evidence Availability and Uptake	16
D. Engagement in Care	18
Recommendations	21
Conclusion	23
Appendices	24
Appendix A: Literature Review Findings by Source	24
Appendix B: List of Interviewee Affiliations	25

ACKNOWLEDGEMENTS

We would like to acknowledge the Takeda/Lundbeck Alliance for their sponsorship of the research. We would also like to thank our key informants for providing meaningful insights into the experience of individuals with major depressive disorder.

EXECUTIVE SUMMARY

Major depressive disorder (MDD), a serious mood disorder, poses a significant challenge to the health and quality of life of millions of Americans and their families. Despite the prevalence of MDD, evidence suggests that many affected individuals do not receive timely and effective treatment, delaying their ability to advance toward recovery. Avalere and Mental Health America developed this white paper to describe the current state of quality of care for individuals with MDD and provide an evidence-based assessment of challenges and opportunities for quality improvement.

The authors conducted a structured literature review and key informant interviews to identify barriers to high-quality care and proposed solutions. Barriers identified included:

- Stigma associated with mental illness;
- Limited access by individuals to qualified mental health providers;
- Lack of specialized training for primary care providers in mental health;
- Limited reimbursement for non-physician healthcare professionals, such as nurse practitioners and physician assistants;
- Infrequent use of clinical practice guidelines by providers for clinical decision-making;
- Inconsistent provider use of available scales to measure depression severity;
- Lack of assessment and monitoring tools and quality measures that evaluate outcomes that matter to patients; and
- Low levels of awareness among individuals and families of available support services and online self-management tools.

The literature review and key stakeholder interviews led to a number of proposed solutions. In addition, Avalere and Mental Health America identified a number of tactics to address challenges in MDD care. The table below provides a summary of these recommendations:

DOMAIN	SUMMARY OF RECOMMENDATIONS
ACCESS AND USE OF CARE	There is a need to both expand public awareness of MDD as a treatable condition, and invest in strategies to address existing provider shortages. Mechanisms to build workforce capacity include using community mental health supports, advancing models that promote integration of behavioral health with primary care, and incentivizing payment for services that improve individuals' quality of life and accelerate their recovery.
PROVIDER KNOWLEDGE, SKILLS, AND DECISION-MAKING	Various opportunities exist to support providers in delivering high-quality, evidence-based care through both formal and informal channels. For example, the content of Continuing Medical Education courses for psychiatrists can be updated to better reflect the most current evidence about MDD care, and accelerate the translation of science to clinical practice. Beyond education, learning collaboratives can be used to disseminate known best practices and expert panels can be convened to determine which tools should be considered the "gold standard" for screening, diagnosis, and assessing symptom severity.
EVIDENCE AVAILABILITY AND UPTAKE	Efforts to advance personalized care in MDD will be increasingly important to address uncertainty in MDD care and ensure the right patient receives the right treatment at the right time. As part of this movement, there is an opportunity for patients and consumers to more actively engage in research in order to help better prioritize research outcomes. The development of electronic clinical decision support tools may also optimize the selection of treatment options. Finally, generating data on real-world outcomes that truly matter to individuals with MDD and which can help promote their recovery will be critical.
ENGAGEMENT IN CARE	Every healthcare stakeholder has a unique role to play in helping individuals seek treatment earlier, engage in their own care, and ultimately, achieve recovery. For instance, organizations involved in quality measure development can expand their focus on patient-reported responses to treatment in MDD and aspects of care linked to recovery. In parallel, provider associations can advance education around effective strategies for implementing shared decision-making and patient engagement in psychiatric practice.

While this research revealed a variety of care gaps that frequently delay individuals' ability to move toward recovery, the field is ripe for transformation. We envision that the recommendations in this paper will offer opportunities for all healthcare stakeholders to advance high-quality, person-centered MDD care.

INTRODUCTION

Major depressive disorder (MDD), a mood disorder characterized by sad or depressed mood, reduced interest or pleasure in most activities, weight gain or weight loss, insomnia or hypersomnia, reduced energy, frequent thoughts of suicide, and suicide attempts, affects millions of Americans and their families each year.¹ Individuals with MDD also experience cognitive dysfunction (e.g., effects on executive function, cognitive speed, attention, and memory), which can persist during remission.^{2,3} As depressive symptoms worsen, individuals experience increasingly negative consequences to both their quality of life and their ability to engage in everyday activities. Along with the negative effects of depression on a person's life and their families' lives, people with MDD have an increased risk of co-occurring physical and mental health problems.⁴

The Substance Abuse and Mental Health Services Administration's national survey data from 2014 found that MDD affects 6.6 percent of American adults aged 18 or older.⁵ While individuals often transition into MDD in their early 30s, early signs typically start in adolescence or early adulthood.^{6,7} Individuals with comorbid conditions, ethnic minorities, older adults, pregnant women, and caregivers may be particularly vulnerable to developing the disorder.

Despite the prevalence of MDD in the population, evidence suggests that many affected individuals do not receive timely and effective treatment, slowing their ability to advance toward recovery, which is defined as "a process of change through which individuals improve their health and wellness, live self-directed lives, and strive to reach their full potential."^{8,9} Results of the National Health and Nutrition Examination Survey indicate that only 35 percent of depressed Americans are treated within a year of symptom

