Inland Empire Health Plan

JEN CLANCY CONSULTING

HEALTH SERVICES RESEARCH CENTER
UNIVERSITY OF CALIFORNIA, SAN DIEGO

Behavioral Health Integration Complex Care Initiative

Technical Report #1

Evaluation Technical Report #1
UCSD Health Services Research Center

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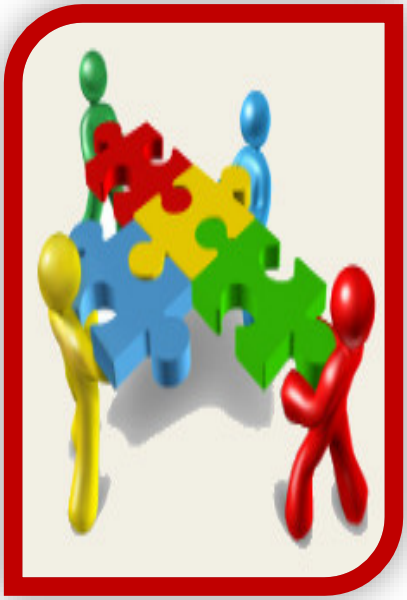
Executive Summary



The Affordable Care Act (ACA) has provided new opportunities to improve the health of low-income Americans, and the Inland Empire Health Plan (IEHP) has been an active participant in these health reform efforts. Despite gains in insurance coverage, Medi-Cal beneficiaries in San Bernardino and Riverside Counties face challenges accessing quality health care due to a shortage of physicians and specialty providers. Similar to other counties in California, the health care systems serving the Inland Empire have been impacted by historically siloed funding streams that effectively separate and disconnect behavioral health, substance abuse and physical health providers. To optimize Member experience and improve quality of care, IEHP will sponsor several initiatives focused on innovative practice transformation, including their ***Behavioral Health Integration Complex Care Management Initiative (BHICCI)***. BHICCI aims to establish both integrated both behavioral and primary health care and establish integrated complex care management among participating programs in Riverside and San Bernardino Counties. The BHICCI approach includes a combined investment in increased staffing to build capacity and practice coaching to support delivery system redesign. The BHICCI concept of *integrated complex care management* will provide person-centered care for individuals with complex whole health needs. Complex care management will be embedded within the integrated, multidisciplinary care teams at each organization, but will focus on the most severely ill or highest risk enrollees with multiple chronic conditions, including comorbid behavioral and physical illness that would benefit from complex care management.

A major component of the evaluation will be the documentation of learning from the implementation of the BHICCI. The BHICCI has evolved over the past year from a behavioral health integration initiative to one that is supporting organizations' capacity to function as Health Homes by facilitating practice changes in complex care management and behavioral health integration. During the early phase of the BHICCI, there were several challenges that impacted the implementation timeline, including obtaining signed Memorandum of Understanding (MOUs) and Release of Information (ROIs) for each organization and building a data system to support population health management. Despite these challenges, organizations have started to make practice changes on several different phases of the Roadmap. Future Technical reports will document learning, organizations' experience adopting measurement for regular screening and tracking of complex conditions, and the early implementation phase for Riverside University Health System (RUHS) sites.

Report Contents

Introduction

The Affordable Care Act (ACA) has provided new opportunities to improve the health of low-income Americans. The implementation of the State Health Exchanges and, in some states, the Medicaid expansion, has resulted in a substantial increase in health insurance coverage while creating new revenue streams for safety net providers. Multiple ACA related delivery system reforms and payment initiatives address the triple aim -- to improve population health and patient experience while providing cost effective care – such as efforts to reduce unnecessary hospital admissions and to move towards value-based payment. State Medicaid programs have pursued their own reform initiatives using Medicaid 1115 demonstration waivers, and increased attention to the social determinants of health has highlighted the importance of engaging community partners to improve the health and well-being of Medicaid beneficiaries. The combined result has been fundamental and ongoing efforts to improve health care quality at every level of the health care delivery system including federal, state, county, and city governments, and among health insurers, hospitals, clinics, and other providers, and patient advocacy groups.

The **Inland Empire Health Plan (IEHP)** has been an active participant in these health reform efforts. IEHP serves over 1 million Medi-Cal (California's Medicaid Program) beneficiaries in San Bernardino and Riverside Counties with a network of over 4,000 providers and 1,500 employees[1]. IEHP added 350,000 Medi-Cal beneficiaries in 2014; approximately two-thirds of these enrollees were newly eligible as a result of the ACA[2]. Despite gains in insurance coverage, Medi-Cal beneficiaries in San Bernardino and Riverside Counties face challenges in accessing health care due to a shortage of physicians and specialty providers; hospitals in these two counties have readmission rates that are above U.S. and State averages. Similar to other counties in California, the health care systems serving the Inland Empire have been impacted by historically siloed funding streams that effectively separate and disconnect behavioral health, substance abuse and physical health providers. Health care systems also frequently isolate providers from partner agencies and services that are necessary to address the social determinants of health. Furthermore, there is a lack of infrastructure to integrate the data systems required to collect, process, organize and support population health management and quality improvement across hospitals, primary care, and behavioral health settings.

IEHP has invested in multiple initiatives targeting five strategic priorities to improve access to and quality of health care for Medi-Cal beneficiaries: (1) Quality of care and services, (2) Access

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[1] Inland Empire Health Plan. (2015). *About IEHP*. Retrieved from IEHP: https://ww3.iehp.org/en/about-iehp/

[2] McSherry, L. (2015, January 26). Inland Empire Health Plan Tops One Million, Scurries to Keep Up With Growth. *California Healthline: The Daily Digest of News, Policy & Opinion*.

to care, (3) Practice transformation, (4) Human development and (5) Technology and data analytics. Several of these priorities are being addressed through their ***Behavioral Health Integration Complex Care Management Initiative*** **(BHICCI)**. The BHICCI aims to support the development of health homes providing integrated behavioral and physical health care and population-based, integrated complex care management. As defined by the Safety Net Medical Home Initiative (2014)[3], *integrated care* is the result of a practice team of primary care and behavioral health clinicians, working together with patients and families, using a systematic and cost-effective approach to provide patient-centered care for a defined population. *Integrated complex care management* is a practice of providing integrated, coordinated, team-based clinical care, which is person-centered and ensures each client has his or her own coordinated plan of care. Integrated care and complex care management address mental health and substance abuse conditions, the contribution of health behaviors to chronic illnesses, life stressors and crises, stress-related physical symptoms, and ineffective patterns of health care utilization. Similarly, integrated complex care management should address social determinants of health, transitions of care, population health management, and measurement-based care.

