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Year Two Evaluation Report

Maine Health Access Foundation Integration Initiative:

Cross-Site Evaluation of Clinical Implementation Grantees



John Snow, Inc.



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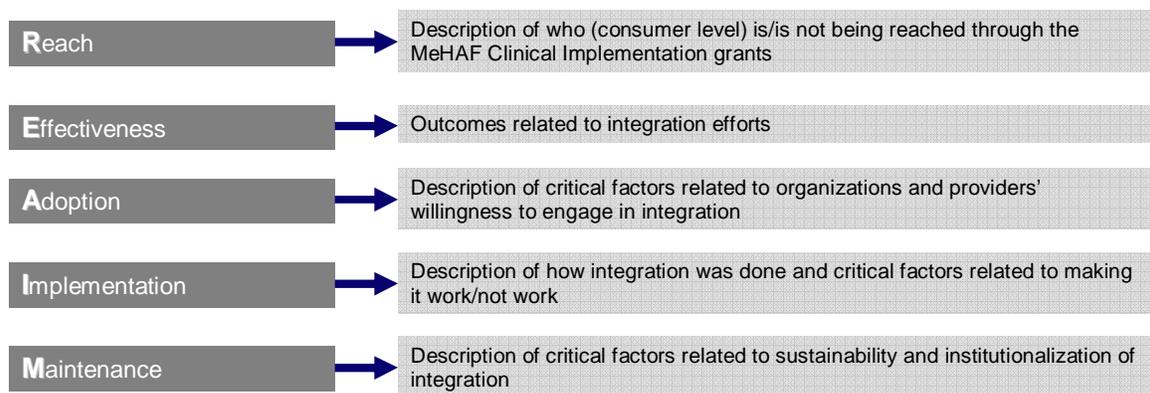
EXECUTIVE SUMMARY

Introduction

The Maine Health Access Foundation (MeHAF) launched the Integration Initiative in 2007 to improve integration of behavioral and physical health care services as a means of promoting patient and family-centered care. MeHAF funded a series of grants, including Planning, Clinical Implementation, and Systems Transformation grants. In January 2009, John Snow, Inc. (JSI) was contracted by MeHAF to conduct a cross-site evaluation of the 24 Clinical Implementation grants: 14 funded in 2007, 6 funded in 2008, and 4 funded in 2009. The evaluation was not intended to be summative (i.e., addressing the question of whether the Clinical Implementation grantees were successful or not), but rather an assessment of what worked or did not work, for whom, under what circumstances, and whether and how successes can be spread to other organizations. This report represents the findings from year two of a three-year evaluation and builds on the year one report submitted to MeHAF in January 2010. Additionally, two case studies on two separate grantees serve as supplemental reports for the cross-site evaluation.

The RE-AIM framework was selected to guide the evaluation (see www.re-aim.org). It is a structured approach to identify critical elements related to implementation of interventions into various settings and implications for spread to other settings. Figure 1 describes the components of the RE-AIM Framework:

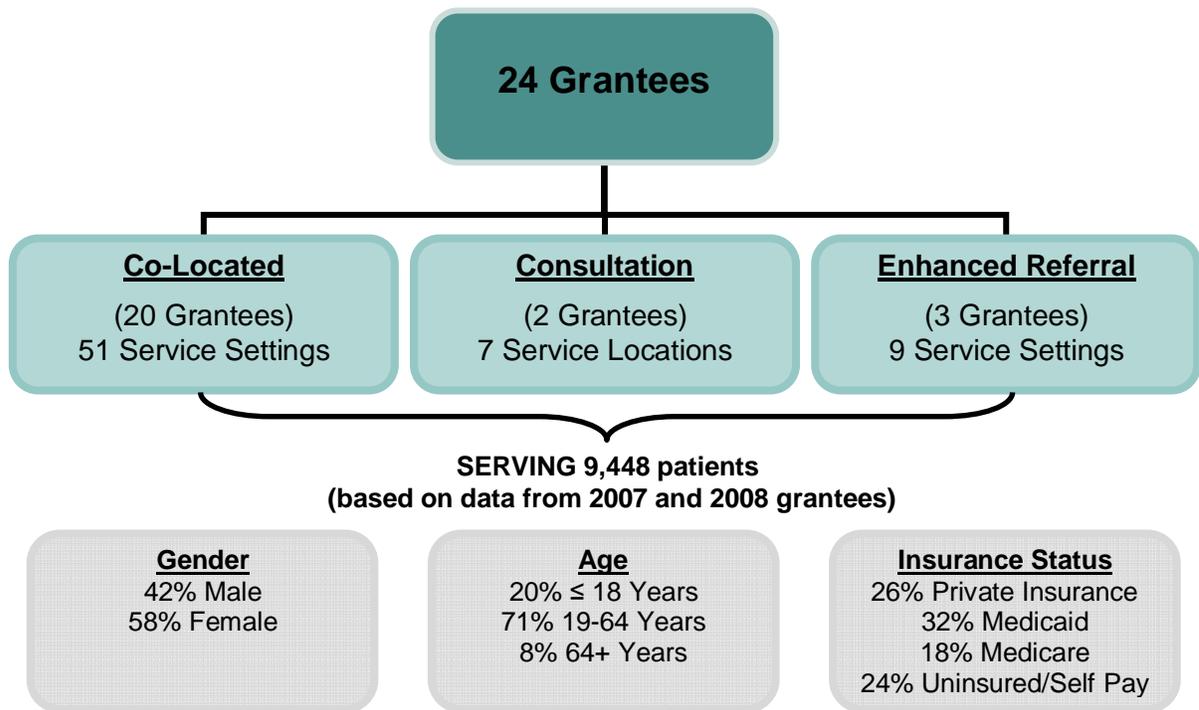
Figure 1: RE-AIM Framework



Description of Clinical Implementation Grantees and Service Settings

The 24 Clinical Implementation grantees are providing integrated services in 67 settings spread throughout the State of Maine. The 67 service settings are categorized as using three “linkage mechanisms” (i.e., the structural manner in which physical and behavioral health are being integrated): 1) co-location – behavioral and physical health providers serve patients in the same location; 2) consultation – behavioral and physical health are linked through an expert, consultative relationship; and 3) enhanced referral/other - improve referral and coordination relationships are improved across organizations. Of the service settings, 51 are primary care practices; 5 are school settings; 4 are nursing homes; and 7 are “others,” including inpatient, emergency room, mental health, dental, homeless shelter, consumer-driven service center, and armed services locations¹. Figure 2 depicts these relationships and provides demographic information about patients/clients who have received integrated services in these settings.

Figure 2: Clinical Implementation Grantees and Patient/Client Demographics

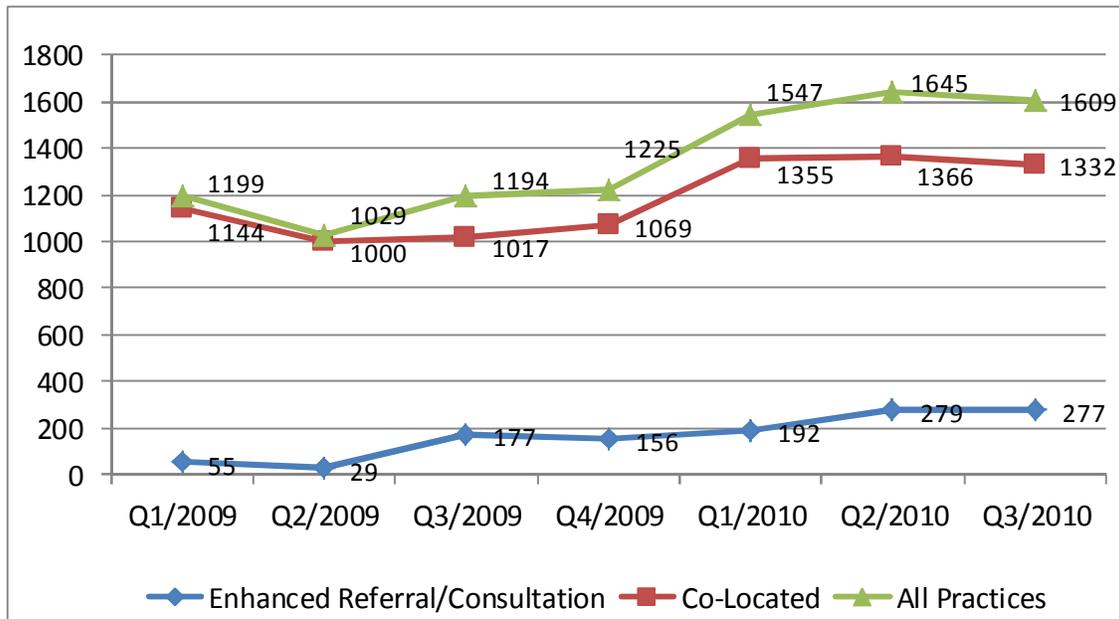


¹ One screening team is working with multiple armed services locations, which is counted as one site for analysis purposes.

Reach

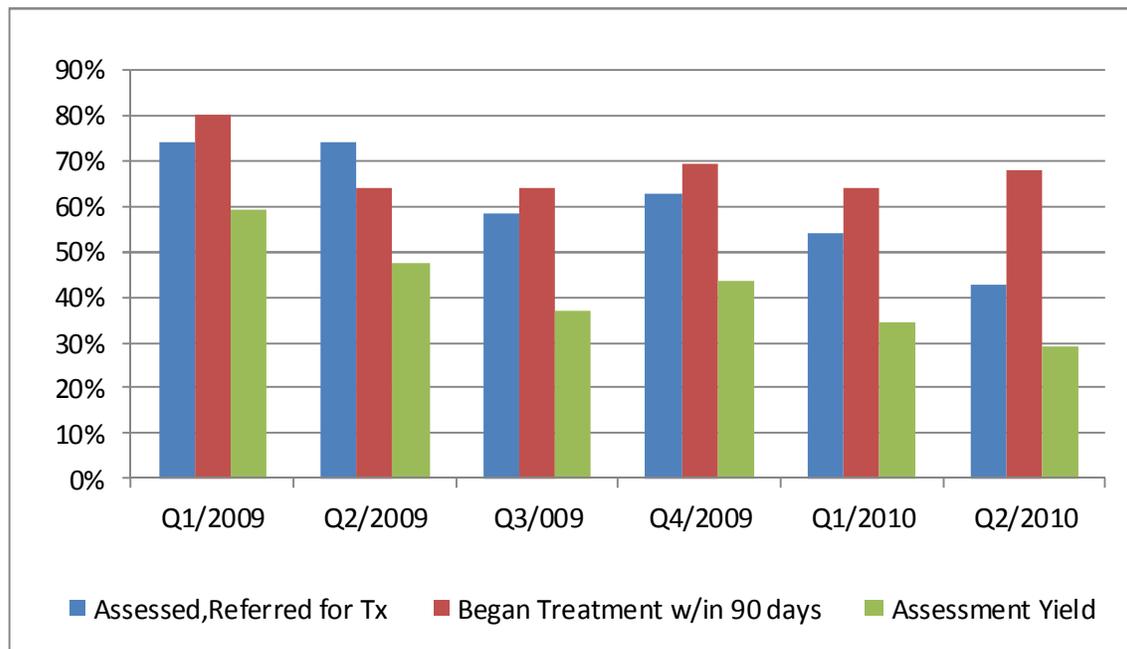
There have been 9,448 cumulative patients who have had an initial assessment or treatment visit in an integrated service setting since 2009. Figure 3 depicts initial assessments and referrals to integrated services increasing over time as service settings become more experienced with integration. At co-located service settings where post-assessment data is more readily available, the rate of referral for additional treatment (Figure 4, blue bars) has declined over time, from about 70% during the first two quarters of 2009 to about 40% during the last two quarters of 2010. However, among those who are referred (Figure 4, red bars), the proportion who have had at least one face-to-face follow-up treatment visit² within 90 days has remained in the 64%-68% range since the second quarter of 2009. Thus, there has been a decline in the net yield of assessment (the product of the referral rate and the follow-up), driven by the rate of provider referral, not patient follow-up. For some patients, the initial visit may have been deemed adequate and no referral needed. Alternatively, there may have been constraints on service delivery, including staff turnover or limited staff availability, which affected referral rates.

Figure 3: Number of Patients Initially Assessed Over Time



² Typically a behavioral health specialist co-located in primary care, or a primary care provider co-located in a mental health setting. For consultation/enhanced referral sites, examples of encounters may be with a psychiatrist, primary care provider, or child development specialist.

Figure 4: Assessment Yield (Co-Located Sites Only)



Effectiveness

Practice site self-assessment is currently the primary effectiveness measure. A majority of 2007 grantees rated themselves overall as becoming more integrated and patient-centered over time, specifically related to the following dimensions:

- Assessment of emotional/behavioral/mental health needs;
- Co-location of primary care and behavioral/mental health treatment;
- Developing joint primary care and behavioral/mental health treatment plans;
- Having patient/family involvement in treatment planning;
- Organizational leadership for integrated care;
- Having patient care team for implementing integrated care; and
- Provider engagement with integrated care, or buy-in.

More mixed results were reported on the following dimensions:

- Patient care informed by best practice for primary care and behavioral/mental health care;
- Follow-up of assessments, tests, treatment, referrals, etc.;
- Patient/family input to integration management;
- Funding sources/resources; and
- Continuity of care between primary care and behavioral/mental health care.

Adoption, Implementation, and Maintenance

❖ ***Successful Adoption = Providers' and organizations' willingness to engage in integration***

Key mechanisms contributing to successful adoption:

- Organizational, leadership, and provider perception of value added;
- Leadership commitment to integration;
- Primary care provider buy-in; and
- Behavioral health specialists' willingness to adapt to primary care setting.

❖ ***Successful Implementation = Behavioral health and primary care are integrated at the clinical, operational, and financial level***

Key mechanisms contributing to successful implementation:

- Organizational/leadership willingness to invest time and resources;
- Adapting behavioral health practice to primary care setting;
- Behavioral health specialist and primary care provider; communication/collaboration; and
- Working out reimbursement mechanisms.

❖ ***Successful Maintenance = Integration approaches are sustained post-grant funding***

Key mechanisms contributing to working toward successful maintenance:

- Working out reimbursement mechanisms;
- Leadership commitment to integration; and
- Working through operational factors.

Organizational, individual, and environmental factors (i.e., contextual factors) moderated the key mechanisms in either a facilitative (i.e., increasing the probability of achieving success) or constraining (i.e., decreasing the probability of achieving success).

Facilitating Contextual Factors

- Organizational characteristics (e.g., learning organization, overall organizational culture, organizational mission, strong leadership);
- Strong relationship between grantee and service delivery sites (where different);
- Provider characteristics (e.g., experience working in teams, flexibility and willingness to change practice style);
- Previous experience with integration; and
- Perception that value of integration outweighed costs.

Constraining Contextual Factors

- Limited co-located hours for behavioral health specialists and primary care providers;
- Restrictions on reimbursement for integrated services;
- Provider characteristics (e.g., reluctance to change practice style, provider turnover, lack of experience working in teams); and
- Competing organizational priorities.

Implications

Understanding the key mechanisms that improve the chances of successful integration and the organizational, individual, and environmental factors that facilitate or constrain these mechanisms shed light on the potential for spread of integration to other settings. For example, private practices are proving to be more challenging settings in which to establish and maintain integrated care. A narrow scope of practice (in terms of conditions or populations addressed through integration) does not appear to generate enough billable time for behavioral health specialists. Some of the contextual factors identified can be overcome at the organizational level; others are systematic and difficult for one organization to change (e.g., reimbursement policies). Further exploration of the spread and maintenance considerations is on-going in the evaluation.

I. INTRODUCTION

The Maine Health Access Foundation (MeHAF) launched its Integration Initiative in 2006 to improve integration of behavioral and physical health care services as a means of promoting patient and family centered care. To this end, MeHAF funded a series of grants, including Planning, Clinical Implementation, and Systems Transformation grants. In January 2009, John Snow, Inc. (JSI) was contracted by MeHAF to conduct a cross-site evaluation of 24 Clinical Implementation grants,³ 14 funded in 2007, 6 funded in 2008, and 4 funded in 2009. This report represents the findings to date from JSI's evaluation work and builds on the year one report submitted to MeHAF in January 2010. This report summarizes the overall evaluation questions and framework used, discusses findings to date, and relates findings to the evaluation questions in the discussion section.

II. OVERALL EVALUATION QUESTIONS AND FRAMEWORK

The evaluation questions, framework and methodology for the cross-site evaluation have been detailed in various documents, including in the year one report. The evaluation design was developed collaboratively by MeHAF staff, MeHAF's Evaluation Working Group, and JSI. The overall evaluation questions and a brief introduction to the framework used are included below to orient readers of this report. A listing, to date, of grantee site visits and grantee conference calls, the basis of the qualitative assessment, is provided in Appendix A, and a summary of the methodology has been included in Appendix B.

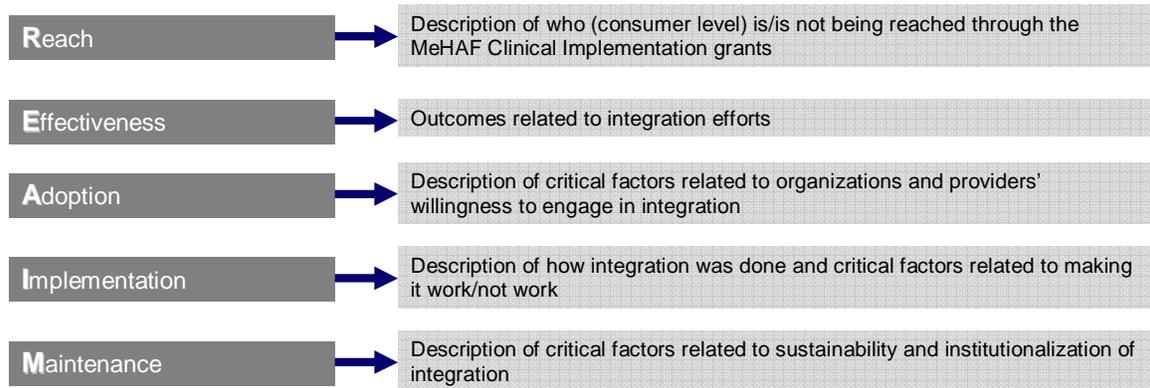
The overall questions to be addressed over the duration of the cross-site evaluation are as follows (this is an interim report; thus, questions are not fully addressed at this point in time):

- What was achieved through the MeHAF Clinical Implementation grants? Did the services provided by MeHAF's Clinical Implementation grantees' become more integrated and more patient-centered as a result of the initiative?
- What approaches/structures/components of primary care/behavioral health integration and patient-centered care worked and what approaches/structures/components of integration and patient-centered care did not work at the patient, provider and organization levels?
- What were the key factors related to integration and patient-centered care that made them work or not work?
- What were the considerations for replication (e.g., what circumstances - populations/settings/environments - optimize the probability of successful replication)?

³ Of the 24 grants, 3 grantees received more than one grant thus there are a total of 21 unique grantees in the portfolio.

The RE-AIM framework was selected to guide the evaluation (see www.re-aim.org). It is a structured approach to identify critical elements related to implementation of interventions into various settings and implications for replication or spread to other settings. Figure 1 describes the components of the RE-AIM Framework:

Figure 1: RE-AIM Framework



III. DESCRIPTION OF GRANTEES AND SERVICE SETTINGS

This section provides a description of Clinical Implementation grants in terms of:

- Geographic/environmental context;
- Grantee organizations;
- Service settings;
- Linkage mechanism; and
- Target population.

The purpose of this section is to orient the reader to the range, commonalities, and differences of grantees and service settings involved in the cross-site evaluation.

A. GEOGRAPHIC/ENVIRONMENTAL CONTEXT

The grantees and their associated service settings are widely distributed throughout the state with locations ranging from York on the southern, New Hampshire border to Caribou in Aroostook County, in northern Maine. While most are located in the Southeastern portion of Maine where the majority of the state's population is located, there are grantees and service settings in nearly every major health care market, including in areas where there are very limited health care provider networks, and often shortages of health care providers, particularly with respect to behavioral health specialists (BHSs). A map showing the locations of the service settings is included in Appendix C.

B. GRANTEE ORGANIZATIONS

There are a total of 21 grantee organizations that are the recipients of 24 Clinical Implementation grants funded from 2007-2009. Seven of the grantees represent behavioral health-oriented provider organizations, nine of the grantees represent primary care-oriented provider organizations, and five of the grantees are classified as "other." The following describes the five classified as other: 1) a multi-site dental provider (Community Dental); 2) a network of nursing homes (Rosscare); 3) a community-based organization offering limited health services and other services and education (Downeast Health Services); 4) a private foundation with a grant focus on enhancing education, screening, and referral services for military veterans with possible traumatic brain injury (Hitchcock); and 5) a community-based, consumer-directed organization providing a range of services to people facing mental health and other life challenges (Amistad). Of the 24 grants, 9 of the grantee organizations also serve as a service setting for their integration work.⁴ This generally means that the implementation of the grant activities occurs within one organization and involves staff from one organization. This is

⁴ Although in several cases the grantee may serve as a referral source for patients receiving integrated, co-located services who may need higher level services (e.g., Spring Harbor, St. Mary's, Pen Bay, and Tri-County).

contrasted with the 15 grantee organizations that need to form cross-organizational relationships to implement their grant activities. Often (9 out of 15 cases), staff from the grantee organization are being deployed to service settings in other organizations to do integration.

