



REPORT

FINAL REPORT

Team-Based Care Initiative Final Evaluation Report

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EXECUTIVE SUMMARY

In February 2015, the Colorado Health Foundation (the Foundation) initiated the Team-Based Care Initiative (TBCI) to strengthen the delivery of comprehensive, patient-centered primary care across Colorado. In developing the initiative, the Foundation adopted the five core principles of high-quality team-based care—shared goals, clear roles, mutual trust, effective communication, and measurable processes and outcomes—identified by the National Academies of Sciences, Engineering, and Medicine. To foster improvements in these areas, the TBCI

TBCI evaluation research questions

1. Which practices participated in the initiative? What were they hoping to achieve through this participation? (Covered in the baseline evaluation report.)
2. How effective were financial support and technical assistance in supporting practice change? (Covered in the final report.)
3. How extensively did practices change the way they delivered care? What facilitated or impeded these efforts? (Covered in the interim and final reports.)
4. What factors are associated with differing degrees of success in meeting the goals of the initiative? (Covered in the final report.)
5. How likely are the changes supported by the initiative to be sustained? (Covered in the final report.)
6. What effects did the practice-level changes have on the experiences of patients, clinicians, and practice staff? (Covered in the interim and final reports.)

provided 19 primary care practices with financial assistance (grants or loans) and technical

assistance (including practice coaching, online resources, and in-person learning opportunities).¹ The Foundation also established a success rubric that (1) defined the initiative's overall success as the integration of teams into regular practice operations; and (2) identified benchmarks for different levels of practice success in patient engagement, patient experience, team member experience, practice change, and sustainability.

To give formative and summative feedback about TBCI to the Foundation, participating practices, and the technical assistance providers, Mathematica conducted a three-year, mixed-methods evaluation. We evaluated the initiative's implementation and fielded surveys of patients, clinicians, and practice staff to answer the six broad research questions shown in the text box at the left.

Key findings

Our findings on the effects of TBCI on practices, patients, clinicians and staff, and care delivery approaches were generally positive. Our evaluation findings, framed by our research questions, are briefly summarized below.

Five principles of team-based care

1. Shared goals
2. Clear roles
3. Mutual trust
4. Effective communication
5. Measurable processes and outcomes

¹ The TBCI used a two-phased approach to help practices make improvements across each of the five team-based care principles. In Phase 1, technical assistance partners (TAP) supported 30 primary care practices in developing a proposed work plan and budget for expanding team-based care. On the basis of recommendations from the TAP, the Foundation selected 20 of the practices from Phase 1 to participate in Phase 2, starting in June 2015. One of the selected practices withdrew from participation; the 19 remaining Phase 2 practices received grants or loans from the Foundation, along with coaching and other implementation support from the TAP.

How effective were financial support and technical assistance in supporting practice change?

- Practices appreciated TBCI funding, which enabled them to dedicate clinician and staff time to TBCI activities within the practice and to attend learning forums outside the practice. Despite this support, some practices found it particularly challenging to dedicate time for clinicians and staff to travel to and attend learning forums.
- In addition, practices benefited from provision of TBCI technical assistance, particularly highly tailored and in-person forms of support including individualized coaching, in-depth health information technology consultation, and attendance at learning forums and at the Clinica Institute.
- Practices that struggled with aspects of TBCI implementation, particularly those related to measurable processes and outcomes, may have benefitted from earlier and more intensive technical assistance in those areas.

How extensively did practices change the way they delivered care?

- Across all practices, teams' self-ratings on the primary care team guide assessment—a practice-level measure of team functioning and practice transformation across key domains relating to team-based care—increased steadily over time, suggesting that TBCI practices implemented many of the basic changes needed to improve primary care functioning.
- Individual practices' approaches to and progress with TBCI implementation varied. However, overall, site visits and survey results showed that practices made substantial progress in implementing changes in connection with the five principles of team-based care. On the whole, TBCI practices:
 - Made the most progress in the development of **clear roles** and **effective communication** within teams
 - Made moderate progress toward implementation of **shared goals** and **mutual trust**
 - Made the least progress toward establishment of **measurable processes and outcomes**

What factors are associated with differing degrees of success in meeting the goals of the initiative?

- Using criteria from the TBCI success rubric (see the text box) to assess practices' relative success with TBCI implementation, we found that site visit practices with the most success in implementation had several things in common:
 - Leaders who supported the initiative and engaged clinicians and staff in the work
 - An egalitarian practice culture in which all team members were encouraged to provide input

TBCI success rubric domains and expected outcomes

Patient engagement: Patients receive care from their team that is highly consistent with their goals.

Patient experience: Patients perceive that changes in the practice have improved their experience of care.

Team member experience: Team members have the knowledge and collaborative skills to work in a team-based care model.

Practice change: Workflow changes enable all team members to provide team-based care.

Sustainability: Practices use effective change management to establish a system for providing team-based care.

- Consistency in teams over time (due to low staff and clinician turnover)
 - Dedicated and experienced quality improvement staff
 - Practice leaders, clinicians, and staff who took full advantage of TBCI technical assistance and learning opportunities
 - Resources to expand and maintain team-based care changes moving forward, including internal champions who will continue to lead the work
- Practices that were least successful with TBCI implementation commonly struggled with the following:
 - High clinician and staff turnover
 - Lack of TBCI engagement among practice leaders and/or clinicians and staff
 - Lack of mutual trust within teams

How likely are the changes supported by the initiative to be sustained?

- Many TBCI practices planned to sustain, at a minimum, several fundamental aspects of TBCI (see the text box), noting that many changes were already ingrained in practice operations.
- Practices reported that sustainability of these changes will depend on the extent to which they can be aligned with current and future payment systems, as well as with practice leader and staff commitment to continuing team-based care.

TBCI-supported changes that many practices plan to sustain

- Organized care teams
- Clearly defined roles and responsibilities
- Coordination with extended care team members
- Empanelment
- Team members practicing at the top of their license
- Screenings to identify patient needs
- Pre-visit planning
- Regular team meetings and huddles
- Culture of continuous quality improvement

What effects did the practice-level changes have on the experiences of patients, clinicians, and practice staff?

- TBCI introduced many changes that could have disrupted patient experiences with their care, and clinicians' and staff members' experiences with work.
- However, throughout TBCI, patients reported high levels of satisfaction with access to care, quality of care, and feelings of respect from members of the care team.
- In addition, the percentages of clinicians and staff who reported feelings of burnout in their work decreased between 2016 and 2018, and site visit interview data suggested ways that TBCI may have improved work experiences for clinicians and staff.

Conclusions and lessons learned for other initiatives

Overall, TBCI was successful in inspiring and supporting practices that undertook major changes to the way they deliver care, and in integrating optimized care teams into regular practice operations. The experiences of practices that participated in TBCI offer valuable lessons for others seeking to implement team-based primary care. First, building a self-sustaining, thriving approach to team-based care depends on practice leaders who believe that such an approach will improve patient care—and ultimately, patient outcomes—and who effectively

communicate this outlook to clinicians and staff. In addition, employing creative, strategic, and tailored technical assistance and learning activities to spark practices' engagement and to guide them through the transition to team-based care is critical to TBCI implementation. At the beginning of an initiative such as TBCI, having a comprehensive understanding of where practices stand with regard to the goals or guiding principles of the initiative will help technical assistance providers tailor their approaches and enable practices with less experience in any given area to "catch up" to the rest of the cohort. Finally, TBCI practices' experiences suggest that financial and technical supports are necessary, but not sufficient, for making successful and sustainable changes toward team-based care. Practices with the most success in implementing TBCI across all five team-based care principles relied on supportive leaders, engaged clinicians and staff, an egalitarian practice culture, consistency in care teams over time, and availability of resources to expand and maintain team-based care changes moving forward.