-
- 1 Criteria for Major Depressive Episode: DSM-5. http://www2.nami.org/content/navigationmenu/intranet/homefront/criteria_major_d_episode.pdf
 - 2 Keefe RS, et al. Cognitive effects of pharmacotherapy for major depressive disorder: a systematic review. *J Clin Psychiatry*. 2014 Aug;75(8):864-76.
 - 3 Papakostas et al. Understanding and Managing Cognition in the Depressed Patient. *J Clin Psychiatry*. 2015;76(4):418-425.
 - 4 Centers for Disease Control and Prevention. Mental Health and Chronic Diseases. 2012. <http://www.cdc.gov/national-healthyworksites/docs/Issue-Brief-No-2-Mental-Health-and-Chronic-Disease.pdf> (accessed Sept 30, 2015)
 - 5 Substance Abuse and Mental Health Services Administration. Mental Disorders. 2015. <http://www.samhsa.gov/disorders/mental> (accessed January 15, 2016)
 - 6 McGorry PD, Purcell R, Goldstone S, Amminger, GP. Age of onset and timing of treatment for mental and substance use disorders: implications for preventive intervention strategies and models of care. *Curr Opin Psychiatry*. 2011;24(4):301-306.
 - 7 Fiske A, Wetherell JL., Gatz M. (2009). Depression in older adults. *Annual Review of Clinical Psychology*. 2009;5:36
 - 8 "Healthy People 2020." Office of Disease Prevention and Health Promotion. US Department of Health and Human Services, 2010. <http://www.healthypeople.gov/2020/topics-objectives/topic/mental-health-and-mental-disorders/objectives> (accessed Sept 4, 2015)
 - 9 Substance Abuse and Mental Health Services Administration. "Recovery and Recovery Support." <http://www.samhsa.gov/recovery> (accessed January 12, 2016)

onset.¹⁰ Data from the 2010 census also show that the median time from symptom onset to treatment initiation is four years.¹¹

Only 35 percent of depressed Americans are treated within a year of symptom onset.

Delayed treatment of MDD also increases the burden of disease on society. MDD is the leading cause of disability for people aged 15–44 years and a driver of medical costs and suicide-related mortality.¹² In 2010, MDD resulted in \$210.5 billion in economic losses.¹³ Direct medical costs, such as use of outpatient and inpatient services, and workplace costs, primarily related to presenteeism, accounted for these losses at 47% and 48%, respectively.¹⁴ Individuals with MDD frequently have physical and psychiatric comorbid conditions, which further augment the costs associated with this disorder.¹⁵

In response, the Institute of Medicine has identified reducing the proportion of persons who experience major depressive episodes as one of the 12 mental health focus topics for the Healthy People 2020 initiative.¹⁶ In addition, in 2010, the National Quality Forum ranked MDD at the top of its prioritized list of 20 high-impact Medicare conditions for future quality measure development. While some MDD quality measures exist, critical gaps remain, especially around key outcomes and quality of life factors that patients most value.¹⁷ Most recently, the US Preventive Services Task Force released a final recommendation on screening for depression that called for universal screening and the need for adequate systems and staff to “ensure accurate diagnosis, effective treatment, and appropriate follow-up.”¹⁸

10 Pratt LA, Brody DJ. NCHS Data Brief. CDC/NCHS, National Health and Nutrition Examination Survey, 2009–2012. Number 172, <http://www.cdc.gov/nchs/data/databriefs/db172.htm> (accessed Dec 2014)

11 Wang PS, Berglund P, Olfson M, et al. Failure and delay in initial treatment contact after first onset of mental disorders in the National Comorbidity Survey Replication. *Arch Gen Psychiatry*. 2005 Jun;62(6):603-13.

12 Greenberg PE, et al. The Economic Burden of Adults With Major Depressive Disorder in the United States (2005 and 2010). *J Clin Psychiatry*. 2015 Feb;76(2):155-62.

13 Greenberg PE, Fournier AA, Sisitsky T, Pike CT, Kessler RC. The economic burden of adults with major depressive disorder in the United States (2005 and 2010). *J Clin Psychiatry*. 2015 Feb;76(2):155-62.

14 *Ibid.*

15 *Ibid.*

16 “Healthy People 2020.” Office of Disease Prevention and Health Promotion. US Department of Health and Human Services, 2010. <https://www.healthypeople.gov/2020/topics-objectives/topic/mental-health-and-mental-disorders/objectives> (accessed Sept 4, 2015)

17 National Quality Forum. Prioritization of High-Impact Medicare Conditions and Measure Gaps. Measure Prioritization Advisory Committee Report. May 2010.

18 Siu AL, and the US Preventive Services Task Force (USPSTF). Screening for Depression in Adults: US Preventive Services Task Force Recommendation Statement. *JAMA*. 2016;315(4):380-387.

RATIONALE AND APPROACH

The purpose of our research was to understand the current state of quality of care for individuals with MDD, while providing an evidence-based assessment of barriers and opportunities for quality improvement. Specifically, we sought to answer the following question:

What are the key factors that determine the provision of timely and effective diagnosis, treatment, follow-up, and support services for individuals with MDD?