C. SERVICE SETTINGS

The terms “service setting,” “practice sites,” and “sites” are used interchangeably throughout this report to describe the primary location where integrated services are being implemented. It refers to the location where patients are being assessed for their need for integrated services. The 24 grants involve working with 67 service settings⁵ to provide integrated services as follows:

- Primary care practices (51 sites), including pediatric, internal medicine, family practice sites, many hospital based or hospital affiliated;
 - Federally qualified health center setting – (12 of 51 sites)
- Nursing homes (4 sites);
- Schools (5 sites); and
- Other (7 sites), including inpatient, emergency room, mental health, dental, homeless shelter, consumer-driven service center, armed services locations.⁶

On average, each grant is operating in 3.6 sites with a range from one to eight. The average is based on 41% (10) of grants integrating services in a single site and 58% (14) of grants integrating services in multiple sites.

D. LINKAGE MECHANISMS

For purposes of the evaluation, we have defined three linkage mechanisms (i.e., the physical structure through which patients/clients receive integrated services) as one means of characterizing the large number of service settings: 1) co-location, 2) consultation, and 3) enhanced referral. Co-location means that behavioral health specialists and primary care providers serve patients in the same location. Consultation means that the integration approach is to link primary care and behavioral health through an expert, consultative relationship. The consultation is generally provider to provider, although in some circumstances the consulting provider may see a patient. The service settings using this linkage mechanism are primary care-based, and the primary care providers (PCP) have access to a behavioral health specialist for consultation. This enables the PCPs to care for patients with mental health conditions who might otherwise have had to be referred out. Enhanced referral means that the integration approach is to improve and/or formalize referral arrangements and coordination across referral

⁵ Service settings active at any time from January 2007 through December 2010.

⁶ One screening team is working with multiple armed services locations, which is counted as one site for purposes of this report.

organizations. One grantee has applied more than one linkage mechanism in its service settings, but all other grantees employ just one. The predominant linkage mechanism is co-location, as indicated by the following breakdown:⁷

- Co-location: 20 grantees and 51 service settings;
 - 50 service settings are co-locating BHSs in primary care
 - 1 service setting is co-locating a primary care provider in a behavioral health setting
- Consultation: 2 grantees and 7 service settings; and
- Enhanced referral: 3 grantees and 9 service settings.

Within each of these linkage mechanisms, integration approaches (including various components such as screening and referral, provider communication, case management, staffing structures, etc.) will vary. The three physical structures provide an initial classification scheme for purposes of describing the large number of service settings that exist.

E. TARGET POPULATION AND SERVICES

The majority of the service settings (34) are targeting a general primary care population, with mild to moderate behavioral/mental health conditions. Although many of the service settings started their grant implementation targeting mental health conditions specifically, some grantees have expanded their efforts to broader behavioral health issues, including assisting patients to manage chronic medical conditions, such as diabetes, hypertension, or obesity. Although the general primary care population includes children and older adults, data provided from the grantees indicate that the majority of patients receiving integrated care tend to be adults ages 18 to 64 years old.

Just over a quarter (26%) of service settings focus their integration efforts on children or youth specifically through working in specific settings (e.g., high schools or pediatric practices). One grantee, representing 5 service settings, is targeting older adults residing in, or being discharged to, nursing homes. The purpose of this integration project is to assist clinicians to care for patients who have communication limitations, anger and confusion due to cognitive impairment, mental health issues, and poor physical health.

Two grantee organizations, representing three service settings, are targeting adults with opiate addiction and substance abuse issues. One of these grantees is developing an integrated approach for suboxone treatment in the primary care setting, which includes counseling services and regular follow-up visits while on the medication. The other is enhancing screening for substance abuse and co-locating behavioral health specialists in a primary care setting.

⁷ One grantee employs two different linkage mechanisms.

MeHAF Integration Initiative: Cross-Site Evaluation of Clinical Implementation Grantees

Two grantees, representing four service settings are working with homeless populations or populations at risk of being homeless. One additional service setting is focused on better integrating services delivery for adults with traumatic brain injury.

Table 1 summarizes the information from this section across the 24 grantee organizations.

Table 1: Grantee Summary Characteristics

	# of sites	Region				Grantee			Linkage Mechanism			Population		
		Central North/Downeast	South	West	MH/SA service	Primary Care	Other	Enhanced referral	Consultation	Col-location	Adults	Children	Special Populations*	
Acadia 07	2	●			●					●			●	
Acadia 08	1	●			●					●			●	
Amistad	1		●				●	●					●	
AMHC	3	●			●				●	●	●	●		
Community Counseling	2	●			●					●		●		
Community Dental	6			●			●	●			●	●		
DFD Russell	3	●				●				●	●	●		
Downeast	4	●					●			●		●	●	
EMMC	1	●				●				●			●	
Franklin/Evergreen	1	●			●			●		●		●	●	
HealthReach	1	●				●				●	●			
Hitchcock	1						●	●			●			
Maine-Dartmouth	1	●				●				●	●	●	●	
Mercy	1		●			●				●	●			
Pen Bay	8	●			●					●	●	●		
Penobscot	1	●				●				●	●			
Rosscare	5	●					●			●	●		●	
Sacopee	1			●		●				●	●	●		
Spring Harbor 07	8		●		●					●	●	●		
Spring Harbor 08	6		●		●			●				●		
St. Mary's	3	●			●					●	●	●		
Tri-County 08	3			●	●					●	●	●		
Tri-County 09	1			●		●				●	●			
York	3		●			●				●	●		●	

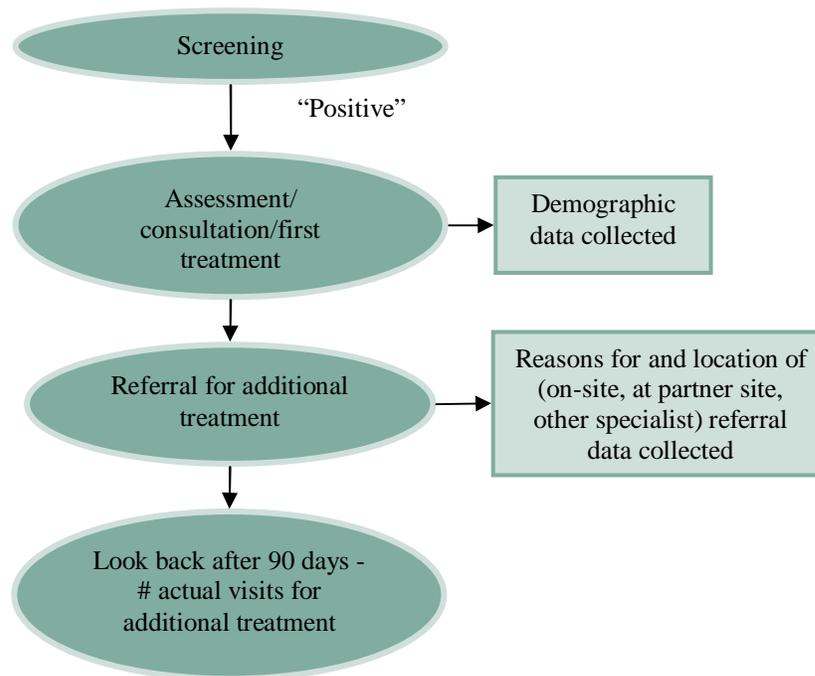
IV. FINDINGS

A. REACH

Every grantee uses the Client Data Elements (CDE) database, an Access database, to track the number of patients served. For the tracking component, grantees submit data on a quarterly basis to JSI for all of their service settings. This source provides relatively consistent information on the volume of clients reached through the clinical implementation grantees, from January 2009 through September 2010, and serves as the basis for the Reach analysis.⁸ A copy of the CDE format can be found in Appendix D.

The following schematic represents the basic structure of the CDE database, which represents the general flow a patient experiences in most service settings.

Figure 2: CDE Schematic



The CDE database has the greatest amount of information for co-located approaches to integration. This is because all of the processes of care – and the data systems that track them – are all under “one roof”. For enhanced referral and consultation approaches, more limited data are available, typically information for the middle two circles in the figure (assessment/consultation/first treatment and referral for additional treatment). For the

⁸ Site counts will differ from the previous section because they are based only on submitted CDE data; for example, 2009 grantees and sites are not included.

remainder of the Reach section of this report, results for consultation and enhanced referral models are combined under the heading of enhanced referral.

Some grantees (7 out of the 20 funded in 2007 and 2008) were able to provide excellent data from the start, whereas others required some time to develop reporting systems and/or align the definitions of the measures in the CDE with their services. For some service settings, conversion to new electronic medical record (EMR) systems delayed CDE submission or required subsequent corrections to data. JSI provided quarterly data quality feedback reports and technical assistance to retrospectively fix problems with data. At this point, nearly all 2007 and 2008 grantees have attained very good or excellent data quality ratings for the tracking component of the CDE for all quarters.

1. Demographics

There have been **9,448** patients who have had an initial assessment or treatment visit with project funded staff.⁹ More women (58%) than men (42%) have been assessed. Reflecting the nature of the participating practices, the majority of patients (71%) were adults aged 19-64 years. Children and young adults aged ≤ 18 years were also represented (20%) as were older adults (8%). Only 26% of patients had private insurance; others had Medicaid (32%), Medicare (18%), or were uninsured, self-pay (24%) patients.

Available data on race/ethnicity indicate 94% of patients were white, non-Hispanic. Practices in the Portland area were more likely to report non-white patients. However, nearly one quarter of the patients had missing data on race/ethnicity. Better monitoring would help spot trends in patient diversity, such as new immigrants, which would help service settings plan for service needs.

2. Screening (Table 2)

The process by which patients are identified, or screened, as needing an initial assessment or treatment is either based on clinical judgment during a patient encounter or the completion of a formal screening tool (e.g., the PHQ-9¹⁰) that provides a score to help guide clinical judgment. Practices that use formal screening tools do so in different ways: at every visit, at annual check-up visits, or only with new patients. Practices with a co-located BHS screened for a variety of conditions, including depression or anxiety and others. Enhanced referral practices screened for one of the following: dental issues, autism, youth behavioral or mental health issues, or traumatic brain injury.

⁹ Typically a behavioral health specialist co-located in primary care, or a primary care provider co-located in a mental health setting. For consultation/enhanced referral sites, this encounter may be with a dentist/hygienist, child psychiatrist (provider consult), or child development specialist.

¹⁰ Screening tools for mental health are typically brief questionnaires completed by patients and scored by a clinician or staff person. The PHQ-9 is a nine-item depression questionnaire that has been validated for use in primary care. For more information, see <http://www.depression-primarycare.org/clinicians/toolkits/materials/forms/phq9>.

Nearly all practice sites indicated all patients are eligible for integrated services. The exceptions are pediatric programs that target certain age ranges (Franklin – autism in ages 18-24 months; Downeast – behavioral issues in pre-schoolers) and Maine-Dartmouth (BOLM adult referrals only), and Pines Health Services (women and children’s and pediatric clinics only). What varies more substantially across practices is the process of screening and the ability to track who is screened. When screening is formalized (i.e., using a screening tool), the practice is able to supply count data because the score is recorded in the medical record and/or project specific spreadsheet. Without formal screening, it is difficult to measure the number of patients screened as providers may have different approaches to informal screening.

The participating enhanced referral practices are not able to collect CDE data on the screening processes that lead to their consultation/assessment, since that information resides at the referring practices. Co-located practices without a formal screening process begin the CDE counting process at the point of contact with the behavioral health specialist (Circle 2 in Figure 2) and so do not provide screening information. Thus, there were only 15 service settings (6 grantees) with co-located providers that provided CDE data on screening. These practices saw well over 100,000 patients from January 2009 through September 2010 (Table 2).

The degree to which the screened patients were also seen for a project-related initial assessment or treatment provides a rough estimate of the degree of symptoms in the patient population, or screen positive rate. For 10 of the service settings screening for mental health, this rate was only 1% to 3%, whereas for 4 service settings it ranged from 11% to 27%. When a practice is large, even a low rate could generate a substantial number of assessments, filling or coming close to filling, a part-time behavioral health specialist’s target case load.

The National Center for Health Statistics¹¹ provides a national comparison: “In any two week period, 5.4% of Americans aged 17 years of age and older experienced depression” based on PHQ-9 data on the 2005-2006 NHANES survey, compared to the overall CDE rate of 3.8% for service settings screening for mental health. However, this is only a crude comparison. The screen positive rates are a function of the screening methods used, and not all practices used the PHQ-9. Furthermore, the “correct” screen positive rate for an actual practice depends on additional factors, such as the type and severity of the comorbidities in the patient population, the degree of screening and the ability of staff to treat the identified conditions. The CDE data are best used by grantees and practices to assess their processes in light of their patient population and the resources available to provide services.

¹¹ Pratt LA and Brody DJ. CDC Data Brief No. 7, Sept. 2008. www.cdc.gov/nchs/data/databriefs/db07.htm (accessed 1/2011).

Table 2: Screening for Mental Health

Screen Positive Rate is...	# Service Settings	# Grantees	Number of Patients Screened	Number of Patients Initially Assessed	Screen Positive Rate = Assessed/Screened: Average (Range)
Low	10	3	113,449	1,871	2% (1%-3%)
High	4	3	15,682	3,118	20% (11%-27%)
Overall:	14	6	129,131	4,989	3.8%

3. Assessment and Referral (Figures 3 and 4, Table 3)

The numbers of patients initially assessed/treated have steadily climbed over time (Figure 3), as more practices began implementation and working relationships among providers were established. Enrollment was highest in the second quarter of 2010 though essentially started to plateau in quarter one of 2010. This may indicate that more stabilized staffing, screening, handoff, and assessment processes were in place or that service settings were reaching capacity.

The rate of referral (typically with the same provider) for additional treatment at co-located practices has declined over time. About 43% of patients in the first two quarters of 2010 had referrals (Figure 4). For some patients, the initial visit may have been deemed adequate and no referral needed. Many factors could constrain service delivery, including staff turnover, limited staff time, or a change in conditions treated (e.g., moving from depression and anxiety to behavioral change and promoting chronic disease self-management).

Figure 3: Number of Patients Initially Assessed Over Time

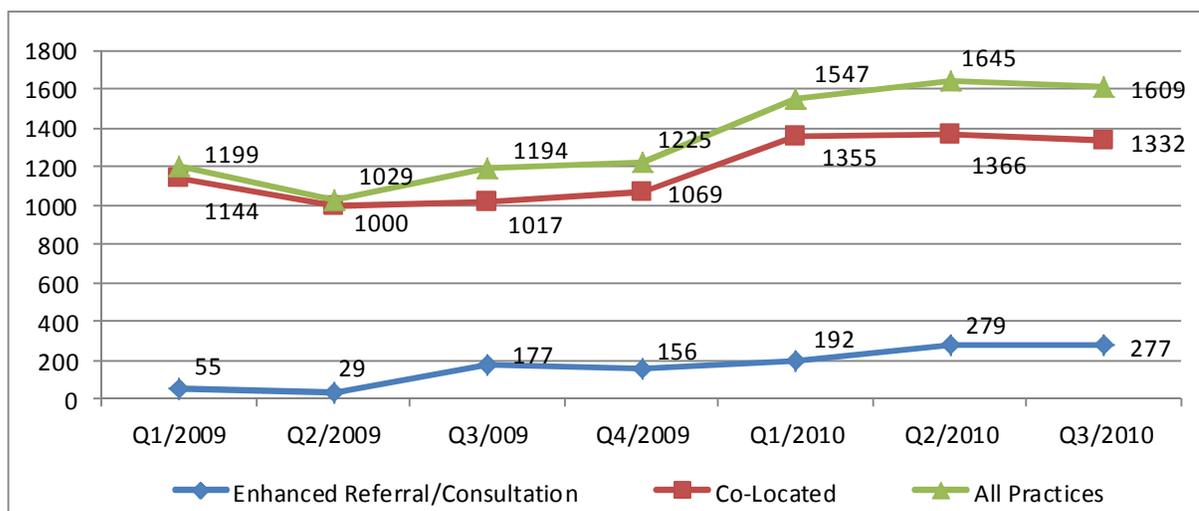
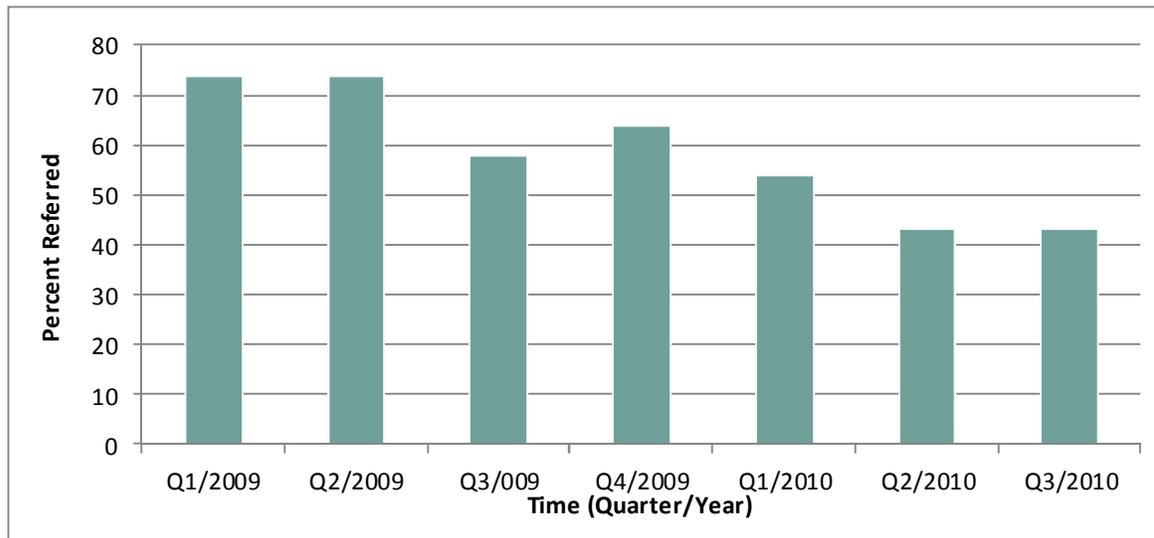


Figure 4: Proportion of Those Assessed Referred for Additional Services (Co-Located Practices Only)



There was a wide range of reasons why patients were referred for additional services (Table 3). Reasons differed for children and adults. In the CDE, sites could use their own language to describe referral reasons rather than formal ICD-9 or -10 diagnoses or procedure codes. Also, to reduce reporting burden, sites were not required to count the number of referrals by reason. The counts in Table 3 represent the number of times a condition was a “top 5 reason for referral”; a qualitative estimate of volume. For adults, depression was clearly an important condition, but not the only important one; anxiety and stress, relationships and chronic disease also generated many referrals. For children, behavior issues, ADHD, and anxiety were important conditions generating referrals.