IEHP is supporting the implementation of the BHICCI by dedicating $20 million to 1) support staffing for multidisciplinary care teams in participating organizations; 2) increase capability for population health management through investments in information technology; and 3) facilitate delivery system transformation through practice coaching and training in multiple aspects of integrated care and complex care management. Participating programs represent a diverse array of providers including Federally Qualified Health Centers (FQHCs), Community Behavioral Health Clinics, multi-specialty providers, and specialized providers including pain clinics, a diabetes clinic, a substance use clinic, a children's clinic, a board and care center, an adult day health care center, and local hospitals. At each participating site, multidisciplinary health care teams are being formed that include primary care and behavioral health care providers and a care manager. Health care teams are receiving individualized support from practice coaches to transform their clinical practices to provide integrated behavioral health and primary care and complex care management, and to build their capacity to function as "whole health homes." IEHP is poised to invest an additional $1.5 million in the Riverside University Health System (RUHS) to establish a system-wide design for integrated complex care that can be implemented in their ambulatory clinics.

This report is the first in a series of reports that will document the implementation of the BHICCI and evaluate its effectiveness in terms of improving the integration of care and the care coordination of individuals with complex chronic conditions. A major focus of these reports will

[3] Safety Net Medical Home Initiative. Ratzliff A. Organized, Evidence-Based Care Supplement: Behavioral Health Integration. Phillips KE, Holt BS, eds. Seattle, WA: Qualis Health, MacColl Center for Health Care Innovation at the Group Health Research Institute, and the University of Washington's AIMS Center; 2014

be to identify "lessons learned" from the initiative that will inform the ongoing implementation of BHICCI as well as similar efforts within IEHP and elsewhere. The BHICCI represents a major delivery system redesign initiative that is being undertaken by IEHP in collaboration with its participating health care organizations. The goals of this evaluation are to describe the collective efforts of BHICCI partners, to estimate the effect of these efforts on health care quality, utilization, and outcomes, and to identify lessons learned and opportunities for improvement both within and beyond the BHICCI initiative.

Behavioral Health Integration Complex Care Management Initiative (BHICCI)

IEHP's BHICCI aims to establish both integrated behavioral and primary health care and integrated complex care management among participating programs in Riverside and San Bernardino Counties. The BHICCI approach includes a combined investment in increased staffing to build capacity and practice coaching to support delivery system redesign. The initiative is grounded in the key established concepts of the chronic care and collaborative care models. The components of these models are briefly described below. The BHICCI in relation to the established models of chronic and collaborative care is also described, and an overview of the BHICCI approach to practice coaching to support practice change is provided. This section concludes with a description of how the BHICCI relates to current and future delivery system reform initiatives being undertaken by the Medi-Cal program.

Chronic Care Model

The Chronic Care Model (CCM)[4] was developed by Dr. Ed Wagner and colleagues at the MacColl Institute for Healthcare Innovation, Group Health Cooperative of Puget Sound, and further refined through the Robert Wood Johnson's program, Improving Chronic Illness Care. The model identifies essential elements that are needed to support high quality chronic disease management. The CCM (as shown in Figure 1) provides the framework to facilitate system changes in which informed, activated patients interact with prepared, proactive health care teams. The CCM includes six components of a health care system that encourage high quality chronic care: the organization of health care system; self-management support; delivery system design; decision support; clinical information systems; and community resources.

Organization of health care system creates a culture and mechanism that promotes safe, high quality care. These changes occur when clinical leadership provides visible support and promotes improvement strategies at all levels of the organization. Leaders should also encourage open and systematic handling of errors and quality concerns to improve care.

Self-management support emphasizes the need for patient-centered intervention to empower

[4] Wagner, E.H. (1998). Chronic disease management: what will it take to improve care for chronic illness? *Effective Clinical Practices, 1*(1): 2-4.

and prepare patients to manage their health and health care. These changes are achieved by employing effective self-management support strategies that include assessment, goal setting, action planning, problem solving and follow-up.

Delivery system design considers the composition and roles of the care team, the organization of visits, and the management of follow-up care. Particularly for individuals with complex care needs, proactive planned visits which incorporate patients' goals and are coordinated by a care manager can help individuals maintain better health outcomes and allow organizations to better manage staffing resources.

Decision support incorporates evidence-based guidelines for clinical care with patient preferences into daily clinical practice. Health care providers should have access to the latest evidence-based guidelines and educational training, and share this information with patients to encourage their participation in their own care.

Clinical information system, such as a registry database, is crucial to organize patient and population data to monitor and facilitate effective care. A registry also supports sharing information with patients.

Community resources may include important services and programs that can support or augment the health system's care efforts, such as peer support groups, exercise programs and community-based interventions.

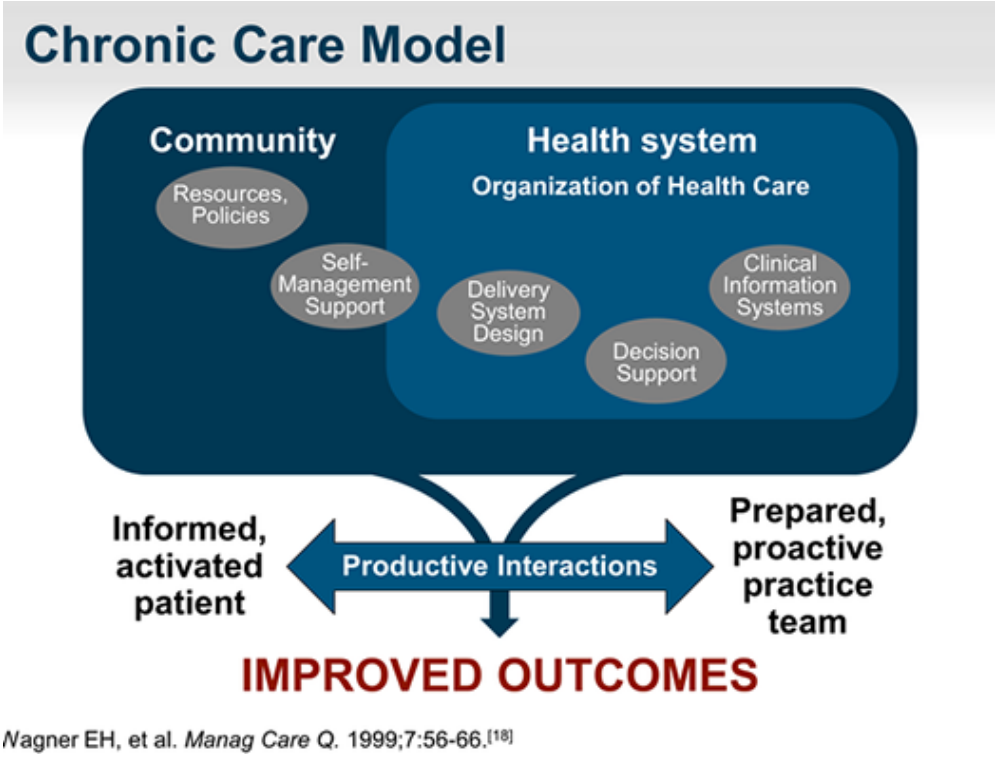

Figure 1: Wagner's Chronic Care Model

As depicted in Figure 1, within each of these elements, there are specific change concepts that guide improvement efforts. Better health outcomes and patient satisfaction result from productive interactions with health care providers. Interactions are more likely to be productive if patients are active, patients in their care are informed, and health care providers are both organized, and have the training and resources necessary to conduct productive interactions. Implementation of the change concepts within the six components of the health system foster and sustain productive interactions.

