Final Evaluation Report

Maine Health Access Foundation Integration Initiative:

Cross-Site Evaluation of Clinical Implementation Grantees

JSI
John Snow, Inc.

MeHAF
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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 (CI), and Systems Transformation grants. In January 2009, John Snow, Inc. (JSI) was contracted by MeHAF to conduct a cross-site evaluation of the work of its Clinical Implementation grantees. This report is the Final Evaluation Report for this cross-site evaluation and is organized as follows:

- Evaluation questions, frameworks, and methods – this section is a detailed description of the organizing structure of the evaluation, data collection processes and tools, and analysis strategies;
- Description of grantees and service settings – this section presents an overview of grantees and service settings in terms of numbers, types of organizations, structure of integrated services, and range of populations served;
- Findings – this section is organized around outcomes related to reach, effectiveness, adoption, implementation, and maintenance; and
- Discussion – this section ties findings back to the overall evaluation questions.

This final evaluation report is a culmination of the five-year evaluation effort. It draws on several other reports and deliverables that have been completed for this contract, including the following: *Evaluation of Integration Initiative: Year One Report (February 2010), Year Two Evaluation Report (May 2011), MeHAF Integration Initiative: Outcomes Analysis for Clinical Implementation Grantees (July 2013), Integration Initiative Grantee Site Profiles, The Reach of the MeHAF Integration Initiative: 2009-2012 (February 2014),* and *Optimizing the Probability of Successful Integration Implementation (article submitted for publication in Family, Systems, and Health – December 2013).*

EVALUATION QUESTIONS, FRAMEWORKS, AND METHODS

EVALUATION QUESTIONS
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.

The overall questions addressed over the duration of the cross-site evaluation are as follows:

- 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)?

FRAMEWORKS

The RE-AIM framework was selected to guide the evaluation.[1] 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

Reach	→	Description of who is/is not being reached through the MeHAF Clinical Implementation grants
Effectiveness	→	Outcomes related to integration efforts
Adoption	→	Description of critical factors related to organizations and providers' willingness to engage in integration
Implementation	→	Description of how integration was done and critical factors related to making it work/not work
Maintenance	→	Description of critical factors related to sustainability and institutionalization of integration

The *Findings* section of this evaluation report is structured using these components. The analysis and presentation of qualitative findings draw on the realist evaluation approach.[2] The realist approach seeks to address the question of "what is it about this kind of intervention [integrated care] that works, for whom, in what circumstances, in what respects and why."[3] The realist approach has a focus on context, an understanding of which is essential for considering spread. Qualitative results are reported in a realist manner addressing how mechanisms (M) in conjunction with context (C) lead to outcomes (O), described as CMO patterns.[4] "Outcomes" are defined as successful reach, adoption, and implementation. "Mechanism" we interpreted as strategies to achieve the desired outcome and assessed as important across many service sites' efforts. "Context" was classified according to four of the five domains of the Consolidated Framework for Implementation Research (CFIR)[5]: 1) *intervention characteristics* (such as relative advantage, adaptability, complexity, and cost of integration); 2) *outer setting* (external to the implementing site, such as policies and regulations, patient needs, and extent to which other similar organizations are implementing integration); 3) *inner setting* (inherent within the implementing site, such as culture, infrastructure, and leadership); 4) *characteristics of individuals* (personal attributes of implementing staff and providers). Contextual factors were identified as augmenting or inhibiting the pathway from mechanism to outcome.

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[1] Glasgow, R.E., Vogt, T.M., & Boles, S.M. (1999). Evaluating the public health impact of health promotion interventions: the RE-AIM framework. *American Journal of Public Health*, 89(9), 1322-1327.

[2] Pawson, R., Greenhalgh, T., Harvey, G., Walshe, K. (2005). Realist review--a new method of systematic review designed for complex policy interventions. *Journal of Health Services Research & Policy,* 10 Suppl 1, 21-34.

[3] Ibid, page S1:31.

[4] Pawson, R. and Tilley, N. (1997) *Realistic Evaluation*. London: Sage.

[5] Damschroder, L.J., Aron, D.C., Keith, R.E., Kirsh, S.R., Alexander, J.A., & Lowery, J.C. (2009). Fostering implementation of health services research findings into practice: a consolidated framework for advancing implementation science. *Implementation Science*, 4, 50.

METHODS

The cross-site evaluation consisted of primary data collection through the Client Data Element Tool, outcomes data, the Site Self-Assessment, documents review, and key informant interviews, which are described below. Some secondary data analysis was also included, specifically to contextualize the *reach* and *outcomes* findings reported. These sources are cited in the relevant sections of the report.

Client Data Element Tool

The Client Data Element (CDE) Tool was developed to collect patient-level process data. The tool was initially drafted by MeHAF. JSI, the Evaluation Working Group, and MeHAF finalized and tested the tool, and JSI developed an Access database for grantees to enter and submit their CDE process data on a quarterly basis to JSI. The process data included the number of patients screened, number and location of those seen by project staff, number and location of referrals, and patient demographics. The following schematic represents the basic structure of the CDE database, which represents the general flow a patient experiences in most service settings. JSI provided technical assistance to grantees to complete the CDE and provided summaries back to each grantee quarterly in the form of "dashboards," which displayed trend data. A copy of the CDE Tool can be found in Appendix A. A list of service settings collecting the CDE is provided in Appendix C.

Figure 2. CDE Process-Level Data Schematic
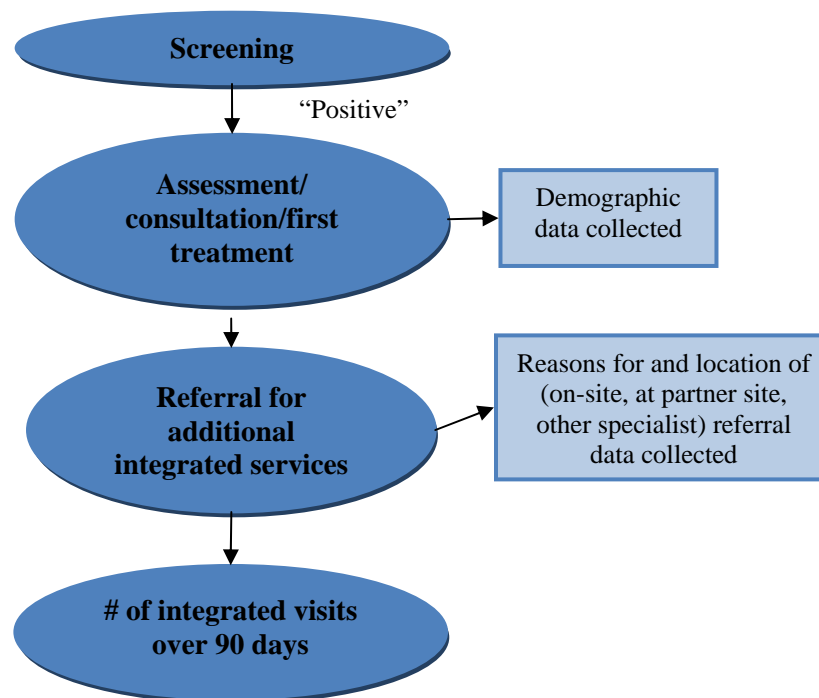
Outcome Data

Beginning in year 2 of the evaluation, grantees were asked by MeHAF to identify patient-level clinical indicators (outcomes measures). The choice of indictor(s) was based on finding measure(s) that were relevant to the grant project's approach and patient population, feasible to collect, and could be measured reliably and validly. Because of the wide variance of approaches to integrated care among

grantees, there was no intention that a common outcome would be selected for the cross-site evaluation or that outcomes would be aggregated across all grantees. During the spring of 2010, JSI had conference calls with each grantee to work out analytic (e.g., timing of follow-up measurement, identifying which patients to measure) and operational issues (e.g., identifying data sources, creating data formats). Data draws were completed semi-annually and sent to JSI using an Excel template provided by JSI. Data were collected at the practice site level, with the grantees responsible for gathering spreadsheets from all of their practice sites in the case of multi-site projects. Patients who had been assessed and then referred for MeHAF integrated services were the target population for the outcomes analysis. A list of service settings submitting outcome data is included in Appendix C.

Site-Self Assessment (SSA)

The SSA tool was adapted by MeHAF 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 B. The SSA identifies 18 key characteristics 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). Practices rated themselves on each of the 18 items using a 10-point scale. An SSA was required for each site providing patient services at baseline and annually thereafter. For grantees funded beginning January 2008, however, the baseline was done retrospectively and collected in January 2009, along with their first annual SSA. Grantees submitted their SSAs directly to MeHAF, and MeHAF transmitted them to JSI for analysis. A list of service settings contributing SSA data is included in Appendix C.

Qualitative Methods

Document review, site visits, and group and individual interviews comprise qualitative data sources. Funding applications and progress reports were reviewed and abstracted as they became available. The majority of qualitative data for the evaluation was collected through key informant interviews with the grantee and service setting management, administrative, and provider staff (both medical and behavioral health). In each year of the evaluation, the evaluation team conducted the interviews by conference call or in-person on a site visit, alternating between the two methods so that by the end of their two-year funding cycle each grantee received a site visit and at least one conference call. Site visits were one to two days in length and conference calls were one to two hours in length. Both were conducted by at least two members from the evaluation team. Both site visits and conference calls were guided by a structured interview guide, which was sent to each grantee before the event. During site visits, the evaluation team visited both the grantee and at least one of its affiliated service settings (where applicable).

The qualitative analysis approach was systematic, iterative, and continuous throughout the data collection process. The evaluation team met on a regular basis to identify and discuss patterns and themes emerging in response to document reviews, interviews and other interactions with the grantees and clinics and to identify, classify, and code. Field notes were kept for each document review, visit, and telephone calls and entered into NVivo ® (version 8.0, QSR International; Cambridge, MA) software, a qualitative analysis software, used to confirm preliminary themes and to highlight those not previously identified. Convergence on findings emerged over time through a process of identification, review, confirmation or refutation both within the evaluation team and on follow-up site visits or conference calls with the participating sites.

Important Note Regarding Maintenance Component

MeHAF contracted a separate study on sustainability that was conducted two years following the end of each grant cycle.[6] For purposes of producing a comprehensive Final Evaluation Report, results from this work are summarized in this report at the request of and permission from MeHAF.

DESCRIPTION OF GRANTEES AND SERVICE SETTINGS[7]

GRANTEES

There were 21 grantee organizations that were the recipients of 24 Clinical Implementation grants grants[8] – 14 funded in 2007, 6 funded in 2008, and 4 funded in 2009. The grantees were widely distributed throughout the state. Seven of the grantees represented behavioral health-oriented provider organizations, nine of the grantees represented primary care-oriented provider organizations, and five of the grantees were classified as "other" as follows: a multi-site dental provider (Community Dental); a network of nursing homes (Northeast Integrated Geriatrics Care – Rosscare);[9] a community-based organization offering social services and limited health services (Downeast Health Services); a private foundation with a grant focus on enhancing education, screening, and referral services for military veterans with possible traumatic brain injury (Hitchcock); and a community-based, consumer-directed organization providing a range of services to people facing mental health and other life challenges (Amistad, Inc.).[10] Of the 24 grants, nine of the grantee organizations also served as a service setting for their integration work.[11] This generally meant that the integration activities occurred within one organization and involved staff from one organization. This is contrasted with the 15 grantee organizations that formed cross-organizational relationships to implement integration activities. Often (9 out of 15 cases), staff from the grantee organizations were deployed to service settings in other organizations to do integration.

SERVICE SETTINGS

The terms "service setting," "practice sites," and "sites" are used interchangeably throughout this report to describe the primary location where integrated services were offered. The 24 grants represented 88 service settings[12] as detailed in Figure 3. The linkage mechanism refers to the physical structure through which patients/clients received integrated services, with definitions as follows:

- *Co-location*: Behavioral health and primary care providers served patients in the same location (generally in a primary care setting). Behavioral health providers may have been employees of the hosting organization or may have been contracted from another organization to spend an

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[6] Joly, Brenda M. *Patient-Centered Care Integration Initiative: Rounds I and II A summary of Findings.* Prepared for Maine Health Access Foundation (June 2013).

[7] See *Integration Initiative Grantee Site Profiles* (August 2013) for detailed information about each grantee and its affiliated sites.

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

[9] See *Northeast Integrated Geriatrics Care: Supporting Primary Care in Long-term Care Settings* (June 2011), a case study of this grantee.

[10] See *Healthy Amistad* (August 2011), a case study of this grantee.

[11] Although in several cases the grantee may have served as a referral source for patients receiving integrated, co-located services who may have been in need of higher level services (e.g., Spring Harbor 2008, St. Mary's Health System, Pen Bay Healthcare, and Tri-County Mental Health Services).

[12] Service settings active at any time from January 2007 through December 2010.

agreed upon number of hours at the hosting organization. In the latter case, supervision of the behavioral health providers remained with their primary employer.

- *Consultation*: This integration approach linked primary care and behavioral health through an expert, consultative relationship. Consultation services were generally provider to provider, although in rare circumstances the consulting provider may have seen a patient. The service settings using this linkage mechanism were primary care-based and provided access to a behavioral health provider for consultation, enabling the PCPs to care for patients with mental health conditions who might otherwise have had to be referred out.
- *Enhanced referral*: This integration approach improved upon and/or formalized referral arrangements and coordination across organizations.