Table 3: Common Reasons for Referral

Reason	Number of Mentions
Adults:	
Anxiety/PTSD/Panic	61
Depression	51
Stress	50
Psych Consult or Diagnostic Evaluation	50
Chronic Disease	41
Relationships/Marital Issues/Domestic Abuse	35
Chronic Pain	21
Substance Abuse	21
Depression, Anxiety, Stress Combined	13

Children & Youth:	
Behavior	30
Anxiety/PTSD	26
School Issues	21
ADHD	20
Depression, Depression/Anxiety	17
Family Stressors/Issues	13

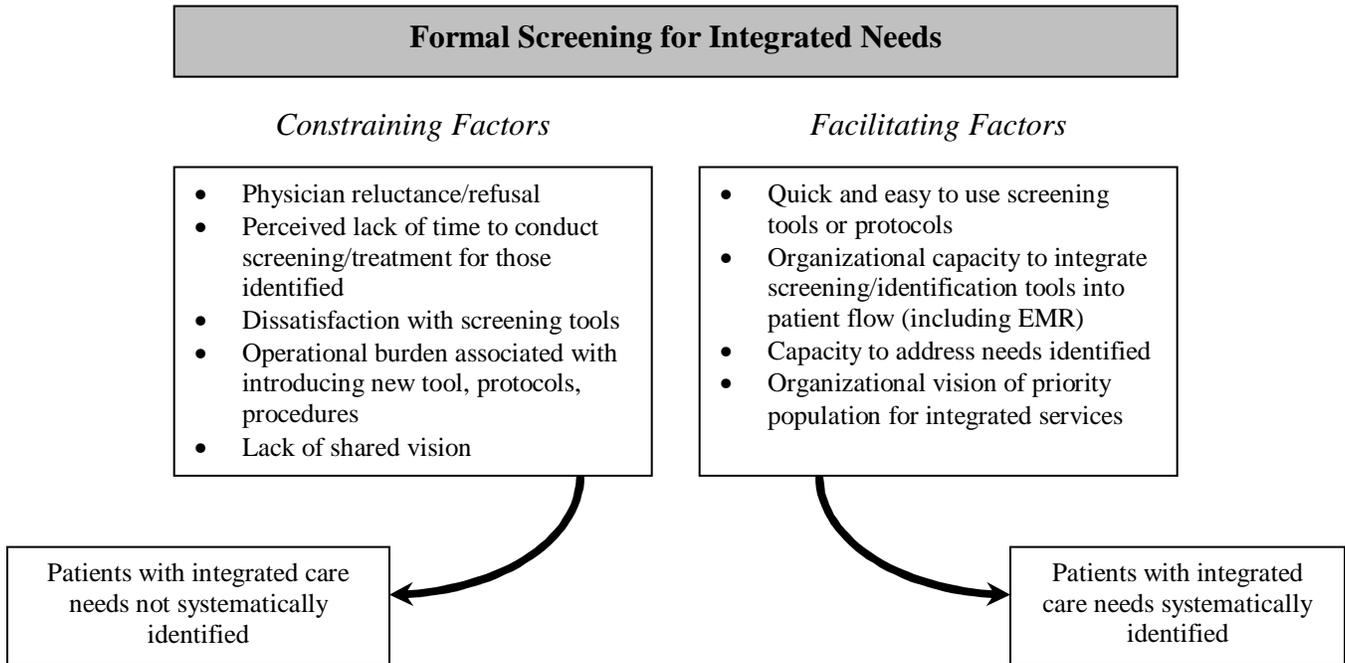
4. Engagement in Treatment

Simply referring someone for additional services was not a guarantee that subsequent patient visits actually occurred. The CDE also collects data on the number of patients who had zero, one, or two or more visits within 90 days of their original assessment/treatment visit. Enhanced referral practices are not able to track follow-up visits with PCPs after their consult, so the information on treatment engagement is limited to co-located service settings. The proportion of patients engaging in care has remained very stable each quarter with most patients having seen a provider at least one additional time. On average (Q3/2009 - Q3/2010), between 53% and 64% of patients had at least one visit, and between 38% and 47% had two or more visits.

5. Qualitative Assessment

For the reach component of the RE-AIM framework, success cannot be solely defined as the volume of patients screened or assessed. For example, if a grantee’s target population is narrow (e.g., focused on particular conditions), it is expected and appropriate that the reach would be less than for grantees with a broader behavioral health focus. Similarly, increasing access to behavioral health services where access was not previously available is another favorable reach outcome. On the other hand, promoting inappropriate or excess use of integrated services is not desirable. In addition to the needs of the target population defining appropriate reach, provider capacity also creates bounds on the reach of the program. Developing and understanding appropriate capacity is difficult and MeHAF grantees overall are still working toward understanding appropriate caseloads. What is clear is that systematic identification of those in need of integrated care is important. This is true from the perspective of ensuring that patients receive integrated care if needed, and also in this learning phase to have the data to understand the need and adequate capacity to fill that need. Thus, in Figure 5, the successful outcome for reach is defined as systematic identification and the mechanism, constraining factors, and facilitating factors that lead to that outcome are indicated.

Figure 5: Formal Screening¹²



A formal screening process makes sense in co-located settings (whether screening for behavioral health needs or screening for medical needs in a behavioral health setting) as well as in enhanced referral and consultation approaches to integration. A contextual factor was the availability of good screening tools, with “good” as perceived by providers. Providers indicated that they approved of tools that were short, user friendly, well validated, and addressed the health conditions of interest. There are several tools that have been validated in primary care practices, yet they tend to be condition focused (e.g., the PHQ-9 for depression). Once an appropriate screen is identified, the challenge was to then smoothly incorporate the tool into patient flow and patient documentation, such as EMR. This process of incorporating the tool into the practice is truly a team effort, incorporating all clinic staff and management, and some settings were more successful than others in incorporating a screening tool.

Capacity to address needs identified through was shared as a concern, noted specifically in service settings where BH specialists’ hours were limited. A shared organizational vision about patient conditions that are appropriate for integrated services is noted as a facilitating contextual factor. Without this vision, providers within an organization may have very different ideas of how patients should be screened and what they should be

¹²This type of diagram will be used throughout the findings section to summarize qualitative data. It is based on a realist evaluation analysis approach, which identifies how mechanisms interact with context to determine outcomes. “Formal screening” is the identified mechanism (i.e., a theme that was common across many service settings), “constraining and facilitating factors” are individual or organizational attributes that positively or negatively affect the mechanism; thus, resulting in a positive or negative outcome. See Methods section in Appendix B for more detail on this analysis approach.

screened for. As for constraining contextual factors, several primary care providers indicated reluctance to formally screen; they believed that their professional assessment was sufficient to identify patients in need of integrated services. Provider and other primary care staff noted that time was a constraining factor to adding another screen or more screening questions. Available tools did not always meet their needs; thus, putting in the time required to make such screening practices work efficiently was not seen as worth the effort.

B. EFFECTIVENESS

Describing the effectiveness of what was achieved by the Clinical Implementation grantees’ integration projects is a multi-layered process, since the effects are unfolding over time and among many different stakeholders. The MeHAF Integration Initiative logic model reflects this complexity by describing expected short-term outcomes on those directly involved in the Initiative (MeHAF and grantees) and long-term outcomes for Maine’s health care system and population as a whole. The cross-site evaluation focuses on the short-term outcomes as presented by source of data in Table 4.

Table 4: Grantee Reported Data Measuring Short-Term Outcomes

Site Self Assessment	<ul style="list-style-type: none"> • Increased understanding and level of patient-centeredness and integration • Changed delivery systems • Data systems support integration • Patients/families become advisors/advocates
Patient Outcome Data	<ul style="list-style-type: none"> • Priority populations served • Improved patient outcomes

1. Site Self Assessment along Dimensions of Integrated Care (SSA)

a) Measurement Methods

The SSA tool was adapted from the Assessment of Primary Care Resources and Supports for Chronic Disease Management (PCRS), developed by the Robert Wood Johnson Foundation Diabetes Initiative. A copy of the SSA can be found in Appendix E. Like the PCRS, the SSA identifies 18 key characteristics, in this case of patient-centered, integrated care. Nine characteristics relate to services (more directly impacting patients) and nine characteristics relate to organizations (more directly impacting providers/staff). Again, like the PCRS, practices rate themselves on each of the 18 items using a 10-point scale that can be interpreted as follows:

- “D” (score=1) - the characteristic of integration does not exist at the practice site.
- “C” (score=2,3,4) - the characteristic of integration occurs at the level of the individual patient-provider interaction, but it occurs inconsistently across the practice site as a whole.
- “B” (score=5,6,7) - the characteristic of integration occurs consistently at the team level. This characteristic is implemented at the day-to-day operational level in an organized and consistent manner.
- “A” (score=8,9,10) - the characteristic of integration occurs consistently at both the team and system levels. It is the highest level of adoption of integrated, patient-centered care.

The 18 items in the SSA measure many important, but not all, aspects of patient-centered integration. For example, the SSA measures “linking to community resources” but does not measure the availability of those resources. Another example is that the SSA measures “co-location of providers,” but not their availability. Thus, the SSA, like the PCRS, is subjectively completed, as each practice weighs the measured and unmeasured factors that impact each characteristic in their own way. In fact, the SSA’s primary purpose is for ongoing self-reflection as to the progress of integration implementation; it was not designed to rate or compare practice sites.

Every participating practice completes an SSA annually. Practices affiliated with 2007 Clinical Implementation grantees have completed three SSAs and those affiliated with 2008 Clinical Implementation grantees have completed two SSAs at the time of the writing of this report. Since the 2007 grantees have completed their implementation programs, their self-ratings on their third SSA represent their attained, or final, level of integration and patient centeredness. For the 2008 grantees, their second SSA represents their attained status as of the midpoints of their projects. Because of this difference in timing, results for 2007 and 2008 grant-cycle practices are reported separately.

Due to the subjectivity of the SSA, the goal of this analysis is to describe the state of integration and patient-centeredness across the group of service settings reporting SSAs without over-quantifying the SSA data. This is accomplished by using counts rather than means or change-scores, and service settings are not compared. We count the number of practices that have attained A, B, C, or D level patient-centered integration on each of the 18 characteristics on their most recent SSA; using prior years’ SSAs, we also describe whether service settings reported that they attained that level by maintaining or improving over time.

Some grantees may have overestimated their ratings in the first year due to inexperience with some of the characteristics. This would have the effect of making ratings in later years look worse, due to this measurement effect rather than any true change. For 2007 grantees, with three measures, we could account for this effect. For their practices, if there was a decline in ratings from year 1 to year 2 but in year 3 ratings equaled or bettered those from year 2, they were categorized as having maintained or improved to that final level, respectively. For 2008 grantees, with only 2 measures, we could not account for the measurement effect in this way.

b) 2007 Grantees

Ten (10) of fourteen (14) 2007 Clinical Implementation grantees are included in this analysis. These ten grantees completed SSAs for 16 practice sites (between 1 and 3 sites per grantee). Pen Bay had complete data for only 3 of their 8 practices and St. Mary’s and DFD Russell each provided one SSA blending responses across their 3 practices. Three grantees were excluded due to the uniqueness of their projects (Hitchcock, Community Dental, and Amistad) and one was excluded due to lack of SSA reports (Spring Harbor).

Table 5: Service Characteristics of Patient-Centered Integration

Numbers in bold indicate the most common response.

# of 2007 Grantee Practices	2010 SSA Score (10 point scale):				
	Team and System Integration [“A” level=8-10 points]		Team Level Integration [“B” level=5-7 points]		Not Integrated [“C” level=2-4 points; “D” level = 1 point]
Characteristic	Improved	Main-tained	Improved	Main-tained	
Service Level:					
Co-location of PC & B/MH treatment*	9	1	0	3	3
Emotional/behavioral/mental health needs assessed	10	1	1	0	4
Joint treatment plans for PC & B/MH	9	0	6	1	0
Patient care informed by best practice for PC and B/MH care	3	1	4	2	6
Patient/family involvement in treatment planning [#]	7	0	4	2	2
Communication with patients about integrated care	6		7	2	1
Follow-up of assessments, tests, treatment, referrals, etc	4	1	4	3	4
Social support for patients to implement plan [#]	5	1	5	1	3
Linking to community resources [#]	2	1	5	5	2

* PC means primary care; B/MH means behavioral/mental health care.

[#] One practice skipped a few questions on their baseline SSA; thus, row totals are 15 instead of 16.

There were four service characteristics for which the majority of service settings rated themselves as having attained the highest level of integration (“A”, or 8-10 points) –at the team *and* system levels, with this level being attained by improving over time:

- Assessment of emotional/behavioral/mental health needs (11/16);
- Co-location of primary care & behavioral/mental health treatment (10/16);
- Developing joint primary care & behavioral/mental health treatment plans (9/16); and
- Having patient/family involvement in treatment planning (7/16).

Based on CDE reporting, we know that many sites do not have formal screening mechanisms; thus, the SSA characteristic of assessment of emotional/behavioral/mental health needs appears to have been broadly interpreted to include better PC clinician recognition of symptoms and/or assessment among BH/MH staff for referred cases.

There were three service characteristics for which the majority of service settings rated themselves as having attained the mid-level rating (“B”, or 5-7 points) – at the team level of consistency of integration:

- Linking to community resources (10/16);
- Communication with patients about integrated care (9/16); and
- Social support for patients to implement treatment plan (6/16).

Half of the practices maintained their team approach to linkages to community resources over time, and the other half improved from inconsistent or non-existent linkages in the past.

There were two service characteristics for which there was no clear majority of service settings falling into a specific level of integration:

- Patient care informed by best practice for PC and B/MH care (6/16 reporting “C” or “D” level, 6/16 reporting “B” level, and 4/16 reporting “A” level); and
- Follow-up of assessments, tests, treatment, referrals, etc. (4/16 reporting “C” or “D” level, 7/16 reporting at “B” level, and 5/16 reporting “A” level).

Given the range of referral reasons noted in the CDE data, it would be challenging to implement best practices for all of them organization-wide. However, the lack of use of best practices may also relate to inconsistent follow-up, since many guidelines also contain scheduled re-evaluation.

Table 6: Organizational Characteristics of Patient-Centered Integration

Numbers in bold indicate the most common response.

# of 2007 Grantee Practices	2010 SSA Score (10 point scale):				
	Team and System Integration [“A” level=8-10 points]		Team Level Integration [“B” level=5-7 points]		Not Integrated [“C” level=2-4 points; “D” level = 1 point]
Characteristic	Improved	Main-tained	Improved	Main-tained	
Organizational Level:					
Organizational leadership for integrated care	7	2	3	1	3
Patient care team	7	0	6	0	3
Providers’ engagement (buy-in) for integration	7	2	5	2	0
Continuity of care between PC and B/MH*	6	0	4	2	4
Coordination of referrals and specialists [#]	2	0	10	3	0
Data systems/patient records [#]	3	1	8	3	0
Patient/family input to integration management	4	1	5	0	6
Physician, team, staff education & training for integrated care	4	0	9	1	2
Funding sources/resources [#]	3	2	5	1	4

*PC means primary care; B/MH means behavioral/mental health care.

[#]One practice skipped a few questions on their baseline SSA; thus, row totals are 15 instead of 16.

There were three organizational characteristics for which the majority of service settings rated themselves as having attained the highest level of integration (“A”) – at the team and systems levels, with this level being attained by improving over time:

- Organizational leadership for integrated care (9/16);
- Having patient care teams for implementing integrated care (7/16); and
- Provider engagement (buy-in) with integrated care (9/16).

Most of the remaining practices reported only “B” level scores on leadership, provider’s engagement, or on having patient-care teams, indicating that patient-centered integration was not occurring practice-wide; a finding consistent with reports from key informant interviews.

There were three organizational characteristics for which the majority of service settings rated themselves as having attained the mid-level rating (“B”) – at the team level of consistency of integration:

- Coordination of referrals and specialists (13/16);
- Data systems/patient records (11/16); and
- Physician, team and staff education and training for integrated care (10/16).

Attaining team level coordination for the organizational level issue of data systems reflect the work-arounds used to allow sharing of records between MH and PC providers and technical difficulties with EMRs.¹³ A supportive data system and a system-level approach to training can help sustain integration initiatives. The lack of system level coordination of referrals and specialists is consistent with the rating for follow-up of referrals with patients noted previously.

There were three organizational characteristics with more mixed results across practices:

- Patient/family input to integration management (6/16 reporting “C” or “D” level, 5/16 reporting “B” level, and 5/16 reporting “A” level);
- Funding sources/resources (4/16 reporting “C” or “D” level, 6/16 reporting “B” level, and 5/16 reporting “A” level); and
- Continuity of care between PC and B/MH (4/16 reporting “C” or “D” level, 6/16 reporting “B” level, and 6/16 reporting “A” level).

Consistent with findings from key informant interviews, establishing and maintaining patient/family involvement (e.g., through patient advisory boards) has been challenging. The varied responses regarding continuity of care are consistent with the varied responses regarding follow-up and coordination of referrals and specialists reported earlier.

c) 2008 Grantees

Five of six 2008 grantees reported SSAs for a total of 10 service settings.¹⁴ The 2008 grantees are still in the process of maturing their integration approaches. Their second SSAs were completed near the beginning of their second year of implementation; thus, results that are presented are preliminary and reflect 2008 grantees’ assessment of where they were after one year of implementation.

¹³ Examples include: inability to use the EMR as a registry to identify MeHAF clients and inability to report out historical clinical outcome measures.

¹⁴ Spring Harbor 2008 grantee and its service settings are not included and two other service settings are not included due to missing data.

Table 7: Service Characteristics of Patient-Centered Integration

Numbers in bold indicate the most common response.

# of 2008 Grantee Practices	2010 SSA Score (10 point scale):				
	Team and System Integration [“A” level=8-10 points]		Team Level Integration [“B” level=5-7 points]		Not Integrated [“C” level=2-4 points; “D” level = 1 point]
Characteristic	Improved	Main-tained	Improved	Main-tained	
Service Level:					
Co-location of PC & B/MH treatment*	2	2	0	3	3
Emotional/behavioral/mental health needs assessed	0	5	0	1	4
Treatment plans for PC & B/MH	1	3	2	1	3
Patient care informed by best practice for PC and B/MH care	0	2	1	3	4
Patient/family involvement in treatment planning	1	2	2	4	1
Communication with patients about integrated care	1	2	1	3	3
Follow-up of assessments, tests, treatment, referrals, etc	3	2	0	3	2
Social support for patients to implement plan	3	2	0	2	3
Linking to community resources	2	3	0	3	2

*PC means primary care; B/MH means behavioral/mental health care

There were six service characteristics for which nearly half (4 or 5) of service settings rated themselves as maintaining “A” level integration. This implies that they believed they started their projects at a high degree of integration relative to these six characteristics. For these same characteristics, about one-third (2 or 3) of service settings rated themselves as only attaining a “C” or “D” level, indicative of the fact that they are still in the early stages of implementation. These characteristics are as follows:

- Assessment of emotional/behavioral/mental health needs;
- Social support for patients to implement treatment plans;
- Linking to community resources;
- Follow-up of assessments, tests, treatment, referrals, etc.;
- Co-location of primary care and behavioral/mental health treatment; and
- Developing joint treatment plans for primary care and behavioral/mental health.

Most service settings (4 to 6) rated the remaining three service characteristics as having being implemented at the team level, but not yet at the (team and) system level (i.e., “B” level):

- Patient/family involvement in treatment planning;
- Communication with patients about integrated care; and
- Patient care informed by best practice for PC and B/MH care.

The lack of integration of best practices for primary care and mental health was similar to the finding for the 2007 service settings.

Table 8: Organizational Characteristics of Patient-Centered Integration

Numbers in bold indicate the most common response.

# of 2008 Grantee Practices	2010 SSA Score (10 point scale):				
	Team and System Integration [“A” level=8-10 points]		Team Level Integration [“B” level=5-7 points]		Not Integrated [“C” level=2-4 points; “D” level = 1 point]
	Improved	Main-tained	Improved	Main-tained	
Organizational Level:					
Organizational leadership for integrated care	2	2	0	6	0
Patient care team	3	0	1	3	3
Providers’ engagement (buy-in) for integration	0	3	1	5	1
Continuity of care between PC and B/MH*	3	2	0	2	3
Coordination of referrals and specialists	0	1	1	4	4
Data systems/patient records	1	3	0	2	4
Patient/family input to integration management	0	0	0	3	7
Physician, team, staff education & training for integrated care	0	0	3	3	4
Funding sources/resources	0	1	2	2	4

*PC means primary care; B/MH means behavioral/mental health care

For most service settings, organizational characteristics of patient-centered care have not yet reached the level of systems integration, including provider buy-in, organizational leadership, data systems, and training. The exception is the characteristic of continuity of care between primary care and behavioral/mental health, with half of the service settings

rating themselves at the “A” level. Like the 2007 grantees, many (7) of the 2008 practices also report inconsistent or non-existent patient/family input into integration management.

2. Preliminary Patient Outcomes

From November 2009 through March 2010, each grantee worked with its MeHAF project officer to identify patient-level clinical indicators (“outcome measures”). The chosen measures were relevant to their practice sites’ patient population, feasible to collect, and reliable and valid. During the spring of 2010, JSI had conference calls with each grantee to work out the analytic (e.g., timing of follow-up measurement, identifying which patients to measure) and operational (e.g., identifying data sources, creating data formats) details for their practice sites to implement outcomes assessment (Appendix F details the challenges that grantees had in collecting and reporting outcomes data). In August 2010, the first data draw was completed for patients clinically assessed during the first half of 2010.

Among the twenty 2007 and 2008 grantees,¹⁵ 15 different patient-level indicators were chosen. Six grantees chose the PHQ-9 for depression (often pairing it with the GAD for anxiety); otherwise indicators were unique to each grantee. A listing of the outcomes being reported and preliminary results from the first data draw are also included in Appendix F. Baseline outcomes data are reported for 14 grantees.¹⁶ These data allow for a preliminary analysis of the severity of patients’ symptoms at the time they encountered the integrated service for the first time. Even with this limited sample, this analysis helps assess whether practices are identifying patients with clinically significant mental, behavioral, or physical health issues that are not currently being treated (a priority population).

For those grantees measuring depression symptoms using the PHQ-9, the mean scores ranged from 6.7 to 20.4, well above the threshold of 5.0 for mild depression. At DFD Russell Health Center, where the focus of outcomes measurement is on depressed patients, and at Pen Bay and Spring Harbor 2007’s adult practices, 50% to 100% of patients assessed were above this threshold. High levels of psychological symptom severity were found at practices employing other measures as well. Clinical assessment of psychological symptoms at AMHC’s Fish River practice using the OQ45 found that 73% had significant symptoms; the average score was 89.7 (compared to a cut point of ≥ 63). Among 90% of high school students assessed through the Community Counseling project, GAF scores indicated distress or impairments in social role or interpersonal relationships (mean value 64.0 versus a cut point of ≥ 60).