Collaborative Care Model

The Collaborative Care Model[5] has emerged as an evidence-based approach to implementing the CCM for treatment of depression in primary care. The Collaborative Care Model differs from other models of integration because of its substantial evidence base for efficacy, reliance on consistent principles of chronic care delivery, and attention to accountability and quality improvement (QI). The implementation of Collaborative Care is guided by five core principles, developed by a group of national experts in integrated behavioral health, with support from The John A. Hartford Foundation, The Robert Wood Johnson Foundation, Agency for Healthcare Research and Quality, and California HealthCare Foundation. The five principles include:

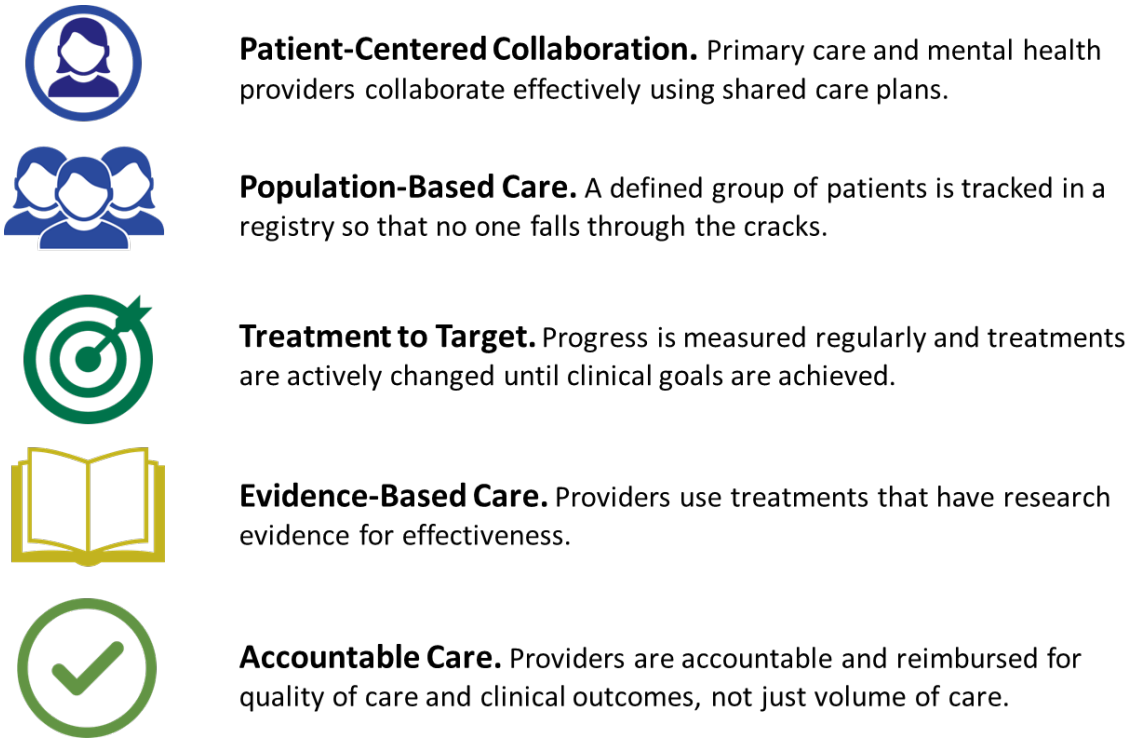

Figure 2: Principles of the Collaborative Care Model (image from Aims Center)

[5] http://aims.uw.edu/collaborative-care/implementation-guide

Team-Based Care

A core concept of the Collaborative Care Model is multidisciplinary, team-based care. The care team consists of a primary care provider, care manager, behavioral health clinician, and psychiatric consultant. Care management staff are trained to provide evidence-based screening, care coordination, brief behavioral interventions, and medication monitoring. In some versions of the collaborative care model, the care management staff also provide structured cognitive behavioral therapy. The psychiatric consultant provides support to the collaborative care team and is available to assist with treatment planning and treatment modifications.

The care manager, who could be a nurse, clinical social worker, or psychologist, is responsible for the overall coordination of communication among team members. The role and responsibilities of a care manager within the context of the CCM are quite different than case management or plan-based care management. A goal of CCM care managers is to improve outcomes through coordination of services, while the typical goals of case management or plan-based care management are managing benefits or services. The care manager is a primary point of contact with the client, and is responsible for accountability within the multidisciplinary care team. Effective care managers support the primary care provider and coordinate care across service providers, and with the health plan.

Population-Based Measurement

Population Health Management is the aggregation of patient data across multiple health information technology resources, the analysis of that data into a single, actionable patient record, and the actions through which care providers can improve both clinical and financial outcomes. Population health management is a necessary component to achieve the triple aim of improvement. With convenient access to aggregate data, organizations are able to select a target population with an identified condition and use measurement data in meaningful way to guide care planning and achieve a clinical goal. Frequent measurement of both physical and behavioral health outcomes using tools for measurement-based practice, which have also been called Treat-to-Target measures, allows the health care team to identify behavioral health conditions and track treatment progress over time. This information is critically important for measurement-based care, in which data is used to guide clinical care planning and decision-making.

BHICCI Collaborative Care Model

The BHICCI is based on the foundational approach of the Chronic Care and Collaborative Care Models. The BHICCI concept of *behavioral health integration* involves building multidisciplinary care teams at each site among participating programs. These care teams will provide care management of common chronic conditions such as diabetes, hypertension, and heart disease, as well as collaborative care management of behavioral health conditions such as depression, anxiety, and substance use disorders. Consistent with the Collaborative Care Model, there will be an emphasis on patient-centered collaboration among the care team, population-based care of empaneled patients, treatment-to-targeted clinical goals, use of evidence-based clinical guidelines, and accountable care that is tracked and evaluated.

The BHICCI concept of *integrated complex care management* will provide person-centered care for individuals with complex whole health needs. Complex care management will be embedded within the integrated, multidisciplinary care teams at each site, but will focus on the most severely ill or highest risk enrollees with multiple chronic conditions, including comorbid behavioral and physical illness. Care managers will build relationships with clients to encourage client engagement in their own health care and wellness goal planning. They will work with clients to develop a shared care plan that facilitates communication among providers and guides care management according to their individualized overall wellness goals. Care managers will provide self-management and self-care support, and will help clients develop strategies to engage natural supports, including family members, in promoting healthy behaviors, self-management skills, and development of meaningful social connections. A visual model of the care coordination approach being proposed by this initiative is shown in Appendix A.