TBCI resulted in notable advances in participating practices' delivery of comprehensive, patient-centered primary care in communities facing considerable challenges related to social determinants of health. The initiative's influence extends beyond the years of its implementation: TBCI helped advance the Foundation's work through its success in strengthening the provision of primary care in practices with significant numbers of underserved patients. With its overarching mission to bring health into reach for all Coloradans, the Foundation might expand on these gains in several other ways, such as supporting primary care providers in developing collaborative partnerships with community-based services to address issues of access; providing training to care teams to support patients with engaging more fully in healthcare decision-making and self-management support; investing in activities that foster and sustain partnerships between primary care and behavioral health providers; working directly with communities to identify specific barriers to primary care engagement and targeting interventions to overcome them; and providing primary care practices and their patients and families with the training and resources needed for them to become advocates for health and health equity in their communities.

I. INTRODUCTION

A. Background

In alignment with the mission of the Colorado Health Foundation (the Foundation), the overall aim of the Team-Based Care Initiative (TBCI) was to support practices in transforming primary care to improve the health and health care of Coloradans. This three-and-a-half-year funding opportunity supported the efforts of primary care practices to optimize existing care teams to deliver high-quality, coordinated care and to boost the number of Coloradans who received comprehensive, patient-centered care.

Team-based models of care, such as those supported through the TBCI, have shown promise in promoting more efficient and effective primary care delivery and have increased the satisfaction of both providers and patients (Casalino et al. 2003; Coleman and Reid 2013; Mickan 2005; Mitchell et al. 2012; O'Malley et al. 2015; Shipman and Sinsky 2013; Shojania et al. 2006; Sinsky et al. 2013; Wagner 2000). A white paper commissioned by the Agency for Healthcare Research and Quality (Schottenfeld et al. 2016) reviewed the literature on team-based care in primary care and identified the following potential benefits:

- Expanded access to care through more efficient delivery of services (Campbell et al. 2001; Peikes et al. 2014)
- More effective delivery of additional services, such as patient education, behavioral health, self-management support, care coordination, and care management (Aiken 2003; Bodenheimer 2007; Gilbody et al. 2006; Shojania et al. 2006; Wagner 2000; Walsh et al. 2006)
- Greater job satisfaction for clinicians and primary care staff members by creating an environment in which all can perform work matched to their abilities (Sevin et al. 2009; Sinsky et al. 2013)
- More effective engagement of practice members and patients in continuous quality improvement (QI) (Taylor et al. 2013)

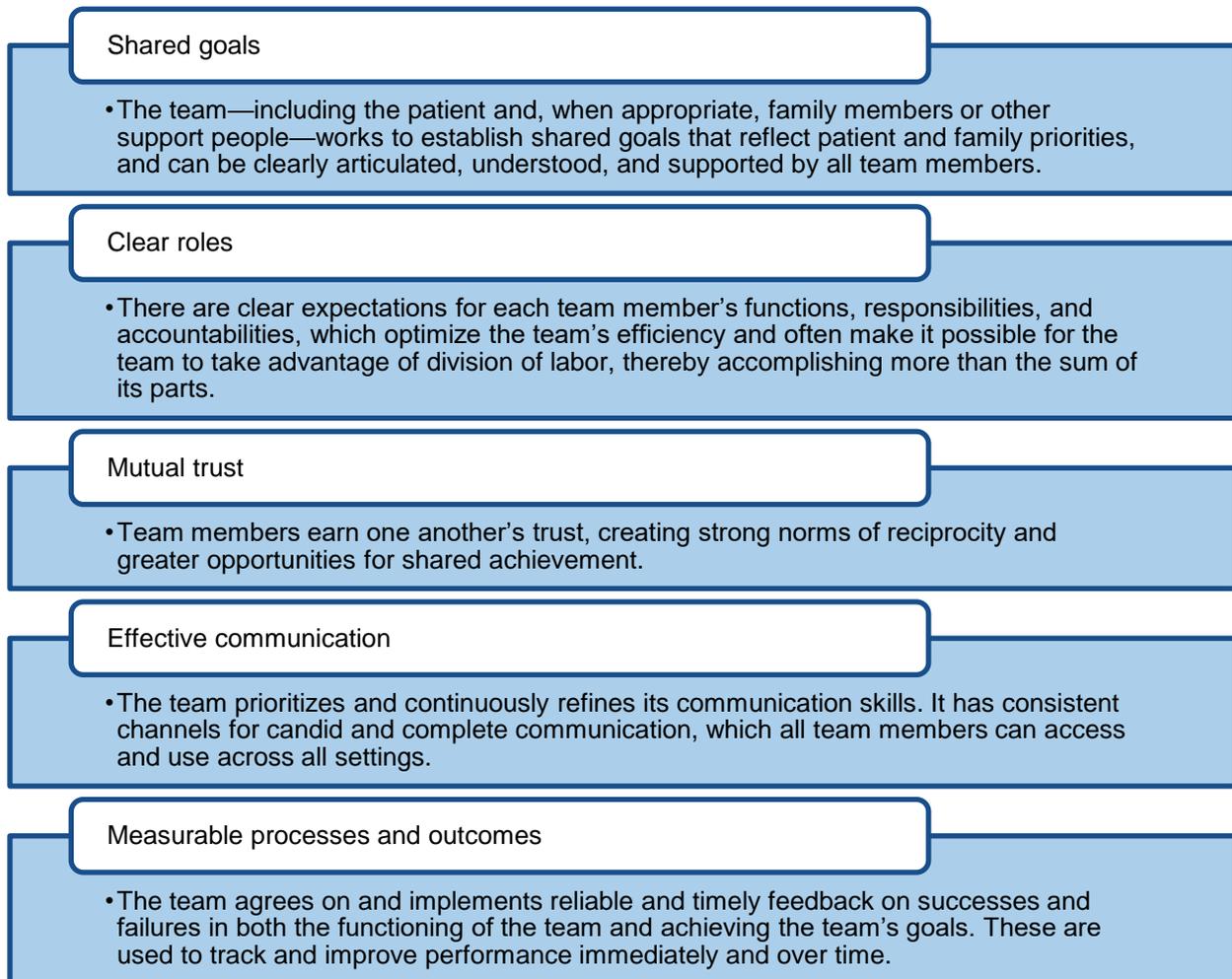
1. Rationale for the TBCI

In 2015, the Foundation determined that interprofessional team-based care was not a routine part of primary care in the United States or in Colorado, despite its potential for significant positive effects for both individual and population health. In a series of key-informant interviews commissioned by the Foundation and conducted by the University of Colorado Department of Family Medicine, Colorado practices cited lack of experience and expertise in team-based care, cultural silos within practices, insufficient infrastructure to support team-based care approaches, and inadequate or absent reimbursement for some services as barriers to expanding team-based care. In response to these challenges, the Foundation sought to build on previous investments in practice transformation and integrated care to help primary care practices develop the capacity

for team-based care that is needed to succeed in future care delivery transformation and new payment models.²

In the overall design of the TBCI, the Foundation adopted the five principles of team-based care identified by the National Academies of Sciences, Engineering, and Medicine (NAM) (Mitchell et al. 2012). These five principles are shared goals, clear roles, mutual trust, effective communication, and measurable processes and outcomes (Figure I.1 defines each principle).