Figure 3. Grantees by Linkage Mechanism and Populations Served
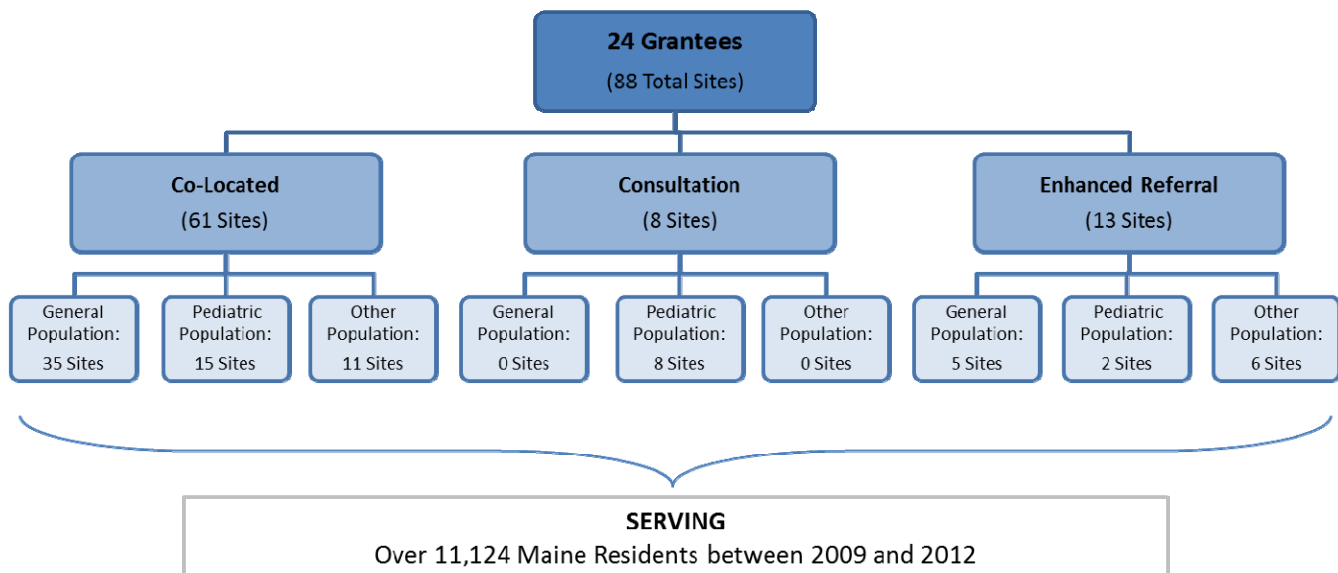
Note: The linkage mechanism was unknown for 6 out of the 88 total sites. "Pediatric Population" included pediatric practices, schools, and non-medica sites serving children. "Other" included sites focused on the elderly, substance abuse, SMI, homeless, dental, veterans, and ER.

The vast majority of linkage mechanisms were co-located. On average, each grantee worked with 3.7 sites, with a range from 1 to 14. The average is based on the 9 grantees that integrated services in a single site, and the 15 grantees that integrated services at multiple sites. In terms of population served, 45 of the 88 sites (51%) targeted integrated services to a general primary care population; 26 sites (29%) targeted youth, either through a pediatric clinic (20 sites) or through schools or youth programs (5 school sites and 1 youth program); 5 sites (all affiliated with one grantee) targeted an elderly population (6%); 4 sites (5%) targeted patients with substance abuse issues; 3 sites (3%) targeted persons living with serious mental illness; and 6 sites (6%) targeted other populations (including homeless (2 sites), patients in need of dental care, patients seen in the emergency room, and veterans with traumatic brain injury).

FINDINGS

The findings are presented by each component of the RE-AIM model: Reach, Effectiveness, Adoption, Implementation, and Maintenance.

REACH

"Reach" is defined as **"the absolute number, proportion, and representativeness of individuals who are willing to participate in a given initiative."** For the evaluation of the Clinical Implementation grants, one key method to assess reach was to measure the uptake of integration services, since relatively high levels of uptake can: 1) indicate a well-functioning program that meets the needs of patients/clients; and 2) provide a sense of the extent of the Clinical Implementation grants to impact on Maine residents.

Reach was determined based upon data collected through the CDE during the 2009-2012 grant period. Throughout this period, all Clinical Implementation grantees were required to systematically and consistently collect counts of patients/clients who came in contact with their integrated care services. JSI collected these "client data elements" (CDE data) on a quarterly basis, working with grantees to develop a process to collect the data from each of their clinical sites. The reach analysis was informed by a combination of: 1) the quarterly CDE data that were collected from 22 grantees and their associated 62 clinical care sites that provided usable CDE data; and 2) supplemental data from several other sources to put the results about access into context.[13]

Many of the grantees have since expanded integrated services beyond initial service settings involved during the grant period, some have closed down integrated sites, and some have decided to no longer offer the same services that they did during the grant period. As such, these more recent changes to their integrated care delivery are not captured in the reach analysis.

Number of People Who Accessed Integrated Care

The MeHAF Integration Initiative reached a broad distribution of the Maine population across age, gender, and geography. During the period from January 2009 through December 2012, **over 11,124 Maine residents accessed the new services provided by the MeHAF Clinical Implementation grantees .** The majority had at least one face-to-face visit with a behavioral health provider (n=9,237; 83%) or their primary care provider had a consultation with a psychiatrist (n=1,329; 12%). Key demographics of the population reached are highlighted in Exhibit 1.

With respect to insurance status, uninsured people were referred to integrated behavioral health at higher rates than people with other types of insurance. As shown in Table 1, 21% of participants were uninsured, 51% enrolled in Medicare or Medicaid, and 23% had private health insurance. In comparison, only 10% of Maine residents and 16% of federally qualified health center (FQHC) patients were uninsured. In this regard, the Clinical Implementation grantees were successful in reaching those without insurance or who were low income (as measured by proxy of Medicaid).

> *Exhibit 1. Key highlights of demographics of people who accessed integrated*:
>
> - **Gender.** The majority of participants were women (n=6,904; 62%), though substantial numbers of men also accessed integrated care (n=4,124; 37%).
> - **Race.** The vast majority were white, non-Hispanics (n=8,858; 80%).
> - **Age.** The majority were adults 19 to 64 years (n=7,542; 68%).
> - **Older Adults.** While the overall rate of access among older adults was 9%, it was not uniformly distributed among all sites.
> - **Pediatrics.** At FQHC locations, 20% of integrated behavioral health patients were under the age of 18 compared to 15% in non-FQHC Maine sites.

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[13] CDE data were collected from 22 of the 24 grantees. Hitchcock and Spring Harbor 2007 were not able to provide CDE data.

Table 1. Insurance Coverage of Integrated Behavioral Health (IBH) Patients Compared to State

Insurance Coverage	IBH enrolled patients (2010)	US Census (KFF)[14] 2012 MAINE	FQHC Total Population Insurance Distribution[15]
Uninsured	21%	10%	16%
Medicaid	29%	23%	31%
Medicare	22%	13%	19%
Private	23%	52%	35%

Although over 4,000 men accessed services (37% of all participants), research has shown that there may be under-identification of depression and anxiety in men. Likewise, older adults may face similar issues related to under-identification as indicated by the 9% overall rate of access among older adults. While half of non-FQHC practices did not have any participants over the age of 65 years, enrollment of this older adult population was generally better at FQHCs; at 6 of the 9 FQHCs, between 10-20% of participants were over 65 years old. Compared to elsewhere in the United States, FQHCs in Maine serve a higher proportion of adults over age 65 (15% compared to 6.8% in 2010). Because Maine FQHCs play a significant role in serving the over 65 population, it is notable that the FQHCs included this population in their referrals for integrated services.

Reasons for Referrals to Integrated Care

To better understand why people used integrated services, each quarter sites also provided the top five reasons integrated providers referred patients for additional services after the initial visit. Typically, those services were provided on-site, often by the same provider or practice team; as needed, referrals were made to other providers in the community. There was a wide range of reasons why patients were referred for additional services (394 unique referral reasons listed in the CDE were then classified into 53 broader categories of referral reasons). Across all grantees, **anxiety/panic/PTSD and depression/mood disorder were the most common referral reasons**. Behavioral issues and relationships/marital issues/domestic abuse followed at about half the frequency of the depression and anxiety categories. Other primary referral reasons for integrated services included chronic disease management, developmental concerns for children, and relationship concerns for adults.

Top 5 Overall Reasons for Referral
1. Anxiety/Panic/PTSD
2. Depression/Mood Disorder
3. Behavioral Issues
4. Relationships/Marital Issues/ Domestic Abuse
5. Developmental Disorder

Proportion of People Who Accessed Integrated Care

Out of the 62 sites that provided usable CDE data, 45 sites (73%) were able to supply their average annual practice size, enabling estimation of the proportion of patients in their practice who accessed integrated care. Overall, from January 2009 through December 2012, **an average of six percent of the patients at the clinical practice sites received integrated care** (9,809 of 160,699 total patients). While each of the clinical sites may serve patients beyond their local county area, the population count for the county in which each site is located is a reasonable estimate of its target population.

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[14] Kaiser Family Foundation. http://kff.org/other/state-indicator/total-population/?state=ME. Accessed January 30, 2014.

[15] From the U.S. Department of Health and Human Services, Health Resources and Services Administration (HRSA), Bureau of Primary Health Care Uniform Data Set. Program Grantee Health Center Profiles 2012 (2011 Data). Accessed from the Health Resources and Services Administration. http://bphc.hrsa.gov/uds/datacenter.aspx?q=d&state=ME#glist.

In addition, most participating sites made integrated care available to all of their patients/clients if they needed it. Thus, another way to estimate the reach of the initiative is to examine the proportion of the Maine population that is served by the clinical sites. **Overall, about 12 percent of the population of Maine received services at the 45 integrated sites** that provided panel size information. In other words, more than one in ten Maine residents accessed services from a provider who offered integrated behavioral and medical services, with the penetration rate even higher than 12 percent in some counties.

Representativeness of People Who Accessed Integrated Care

Another way to determine reach is to examine whether the participating primary care practices among the Clinical Implementation grantees are representative of primary care practices in the state of Maine overall. Unfortunately, demographics of private practices across the state are not available. However, the 2010 Uniform Data System (UDS) system does provide this information for Maine FQHCs. Of the 62 implementation sites with CDE data, 14 were FQHCs (22%) and accounted for nearly half of all participants who accessed integrated services. Ultimately, these FQHCs were representative of FQHCs in Maine in terms of patient demographics, which suggests that their experience may be generalized to the larger FQHC population.

In 2010, there were 18 FQHCs in Maine and they served a total 175,180 patients. FQHCs participating as Clinical Implementation grantees served 113,483 patients in total in 2011, so that 65% of the total FQHC population had potential access to integrated care services. As illustrated in Table 2, between 2008 and 2012, 5,346 (5%) of participating FQHC patients actually accessed integrated care services. It is important to note that this number is likely an undercount of total integrated patients served, as in some cases, such as Penobscot Community Health Center, integration services spread beyond the MeHAF funded project but those data were not reported.

Table 2. Demographic Comparison of Clinical Implementation FQHCs to All Maine FQHCs[16]

	Demographics of People who Accessed Integrated Care at *Participating* FQHCs, 2008-2012		Demographics of People who Received Care at *Participating* FQHCs, 2011		Demographics of People who Received Care at *All* Maine FQHCs, 2010	
Total # of People	5,346		113,483		175,180	
Insurance Status	# people	% of total	# people	% of total	# people	% of total
Uninsured	1602	30%	13,026	11%	27,950	16%
Medicaid	1581	30%	34,383	30%	53,589	31%
Medicare	787	15%	22,704	20%	32,541	19%
Private	1269	24%	43,370	38%	60,738	35%
Unreported	106	2%	0	0%	0	0%
Gender	# people	% of total	# people	% of total	# people	% of total
Females	3361	63%	N/A	N/A	95,887	55%
Males	1980	37%	N/A	N/A	79,293	45%

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[16] U.S. Department of Health and Human Services, HRSA, Bureau of Primary Health Care Uniform Data Set. Program Grantee Health Center Profiles 2012 (2011 Data). Accessed from the Health Resources and Services Administration. http://bphc.hrsa.gov/uds/datacenter.aspx?q=d&state=ME#glist.

	Demographics of People who Accessed <u>Integrated Care</u> at *Participating* FQHCs, 2008-2012		Demographics of People who Received Care at *Participating* FQHCs, 2011		Demographics of People who Received Care at *All* Maine FQHCs, 2010	
Unreported	5	0%	N/A	N/A	0	0%
Age Range	**# people**	**% of total**	**# people**	**% of total**	**# people**	**% of total**
0 to 18 years	909	17%	27,898	25%	43,443	25%
19 to 64 years	3882	73%	68,614	60%	103,116	59%
65 years and over	528	10%	16,971	15%	28,621	16%
Unreported	27	1%	0	0%	0	0%

Screening for Integrated Behavioral Health Needs

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 service setting's target population is narrow (e.g., focused on particular conditions), it is expected and appropriate that reach would be less than for service settings 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 it was through a process of trial and error that MeHAF grantees attempted to reach appropriate caseloads. What is clear is that systematic identification of those in need of integrated care is an important "success" outcome for reach. The strategy (mechanism) for achieving this outcome was to implement formal screening for integrated needs, which was conducted by some but not all service settings. Contextual factors influencing this strategy (either positively or negatively) are shown in Table 3 and discussed below.

Characteristics of Individuals: Two contextual factors were classified in the CFIR's characteristics of individuals domain and either enhanced (if present) or inhibited (if absent) the formal screening for behavioral health needs. These factors were provider reluctance/refusal to screen and providers' perceived lack of time to conduct screening or to provide treatment for those identified.

Process: One contextual factor that fell into the CFIR domain of process (i.e., having to do with the introduction and implementation of integrated services) was organizational vision of priority population for integrated services. This generally meant that a grantee and its affiliated service settings had either formally conducted an analysis or at least thought through in a proactive manner both the need for integrated services within their populations and whether integrated services would best meet all of that need or some part of that need. Having a strategy related to who would be served through integrated services was important. Many service settings, however, did not have this strategy in place and rather depended on clinical judgment to inform which patients should be referred to integrated care, which varied from provider to provider and from site to site.

Intervention Characteristics: One contextual factor noted as influencing the formal screening of behavioral health needs was classified in the CFIR domain of *intervention characteristics* (i.e., central to the concept of integrated services). This factor was the availability of quick and easy to use screening

tools. Although no one screening tool is widely accepted for integrated services, some disease-specific tools are often used (e.g., PHQ-9 for depression, GAD-7 for anxiety). Availability of quick and easy to use screening tools goes hand in hand with the previous characteristic of defining the target population for integrated services. However, caution must be exercised when a site's target population is broader than the scope of the adopted screening tool. For example, some sites limited their ability to systematically identify patients with integrated care needs by using tools that were too disease specific.

Inner Setting: Two contextual factors that fell into the CFIR domain of *inner setting* were identified as facilitating or inhibiting the formal screening for behavioral health needs: practice capacity to integrate screening tools into clinic flow (e.g., incorporating screening tool(s) into the clinic's electronic medical record) and the capacity to address patients' needs that were identified through screening. The former is related to the availability of quick and easy to use screening tools. If available, the practice still needs to do more work to ensure that they worked with patient flow, including who should administer, when the screen should be administered, how often it should be administered, and how the results are shared with the patient and the provider. The latter factor, capacity to respond to needs identified, was a concern at many practice sites, especially early in their initiation of integrated services. There was not necessarily the confidence that behavioral health resources would be sufficient to meet the demand; thus, formal screening was deemed less desirable.