Practice Coaching to Support Transformation

Implementing the BHICCI requires practice changes within multiple parts of the health care system, including selecting the 'right people' for the clinical team, training providers in collaborative care and complex care management, designing new workflows to support population health measurement and care management activities. The cultural shift required among providers for successful implementation of integrated care can be one of the most challenging barriers. Importantly, providers need to work effectively as a team to provide integrated, client-focused care, in contrast to focusing on the more narrowly defined responsibilities of an individual provider. This shift relies on both provider willingness to accept new responsibilities and adequate team training. For optimum success, all team members are required to change their approach to care.

Jen Clancy Consulting (JCC) is providing practice coaching and training to support delivery system transformation under the BHICCI. The core areas of practice transformation include designing multidisciplinary team-based care, integrating measurement into care processes to improve outcomes, complex care management, population health management, health promotion/self-management, and improved patient and health care team experiences. JCC designed the BHICCI to incorporate best practices and teachings from the Institute for Healthcare Improvement (IHI), including using a quality improvement (QI) framework for implementing and sustaining changes. System-level improvement is notoriously difficult, and implementation of QI methodologies within the care teams will ensure consistency and sustainability of ongoing testing and refinement of practice changes.

Practice coaches provide individualized, hands-on guidance to support successful implementation of integrated, chronic care management and person-centered health care. Practice coaches have experience in how to help organizations plan and test practice change using a quality improvement framework. Practice coaching provides an opportunity to empower teams and facilitate excellent whole person care using a relational coaching approach. As shared by the practice coaching team, the coaching approach is guided by several core values, including 1) learner-centered, collaborative problem solving, 2) partnering and mutuality, 3)

intentionality, 4) social justice and 5) team vitality. The practice coaches use these values to guide their coaching practices and foster collaborative relationships with each health care team.

Quality Improvement using the Model for Improvement

Model for Improvement (MFI)[6], developed by Associates in Process Improvement and widely used in business and health care, consists of three fundamental questions to guide the work, and a Plan-Do-Study-Act (PDSA) Cycle to test and implement improvements. According to MFI, the team should first establish the aim *(What are we trying to accomplish?).* Second, the team should select appropriate measures *(How will we know that a change is an improvement?).* Last, the team should choose a change to test via the PDSA cycle *(What changes can we make that will result in improvement?)*. After deciding which change to test, teams should run the proposed change through the four components of the PDSA cycle: "(1) *Plan* the test and predict results, (2) *Do* the change and observe outcomes, (3) *Study* the data and compare with predictions, and (4) *Act* on the learnings to develop the next test." The MFI framework will support implementation and testing of the changes to determine the best practices for each environment and population.

BHICCI Roadmap

The Roadmap was developed by the JCC Consulting team for IEHP and participating organizations to support fundamental practice transformation changes for the BHICCI. The BHICCI Roadmap identifies goals, strategies, and activities as concrete steps to support organizations' capacity to function as whole health homes. Each piece of the Roadmap reflects the values that are necessary components of a healthy organization that is able to provide quality care for patients.

As outlined in Figure 3, practice changes are conceptualized as steps within three phases for practice transformation: Foundation for Improvement, Developing Complex Care Systems/Whole Health Homes, and Sustaining Changes.

[6] Langley GL, Moen R, Nolan KM, Nolan TW, Norman CL, Provost LP. *The Improvement Guide: A Practical Approach to Enhancing Organizational Performance* (2nd edition). San Francisco: Jossey-Bass Publishers; 2009.

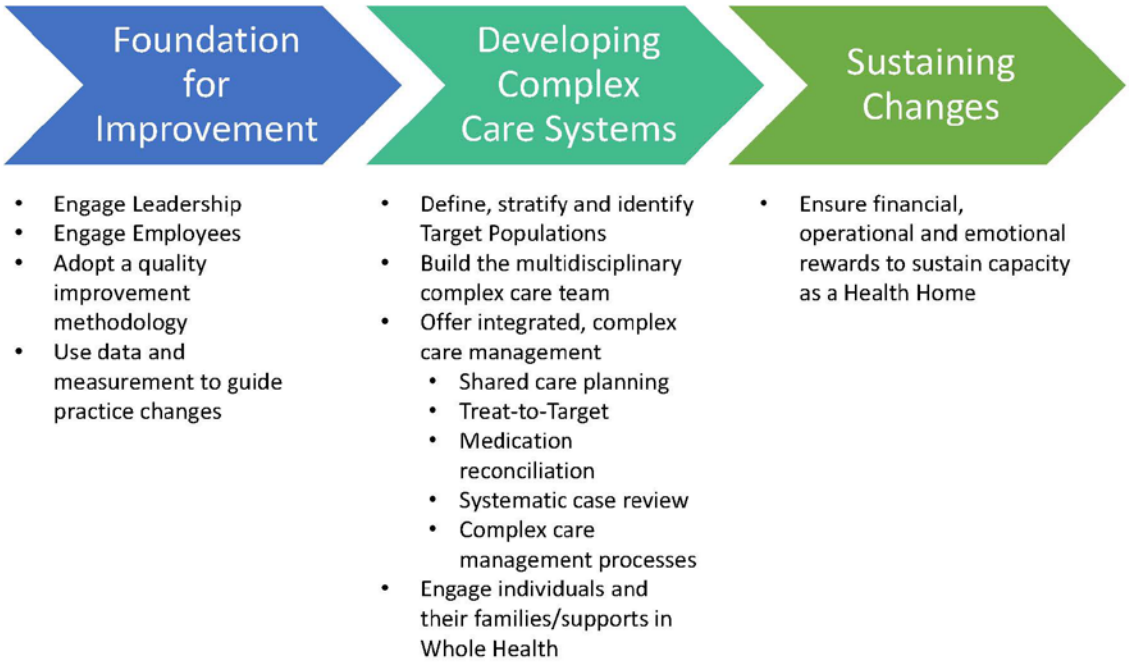

Figure 3: Components of the BHICCI Roadmap

While the goals and practice changes described in the Roadmap are not strictly sequential, executive leadership who supports an organizational culture that is committed to quality and providing whole person health care, which includes attention to employee engagement and wellness and using tools for quality improvement, provides the foundation necessary to sustain enhancements to the service system. BHICCI recognizes that participating health care organizations have provided services for many years in the community and have developed many successful practices. Each organization is unique and has existing strengths and experiences to build from, and it is expected that there will be some local variation in how key practice changes are implemented as a reflection of variation and differences related to size, organizational complexity and available resources. Additionally, some organizations participating in BHICCI have prior experience providing integrated care or complex care management, and are at different stages of readiness for change, so variability is expected.

