



## EXECUTIVE SUMMARY

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# Integrating Primary Care into Behavioral Health Settings: What Works for Individuals with Serious Mental Illness

by Martha Gerrity, MD, MPH, PhD

## Introduction

For two decades, research has shown the benefit of behavioral health integration (BHI), a patient-centered approach in which behavioral health and medical providers work together to provide care.

While there is much evidence to support the effectiveness of integrating behavioral health into primary care settings for adults with depression and anxiety disorders, there is much less evidence for models that target individuals with serious mental illness (SMI).

Recognizing a gap in the research, the Reforming States Group (RSG) asked the Milbank Memorial Fund to prepare this report in order to better understand the evidence concerning the integration of primary care into behavioral health settings for those with SMI. The RSG is a bipartisan, voluntary group of state health policy leaders from both the executive and legislative branches who, with a small group of international colleagues, work on practical solutions to pressing problems in health care.

The report assesses primary evidence sources of BHI for SMI over a 10-year period beginning in 2004. The quality of evidence for each study is evaluated. Each BHI model is summarized and its outcomes assessed. Developed with policymakers in mind, the report also provides strategies for implementation, as well as resources for planning and implementing BHI models.

This report may guide state policymakers and other stakeholders as they develop and implement policies and programs that support the integration of primary care into behavioral health settings.

## Background

Mental illness and substance use disorders are common, affect people of all ages, and result in substantial disability and costs. In the United States, 18.6% of adults and 13% to 20% of children ages 8 to 15 years old have a mental disorder.<sup>1,2</sup> Approximately 9.4% of the population aged 12 and older use illicit drugs, and 6.3% are heavy users of alcohol, defined as five or more drinks on each of five or more days in the past 30 days.<sup>3</sup>

About one-fifth of adults with mental illness have a severe or serious mental illness (NIH 2014b).<sup>4</sup> Serious mental illness (SMI) is generally defined as mental or behavioral disorders that result in significant functional impairment and limit an individual's ability to perform one or more major life activities.<sup>4</sup> These disorders include schizophrenia, schizophrenia-like psychosis (e.g., schizoaffective disorder), bipolar disorder and other psychoses, as well as severe forms of disorders such as major depression, anxiety, post-traumatic stress disorder, and obsessive-compulsive disorder.

Overall, 9.6 million U.S. adults (4.1%) have a SMI,<sup>1,5,6</sup> and an estimated 4 million to 5 million children and adolescents (0.1%) have an SMI.<sup>2,7</sup> However, estimates of SMI in children are less precise because diagnosing these disorders is more difficult in children and adolescents.<sup>7</sup>

Individuals with SMI or substance use disorders have higher rates of acute and chronic medical conditions, shorter life expectancies (by an average of 25 years), and worse quality of life than the general medical population.<sup>8,9</sup> They also have higher utilization of emergency and inpatient resources, resulting in higher costs.<sup>10</sup> For example, 12 million visits (78/10,000 visits) annually to emergency departments (EDs) are by people with SMI and chemical dependency.<sup>8</sup> For schizophrenia alone, the estimated annual cost in the United States is \$62.7 billion dollars.<sup>11</sup> Many of these expenditures could be reduced through routine health promotion activities; early identification and intervention; primary care screening, monitoring, and treatment; care coordination strategies; and other outreach programs.<sup>8,12</sup> However, people with SMI and substance use disorder have limited access to primary care due to environmental factors and stigma<sup>12</sup> and are often underdiagnosed and undertreated.<sup>8,13-15</sup>

## Behavioral Health Integration: A Continuum of Care

BHI is a patient-centered approach that identifies and addresses all the health needs of a patient no matter where they seek care.<sup>16,17</sup> It encompasses a range of models and strategies. In general, models studied in research trials have been categorized based on their target population: 1) models integrating behavioral health into primary care settings for patients with depression or anxiety disorders; and 2) models that integrate primary care into behavioral health settings for patients with SMI and substance use disorder.