Table 3. CMO Reach Patterns

Mechanism		Contextual Factors	Outcome
Formal screening for integrated behavioral health needs	CI	Provider reluctance/refusal	**Patients with integrated care needs systematically identified**
	CI	Perceived lack of time to conduct screening or to provide treatment for those identified	
	P	Organizational vision of priority population for integrated services	
	IC	Quick and easy to use screening tools	
	IS	Practice capacity to incorporate screening tools into patient flow (including EMRs)	
	IS	Capacity to address needs identified through screening	
KEY: CI = Characteristics of Individuals; IS = Inner Setting; OS = Outer Setting; P = Process; IC = Intervention Characteristics			

EFFECTIVENESS

The effectiveness section is divided into two main areas: 1) clinical outcomes that were collected by some grantees and 2) service settings' self-assessment of their progress and status related to integrated care.

Clinical Outcomes

The clinical outcomes evaluation process was developed in 2009 after the other cross-site evaluation components were in place. Outcomes data collection began in 2010. Primarily intended to inform grantee's quality improvement processes related to integrated care, the data were also incorporated into the cross-site evaluation as a descriptive snapshot of clinical outcomes at participating practices. There was no common outcome measure that grantees were required to collect; rather, they were allowed to choose a clinical outcome measure that would be most appropriate for their integrated

approach and that would inform their quality improvement efforts. Grantees and their affiliated service settings submitted data as they were best able without specific grant resources dedicated to technical assistance to support infrastructure (e.g., registries, software) improvements for outcomes reporting.

There was a wide range in the ability among service settings to track and use outcomes data. Almost half (n = 11; 46%) of the 24 grantees were able to provide initial and follow-up assessments on at least some of their patients from at least one of their service settings, and thus describe change in health status. About one-third (n = 9; 38%) of grantees were only able to provide initial assessments or screening data and, thus, describe baseline severity. The remaining 4 grantees (17%) were not able to provide any data for clinical outcomes. Grantees that were more successful in providing data were working with service settings within their own organizations (rather than partners) because they had better access to the data. Grantees that had some prior experience with quality improvement initiatives also had better success reporting clinical outcomes data.

Given the variety of outcomes and variety of approaches to address data challenges, it was not feasible (nor was it the intent) to compute aggregated, project-wide outcomes results. Individual outcome results are reported in the report entitled *MeHAF Integration Initiative: Outcomes Analysis for Clinical Implementation Grantees (July 2013)* and summarized by grantee in the report entitled *Integration Initiative Grantee Site Profiles*. A description of the range of measures, summary data on baseline severity (where available), summary information about health status changes (where available), and factors influencing ability to collect outcomes data are discussed below.

Range of Measures
Nineteen (19) of the grantees were able to report outcome data from at least one of their service settings (outcome data was received from a total of 50 service settings– see Appendix C for list). Among the 19 grantees, 16 different patient-level indicators were chosen. Seven grantees chose the Patient Health Questionnaire (PHQ-9) for depression (four pairing it with the General Anxiety Disorder Scale (GAD-7) for anxiety). Otherwise, measures were unique to each grantee. Table 4 lists grantees that collected outcome measures and their selected measures.

Table 4. Clinical Outcome Measures Tracked by Grantee

Grantee Name	# of Sites Reporting	Outcome Measure
Acadia Hospital-2008	1	SF-12 Health Survey - v2
Aroostook Mental Health Services	1	OQ-45
Amistad, Inc.	1	Body weight
*Community Counseling Center	2	Global Assessment of Functioning Scale (GAF)
Community Dental	6	Referrals
DFD Russell Medical Centers	3	PHQ-9
*Downeast Health Services	3	Treatment Plan Goals
Eastern Maine Medical Center (Center for Family Medicine)	1	Substance Use Screening
*Franklin Health Child & Adolescent Developmental Pediatrics	3	Autism Screening
*Maine-Dartmouth Family Medicine	1	Resilience

Grantee Name	# of Sites Reporting	Outcome Measure
Residency		
Mercy Hospital	1	PHQ-9, Beck/GAD-7 for patients with diabetes (DM), high or low blood pressure (HBP, LBP); also: HbA1c (DM), blood pressure (HBP), pain measure (LBP)
Pen Bay Healthcare	4	PHQ-9, GAD-7
Northeast Integrated Geriatric Care	5	Sadness
Sacopee Valley Health Center	1	HbA1c
Spring Harbor-2007	4	PHQ-9
*Spring Harbor-2008	4	Survey
Tri-County Mental Health Services-2008	3	PHQ-9, GAD-7
Tri-County Mental Health Services-2009	5	PHQ-9, GAD-7
York County Community Health Care	1	PHQ-9

*Program or outcomes data focused on the pediatric population.

Baseline Severity

Based on initial assessment data from grantees monitoring mental health, patients had substantial symptoms. Seven grantees used the PHQ-9 scale to assess depression in at least one of its service settings. All groups averaged scores in the 12-14 point range at baseline, indicative of moderately severe symptoms as reported in Table 5 below.

Table 5. Cross-Grantee Average PHQ-9 Scores: Assessment of Initial Severity of Depression

Grantee	# Patients	Average PHQ-9 Score
DFD Russell Medical Centers	133	13.7
Pen Bay Health Care	313	13.1
Spring Harbor 2007 (Mid Coast Primary Care)	84	11.9
York County Community Health Care	246	12.9
Tri-County Mental Health Services-2008 - Swift River, Elsmore-Dixfield, River Valley practices	264	13.6
Tri-County Mental Health Services-2009 -Bridgton practice	424	13.3
Mercy (Fore River Clinic)	69	13.3
Overall	**1,533**	**13.2**

Moderate-to-severe anxiety co-occurring with moderate-to-severe depression was also found among most patients enrolled through the Tri-County (2008 grant) (65%), Pen Bay (53%), and Mercy Fore River (67%) programs. Other grantees using different measures also found substantial initial functional impairment (Acadia 2008 and AMHC/Fish River Practice).

Over the course of 2011, residents at EMMC's Center for Family Medicine screened nearly 4,000 patients for drug use and over 2,800 for alcohol use. They found substantial numbers who were at risk for substance use issues (30.6% for alcohol and 5.6% for other drugs); patients who could benefit from

further assessment with a behavioral health provider. Substance use was not the focus of other integration projects, yet these results imply other similar integrated practices could have had similar prevalence.

Health Status Changes
Grantees whose affiliated service settings were able to provide good follow-up data for all, or a well-defined segment, of their patients generally showed positive impacts on health status as follows:

- DFD Russell's patients with major depression (133/167 with complete data) had a statistically-significant drop in symptoms (5.6 PHQ-9 points), with 48% achieving a 50% or more reduction in symptoms or a score of 5 or less (remission).
- Sacopee Valley Health Center's diabetes patients had a non-statistically significant drop in HbA1c among participants (16 who completed the program and 10 who transitioned out) from 10.4% to 9.2%, although none achieved a reading of less than 7% over 8-12 months.
- Downeast Health Services' counselors worked with high-risk families with young children to develop treatment plans for counseling and other services. Over one-third of clients attained all of their goals (38%, 36/94) and 75% of them improved upon or attained at least one goal.
- Rosscare Nursing Homes (Northeast Integrated Geriatric Care) showed that 52% (16/ 31) of residents responded that they felt down, depressed or hopeless, improving to 36% (11/30) at follow-up; among those with symptoms, fewer depressed days were reported (an estimated 8.1 days vs. 6.5 days).
- Thirty Amistad members were recruited to monitor their weight. Over the course of six months, 50% of clients had a substantial weight change in the preferred direction, either gaining more than 5 pounds (2 of 4 clients) or losing more than 5 pounds (9 of 18 clients).
- At Mercy's Fore River Clinic, a cohort of 94 patients with complex physical and mental health issues was established, including 11 patients who were immigrants from Somalia. With the majority of these patients, they were able to establish routine clinic visits to monitor their conditions and assess and address social service needs. Modest improvements were noted in health status, particularly in the mental health of low back pain patients.

Factors Influencing Ability to Collect Outcomes Data
There were two factors that enabled grantees to report useful outcomes data. The first was having organizational experience with quality measurement and a project leader who worked with staff to plan and implement outcomes assessment. Grantees with these capabilities were able to provide information even though they may have lacked the tools to easily do so (e.g., having a "point and click" reporting software application). A second factor was the ability to track all assessed patients over time, *or* the ability to define a subset of patients and track them over time. Being able to define a group of patients greatly improves the ability to interpret outcomes. For example, having initial and follow-up assessments on only a small subset of patients begs the question of why that group had follow-up data. They could have been more compliant, more seriously ill or some other characteristic that makes them less generalizable to all patients. If on the other hand, initial and follow-up assessments were gathered on all patients with major depression (or diabetes or other well-defined characteristic), then interpretation is relatively more straightforward. The limitation is that some patient sub-groups would not be represented in the data. But with time, budget, and staff constraints, it is a reasonable approach, and consistent with a quality management framework. Over time different sub-groups could be assessed.

There were several factors that were particular barriers to reporting useful outcomes data. Patients who were very difficult to engage in care were also very difficult to engage in outcomes assessment. Even though some had strong assessment plans in place (Acadia Hospital - 2008, Penobscot Community Health Center, York County Community Health Care), they served populations who were homeless and living with serious mental illness who often are more challenging to engage in care. A related issue is that it is difficult to establish an "appropriate" timeframe for health status improvement - and what improvement might mean - in health status for very complex patients, with multiple serious conditions (such as at Mercy's Fore River Clinic). Finally, grantees whose clinical practice partners did not have the resources or other incentives to provide data did not do so (Spring Harbor - 2007 and AMHC).

Site Self-Assessment along Dimensions of Integrated Care (SSA)

Measurement Methods

A copy of the SSA can be found in Appendix B. The SSA identifies 18 key characteristics 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). Practices rate themselves on each of the 18 items using a 10-point scale that can be interpreted as shown in Table 6.

Table 6. Interpretation of SSA Scale

Level	Numerical SSA Score	Description
"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 **individual level** of the 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 SSA is subjectively completed, as each service setting weighs the measured and unmeasured factors that impact each characteristic in its own way. The SSA's primary purpose is for ongoing self-reflection as to the progress of integration implementation.

Every participating service setting was asked to complete an SSA annually, providing a baseline, Year 1, and Year 2 SSA by the end of its grant period. However, some sites were not able to submit any SSAs and some sites were only able to submit one or two of the three SSAs. A few grantees submitted combined SSA scores for all their affiliated sites in one year and separate SSAs for another year. Thus, for service sites that submitted a) three complete SSAs or b) a baseline and Year 2 SSA, their final SSA represented their attained, or *final*, level of integration and patient centeredness (two year change in self-assessed integration). For sites that only submitted baseline and Year 1 SSAs, their last SSA submitted represented their achieved status as of the *midpoints* of their projects (one year change in self-assessed integration).

Because of this difference in timing, results for 2007, 2008, and 2009 service settings with two year change data (baseline to Year 2) are reported separately than those service settings that reported one year change data (baseline to Year 1). Any site missing a baseline SSA or if it only had one SSA was excluded from the analysis. If either the first or last SSA was 50% or more incomplete, the SSA was

deemed not usable. 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 service settings may have overestimated their ratings in the first year due to inexperience with the SSA and 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 sites with three measures, we could account for this effect. For this group, if there was a decline in ratings from Baseline to Year 1 but in Year 2 ratings equaled or bettered those from Year 1, they were categorized as having maintained or improved to that final level, respectively. For practices with only two measures, we could not account for the measurement effect in this way.

Sites Included by Grantee Year
***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).

***2008 Grantees*.** Five (5) out of six (6) 2008 Clinical Implementation grantees are included in this analysis. Spring Harbor 2008 and its service settings were not included due to missing data. Seven (7) of the 2008 grantees' sites were able to provide two year change data (Acadia Hospital, Downeast's Indian Township, Franklin Health, and four of Rosscare's sites) while four (4) were able to provide one year change data (Downeast's Pleasant Point and three of Tri-County's 2008 sites). For those sites that noted a decline in SSA scores, no imputation was made, following the logic listed above.

***2009 Grantees*.** All four (4) of the 2009 Clinical Implementation grantees are included in this analysis. Out of the 13 total sites, seven (7) provided two year change data (all of Tri-County's 2009 sites, HealthReach's Belgrade, and Mercy's Fore River Family Practice) and six (6) provided one year change data (HealthReach's Madison, Mt. Abram, Sheepscot Valley, Lovejoy Health Center, and Western Maine as well as EMMC's Center for Family Medicine).[17] Tri-County provided separate baseline and Year 2 SSAs for all five of its sites but provided one blended SSA for all of its sites in Year 1; although all of these sites only have two data points instead of three, they are considered two year change scores because the last score still represents the final level attained. In addition, EMMC submitted two SSAs for its one site, Center for Family Medicine. Although it submitted one combined SSA in Year 2, at baseline and Year 1 it provided two SSAs split out by mental health and substance abuse services. As such, it is included as two separate SSAs in the group of sites with one year change data. Out of the seven (7) sites that noted a decline in their SSA scores, only one was modified to "maintained" status following the imputation rule described above.

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[17] The 13 sites does not include the five sites that HealthReach added late in the project.

Analysis of Self-Reported SSA Scores

For those 30 sites combined across 2007, 2008 and 2009 grantees with two year SSA change scores, Figure 4 and Figure 5 illustrates the final SSA level achieved by the end of Year 2 by service level and organizational level characteristics, respectively. By Year 2, it is clear that the vast majority of these sites rated themselves as having attained the highest level of integration ("A") at the team *and* systems levels or at the mid-level ("B") team level of consistency of integration. Of particular note is the fact that 100% of sites felt that they had reach the "A" and "B" levels of integration for the characteristic of *Joint Treatment Plans*. Out of these nine service level characteristics, five (5) had 90% or more of the sites rate themselves as reaching "A" or "B" levels of integration.

With respect to the organizational level characteristics, there were three characteristics for which 100% of the sites felt they achieved the "A" or "B" levels of integration (*Continuity of care*, *Coordination of Referrals and Specialists,* and *Patient/Family Input*). It is worth noting, however, that 4 out of the 30 practices did not provide a response for the *Funding Sources/Resources* characteristic question. Overall, for these organizational characteristics, fewer sites ranked themselves as achieving "A" team *and* systems level of integration, while more sites ranked themselves as achieving "B" or team level integration than for the service level characteristics.