Alignment of BHICCI with Medi-Cal Delivery System Reform Initiatives

The BHICCI addresses IEHP's strategic priorities and aims to align with multiple Medi-Cal 2020 Waivers including Public Hospital Redesign and Incentives in Medi-Cal (PRIME) and Whole Person Care (WPC), and Section 2703 Health Homes for Patients with Complex Needs (HHP). The cross cutting goals of PRIME, WPC, HH, and BHICCI are: improved care coordination, improved service integration, improved care transitions across services and systems, increased team-based care, integrated physical and behavioral health, improved population health, improved data collection and sharing, improved cost-effectiveness, and increased access to social services and supports. Even though the initial target population of BHICCI will focus on the 5% of patients who use 50% of healthcare resources, it is speculated that the accumulated savings

from the improved procedures and systems can be spread "upstream" to broader population and invested in prevention efforts and measurement-based practices. This hotspotting approach should ultimately result in healthier people and decreased healthcare costs.

The Health Homes initiative supports the development of networks of providers in participating managed care plans who will integrate and coordinate primary, acute, and behavioral health care for high risk Medi-Cal beneficiaries. The Heath Homes program (HHP) reflects California's implementation of the Medicaid Health Home State Plan Option and focuses on comprehensive care management, care coordination, health promotion, comprehensive transitional care, individual and family support services, and referral to community services and supports. Health Homes will be supported by an additional per person per month (PMPM) capitation payment. The consultants and BHICCI practice coaching will strive to support IEHP providers in developing integrated health homes and meeting HHP reporting requirements to qualify for additional payments to support sustainability. HHP reporting requirements include Body Mass Index (BMI) assessment, screening and follow-up planning for Clinical Depression, controlling high blood pressure, alcohol or other drug dependence screening and treatment, care transitions and cost/service utilization data, all of which will already be collected by BHICCI organizations to support measurement-based practice. BHICCI will also help inform IEHP's definition of a health home.

PRIME is the latest iteration of California's Delivery System Reform Incentive Payment Program (DSRIP). PRIME provides incentives to public hospitals to improve the delivery of care and transition to alternative payment models (APMs). PRIME projects are designed to provide integrated complex care management to high-cost populations, reduce readmissions, and support the transition to value-based purchasing. Value-based APMs include shared savings models, bundled payments, and global capitation. BHICCI includes core components of PRIME including integrated behavioral health care, care management, and care transitions.

WPC pilot programs will test locally-based initiatives to improve the coordination of health, behavioral health, and social services for Medi-Cal beneficiaries with multiple chronic conditions and behavioral health disorders who are high utilizers of care, including those who are homeless. Goals of the WPC initiative include increased integration and data sharing among health plans and county agencies and increased access to housing and supportive services. The WPC provides funding for services that are not typically reimbursed by Medi-Cal, such as housing transition and tenancy support services, and a flexible housing pool created from shared savings can support additional services such as rental subsidies, home setup, deposits, and utilities. Implementation of the BHICCI will provide a solid foundation from which to expand to WPC.

Evaluation of BHICCI

This technical report is the first in a series of reports that will comprise a multi-stage, mixed methods evaluation of the BHICCI. The evaluation team includes faculty and staff in the Department of Family Medicine and Public Health and the Health Services Research Center

(HSRC) at the University of California, San Diego (UCSD), and the School of Social Work, University of Southern California (USC). This program evaluation utilizes systematic methods to collect multiple types of information to document and assess the implementation, effectiveness, and cost-effectiveness of the BHICCI. The evaluation design and methodology is tailored to meet the needs of IEHP and the BHICCI in consideration of the unique nature of the initiative and the capacity and needs of the participating health care organizations.

This evaluation includes formative and summative components. Formative evaluations allow for feedback to be incorporated during the implementation of a program. These include needs assessments, implementation evaluations to assess fidelity to core model components, and process evaluations to assess practice change. Summative evaluations occur at the end of a program cycle and provide an overall description of program effectiveness. These include evaluations to determine whether the programs met their stated goals or improved targeted outcomes, the overall impact of the program, and the program's cost or cost-effectiveness. The formative components of this evaluation will monitor the progress of the BHICCI, the process of integration of behavioral health and primary care, and the implementation of integrated complex care management. The summative components will include an evaluation of effectiveness and cost-effectiveness. The evaluation team will employ multiple methods including quantitative and qualitative analyses, and process and outcomes monitoring. Multiple sources of data collected as part of the BHICCI, including registry and measurement-based practice data as well as service utilization and cost data will be leveraged. Additional data to be collected for the evaluation include data on the stage of implementation, assessments of the process of integration of behavioral health and primary care, BHICCI enrollee health status, and rich qualitative data from site visits and interviews with multiple stakeholders, including BHICCI enrollees.

Formative Evaluation

Key components of the formative evaluation include progress of the BHICCI, the process of integration of behavioral health and primary care, and the implementation of integrated complex care. These components are described in more detail below.

Progress of the BHICCI

To document organizations' transformation toward functioning as whole health homes, progress on the BHICCI will be measured on a BHICCI Evaluation Roadmap Checklist. The BHICCI Roadmap was developed by the Jen Clancy Consulting (JCC) team to provide an organizing framework for the engagement of leadership and engagement, training, and technical assistance with health care providers by the JCC practice coaches. The evaluation team developed an approach to use a Roadmap Checklist as a progress monitoring tool. Information gathered from Quarterly Team Reports and qualitative interviews with the practice coaches will be used to complete the Roadmap Checklist, which provides a summary of the practice change goals that have been made or are being tested/implemented, as well as those that have not been implemented.

Process and Implementation of the BHICCI

The process of integration of behavioral health and primary care and the implementation of integrated complex care will be measured quantitatively using surveys and qualitatively using site visits. The evaluation team worked in collaboration with the JCC team to develop the BHICCI Site Self-Assessment tool (SSA). This survey measures the extent of integration and coordination of client and family-centered behavioral, mental health and physical health care. The BHICCI SSA is adapted from the Maine Health Access Foundation (MeHAF) SSA[7], which was based on the Assessment of Primary Care Resources and Supports for Chronic Disease Self-Management (PCRS)[8] and Assessment of Chronic Illness Care (ACIC)[9] instrument developed by the MacColl Institute for Healthcare Innovation, under the Robert Wood Johnson Foundation Improving Chronic Illness Care program. The purpose of the BHICCI SSA tool is to document the cultural changes that will take place within each organization through their participation in BHICCI. The first assessment, which was completed by organizations in May 2016, provides a baseline assessment of each organization's current extent of integration for client-centered health care early in the BHICCI implementation process. Future repeated administrations of the BHICCI SSA form in November 2016 and May 2017 will help organizations and the evaluation team track progress towards practice transformation.