There is a robust evidence base supporting the effectiveness of integrating behavioral health into primary care settings for adults with depression and anxiety disorders. Many systematic reviews have been published that encompass models integrating behavioral health into primary care including recent reviews by the Cochrane Collaboration,<sup>18</sup> Agency for Healthcare Research and Quality,<sup>19</sup> and others.<sup>20,21</sup> These reviews describe a high-quality evidence base supporting collaborative care management models described in a 2010 Milbank Memorial Fund report.<sup>22</sup> In addition, two recent randomized controlled trials extend support for the effectiveness of collaborative care management to children with behavior problems, attention-deficit/hyperactivity disorder and anxiety,<sup>23</sup> and adolescents with depression.<sup>24</sup>

The evidence base for models that target individuals with SMI and substance use disorder has not been the focus of prior reviews. Although reviews by Woltman<sup>21</sup> and Carey<sup>19</sup> include this population, they do not describe the models or target populations in enough detail to assist policymakers with implementing the models. Consequently, this report focuses on the models that integrate care for patients with SMI and substance use disorder seen in mental health and chemical dependency treatment settings.

BHI encompasses a set of strategies to improve care for individuals with SMI and substance use disorder through systematic coordination and collaboration among treating providers to address both mental and physical health needs.<sup>19</sup> These strategies can be arrayed on a continuum based on practice structure and level of collaboration,<sup>25</sup> ranging from no integration of care to fully integrated care. The continuum can range from separate systems and practices with little communication between providers, to enhanced coordination and collaboration among providers usually involving care or case managers, to colocated care with providers sharing the same office or clinic, to fully integrated care where all providers function as a team to provide joint treatment planning and care. In a fully integrated system, patients and providers experience the operation as a single system treating the whole person.

### Barriers to Integration

The barriers to integrating clinical services and coordinating payers, health systems, and social supports are well documented and not exclusive to patients with SMI or substance use disorder.<sup>13</sup> Barriers such as funding mechanisms and reimbursement are major impediments. Many activities associated with integrated care (e.g., care management, consultations, and communication activities among providers) are not reimbursed under typical fee-for-service care and are further fragmented by organizations that “carve out” behavioral health from medical care in managed care arrangements.<sup>13,26</sup> Provider and organizational capacity are also cited as common barriers to care, especially when integrated care requires changes in the process of care and in workforce training and support.<sup>16</sup> Resistance to change, new staff, new roles, and balancing competing demands are difficult to overcome. Translating integrated models from research studies into clinical settings is challenging, because model fidelity is often compromised due to the barriers described above.

## State-Based Opportunities for Integration

Three funding initiatives have accelerated efforts to integrate medical and behavioral health care. These include the nearly 100 Primary and Behavioral Health Care Integration service grants set up by the Substance Abuse and Mental Health Services Administration (SAMHSA) across the United States to establish projects that coordinate and integrate primary care into community-based mental health and chemical dependency treatment settings; the Health Home Initiative (Section 2703) under the Affordable Care Act; and the Centers for Medicare & Medicaid Services Comprehensive Primary Care Initiative. Some Medicaid Health Homes and other local and regional initiatives are targeting populations with SMI and designing care models that integrate primary care into behavioral health care systems.<sup>27,28</sup> The Health Home Initiative, with its emphasis on integrating primary care, mental health, chemical dependency, and social services, may provide one of the best opportunities for implementing evidence-based models that target individuals with SMI.

## Focus of Report

This report focuses on models targeting individuals with SMI and substance use disorder because prior reviews did not describe the models in detail or provide a detailed evaluation of their evidence base. The purpose of this report is twofold:

- To identify models integrating primary medical care into mental health and chemical dependency treatment settings and evaluate the evidence base for these models; and
- To describe implementation efforts across four key areas (target populations, provider integration models, information-sharing and technology, and payment methodologies) and implementation resources from organizations supporting BHI.

## Model Identification and Evidence Evaluation

### Methods

#### Search Strategy

A search of the Oregon Health & Science University's Center for Evidence-based Policy's clinical evidence primary sources and MEDLINE (Ovid) was conducted to identify systematic reviews, meta-analyses, technology assessments, and randomized and nonrandomized controlled trials. The searches were limited to citations published between June 2004 and June 2014.

Because few published studies assessed health care utilization and costs, a gray literature search was done to identify evaluation studies that might not be published in journals found in MEDLINE. Websites of organizations known to fund BHI initiatives (e.g., SAMHSA-HRSA Center for Integrated Health Solutions) were also searched for reports describing

evaluations of funded programs and resources to support implementation of integration models. The selection criteria for articles to include in the review were: 1) adults and children receiving treatment for serious mental illness or substance use disorders in mental health and chemical dependency treatment settings; and 2) systematic reviews, technology assessments, and randomized and nonrandomized controlled trials.