Figure 4. Final Self-Reported SSA Level Achieved by Service Level Characteristic

Figure 5. Final Self-Reported SSA Level Achieved by Organizational Level Characteristic
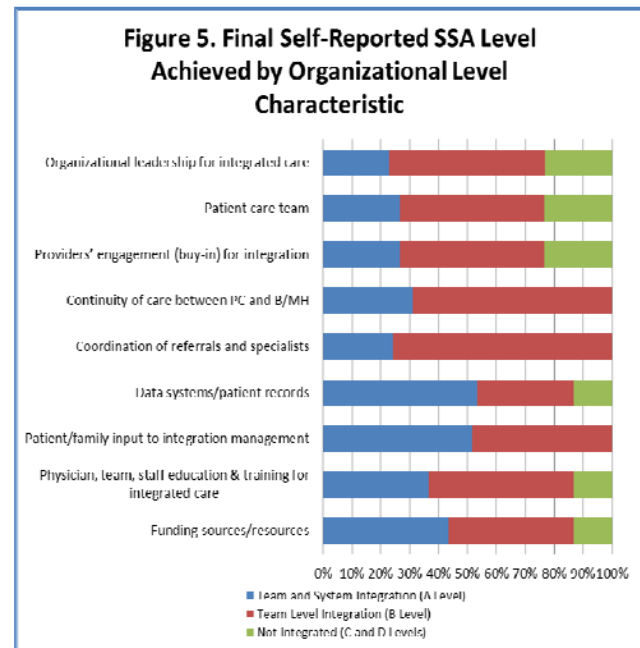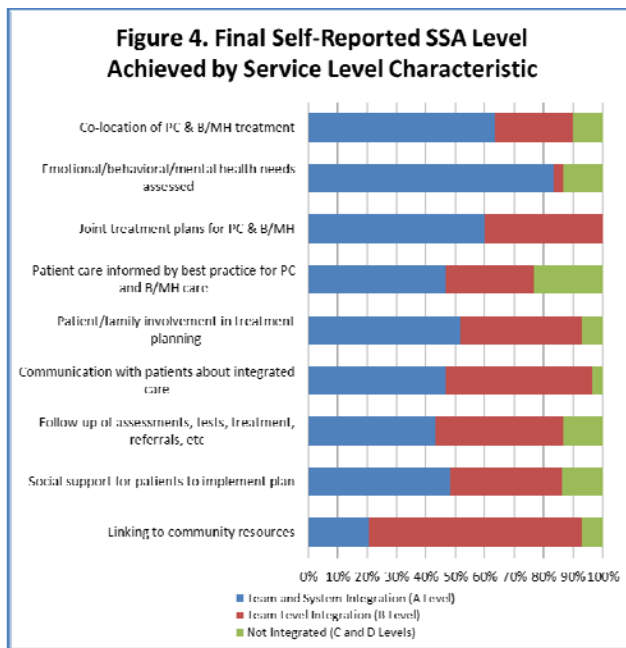
In addition to examining the final SSA level achieved by the end of Year 2, it is also important to note if the sites improved, maintained, or declined to reach that level. As illustrated in Figure 6 and Figure 7,the majority of sites felt that they had improved from baseline to Year 2 for both service level characteristics and organizational level characteristics. To further elaborate, for service level characteristics combined, 43% of sites, for example, went from no integration or mid-level integration to the highest level of integration attainable by the end of Year 2. Similarly, for the organizational level characteritics of integration combined, 36% of sites felt they had improved from no integration to the team level of integration by the end of Year 2.

Figure 6. Two Year Change in Self-Assessed Integration: Service Level SSA Characteristics from Baseline to Year 2

- Improved to "Team and System Integration" (from D,C, or B to A Level) — 43%
- Maintained at "Team and System Integration" (A Level) — 9%
- Improved to "Team Level Integration" (from D or C to B Level) — 23%
- Maintained at "Team Level Integration" (B Level) — 5%
- Declined to "Team Level Integration" (from A to B Level) — 10%
- Not Integrated (C or D Level) — 10%

Figure 7. Two Year Change in Self-Assessed Integration: Organizational Level SSA Characteristics from Baseline to Year 2

- Improved to "Team and System Integration" (from D,C, or B to A Level) — 29%
- Maintained at "Team and System Integration" (A Level) — 7%
- Improved to "Team Level Integration" (from D or C to B Level) — 36%
- Maintained at "Team Level Integration" (B Level) — 8%
- Declined to "Team Level Integration" (from A to B Level) — 8%
- Not Integrated (C or D Level) — 12%

See Appendix D for tables with the final SSA data. Tables are provided for sites that provided two year change data as well as sites that provided one year change data.

ADOPTION

The Adoption component of the RE-AIM framework refers to uptake of integrated care at two levels: the practice level and the individual provider level. The desired outcome for adoption is "willingness to engage in integration." The mechanisms through which this outcome was obtained and the contextual factors that facilitated (or impeded) the pathway from mechanism to outcome are reported separately for the practice and provider levels.[18] Table 7 summarizes these findings.

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[18] This section is based on 22 of the 24 grantees and their affiliated practices. Community Dental and Hitchcock are not included due to the uniqueness of their programs.

Practice Level

Two mechanisms were identified at the practice level that influenced willingness to engage in integration at the practice: 1) perception of value added, and 2) leadership commitment to integration.

Perception of Value Added

Perception of value added refers to the opinion among practice staff that implementing integrated services would add value to the practice broadly and/or to one's patients. Examples of discussion threads noted that related to perception of value added included:

- 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 behavioral health providers to manage behavioral health issues frees up providers' time to address medical issues or to see more patients; and
- Co-located BHPs reduce the difficulties of referring to behavioral health specialty settings (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).

Inner Setting: Three *inner setting* contextual factors were identified. The first was the capacity to measure "value," which referred to quality improvement data being collected by a practice specifically related to integrated services (e.g., patients' use of integrated services, BHPs' caseloads, and longitudinal data on health outcomes, such as the PHQ-9). Only a few practices collected such data and even fewer actually used and shared these data among providers; but when it was collected, shared, and discussed, it proved very powerful for enhancing the perception of value added of integrated services. Adequate funding to cover start-up costs was another *inner setting* factor identified. Initial MeHAF funding covered many, but not all, of the start-up costs. The ability or inability to cover training costs or other costs associated with practice change either amplified or de-amplified the perception of value added. The third *inner setting* contextual factor identified was that the concept and process of integration fit well with the organizational mission and values. This factor had to do with the extent to which the current staff worked in a team-based environment and was accustomed to sharing the responsibility for patient care with other members of the team. In this case, expanding teams to include BHPs was often perceived as adding value.

Outer Setting: One *outer setting* contextual factor identified was the level of perceived patient need for integration. If providers perceived this need as high, then perception of the value added of integrated services was augmented and vice versa.

Intervention Characteristics: The last contextual factor identified had to do with previous organizational experience related to integration. While most practices were starting anew with integrated services, there were a few practices that secured funding to further enhance existing integrated services. For staff associated with these practices, this previous experience augmented their perception of the value added.

Leadership Commitment to Integration

Inner Setting: For the leadership commitment mechanism, *inner setting* was important to enhancing or diminishing the desired outcome, with three contextual factors so classified. The first was the degree to

which leadership facilitated a culture of a "learning organization." 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."[19]" 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. The extent to which the culture of a practice setting embraced change and supported constructive change to improve service delivery facilitated the transition to an integrated services approach. The second contextual factor was stable leadership over the course of planning and implementation of integrated services. To the extent that the leadership who led or prioritized writing the grant for integration services remained at the practice site throughout implementation was a facilitating contextual factor. The third was setting integration as an organizational priority. This was related to stable leadership from planning through implementation, but also had to do with the ability or desire to continue to prioritize integration when faced with new priorities.

Outer Setting: There was one *outer setting* contextual factor related to adoption, which was a strong relationship between the lead organization and practice site when the two were different. One grantee held monthly meetings with the leadership of implementing site and another monthly meeting with the providers at the implementing site, especially in the early phases of collaboration.

Table 7. CMO Adoption Patterns: Practice Level

Mechanism		Contextual Factors	Outcome
Perception of value added	IS	Capacity to measure "value"; therefore, to justify cost vs. value	**Practices willing to engage in integration**
	IS	Adequate funding to cover start-up costs	
	IS	Concept and process of integration fits with organizational mission and values	
	OS	Level of perceived patient need for integration	
	IC	Previous organizational experience with integration	
Leadership commitment	IS	"Learning organization" culture	**Practices willing to engage in integration**
	IS	Stable leadership over course of planning and implementation	
	IS	Integration set as organizational priority	
	OS	Strong relationship between lead organization and service delivery sites (if different agencies)	
KEY: CI = Characteristics of Individuals; IS = Inner Setting; OS = Outer Setting; P = Process; IC = Intervention Characteristics			

Provider Level

Two inter-related mechanisms were identified for successful adoption of integrated care at the primary care provider level: 1) primary care physician buy-in, and 2) behavioral health providers' (BHPs) willingness to adapt to primary care setting.

Primary Care Provider Buy-In

Primary care provider buy-in was probably one of the more critical mechanisms related to whether

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

integration was adopted, and there were eleven facilitating and constraining contextual factors related to this mechanism, three classified within the CFIR as *characteristics of individuals*, three classified as *inner setting*, and one classified as *outer setting* (see Table 8).

Characteristics of Individuals: Several key informants noted that some physicians were reluctant to share the behavioral health component of their work because they liked the role of family doctor and enjoyed providing holistic care to their patients. This seemed to be especially true with doctors who had devoted most of their professional lives to serving in rural and small town settings. A PCP's personal referral experience with mental health services affected their buy-in. For the most part, this experience tended to negative (one comment received was "*it was like referring to a black box, you didn't know who your patient was going to see or whether or not they were seen*"); thus, augmenting PCP buy-in to integrated services as a means of better accessing these services for their patients. The culture of professional discipline is also an important contextual factor, especially as it relates to experience with team-based care. More than one practices' key informants mentioned that nurse practitioners and physician assistants might have an easier time with integration because the nature of their training and scope of practice requires that they work in teams; thus, extending this team concept to behavioral health providers was second nature to them. In contrast, physicians were not necessarily trained in a team approach, which served as a constraining factor to their buy-in to integrated services, with a consequent negative effect on the outcome of adoption at the provider level.

Inner Setting: The three *inner setting* contextual factors noted were a team-oriented practice culture, provider retention, and a strong and engaged physician "champion." For private practices in this project (those not receiving public funding), the culture was often less "team" oriented because these practices did not have enhanced funding streams to provide supportive services, which otherwise are not revenue generating. For the providers that work in these settings, there often was 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 social service needs. Practices with a mission and/or mandate to serve the more vulnerable had a history of drawing on and offering supportive services (and were able to do so due often to public funding or enhanced reimbursement rates); thus, adding BHPs to their staff mix was an easier, more natural fit.

Provider retention was a facilitating contextual factor and provider turn-over was a constraining contextual factor related to PCP buy-in. 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 was often difficult. Providers 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 are lost when they leave. It also must begin anew when another provider is eventually hired; thus, a barrier to adopting integrated services.

"Champions," both internal and external, often were referenced by physicians 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 physicians 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 had 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. Including providers in the planning processes, including involvement in the initial grant application, also increased buy-in.

Outer Setting: Community availability of behavioral health services was the one outer setting contextual factor noted as influencing PCP buy-in and, thus, the pathway to provider adoption of integrated services. Lack of availability (pre-integration grant) of community mental health resources (or difficulty in accessing them – noted above as a *characteristics of individuals* factor) served as a facilitating factor related to primary care provider buy-in. PCPs were in need of such services to provide high quality care for their patients; if these services were not available, PCPs were more likely to buy-in to an integrated approach to care.

Tips: Promoting Adoption Among Primary Care Providers
- Include PCPs in planning process for behavioral health integration implementation.
- Include PCPs in hiring process for BHPs.
- Engage other PCPs, either internally or externally, to discuss benefits and implementation of integration.

Behavioral Health Providers' Willingness to Adapt to Primary Care Settings
It makes sense that *characteristics of individuals* would play an enhancing or diminishing contextual role in adoption at the primary care provider level. Three were identified for the mechanism of BHPs' willingness to adapt to the primary care setting.

Characteristics of Individuals: The first contextual factor in this category was BHPs' ability and willingness to change their practice style. Very few BHPs had previous training or experience in working in a primary care setting, and the majority learned on the job. Their ability and willingness to change their practice style to accommodate the demands of the primary care practice greatly enhanced the adoption of integrated services. On the whole, BHPs bore most of the responsibility for adapting their practice style and capabilities to the primary care setting, 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 to behavioral health. A key factor to making integration work was the development of a relationship and the building of a strong rapport between the BHPs and the PCPs. BHPs 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. There were a number of instances noted by key informants of BHPs either not able or not willing to change their practice style, resulting in diminished odds of successful adoption of integrated services in those practices.

The second contextual factor in this category was openness to the "culture" of primary care. Characteristics on integrated primary care that challenged more traditional behavioral health professional culture included the following:

- Faster pace and frequent interruptions (for walk-ins, warm hand-offs or provider consultation) in primary care;
- Briefer appointments;

- Diversity of client issues (e.g., including mental health and behavioral health issues);
- Physician dominated teams (as opposed to more collaborative teams);
- A mission of caring for all who present;
- Differences in supervisory practices; and
- Differences in language used (e.g., *care plan* in primary care vs. *goal statements* in behavioral health).

This second contextual factor is related to the first one previously described; however, the distinction is important because a BHP could be open to the culture of primary care but still not have the ability and/or willingness to change his/her own practice style to accommodate that culture.

The third contextual factor was having previous training and belief in brief interventions, which was also classified as *characteristics of individuals*. BHPs with previous experience with brief interventions were more able and willing to change their practice style to accommodate the primary care setting.

Table 8. CMO Adoption Patterns: Provider Level

Mechanism ➡		Contextual Factors ➡	Outcome
Primary care provider buy-in	CI	Primary care providers willing to share responsibilities for holistic care	**Primary care providers willing to engage in integration**
	CI	Primary care providers' previous challenges with referrals to specialty behavioral health	
	CI	Primary care providers' experience in providing team based care	
	IS	Team-oriented organizational culture	
	IS	Provider retention (behavioral health providers and primary care providers)	
	IS	Strong, engaged physician "champion" (especially the Medical Director)	
	OS	Availability of referral behavioral health services in community	
	P	Behavioral health provider available when needed by primary care providers	
Behavioral health providers' willingness to adapt to primary care setting	CI	Able and willing to change practice style	**Primary care providers willing to engage in integration**
	CI	Openness to "culture" of primary care	
	CI	Training and belief in brief interventions	
KEY: CI = Characteristics of Individuals; IS = Inner Setting; OS = Outer Setting; P = Process; IC = Intervention Characteristics			

Table 8 reflects generally the experience of primary care practice sites with co-located BHPs; 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, BHPs available when needed by PCPs, and lack of referral community mental health resources.