Other grantees focused on physical health or process measures. In all cases, the majority of patients were above the threshold level of severity, likely by intent. For example, at Sacopee Valley Health Center, all patients had initial HbA1c levels greater than 7 points.

¹⁵ The 4 grantees initially funded in 2009 will begin outcomes data collection in 2011.

¹⁶ Two additional grantees (Community Dental and Spring Harbor) reported process measures. Four grantees had not submitted outcomes data at the time of writing this report.

Analysis of the change in health outcome based on follow-up assessment awaits additional data from the grantees (expected March 2011) and further data cleaning. The goal with the outcomes data will be to describe changes in health status; and, thus, effectiveness as measured at the patient level.

C. ADOPTION

The adoption component of the RE-AIM framework is similar to the reach component but focuses on the practice site and provider level rather than the client or patient level. The overall questions to be addressed are the factors related to practice sites' decisions to participate in integration; and, within practice sites, the factors related to providers' decisions to participate in integration.¹⁷ Each of these is discussed in turn.

1. Practice Level

Two mechanisms (i.e., themes with high levels of endorsement across many services settings) were identified at the practice level that influenced willingness to engage in integration: 1) perception of value added and 2) leadership commitment, as shown in Figures 6 and 7. Practice sites perceived value added of integration as improving patient care and/or improving the quality of their services. A listing of some of the more often heard sentiments related to value added include:

- Ability to provide more holistic care to patients;
- Mental health care is an integral part of comprehensive services delivery;
- Ability to better manage and provide care for complex patients;
- Helping patients to manage their mental health needs improves their overall health;
- Using BHSs to manage behavioral health issues frees up providers' time to address medical issues or to see more patients; and
- Overcomes the difficulties of referring to behavioral health specialty providers (e.g., long wait times, lack of feedback on patients seen in specialty setting, lack of knowledge about behavioral health specialty settings, shortage of mental health specialists).

¹⁷ This section is based on 18 grantees from 2007 and 2008 (Community Dental and Hitchcock are not included due to the uniqueness of their programs) and their associated 56 practice settings: 47 co-located (46 primary care based and 1 behavioral health based), 7 consultation, and 2 enhanced referral.

One contextual factor that facilitates the perception of value added is MeHAF funding. This provides grantees and service delivery sites with funds to support staff positions, especially behavioral health specialists and case/care managers, over the grant period. This allowed the practice sites to explore how to support these positions post grant. Other uses of MeHAF funding were to support leadership and other administrative positions, allowing them to prioritize integration activities during the grant period. Previous positive experience with integration (pre-2007 MeHAF funding) and high patient need also created a sense of commitment and the perception of value added. A constraining contextual factor was cases where the leadership changed in the period between the writing of the grant and the implementation of the grant. This led to uncertainty and broke the momentum of implementation. Uncertainty was also created when a grant writer or the person who developed the application was not part of the planning effort or the implementation phase once funds were granted.

Figure 6: Adoption – Perception of Value Added

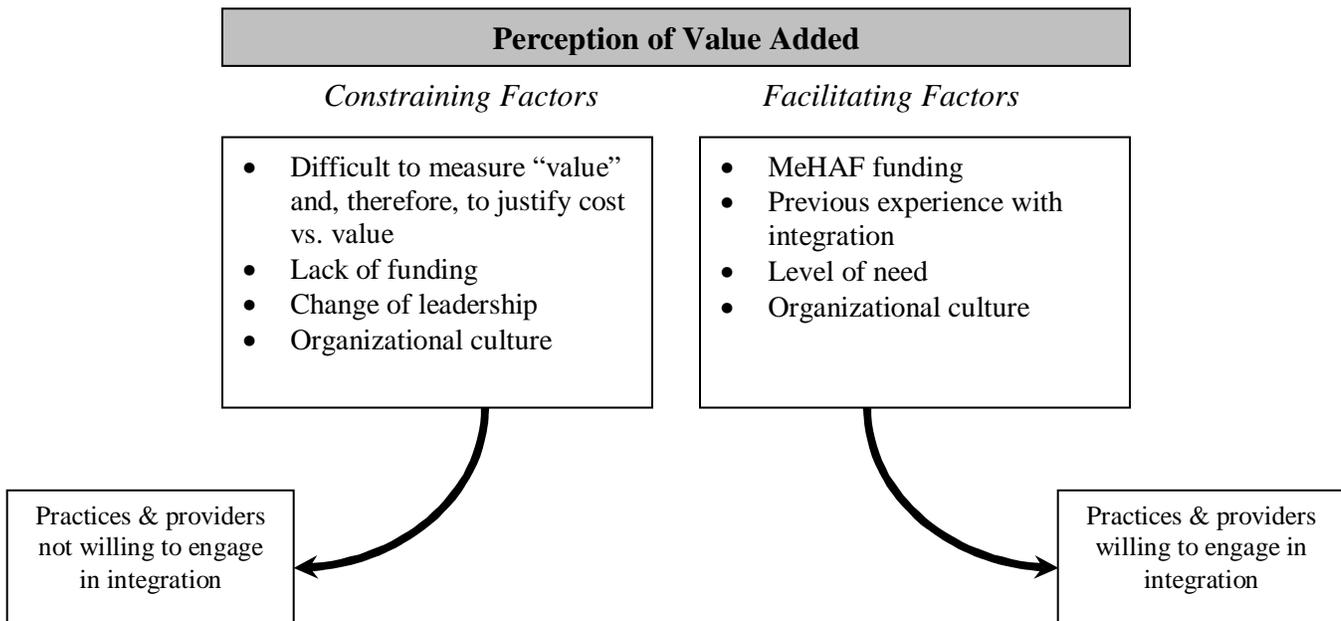
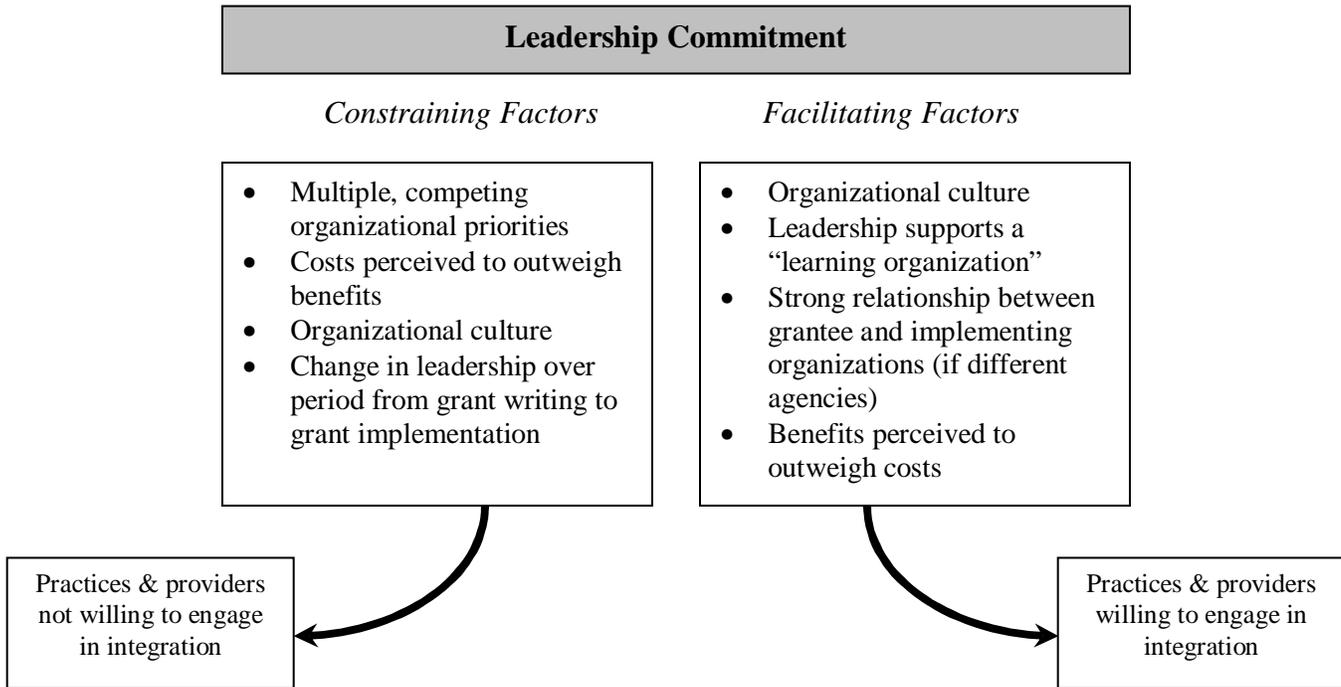


Figure 7: Adoption – Leadership Commitment



Lack of funding constrained adoption. In some instances, where grantees partnered with service delivery organizations, there was not always direct funding to support service delivery. Thus, some of the benefits of funding, such as start up monies and salary support were not available. This made it more difficult for practice settings to prioritize integration and necessary changes to administrative, financial, and clinical processes. Other resources were provided to these service delivery organizations, such as training and technical assistance, which was perceived as valuable; however, lack of direct funding for integration constrained successful adoption. A third constraining contextual factor was the difficulty of measuring the value or effectiveness of integration, which made it difficult to communicate the value of integration. This was especially true in settings associated with larger entities, where overall system concerns of cost may take precedent over programmatic enhancements with unknown cost implications or unknown value. The inability to be able to measure costs and values made it difficult to advocate for integration in the larger, system context.

Organizational culture is noted as both a facilitating and constraining contextual factor in the adoption of integration for both mechanisms identified. Practices which explicitly have a mission or are otherwise mandated to serve those who are publicly insured, uninsured, and/or low income typically provide services to individuals with a variety of medical, behavioral, and social service needs. They receive some measure of public funding or enhanced rates to accommodate these complexities. Additionally, they are more likely to have resources or collaborations with organizations which provide supportive and social services. For these organizations, integrating behavioral health and medical care is aligned with their understanding of how to meet the holistic needs of the

people they serve. Thus, the “value” of integrated services may be more readily intuitive to their staff.

The second mechanism identified that influences practice site adoption is leadership commitment, both at the grantee level and the service delivery level (when different). If the two are different, strong relationships between the two were a facilitating factor for adoption. Leadership commitment also related to perceived value, in both a facilitating and constraining manner; i.e., a perception that benefits outweighed costs facilitated leadership commitment whereas the perception that costs outweighed benefits constrained leadership commitment. Multiple and/or competing organizational priorities (e.g., reorganizations, workforce issues, other initiatives) also made it difficult for leaders to provide commitment to integration.

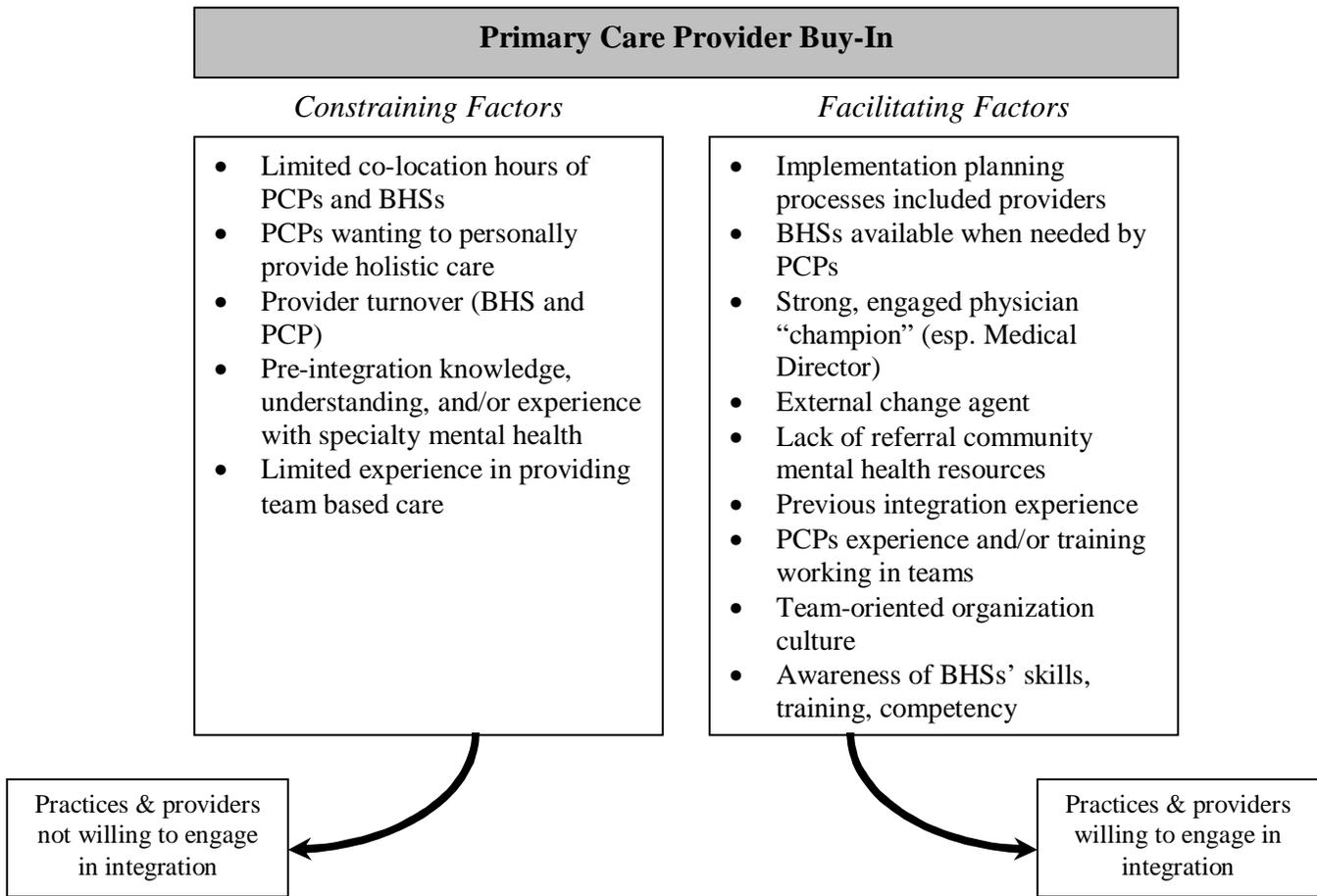
The degree to which leadership facilitates a culture of a “learning organization” is a facilitating contextual factor. The term “learning organization” comes from the literature of management and organizational behavior and refers to an organization that “is made up of individuals/staff skilled at creating, acquiring, and transferring knowledge.”¹⁸ The extent to which the culture of an organization embraces change and supports constructive change to improve service delivery, facilitates transitioning to providing integrated services. In a learning organization team members feel that they are essential, valued, and knowledgeable partners in the change process; and there is sufficient time and space for reflective thinking and evaluation about new ways of providing services.

2. Provider Level

Two inter-related mechanisms were identified as critical for adopting success across the aggregate of Clinical Implementation grantees: 1) primary care physician buy-in and 2) BHSS’ willingness to adapt to primary care setting (see Figures 8 and 9). PCP buy-in was probably one of the most critical mechanisms related to whether integration was adopted, and there were several facilitating and constraining contextual factors related to this mechanism. “Champions,” both internal and external, often were referenced by providers as influential, especially when the champions were also physicians. Internally, having the medical director on board and advocating for integration increased the probability of other primary care physicians buying in. However, in at least one case, even having the medical director “bought-in” was not sufficient in itself to motivate other primary care providers to embrace integrated behavioral health. Dr. Kirk Strosahl, from Mountainview Consulting, provided education and training related to behavioral health integration that was cited by many physicians as influential. Additionally, some grantees visited and consulted with Sacopee Valley Health Center, which is one of the grantees that was funded as part of the initiative. Sacopee has a long history of integration, and this was identified as very influential. In one medical director’s words, “an aha moment – the behavioral health care piece clicked for me,” after he had visited Sacopee Valley Health Center.

¹⁸ Garvin DA, Edmondson AC, Gino F. Is yours a learning organization? Harvard Business Review. 2008. Downloaded from HBR online.

Figure 8: Adoption – Primary Care Provider Buy-In



Another contextual factor related to provider buy-in was the culture of either the practice setting or the providers themselves. Practices with a mission and/or mandate to serve the more vulnerable) have a history of drawing on and offering supportive services (and are able to do so due often to public funding or enhanced reimbursement rates; thus, adding BHSs to their staff mix is a more easy and natural fit. For private practices (those not receiving public funding), the culture is often less “team” oriented because these practices do not have enhanced funding streams to provide supportive services, which are not revenue generating. For the providers that work in them, there often is a much steeper learning curve with respect to working in teams and understanding the “value” of working in teams to meet the needs of patients with a combination of medical, behavioral, and perhaps social service needs.

In addition to organizational culture, the culture of professional training is also important. More than one practice mentioned that nurse practitioners and physicians’ assistants might have an easier time with integration because the nature of their training and their scope of practice requires that they work in teams; thus, extending this team concept to behavioral health specialists was second nature to them. Some physicians liked the role of family doctor and enjoyed providing holistic care to their patients and were reluctant to

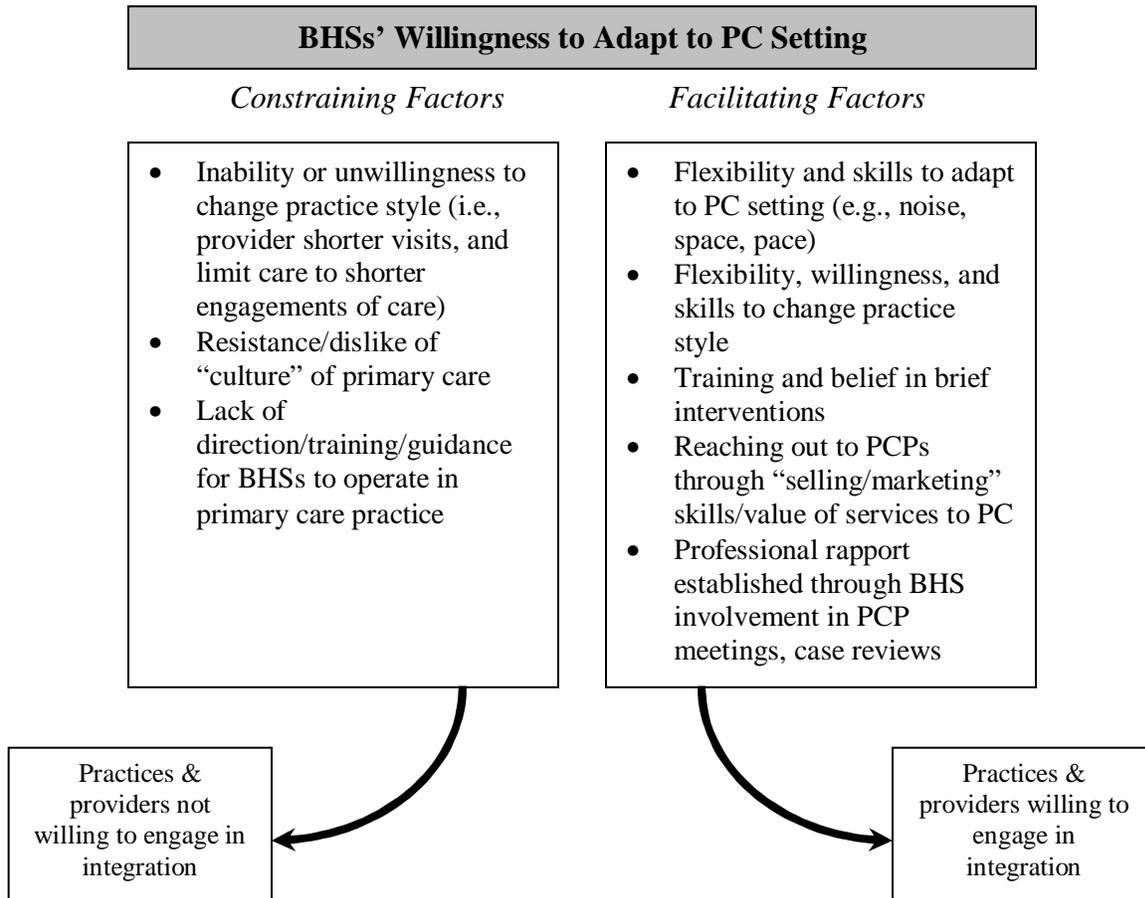
sharing the behavioral health component; this was especially true with doctors who had devoted most of their professional lives to serving in rural and small town settings.

Provider turn-over was another constraining factor. Many of the practices, especially rural practices, often depended on National Health Service Corps providers who commit to only a few years in an underserved setting. Retaining them past this obligation is often difficult. Physicians with time-limited commitments are probably no more or less likely to buy in to integration; but the time put in to bringing them on board with integration, any training provided, and their experience with integration is lost when they leave. It also must begin anew when another provider is eventually hired.