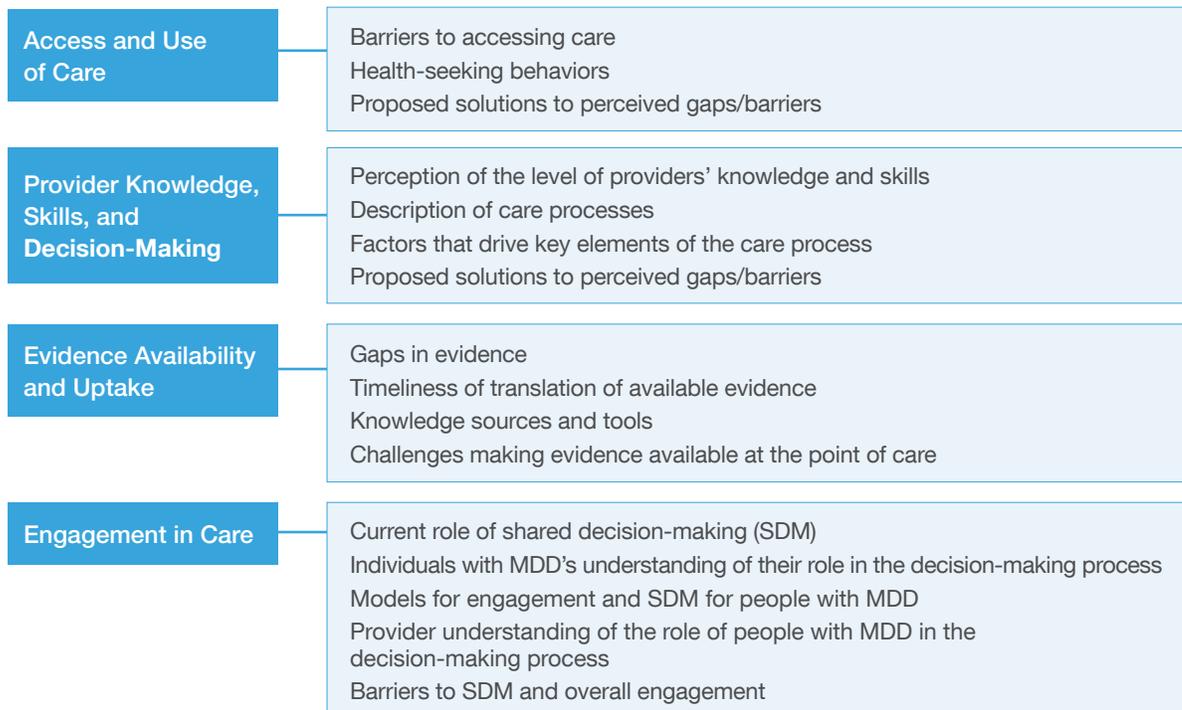
Conceptual Framework

To guide the research, Avalere developed a conceptual framework consisting of four domains:

- Access and use of care
- Provider knowledge, skills, and decision-making
- Evidence availability and uptake
- Engagement in care

As outlined in **Figure 1**, each domain reflects factors that determine the timeliness and effectiveness of diagnosis, treatment, follow-up, and support services for people with MDD. Using this conceptual framework, we conducted a review of white and grey literature in combination with a series of key informant interviews to assess the state of MDD quality of care.

Figure 1: Domains and Constructs Used for Research



Literature Review

Avalere conducted a structured white and grey literature to understand the current state of MDD care based on available evidence.¹⁹ We assessed U.S. publications from 2010 to 2015 identified via searches of PubMed, Google Scholar, and websites of organizations that have a role in MDD care. We used the conceptual framework to develop relevant MeSH search terms, as well as to filter and organize sources by relevance. As a last step, we synthesized findings by domain to identify concordance, discordance, and gaps in the available literature. Further details about the research methodology are available in **Appendix A**.

Key Informant Interviews

In addition to the literature review, Avalere interviewed 12 individuals with knowledge of key issues in MDD care to further inform our research (see **Appendix B** for list of interviewee affiliations). We identified six key perspectives as important to ensure comprehensive insights were gathered: patient and patient advocate, clinical practitioner, clinical program manager, managed behavioral care leader, employer, and researcher. To ensure balanced representation, Avalere recruited interviewees who had special knowledge or expertise in one or more perspectives. On completion of interviews, we pulled key themes from the interviews using the conceptual framework as a point of reference.

DEFINITION OF HIGH-QUALITY MDD CARE

One primary question that Avalere sought to answer was: “How is high-quality care for people with MDD defined?” The literature review did not yield a single comprehensive definition. Instead, we found references to routine screening, timely and accurate diagnosis, effective treatment, and appropriate follow-up. Other desirable outcomes included remission of symptoms, reduction in relapse, and patients’ return to their previous level of occupational and psychosocial function.^{20,21,22,23,24}

19 White literature refers to peer-reviewed publications such as review articles, meta-analyses, and systematic reviews. Grey literature refers to non-peer reviewed publications such as reports and consensus papers.

20 Siu AL, and the US Preventive Services Task Force (USPSTF). Screening for Depression in Adults: US Preventive Services Task Force Recommendation Statement. *JAMA*. 2016;315(4):380-387.

21 Mitchell J, Trangle M, Degnan B, et al. Institute for Clinical Systems Improvement. Adult Depression in Primary Care. Updated September 2013.

22 Zimmerman M, Martinez J, Attiullah N, et al. “Symptom differences between depressed outpatients who are in remission according to the Hamilton Depression Rating Scale who do and do not consider themselves to be in remission.” *J Affect Disord*. 2012;142(1-3):77-81.

23 Kurian BT, Greer TL, Trivedi MH. “Strategies to enhance the therapeutic efficacy of antidepressants: targeting residual symptoms.” *Expert Review of Neurotherapeutics*. 2009;9:975-984.

24 McIntyre R, Fallu A, Konarski J. “Measurable outcomes in psychiatric disorders: remission as a marker of wellness.” *Clinical Therapeutics*. 2006;28(11):1882-1891.

Respondents interviewed tended to emphasize patients' access to care and involvement in their own care. **Figure 2** below illustrates the most commonly occurring concepts, where the size of each term depicts how frequently a given term was mentioned in responses relative to others.

Figure 2: Word Map of Key Concepts in Defining High-Quality MDD Care



KEY FINDINGS: BARRIERS AND SOLUTIONS TO HIGH-QUALITY CARE

Findings from the research suggest that at multiple points along the care continuum, patients encounter barriers to receiving timely and effective MDD care. The following section details these barriers, along with proposed solutions from the literature review and interviews. **Figure 3** provides a summary of these barriers and solutions.

Figure 3: Barriers and Solutions Organized by Domain

DOMAIN	BARRIER	SOLUTION
Access and Use of Care	Stigma preventing individuals and families from seeking timely treatment	Increase public awareness and education
	Limited access to psychiatrists	Launch policy and professional society initiatives to increase workforce
		Expand telemedicine solutions
Provider Knowledge, Skills, and Decision-Making	Limited provision of mental health education for primary care providers	Increase focus of primary care residencies and continuing medical education (CME) on mental health and comorbidities
	Insufficient number of ancillary staff (e.g., nurse practitioners, physician assistants, case managers) support	Expand reimbursement for ancillary support staff
		Encourage adoption of new payment and delivery models that facilitate more holistic care by specialists, case managers, and peers
Evidence Availability and Uptake	Gaps in evidence on optimal treatment approaches and outcomes that matter to patients	Develop new clinical decision support tools
	Lack of timely translation of new evidence to inform clinical decision-making	Generate and facilitate uptake of more real-world evidence
Engagement in Care	Lack of patient knowledge and shared decision-making	Implement greater patient education
		Encourage individuals to use self-monitoring tools
		Facilitate expanded peer-to-peer support for patients

A. Access to Care

Barrier: Stigma

Due to the stigma associated with MDD, individuals and their family members frequently fail to recognize depression as a real illness that needs to be treated. Similarly, individuals often feel embarrassed about receiving medications or psychotherapy for depression treatment. Stigma also promotes misconceptions about MDD care, especially regarding the effectiveness of treatments, possibility of recovery, and length of time to recovery. These misconceptions may lead individuals to feel hopeless when they are not responsive to treatment, and in some cases, to abandon therapy early in the process.