Figure I.1. Definitions of the principles of team-based care



Source: “Core Principles & Values of Effective Team-Based Health Care” (Mitchell et al. 2012).

² Tanya Weinberg provided Mathematica with information on the rationale for the development of TBCI via email on August 16, 2017. Mathematica also reviewed the funding recommendation memo prepared for the Colorado Health Foundation Board of Directors by Tanya Weinberg and Amy Latham, dated December 2, 2015.

2. Overview of the TBCI

The TBCI initially provided technical assistance (TA) and coaching to 30 Colorado primary care practices to develop work plans for enhancing team-based care (Phase 1). In June 2015, the Foundation selected 20 of these practices for funding and additional technical support (Phase 2).³ The 20 selected practices received grants (or interest-free loans) up to \$150,000 to implement team-based models of care based on their approved work plans. One of these selected practices subsequently withdrew from the initiative, leaving 19 participating practices across Colorado. The participating practices varied in terms of size, rural and urban practice locations, and practice type (participating practices included federally qualified health centers [FQHCs] and other primary care practice types).

In addition to the grant or loan funding provided by the TBCI, Phase 2 practices received ongoing TA and feedback through the following:

- An interactive online training program called the “Primary Care Team Guide” (<http://improvingprimarycare.org/>), developed by experts at the MacColl Center for Health Care Innovation at Kaiser Permanente Washington Health Research Institute
- In-person learning forums, which offer detailed information on implementing team-based care and opportunities to share approaches with members of other participating practices; the forums were led by TA partners (TAP) composed of experts from the John Snow, Inc. Research & Training Institute; Leibig-Shepherd, LLC; Kaiser Permanente Washington Health Research Institute; and the Colorado Community Health Network
- In-person and telephone-based support, provided by TAP coaches with expertise in practice change and team-based care, guided by a detailed TAP-developed change package based on the building blocks of high-performing primary care (Bodenheimer et al. 2014)⁴
- Optional additional TA support developed by the TAP in the second year of the initiative, including (1) consultation to improve the use of health information technology (IT), (2) recommendations for redesigning practice layouts to support team-based care, and (3) the opportunity to observe team-based care at Clinica Family Health, a high-performing practice that has optimized team-based care
- Annual feedback on patient satisfaction (both practice-level and TBCI-wide) from Mathematica Policy Research

³ For initial selection, practices had to (1) be primary care clinics in Colorado serving a significant population of underserved patients, (2) have at least one existing primary care team, (3) use an electronic health record system certified by the Office of the National Coordinator for Health Information Technology, and (4) commit to participating in the technical assistance and evaluation components of the initiative.

⁴ The change package is based on “The Primary Care Team Guide.” Formal sequencing of the change package was developed following feedback provided by Mathematica to the TAP in February 2016 on early progress documented through calls conducted in November and December 2015 with practice leaders responsible for practice-level TBCI implementation. A detailed description of these early findings is in our baseline report. Throughout TBCI, the TAP continued to modify the change package based on the TAP’s evolving knowledge from working with the TBCI practices and advice from national experts who made presentations at learning forums.

The primary care practices selected by the Foundation for funding and support through the TBCI first worked with practice coaches to identify team-based care-related goals tailored to local practice objectives. Our baseline evaluation report (Crosson et al. 2016) provided detailed information about these initial goals set by participating practices. These goals, which were well aligned with the TAP-developed change package, focused on six broad change categories:

1. Improving care coordination, care management, or patient self-management support
2. Clarifying team members' roles and responsibilities and providing training in team-based care
3. Empaneling patients to specific clinicians or care teams
4. Engaging leaders and staff in change processes
5. Developing and implementing new processes and workflows to support efficient team-based care delivery
6. Developing and using QI teams

To assess the overall success of the TBCI, Foundation staff developed a success rubric in partnership with the Mathematica evaluation team and the TAP. The rubric describes the desired outcomes of the initiative across five domains in which improvement was expected in connection with implementing team-based care: patient engagement, patient experience, team member experience, practice change, and sustainability (Table I.1).⁵

Table I.1. TBCI success rubric

| Domain | Expected outcome |
|-------------------------------|--|
| Patient engagement | Patients receive care from their team that is highly consistent with their goals. |
| Patient experience | Patients perceive that changes in the practice have improved their experience of care. |
| Team member experience | Team members have the knowledge and collaborative skills to work in a team-based care model. |
| Practice change | Workflow changes enable all team members to provide team-based care. |
| Sustainability | Practices use effective change management to establish a system for providing sustained team-based care. |

B. Evaluation design

Mathematica conducted a three-year, mixed-methods evaluation to provide the Foundation, participating practices, and the TAP with formative and summative feedback. We conducted an implementation evaluation and fielded surveys to answer the following research questions:

1. Which practices participated in the initiative? What were they hoping to achieve through this participation? (Covered in the baseline evaluation report.)

⁵ For additional detail on the success rubric and how we determined levels of success for each domain, see our baseline report (Crosson et al. 2016).

2. How effective were financial support and TA in supporting practice change? (Covered in the final report.)
3. How extensively did practices change the way they delivered care? What facilitated or impeded these efforts? (Covered in the interim and final reports.)
4. What factors are associated with differing degrees of success in meeting the goals of the initiative? (Covered in the final report.)
5. How likely are the changes supported by the initiative to be sustained? (Covered in the final report.)
6. What effects did the practice-level changes have on the experiences of patients, clinicians, and practices staff? (Covered in the interim and final reports.)

1. Evaluation methods

For this report, we comprehensively assessed the experiences of practices in their implementation of team-based care and the effects of these changes on patients, clinicians, practice staff, and care delivery. Our mixed-methods approach relied on data collected through site visits, in-depth interviews with practice members, surveys of patients and practices' clinicians and staff, and the practice-level primary care team guide assessment (PCTGA). Given the wide diversity of types of practices participating in the initiative, we determined that it would not be possible to select common measures to examine the effects of the initiative on specific processes of care or patient health outcomes.

Site visits and in-depth interviews. The TBCI-participating practices varied in terms of practice setting, size, type, and location in the state. We selected 10 with a range of characteristics that reflected the overall sample for in-depth assessment of implementation experiences, including barriers to and facilitators of implementation and feedback on TA and learning activities (Table I.2).