Due to the variability in BHICCI implementation strategies by participating organizations, the evaluation will incorporate qualitative components to better describe the structure of the programs and the experience of clients. The evaluation team will conduct in-person site visits with participating organizations in August 2016, March 2017, and August 2017. Each site visit will occur during a single business day, and will include interviews with BHICCI providers, a review of documents, and observation of the clinic process and flow. During these site visits, the evaluation team hopes to learn more about 1) the health care teams' work overall; 2) their implementation process and structure; and 3) roles of members of the health care team. Interview questions will focus on the main goals of the BHICCI including multidisciplinary, team-based care and complex care management. Interviews with BHICCI enrollees will also occur during the site visits in order to document the patient experience. The interviews will be

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[7] Scheirer, M.A., Leonard, B.A., Ronan, L., Boober, B.H. 2008, revised 2010. Site Self Assessment Tool for the Maine Health Access Foundation Integrated Care Initiative. Augusta, Maine: Maine Health Access Foundation.

[8] Brownson, C.A., Miller, D., Crespo, R., Neuner, S., Thompson, J.C., Wall, J.C., et al (2007). Development and use of a quality improvement tool to assess self-management support in primary care. *Joint Commission Journal on Quality and Patient Safety*, *33*(7):408-416.

[9] Bonomi, A.E., Wagner, E.H., Glasgow, R.E., VonKorff, M. (2002). Assessment of Chronic Illness Care (ACIC): A practical tool to measure quality improvement. *Health Services Research, 37*(3): 791-820.

recorded, transcribed, and analyzed using qualitative methods. The goal of the site visits is to provide rich, detailed descriptions of the BHICCI implementation, including answers to a-priori questions and emergent themes.

Documentation of Learning and Lessons Learned

A major component of the evaluation will be the documentation of learning from the implementation of the BHICCI. These lessons learned will be a main focus of reporting and will be derived from multiple sources. Information on lessons learned will be gained from regularly scheduled meetings including the quarterly team meetings with IEHP and JCC, monthly JCC team calls, weekly practice team coaches calls, quarterly interviews with practice coaches, and during site visits with participating programs. The evaluation team will also conduct expert interviews with key members of the JCC and IEHP Clinical Transformation teams to document the challenges and design of the initiative to identify lessons learned and inform recommendations. All Learning Collaborative and team meetings will be documented to capture challenges and best practice solutions encountered during the course of implementation at the organizational level. Rich information about challenges and lessons learned will also be derived on an ad-hoc basis as issues arise and are addressed. One example of this phenomenon was when the need for a brief substance use tool, based on evidence-based measures that addressed alcohol, marijuana, illegal drugs and prescription medications was identified. In this case, HSRC worked with the JCC team to develop a measure based on the Patient-Reported Outcomes Measurement Information System (PROMIS) scales that could be used in the BHICCI. More challenges like the one described above are expected to arise during the initiative, and the evaluation team is eager and prepared to address these issues and to document the process and solution(s).

Summative Evaluation

The key summative components will include an evaluation of effectiveness and cost-effectiveness.

Effectiveness of the BHICCI

The overarching goal of the BHICCI is to improve the health of IEHP enrollees with multiple chronic conditions, including behavioral health. Key indicators of overall health will include the Physical and Behavioral Health measurement-based practice tools, which will be collected regularly in the registry or electronic health records (EHR) by health care teams as part of their transition towards measurement-based care. To supplement the data being collected as part of BHICCI, the PROMIS Global Health Scale, a measure of overall well-being, will be completed quarterly by clients to measure changes in physical, emotional and social health.

Effectiveness will be assessed using multiple quantitative outcomes including the number of enrollees receiving complex care management, the rate of screening among enrollees for behavioral and physical health, and the percentage of enrollees who achieve clinical goals. These goals will include, for example, screening for blood pressure and the percentage of patients who have blood pressure under control according to clinical guidelines, and screening for depression and those who have depression symptoms below the threshold for major

depression. Data from the PROMIS Global Health Scale will be used to measure changes in self-reported physical, mental, social, and overall health status. Data from the PROMIS Global Health Scale will also be used to calculate the incremental cost effectiveness ratio (ICER) for the cost-effectiveness analysis.

Cost-Effectiveness of the BHICCI

The cost-effectiveness of the BHICCI will be assessed by the effectiveness of the BHICCI at improving health outcomes at a reasonable cost. Health outcomes can be assessed by improvements in clinical indicators, as described above, or improvements in self-reported quality adjusted life years (QALYs), as measured by the PROMIS Global Health. Claims data, provided by IEHP, will be used to estimate costs for BHICCI enrollees in the year prior and the year post enrollment in the BHICCI registry. Costs will be estimated overall (total costs) as well as for meaningful subgroups including inpatient, emergency room, outpatient, and pharmacy. Costs will be compared to a comparison group of IEHP enrollees who are not enrolled in the BHICCI. Propensity score and nearest neighbor matching will be used to identify a comparison group of IEHP enrollees with similar demographic, clinical, and health service utilization characteristics as BHICCI enrollees. Costs will be compared between BHICCI enrollees and the non-BHICCI IEHP comparison group using a difference-in-difference (DID) approach. The DID estimator subtracts pre-post differences among the control group from the pre-post difference among the intervention group (i.e. BHICCI). The DID estimator accounts from contemporaneous time trends that are unrelated to the intervention. The DID estimator may also control for expected temporal changes in utilization; for example, those who are identified as high utilizers in a pre-period would be expected have a decline in service utilization in the following period. A comparison group that is matched with respect to service utilization characteristics would account for this expected temporal change in utilization.

Challenges and Lessons Learned

While many notable successes were achieved during the design and early implementation phases of the BHICCI described in this report, the team learned some valuable lessons from several challenges that were encountered. These challenges relate to engaging executive leadership in the initiative, assessment selection, delays in establishing a central, shared database, and a variety of general administrative logistics. Initial solutions to these challenges have been implemented, however, it is necessary to wait until further along in the process to determine promising practices or lessons learned that could be spread to other organizations.

Engaging Executive Leadership

The cultural shift required among providers for successful implementation of behavioral health integration can be one of the most challenging barriers. Integration and engagement of executive leadership in the values of BHICCI is an important foundation to support changes in organizational culture. However, one of the practice coaches shared during their interview that this expectation for executive leadership was not clearly communicated in the original Memorandum of Understanding (MOUs). This practice coach shared that lack of executive leadership engagement with BHICCI impacted some of the organizations' progress making

practice change, as leadership and health home providers need to work together as a team to provide multi-disciplinary coordination of care. This shift relies on leadership's communication of roles and expectations, and each team member's willingness to accept new responsibilities. It also requires leadership to promote the value and resources for adequate team training in complex care management, measurement-based care and Motivational Interviewing (MI). IEHP identified how crucial engaging executive leadership is to the success of the initiative, and has begun implementing changes system-wide to address this challenge. IEHP contracted with the Kiely Group, a boutique firm specializing in organizational effectiveness, to provide a series of cross-system leadership skill building workshops. The first of these workshops stressed the importance of relationships and thinking of all the programs as an inter-related system, which is the level at which problem solving has to occur, not just at the organizational level. It is important to note that while executive leadership at each participating organization should benefit from these skill workshops, executive leadership at many organizations were supportive and engaged in BHICCI practice transformation prior to their involvement in the initiative.