Stigma promotes misconceptions about MDD care, especially regarding the effectiveness of treatments, possibility of recovery, and length of time to recovery.

Proposed Solution: Public Awareness and Educational Efforts

In our literature review and interviews, we found that stakeholders from both the public and private sectors have developed awareness and educational initiatives to address stigma. For example, the National Institute of Mental Health (NIMH) established National Depression Screening Day to raise the visibility of depression and encourage higher rates of screening.²⁵ In addition to government agencies such as NIMH, self-insured employers, which provide insurance coverage for about 140 million people, have been increasingly active in educating employees about mental health issues in the workplace.²⁶ In 2005, Sprint Corporation launched the Sprint Depression Initiative to educate employees about support options for depression available in the workplace.²⁷ While little empirical evidence is available to show how these programs affect stigma, interviewees consistently highlighted the need to expand such programs to reduce stigma and promote health-seeking behaviors.

Barrier: Limited Access to Psychiatrists

A second noteworthy barrier to care is limited access to psychiatrists. While the Affordable Care Act (ACA) increased insurance coverage for the general population, about 4 million people with serious mental illness still lack access to mental health

25 Screening for Mental Health Inc. "Special Initiatives." <https://mentalhealthscreening.org/> (accessed Jan 26, 2016)

26 Kaiser Family Foundation. "2013 Employer Health Benefits Survey." <http://kff.org/report/2013-summary-findings/> (accessed Jan 26, 2016)

27 Partnership for Workplace Mental Health. "Mental Health Works: Sprint Charts New Course in Healthcare; Launches Depression Initiative." 2005. <http://www.workplacementalhealth.org/mhw1stqtr2005> (accessed Sept 30, 2015)

services.²⁸ This is largely due to the fact that only 55 percent of psychiatrists participate in insurance networks (including private non-capitated insurance, Medicare, and Medicaid).²⁹ Consequently, people who use out-of-network mental health services pay high out-of-pocket costs. Experts interviewed attribute these limited provider networks to the fact that health plans and psychiatrists are often unable to agree upon rates for participating in networks. Moreover, psychiatrists, who maintain autonomy in private practice, may be reluctant to enter into contractual arrangements due to concerns about restrictions on how they practice medicine.

While the Affordable Care Act (ACA) increased insurance coverage for the general population, about 4 million people with serious mental illness still lack access to mental health services.

In addition to the high costs associated with accessing psychiatrists' services for individuals with MDD, workforce shortages further exacerbate access issues. Medical students' enrollment in psychiatry has dropped over time, with only 4 percent of students selecting the specialty.³⁰ Several factors account for this, including stigma, physician compensation, and lack of provider interest in managing behavioral health issues. There is a recognized need to investigate the issue further and engage medical societies and other stakeholders to develop solutions.³¹ For example, policy makers can encourage more medical students and healthcare professionals to select mental health occupations by expanding programs that include loan forgiveness or loan repayment incentives.³²

Beyond concerns about stigma and provider shortages, patients also face practical difficulties accessing care. Respondents note that particularly in rural or small communities, lack of transportation and lack of nearby providers pose barriers to access.

Particularly in rural or small communities, lack of transportation and lack of nearby providers pose barriers to access.

Proposed Solution: Alternate Modes of Care Delivery such as Telemedicine

Telemedicine, which refers to the electronic exchange of medical information from one site of care to another to improve clinical patient outcomes, appears to be a promising solution for alleviating provider shortages.³³ There has already been significant

28 Miller J. "Dashed Hopes; Broken Promises; More Despair: How the Lack of State Participation in the Medicaid Expansion Will Punish Americans with Mental Illness." *American Mental Health Counselors Association*. (2014).

29 Bishop TF, Press MJ, Keyhani S, Pincus H. Acceptance of Insurance by Psychiatrists and the Implications for Access to Mental Health Care. *JAMA Psychiatry*. 2014;71(2):176-181.

30 Insel T. "Psychiatry: Where are we now?" National Institute of Mental Health. 2011. <http://www.nimh.nih.gov/about/director/2011/psychiatry-where-are-we-going.shtml> (accessed Sept 24, 2015)

31 Ahmedani B. "Mental Health Stigma: Society, Individuals, and the Profession." *J Soc Work Values Ethics*. 2011 Fall;8(2):4-1-4-16. <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3248273/> (accessed Sept 24, 2015)

32 Heisler E. "The Mental Health Workforce: A Primer." Congressional Research Service. <https://www.fas.org/sgp/crs/misc/R43255.pdf> (accessed Sept 24, 2015)

33 American Telemedicine Association. "What is Telemedicine?" <http://www.americantelemed.org/about-telemedicine/what-is-telemedicine#.VpHEMPkrLIU> (accessed January 9, 2016)

movement with commercial models such as AbilTo that contract with payers to deliver disease management programs for members with behavioral health issues and comorbid conditions.³⁴ However, there is opportunity to further broaden the adoption of such models by expanding reimbursement for these services, familiarizing patients with available offerings, and ensuring telemedicine platforms are easy to navigate and use. Beyond telemedicine, stakeholders also suggest practical solutions such as the provision of transportation services for people without a means of getting to their physical appointments, especially in rural communities.