Table I.2. Characteristics of TBCI practices selected for site visits

| TBCI practice characteristic | Practices selected for site visits (%) | All TBCI practices (%) |
|---------------------------------------|--|------------------------|
| Practice setting | | |
| Urban | 60 | 58 |
| Rural | 40 | 42 |
| Practice size | | |
| Small (fewer than 3,000 patients) | 30 | 26 |
| Medium (3,000 to 6,000 patients) | 40 | 37 |
| Large (6,001 or more patients) | 30 | 37 |
| Practice type | | |
| Federally qualified health center | 30 | 42 |
| Rural health center | 0 | 5 |
| School-based health center | 10 | 11 |
| Pediatric practice | 10 | 11 |
| Community mental health center | 0 | 5 |
| Other primary care or family medicine | 50 | 26 |

| TBCI practice characteristic | Practices selected for site visits (%) | All TBCI practices (%) |
|-------------------------------------|--|------------------------|
| Team-based care funding type | | |
| Loan (for-profit practice) | 20 | 11 |
| Grant (not-for-profit practice) | 80 | 89 |
| Location | | |
| Denver area | 40 | 42 |
| Western Colorado | 30 | 26 |
| Southern Colorado | 30 | 32 |

Source: Background information on practices provided by the TAP and baseline interview findings.

We made in-person site visits to these selected practices in the fall of 2016 and the spring of 2018. During these one- to two-day site visits, researchers toured the office space; observed practice operations (including huddles and other team-based care meetings, when possible); and interviewed practice clinicians and other staff. In a few cases, we conducted telephone interviews with additional key staff who were unavailable when we were on-site. Among the interview participants were practice directors, physicians, nurse practitioners, nurses, QI leads, health information technology (health IT) specialists, medical assistants, health coaches and patient navigators, behavioral health staff, and front-desk staff. In 2016, we interviewed 70 practice respondents. In 2018, we interviewed 61 practice respondents; we also interviewed two TAP leaders to gather their perspectives on changes over time in the provision of TA to the practices. We audio-recorded the interviews and had them professionally transcribed. We coded and analyzed interview transcripts using a template-organizing approach (Miller and Crabtree 1999).

Surveys of patients, clinicians, and staff. Our baseline evaluation report (Crosson et al. 2016) described the patient and clinician and staff survey content and the data collection processes in detail.

Briefly, the patient survey used previously validated items to track patients' demographics, as well as patients' perceptions and experiences on key domains of interest to the TBCI. The survey, written at the 6th-grade reading level, was available in both English and Spanish. In each practice, staff members invited patients who had visited the practice during the fielding period to participate in the survey. We report here on surveys completed by patients in April 2016 and April 2018. Across 18 practices in 2016 and 19 practices in 2018, 1,326 patients and 1,504 patients completed the surveys, respectively. In 2018, 23 percent of the surveys were completed in Spanish; in 2016, 33 percent of the surveys were completed in Spanish.

The Kaiser Permanente Washington Health Research Institute conducted the clinician and staff survey online in 2015 and 2017, and Mathematica Policy Research conducted the clinician and staff survey online in 2018. The survey assessed practice transformation, leadership and teamwork, and job satisfaction and burnout. We report here on surveys administered to clinicians and staff members in August 2015 and May 2018. In 2018, 287 clinician and staff members

across all 19 practices completed the survey for a 59 percent response rate (individual practices' response rates ranged from 39 to 100 percent). In 2015, the response rate was 74 percent.⁶

Primary care team guide assessment. The PCTGA is a self-reported practice-level measure of practice team functioning and practice transformation across key domains relating to team-based care: continuity, access, planned care for chronic conditions and preventive care, risk-stratified care management, patient and caregiver engagement, coordination across the medical neighborhood, continuous improvement, and team-based care organization. The baseline evaluation report (Crosson et al. 2016) describes our process for calculating scores for each of these domains. We report here on PCTGA responses from May 2015 and August 2018 collected across all 19 participating practices.

C. Guide to this report

In our baseline report, we focused on describing which practices were participating in the initiative and what they hoped to achieve through this participation. The interim report focused on identifying the changes that practices were making at the halfway point to accomplish their goals for team-based care; what facilitated or impeded these efforts; and how these efforts were affecting the experiences of patients, clinicians, and staff (Crosson et al. 2017). In this final report, we provide summative assessments of how practices used funding, TA, and other supports to implement TBCI; describe the practice change efforts across the five principles of team-based care (and barriers to and facilitators of this work); identify factors associated with differing degrees of successful TBCI implementation; examine how likely practices are to sustain the changes they have made after the initiative ends, and what factors will affect decisions around sustainability; and assess how implementation of TBCI affected patients, clinicians, and practice staff. We present our findings in the chapters that follow:

- **What have we learned about the extent to which funding, TA, and other supports facilitated the successful implementation of team-based care?** In Chapter II, we use interview data to describe and assess the effectiveness of various supports provided to practices as they implemented the TBCI.
- **What have we learned about how practices achieve success with team-based care changes?** In Chapter III, we use interview and survey data to (1) describe overall changes across the participating practices (as measured by the PCTGA overall score results and individual domain results) from the beginning to the end of the TBCI; (2) assess practice changes related to each of the five team-based care principles, as well as the key barriers to and facilitators of work in these areas; (3) assess the different levels of success practices had in implementing the TBCI (guided by the success rubric), and describe commonalities among the practices with the most and least successful implementation experiences; and (4) discuss

⁶ Overall response rates were calculated by dividing the number of individuals who responded to the survey by the number of individuals who received the survey (across all practices), as reported by practices. The lower response rate in 2018 is likely due to the fact that more clinicians and staff were invited to participate in 2018, compared with previous years. Practices determined which clinicians and staff would receive the survey each year. In some cases, practices extended the survey to all clinicians and staff; these practices typically had lower response rates than those that extended the survey only to clinicians and staff who were most closely involved with TBCI.

practices' plans to sustain TBCI changes, as well as factors affecting decisions around sustainability.

- **How meaningfully has implementation of TBCI affected patients, clinicians, and practice staff?** Through survey data, Chapter IV describes the initiative's effects on the experiences of patients, clinicians, and practice staff.
- **Conclusions and implications.** Using "After Action Review (AAR)" questions, we discuss the conclusions and implications of this evaluation. The AAR format amplifies key takeaways and facilitates learning from the evaluation.

II. WHAT HAVE WE LEARNED ABOUT THE EXTENT TO WHICH FUNDING, TA, AND OTHER LEARNING ACTIVITIES FACILITATED IMPLEMENTATION OF TEAM-BASED CARE?

The TBCI provided practices with financial assistance (grants or loans) and TA (including practice coaching and consultation, access to online resources, and in-person learning opportunities) to support practice changes. The financial assistance supported practices' learning and planning activities and helped establish leadership and staff buy-in. The TA and learning activities helped practices plan and implement TBCI-related changes and engage with and learn from other practices. Although practices would have preferred earlier exposure to certain learning supports, such as the in-person visit to Clinica Family Health to observe team-based care, practices appreciated having easily accessible learning tools and a coach to guide them and hold them accountable over the course of TBCI.

A. Funding: How was it used?

Practices used TBCI grants or loans to support their efforts to learn about the model and plan for TBCI-related work. Site visit practices reporting using TBCI funding for:

- Staff and clinician attendance at learning forums and participation in practice meetings (such as regular TBCI team meetings, daily huddles, or one-day staff retreats).
- More staff and clinician time to focus on leading and engaging in QI than would have otherwise been possible. This included work such as collecting data, conducting Plan-Do-Study-Act (PDSA) cycles, and assessing outcomes.