Role of Practice Coaching

Early in the implementation, there was a lack of clarity surrounding the roles and responsibilities of the practice coaches. This ambiguity may be, at least partially, related to the individualized and evolving nature of the initiative over the past year. The practice coaches felt it important to document their learning regarding early coaching activities and phases of coaching before new coaching pairs for RUHS sites join the initiative and BHICCI expands to other organizations. During an all-day meeting, the coaches identified several key coaching strategies that they used during the early phase of coaching, which include:

- Relationship building
- Coaching communication
- Orientation to BHICCI
- Team learning and feedback
- Centrality of patient/client experience
- Team care (development, growth and enhancement)
- Observation
- Leveraging coaching
- Supporting methods of assessing progress and quality improvement

The coaches shared that establishing trust and building relationships with both executive leadership and clinical staff at each organization was crucial during the first phase of practice coaching. While each coach shared different strategies to develop therapeutic alliance, they all felt that supporting organizations as they designed their Charter, which is one of the first

activities, provided structure to early interactions and helped the coaches gain an understanding of each organization's values and history, which they could use to acknowledge strengths and accomplishments to build from. The activity of developing a Charter also helped organizations to articulate the values and aims of the initiative, so each organization, rather than practice coaches, are empowered to identify their goals and first set of change process to focus on. Listening to the practice coaches describe their process highlighted the importance of mindfulness in relational coaching. The coaches shared that it is also important to facilitate strong relationships between organizations and IEHP, which they have accomplished by utilizing key staff within IEHP's Clinical Transformation team as internal resources, when appropriate. Part of their discussion also included self-reflection on which activities were not successful; the coaches shared that introducing too much change too quickly, and not being clear on certain components of the initiative, such as the registry or ACG reports were activities that were not successful.

To prepare for training new practice coaches, and to address IEHP's request for more information about the process and coaching activities that are occurring at each organization, the practice coaches have started to develop a coaching plan and coaching activities timeline to better document their process. Upcoming reports will discuss how these changes affected new coaches' orientation to BHICCI and coaching process.

Measures/Assessments

Data Sharing

Collection of data and sharing of client information with IEHP has been an unexpected challenge and major barrier during the implementation phase, particularly for behavioral health organizations participating in BHICCI. Obtaining signed MOUs has delayed IEHP's ability to access information about individuals who receive services at the behavioral health sites, and organization's ability to hire staff and begin providing integrated, complex care. Behavioral health organizations have been unable to identify their target population using information from the ACG reports because IEHP is awaiting authorization to receive client diagnosis, cost and utilization data. Behavioral health organizations have employed other methods to identify their target population without ACG reports, including identifying clients who would benefit from complex care management from their EHR, or by including the entire clinic population. Contracting and credentialing has also impacted organizations ability to hire care team providers. Several behavioral health organizations have not hired their physical health providers and are currently unable to provide integrated care at this time. IEHP clinic transformation staff are working directly with organizations, with support from the practice coaches, to provide any available resources until contracts are in place. The long-term effect of these delays on implementing the goals of BHICCI at these organizations is currently unknown.

Data Collection Frequency

To support population health management of complex care needs, organizations will be required to complete physical health and behavioral health monitoring every month for clients identified as "high risk" at baseline, which is a challenge for organizations as it requires changes

to staffing infrastructure and workflows. The coaching team was concerned about data collection burnout on behalf of the sites and clients during the design phase of the BHICCI. Due to these concerns, several modifications to the data collection plans were made. For example, collection of a measure of global health for the evaluation, the PROMIS Global Health assessment, was reduced in frequency from monthly to quarterly. Secondly, organizations are required to complete a monthly team report for IEHP describing their integration/complex care management milestones, PDSA planning and testing, and learning from change activities and measurement. Based on feedback from the organizations, the coaching team recommended a shift from monthly to quarterly submission of team reports and a revision to the report to ensure that it can document progress and challenges for IEHP and teams' executive leadership and meet the goals of team self-reflection.

Other organizations were concerned about regular screening and monitoring for clients who are not depressed or diabetic. Adjustments were made to the data plan to recommend re-screening for depression twice a year for clients with PHQ-9 scores below the high risk threshold at baseline and annually for clients who had HbA1c levels below threshold at baseline. At this point, organizations have begun to plan changes to workflow to ensure regular screening but will not begin data collection in the registry until the beginning of July 2016. It is currently unknown if the modifications to the data collection plan will help acceptance and adoption of these changes.

Measuring Outcomes

While organizations expressed concern about burden associated with frequency of data collection, they also expressed concern about the administration and selection of measurement-based practice tools. In an effort to reduce burden related to the administration of the measures, the BHICCI team considered 1) how the selected measures would fit into the health care team's workflow, and 2) an appropriate timeline for data collection rollout considering staffing and workflow capabilities. These guidelines and timelines were added to the data plan. Measure selection was challenging due to the innovative nature of the BHICCI project. While most of the selected behavioral health measurement-based practice measures are brief, there were some early concerns from organizations about the burden of collecting screening measures monthly, and whether the selected tools were the best measures for certain settings, despite their brevity. For example, one of the organizations that serves clients with serious mental illness (SMI) expressed concerns about the ability of the PHQ-9 to screen and detect improvements within this population.

Identification of an appropriate Treat-to Target measure of substance abuse was particularly difficult for measures, since these measures are not commonly used to regularly monitor outcomes over time and develop care plans. During the design phase of the initiative, there were concerns that a proposed measurement-based practice tool for Substance Abuse, the DAST, would not demonstrate change in substance use because it considers drug abuse within the past twelve months. After some discussion of the impact on validity of altering the recall period for the DAST to "the past month," the evaluation team was asked to review the measurement literature to identify a new measure that would meet the criteria for

measurement-based practice, and also reflect the shifting culture within BHICCI towards substance abuse screening and assessment. Specifically, the practice coaching team wanted a measure that considered misuse of any type, including alcohol, illegal drugs, cannabis and prescription drugs, as opposed to separate assessments of alcohol and drug use. It was challenging for the evaluation team to identify an existing, validated measure of substance abuse that was short enough to not be burdensome for the client to complete, comprehensive enough to adequately measure misuse of substances, and sensitive enough to detect changes in patterns of use. Secondly, most of the existing substance use measures ask respondents to reflect on their substance use over the past twelve months or over the course of their lifetime, and it was imperative that the proposed measure could be completed every month to support ongoing measurement based care. Additionally, most validated measures asked about different psychoactive substances separately, or separated alcohol from other psychoactive substances. Existing tools fell short of addressing the measurement needs of the initiative, and suggest that ongoing measurement of substance use is a new direction within the field.