B. Provider Knowledge, Skills, and Tools

Barrier: Lack of Education, Support, and Resources for Primary Care Providers

Successful treatment depends on timely intervention, as many people experience depressive symptoms as early as adolescence to young adulthood, with the average age of onset being 32 years.³⁵ Despite the prevalence of mental illness, it is common that the presence of symptoms is only identified when a person presents in a primary care setting for another disease or condition. According to the literature and interviews, primary care providers (PCPs) are often at the frontline of treatment for mental illness.³⁶ However, respondents remarked that PCPs may be reluctant to diagnose patients without the necessary education, support, and resources to manage patients' depression over an extended period of time. Even in cases where primary care visits result in depression diagnoses and prescriptions, PCPs face difficulties (including time and resource constraints) in conducting recommended follow-up during the first 6 to 12 months to monitor treatment outcomes and adjust or switch medications.³⁷

Proposed Solutions: Increased Education, Provision of Ancillary Support, and New Care Delivery Models

As the chief medical officer (CMO) of a managed behavioral care organization noted, “80 percent of antidepressants are prescribed by primary care and yet they get the least amount of training in terms of treating depression.”³⁸ This is a knowledge deficit

34 AbilTo website. <https://www.abilto.com/> (accessed January 26, 2016)

35 Wang PS, Berglund P, Olfson M, et al. Failure and delay in initial treatment contact after first onset of mental disorders in the National Comorbidity Survey Replication. *Arch Gen Psychiatry*. 2005 Jun;62(6):603-13. PMID: 15939838.

36 “What is integrated care?” SAMHSA-HRSA Center for Integrated Health Solutions. <http://www.integration.samhsa.gov/about-us/what-is-integrated-care> (accessed Aug 5, 2015)

37 Chen SY, Hansen RA, Gaynes BN, et al. “Guideline-concordant antidepressant use among patients with major depressive disorder.” *Gen Hosp Psychiatry*. 2010;32(4):360-7.

38 Smith BL. “Inappropriate Prescribing.” American Psychological Association. June 2012. <http://www.apa.org/monitor/2012/06/prescribing.aspx> (accessed January 26, 2016)

that needs to be addressed in both medical school and residency training.” The CMO suggested that mental health should be given far more emphasis in primary care residency training, especially in light of the close linkage to clinical comorbidities such as diabetes and depression.

For PCPs already in the field, the use of team-based and interdisciplinary care can help them leverage the skills of ancillary providers to improve patient outcomes. As of 2016, the United States Preventive Services Task Force (USPSTF) recommends that primary care clinicians screen all adult patients for depression, as well as put systems in place to ensure care following the screening (e.g., follow-up for diagnosis, treatment, and management).³⁹ This recommendation will obligate PCPs to take a much more active role in not only the identification of but also follow-up related to MDD. As such, ancillary and specialist providers can provide critical resources and support for PCPs. For example, physician assistants and nurse practitioners can help facilitate patient education and ongoing monitoring and assist with non-medical patient needs, while specialists can provide guidance on therapeutic alternatives and care management support. Several respondents also highlighted peer support services, where MDD care assistance is delivered by “peers” (i.e., people who have experienced MDD), as an effective, low-cost alternative for wraparound services.

To date, lack of reimbursement for ancillary services has deterred many PCPs from implementing this solution. Experts call for the expansion of reimbursement policies to better cover services provided by these staff members. Currently, some states have health and behavioral assessment intervention codes that allow primary care practices to bill for mental health services, including those provided by non-physician staff members.⁴⁰ Widening the availability of these codes would incentivize practices to employ more of these ancillary staff.⁴¹ In addition, expanding existing quality measures such as the Physician Consortium for Performance Improvement’s measure, Adult Major Depressive Disorder: Coordination of Care of Patients with Specific Comorbid Conditions, to include additional care coordination activities and more broadly cover transitions of care between different settings could further incentivize use of ancillary support.

39 Siu AL, and the US Preventive Services Task Force (USPSTF). Screening for Depression in Adults: US Preventive Services Task Force Recommendation Statement. *JAMA*. 2016;315(4):380-387.

40 Heisler E. “The Mental Health Workforce: A Primer.” Congressional Research Service. <https://www.fas.org/sgp/crs/misc/R43255.pdf> (accessed Sept 24, 2015)

41 Comparative Effectiveness Public Advisory Council. “Integrating Behavioral Health into Primary Care.” Public Meeting—May 1, 2015. <http://cepac.icer-review.org/wp-content/uploads/2011/04/CEPAC-BHI-Slides-Meeting-May-1-Final.pdf> (accessed Sept 24, 2015)

Some accountable care organizations (ACOs) and patient-centered medical homes (PCMHs) have also been successful at incorporating non-physician providers (e.g., social workers, case managers) using capitated or administrative fee structures that cover the cost of care coordination services rendered by these providers.⁴² In addition to these models, experts suggest that another way to expand reimbursement for these services is to have payers restructure payment models to reimburse providers for the adoption of innovative care models, such as the Collaborative Care Model (CCM).^{43,44}

C. Evidence Availability and Uptake

Barriers: Evidence Gaps and Lack of Timely Translation to Clinical Guidance

In many areas of medicine, clinical practice is informed by a variety of evidence sources including clinical practice guidelines (CPGs), expert opinions, consensus statements, systematic reviews, and randomized controlled trials. In order for these sources to influence patient care, they need to be 1) up to date (e.g., clinical trial data and high-quality real-world data that are translated in a timely manner), 2) disseminated and available to providers, and 3) adopted and used by providers.

According to key informant interviews, there are noteworthy gaps in the MDD evidence base that hinder development of guidance documents, tools (including treatment algorithms), and quality measures that could advance high-quality, patient-centered care. For example, some informants suggest there is little to no real-world evidence made available to providers on the realities of patient care and the types of provider-patient conversations that need to accompany therapies. Real-world data on individuals with complex needs who have limited access to services and multiple physical, psychiatric, or psychosocial comorbidities are particularly rare. There is also limited research on the best combination of therapies to optimize treatment, including patient-specific factors that influence outcomes.

Despite gaps in evidence, a number of depression guidelines are available. However, mental health practitioners predominantly rely on their clinical judgment, peer-reviewed publications, and insights from peer-to-peer online networks to inform clinical decisions,

42 Comparative Effectiveness Public Advisory Council. "Integrating Behavioral Health into Primary Care." Public Meeting—May 1, 2015. <http://cepac.icer-review.org/wp-content/uploads/2011/04/CEPAC-BHI-Slides-Meeting-May-1-Final.pdf> (accessed Sept 24, 2015)

43 Avalere interviews with representatives from an employer organization, an advocacy group, and a healthcare organization.