“They didn’t have to worry about that competing patient that is waiting for them. They had the time block, they were able to devote the time to have the conversation and the education at a comfortable pace and process with the entire team.”
—Practice leader

In addition, a few practices noted that TBCI financial support created leadership buy-in and motivated practice leaders to invest more resources (such as extra financial resources or dedicated staff time) to implement and sustain TBCI-related practice changes.

B. TA and learning activities: How effectively did these support practice change?

1. Learning forums

Over the course of the initiative, the TAP and TBCI faculty⁷ designed and led six in-person learning forums to share detailed information on implementing specific aspects of team-based care and to provide opportunities for practices to share strategies with each other. Almost all site visit practices sent several team members to learning forums and reported numerous ways in which meetings supported TBCI efforts. For example, site visit practices reported that the learning forums:

- Helped teams understand the purpose and benefits of the TBCI model and the “why” behind practice changes. This motivated team members to engage in what they perceived to be meaningful changes, as opposed to busy work.
- Allotted time for teams to brainstorm and collaboratively plan changes, which made it possible for team members to leave learning forums feeling inspired and eager to implement plans.
- Gave practices expert and peer advice on how best to implement various aspects of their TBCI models, including developing standing orders and workflows, integrating behavioral health into workflows, creating pod structures in their physical space, and engaging staff in QI efforts.
- Supported practice leaders in sharing ideas on practice management and sustainability planning.
- Provided valuable and user-friendly tools for practices to take with them, such as flash drives containing resources from each learning forum; these facilitated both training of new staff on the TBCI model and the implementation of new TBCI strategies.
- Created opportunities for networking, which allowed practices to exchange ideas on implementation and workflows, validated that they were on track with their progress, and assured them that they were not alone in their challenges. In particular, several practices pointed out the usefulness of breakout sessions that grouped attendees by position. For example, behavioral health professionals from multiple practices learned from each other

Topics of the six TBCI learning forums

1. Build a foundation and culture to support team-based care
2. Ensure high-quality core team performance in prevention and treatment of chronic illness
3. Enhance patient-centered care
4. Build an expanded care team to enrich expertise, enhance care for subpopulations, and connect to the community
5. Integrate behavioral/social health capacity in primary care
6. Communicate, celebrate your improvements, and build infrastructure to spread and sustain team-based care in your organizations

“I like them [the learning forums] because you attend those meetings and then, when you come back to the clinic, you have like five pages of ideas that you want to implement. Some of them, you’re able to implement right away. They are very inspiring.”
—Care manager

⁷ The TAP and TBCI faculty included experts from the John Snow, Inc. Research & Training Institute; Leibig-Shepherd, LLC; Kaiser Permanente Washington Health Research Institute; and the Colorado Community Health Network.

about how to handle disclosures of patients' behavioral health information to support integration of primary and behavioral health care.

Despite these many benefits of the learning forums, several site visit practices reported barriers to attendance. These practices found it challenging to pull clinicians and staff away from seeing patients to attend multi-day meetings. In particular, practices located far from Denver faced travel time in addition to the time spent attending the learning forums; several of these practices reported feeling stressed by these factors, even though TBCI funding helped offset these costs.

2. Coaching

TAP coaches with expertise in practice change and team-based care provided in-person and telephone-based support to practices, following a detailed TAP-developed change package based on the building blocks of high-performing primary care (Bodenheimer et al. 2014). Nearly all of the practices we visited viewed support from their coach as highly effective; a few provided suggestions for improvement.

Almost all of the visited practices considered coaching to be the most effective form of TBCI support and noted several ways in which coaches supported TBCI implementation:

- Coaches helped teams prioritize TBCI goals, select strategies to achieve goals, and be accountable to TBCI goals (especially via the monthly coach meetings and the six-month self-assessments).
- Coaches observed workflows, provided guidance on how to overcome limitations, and offered a valuable external perspective when assessing practice needs and progress.
- Coaches connected practices facing challenges to practices that had been successful in addressing similar challenges.

"I think the coaches help you not flounder. You have all these great ideas...but they focus you in one direction so that you can actually accomplish something."
—Physician

Some of the practices we visited reported challenges with the coaching experience, which affected these practices' TBCI progress. These practices' experiences underscored the importance of having coaches who were intimately familiar with both TBCI and practices' particular needs and goals. Specifically:

- A few practices reported that it was difficult not being able to have all practice staff (rather than a designated team) interact with the coach. These practices believed greater practice-wide exposure to the coach would have furthered general understanding about TBCI models and specific activities taking place at the practice.
- A few practices mentioned that the coach's guidance did not align with practice-specific goals.
- A few practices reported that coach turnover (sometimes more than once over the course of the initiative) interfered with TBCI work because new coaches faced a learning curve and practices had to adapt to different coaching styles. One practice reported that turnover in the

coaching role made it difficult to tell whether having a coach was helpful over the course of TBCI.

3. Online resources

Practices reported that online TBCI resources⁸ were not as useful as other TA resources.

- Most site visit practices reported that they did not use the online resources that much due to time constraints or challenges with accessing or navigating these resources.
- While a few practices reported accessing examples from the website improvingprimarycare.org to inform the development of standing orders, others reported relying on their coaches to identify and provide these resources instead.

Online TBCI resources:

1. An interactive online training program called the “Primary Care Team Guide”
2. Webinars (offered early in the initiative) on topics such as empanelment and QI
3. Adobe Connect website with TAP resources (such as materials from learning sessions and webinar recordings)

4. Additional TA

In the second year of TBCI, the Foundation gave the TAP supplemental funding to provide additional TA to practices. Informed by practices’ TA needs, the TAP developed opportunities in three areas. Many TBCI practices took advantage of these opportunities.

Additional TA opportunities:

1. Practice team observation of team-based care in action at Clinica Family Health
2. Health IT support
3. Clinic space redesign consultation

Clinica Institute

Sixteen TBCI practices sent team members to attend the Clinica Institute at Clinica Family Health, a Colorado FQHC that is widely recognized as an exemplar in providing team-based care. Several sessions of the Clinica Institute took place in the summer and fall of 2017; these one-day visits incorporated presentations from team members at Clinica, a clinic tour, and a discussion session. Most site visit practices that participated in the Clinica Institute reported that the experience was motivational and provided specific ideas and strategies that were helpful with TBCI implementation. For example:

- Most practices who visited Clinica appreciated that the Institute provided a strong example of how the TBCI model could be successfully implemented and noted that clinicians and staff who attended were “leaps and bounds” ahead of others in terms of understanding and championing the TBCI model.
- Several practices reported that having physicians attend Clinica Institute boosted TBCI buy-in because Clinica physicians endorsed the model and provided tangible examples of how it works in practice.
- Several practices implemented specific team-based care strategies that they learned about during their visit to Clinica, including using door flags outside exam rooms to indicate the

⁸ The Primary Care Team Guide (<http://improvingprimarycare.org/>) was developed by experts at the MacColl Center for Health Care Innovation at Kaiser Permanente Washington Health Research Institute.

stages of progress of patient visits, restructuring practice spaces to better support pods, and establishing more efficient scheduling methods.