> **Tips: Building Relationships Between Behavioral Health and Primary Care Providers**
> - Have BHPs "shadow" PCPs during visits. BHPs and PCPs can then later discuss how they could have teamed to address patient needs and concerns.
> - Schedule the BHP and PCP to work during the same days so that "warm hand offs" are possible.
> - If the BHP has an administrative desk, locate it next to the PCP's so informal interactions are facilitated.
> - Include BHPs in morning huddles to discuss patients to be seen during the day.

IMPLEMENTATION

Implementation refers to the process through which practices attempted to start up and run their integrated services. Behavioral health and primary care integrated at the clinical, operational, and financial levels was the desired outcome of implementation. Three key mechanisms were identified that influenced implementation: 1) adapting behavioral health practice to the primary care setting, 2) BHP and PCP communication/collaboration, and 4) financing tactics (see Table 9).

Adapting Behavioral Health Practice to the Primary Care Setting

For the majority of grantees that were co-locating BHPs 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 BHP practice patterns were two areas of adaptation that occurred across many practices. Many primary care sites entered into partnerships envisioning that their BHPs 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.

There was one *characteristics of individuals* and seven *inner setting* contextual factors identified as facilitating or impeding the process of adapting behavioral health practice to the primary care setting.

> **Tips: Adapting Behavioral Health Practice to Primary Care Setting**
> - Before recruiting, write BHP 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 BHP in PCP provider meetings and morning huddles so that they become part of a holistic team for integrated care.

Characteristics of Individuals: BHP willingness to adapt their practice to the primary care setting was discussed under the Adoption Section of this report as a mechanism for achieving the adoption outcome

of successful primary care provider engagement in integration. With regard to implementation success, it becomes a contextual factor that augments adapting behavioral health practice to the primary care setting (or diminishes adapting behavioral health to the primary care setting when it is absent). One concrete example is that many BHPs came to the primary care practices directly from a specialty mental health setting and were used to a psychotherapy approach, typically favoring longer 50-minute visits. The trend among practices that were working toward integration was to move away from these longer visits and longer-term psychotherapy interventions to shorter visits with problem-focused therapy. Some primary care practices tried to set a standard similar to the primary care norm of a 15-minute appointment. One grantee's key informants 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.

Inner Setting: Being a "learning organization" is an important contextual factor that augments the capacity practices in adapting behavioral health practice to the primary care setting. It was also noted as a contextual factor for enhancing leadership commitment, a mechanism that lead to successful adoption at the practice level. Another *inner setting* factor related to successful implementation was making available on-going trainings and staff development focused specifically on integrated services. Three of the six *inner setting* contextual factors related to leaders within practices, including: making integration an organizational priority, clinical and management leadership buy-in to integration, and leadership perception that integration will result in better patient care. Another *inner setting* contextual factor was the ability to overcome differences in culture between behavioral health and primary care. Both behavioral health and primary care providers enter the relationship with history, experience, and perception of one another's field, sometimes accurate, sometimes positive, and sometimes neither. The willingness to work together and the development of common language and operational processes to overcome these differences was a contextual factor that facilitated the adaptation of behavioral health to primary care. The final *inner setting* contextual factor identified was the strength of the relationship between the grantee organization and the practice sites when they were different organizations (10 grantees).

Tips: Training on Integrated Behavioral Health
- Identify staff that 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.

Behavioral Health and Primary Care Provider Communication and Collaboration

A second mechanism related to successful implementation was BHP and PCP communication and collaboration. Perhaps the major difference between simply co-located services and integrated services is this degree of communication and collaboration between the PCP and BHP. Two characteristics of individuals, three inner setting, one outer setting, and one process level contextual factors helped or hindered communication and collaboration between BHPs and PCPs.

Characteristics of Individuals: In this contextual category, the behavioral health providers were key. They bore the challenge of having to adapt their practice style to the primary care setting and to build their credibility among PCPs. If they were willing and able to accomplish this change and credibility,

communication and collaboration with PCPs increased greatly, which in turn increased the probability that implementation of integrated services would be successful. In contrast, if BHPs did not have these characteristics, communication and collaboration with PCPs did not occur and reduced the probability of successfully integrated services. One specific example was encouraging BHPs to adopt a more succinct and less narrative manner of documenting care to make it more efficient for PCPs to read through the notes and capture the most important information.

Inner Setting: Again, the notion of a "learning organization" was shown to be an important contextual factor to augmenting BHP and PCP communication. Shared records were a facilitating contextual factor to communication. Electronic medical records (EMRs) often needed adaptation for BHPs 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. Including BHPs in clinical meetings, lunch-and-learns, other clinical trainings, and morning huddles promoted the awareness of BHPs as critical to the clinical team.

Outer Setting: A small number of practices noted an outer level contextual factor of regulations (especially concerning mental health documentation and record sharing) constraining communication between BHPs and PCPs. However, this was an impediment that could be overcome through other strategies such as 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 information sharing between providers, and building more informal oral communication mechanisms through huddles and placement of clinical offices adjacent to one another.

Process: Arranging similar schedules and hours of co-location were a facilitating contextual factor for communication and collaboration, especially for informal communication (such as non-scheduled hallway discussions, impromptu consults, and morning huddles).

Tips: Implementation of Behavioral Health Integration
- Develop guidance materials and/or training documents for newly hired BHPs.
- Develop on-going trainings and staff development related to behavioral health integration.
- Identify internal "change agent" who will lead and monitor implementation strategy, lead transformation process, and advocate for continued organizational prioritization.
- Collect, share, and act on quality improvement data related to integration implementation.
- "Institutionalize" integration through such tactics as incorporating it into position descriptions, hiring decisions, and staff reviews.

Financing Tactics

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. Many factors influencing this were beyond their control; i.e., *outer setting* factors related to healthcare reimbursement policies more generally. Some of the 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.

Outer Setting: Behavioral health reimbursement regulations were a constraining contextual factor, and a barrier well known to grantees. There was a lack of reimbursement for training, meetings/case conferences, and case/care management. The Health and Behavior (H&B) codes were added to Current Procedural Terminology (CPT) coding during the period of implementation of the Clinical Implementation grants, allowing for billing for behavioral health that is incident to the medical visit. As these codes became more familiar, an increasing number of practice sites were using such codes; however, several key informants 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). Somewhat inexplicably, the H&B codes were "turned off" in 2012. MeHAF and others were working with payers to have them reinstated.

State policies regarding credentialing/licensing of providers were also a barrier to receiving reimbursement. Licensure/credentialing regulations dictate who can provide services, where services can be provided, patient documentation needed, 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. Key informants who raised this issue as a barrier noted the difficulty in finding comprehensive information about credentialing and licensing, and in organizations with existing staff, difficultly in making the appropriate changes to be compliant with regulations.

Federally qualified health center or rural health center (RHC) status was a facilitating contextual factor when it came to reimbursement. 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. The enhanced rate enabled such practice sites to provide the case/care management services that were important to behavioral health integration.

Availability to external assistance and resources related to reimbursement, such as those offered by MaineHealth's Mental Health Integration Project, were a facilitating contextual factor related to reimbursement.

Inner Setting: Sifting through this myriad of regulations can be complex and time-consuming. Having the administrative capacity to engage in these issues, such as understanding reimbursement, initiating H&B code billing, following up with insurers, and understanding licensure/credentialing policies, was considered a facilitating contextual factor related to reimbursement.

Tips: Staff Credentialing
- Carefully weigh pros and cons in primary care settings of contracting for behavioral health specialists vs. 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.

Table 9. CMO Implementation Patterns

Mechanism ➡		Contextual Factors ➡	Outcome
Adapting behavioral health practice to primary care setting	CI	Behavioral health providers' willingness to adapt their practice	**Behavioral health and primary care are integrated at the clinical, operational, and financial levels**
	IS	"Learning organization" culture	
	IS	Leadership perception that integration resulted in better patient care	
	IS	Clinical and management leadership buy-in	
	IS	Availability of on-going trainings and staff development	
	IS	Ability to overcome differences in culture of behavioral health vs. primary care	
	IS	Integration is made an organizational priority	
	IS	Strong relationship and communication between lead organization and practice sites (when different organizations)	
Behavioral health provider and primary care provider communication and collaboration	CI	Behavioral health providers willingness to adapt their practices	**Behavioral health and primary care are integrated at the clinical, operational, and financial levels**
	CI	Behavioral health providers able to build their credibility over time	
	IS	"Learning organization" culture	
	IS	Shared records (with EHRs a benefit but not a necessity)	
	OS	Regulations concerning sharing of mental health and medical records are not a barrier (or perceived as a barrier)	
Financing tactics	IS	Problem solving organizational culture	**Behavioral health and primary care are integrated at the clinical, operational, and financial levels**
	IS	Administrative capacity to work on reimbursement issues	
	OS	Lack of reimbursement for training, meetings/ case conferences, case/care management	
	OS	Availability of external resources	
	OS	State policies regarding credentialing/licensure issues	
	OS	Federally Qualified Health Center (FQHC) status	
KEY: CI = Characteristics of Individuals; IS = Inner Setting; OS = Outer Setting; P = Process; IC = Intervention Characteristics			

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. To assess the extent to which this occurred, MeHAF commissioned a sustainability

study from a consultant, Dr. Brenda Joly, in June 2013.[20] This section summarizes Dr. Joly's report. It is included here to complete the domains of the RE-AIM framework, per permission from MeHAF.

The report summarized the results of a brief post-grant online survey and a series of complimentary key informant interviews conducted with 2007 and 2008 grantees[21] that evaluated the extent to which integrated care had become institutionalized into an organization's routine operations, practices and policies during and after MeHAF funding.

The online survey was designed to capture the components of grantee's practices that specifically related to integrated care. The six-item survey developed by MeHAF was administered to round one grantees in August 2012, and a seven-item survey, adapted for Clinical Implementation round two grantees, was administered by Dr. Joly in March 2013. Round one grantees that agreed to participate in the key informant telephone interviews were asked to answer 16 questions focused primarily on the current level and type of integration in the organization, and their grantee experiences and perceptions about integrated care, MeHAF's role, and factors impacting the sustainability of integrated medical and behavioral health services. Round two grantees answered similar questions, through three different variations of the interview protocol designed to better accommodate the three unique grantee types (system transformation, clinical implementation, and planning). As illustrated in Figure 8 below, out of 34 total grantees across the two rounds,[22] 17 participated in the online survey, and 19 participated in the key informant interviews.

Figure 8: Survey and Interview Participants by Funding Cycle
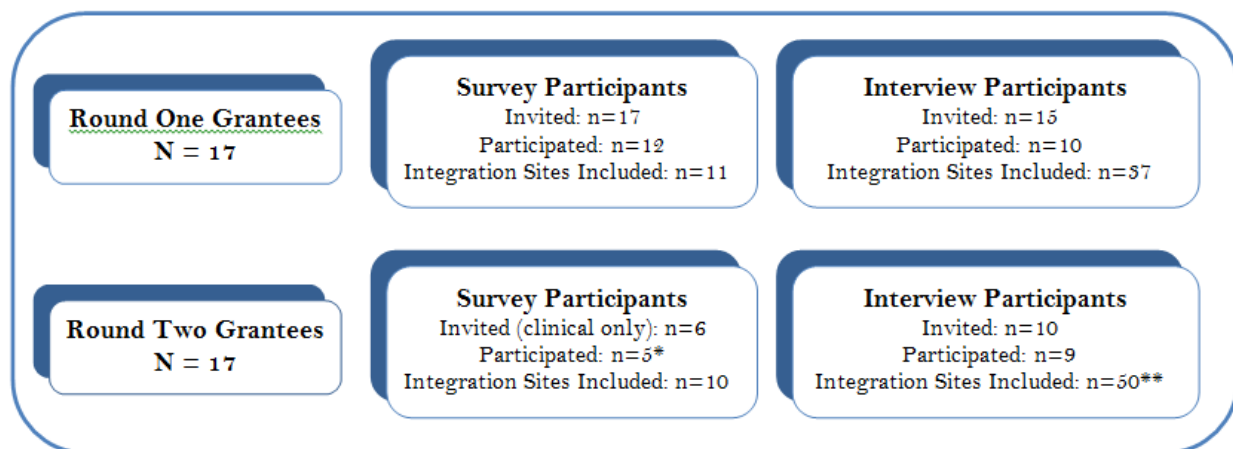
* The survey was not relevant to one clinical site
** Only 17 sites were identified among clinical integration grantees and 7 of these sites included a phone consultation service only

The qualitative data was first analyzed by round of funding and then aggregated to determine themes across both groups. During the survey and interview process, participants were asked to describe their current, post-grant approach, to integrated care in addition to measuring the extent to which specific components of integrated care were implemented during and after the grant period (see Appendix E). In

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[20] Joly, Brenda M. *Patient Centered Care Integration Initiative: Rounds I and II A Summary of Findings*. Prepared for Maine Health Access Foundation (June 2013).

[21] Dr. Joly refers to round one and round two grantees, which refer to the 2007 and 2008 grantees respectively.

[22] This is a higher number of grantees than throughout the rest of the report because round two of the sustainability survey included planning and systems transformation grantees in addition to the clinical implementation grantees.

measuring the specific components, there were notable increases in the percent of grantees implementing the components of integrated care to a "major extent" after the grant period. In addition, when the grantees were asked how likely they were to continue providing integrated care services, all respondents, with the exception of three that were implementing a unique model or no longer worked at the organization, answered "very likely." Figure 9 demonstrates that many participants have continued to implement integrated care, post-grant. The survey and interviews also revealed an expansion of integrated services to additional sites by the grantees. While nearly half of round one grantees with "other sites" reported that they were able to expand their integrated care services to one or more of these sites, clinical integration and system transformation round two grantees indicated that they were able to expand their model to an additional 65 sites combined. Some round one and round two interviewees expressed that they have a better understanding and deeper appreciation of what it means and what it takes to makes integration work (shared records, open access scheduling, on-site practitioners) after their experience with the MeHAF grant.