44 The CCM supports collaboration between PCPs, specialists, allied health professionals, and non-clinician providers to jointly provide care, monitor patients' health outcomes, and deliver patient education. Katon W, Unützer J, Wells K, Jones L. "Collaborative depression care: history, evolution and ways to enhance dissemination and sustainability." *Gen Hosp Psychiatry*. 2010;32(5):456-64. See also "The DIAMOND Program: Treatment for Patients with Depression in Primary Care." June 2014. Institute for Clinical Systems Improvement.

since clinical guidelines are updated infrequently and may not address the full spectrum of practitioners' questions. For example, the most recent American Psychiatric Association (APA) clinical guideline (published in 2010) recommends an array of strategies for treatment initiation, modification, and augmentation, respectively, but does not offer guidance on how to prioritize among the outlined strategies.⁴⁵ The guideline also does not discuss how individuals and providers should consider the side effects of treatments (e.g., fatigue and reduced libido) against their anticipated benefits (e.g., improved productivity and mental functioning).^{46,47}

In addition to guidelines, instruments designed to help clinicians assess a person's depressive symptoms also inform clinical care plans and may support improved quality of care. For example, the Patient Health Questionnaire-9 (PHQ-9) is a validated tool that assesses depression severity and has been included in quality measures to incentivize its use. However, there are various other scales such as the Clinically Useful Depression Outcome Scale (CUDOS) and the Quick Inventory of Depressive Symptomatology (QIDS), that physicians also use and which measure depression severity differently.⁴⁸ The availability of different scales to determine if remission has been achieved can produce different assessment results for the same patient and, thus, lead to discrepancies in provider prescribing practices.^{49,50}

Further adding to the complexity of conducting assessments, many tools and quality measures do not effectively evaluate outcomes that are tied to recovery and that matter to patients.⁵¹ Of particular note, there are limited measures that assess treatment adherence and a therapy's effects on psychosocial factors, daily functioning, and residual symptoms such as cognitive dysfunction. To address these gap areas and discrepancies in provider prescribing, there is a need to determine how assessment tools, and the quality measures that support their use, can more consistently measure depression severity across patients and better capture outcomes that matter to them.⁵²

45 Practice Guideline for the Treatment of Patients with Major Depressive Disorder. 3rd Ed. American Psychiatric Association, 2010.

46 *Ibid.*

47 Institute of Medicine. Partnering with Patients to Drive Shared Decisions, Better Value, and Care Improvement—Workshop Proceedings. <http://iom.nationalacademies.org/Reports/2013/Partnering-with-Patients-to-Drive-Shared-Decisions-Better-Value-and-Care-Improvement.aspx#sthash.sgdqJtg3.dpuf> (accessed Aug 15, 2013)

48 Zimmerman M, Martinez JH, Friedman M, Boerescu DA, Attiullah N, Toba C. "How can we use depression severity to guide treatment selection when measures of depression categorize patients differently?" *J Clin Psychiatry*. 2012;73(10):1287-91.

49 Uher et al. Self-Report and Clinician-Rated Measures of Depression Severity: Can One Replace the Other? *Depress Anxiety*. 2012 Dec;29(12):1043-1049.

50 Zimmerman M, Martinez J, Attiullah N, Friedman M, Toba C, Boerescu DA. "Symptom differences between depressed outpatients who are in remission according to the Hamilton Depression Rating Scale who do and do not consider themselves to be in remission." *J Affect Disord*. (2012) 142(1-3):77-81.

51 Saver BG, Martin SA, Adler RN, et al. Care that Matters: Quality Measurement and Health Care. *PLoS Med*. 2015;12(11):e1001902.

52 Uher et al. Self-Report and Clinician-Rated Measures of Depression Severity: Can One Replace the Other? *Depress Anxiety*. 2012 Dec;29(12):1043-1049.

Proposed Solutions: Generation of Real-World Studies and Development of New Guidelines and Support Tools

In order to advance MDD care, experts recommend that studies need to examine therapies' effects on individuals' unique patient profiles, as well as personal treatment goals and quality of life considerations. Quality measures should also be created to track and monitor these effects in real-world settings. As noted by the medical director of an adult integrated services recovery program, "Research can be done in the recovery-based way. We need quality of life outcomes instead of symptom outcomes, such as measuring how a treatment has enabled someone to return to their employment."

Enriching the evidence base for MDD care and ensuring its timely translation may also help make clinical practice guidelines more useful and relevant to practitioners. Moreover, while guidelines are useful, many experts suggest that care practitioners often look to state reimbursement policies to guide the care they provide. As such, while the translation of evidence to CPGs is a desirable way to bring new science to the point of care, reimbursement policies also need to be aligned with the recommendations CPGs contain in order to have maximal effect.

To address inadequacies in existing instruments and quality measures, some academic researchers are developing new scales to assess disease severity that incorporate patient-reported outcomes and measure positive outcomes (e.g., presence of features of positive mental health, return to one's usual self). Evidence suggests these factors matter to individuals with MDD and are important signs of overall improvement.⁵³ In a similar vein, the Substance Abuse and Mental Health Services Administration has developed and is piloting a quality measure that may support recovery-oriented care by addressing four major dimensions of individuals' recovery: 1) Health, 2) Home, 3) Purpose, and 4) Community.⁵⁴

D. Engagement in Care

Barriers: Lack of Shared Decision-Making and Patient Knowledge

Engagement in care is an ongoing process in which a person takes an active role in his or her own healthcare.⁵⁵ This process includes shared decision-making and education. Due to the heavy impact MDD has on daily and mental functioning, interviewees

53 Zimmerman M, Martinez JH, Friedman M, Borescu DA, Attiullah N, Toba C. "How can we use depression severity to guide treatment selection when measures of depression categorize patients differently?" *J Clin Psychiatry* (2012);73(10):1287-91.