A few of the practices we visited mentioned ways in which the Clinica Institute fell short of expectations or could have been improved. For example:

- A few non-FQHC practices reported that Clinica’s model was interesting, but would be difficult for them to emulate without extra resources. This was frustrating for some attendees, who were intrigued by the possibilities presented at the Institute but felt constrained by what they could implement in their own practice.
- Several practices provided suggestions for how the Clinica Institute could have been more helpful. These included having the Institute earlier in the initiative, having the opportunity to send more clinicians and staff (even virtually), and allowing more time to ask role-specific questions and to shadow staff.

Health IT support

Twelve practices received health IT consulting from Pivotal Moment and CORHIO (Colorado Regional Health Information Organization). Practices asked for help with a range of health IT needs. Site visit practices that participated provided the following feedback about their experiences:

- All participating practices appreciated in-person consultations to optimize use of EHRs. Recipients of

“It’s one thing to have support from the EHR folks that we can call, and another thing to have somebody sitting right next to you helping you through this stuff and telling you...what they’ve seen in other practices. That experience...was so awesome.”
—Health IT consulting participant

the support noted that the hands-on, targeted assistance with health IT challenges was more productive than over-the-phone technical support.

- Several practices especially appreciated help with developing customized reports and determining the

accuracy of data reporting.

- Almost all of the participating practices expressed that they wished they had encountered the health IT support earlier in the TBCI, and had more time to work with the consultants.

Space redesign

Twelve practices participated in the space redesign opportunity, in which a consultant from Boulder Associates visited the practice to provide recommendations on the physical layout of the space to better support team-based care. Practices we visited who took advantage of this opportunity reflected on their experiences:

Health IT needs addressed through the health IT support:

1. Assistance with developing registries and dashboards
2. Help with creating empanelment reports to support TBCI activities
3. General training on data extraction from electronic health records (EHRs)
4. Tutorials on using reporting tools and population management software

- Several practices said that the redesign consultants affirmed their plans and provided valuable insights. A few of these practices that had existing plans to remodel shared these plans with the consultant for feedback. Other practices appreciated that the consultant developed a blueprint for optimizing clinic space for team-based care.
- Several practices expressed frustration that they did not have the financial resources to move forward with the proposed redesign ideas.

“You come in and give me a plan that there's no way I can afford. It's like showing a poor kid a toy they'll never get.”
—Practice participant in space redesign consulting

III. WHAT HAVE WE LEARNED ABOUT HOW PRACTICES ACHIEVE SUCCESS WITH TEAM-BASED CARE CHANGES?

At the end of the initiative, practices reported varied approaches to and progress with implementation of team-based care. In this section, we first provide an assessment of change across the participating practices, as measured by the PCTGA overall score results and individual domain results since the start of the initiative. We then describe progress that practices made on implementing changes relating to each of the five team-based care principles, as well as the key barriers to and facilitators of practice work in each of these areas. Finally, we describe the common features of practices that achieved the most success in implementing TBCI and the common challenges of practices that struggled to implement TBCI.

A. Changes in TBCI practices' approaches to primary care over time across the five principles of team-based care

1. Overall change

Practice team self-ratings on the PCTGA indicated noteworthy improvement since the start of Phase 2 of the initiative in 2015. Specifically, average PCTGA scores rose from 6.9 in May 2015 to 9.1 in August 2018 (Table III.1). Practice approaches to care improved across all domains of the instrument, with average levels between the 7- to 9-point and 10- to 12-point domain range. These results indicated that, on average, the TBCI practices implemented many of the basic changes needed to improve primary care functioning. Practice improvements in continuity of care and risk-stratified care management were the most substantial.

Table III.1. TBCI practices' self-reported care delivery approaches, 2015–2018 ($n = 19$)

| Domain | TBCI practices in May 2015 | TBCI practices in August 2018 | Difference 2015–2018 |
|--|----------------------------|-------------------------------|----------------------|
| Mean score across all 19 practices on the PCTGA scale (1 to 12)^a | | | |
| Continuity of care | 7.3 | 10.2 | 2.9 ^b |
| Access to care | 7.4 | 9.8 | 2.5 |
| Planned care for chronic conditions and preventive care | 6.5 | 9.2 | 2.7 ^b |
| Risk-stratified care management | 6.3 | 9.3 | 2.9 ^b |
| Patient and caregiver engagement | 7.7 | 9.5 | 1.9 |
| Coordination of care across the medical neighborhood | 8.4 | 10.1 | 1.7 ^b |
| Overall PCTGA average score | 6.9 | 9.1 | 2.2 |

Source: Mathematica analysis of the PCTGA practice survey results, using the 19 TBCI practices that responded in both 2015 and 2018. For the wording of survey questions, see Appendix A of the baseline evaluation report (Crosson et al. 2016).

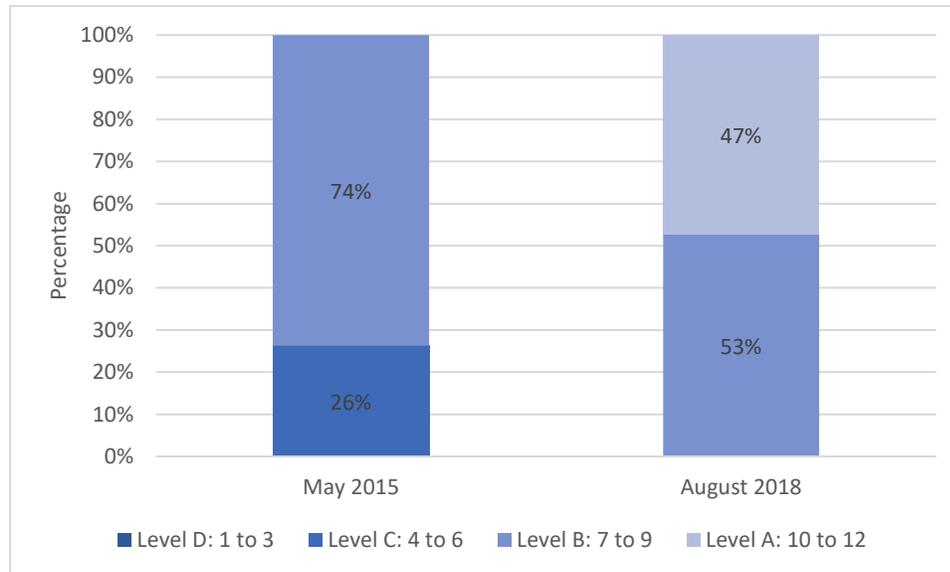
^a The range for each score is 1 to 12 (lowest to highest functioning). Composite scores were calculated using an average of each practice's response to all questions in a given area. Overall score is an average across all PCTGA questions.

^b Indicates a change in levels between baseline and follow-up. Levels are defined as follows: 1 to 3 = D, practice is just getting started and might want to review the resources page in that section of the guide to prepare for the key changes described there; 4 to 6 = C, practice is in the early stages of change and can benefit from the action steps and resources in that section of the guide; 7 to 9 = B, practice has implemented basic changes and can build upon success with the action steps and resources in that section of the guide; 10 to 12 = A, practice has achieved most or all of the important changes required.

PCTGA = Primary Care Team Guide Assessment; TBCI = Team-Based Care Initiative.