### Quality Assessment

The methodological quality of the included studies was assessed by two independent raters using standard instruments adapted from systems used by the National Institute for Health and Care Excellence and Scottish Intercollegiate Guidelines Network.<sup>29,30</sup> A summary judgment for the overall quality of evidence (QoE) was assigned to each key question and outcome using the Grading of Recommendations, Assessment, Development and Evaluation system.<sup>31</sup> The overall QoE reflects the level of certainty in the impact of the intervention (e.g., collaborative care model) on an outcome (e.g., reduction in symptoms) across all studies in the evidence base. High overall QoE indicates raters are very confident in the impact of the intervention on the outcome, and future studies would likely not change the findings. Moderate QoE indicates moderate confidence in the findings, and low QoE indicates low confidence in the findings. Very low QoE indicates the available evidence is insufficient to assess the impact of an intervention on an outcome.

## Findings

### **Key Question #1: What models have been used to integrate primary medical care into mental health and chemical dependency treatment settings?**

The literature search identified 19 publications reporting the results from 12 randomized controlled trials.<sup>32-50</sup> These studies used a variety of models to integrate primary medical care into mental health and chemical dependency treatment settings. Seven studies colocated medical care providers in mental health and chemical dependency treatment settings: four of the seven used fully integrated models with joint care planning and treatment;<sup>34,42,49,50</sup> one enhanced coordination of initial primary care after completing an on-site medical evaluation;<sup>43</sup> and two did not report enhanced coordination or collaboration beyond being colocated.<sup>44,48</sup> Five studies enhanced coordination and collaboration through the use of care managers.<sup>32,33,35-40,45-47</sup> Three of these studies included structured educational programs to support patients' self-management. Two studies also trained care managers in motivational interviewing techniques to provide additional self-management support.

Eight of the 12 studies were done in large integrated health care systems. These integrated systems may have facilitated coordination through use of common health records, appointment systems, and systems for communicating among providers. Finally, almost all interventions added staff and provided additional training for the intervention team or recruited staff dually trained for the target conditions. Interventions using care managers had pro-

protocols that provided structured follow-up of patients and support and oversight of the care managers by an intervention physician or investigator. Caseloads for care managers varied based on patient complexity and severity of symptoms and intensity of the intervention.

**Key Question #2: Do these models of integrated care improve mental health, medical, and health care utilization outcomes?**

Researchers conducting the 12 randomized controlled trials enrolled adults with bipolar disorder (three studies; 832 patients), other SMIs (three studies; 666 patients), and chemical dependency (five studies; 2,000 patients). None of the studies included children or adolescents. Three models were used to integrate primary medical care into mental health and chemical dependency treatment settings: care or case management (five studies), colocated care (seven studies), and fully integrated care with joint treatment (four studies). These models were sometimes used in combination. All intervention models were compared to usual care. The main findings, and when appropriate, overall quality of evidence (QoE) supporting the finding, are listed below.

- Care management may improve mental health symptoms and mental health-related quality of life for patients with bipolar disorder and SMI (moderate QoE).
- Fully integrated care and care management improves use of preventive and medical services (moderate QoE) and may improve physical health symptoms and quality of life for patients with bipolar disorder and SMI (low QoE).
- Colocating primary care in chemical dependency treatment settings without enhanced coordination and collaboration does not improve mental or physical health outcomes (moderate QoE).
- All interventions required additional staff, training, and oversight except when intervention staff was dually trained in primary care and substance misuse treatment.

The impact of these interventions on health care utilization and cost is unknown because of risk of bias in the studies and inconsistencies in results across studies (very low QoE). However, evaluation studies (single group, before and after the intervention evaluations) of these models in settings that target individuals with high health care utilization, suggest that collaborative care management decreases utilization and costs as well as impacts cost in other areas, such as the criminal justice system.<sup>17</sup>

## Implementation Efforts and Resources

Fragmentation of the physical, mental, and chemical dependency care delivery systems has led to significant gaps in care for individuals with SMI and substance use disorder. These individuals have disproportionately high rates of physical health conditions, making them especially vulnerable to the gaps in fragmented care. Care for these populations is considered a major driver for the increase in health care costs.