54 Substance Abuse and Mental Health Services Administration. "Data, Outcomes, Quality". Updated October 14, 2014. <http://www.samhsa.gov/samhsa-data-outcomes-quality>

55 "A New Definition of Patient Engagement" *Center for Advancing Health*. http://www.cfah.org/pdfs/CFAH_Engagement_Behavior_Framework_current.pdf (accessed Aug 21, 2015)

unanimously stressed that engagement by individuals and their families in the care process is essential for good clinical outcomes. Moreover, evidence suggests that engaged individuals are more likely to experience positive treatment outcomes for MDD.⁵⁶ Research shows that when providers fail to consider patient preferences, individuals are less likely to start treatment, stay in treatment, and attend a sufficient number of therapy sessions.⁵⁷

Despite recognition of its importance, there are several barriers to individual and family engagement. First, challenges in implementing shared decision-making and building trust in the therapeutic relationship are clear barriers to engagement. The medical director of an adult integrated services recovery program noted that trust in the provider-patient relationship is essential to collaboration. Some patients may regard providers with suspicion and feel that they have incentives outside of the patient's best interests to prescribe them certain therapies. Conversely, some providers may question patients' abilities to make informed decisions about their care. Moreover, according to key informants, individuals and families frequently lack awareness of support services and tools that can help them self-manage their MDD outside of the clinical setting; however, many agree that the ability of individuals to self-manage is crucial to the recovery process.

Proposed Solutions: Increased Education and Awareness of Support Services and Tools

To better engage patients, providers need education on how to implement shared decision-making effectively. One interviewee highlighted that shared decision-making should include, at a minimum, discussion between patients and physicians regarding the effect of MDD on patients' lives and ways patients can meet their goals. Establishing trust through active listening and relating to patients on a personal level (e.g., sharing personal stories) are also crucial for shared decision-making.

Experts interviewed also noted that providers must spend adequate time educating individuals and their families to ensure that they fully understand their diagnosis and how to reach treatment goals. Individuals need to be informed about key aspects of treatment, including the timeline in which they may expect their symptoms to be addressed, challenges for which they should

Individuals need to be informed about key aspects of treatment, including the timeline in which they may expect their symptoms to be addressed, challenges for which they should be prepared, and tools to improve chances of recovery.

⁵⁶ Kwan BM, Dimidjian S, Rizvi SL. Treatment preference, engagement, and clinical improvement in pharmacotherapy versus psychotherapy for depression. *Behav Res Ther.* 2010 Aug;48(8):799-804.

⁵⁷ *Ibid.*

be prepared, and tools to improve chances of recovery (e.g., self-monitoring instruments). Additionally, respondents working in patient advocacy felt that people should also be educated on their state's Patient's Bill of Rights (if available), which is a list of guarantees to ensure individuals can actively partake in treatment decisions. Patients need to fully understand what the MDD care process entails and what rights they have in order to properly engage in their own care. Experts felt that providing people with support tools can help them become educated on their treatment plan, communicate with their providers, assess their improvement, monitor their mood, and track their medication adherence. For example, online mental health screenings using reliable measurement tools, such as the PHQ-9, are freely available for people to assess their mood and symptoms and screen for depression. Other online platforms like Ginger.io allow users to track their depression symptoms over time and communicate that data to their providers using their smartphones. Innovative tools such as these allow people to access help more quickly, track their improvement, and better participate in the care process.

In addition to services that individuals can receive in the clinical setting, there are non-traditional services, such as peer support, that also aid with self-management strategies. The goal of peer support services is to provide hope for people struggling with mental health problems by pairing them with community members who have achieved significant recovery from their illnesses. Under this model, individuals join support groups and are connected to peers who provide social support and motivation by encouraging individuals to meet their goals, reassuring them that recovery is possible, and accompanying them to medical appointments.⁵⁸ In some regions, peer support services can be offered in clinical settings and in special drop-in centers focused on providing respite and crisis response. The Depression and Bipolar Support Alliance, the National Alliance on Mental Illness, and Mental Health America are among the organizations actively offering peer support programs. Assertive Community Treatment teams, which are community-based, multi-disciplinary teams that aim to prevent hospitalization through regular therapeutic contact and medication use, also rely on such "peers" to support their efforts.⁵⁹

58 Substance Abuse and Mental Health Services Administration. Consumer-Operated Services: The Evidence. HHS Pub. No. SMA-11-4633, Rockville, MD: Center for Mental Health Services, Substance Abuse and Mental Health Services Administration, U.S. Department of Health and Human Services, 2011.

59 Mental Health America. Evidence-Based Healthcare (Position Statement 12). <http://www.mentalhealthamerica.net/positions/evidence-based-healthcare> (accessed January 10, 2016)

RECOMMENDATIONS

In addition to the solutions advanced in the research, Avalere and Mental Health America identified a number of tactics to address challenges in MDD care. Successful implementation of these tactics will require collaboration among multiple stakeholders across the healthcare system. Stakeholders include individuals struggling with or recovered from depression, mental health advocacy organizations, providers, professional societies, payers, policy makers, industry, health information technology companies, and quality organizations. Given the suggested multi-stakeholder approach, any of the organization or stakeholder types may take a leadership role to work on a specific tactic.

Access and Use of Care

- Expand the implementation of integrated and evidence-based behavioral health services like the Collaborative Care Model (CCM) through public-private partnerships and new payment models. For example, stakeholders could seek to have the CCM qualify as an alternative payment model to satisfy new quality requirements established under the Medicare Access and CHIP Reauthorization Act of 2015.
- Expand community mental health supports for individuals with depression, such as psychiatric rehabilitation, case management, and peer-run services.
- Incentivize the adoption of integrated and team-based care approaches that expand the role of ancillary care providers to enable broader use of ancillary staff for the provision of mental health services.

Provider Skills, Knowledge, and Decision-Making

- Convene an expert panel of mental health stakeholders, including individuals with depression, to determine which tool(s) should be designated the “gold standard” to screen, diagnose, and monitor symptom severity in individuals with MDD. Once the gold standard has been established, support their translation into validated quality measures that can be used in quality improvement activities.
- Develop online learning collaboratives to enable providers to consult their peers and share best practices in MDD care.
- Update the content of existing CME modules for psychiatrists and other mental health practitioners to reflect the most current evidence about important topics in MDD care such as the management of comorbid conditions and shared decision-making.