The proportion of practices that reported overall functioning in the top two PCTGA performance levels increased from 74 percent in 2015 to 100 percent in 2018 (Figure III.1). Notably, none of the TBCI practices reported performance in the lowest PCTGA level from 2015 to 2018, indicating that the Foundation effectively selected Phase 2 practices that were already making team-based care changes prior to participation. In 2018, nine of the TBCI practices reported overall care delivery in the highest performance level (compared to none in 2015) and no practices remained in the early stages of change level.

Figure III.1. Distribution of practice PCTGA scores, 2015–2018 ($n = 19$)



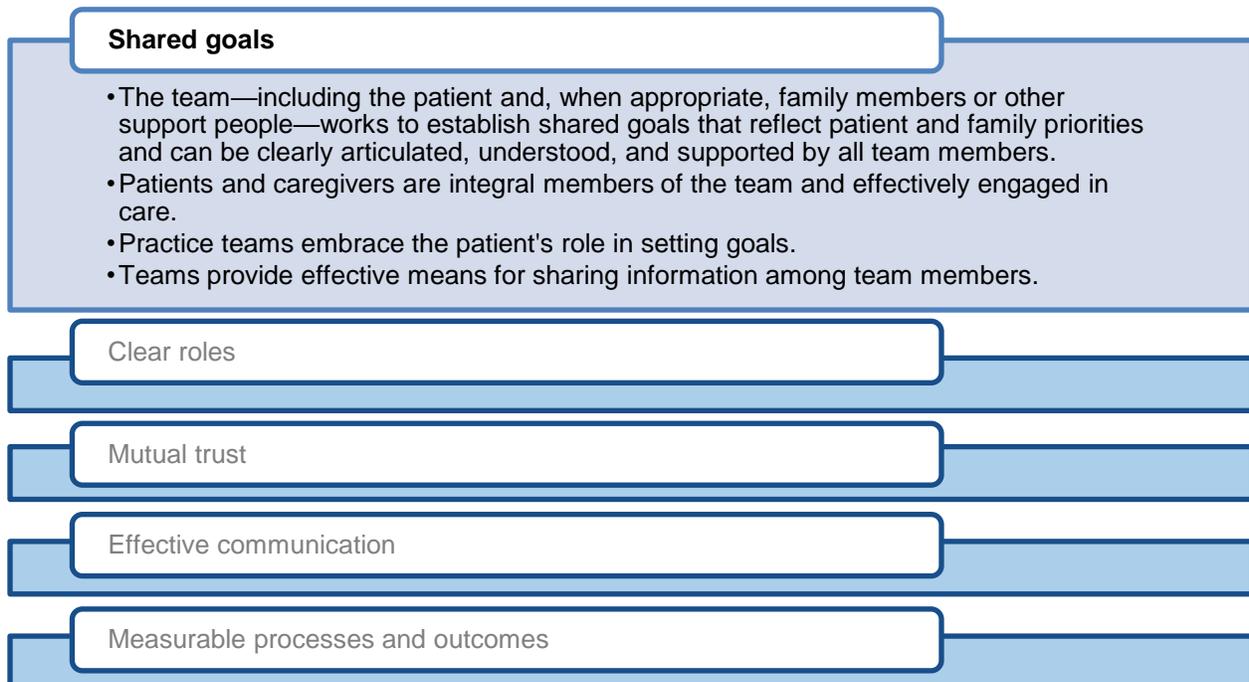
Source: Mathematica analysis of the PCTGA practice survey results, using the 19 TBCI practices that responded in both 2015 and 2018.

PCTGA = Primary Care Team Guide Assessment; TBCI = Team-Based Care Initiative.

2. Shared goals

NAM has identified the “active adoption of a clearly articulated set of shared goals” as the foundation of successful team-based care. Developing and using shared goals requires that practices effectively engage patients and caregivers in patient care, that goals reflect a patient’s priorities, and that all members of the team (including patients and practice members) understand these goals (Figure III.2). These shared goals then guide the work of the team, and the success of that work depends on team members having clear roles, mutual trust, and effective communication.

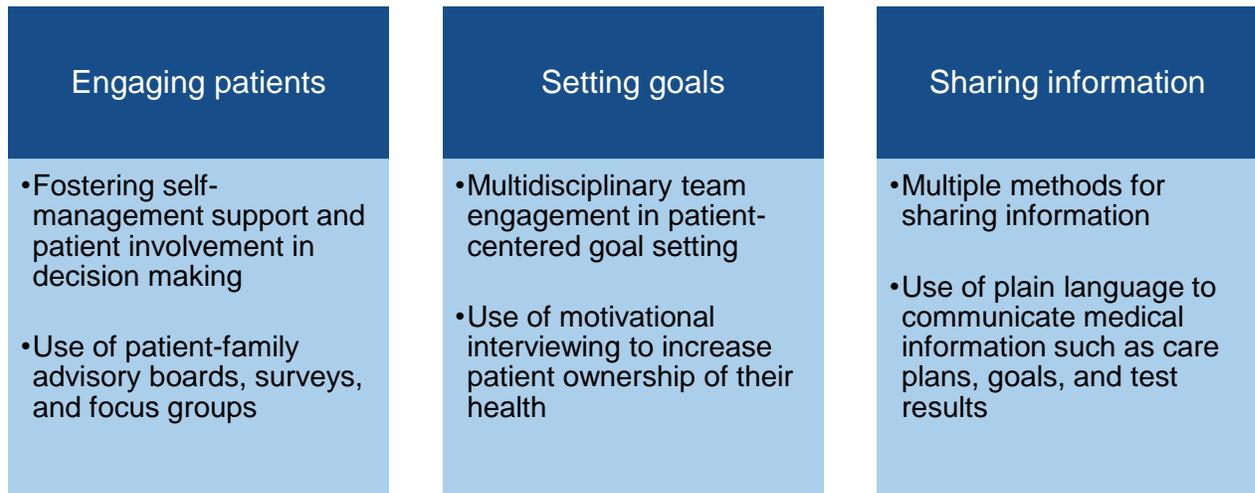
Figure III.2. Definition of shared goals



Source: “Core Principles & Values of Effective Team-Based Health Care” (Mitchell et al. 2012).