The evaluation team proposed the PROMIS Substance Use scale as a measurement-based tool, which is a brief alcohol and substance use assessment with strong psychometric properties that asks clients to consider their use within the past 30 days. Specifically, the wording for the drug misuse items had stronger, more absolute language ("My drug use was out of control") whereas the alcohol use items seemed more moderate ("I had trouble controlling my drinking"). The description of "drug" in the instructions was also too broad for the purposes of BHICCI and had the potential for misinterpretation by the client. The evaluation team collaborated with the practice coaches to elicit suggestions to tailor the assessment to reflect the values and measurement needs of BHICCI. The practice coaches provided recommendations for the instructions, which clarified what the term 'drug' meant, separated out prescription drug use in the screening questions, and included a preface which tries to mitigate the impact of historical stigma and self-stigma of substance use disorders on disclosure. The coaching team also tailored the language of the drug use items to mirror the wording of the alcohol use items to produce a more balanced assessment. The process of reviewing and adapting existing, validated tools to support new, innovative measurement highlights the challenge of meeting organizations' needs and ensuring that the measure can be reliably used for clinical decision making. The revised measure better supports measurement-based care, but the changes from the original, validated measure may threaten the psychometric properties of the scale. This is particularly important when the data will be used to inform treatment planning. The Substance Use measure is currently undergoing pilot testing within several types of settings to confirm that the adapted tool provides the best solution to meet the measurement needs of this initiative.

Data Systems

To facilitate shared care planning and data system interoperability, IEHP contracted with dbMotion to create a system that could ensure that the data collected by different electronic systems could be shared with the entire health care team as dashboards. However, deployment of the application has been delayed longer than anticipated and will not be launched and usable until mid-way through the initiative. dbMotion does not have behavioral health measures programmed into the system, and requires segregation of behavioral health and physical health

data for privacy concerns. This has been a major challenge towards the successful transformation towards measurement-based care.

To accommodate this need in the interim, a temporary registry was developed in Excel for the sites to use, but the development, testing, and launch of this registry required an unanticipated use of resources. For example, because some of the participating RUHS sites have not started implementing the initiative, and some organizations have not hired the workforce needed to begin measurement collection, there were concerns about which organizations would be included in the Registry rollout, and how to best train staff who are at different points of readiness. Vignettes and role-playing activities were designed to support a more engaging training session and train individuals to use the registry as a treatment decision support tool, rather than a passive data entry system.

Prior to the Registry rollout, IEHP analysts needed to establish a secure data transfer method to obtain measurement data and client information from the organizations on a regular basis. For evaluation and analytic purposes, it can be challenging to determine an accurate starting point for data analysis with a staggered implementation. After some discussion with the consulting team, a clear start date of practice coaching and criteria for starting the BHICCI intervention was selected. These criteria include a full complement of staff, who are ready to collect data in the registry, and the identification of the target population. Staggered implementation may also make it challenging to identify practice changes that may take organizations longer to implement, or periods when organizations may benefit from increased support from the practice coaches. New documentation strategies by the practice coaches should help IEHP and the evaluation team better identify these periods.

Using an Excel registry to support population health management is feasible as a temporary solution, but could lead to some future challenges. The Excel registry is not pre-populated with client information, and requires an early time investment for staff to set up the registry before it can be used to collect measurement-based practice tools. An Excel registry may not be robust enough to support a large quantity of client information and screening data, and will require the need for a backup database at IEHP with a defined method to audit changes and edits to the registry data. Secondly, not all of the sites currently collect data electronically, and implementation of the Excel registry and dbMotion into their workflow might be more difficult for these sites. Learning from the rollout of the registry and dbMotion will be described in the next technical report.

Balancing Evaluation Measurement Needs

During the initial implementation phase, the evaluation team found it challenging to gather information about each organization's progress on the Roadmap. To address this challenge, the evaluation team designed a Checklist that mapped to the practice change goals outlined in the Roadmap. However, the practice coaching team was hesitant to complete the Roadmap Checklist and felt it would be too burdensome for them to complete. As an alternative, the practice coaching team lead suggested that information on progress and practice change could be acquired from the Team Reports, and the practice coaches would participate in a brief

interview to help address any outstanding questions related to each organization's progress through the Roadmap that could not be answered from the team reports. Additionally, a staff member from the evaluation team attended each practice coach team meeting to document their process. This method was implemented to obtain the most complete and accurate information with the least amount of burden on staff and practice coaches. While there was some initial concern about missing important details and misinterpreting changes using this approach, the first set of interviews with the practice coaches were informative and helped to fill in gaps in the evaluation team's understanding of organizations' progress and practice coaching activities. Attending the practice coaching meetings and working collaboratively to develop tools and measurement strategies has increased the coaches understanding of the evaluation and has helped to enhance the relationship between the two teams.

An additional challenge pertains to the administration of the PROMIS Global Health measure for the evaluation, and the Client and Health Care Team Experience Surveys administered by LEAD the difference (LEAD). The evaluation was initially designed to collect the PROMIS Global Health on paper based on limited computer availability for client use. However, there were some logistical concerns for paper data collection, and the evaluation team readily adapted to an electronic collection approach when it was clear that each organization would have tablets available so clients could complete LEAD's Client Experience Survey. The evaluation team researched web-based data collection methods that would not require substantial programming resources, and also met HIPAA and UCSD security standards, and selected SurveyGizmo as the data collection platform. After programming the form and beginning to plan for rollout of data collection in July 2016, the evaluation team learned that there were not funds allocated within the organizations' budget for purchasing tablets. JCC Consulting is evaluating different types of tablets to be purchased within their budget by the end of the fiscal quarter. Once the tablets have been purchased, a protocol will need to be developed to distribute and train staff to use the tablets. While this process can be tested in conjunction with piloting the PROMIS Global Health measure before the official rollout, this process may impact the rollout timeline for both the PROMIS Global Health and LEAD's Experience Surveys.

Summary

The BHICCI initiative has evolved over the past year from a behavioral health integration initiative to one that is supporting organizations' capacity to function as Health Homes by facilitating practice changes in complex care management and behavioral health integration. As the BHICCI prepares to expand to several Riverside University Health System sites, it is an opportune point to document the design of early phase of implementation, and describe the successes and valuable lessons learned. During the early phase of the BHICCI, there were several challenges that impacted the implementation timeline, including obtaining signed MOUs and ROIs for each organization and building a data system to support population health management. Despite these challenges during the early implementation phase, organizations have started to make practice changes on several different phases of the Roadmap. Future Technical reports will document learning, organizations' experience adopting measurement for

regular screening and tracking of complex conditions, and the early implementation phase for RUHS sites.