Evidence Availability and Uptake

- Contribute to ongoing research efforts to improve MDD diagnoses and target evidence generation to outcomes that matter to patients. For example, the Patient-Centered Outcomes Research Institute (PCORI) leads efforts to facilitate patients' active participation in research, including prioritizing research questions related to MDD management and generating research to fill evidence gaps in MDD treatment.⁶⁰
- Develop electronic clinical decision support tools to guide the selection of treatment options and alterations to treatment following non-response to therapy.
- Promote the generation, translation, and use of real-world data on patients' real-life experiences with MDD in clinical practice.

Engagement in Care

- Increase the development and adoption of quality measures that measure patient-reported responses to treatment, aspects of care that support recovery, and outcomes that matter to individuals.
- Incentivize practitioners to deliver person-centered MDD care by incorporating measures that address patient education and shared decision-making into pay-for-performance programs. For example, the inclusion of the Physician Consortium for Performance Assessment's measure, Patient Education, into quality programs would encourage providers to deliver, at least once, comprehensive patient education that helps individuals understand the symptoms and treatment for MDD, the effects of MDD on functioning (including social relationships and work), and the effects of healthy behaviors (e.g., exercise, good nutrition) on depression.
- Improve the CCM to be more person-centered. Practitioners of the model should not only be focused on coordinating care, but equally on ensuring that the care delivered is person-centered. An improvement of the model would include training case managers in shared decision-making for depression.

⁶⁰ Patient-Centered Outcomes Research Institute. Prioritizing Comparative Effectiveness Research Questions for Treatment of Major Depressive Disorder: A Stakeholder Workshop. 2015 Jun 9; Washington, DC. <http://www.pcori.org/events/2015/prioritizing-comparative-effectiveness-research-questions-treatment-major-depressive> (accessed February 9, 2016)

- Work with provider associations like the American Academy of Family Physicians, the American Association for Geriatric Psychiatry, the American Psychiatric Association, the American Psychological Association, and the American Association of Nurse Practitioners, to develop a learning module or CME for providers on how to implement shared decision-making strategies in psychiatric practice.
- Incentivize clinical staff to seek certification for psychiatric rehabilitation (e.g., a Certified Psychiatric Rehabilitation Practitioner credential, which has a strong curriculum on patient engagement and shared decision-making).⁶¹

CONCLUSION

In this research, Avalere and Mental Health America explored a variety of factors that influence the time from symptom onset to effective treatment and recovery in MDD care. Access barriers; gaps in provider knowledge, skills, and resources; challenges in the translation of evidence to clinical practice; and limited patient engagement frequently delay individuals' ability to move toward recovery. Yet the field is ripe for transformation, as demonstrated by various solutions and recommendations identified to improve the quality of MDD care. We envision the proposals outlined in this paper will illustrate opportunities for all healthcare stakeholders to advance high-quality, person-centered MDD care.

⁶¹ Certified Psychiatric Rehabilitation Practitioner. Psychiatric Rehabilitation Association website. <https://netforum.avectra.com/eWeb/DynamicPage.aspx?Site=USPRA&WebCode=cprp> (accessed January 9, 2016)

APPENDICES

Appendix A: Literature Review Findings by Source

We used the following limits and exclusions to conduct our search:

- Geographic range: U.S. only
- Date range: Past 5 years
- Language: English only
- Age: Adults aged 18 years and older
- Inclusions: White literature (e.g., individual articles, systematic reviews, meta-analyses, review articles) and grey literature (e.g., reports and consensus papers)
- Excluded topics: Adolescents and children, bipolar disorder, schizophrenia, dementia, Alzheimer's

Literature Review Yield by Source

SOURCES	INITIAL YIELD	FULL-TEXT ARTICLES REVIEWED
PubMed	649	37
Google Scholar	133,327 (89 pages viewed)	19
Websites of Organizations Active in Shaping MDD Quality of Care	27	17
Total	134,003	73

Full-length articles were excluded based on the following criteria:

- Lack of relevance to conceptual framework
- Molecule-specific
- Weak trial design (e.g., case studies) or small patient population (under 100)

Appendix B: List of Interviewee Affiliations

List of Interviewee Affiliations

INTERVIEW #	POSITION TYPE	ORGANIZATION TYPE
1	Vice President	Patient Advocacy
2	Medical Director	Patient Advocacy
3	Former Patient and Executive Director	Patient Advocacy
4	Director	Patient Advocacy
5	Advisor	Government Agency
6	Researcher	Government Agency
7	Chief Medical Officer and Corporate Chief Clinical Officer	Managed Behavioral Care Organization
8	Chief Officer of Operations	Managed Behavioral Care Organization
9	Director	Employer Mental Health Initiative
10	Family Physician	Medical Group
11	Psychiatrist	Private Practice
12	Medical Director	Community Mental Health Agency
13	Psychiatrist	Community Mental Health Clinic

Note: Some interviews were conducted with two individuals from the same organization.

About Us

Avalere is a vibrant community of innovative thinkers dedicated to solving the challenges of the healthcare system. We deliver a comprehensive perspective, compelling substance, and creative solutions to help you make better business decisions. As an Inovalon company, we prize insights and strategies driven by robust data to achieve meaningful results. For more information, please contact info@avalere.com. You can also visit us at avalere.com.

Mental Health America is the nation's leading community-based nonprofit dedicated to helping all Americans achieve wellness by living mentally healthier lives. Our work is driven by our commitment to promote mental health as a critical part of overall wellness, including prevention services for all, early identification and intervention for those at risk, integrated care and treatment for those who need it—with recovery as the goal. For more information, please visit us at mentalhealthamerica.net.

Contact Us

Avalere Health

An Inovalon Company
1350 Connecticut Ave, NW Suite 900
Washington, DC 20036
202.207.1300 | Fax 202.467.4455
avalere.com

Mental Health America

2000 N. Beauregard Street 6th Floor
Alexandria, VA 22311
703.684.7722 | Fax 703.684.5968
mentalhealthamerica.net