The relationship between BHSs and PCPs was both a facilitating and constraining factor related to primary care physician buy-in. Additionally, the number of co-located hours (noted as both a facilitating and constraining factor) were often set, either related to the grant application itself or based on resource/cost considerations. PCPs had pre-conceived knowledge, understanding, and experience working with behavioral health. Their knowledge was primarily related to referrals they had made to specialty mental health. Negative pre-conceptions constrained primary care provider buy-in to integration. BHS availability contributed greatly to PCP buy-in. The more hours they were co-located and had the opportunity to work together, the greater opportunity for relationship building. Lack of availability (pre-integration grant) of community mental health resources for patient referrals served as a facilitating factor related to primary care provider buy-in. Several of the MeHAF-funded clinical implementation projects had previous positive experience with integration that they wanted to enhance. In these cases, the work to garner PCP buy-in had already been completed; thus, previous integration experience is noted as a facilitating factor.

Figure 8 refers generally to primary care practice sites with co-located BHSs (46 out of 56 practice sites); hence, the source of the majority of qualitative data. However, many of the constraining and facilitating factors were noted by the grantees implementing consultation approaches, specifically PCPs wanting to personally provide holistic care, provider turn-over, BHSs available when needed by PCPs, and lack of referral community mental health resources.

Figure 9: Adoption – Behavioral Health Specialists’ Willingness to Adapt to Primary Care Setting



The relationship between BHSs and PCPs is related to the second mechanism that is linked to adoption: BHSs’ willingness to adapt to the PC setting. This was related to both the setting itself as well as the nature of their practice (e.g., transitioning from offering longer-term psychotherapy to offering shorter-term, targeted problem-solving interventions). It required flexibility on behalf of the BHS as well as a particular skill set and a willingness to practice in the primary care setting. There were examples where BHSs did not have the appropriate skill-set or desire to operate in the primary care setting. Similarly, there were PCPs who did not want to change their practice styles to accommodate the existence of co-located BHSs. The differences between the cultures of behavioral health and primary care were a constraining factor when practices/ organizations were new to integration. The willingness and ability of BHSs to adapt to the primary care setting was dependent on their training and experience. Often times, there was little direction and/or training given to BHSs newly integrating into PC settings. They often were left to their own devices, making it more difficult and time consuming to understand how their practice could or should be adapted to the primary care setting. On the whole, we found that BHSs bore most of the responsibility for

adapting their practice style and capabilities to the primary care setting, the patient needs, and the PCPs operating in the practice. It was most often their role to market their skills to the PCPs and to find ways to encourage referrals. A key factor to making integration work was the development of a relationship and the building of a strong rapport between the BHSs and the PCPs. BHSs generally worked hard at building this rapport, including conforming to the PCP's schedule and preferred mode and timing of communication. They often assertively, actively, and creatively found ways of getting together with PCPs and often took initiative in indicating with which patients they could contribute their expertise.

Often PCP's had limited knowledge of the skills, training, and competency of a licensed clinical social worker (LCSW - the credentialing of the majority of BHS in co-located settings) and as a result, were reticent to make referrals. Once the PCP developed an understanding of the LCSW's skills and developed a professional respect for him or her, integration of care was possible. LCSW's earned the trust and respect of PCP's in a variety of ways. In some cases it was informal opportunities to discuss patients; in other cases, it was having access to the BHS visit notes in the medical record. In still other cases, it was simply built over time after the BHS proved that they could successfully manage patients in ways that improved the quality of care and reduced PCP burden.

Tips: Building Relationships Between Providers

- Have BHSs “shadow” PCPs during visits. BHSs and PCPs can then later discuss how they could have teamed to address patient needs and concerns.
- Schedule the BHS and PCP to work during the same days so that “warm hand offs” are possible.
- If the BHS has an administrative desk, locate it next to the PCP's so informal interactions are facilitated.

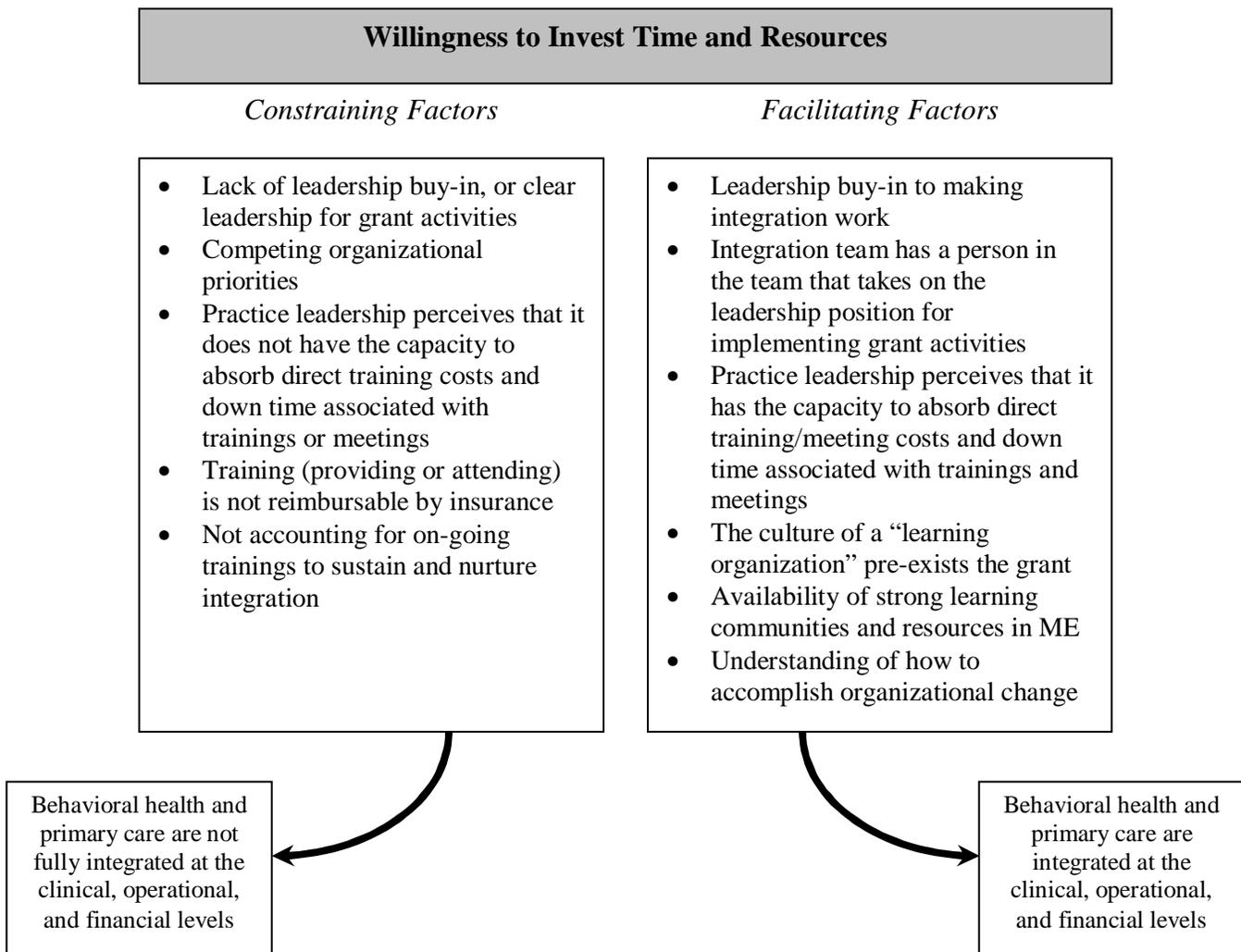
Figure 9 draws specifically on primary care practice sites with co-located BHSs (i.e., the general experience of 16 grantees and their associated 46 practice sites).

D. IMPLEMENTATION

Four key mechanisms were identified that influenced implementation¹⁹: 1) willingness to invest time and resources into making integration work; 2) adapting behavioral health practice to the primary care setting; 3) BHS and PCP communication/collaboration; and 4) working out reimbursement mechanisms (see Figures 10 – 13).

1. Willingness to Invest Time and Resources

Figure 10: Implementation – Willingness to Invest Time and Resources



¹⁹ This section also is based on 18 grantees from 2007 and 2008 (Community Dental and Hitchcock are not included due to the uniqueness of their programs) and their associated 56 practice setting: 47 co-located (46 primary care based and 1 behavioral health based), 7 consultation, and 2 enhanced referral.

There were significant up-front costs related to planning and implementing integration, some of which were grant supported and others which were not. This included trainings and staff development events (e.g., motivational interviewing, learning collaboratives, visits to other practices), meetings to discuss integration, and staff time to work on administrative/operational issues (e.g., changing EMR templates to facilitate screening and communication, changing scheduling systems, arranging space). These costs involved direct costs (e.g., training fees, travel) as well as opportunity costs, such as loss of provider-generated revenue, which could be quite large. While many of the direct costs, especially during start-up, were covered through the grant, many of the costs were not, particularly opportunity costs, depending on grant proposal budgets.

Tips: Training on Integrated Behavioral Health

- Identify staff who can be master trainers on integration and employ a “train the trainer” model to be used as new staff come on board.
- Incorporate integration topics as part of in-house, routine meetings and trainings.
- Conduct training during “lunch and learns” to minimize disruption in patient appointments.
- Offer continuing medical education (CME) units for trainings, enabling providers to fulfill their education requirements with topics related to integration.

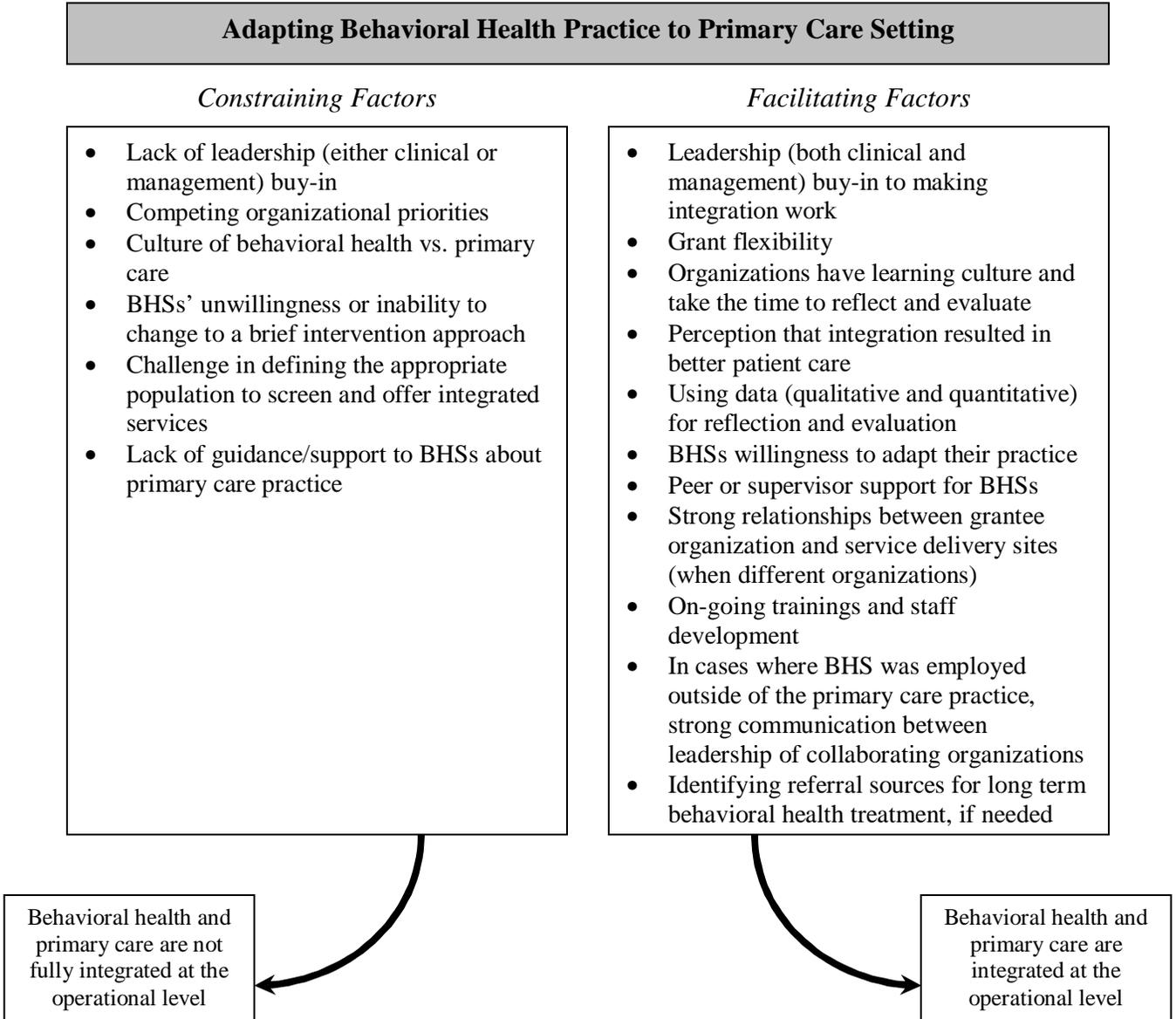
As will be discussed in more detail in the Maintenance section of this report, the extent to which senior leadership within an organization was bought into the concept of integration and leadership’s perception that the practice site could absorb start-up, development, and maintenance costs had a major impact on adoption, implementation, and maintenance. Organizations that understood organizational change processes and continuous quality improvement were more willing to invest time and resources and implement effective programs. Learning organizations were also more likely to appreciate that programs needed to evolve overtime and that on-going staff development and trainings might be necessary to maintain or improve the effectiveness of the approach.

Another facilitating contextual factor is access to a wide range of resources available related to integration, including the Integration Learning Community that has been established through the MeHAF initiative. In addition, some grantees have also been involved in other out-of-state, integration and/or behavioral health-focused collaborative networks. This has resulted in an increasingly sophisticated knowledge and experience base related to integration in the state of Maine, which generally can be accessed relatively easily and cost-effectively, should any organization wish to engage.

Constraining factors include the inter-related contexts of lack of leadership buy-in to integration, competing organizational priorities, and the perception that training, staff development, and administrative costs of integration are too high. Additionally, not accounting for the on-going nature of these costs meant that many grantees had sufficient training and staff development for start-up but had little later.

2. Adapting Behavioral Health to Primary Care Setting

Figure 11: Implementation – Adapting Behavioral Health Practice to Primary Care Setting



Tips: Adapting Behavioral Health Practice to Primary Care Setting

- Before recruiting, write BHS job descriptions that clearly explain practice's approach to integrated services and related expectations.
- Use data (qualitative and quantitative) for reflection and evaluation (e.g., track number of behavioral health referrals by each PCP to learn about differences in referral patterns and approaches to providing integrated care).
- Include BHS in PCP provider meetings and morning huddles so that they become part of a holistic team for integrated care.

For the majority of grantees that were co-locating BHSs in primary care settings, a key mechanism for implementation success was adapting behavioral health practice to the primary care setting. This was generally a process of learning by doing and adapting an approach tailored to individual practice demands, but it did require flexibility on the part of the practice and a culture of learning that promoted reflection and self-evaluation. Health conditions served and changes in BHS practice patterns were two areas of adaptation that occurred across many practices. Many primary care sites entered into partnerships envisioning that their BHSs would assist those with targeted mental health conditions, most notably depression and anxiety with adult populations and attention deficit disorder and developmental issues with pediatric populations. The general trend among non-pediatric practices, however, was to move toward a broader, population-based approach. This included serving all-comers and treating a broader range of behavioral health needs, including transitional needs that can affect overall health (e.g., divorce, loss of job, grief), as well as self-management and behavior change issues related to chronic care conditions.

More population-based services seemed to make sense in the primary care setting from a philosophical perspective (i.e., in that primary care is a population-focused discipline) and from an efficiency perspective. Although mental health conditions, such as depression and anxiety, are prevalent in primary care and often amenable to brief interventions, making integration services available to the more general primary care population makes sense. The BHS caseload that appears to be gaining traction in more and more primary care practices among the MeHAF grantees is a combination of mental health and behavioral health issues, with some patients needing more intense BHS intervention and others needing less intense intervention.

BHS practice patterns also required adaptation. BHSs coming to the primary care practices from a specialty mental health setting were used to a psychotherapy approach, typically favoring longer 50-minute visits. The trend among practices was to move away from longer visits and longer-term psychotherapy interventions to shorter visits with problem-focused therapy. Some practices tried to set a standard similar to primary care of the 15-minute appointment. One grantee noted that they went from 50-minute to 15-minute visits and finally settled on an average of a 30-minute visit, which was problem-focused but with the flexibility to address complex issues.

3. BHS and PCP Communication/Collaboration

Perhaps the major difference between simply co-located services and integrated services is the communication and collaboration between the BHSs and PCPs. The importance of communication and collaboration was well known by grantees, and strategies to enhance it were noted in the grantees' grant applications. Shared records are a facilitating contextual factor to communication. Approximately 11 of 17 2007/2008 grantees with co-located practice sites noted that BHSs and PCPs documented to the same medical record, although this is not true of all practice locations within grantees. Grantees with enhanced referral and consultation practice sites did not have shared records. Electronic medical records often needed adaptation for BHS providers to document mental health issues. For example, new templates or entry modes were required to accommodate mental health screens, results of screening tests, or enabling portions of a note to be hidden from general view. While EMRs were noted by many providers interviewed as an efficient communication mechanism, they were not a necessity for communication. Documenting into a joint medical chart also worked well. Nearly all co-located integration structures also relied on and valued face-to-face direct communication between providers. Having similar schedules and hours of co-location were a facilitating factor, especially for informal communication (such as non-scheduled hallway discussions, impromptu consults, and morning huddles). Over time, the experience of working together built credibility and trust, which in turn enhanced the communication and collaboration between BHSs and PCPs. Limited co-located hours were noted as detrimental to communication and, moreover, the rate of referral overall. Additionally, there were a small number of grantees who noted that regulations (especially concerning mental health documentation and record sharing) constrained communication between BHSs and PCPs. Many grantees noted that this initially was a concern but were able to identify strategies to overcome these barriers. Some of the strategies included writing a summary, but not full details of the mental health visit in the medical record, working with the patient to ask permission for enhanced file sharing between providers, and building more informal oral communication mechanisms through huddles and placement of clinical offices adjacent to one another.

Figure 12: Implementation – BHS and PCP Communication/Collaboration

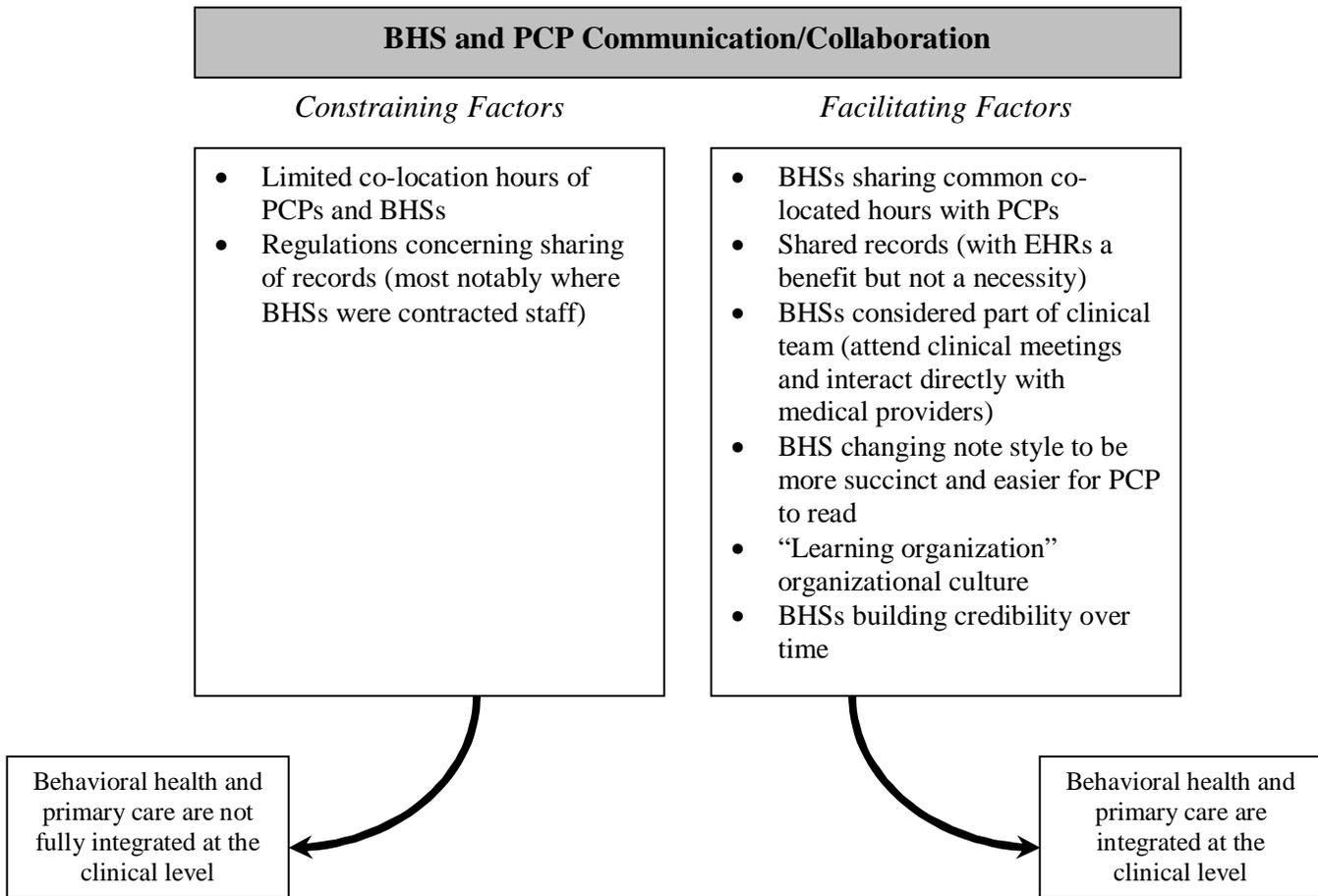


Figure 12 refers primarily to grantees with co-located sites. However, regulations concerning sharing of records and BHS changing note style to be more succinct were relevant to the grantees with consultation practice sites as well.