Figure 9: Perceived Level of Current Integrated Care (n=47 sites)
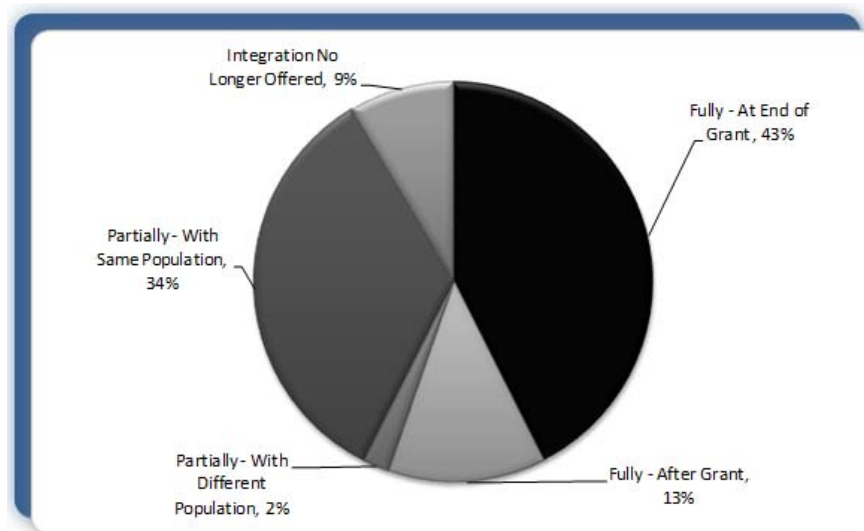
According to the MeHAF sustainability report, five major themes emerged as factors connected to the participants' decision to continue providing integrated care:

- "First, several respondents indicated that the model works well and providers want to adopt it because they believe in the concept.

- Second, health systems are increasingly focusing on integration as a priority, which has been reflected in organizational missions, strategic initiatives and greater investments in the Patient Centered Medical Home.

- Third, the patient feedback has been positive and the approach is more responsive to the needs of patients, which results in greater client satisfaction.

- Fourth, respondents believe that integration leads to better outcomes, quality of care and overall service delivery.

- Finally, grantees have become savvier in understanding how to bill for these services and the foundational work that needs to be done in advance. The survey findings revealed that all sites were able to pay for behavioral health personnel costs through billing reimbursement; and all but one site in the second funding cycle was able to pay for medical providers by billing public or private payors. Yet, few were able to use this payment strategy to cover case managers, support staff or others needed to deliver integrated care."

The report revealed that although several barriers influencing sustainability continue to exist, the factors most likely to help grantees sustain integrated care are a financial model that supports an integrated approach, leadership support and commitment, buy-in and engagement among clinicians and staff, positive outcome and/or cost data, and a clear set of expectations for integrated care. The financial support received from MeHAF enabled organizations to implement a variety of approaches and explore various models of integration, and lessons learned during the grant period have shaped grantees' decisions to continue providing integrated care and to spread the model to additional sites. Grantees that participated in the sustainability survey and interviews suggest that continued use of learning collaboratives and forums as well as ongoing training and technical support by MeHAF would support integrated care in becoming institutionalized into the organizations' routine operations, practices and policies. Additionally the study revealed larger implications that round one and round two grantees played "an important role in helping to accelerate the adoption and expansion of integrated behavioral health and primary health care services in Maine."

DISCUSSION

The 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?**

Plenty was achieved by the Clinical Implementation grantees. Reach is one measure of achievement. During the period from January 2009 through December 2012, over 11,000 Maine residents accessed the new services provided by the Clinical Implementation grantees and their affiliated practices throughout the State of Maine. The majority of those who accessed integrated services had at least one face-to-face visit with a behavioral health provider (83%) or their primary care provider had a consultation with a psychiatrist (12%). The grantees and their affiliated practice sites were geographically spread throughout the state, and approximately one in ten Maine residents had access to a clinical practice that was integrating care through MeHAF funding during the time period of the evaluation. The Clinical Implementation grantees were successful in reaching those without insurance or who were low income (as measured by proxy of Medicaid), a goal of MeHAF's funding, with 50 percent of participants either uninsured or Medicaid insured. There was clear indication among those using formal screening tools that they were reaching a high need population, as shown by baseline severity measures. Although very few grantees were able to track patients health status over time, the few that were able showed positive health status trends.

Self-assessment is another measure of achievement. Grantee and practice staff perceived themselves as becoming more integrated and patient-centered over time as demonstrated by their ratings on the Site Self-Assessment scale. The vast majority gave themselves an "A" or "B" level on all 18 characteristics of integration on their final SSA conducted during their funding period. Level "A" means that the

integration characteristic occurs consistently at both the team and system level, and level "B" means that the integration characteristic occurs consistently at the team level.

Sustainability can be considered an achievement, and sustainability was another desired outcome of Clinical Implementation funding that MeHAF hoped to achieve. The sustainability assessment conducted of grantees funded in years 2007 and 2008 (including Clinical Implementation, Planning, and Systems Grantees – 34 total) found that 30 of 34 grantees (including systems, planning, and clinical implementation grantees) were continuing with some level of integrated services after funding. It is notable that two grantees, HealthReach and TriCounty had spread integration to several other sites beyond those targeted through their MeHAF funding. In the case of HealthReach, to all of its clinic sites, and in the case of TriCounty to 13 or 14 additional sites through a partnership with Central Maine Healthcare.

Another achievement is the contributory role that Clinical Implementation grantees, and MeHAF's Integration Initiative overall, played, and continue to play, in terms of informing the statewide discussion of behavioral health integration in the evolving health reform environment. When MeHAF began its work in this area through the end of 2013, behavioral health integration evolved from being a somewhat novel concept with uncertain benefits to one that is widely embraced and considered an important approach for providing quality services and possibly controlling costs. It is a "core component" of the patient-centered medical home pilot (currently 75 practices throughout the state, many of which were MeHAF CI grantees) and the newly establishing behavioral health homes in Maine (currently 150 Stage A (including MeHAF CI grantees) focused on chronic disease and Stage B, which is focused on behavioral health settings and populations suffering with serious mental illness, will begin implementation in April 2014).

Another statewide initiative informed by the work of the Clinical Implementation grantees is to have all FQHCs in Maine offering integrated behavioral healthcare. The Maine Primary Care Association, partially supported by MeHAF funding, established a mentoring program for the FQHCs, where sites with integration experience (many of which were CI grantees) serve as mentors to other FQHCs on a particular integration project.

Innovation is another achievement of the Clinical Implementation grantees that is hard to quantify. MeHAF encouraged innovative models and the engagement of non-traditional partners as illustrated by the following: Northeast Integrated Geriatric Care (Rosscare) integrated behavioral health into nursing homes; Amistad, a consumer-run advocacy and social services agency for those with serious mental illness implemented a Peer Patient Navigation approach to integrated services; Pen Bay and Community Counseling worked with schools; York worked with public housing partners; Community Dental worked to incorporate dental services as part of an integrated approach; and Hitchcock focused on veterans and traumatic brain injury. Additionally, some grantees focused exclusively on particular populations, such as patients with substance abuse disorders and the homeless.

- **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?**

There were multiple approaches to integration attempted, some that can be considered more "traditional" integration (i.e., collaboration between behavioral health providers and primary care providers), as well as less traditional approaches as noted previously. What was clear was that there was not one approach that worked for all. Even among the more traditional projects, no one model can be

identified. Most grantees drew from the evidence and literature on integration and collaborative models that existed at the time of writing the grant application to inform the implementation approach in their own settings. There was certainly a learning curve, a lot of trial and modification, and evolution of understanding and approaches as projects matured.

Structure, in the context of this report, refers to the "linkage mechanism" of co-location, enhanced referral, or consultation. The vast majority (66 out of 81 total service settings) had co-location as the linkage mechanism. Within the co-located settings, there were clinical settings where the integrated providers were staff of the co-located setting and other clinical settings where the integrated providers were on contract from another organization. While one cannot say that one of these approaches was better than the other, there were pros and cons to both (e.g., in the former, there was potentially more flexibility in scheduling, more alignment with the site's culture, and more familiarity among staff; in the latter, there was higher level of behavioral health supervision and more access to higher level behavioral health resources). The enhanced referral linkage mechanism was the preferred approach for several of the "less traditional" projects, such as Community Dental, Amistad, and the Hitchcock Foundation. It also was used as a next best alternative when co-located care could not be accomplished, either due to resource or workforce constraints. The consultation linkage mechanism was used by two grantees as their preferred approach. Spring Harbor – 2008 was responding to the shortage of pediatric psychiatrists in the state and adapted an evidence-based consultation model that had been used in other states. The second grantee, AMHC, used the consultation approach in its pediatric service setting, again as a means of addressing the shortage of pediatric psychiatry resources in the state.

There were instances where integration was not successful. Acadia Hospital (2007 grantee) attempted to implement a Suboxone model of care for patients with substance abuse disorders. It struggled to recruit primary care providers and practices willing and interested in Suboxone treatment. While Community Dental was successful in opening its dental clinic and in developing relationships and conducting cross-training with behavioral health and medical practices, the grant idea of expanding intake to include behavioral health and medical concerns did not work. Some grantees also had the experience of some initial partnerships (during the grant application period) not working out for one reason or another, which is not unexpected in an initiative of this size. For the most part, however, all grantees worked hard at integration and were all able to highlight during key informant interviews "successes" in this process.

- **What are the key factors related to integration and patient-centered care that made them work or not work?**

The factors that made integration and patient-centered care work or not work were identified by the grantees and service settings themselves and collected, categorized, and aggregated based on more than a hundred key informant interviews conducted over the course of the evaluation. These factors are identified as "mechanisms" throughout the report and are summarized below.

- Systematic identification of patients with integrated care needs through formal screening practices – Very few grantees and service settings used formal screening methods, which hindered understanding of patients in need of integrated services and operational aspects of integration, such as understanding need versus provider capacity, caseload considerations, staffing considerations, and cost calculations. Contextual factors that influenced the implementation of formal screening included provider reluctance or refusal to use such tools, the lack of quick and easy to use screening tools specific to integrated services, and complexity of incorporating screening tools into patient flow.

- Perception of value added among service setting providers and staff – Perception of value added was a key factor influencing practice level adoption of integrated behavioral health services. If providers and staff perceived integrated services to have value, either for their patients and/or to themselves, there was a higher likelihood that the practice was willing to engage in integration. A contextual factor that negatively affected perception of value added was the lack of capacity or ability to measure "value;" for example, through the tracking of appropriate patient and administrative data to assess health status and cost of integrated services.

- Leadership commitment to integration – Strong commitment at the leadership level is a key factor for both adoption and implementation of integrated services. Leadership commitment began with the writing of the MeHAF grant and continued throughout. If leadership changed, or leadership went on to other priorities, it compromised adoption and implementation of integrated approaches.

- Primary care provider buy-in – At the vast majority of service settings, where behavioral health was being co-located in primary care, primary care provider buy-in was essential to the adoption of integrated care. A team-oriented organizational culture and a strong and engaged physician champion were two contextual factors that positively influenced primary care provider buy-in.

- Behavioral health providers' willingness to adapt to primary care settings – BHPs had to work hard to adapt their skills and working style to the primary care setting. Their ability and willingness to do this was essential to their success (there were instances where this ability and/or willingness did not exist to the detriment of successful integration). Training and guidance regarding primary care practice was a helpful contextual factor that assisted BHPs to adapt to the primary care setting.

- Adapting behavioral health practice to the primary care setting – This is similar to BHPs' willingness to adapt to the primary care setting, but rather than at the individual provider level, this key factor refers to organization level adaptation of behavioral health to primary care. Being a "learning organization," availability of on-going trainings and staff development, and the relationship between the grantee organization and the service setting (when different) were contextual factors that influenced the capacity to adapt behavioral health practice to the primary care setting.

- Behavioral health and primary care provider communication and collaboration – Perhaps the major difference between simply co-located services and integrated, or collaborative, services is the degree of communication and collaboration between the PCPs and BHPs. Being a "learning organization" and having shared records were contextual factors influencing communication and collaboration. Regulations concerning the sharing of records was another contextual factor negatively affecting communication and collaboration, although many service settings identified strategies for overcoming this barrier.

- Financing tactics – Financial barriers related to billing and payment had a clear impact on whether grantees believed they would be able to main their integrated services post grant funding. FQHC or rural health center (RHC) designation was a facilitating contextual factor when it came to reimbursement. They receive an enhanced rate to provide services such as case/care management that were an important component of behavioral health integration.

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

Implementation of behavioral health integration is context dependent. The evaluation of the CI grantees identified particular contextual factors that either enhance or inhibit mechanisms ("how to") to achieve implementation of integrated services. Deliberations by other settings as to whether and how to implement integrated services can take these factors into account and adopt strategies to exploit factors that exist and develop or mitigate the need for factors that do not; thereby optimizing the probability of successful implementation.

Counting the number of contextual factors identified by domain shows that *inner setting*, *process*, and *characteristics of individuals* were the most prominent versus *outer setting* and *intervention characteristics*. To use the results of this study to determine whether or how to engage in integrated services, it is important to identify which of these factors are mutable, or if not mutable, whether they exist or not. For example, the *process* an organization takes to adopt and implement integrated services is highly mutable. Securing primary care provider buy-in is essential to the adoption of integrated care and, thus, was identified as a mechanism. Contextual factors in the *process* domain that enhance provider buy-in were identified as the availability of behavioral health specialists when needed by the PCP (e.g., having similar working schedules), having a physician champion, involving PCPs in the process of implementation, and having an external/credible change agent involved. These are all strategies that can be incorporated when thinking through how to implement integrated services.

For the *inner setting* characteristics identified, most also seem mutable, although some may only be mutable over the longer term. For instance, setting integration as an organizational priority, having clear leadership and buy-in for integration, and having capacity to measure the value of integrated services are all factors that can be established if they do not currently exist. Other factors, such as having a problem-solving, learning organization, or team-oriented organizational culture, are potentially achievable but take a longer time to obtain if they do not currently exist.

Similarly, the *characteristics of individuals* domain is a combination of mutable and fixed factors, at least in the shorter term. Primary care providers' willingness to share responsibilities for holistic care and experience with providing team-based care either are a particular PCP's characteristics or not. On the BHS side, an openness to the culture of primary care probably either exists or it does not. In the longer term, these characteristics may evolve and/or they become important characteristics when hiring new staff to the practice.

Outer setting characteristics are arguably the least mutable by the implementing practice. *Intervention characteristics* may also be less mutable than others. There were not many of these identified, probably because participating sites by virtue of having applied for grant monies to develop integrated services already determined that the *intervention characteristics* were favorable to their practices.