Fully integrated care or enhancing collaboration through care management appears to improve mental health outcomes and use of preventive services for adult patients with bipolar disorder and other SMI.

As state policymakers develop policies and programs that support integration of physical health care into behavioral health settings, they may consider findings from this evidence review. Three topics in particular are helpful to policymakers: 1) expected outcomes from BHI models that target populations with SMI and substance use disorder; 2) strategies for implementing these models; and 3) technical assistance and tools available for integration efforts.

### What We Can Learn from the Studies: Expected Outcomes

Models and outcomes supported by moderate QoE indicates there is moderate confidence that models will have the expected outcomes. This means that these are promising interventions and should be considered for implementation. Because of some uncertainty about the findings, one approach would be to implement the model and build in an evaluation to assure fidelity to the model. This would help determine if the model as implemented improves outcomes.

Model outcomes supported by low QoE are also promising, but there is a greater degree of uncertainty that they will achieve the expected outcomes. For example, this report did not identify studies of collaborative care management interventions for children and adolescents with SMI. However, two randomized controlled trials of collaborative care management programs targeting youths with disruptive behavior and depression in primary care settings,<sup>23,24</sup> and the results of this report, suggest that collaborative care management models may be applicable to children and adolescents. In this situation, piloting a model to assure it will achieve the same outcomes described in research studies would be a reasonable approach. This approach has been used by states described in the 2010 Milbank Memorial Fund report<sup>22</sup> and in the implementation section of this report.

### What We Can Learn from the Studies: Implementation Strategies

Many state Medicaid Health Homes and other initiatives such as the Substance Abuse and Mental Health Services Administration's Primary and Behavioral Health Care Integration programs are serving as testing grounds for a variety of integration models that target



populations with SMI and substance use disorder and have only early evaluation results available. Ongoing evaluations of these efforts are under way and could yield a wealth of information in the next several years.<sup>27</sup>

State and local BHI initiatives have used a variety of approaches in developing their programs. They vary across four key areas that present challenges and may affect outcomes: defining target populations; establishing models of integration and provider standards and training; facilitating use of information-sharing and technology; and structuring payment. Paying close attention to these areas as states develop programs will increase the likelihood of achieving intended outcomes.<sup>51,52</sup> Equally important is assuring new programs have a method for ongoing evaluation since there is some uncertainty in the evidence base for BHI models described in this report. Decisions made in each of the four areas below will likely affect the outcomes of a new program.

- **Target populations:** Some programs focus on populations with significant mental health and medical needs and high health care utilization. For example, West Virginia is targeting health home services to individuals with bipolar disorder who are infected with hepatitis B or C or at risk of infection, a narrow population with significant behavioral and physical health needs. In contrast, other programs broadly encompass individuals with SMI seen at community mental health centers. Some state health home programs have also taken a phased implementation approach, targeting specific geographic regions and/or chronic conditions. This phased approach allows states to expand implementation as provider capacity and experience with integration matures. In general, programs that have targeted individuals with high health care utilization are reporting decreases in utilization and costs based on program evaluations.<sup>28,51-54</sup>
- **Integration models:** Models of integration and provider standards also vary widely across programs.<sup>28,51,55</sup> Some programs identify specific provider types and set forth specific staffing requirements for integrated care teams while others take a general approach as long as they meet a state's health home standards that include a dedicated care manager leading a multidisciplinary team of medical, mental health, and chemical dependency providers; social workers; and nurses. These individuals might not be located at the same practice but must ensure coordination of care. A recent evaluation of care coordinators noted the variation in models used and emphasized the importance of involving practices in hiring care managers, as well as providing them with sample job descriptions, training, and peer-networking opportunities.<sup>55</sup>
- **Information-sharing and technology:** States are developing health information technology (HIT) capacity at state and provider levels to support integrated care.<sup>27,51</sup> Missouri leveraged the federal electronic health record (EHR) incentive to develop a statewide web-based EHR accessible to Medicaid providers, in addition to a state-run patient registry and a behavioral health pharmacy management system. To address

the issues of limited HIT capacity and protected health information—important barriers to integration—New York allowed behavioral health providers flexibility in meeting health home HIT requirements and developed a single process for patients to grant providers permission to access their records across different care systems.