4. Working Out Reimbursement Mechanisms

Working out reimbursement mechanisms was an important part of working through implementation issues and achieving integration at the financial level. This also is a key factor for maintenance of integrated approaches, and the discussion is deferred to the Maintenance section of the report.

E. MAINTENANCE

In the context of the RE-AIM framework, maintenance refers to the extent to which a policy, program, or intervention becomes institutionalized into an organization's routine operations, practices and policies. Ultimately, grantees were charged with developing programs that could be sustained without MeHAF grant funds. 2008 and 2009 grantees have one and two years left in grant implementation, thus discussion of maintenance is primarily focused on the 2007 grantees.²⁰ During the course of the initiative all of the grantees explored and worked towards this goal and 8 of 13 (excluding Hitchcock) of the 2007 grantees, whose grant period ends December 31, 2010, have expressed that they are planning on maintaining their integrated services to some extent, although not all components or all service locations may be maintained beyond the grant period.

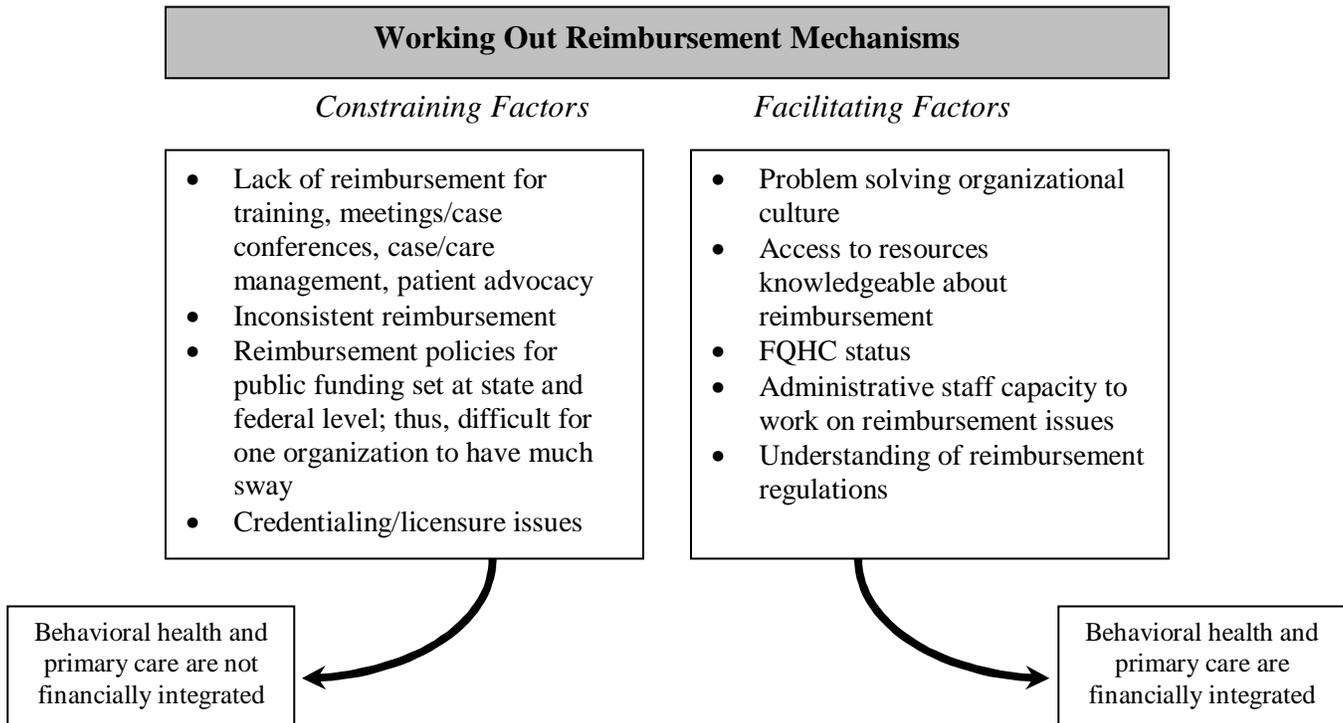
Three key mechanisms were identified as important to program maintenance during key informant interviews: 1) working out reimbursement mechanisms; 2) leadership factors; and 3) operational factors related to integration. Each is discussed in turn. Financial factors involve billing, payment, and other issues related to reimbursement for services rendered. Leadership factors involve how programs are developed, managed, or supported and, particularly the role of the senior and middle management. Operational factors involve program implementation and the staffing or systems that are in place to provide or facilitate the implementation of the program.

1. Working out Reimbursement Mechanisms

Financial factors related to billing and payment had a clear impact on whether grantees believed they would be able to maintain their integrated services post grant funding. Approximately five of the 13 2007 grantees were funded to grow existing programs and either built capacity within practices that had already implemented an integrated approach or expanded an established approach to other practice locations. In these cases, grantees had already established the operational procedures and billing and payment mechanisms that allowed them to maintain their programs. However, grantees new to integration were starting from scratch in terms of their plans to fund their integration approaches. This set of grantees was initially reliant on MeHAF funds to maintain their programs. Constraining and facilitating contextual factors that moderated the ability to work out reimbursement mechanisms are shown in Figure 13. Credentialing, FQHC status, understanding of reimbursement regulations, and case/care management are described in more detail below.

²⁰ Qualitatively we draw on the experience of all the grantees (2007 through 2009), but counts provided refer to 2007 grantees only.

Figure 13: Implementation and Maintenance – Working Out Reimbursement Mechanisms



a) Credentialing and Licensure Issues and Differences between Primary Care and Mental Health Organizations

At least seven of the 19 2007/2008 grantees (excluding Hitchcock) specifically raised the issue that they were constrained by their ability to meet the state and private payers’ credentialing and licensure requirements necessary to implement an integrated approach on their own, especially related to billing out behavioral health care providers in primary care settings. In Maine, as in all states, providers and facilities have to be appropriately credentialed and licensed to deliver and get paid for services. As part of their licensure they agree to abide by specific requirements related to who can provide services, where services can be provided, the documentation required, and which patient diagnoses can trigger various payments. There are different provider credentialing, facility licensure, reporting, and diagnostic requirements for medical, mental health, substance abuse, oral health, and all other service types. Just because a provider or facility has the credentials or license to provide a medical service does not mean that they can provide and bill for other types of services. Grantees raising this issue noted difficulty in finding comprehensive information about credentialing and licensing, and in organizations with existing staff, difficulty in making the appropriate changes to be compliant with regulations.

One strategy for addressing credentialing/licensing issues was to develop collaborative relationships with other provider organizations that met credentialing requirements. For

example, primary care practices may contract with behavioral health organizations for behavioral health specialists to be located within the primary care setting. Supervision and salary remain the responsibility of the behavioral health organization. The contracts facilitated compliance with state regulations, so that services could be delivered and billed to third party payers. The primary care practice bills for and retains the revenues for the services provided by BHSs and pays the contractual amount to the behavioral health organization. Such contracting generally results in a win-win proposition. One grantee (from a behavioral health setting) mentioned that BHSs with the same credentials are reimbursed at a greater amount for providing the same service in a federally qualified health center (FQHC) setting than in a BH-licensed setting.

Tips: Staff Credentialing

- Carefully weigh pros and cons in primary care settings of contracting for behavioral health specialists versus hiring behavioral health specialists.
- Providers consulting in hospital-based settings are subject to hospital regulations—one of which is having admitting privileges at the hospital.

b) Enhanced Payment Rates and the Differences between FQHC and Non-FQHC Organizations

Another important factor that either facilitated or constrained a grantees' ability to work out reimbursement mechanisms was the rate at which practices were reimbursed for their services by third-party payers. Many of the grantees provided services at practices or clinics that were designated by the federal government as federally qualified health centers (FQHC) or rural health centers (RHC). FQHCs and RHCs are required to provide an array of enabling and supportive services and to serve all patients regardless of insurance type or ability to pay as part of their designation. As a result, they receive an enhanced rate of payment for those patients that are publically insured through Medicare or MaineCare, a substantially higher rate than for a non-designated primary care practice. Outpatient service locations that are affiliated with Critical Access Hospitals, a specific federal designation, also receive enhanced rates for Medicare and MaineCare, as do practice sites participating in Maine's Patient Centered Medical Home Pilot. The enhanced rate is an important factor in the decision-making of many grantees to sustain integration, particularly in service locations that serve a large proportion of uninsured or publicly insured patients.

c) Coding/Billing and Organizational Capacity to Bill for Behavioral Health Services

Behavioral health reimbursement regulations are also a constraining contextual factor, and a barrier well known to grantees. The Health and Behavior (H&B) codes were added to CPT coding relatively recently, allowing billing for behavioral health that is incident to the medical visit. As these codes become more familiar, an increasing number of provider organizations are using such codes; however, several of those interviewed indicated that it required substantial perseverance and follow up on claims, especially to private insurance companies (Medicaid was noted as approving such billing in most cases). Thus, administrative staff capacity to work on such issues was noted as a facilitating contextual

factor. Regulations exist related to credentialing of providers eligible to bill for mental health services as well as documentation required for such visits for mental health provider organizations, with implications for the contractual relationship between mental health providers and primary care providers. Sifting through this myriad of regulations, especially for primary care organizations is time consuming and complex. The community of MeHAF grantees shared their knowledge and lessons learned related to these regulations and payment/reimbursement mechanisms, which was extremely beneficial. One grantee, in particular, assumed responsibility for sorting through the intricacies of reimbursement for behavioral health services, documenting this information and sharing it at MeHAF-sponsored meetings. Despite these efforts, access to actionable information was still noted as a constraining contextual factor. Despite how hard organizations worked to maneuver around the reimbursement issues, there were important services (e.g., case management, care coordination, self-management support, and referral assistance) that continued to be a challenge for reimbursement.

d) Case/Care Management

A number of grantees strived to include case/care management services as part of their integrated programs. These services were either provided by the medical support staff (e.g., nurses, front desk staff, outreach, etc.) or by dedicated case/care management staff, despite lack of reimbursement options for such services and staff, particularly in settings not receiving enhanced rates of payment. The grantees with service settings employing case/care management generally considered it an integral part of their integrated approach; however, it was noted as possibly one component that may have to be dropped post-grant funding. Grantees either had not reached decisions related to the sustaining of case/care management as a part of their integrated services or may have been unwilling to share this information currently. A case study on case/care management is being conducted in year 3 of the evaluation to explore this important issue in more detail.

2. Leadership

a) Organization Vision and Leadership

The extent to which the integrated program overall or a specific practice setting was led by a strong, involved leader or leadership structure had a major impact on a practice's or grantee's ability to maintain its program. In most cases, the leadership influence manifested itself in a strong administrative and/or clinical executive at the site level who was able to instill a sense of commitment to the approach and align critical operational components. It was not typically related to staff rewards or incentives as much as it was related to showing a personal or organizational commitment to the approach and aligning organizational priorities, systems, staffing structures, and services in ways that fostered the development of the integrated approach. In some cases, the leadership manifested itself in a more top down manner in the form of a strong, involved senior leader that was removed from the practice where the approach was being implemented such as a hospital CEO. Here the leadership imposed more of an organizational mandate, either real or perceived, that then led to a commitment at the practice level. Finally, some grantees had

strong and committed Advisory Councils that successfully aligned operations and instilled a commitment to the approach. The organizations that seemed to benefit most from an Advisory Council were grantees that had multiple partners that needed to make decisions in concert. Often these Advisory Councils were represented by all of the various organizational partners and included consumer stakeholders and/or clinical staff that fostered the development of the approach and helped to hold the program accountable.

It was also evident that some practices struggled to align operational components and instill the commitment referred to above. It is difficult to say whether this was due to poor leadership, poorly suited primary care staff, or if practices were simply not able to give the required focus to the integrated initiative due to competing priorities or operational distractions (e.g., financial issues, construction, staffing problems, etc.). Regardless of the reason, practice sites that were able to make the integrated approach a priority and instill a broad organizational commitment were much more likely to be able to maintain their programs.

b) Program Development and Planning

Grantees that developed their programs over time based on comprehensive planning that incorporated all of the various organizational and community partners seemed more likely to develop strong, sustainable programs. For example, grantees with broad community advisory committees were able to integrate and coordinate their efforts with the community, including the broader health system, in ways that organizations that were operating more independently were not. Other grantees have built their programs over many years and have refined their operations based on several years of commitment to integration. These planning and community involvement efforts have facilitated buy-in and support from all of the various stakeholders and helped to ensure that all of necessary players are working towards a common goal from the outset. Furthermore, grantees that worked in partnership with other community partners, rather than independently, seemed able to develop stronger, more solidified programs. The community partnerships enhanced their ability to promote the program, build community support, and in some cases allowed them to share the burdens of implementation. As one example, the Community Caring Collaborative in Washington County is a group committed to promoting child and family health through partnership. Their partnership network has strengthened relationships enhancing resources for families, and has made possible joint applications for funding, both through MeHAF and the Project Launch grant through the Substance Abuse and Mental Health Services Administration. Another example is Franklin Health, which has worked with others in the community to promote education to families on the topic of autism and child development. Rather than hiring new staff and paying for new programming, the project team worked with an existing non-profit in the community to augment and enhance the services they were already providing.

An additional factor was the extent to which plans were developed with the full involvement and support of those in the organization or community who would be involved in implementation. In some cases, the grantees' plans were developed in somewhat of a vacuum, by a grant writer or other lone administrative or clinical staff

member. In these cases, implementation was hampered, which led to organizational confusion, lack of support, and inefficiencies in the implementation process. Finally, grantees that focused early on issues related to maintenance and sustainability were also more likely to develop strong, robust programs. These programs were able to utilize the grant support to fund service delivery but also to support the development systems that would promote sustainability. Grantees that focused purely on refining the service delivery and only focused on systems related to sustainability near the end of their grant cycles were less likely to have sound plans for maintenance post grant period.

3. Operational Factors

Operational factors related to staffing, scope of service, provider productivity and patient volume had a significant impact on maintenance for some grantees. In some cases these factors facilitated grantees' abilities to maintain their programs and in other cases, they constrained their abilities. By their nature, these factors were typically expressed at the practice-level unless the program was operating in a single clinical location or within a homogenous system in the same community. In programs that had multiple sites there was variation across the different locations. The following is a review of these factors by type with a discussion regarding how these factors may have facilitated or constrained a site's ability to maintain its operations.

a) Community Need, Staffing, and Scope of Service

A number of grantees seemed to thrive and maintain their programs based on their ability to match the service needs of their patients (e.g., chronic disease management, depression, substance abuse, etc.) with the capabilities, qualifications, and experience of their behavioral health specialists, as well as the needs and desires of their primary care staff. For example, one practice had an unusually high prevalence of diabetics in its patient panel. These patients were requiring a great deal of attention from the PCP staff to manage co-morbid behavioral health issues or to institute important behavioral changes. In this case, the site was able to integrate a behavioral health specialist who could provide brief therapies to assist these patients to better cope with their circumstances and promote disease self-management and healthier lifestyles. The integrated program also allowed the primary care provider staff to shift the burden of providing the behavior change and chronic disease management responsibilities to the behavioral staff. In some cases one could argue that this promoted higher quality of care as the practices were using staff who were uniquely trained to provide motivational interviewing and other behavior change strategies.

b) General Buy-in Among the Primary Care Medical Provider Staff

Another factor that seems to be critical to maintenance is identifying or developing primary care providers who appreciate the value of an integrated approach and are able to effectively adapt their practice patterns (e.g., screening, assessment, referral, and medication management practices). It took many programs a long time to develop primary care provider buy-in of integrated care. Until this buy-in was established many

grantees struggled to drive the necessary volume of primary care referrals that would keep the integrated behavioral health specialist productive.

This was less of an issue with the integrated psychiatric nurse practitioners (psych NPs) than it was with the licensed therapists. It was not as challenging for primary care providers to develop a rapport and realize the medical benefit of a psychiatric nurse practitioner, especially related psychotropic medication management. Most of the PCPs that were interviewed during the site visits were not particularly comfortable managing psychotropic medications and even those that were comfortable did so because there was limited to no access to psychiatric providers who could assist them. With respect to the licensed therapists, it often took time to develop an understanding and a working partnership between the medical staff and the therapist.

c) Recruitment and Retention of Clinical Providers

Many grantees struggled to recruit and retain clinical staff with the appropriate qualifications and experience. In some cases, practices struggled to recruit the appropriate primary care medical staff (i.e., physicians, nurse practitioners, physician assistants) who were well suited to the integrated approach. In these cases, practices or programs suffered from lack of patient volume or referrals to the integrated behavioral health specialist, which ultimately led to diminishing commitment and lack of appreciation of the value or viability of the approach. More commonly, programs or practices struggled to recruit or retain licensed behavioral health specialists with the appropriate qualifications and experience. In some cases, this problem was relatively straightforward, such as in the case of recruiting psychiatrists or psychiatric nurse practitioners. There is a simply a shortage of psychiatrists, particularly pediatric psychiatrists, and psychiatric nurse practitioners in Maine and in some cases it can take years to hire a strong, stable clinical provider in these categories. Penobscot Community Health Center, Franklin Health, Pen Bay Medical Center, and AMHC are examples of grantees who were constrained by their inability to recruit these types of providers. In other cases, the issue was more nuanced, particularly with respect to identifying the appropriate licensed therapist. One of the core findings from the Integration Initiative overall is the idea that the integrated behavioral health therapist needs to be uniquely suited to the primary care setting. More specifically, these providers need to be comfortable applying short-term therapy, both with respect to the number of visits per episode (generally 4-8) as well as the duration of the visit (generally 30 minutes). The therapists also need to be able to effectively integrate themselves into the practice and develop productive partnerships with the primary care medical team. This typically requires a therapist who is adaptable, a good communicator, and very much a team player. Many sites struggled to identify, recruit, and retain appropriate therapists who were able to develop the appropriate relationships and/or unable to provide the type of brief therapy suited to most integrated approaches. It was not uncommon for grantees to hire at least one, maybe even two different providers during the grant period before they were able to identify someone who was able to maintain the approach. As a result, many practices or programs suffered from staffing gaps that stalled or hindered the development of the integrated approach. It was particularly damaging when programs lost providers who were “champions” within their practices or programs.

d) Patient Volume

A number of grantees struggled because they were not able to keep their behavioral health specialists busy enough. As mentioned above, in some cases this was related to primary care provider buy-in and unproductive relationships between the primary care providers and the behavioral health care staff. In some cases this was due to grantees too narrowly defining their target population. As a result they struggled to identify enough patients to solidify their approach and keep their behavioral health specialists productive enough. For example, some grantees targeted their programs very specifically by age or diagnostic categories. Other factors related to driving appropriate volume and maintaining high productivity involved implementing good scheduling procedures and keeping no-show rates down. Some practices were able to implement effective case management and appointment reminder systems that kept no-show rates low. Other practices perfected scheduling practices by taking the scheduling out of the hands of the primary care medical staff and giving this responsibility to the behavioral health specialists, which allowed them optimize access either within the integrated services or other settings.

Alternatively, a number of grantees were successful at tapping into unmet demand by implementing screening protocols that allowed practices to identify patients in need who would then be referred for services. York County Community Health Care was so successful in their universal screening with the PHQ-9 that they found themselves having difficulty keeping up with demand for services. Another example is AMHC, which worked with the pediatric providers to identify a screening tool that was mutually approved, endorsed and consequently well implemented by the primary care staff. Thus the buy-in and the ability to find an appropriate screening tool were in several places pivotal to generating the necessary referral volume.

V. DISCUSSION

This discussion section relates findings to the overall evaluation questions.

- **What was achieved through the MeHAF Clinical Implementation grantees?**
- **Did the Clinical Implementation grantees' services become more integrated and more patient-centered as a result of the initiative?**

During year two of the evaluation, the JSI Evaluation Team had the opportunity to work with all three waves of Clinical Implementation grantees; thus, the 2007 group was finishing up with their grants, the 2008 group had one year of implementation under their belts, and the 2009 group were just getting started. Many of the qualitative themes identified in year one, especially related to implementation, were reinforced and refined through key informant input in year two. Jointly, the 20 grantees representing the 2007/2008 funded groups, serving clients through 63 practice sites, provided an initial assessment or treatment visit for 9,448 patients who have had an initial assessment or treatment visit with project funded staff.²¹ Early indications based on outcome data collected show that grantees are reaching high-need patients through their integration efforts. Within the 2007 group (excluding Hitchcock), 8 of 13 indicated that they planned to maintain their integration efforts post MeHAF funding, especially those components that are reimbursable through insurance. The Clinical Implementation grantees as a group have developed substantial knowledge and experience related to integration and appear to be a strong voice in the State of Maine for advocating for policy change favorable to integration. Many of the grantees have representatives serving on state health policy boards or committees and are involved with national and state efforts around health reform. The group as a whole has become a learning community for integration, and they share lessons learned through informal and formal (e.g., MeHAF Learning Community) networking.