APPENDICES

APPENDIX A: 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.)	*Number (optional)*	For each referral reason, fill in circle for most common location
1.		O same location as screening O partner location O external referral
2.		O same location as screening O partner location O external referral
3.		O same location as screening O partner location O external referral
4.		O same location as screening O partner location O external referral
5.		O same location as screening O partner location O 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 B: 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 *and* 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 *some* 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**

6. Communication with patients about integrated care	. . . does not occur	. . . occurs sporadically, or only by use of printed material; no tailoring to patient's needs, culture, language, or learning style	. . . 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	. . .is a systematic part of site's integration plans; is an integral part of interactions with all patients; team members trained in *how* to communicate with patients about integrated care
	1	**2 3 4**	**5 6 7**	**8 9 10**
7. Follow-up of assessments, tests, treatment, referrals and other services	. . . is done at the initiative of the patient/family members	. . . is done sporadically or only at the initiative of individual providers; no system for monitoring extent of follow-up	. . . 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	. . . 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
	1	**2 3 4**	**5 6 7**	**8 9 10**
8. Social support (for patients to implement recommended treatment)	. . . is not addressed	. . . is discussed in general terms, not based on an assessment of patient's individual needs or resources	. . . is encouraged through collaborative exploration of resources available (e.g., significant others, education groups, support groups) to meet individual needs	. . . 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
	1	**2 3 4**	**5 6 7**	**8 9 10**
9. Linking to Community Resources	. . . does not occur	. . . is limited to a list or pamphlet of contact information for relevant resources	. . . occurs through a referral system; staff member discusses patient needs, barriers and appropriate resources before making referral	. . . is based on an in-place system for coordinated referrals, referral follow-up and communication among sites, community resource organizations, and patients
	1	**2 3 4**	**5 6 7**	**8 9 10**

II. Practice/Organization	(Circle one NUMBER for each characteristic)			
Characteristic	**Levels**			
1. Organizational leadership for integrated care	. . . does not exist or shows little interest	. . . is supportive in a general way, but views this initiative as a "special project" rather than a change in usual care	. . . 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)	. . . 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
	1	2 3 4	5 6 7	8 9 10
2. Patient care team for implementing integrated care	. . . does not exist	. . . exists but has little cohesiveness among team members; not central to care delivery	. . . is well defined, each member has defined roles/responsibilities; good communication and cohesiveness among members; members are cross-trained, have complementary skills	. . . 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
	1	2 3 4	5 6 7	8 9 10
3. Providers' engagement with integrated care ("buy-in")	. . . is minimal	. . . engaged some of the time, but some providers not enthusiastic about integrated care	. . . is moderately consistent, but with some concerns; some providers not fully implementing intended integration components	. . . all or nearly all providers are enthusiastically implementing all components of your site's integrated care
	1	2 3 4	5 6 7	8 9 10
4. Continuity of care between primary care and behavioral/mental health	. . . does not exist	. . . is not always assured; patients with multiple needs are responsible for their own coordination and follow-up	. . . 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	. . . 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
	1	2 3 4	5 6 7	8 9 10
5. Coordination of referrals and specialists	. . . does not exist	. . . is sporadic, lacking systematic follow-up, review or incorporation into the patient's plan of care; little specialist contact with primary care team	. . . 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	. . . 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
	1	2 3 4	5 6 7	8 9 10

6. Data systems/patient records	. . . are based on paper records only; separate records used by each provider	. . . are shared among providers on an *ad hoc* basis; multiple records exist for each patient; no aggregate data used to identify trends or gaps			. . . 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 projects to achieve measurable goals			. . . 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		
	1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**
7. Patient/family input to integration management	. . . does not occur	. . . occurs on an *ad hoc* 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		
	1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**
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		
	1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**
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		
	1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**

APPENDIX C: GRANTEE AND SITE CHARACTERISTICS AND DATA SUBMISSIONS

Grantee Name	Year Funded	Site Name	Linkage Mechanism	Population Served	CDE	SSA	Outcomes	Comments
Acadia Hospital 2007	2007	Blue Hills	Co-Location	Substance Abuse	Yes	Yes	No	
		Downeast Occupational Health Center	Co-Location	Substance Abuse	Yes	Yes	No	
Acadia Hospital 2008	2008	Acadia Hospital	Co-Location	SMI	Yes	Yes	Yes	
Aroostook Mental Health Services	2007	Fish River Rural Health Center	Co-Location	General	Yes	Yes	Yes	
		Houlton Regional Hospital	Consultation	Pediatrics	Yes	Yes	No	
		Pines Health Services	Co-Location	General	Yes	Yes	No	
Amistad, Inc.	2007	Amistad, Inc.	Enhanced Referral	SMI	Yes	No	Yes	CDE only has assessed/referred data (Chart 1).
Community Counseling Center	2007	Deering High School	Co-Location	School	Yes	Yes	Yes	
		Portland High School	Co-Location	School	Yes	Yes	Yes	
Community Dental	2007	Elsmore Dixfield Family Health Care	Enhanced Referral	General	Yes	No	Yes	
		River Valley Internal Medicine	Enhanced Referral	General	Yes	No	Yes	
		Rumford Dental Health Center	Enhanced Referral	Dental	Yes	No	Yes	
		Rumford Hospital Emergency Department	Enhanced Referral	ER	Yes	No	Yes	
		Swift River Family Health Care	Enhanced Referral	General	Yes	No	Yes	
		Tri-County Mental Health Services	Enhanced Referral	SMI	Yes	No	Yes	
DFD Russell Medical Centers	2007	Leeds	Co-Location	General	Yes	Yes	Yes	
		Monmouth	Co-Location	General	Yes	Yes	Yes	Submitted one combined SSA.
		Turner	Co-Location	General	Yes	Yes	Yes	
Downeast Health Services	2008	Indian Township Health Center	Co-Location	Pediatrics	Yes	Yes	Yes	
		Milbridge Medical Center	Co-Location	Pediatrics	Yes	No	Yes	Excluded from SSA because only one SSA received.
		Pleasant Point	Co-Location	Pediatrics	Yes	Yes	Yes	Missing Year 2 SSA data.
		Discovery House	Co-Location	Substance Abuse	Yes	No	No	Only participated for one year so no data collected. Very small numbers included in CDE before the site dropped out.
Eastern Maine Medical Center	2009	Center for Family Medicine	Co-Location	Substance Abuse	Yes	Yes	Yes	Submitted separate Baseline and Year 1 SSA data, split by "mental health" and "substance abuse" services. Submitted one combined SSA in Year 2.
Franklin Health Child & Adolescent Developmental Pediatrics	2008	Developmental Pediatrics	Enhanced Referral	Pediatrics	Yes	Yes	Yes	Grant was to try to increase referrals to pediatrics site; sites are thus treated as two sites (grantee vs. referring sites). Submitted combined data for CDE (assessed/referred data only), for SSA (Year 2 data missing), and for outcomes data.
		Franklin Health Pediatrics	Co-Location	Pediatrics	Yes	Yes	Yes	
		Franklin Family Medicine Practices	Enhanced Referral	Pediatrics	Yes	Yes	Yes	
HealthReach Community Health Centers	2009	Belgrade Regional Health Center	Co-Location	General	Yes	Yes	No	Submitted quarterly CDE data but modified counting method in the third year; recalculated data for Years 1 and 2 but only annually.
		Lovejoy Health Center	Co-Location	General	Yes	Yes	No	Submitted quarterly CDE data but modified counting method in the third year; recalculated data for Years 1 and 2 but only annually.
		Madison Area Health Center	Co-Location	General	Yes	Yes	No	
		Sheepscot Valley Health Center	Co-Location	General	Yes	Yes	No	Missing Year 2 SSA data because sites added later on. Unable to

		Western Maine Family Health Center	Co-Location	General	Yes	Yes	No	collect outcomes data.
		Mt. Abram Regional Health Center	Co-Location	General	Yes	Yes	No	
		Bethel Family Health Center	Co-Location	General	No	No	No	These sites were added late in the project. A goal of the grant was to spread integration throughout the system, thus they are counted towards the total number of participating sites; however, no data were collected from them.
		Bingham Family	Co-Location	General	No	No	No	
		Rangeley Family Medicine	Co-Location	General	No	No	No	
		Richmond Area Health Center	Co-Location	General	No	No	No	
		Strong Area Health Center	Co-Location	General	No	No	No	
Hitchcock	2007	Hitchcock Foundation	Enhanced Referral	Veterans	No	No	No	Hitchcock's model was significantly different from others' and wasn't included in any of the data collection activities.
Maine-Dartmouth Family Medicine Residency	2007	Family Medicine Institute	Co-Location	Homeless	Yes	Yes	Yes	
Mercy Hospital	2009	Fore River Family Practice	Co-Location	General	Yes	Yes	Yes	
Pen Bay Healthcare	2007	Camden Hill Regional High School	Co-Location	School	Yes	No	No	Not included in the SSA or outcomes analysis because small number of pediatric outcome records and incomplete data.
		Pen Bay Pediatrics/Drs. McKinley and Stephenson	Co-Location	Pediatrics	Yes	No	No	
		Camden Rockport Middle School	Co-Location	School	Yes	No	No	
		Rockport Elementary School	Co-Location	School	Yes	No	No	
		Pen Bay Internal Medicine	Co-Location	General	Yes	Yes	Yes	
		Non-Pen Bay Affiliated Family Medicine	Co-Location	General	Yes	Yes	Yes	
		Pen Bay Family Practice	Co-Location	General	Yes	No	Yes	
		Waldoboro Family Medicine	Co-Location	General	Yes	Yes	Yes	
		Penobscot YMCA	Co-Location	Other - Children	No	No	No	Served as an alternative site for behavioral health if parents wanted; there was low demand and no data collection
Penobscot Community Health Center	2007	Husson Capeheart Health Center	Co-Location	General	Yes	Yes	No	
Northeast Integrated Geriatrics Care (Rosscare)	2008	Colonial Health Care	Co-Location	Elderly	Yes	Yes	Yes	
		Dexter Health Care	Co-Location	Elderly	Yes	Yes	Yes	
		Ross Manor	Co-Location	Elderly	Yes	Yes	Yes	
		Stillwater Health Care	Co-Location	Elderly	Yes	Yes	Yes	
		West Side Court/EMMC	Enhanced Referral	Elderly	Yes	No	Yes	
Sacopee Valley Health Center	2007	Sacopee Valley Health Center	Co-Location	General	Yes	Yes	Yes	
Spring Harbor Hospital 2007	2007	St. Mary's Medical Assn.	Co-Location	General	No	No	No	These sites did not receive grant dollars and did not have the resources or capacity to participate in data collection activities.
		ME Medical Partners Cape Elizabeth	Unknown	General	No	No	No	
		ME Medical Partners Portland	Unknown	Pediatrics	No	No	No	
		ME Medical Partners Westbrook	Unknown	General	No	No	No	
		Miles Medical Group	Unknown	General	No	No	No	
		Horizon Clinic	Unknown	General	No	No	No	
		Central ME Medical Center	Co-Location	Pediatrics	No	No	No	
		Pen Bay Family Medicine	Co-Location	General	No	No	No	
		Intermed	Enhanced Referral	Pediatrics	No	No	No	
		ME Medical Partners - Scarborough	Unknown	General	No	No	No	
		Portland Family Medicine	Co-Location	General	Yes	No	Yes	CDE only has assessed/referred data (Chart 1). Excluded from SSA

		Midcoast Medical Group	Enhanced Referral	General	Yes	No	Yes	because only one SSA received from each of these sites.	
		Oxford Hills Family Practice	Enhanced Referral	General	Yes	No	Yes		
		Portland Community Health Center	Co-Location	Pediatrics	Yes	No	Yes		
Spring Harbor Hospital 2008	2008	Bowdoin Medical Group	Consultation	Pediatrics	Yes	No	Yes	CDE only has assessed/referred data (Chart 1).	
		Martins Point Health Care Center	Consultation	Pediatrics	Yes	No	Yes		
		Midcoast Pediatric	Consultation	Pediatrics	Yes	No	Yes		
		Parkview Pediatrics	Consultation	Pediatrics	Yes	No	Yes		
		Westbrook	Consultation	Pediatrics	Yes	No	No		
		Lincoln Medical Boothbay	Consultation	Pediatrics	Yes	No	No		
		Western Maine Pediatrics	Consultation	Pediatrics	Yes	No	No		
St. Mary's Health System	2007	St. Mary's Medical Associates	Co-Location	General	Yes	Yes	No	CDE only has assessed/referred data (Chart 1). Submitted one combined SSA.	
		B Street Clinic	Co-Location	General	Yes	Yes	No		
		Central Maine Medical Center	Co-Location	Pediatrics	Yes	Yes	No		
Tri-County Mental Health Services	2008	Swift River Family Medicine	Co-Location	General	Yes	Yes	Yes	Missing Year 2 SSA data from all three sites.	
		Elsmore Dixfield Family Medicine	Co-Location	General	Yes	Yes	Yes		
		River Valley Internal Medicine	Co-Location	General	Yes	Yes	Yes		
Tri-County Mental Health Services	2009	Bridgton Internal Medicine	Co-Location	General	Yes	Yes	Yes	Submitted combined CDE and outcomes data for all sites. SSA data from each site were submitted separately at Baseline and Year 2, but combined in Year 1; thus, the SSA analysis omits Year 1 and only compares Baseline to Year 2 for each site.	
		Bridgton Pediatrics	Co-Location	Pediatrics	Yes	Yes	Yes		
		Naples Family Practice	Co-Location	General	Yes	Yes	Yes		
		North Brigton Family Practice	Co-Location	General	Yes	Yes	Yes		
		Fryeburg Family Practice	Co-Location	General	Yes	Yes	Yes		
York County Community Health Care	2007	YCCHC Main Site	Co-Location	Homeless	Yes	Yes	Yes		
		York County Shelters	Co-Location	Other	No	No	No	Partner sites - no data collected because they were involved as referral sites rather than integrated services sites.	
		Emery Street Public Housing	Co-Location	Other	No	No	No		

SUMMARY OF DATA

Total Number of Sites:	88*

Number of Grantees by Funding Year	
2007	14
2008	6
2009	4

Number of Practice Sites by Linkage Mechanism	
Co-Located	61
Consultation	8
Enhanced Referral	13
Unknown	6

Number of Practice Sites by Population Served	
General	45
Pediatrics	20
Elderly	5
School	5
Substance Abuse	4
SMI	3
Homeless	2
Dental	1
Veterans	1
ER	1
Other – Children	1

CDE Data Submitted	
Yes	71
No	17

SSA Data Submitted	
Yes	45
No	43

Excludes 1 Franklin site & 2 York sites because they were referral only rather than integrated sites

APPENDIX D: SITE SELF-ASSESSMENT (SSA) DATA

Table 1: Two Year Change Scores (Service Level Characteristics) by Grantee Year

Grantee Year	Service Level Characteristic	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	Maintained	Improved	Maintained	Declined	
2007 Grantees	Co-location of PC & B/MH treatment	9	1	0	3	0	3
	Emotional/behavioral/mental health needs assessed	10	1	1	0	0	4
	Joint treatment plans for PC & B/MH	9	0	6	1	0	0
	Patient care informed by best practice for PC and B/MH care	3	1	4	2	0	6
	Patient/family involvement in treatment planning	7	0	4	2	0	2
	Communication with patients about integrated care	6	0	7	2	0	1
	Follow-up of assessments, tests, treatment, referrals, etc	4	1	4	3	0	4
	Social support for patients to implement plan	5	1	5	1	0	3
	Linking to community resources	2	1	5	5	0	2
2008 Grantees	Co-location of PC & B/MH treatment	2	0	2	3	0	0
	Emotional/behavioral/mental health needs assessed	4	3	0	0	0	0
	Joint treatment plans for PC & B/MH	2	0	3	0	2	0
	Patient care informed by best practice for PC and B/MH care	3	1	1	0	1	1
	Patient/family involvement in treatment planning	4	1	1	1	0	0
	Communication with patients about integrated care	1	1	3	1	1	0
	Follow-up of assessments, tests, treatment, referrals, etc	4	1	1	0	1	0
	Social support for patients to implement plan	1	2	2	1	0	1
	Linking to community resources	0	2	2	2	1	0
2009 Grantees	Co-location of PC & B/MH treatment	6	1	0	0	0	0
	Emotional/behavioral/mental health needs assessed	5	2	0	0	0	0
	Joint treatment plans for PC & B/MH	5	2	0	0	0	0
	Patient care informed by best practice for PC and B/MH care	4	2	1	0	0	0
	Patient/family involvement in treatment planning	3	0	2	1	1	0
	Communication with patients about integrated care	6	0	1	0	0	0
	Follow-up of assessments, tests, treatment, referrals, etc	3	0	2	2	0	0
	Social support for patients to implement plan	5	0	1	1	0	0
	Linking to community resources	1	0	3	3	0	0

Notes:
- 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).
- One 2007 practice skipped a few questions on their baseline SSA; thus, row totals are 15 instead of 16.
- Three 2008 practices skipped the question about funding sources/resources.