- **Structured Payment:** Many activities associated with integrated care, such as care management and communication activities between providers, are not reimbursed under typical fee-for-service care.<sup>56</sup> Many integration initiatives required grant funding to implement their programs. Some state health home programs addressed this challenge by reimbursing enrolled health home providers for services supporting integration with per-member-per-month (PMPM) payments.<sup>52</sup> These PMPM rates vary from fixed amounts to tiered rates based on patient complexity and geography.

## Technical Assistance and Tools

Many national and state organizations provide technical assistance and tools for behavioral health integration. Two national organizations, [SAMHSA-HRSA Center for Integrated Health Solutions](#) and the [Agency for Healthcare Research and Quality's Integration Academy](#), provide examples of successful models, tools to assess patients and organizational capacity for integration, provider standards and quality measures, and webinars. A recent report by the SAMHSA-HRSA Center for Integrated Health Solutions<sup>16</sup> describes six examples of successful, integrated care teams in safety net clinics and the essential elements of developing successful teams. These examples might be especially useful for many state Medicaid programs, which rely on safety net clinics. The Center for Health Care Strategies developed a [return on investment forecasting calculator](#) to assist policymakers in estimating the net financial benefits of BHI and other health home initiatives.<sup>57</sup> A variety of [toolkits](#) and [resources](#) are also available from national organizations, academic institutions, and some states.

## Overall Summary

Fully integrated care or enhancing collaboration through care management both appear to improve mental health outcomes and use of preventive services for adult patients with bipolar disorder and other SMI. Colocating primary care in chemical dependency treatment settings without further enhancing coordination and collaboration through care management may have little impact on outcomes for individuals with substance use disorder. The interventions used to integrate care or enhance collaboration required additional staff, protocols, training, and ongoing support of care managers in the studies reviewed. A recent systematic review of nurse-managed protocols targeting cardiovascular risk factors corroborates these findings.<sup>58</sup>

Although the 12 studies in this report did not provide sufficient data on health care utilization and cost to draw firm conclusions, early evaluation data from state health homes and

other integration initiatives suggests these interventions may decrease costs and health care utilization for adults with SMI. However, it is important to note that many of the interventions targeted or included individuals with SMI who had frequent ED visits and acute care hospitalizations.

In implementing these integration models, states and other health care programs have taken a variety of approaches to 1) targeting patient populations; 2) establishing provider training, staffing, and support of the integration models; 3) developing resources for information sharing; and 4) structuring paying for integration efforts. Common among all programs is the use of integrated data and population health tracking systems and robust referral networks for physical and mental health care and social service coordination. Evaluation of the effective features of care coordination and overall sustainability of integrated care models is still under development. However, promising early data suggest that care systems for populations with SMI and substance use disorder are improving and that collaborative care management is a model that can be applied to populations with SMI and substance use disorder.

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## The Author

Martha Gerrity, MD, MPH, PhD, is Clinical Evidence Specialist at the Center for Evidence-based Policy at Oregon Health & Science University, which is a national leader in evidence-based decision making and policy design. Dr. Gerrity is also a Professor of Medicine and a primary care physician at the Portland VA Medical Center in Oregon, where she cares for patients with a high prevalence of mental health conditions.

## About the Milbank Memorial Fund

The Milbank Memorial Fund is an endowed operating foundation that works to improve the health of populations by connecting leaders and decision makers with the best available evidence and experience. Founded in 1905, the Fund engages in nonpartisan analysis, collaboration, and communication on significant issues in health policy. It does this work in three ways: publishing high-quality, evidence-based reports, books, and *The Milbank Quarterly*, a peer-reviewed journal of population health and health policy; convening state health policy decision makers on issues they identify as important to population health; and building communities of health policymakers to enhance their effectiveness. [www.milbank.org](http://www.milbank.org).

## About the Reforming States Group

The Reforming States Group (RSG) is a nonpartisan, voluntary group of state health policy leaders from both the executive and legislative branches who, with a small group of international colleagues, gather regularly to share information, develop professional networks, and commission joint projects—all while using the best available evidence and experience to improve population health. Supported by the Milbank Memorial Fund since 1992, the RSG brings together policymakers who usually do not meet together outside their states, to share information they cannot obtain anywhere else. RSG members say that their involvement in the group makes them better able to perform as public servants.