Grantees rated themselves overall as becoming more integrated and patient-centered as indicated by their scores on the SSA, with a definite trend toward improvement by the 2007 grantees, who have two full years of experience with integration. Reported SSAs show attainment of team and system integration in the majority of 2007 practice sites on the dimensions of:

- Assessment of emotional/behavioral/mental health needs;
- Co-location of primary care and behavioral/mental health treatment;
- Developing joint primary care and behavioral/mental health treatment plans;
- Having patient/family involvement in treatment planning;
- Organizational leadership for integrated care;
- Having patient care team for implementing integrated care; and
- Provider engagement with integrated care, or buy-in.

²¹ Typically a behavioral health specialist co-located in primary care, or a primary care provider co-located in a mental health setting. For consultation/enhanced referral sites, this encounter may be with a dentist/hygienist, child psychiatrist (provider consult), or child development specialist.

More mixed results were reported on the following dimensions:

- Patient care informed by best practice for primary care and behavioral/mental health care;
- Follow-up of assessments, tests, treatment, referrals, etc.;
- Patient/family input to integration management;
- Funding sources/resources; and
- Continuity of care between primary care and behavioral/mental health care.

Other evidence of becoming more integrated is the continued evolution of the approaches over time including operational improvements related to facilitating communication among providers, better understanding through trial and error of adapting traditional behavioral health to a primary care setting, and a better understanding of licensing, credentialing, and reimbursement regulations relevant to integration.

- **What approaches/structures/components of PC/behavioral health integration and patient-centered care worked and what approaches/structures/components of integration and patient-centered care did not work?**
- **What are the key factors related to integration and patient-centered care that made them work or not work?**

For purposes of the cross-site evaluation, structure was defined as setting, staffing, and linkage mechanism (i.e., co-location, enhanced referral, consultation). The settings where services were provided for the Clinical Implementation grantees were varied, including primary care, behavioral health, schools, nursing home, and peer support organizations. Out of 67 total practice sites, the linkage mechanism in 51 was categorized as co-location, 9 as enhanced referral, and 7 as consultation. Staffing depended on setting and linkage mechanism; thus, among the Clinical Implementation grantees, there are a large number of permutations of structure which exist. The majority of information for the cross-site evaluation is from a structure that consists of a primary care setting with co-located behavioral health specialists, with most of the BHSs having a licensed social work background. Although the majority of information is from this predominant structure, many of the observations apply also to other structural permutations as well, with the exception of two grantees that are very unique in their structure (Hitchcock and Community Dental). The following key factors were identified as related to RE-AIM success or non-success:

- | |
|---|
| <ul style="list-style-type: none">• Reach<ul style="list-style-type: none">○ Screening and assessment practices○ Adoption and implementation factors○ Structure of integrated services |
|---|

• **Adoption**

- Perception of value added
- Leadership commitment
- Primary care provider buy-in
- BHSs' willingness to adapt to PC setting

• **Implementation**

- Willingness to invest time and resources
- Adapting behavioral health practice to primary care setting
- BHS and PCP communication/collaboration
- Working out reimbursement mechanisms

• **Maintenance**

- Working out reimbursement mechanisms
- Leadership
- Working through operational factors

Contextual factors moderate these mechanisms in a facilitating or constraining way, and the combination of context and mechanism leads toward success or non-success.

Recurring facilitating contextual factors identified included:

- Organizational characteristics (e.g., learning organization, overall organizational culture, organizational mission, strong leadership);
- Strong relationship between grantee and service delivery sites (where different);
- Provider characteristics (e.g., experience working in teams, flexibility and willingness to change practice style);
- Previous experience with integration; and
- Perception that value of integration outweighed costs.

Recurring constraining factors identified included:

- Limited co-located hours;
- Restrictions on reimbursement for integrated services;
- Provider characteristics (e.g., reluctance to change practice style, provider turnover, lack of experience working in teams); and
- Competing organizational priorities.

• **What are the considerations for spread or expansion?**

The contextual factors identified shed light on the potential for spread. For example, private practices are proving to be more challenging settings in which to establish and

maintain integrated care. A narrow scope of practice (in terms of conditions or populations addressed through integration) does not appear to generate enough billable time for behavioral health specialists. Some of the contextual factors identified can be overcome at the organizational level; others are systematic and difficult for one organization to change (e.g., reimbursement policies). Further exploration of the spread and maintenance considerations are on-going in the evaluation.

VI. CONCLUSION

This year two evaluation report builds on the year one report. Although there was refinement of the themes identified in the qualitative data, there were no major new findings related to adoption and implementation. With the 2007 grantees nearing the end of their MeHAF funding, some information was gathered related to the extent to which grantees are anticipating that their integration approaches will be maintained. The number of cycles of CDE data received enabled a more complete picture of reach this year. The effectiveness section is primarily based on grantees' self perceptions as reported on the SSA tool. Grantees just began submitting outcome data this year; thus, at the time of this report only preliminary data is available showing that practice sites are reaching high-need patients. Other reports supplementing the cross-site evaluation include two case studies on two innovative Clinical Implementation grants (Amistad and Rosscare) funded through MeHAF. In year three, more supplemental reports are anticipated; notably case studies on care/case management and patient engagement are planned.



APPENDICES

Appendix A: 2010 Dates of Grantee Site Visits and Conference Calls

	Name	Site Visit	Phone Interview	Site Liaison
2007 Grantees	Acadia Hospital 2007	June 2009	Sept. 2010	Sue
	AMHC	Sept. 2009	Sept. 2010	Sue
	Amistad, Inc.	Sept. 2010	Oct. 2009	Natalie
	Community Counseling Center	Oct. 2009	Sept. 2010	Alec
	Community Dental	Aug. 2010	Nov. 2009	Alec
	DFD Russell Medical Centers	July 2009	Sept. 2010	Sue
	Hitchcock Foundation	N/A	Sept. 2010	Alec
	Maine-Dartmouth Family Medicine Residency	Aug. 2009	Oct. 2010	Natalie
	Pen Bay Healthcare Foundation/Northeast Health Foundation	July 2009	Sept. 2010	Alec
	Penobscot Community Health Center	Oct. 2010	Sept. 2009	Natalie
	Sacopee Valley Health Center	Sept. 2009	Sept. 2010	Natalie
	Spring Harbor Hospital 2007	Aug. 2009	Sept. 2010	Sue
	St. Mary's	Oct. 2009, Nov. 2010		Alec
	York County Community Action Corporation	July 2009	Sept. 2010	Natalie
2008 Grantees	Acadia Hospital 2008	June 2009	Sept. 2010	Sue
	Downeast Health Services	Sept. 2010	Oct. 2009	Natalie
	Franklin Developmental Pediatrics	Aug. 2010	Oct. 2009	Natalie
	Rosscare Nursing Home, Inc.	Sept. 2010	Oct. 2009	Natalie
	Spring Harbor Hospital 2008	Nov. 2010	Oct. 2009	Sue
	Tri-County Mental Health Services 2008	Aug. 2010	Oct. 2009	Alec
2009 Grantees	EMMC		Sept. 2010	Sue
	HealthReach		Sept. 2010	Alec
	Mercy		Oct. 2010	Natalie
	Tri-County 2009	Aug. 2010		Alec

Appendix B: Methods

1. Document Review

Grantees' funding applications and progress reports were reviewed and abstracted as they became available. The information serves as background information, with the applications documenting grantees' original vision and intended plans. The applications of the 2007 grantees initially informed the overall evaluation design. Future grantee applications and progress reports served as additional qualitative data, which represents grantees' perspectives on their integration activities.

2. Key Informant Interviews

The majority of qualitative data for the evaluation was collected through key informant interviews (face to face during site visits or over the phone). Key informants include grantee and partner management, administrative, and provider staff (both medical and behavioral health). In each year of the evaluation, the evaluation team contacted each grantee organization either through a conference call or a site visit, alternating between the two methods so that by the end of the evaluation each grantee received a site visit and at least one conference call (see Appendix A for listing by date). Other contacts with the grantees occurred throughout the course of evaluation, generally for the purposes of clarification or to provide technical assistance around data collection, but also serving as an opportunity to check in with the grantees on issues related to the progress of their integration efforts.

Site visits were one to two days in length and were generally conducted by at least two members from the JSI evaluation team. Conference calls were one to two hours in length. Both site visits and conference calls were guided by an interview protocol, which was sent to each grantee before the event. When grantees worked with partner service delivery organizations, we requested the opportunity to meet with them also during the site visit. This was possible in most instances, although with some grantees that had multiple partners, we were not able to visit them all. When a partner visit could not be conveniently arranged during the scheduled site visit, we made every attempt to follow-up with the partner site at a different time but this was not always possible. In addition to interviews with grantee and partner staff, we also asked grantees to arrange interviews of focus groups with patients or consumers when possible. This occurred during nine of the grantee site visits.

For the qualitative data, the analysis approach was systematic and iterative. The analysis started with the document review process and continued throughout the site visits and conference calls. The JSI evaluation team met on a regular basis to identify and discuss patterns and themes emerging in response to interviews and other interactions with the grantees. The JSI Team also met quarterly with MeHAF's Evaluation Working Group and further discussed and obtained a broader perspective on our findings. Findings evolved over time through a process of identification, review, confirmation or refutation. Field notes were kept for each document review, visit, and telephone call. Field notes were entered into NVIVO software, a qualitative analysis software program, and coded as per team discussions. NVIVO facilitates and tracks comparisons, groupings, and identification of relationships across grantees.

As part of the iterative process of examining and re-examining the data, in year two, we approached the analysis from a different perspective. We adopted a "realistic evaluation"²² perspective this year,

²² Pawson and Tilley. *Realistic Evaluation*. Sage Publications, California. 1997.

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which recognizes the interplay across individual, organizational, and contextual levels. This approach is helpful for assessing replication; as noted by Pawson and Tilley, the purpose is to identify what works, for whom, and under what circumstances. To this end, they suggest assessing how mechanisms (M) in conjunction with context (C) lead to outcomes (O), described as CMO patterns. The qualitative findings are presented in this way. We describe “mechanism” as a how to factor and one assessed as important at the aggregate level because it was important across many grantees’ efforts. Then constraining or facilitating contexts are noted, which in turn lead to positive or negative outcomes. The diagrams in the finding section reflect this analysis.²³

3. Site Self Assessment

Each grantee was asked to complete a Site Self Assessment (SSA) at baseline and annually thereafter for each practice location where services are provided. The SSA tool was adapted from the Assessment of Primary Care Resources and Supports for Chronic Disease Management (PCRS), developed by the Robert Wood Johnson Foundation Diabetes Initiative. The SSA measures, on a scale of 1-10, the extent to which organizations perceive themselves with regard to 18 characteristics of integrated and patient-centered care. The SSA data tool will be discussed at length below in Section III: Findings. The SSA data are maintained in Microsoft Excel spreadsheets and converted to SAS, a statistical software program, for analysis.

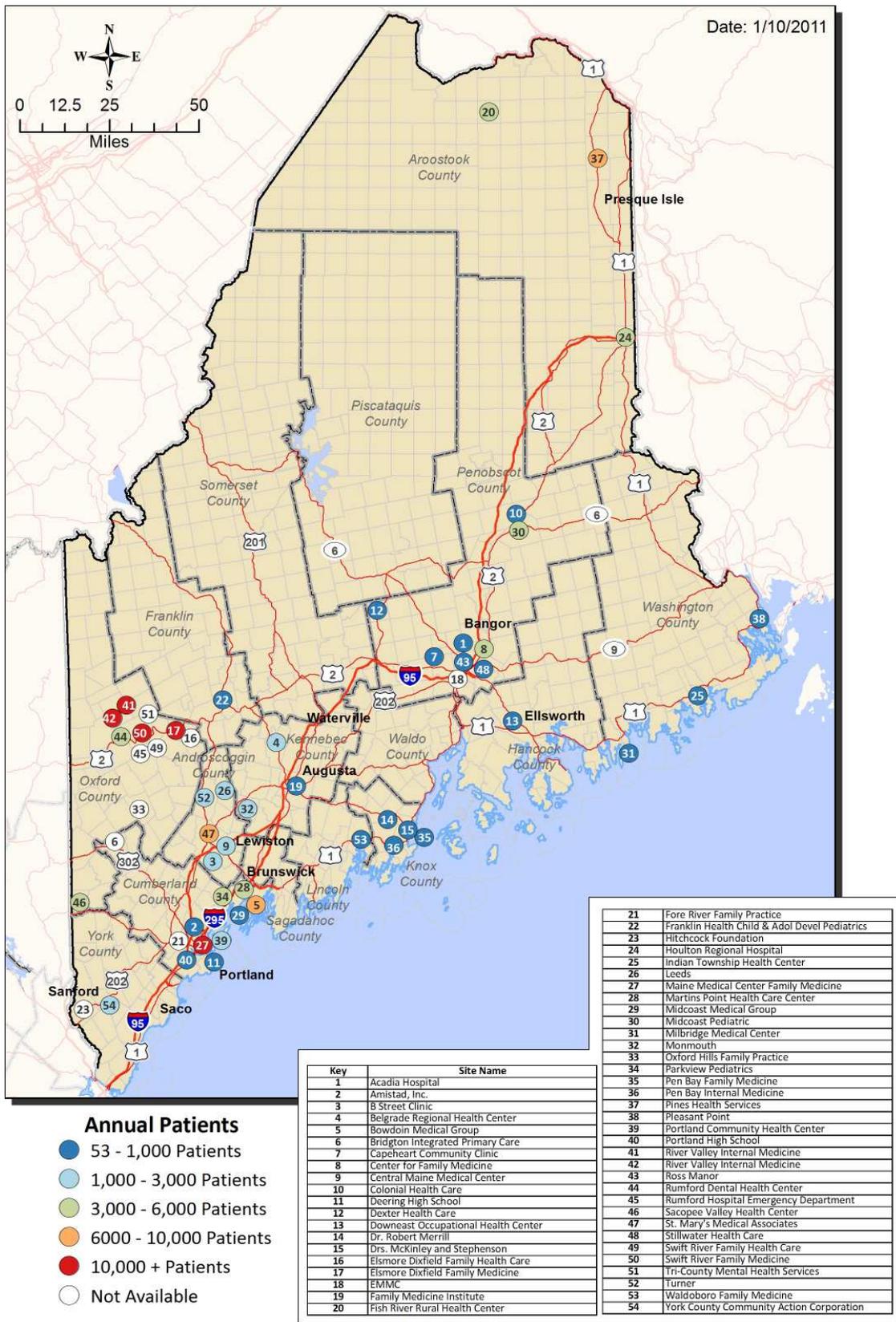
4. Client Data Elements

Patient-level data were collected through the Client Data Element (CDE) form and submitted in the aggregate by grantees to JSI quarterly. The CDE includes data on the number of patients screened, number and location of those seen by project staff, number and location of referrals, primary reasons for referral, patient demographics, case management referrals and engagement, and engagement in treatment. Grantees followed integrated patients up to three months to track their engagement in treatment.

Beginning in year two of the evaluation, grantees began reporting outcome measures. These will be reported every six months to JSI (as of the time of this report, only one round of outcomes had been collected). The CDE data tool will be discussed at length below in Section III: Findings. The CDE data were maintained in a Microsoft Access database and downloaded to SAS, a statistical software program, for analysis.

²³ Diagrams are adapted from Greenhaulgh et al

Appendix C: Map of Practice Site Locations



Appendix D: Client Data Elements (CDE) Form

General Instructions:

- Note: for purposes of the CDE, the term behavioral health (BH) will be used to refer to behavioral health, mental health (MH), and/or substance abuse (SA). PC refers to primary care. CM refers to case management or care management.
- These data elements will be collected by all MeHAF Integration Initiative Projects that include direct services to clients. The purpose of the data collection is to provide information about the scope of services and client-level outcomes of the Integration Initiative as a whole and of individual projects. The CDE language is based primarily on a model of integrating behavioral health into primary care, but we recognize that projects under the Initiative Integration may be integrating primary care into behavioral health or be doing bi-directional integration. For grantees currently providing primarily BH services and adding links for medical or primary care needs, the following questions refer to screening for medical or primary care needs, and appropriate follow-up for those medical needs.
- Grantees should complete a CDE for every participating site in your project that provides direct services. For example, a grantee may have 3 family practice clinic sites, each of which is co-locating a BH specialist on-site. This grantee would complete 3 CDE Forms, one for each clinic. JSI will verify with each grantee their number of CDE Forms, since not all projects fit this example exactly. If locations are added or removed over time, please contact JSI so that we are aware of the change in number of CDE Forms we should expect to receive.

Grantee: _____

Site: _____

Quarter, Year: _____

CDE Section I

1. _____ Number of patients/clients screened/assessed for the first time each quarter

“Screened” refers to the patients/clients who are evaluated as potentially needing the services offered by the project. Screening may be accomplished informally by clinicians or through the use of specific instruments (e.g., the PHQ9). If all patients are eligible and could be screened informally at any visit, the best estimate may be the total number of patients seen this quarter at this site. If only certain patients are eligible (e.g., people with diabetes) or certain visits (e.g., annual physicals) are eligible, then the estimate should be refined accordingly. If a specific screening tool is used to identify eligible patients, then the count of completed forms for the quarter would be a good estimate.

It is OK to count patients/clients who are rescreened if the patient/client was negative on the prior screen. Do not count repeat use of screening (e.g., tools) among patients/clients receiving project-related services or treatment. The difference is that in the former case the tool is being used to screen, or identify, patients/clients who may be eligible for services; whereas in the latter, it is tracking progress among patients/clients receiving services. The latter information is gathered in items 4 and 5.

2. _____ Number of patients/clients seen this quarter by the project-funded staff for initial assessment/intervention.

If this project is integrating BH into PC, count the number of patients/clients (from #1) with an initial contact with the BH provider this quarter. If it is integrating PC into BH, count the initial contacts with the PCP this quarter. If this project provides BH consultations with PCPs, count the number of PCP initial telephone consultations with BH providers this quarter.

3. _____ Number of patients/clients in #2 for whom the initial assessment/ intervention was adequate.

4. _____ Number of patients/clients in #2 for whom follow-up appointments or referrals for treatment were recommended.

- Patients/clients counted in Item # 3 should not be counted in Item #4.
- Treatment appointments and referrals must be for project-related treatment.
- Partner location is a general term that includes satellite centers in a physically different location than where the "screening" took place. The Partner location is meant to encompass providers/entities within the same organizational structure but not physically co-located in the building of the entity named on the CDE.

4a) _____ Follow up tx appointments and referrals are at same location where patient initially screened

4b) _____ Follow up tx appointments and referrals are at a partner location

4c) _____ Follow up tx appointments and referrals are at a site(s) external to the project

4d) _____ Follow up tx appointments and referrals are at mix of location types

5. _____ Number of patients/clients in #2 for whom additional case/care management was recommended (either project-related or other case/care management services).

- Patients/clients counted in Item # 3 should not be counted in Item #5.
- Patients/clients may be counted in Items #4, #5, or both.

6. List the top five reasons for referrals this quarter:

Referral Reasons (e.g., medication management, brief therapy, case/care management, etc.)	<i>Number (optional)</i>	For each referral reason, fill in circle for most common location
1.		<input type="radio"/> same location as screening <input type="radio"/> partner location <input type="radio"/> external referral
2.		<input type="radio"/> same location as screening <input type="radio"/> partner location <input type="radio"/> external referral
3.		<input type="radio"/> same location as screening <input type="radio"/> partner location <input type="radio"/> external referral
4.		<input type="radio"/> same location as screening <input type="radio"/> partner location <input type="radio"/> external referral
5.		<input type="radio"/> same location as screening <input type="radio"/> partner location <input type="radio"/> external referral

7. Did any patients/clients decline the recommended referrals/appointments (estimate)?

- Yes → if yes, how many?
 a few (1% or less)
 several (between 1% and 10%)
 many (greater than 10%)

No

Section II

Demographics are based on the # you reported in Question 2. Please count each person only ONCE when reporting each Demographic question.

GENDER

- _____ # Females
- _____ # Males
- _____ # Unreported

AGE

- _____ # 0-18 years
- _____ # 19-64 years
- _____ # 65+ years
- _____ # Unreported

ETHNICITY

- _____ # Hispanic or Latino
- _____ # All Others (i.e., not Hispanic/Latino)
- _____ # Unreported

RACE

- _____ # Asian, Hawaiian, Pacific Islander
- _____ # Black, African-American
- _____ # American Indian, Alaska Native
- _____ # White
- _____ # More than one race
- _____ # Unreported

INSURANCE

- _____ # Self-Pay or Uninsured
- _____ # Medicaid
- _____ # Medicare
- _____ # Private
- _____ # Unreported

SECTION III

The purpose of this section is to describe how many of those patients/clients who had an initial assessment in the prior quarter engaged in additional services after that initial contact. Create a time window of 90 DAYS after the initial visit date for each patient/client and count the number of visits for any project-related services that were provided for the client within the time window. Then count up the number of clients that fit in each category below.