Table 2: Two Year Change Scores (Organizational Level Characteristics) by Grantee Year

Grantee Year	Organizational Level Characteristic	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	Maintained	Improved	Maintained	Declined	
2007 Grantees	Organizational leadership for integrated care	7	2	3	1	0	3
	Patient care team	7	0	6	0	0	3
	Providers' engagement (buy-in) for integration	7	2	5	2	0	0
	Continuity of care between PC and B/MH	6	0	4	2	0	4
	Coordination of referrals and specialists	2	0	10	3	0	0
	Data systems/patient records#	3	1	8	3	0	0
	Patient/family input to integration management	4	1	5	0	0	6
	Physician, team, staff education & training for integrated care	4	0	9	1	0	2
	Funding sources/resources	3	2	5	1	0	4
2008 Grantees	Organizational leadership for integrated care	1	0	1	2	2	1
	Patient care team	1	1	2	1	1	1
	Providers' engagement (buy-in) for integration	2	1	1	3	0	0
	Continuity of care between PC and B/MH	4	0	1	1	1	0
	Coordination of referrals and specialists	2	1	3	1	0	0
	Data systems/patient records#	1	1	4	1	0	0
	Patient/family input to integration management	2	0	1	3	0	1
	Physician, team, staff education & training for integrated care	1	0	0	2	0	4
	Funding sources/resources	0	1	0	1	0	2
2009 Grantees	Organizational leadership for integrated care	2	1	2	2	0	0
	Patient care team	2	0	5	0	0	0
	Providers' engagement (buy-in) for integration	3	0	1	0	2	0
	Continuity of care between PC and B/MH	4	2	1	0	0	0
	Coordination of referrals and specialists	1	1	3	1	1	0
	Data systems/patient records#	3	0	2	2	0	0
	Patient/family input to integration management	1	0	4	2	0	0
	Physician, team, staff education & training for integrated care	3	0	3	0	0	1
	Funding sources/resources	0	0	5	0	2	0

Notes:
- 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).
- One 2007 practice skipped a few questions on their baseline SSA; thus, row totals are 15 instead of 16.
- Three 2008 practices skipped the question about funding sources/resources (Colonial Health Care, Ross Manor, and Stillwater Health Care).
- One 2009 practice skipped the baseline question about provider's engagement (buy-in) for integration (Belgrade).

Table 3: One Year Change Scores (Service Level Characteristics) by Grantee Year

Grantee Year	Service Level Characteristic	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	Maintained	Improved	Maintained	Declined	
2008 Grantees	Co-location of PC & B/MH treatment	2	2	0	0	0	0
	Emotional/behavioral/mental health needs assessed	0	2	0	1	1	0
	Joint treatment plans for PC & B/MH	1	1	1	1	0	0
	Patient care informed by best practice for PC and B/MH care	0	0	1	3	0	0
	Patient/family involvement in treatment planning	1	1	2	0	0	0
	Communication with patients about integrated care	1	0	1	2	0	0
	Follow-up of assessments, tests, treatment, referrals, etc	3	0	0	1	0	0
	Social support for patients to implement plan	3	0	0	1	0	0
	Linking to community resources	2	0	0	2	0	0
2009 Grantees	Co-location of PC & B/MH treatment	2	3	2	0	0	0
	Emotional/behavioral/mental health needs assessed	4	1	2	0	0	0
	Joint treatment plans for PC & B/MH	3	0	1	3	0	0
	Patient care informed by best practice for PC and B/MH care	1	1	0	5	0	0
	Patient/family involvement in treatment planning	3	1	0	3	0	0
	Communication with patients about integrated care	2	1	1	3	0	0
	Follow-up of assessments, tests, treatment, referrals, etc	3	3	0	1	0	0
	Social support for patients to implement plan	4	0	0	3	0	0
	Linking to community resources	3	2	0	2	0	0

Notes:

- Tri-County provided separate baseline and Year 2 SSAs for all five of its sites but provided one blended SSA for all of its sites in Year 1; although all of these sites only have two data points instead of three, they are considered two year change scores because the last score still represents the final level attained.
- EMMC submitted two SSAs for its one site, Center for Family Medicine. Although it submitted one combined SSA in Year 2, at baseline and Year 1 it provided two SSAs split out by mental health and substance abuse services. As such, it is included as two separate SSAs.

Table 4: One Year Change Scores (Organizational Level Characteristics) by Grantee Year

Grantee Year	Organizational Level Characteristic	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	Maintained	Improved	Maintained	Declined	
2008 Grantees	Organizational leadership for integrated care	2	0	0	2	0	0
	Patient care team	0	1	1	1	1	0
	Providers' engagement (buy-in) for integration	0	2	1	1	0	0
	Continuity of care between PC and B/MH	3	1	0	0	0	0
	Coordination of referrals and specialists	0	0	1	3	0	0
	Data systems/patient records#	1	2	0	1	0	0
	Patient/family input to integration management	0	0	0	0	0	4
	Physician, team, staff education & training for integrated care	0	0	3	1	0	0
	Funding sources/resources	0	0	2	1	0	1
2009 Grantees	Organizational leadership for integrated care	5	1	0	1	0	0
	Patient care team	2	0	2	3	0	0
	Providers' engagement (buy-in) for integration	4	1	0	2	0	0
	Continuity of care between PC and B/MH	4	1	0	1	0	1
	Coordination of referrals and specialists	2	2	0	2	0	1
	Data systems/patient records#	0	5	0	2	0	0
	Patient/family input to integration management	0	0	0	3	0	4
	Physician, team, staff education & training for integrated care	2	0	0	4	0	1
	Funding sources/resources	0	1	1	2	0	2

Notes:
- One 2009 practice skipped the baseline question about funding sources/resources (Madison).
- Tri-County provided separate baseline and Year 2 SSAs for all five of its sites but provided one blended SSA for all of its sites in Year 1; although all of these sites only have two data points instead of three, they are considered two year change scores because the last score still represents the final level attained.
- EMMC submitted two SSAs for its one site, Center for Family Medicine. Although it submitted one combined SSA in Year 2, at baseline and Year 1 it provided two SSAs split out by mental health and substance abuse services. As such, it is included as two separate SSAs.

APPENDIX E: SUSTAINABILITY REPORT RESULTS

Table 1. Application of Integrated Care among Sites During the Grant

Components of Integrated Care	Not at All		Small Extent		Major Extent	
	Round 1 n = 10	Round 2 n = 4	Round 1 n = 10	Round 2 n = 4	Round 1 n = 10	Round 2 n = 4
Included team with primary care and behavioral health care providers and family	n=2 (20%)	n=0 (0%)	n=5 (50%)	n=1 (25%)	n=3 (30%)	n=3 (75%)
Used screening tools systematically	n=1 (10%)	n=0 (0%)	n=4 (40%)	n=0 (0%)	n=5 (50%)	n=4 (100%)
Provided care/case management	n=1 (10%)	n=0 (0%)	n=2 (20%)	n=3 (75%)	n=7 (70%)	n=1 (25%)
Integrated and available treatment plans for all providers on the team	n=3 (30%)	n=1 (25%)	n=3 (30%)	n=0 (0%)	n=4 (40%)	n=3 (75%)
Established systematic communication strategy established among team members	n=1 (10%)	n=0 (0%)	n=3 (30%)	n=0 (0%)	n=6 (60%)	n=4 (100%)
Used warm hand offs regularly	n=2 (20%)	n=0 (0%)	n=6 (60%)	n=2 (50%)	n=2 (20%)	n=2 (50%)
Patients/families fully informed and involved in decisions about their care	n=1 (10%)	n=0 (0%)	n=5 (50%)	n=2 (50%)	n=4 (40%)	n=2 (50%)
Patients/families informed about integrated care as the approach being used care at the site	n=1 (10%)	n=0 (0%)	n=5 (50%)	n=1 (25%)	n=4 (40%)	n=3 (75%)
Practices/sites had Patient Advisory Councils or groups to actively engage patients	n=1 (10%)	n=2 (50%)	n=6 (60%)	n=0 (0%)	n=3 (30%)	n=2 (50%)
Practices/sites monitored follow-up referrals, etc. and provided follow up for medical care	n=1 (10%)	n=0 (0%)	n=1 (10%)	n=0 (0%)	n=8 (80%)	n=4 (100%)
Monitored follow-up referrals, etc. and provided follow up for behavioral health	n=1 (10%)	n=0 (0%)	n=3 (30%)	n=1 (25%)	n=6 (60%)	n=3 (75%)
Provided seamless referrals and links to community social services and supports	n=1 (10%)	n=0 (0%)	n=2 (20%)	n=2 (50%)	n=7 (70%)	n=2 (50%)
Used a shared record for behavioral and medical documentation and treatment planning	n=3 (30%)	n=1 (25%)	n=1 (10%)	n=0 (0%)	n=6 (60%)	n=3 (75%)
Practices/sites used shared electronic health records	n=4 (40%)	n=1 (25%)	n=0 (0%)	n=0 (0%)	n=6 (60%)	n=3 (75%)
Practices/sites routinely collected and used data for quality improvement?	n=1 (10%)	n=2 (50%)	n=7 (70%)	n=1 (25%)	n=2 (20%)	n=1 (25%)
Routinely collected and used patient-level data to monitor and follow up on patient care	n=1 (10%)	n=1 (25%)	n=5 (50%)	n=2 (50%)	n=3 (30%)*	n=1 (25%)
Routinely collected and used patient-level data to monitor and follow up on patient outcomes	n=1 (10%)	n=2 (50%)	n=5 (50%)	n=2 (50%)	n=3 (30%)*	n=0 (0%)

Table 2. Current Application of Integrated Care Among All Grantee Sites

Components of Integrated Care	Not at All		Small Extent		Major Extent	
	Round 1 n = 11	Round 2 n = 4	Round 1 n = 11	Round 2 n = 4	Round 1 n = 11	Round 2 n = 4
Included team with primary care and behavioral health care providers and family	n=0 (0%)	n=0 (0%)	n=5 (46%)	n=2 (50%)	n=6 (55%)	n=2 (50%)
Used screening tools systematically	n=2 (18%)	n=1 (25%)	n=2 (18%)	n=0 (0%)	n=7 (64%)	n=3 (75%)
Provided care/case management	n=2 (20%)	n=0 (0%)	n=3 (30%)	n=3 (75%)	n=5 (50%)*	n=1 (25%)
Integrated and available treatment plans for all providers on the team	n=3 (30%)	n=0 (0%)	n=1 (10%)	n=2 (50%)	n=6 (60%)*	n=2 (50%)
Established systematic communication strategy established among team members	n=2 (20%)	n=0 (0%)	n=3 (30%)	n=2 (50%)	n=5 (50%)*	n=2 (50%)
Used warm hand offs regularly	n=2 (20%)	n=0 (0%)	n=4 (40%)	n=3 (75%)	n=4 (40%)*	n=1 (25%)
Patients/families fully informed and involved in decisions about their care	n=0 (10%)	n=0 (0%)	n=2 (20%)	n=1 (25%)	n=8 (80%)*	n=3 (75%)
Patients/families informed about integrated care as the approach being used care at the site	n=1 (10%)	n=1 (25%)	n=3 (30%)	n=0 (0%)	n=6 (60%)*	n=3 (75%)
Practices/sites had Patient Advisory Councils or groups to actively engage patients	n=1 (10%)	n=2 (50%)	n=6 (60%)	n=2 (50%)	n=3 (30%)*	n=0 (0%)
Practices/sites monitored follow-up referrals, etc. and provided follow up for medical care	n=1 (10%)	n=0 (0%)	n=2 (20%)	n=0 (0%)	n=7 (70%)*	n=4 (100%)
Monitored follow-up referrals, etc. and provided follow up for behavioral health	n=1 (10%)	n=0 (0%)	n=4 (40%)	n=0 (0%)	n=5 (50%)*	n=4 (100%)
Provided seamless referrals and links to community social services and supports	n=0 (0%)	n=0 (0%)	n=5 (50%)	n=2 (50%)	n=5 (50%)*	n=2 (50%)
Used a shared record for behavioral and medical documentation and treatment planning	n=2 (20%)	n=1 (25%)	n=1 (10%)	n=0 (0%)	n=7 (70%)*	n=3 (75%)
Practices/sites used shared electronic health records	n=2 (20%)	n=1 (25%)	n=1 (10%)	n=0 (0%)	n=7 (70%)*	n=3 (75%)
Practices/sites routinely collected and used data for quality improvement?	n=0 (0%)	n=2 (50%)	n=5 (50%)	n=0 (0%)	n=5 (50%)*	n=2 (50%)
Routinely collected and used patient-level data to monitor and follow up on patient care	n=2 (22%)	n=2 (50%)	n=3 (33%)	n=2 (50%)	n=4 (44%)*	n=0 (0%)
Routinely collected and used patient-level data to monitor and follow up on patient outcomes	n=2 (22%)	n=2 (50%)	n=2 (22%)	n=2 (50%)	n=5 (56%)*	n=0 (0%)