12. ____ Number of patients/clients who were recommended for follow-up appointments or referrals for treatment in the PRIOR quarter (the answer to question 4 in the previous quarter's CDE)

13. ____ Number of patients/clients in the prior quarter (#12) who had at least one case/care management service during the 90 days after the initial assessment. (Include those who received project-related and non-project related CM services)

14. ____ Number of patients/clients in the prior quarter (#12) who had ZERO treatment visits during the 90 days after the initial assessment.

Of the patient/clients with ZERO treatment visits, report the number of patients/clients whose referral/follow-ups were to....

- 14a) ____ the same location as the initial screening
- 14b) ____ at a partner location
- 14c) ____ a location external to the project
- 14d) ____ multiple types of locations

15. ____ Number of patients/clients in the prior quarter (#12) who had ONE treatment visits during the 90 days after initial assessment.

Of the patient/clients with ONE treatment visit, report the number of patients/clients whose referral/follow-ups were to....

- 15a) ____ the same location as the initial screening
- 15b) ____ at a partner location
- 15c) ____ a location external to the project

16. ____ Number of patients/clients in the prior quarter (# 12) who had TWO OR MORE treatment visits during the 90 days after the initial assessment.

Of the patients/clients with TWO OR MORE treatment visit, report the number of patients/clients whose referral/follow-ups were to....

- 16a) ____ the same location as the initial screening
- 16b) ____ at a partner location
- 16c) ____ a location external to the project
- 16d) ____ multiple types of locations

17. Your estimate: when you refer patients to external providers, for what percentage do you receive at least one feedback report about the treatment provided, such as a discharge summary report

- _____ a. For nearly all patients (90% of patients or more)
- _____ b. For a majority of patients (50% to 89%)
- _____ c. For some patients (11% to 49%)
- _____ d. For very few patients (10% or less)

Appendix E: Site Self Assessment (SSA) Form

I. Integrated Services and Patient and Family-Centeredness					(Circle one NUMBER for each characteristic)				
Characteristic	Levels								
1. Co-location of treatment for primary care and mental/behavioral health care	... does not exist; consumers go to separate sites for services 1	... is minimal; but some conversations occur among types of providers; established referral partners exist 2 3 4	... is partially provided; multiple services are available at same site; some coordination of appointments and services 5 6 7	... exists, with one reception area; appointments jointly scheduled; one visit can address multiple needs 8 9 10					
2. Emotional/behavioral health needs (e.g., stress, depression, anxiety, substance abuse) 2. (ALTERNATE: If you are a behavioral or mental health site, respond in terms of medical care needs)	... are not assessed (in this site) 1	... are occasionally assessed; screening/assessment protocols are not standardized or are nonexistent 2 3 4	... screening/assessment is integrated into care on a pilot basis; assessment results are documented prior to treatment 5 6 7	... screening/assessment tools are integrated into practice pathways to routinely assess MH/BH/PC needs of all patients; standardized screening/assessment protocols are used and documented. 8 9 10					
3. Treatment plan(s) for primary care <i>and</i> behavioral/mental health care	... do not exist 1	... exist, but are separate and uncoordinated among providers; occasional sharing of information occurs 2 3 4	... Providers have separate plans, but work in consultation; needs for specialty care are served separately 5 6 7	... are integrated and accessible to all providers and care manager; patients with high behavioral health needs have specialty services that are coordinated with primary care 8 9 10					
4. Patient care that is based on (or informed by) best practice evidence for BH/MH and primary care	... does not exist in a systematic way 1	... depends on each provider's own use of the evidence; some shared evidence-based approaches occur in individual cases 2 3 4	... evidence-based guidelines available, but not systematically integrated into care delivery; use of evidence-based treatment depends on preferences of individual providers 5 6 7	... follow evidence-based guidelines for treatment and practices; is supported through provider education and reminders; is applied appropriately and consistently 8 9 10					
5. Patient/family involvement in care plan	... does not occur 1	... is passive; clinician or educator directs care with occasional patient/family input 2 3 4	... is sometimes included in decisions about integrated care; decisions about treatment are done collaboratively with <i>some</i> patients/families and their provider(s) 5 6 7	... is an integral part of the system of care; collaboration occurs among patient/family and team members and takes into account family, work or community barriers and resources 8 9 10					

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<p>6. Communication with patients about integrated care</p>	<p>... does not occur</p> <p style="text-align: center;">1</p>	<p>... occurs sporadically, or only by use of printed material; no tailoring to patient's needs, culture, language, or learning style</p> <p style="text-align: center;">2 3 4</p>	<p>... occurs as a part of patient visits; team members communicate with patients about integrated care; encourage patients to become active participants in care and decision making; tailoring to patient/family cultures and learning styles is frequent</p> <p style="text-align: center;">5 6 7</p>	<p>... is a systematic part of site's integration plans; is an integral part of interactions with all patients; team members trained in <i>how</i> to communicate with patients about integrated care</p> <p style="text-align: center;">8 9 10</p>
<p>7. Follow-up of assessments, tests, treatment, referrals and other services</p>	<p>... is done at the initiative of the patient/family members</p> <p style="text-align: center;">1</p>	<p>... is done sporadically or only at the initiative of individual providers; no system for monitoring extent of follow-up</p> <p style="text-align: center;">2 3 4</p>	<p>... is monitored by the practice team as a normal part of care delivery; interpretation of assessments and lab tests usually done in response to patient inquiries; minimal outreach to patients who miss appointments</p> <p style="text-align: center;">5 6 7</p>	<p>... is done by a systematic process that includes monitoring patient utilization; includes interpretation of assessments/lab tests for all patients; is customized to patients' needs, using varied methods; is proactive in outreach to patients who miss appointments</p> <p style="text-align: center;">8 9 10</p>
<p>8. Social support (for patients to implement recommended treatment)</p>	<p>... is not addressed</p> <p style="text-align: center;">1</p>	<p>... is discussed in general terms, not based on an assessment of patient's individual needs or resources</p> <p style="text-align: center;">2 3 4</p>	<p>... is encouraged through collaborative exploration of resources available (e.g., significant others, education groups, support groups) to meet individual needs</p> <p style="text-align: center;">5 6 7</p>	<p>... is part of standard practice, to assess needs, link patients with services and follow up on social support plans using household, community or other resources</p> <p style="text-align: center;">8 9 10</p>
<p>9. Linking to Community Resources</p>	<p>... does not occur</p> <p style="text-align: center;">1</p>	<p>... is limited to a list or pamphlet of contact information for relevant resources</p> <p style="text-align: center;">2 3 4</p>	<p>... occurs through a referral system; staff member discusses patient needs, barriers and appropriate resources before making referral</p> <p style="text-align: center;">5 6 7</p>	<p>... is based on an in-place system for coordinated referrals, referral follow-up and communication among sites, community resource organizations, and patients</p> <p style="text-align: center;">8 9 10</p>

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II. Practice/Organization (Circle one NUMBER for each characteristic)				
Characteristic	Levels			
1. Organizational leadership for integrated care	... does not exist or shows little interest 1	... is supportive in a general way, but views this initiative as a "special project" rather than a change in usual care 2 3 4	... is provided by senior administrators, as one of a number of ongoing quality improvement initiatives; few internal resources supplied (such as staff time for team meetings) 5 6 7	... strongly supports care integration as a part of the site's expected change in delivery strategy; provides support and/or resources for team time, staff education, information systems, etc.; integration project leaders viewed as organizational role models 8 9 10
2. Patient care team for implementing integrated care	... does not exist 1	... exists but has little cohesiveness among team members; not central to care delivery 2 3 4	... is well defined, each member has defined roles/responsibilities; good communication and cohesiveness among members; members are cross-trained, have complementary skills 5 6 7	... is a concept embraced, supported and rewarded by the senior leadership; "teamness" is part of the system culture; case conferences and team meetings are regularly scheduled 8 9 10
3. Providers' engagement with integrated care ("buy-in")	... is minimal 1	... engaged some of the time, but some providers not enthusiastic about integrated care 2 3 4	... is moderately consistent, but with some concerns; some providers not fully implementing intended integration components 5 6 7	... all or nearly all providers are enthusiastically implementing all components of your site's integrated care 8 9 10
4. Continuity of care between primary care and behavioral/mental health	... does not exist 1	... is not always assured; patients with multiple needs are responsible for their own coordination and follow-up 2 3 4	... is achieved for some patients through the use of a care manager or other strategy for coordinating needed care; perhaps for a pilot group of patients only 5 6 7	... systems are in place to support continuity of care, to assure all patients are screened, assessed for treatment as needed, treatment scheduled, and follow-up maintained 8 9 10
5. Coordination of referrals and specialists	... does not exist 1	... is sporadic, lacking systematic follow-up, review or incorporation into the patient's plan of care; little specialist contact with primary care team 2 3 4	... occurs through teamwork & care management to recommend referrals appropriately; report on referrals sent to primary site; coordination with specialists in adjusting patients' care plans; specialists contribute to planning for integrated care 5 6 7	... is accomplished by having systems in place to refer, track incomplete referrals and follow-up with patient and/or specialist to integrate referral into care plan; includes specialists' involvement in primary care team training and quality improvement 8 9 10
6. Data systems/patient records	... are based on paper records only; separate records used by each provider 1	... are shared among providers on an <i>ad hoc</i> basis; multiple records exist for each patient; no aggregate data used to identify trends or gaps 2 3 4	... use a data system (paper or EMR) shared among the patient care team, who all have access to the shared medical record, treatment plan and lab/test results; team uses aggregated data to identify trends and launches QI 5 6 7	... has a full EMR accessible to all providers; team uses a registry or EMR to routinely track key indicators of patient outcomes and integration outcomes; indicators reported regularly to management; team uses data to support a continuous QI process 8 9 10

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	1	2	3	4	5	6	7	8	9	10
7. Patient/family input to integration management	... does not occur	... occurs on an <i>ad hoc</i> basis; not promoted systematically; patients must take initiative to make suggestions			... is solicited through advisory groups, membership on the team, focus groups, surveys, suggestion boxes, etc. for both current services and delivery improvements under consideration; patients/families are made aware of mechanism for input and encouraged to participate			... is considered an essential part of management's decision-making process; systems are in place to ensure consumer input regarding practice policies and service delivery; evidence shows that management acts on the information		
8. Physician, team and staff education and training for integrated care	... does not occur	... occurs on a limited basis without routine follow-up or monitoring; methods mostly didactic			... is provided for some (e.g. pilot) team members using established and standardized materials, protocols or curricula; includes behavioral change methods such as modeling and practice for role changes; training monitored for staff participation			... is supported and incentivized by the site for all providers; continuing education about integration and evidence-based practice is routinely provided to maintain knowledge and skills; job descriptions reflect skills and orientation to care integration		
9. Funding sources/resources	... are only from MeHAF grant; no shared resource streams	... separate PC/MH/BH funding streams, but all contribute to costs of integrated care; few resources from participating organizations/agencies			... separate funding streams, but some sharing of on-site expenses, e.g., for some staffing or infrastructure; available billing codes used for new services; agencies contribute some resources to support change to integration, such as in-kind staff or expenses of provider training			... fully integrated funding, with resources shared across providers; maximization of billing for all types of treatment; resources and staffing used flexibly		

Appendix F: Clinical Outcome Methods and Preliminary Results

a) *Measurement Methods and Issues*

From November 2009 through March 2010, each grantee worked with its MeHAF project officer to identify patient-level clinical indicators (“outcome measures”). The chosen measures were relevant to their practice sites’ patient population, feasible to collect, and reliable and valid. During the spring of 2010, JSI had conference calls with each grantee to work out the analytic (e.g., timing of follow-up measurement, identifying which patients to measure) and operational (e.g., identifying data sources, creating data formats) details for their practice sites to implement outcomes assessment. In August 2010, the first data draw was completed for patients clinically assessed during the first half of 2010. Grantees also completed a survey to describe the data they were providing, the level of effort to produce it, and plans for using the information.

Among twenty grantees,²⁴ 15 different patient-level indicators were chosen. Six grantees chose the PHQ-9 for depression (often pairing it with the GAD for anxiety); otherwise indicators were unique to each grantee.

There are two key challenges faced by practice sites when collecting outcomes data:

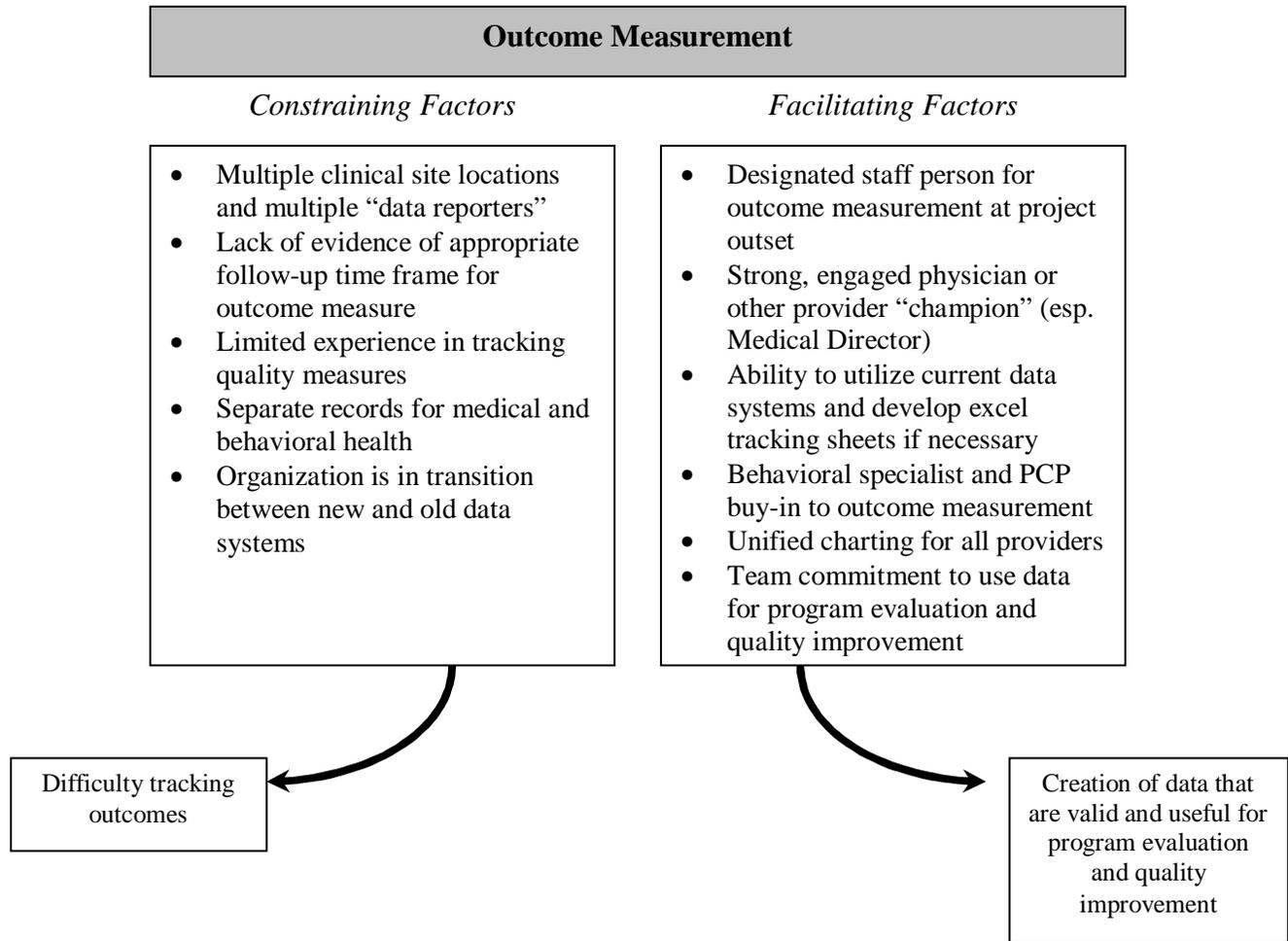
- Measuring patients over time (after initial assessment); and
- Extracting the data from medical record or project-specific data systems.

Measuring patients over time is a complex task. A crucial step is defining a clinically relevant amount of time for re-measuring patients in order to see improvement of symptoms. Treatment guidelines typically contain a schedule and tools for re-evaluation of patients. As noted in the SSA analysis, guidelines are rarely used for Initiative patients. Also SSA results indicated that follow-up with patients is not a systematic process at many practices. Thus, few practices have standard follow-up periods for re-assessment. Rather, follow-up was determined by patient needs and preferences. Inconsistent timing of follow-up visits means interpreting change scores is very difficult for program evaluation purposes.

Extracting data from medical record or project specific data systems is the second challenge to outcomes reporting. Based on a survey of project data coordinators, it took nearly a day (average of 6 hours) to pull the data for the first half of 2010. For most grantees (13/16 survey respondents), multiple data sources were required to produce the data. The majority (12) reported having to manually review charts or electronic records, locating each patient’s ID or name on the project registry (typically a spreadsheet) and then opening their charts to locate outcomes measures. Most grantees (13) reported having to work with multiple sources to produce the data, including the registry, patient records, EMR reports, as well as speaking with provider staff. Thus, for many, if not most grantees, their practice sites’ data systems do not yet fully support integration. This is true for both encounter data (such as collected in the CDE database) and outcomes data.

The figure below summarizes these constraining and facilitating contextual factors that promote or impede successful tracking of outcomes.

²⁴ The 4 grantees initially funded in 2009 will begin outcomes data collection in 2011.



Tips: Measuring Outcomes

- Use team approach (including BHS and medical team members) to decide on outcome of interest, and review evidenced-based measures.
- Consider appropriate clinical follow-up period and feasibility and mode (face-to-face, over the phone). Also consider which staff can be involved in follow up.
- Select outcomes that are relevant to assessing integration approaches rather than just collecting outcomes for reporting purposes.

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b) Preliminary Clinical Results

Clinical Status of Patients Accessing Integrated Services, 1st Half of 2010

Preliminary Data aggregated to grantee level*

Grantee	Data Quality**	# 2010 clients	Clinical indicator	Threshold for risk of poor health	Mean (stdev) Score	Proportion w. significant symptoms (at or beyond cut point)
Acadia 2008	Excellent	34	SF12 quality of life (physical & mental health)	<50	PH=42.9(12.4) MH=31.2(11.0)	70%; 90%
AMHC	Good	15	OA-45 psych sympt & distress inventory	>= 63	89.7 (39.1)	73%
Amistad	Excellent	29	Body weight: wt gain or wt loss	N/A	3/4 needing to gain weight did so (avg +8 lbs) 15/18 needing to lose weight did so (avg -12 lbs)	
Commun. Couns.***	Very Good	28	GAF global assessment of functioning	>= 60	64.0 (6.0)	90%
DFD Russell	Excellent	74 (depression only)	PHQ-9 depression	>=5	12.9 (7.1)	85%
Downeast***	Very Good	29	Meeting short term treatment goals	N/A	72.5% of goals met	
Maine-Dart FMI***	Fair	6	FPF family protective factors	N/A (max score =60)	43.0 (11.8)	N/A
Rosscare	Very Good	23	MDS2.0 Freq. of sad affect	>=1 (values: 0,1,2)	N/A	53%
Sacopee	Very Good	45 (diabetes only)	HbA1c	>=7	10.4 (1.3)	100%
Spring Harbor 2007	Good	333	PHQ-9 depression	>=5	6.7(6.9)- 11.9(6.3)	50%
Penobscot	Fair		Self-rated physical & mental health and housing status (fair or poor)	N/A	N/A	PH: 70%; MH:36%; H:26%
Pen Bay	Good	38	PHQ-9 depression GAD anxiety	>=5	12.4 (6.9) 12.1 (6.2)	83% 90%
York	Fair	9	PHQ-9 depression	>=5	20.4 (4.6)	100%
Tri-County	Very Good	104	PHQ-9 depression & GAD anxiety	>=5; >=3	17.3 ()	95%

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Grantees using process measures:

	Excellent	53	85% of clients referred for dental services had a full (preventive) exam; the rest had a limited (treatment) exam. The ED generated the most referrals (25)
Spring Harbor 2008	Fair	11 clinicians	9/11 PCPs surveyed have used the child psych consultation service. All 11 PCPs agree there was adequate access, in a timely manner and the service was useful.

* Acadia 2007, Hitchcock, St. Mary's not represented in table because no outcome data have been submitted yet.

** Data quality is a function of JSI's review of the first outcomes data draw and is a function of completeness (all sites and all patients included), inclusion of dates of measurement, and ability to collect follow-up data.

*** Youth or Child/Family clients only. For all other grantees, only adult data are reported.