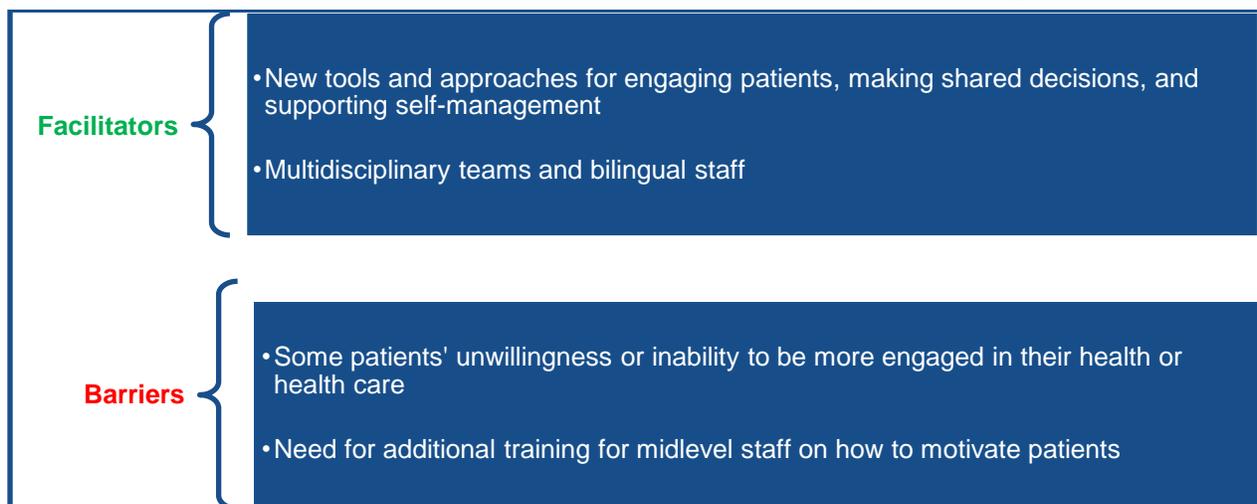
Overview of key findings, facilitators, and barriers related to shared goals. Over the course of TBCI, practices improved patient and caregiver engagement using a range of strategies to engage patients, set shared goals, and effectively share information (Figure III.3). Practices’ self-assessments of their work in this area were mostly moderate to high at the start of TBCI, and continued to rise until the end of the initiative. Practices that were most successful with establishing shared goals reported that patients had a more active role in their own health care decision making and in shaping practices’ approaches to care delivery than they did prior to TBCI. Having multidisciplinary teams with bilingual staff and resources to support patient involvement in care facilitated practices’ work on shared goals. The biggest impediments to establishing shared goals were some patients’ unwillingness or inability to engage in health care decisions, and the need for more training for midlevel staff, such as medical assistants, on how to motivate patients to take on more active roles in their care (Figure III.4). Patient survey results suggested a generally positive impression of practices’ efforts to establish shared goals, but also showed areas for further improvement.

Figure III.3. Key practice strategies contributing to success in establishing shared goals



Sources: PCTGA survey responses, site visit data, patient survey data.
 PCTGA = Primary Care Team Guide Assessment.

Figure III.4. Facilitators of and barriers to establishing shared goals



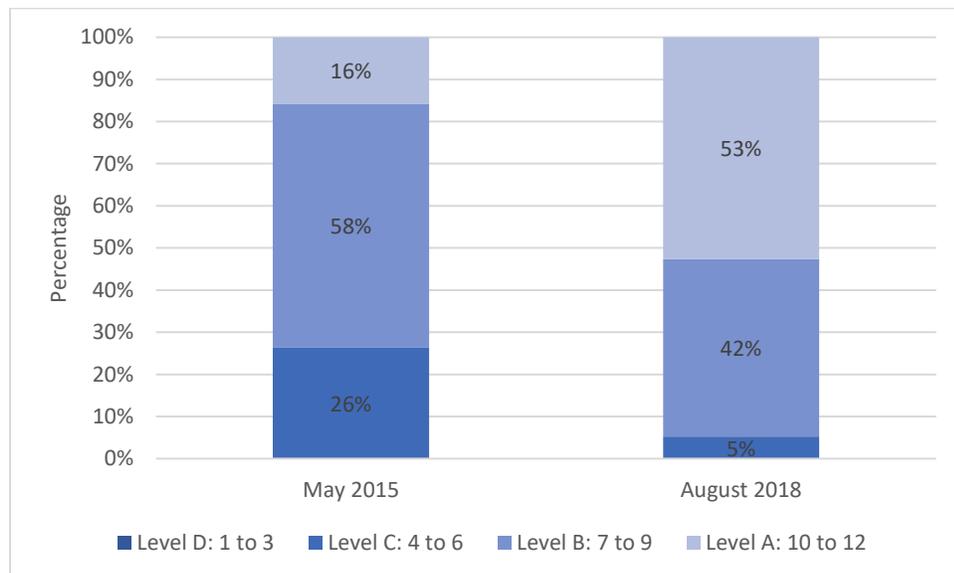
Source: Site visit data.

Practices’ self-reported performance in patient and caregiver engagement over time

Reviewing PCTGA results over time, most TBCI practices initially reported moderate to high levels of patient and caregiver engagement, which continued to rise over the course of the initiative. In 2015, 16 percent of practices reported achieving most or all of the key changes required to provide patients’ self-management support, involve patients in decision making, and communicate test results and care plans with patients. By 2018, 53 percent of practices reported performance at this high level, and a further 42 percent reported making basic changes to increase patients’ and caregivers’ engagement. In 2018, only one practice reported that it was

still in the early stages of making changes to improve patient and caregiver engagement (Figure III.5).

Figure III.5. Percentage distribution of practices' patient and caregiver engagement scores, 2015–2018 ($n = 19$)



Source: Mathematica analysis of the PCTGA practice survey results, using the 19 TBCI practices that responded in both 2015 and 2018.

PCTGA = Primary Care Team Guide Assessment; TBCI = Team-Based Care Initiative.

Practices' activities, facilitators, and barriers related to shared goals

Engaging patients. Aligning with PCTGA findings (Figure III.5), almost all site visit practices described strategies to enhance patient engagement over the course of TBCI. Among them were efforts to improve self-management support processes and increase patient involvement in decision making. Midlevel staff (such as medical assistants, front-desk staff, and health coaches) at most practices reported implementing new approaches for administering needs assessments and surveys to patients, collecting patients' histories, documenting needed services, and encouraging patients to become more involved in health care decision making. For example, one practice explained that patients completed "agenda forms" in the waiting room to indicate the reason for their visit and the health issues they wanted to address during their visit (for example, medication refills, help with losing weight).

Most site visit practices also described sharing information about TBCI with patients and obtaining feedback from patients about practice operations. Practices commonly reported hanging posters in the clinic and training front desk staff to use scripts during scheduling calls to educate patients on TBCI changes. One practice described a new approach of incorporating automated hold messages on phone systems that described the practice's TBCI participation and related practice updates. Several practices noted that these communication methods fostered open dialogue between the practice staff and patients and provided opportunities for feedback. Additionally, many practices said that they continued to obtain feedback about practice changes by using a patient-family advisory council, surveys, or focus groups. A few practices that had

previously struggled with attendance at patient-family advisory councils and focus groups achieved greater participation by offering incentives and gathering patient input on the most convenient times to hold meetings.

Setting goals. Site visit practices described strategies that teams used throughout TBCI to help patients establish health goals. All of the practices that we visited described how midlevel staff partnered with physicians or nurse practitioners to identify each patient’s needs and track progress toward their goals. For example, one practice explained how the care coordinator conducted follow-up calls to assess patients’ progress toward goals. At many practices, health coaches and behavioral health staff used motivational interviewing to reinforce patients’ goals and address barriers to improving their health. A few practices noted that they relied on care managers—some provided by payers—to coordinate care and engage patients in their own health care. Other practices hired or retrained staff to make referrals to community resources for preventing or managing chronic conditions and educating patients about their health. Several practices reported that team members developed care plans with patients, documented the care plans in EHRs, and provided a printed copy for patients to take home.

Despite these efforts to improve patient engagement, a few site visit practices reported that some patients were not responsive to outreach and recommendations. A few practices noted that patients preferred to leave health care decisions to clinicians and resisted the collaborative process of goal setting. Several practices reported that some patients were complacent with their current health status and unmotivated to change. Many practices added that midlevel staff, such as medical assistants, needed more training on how to motivate patients to take on more active roles in their care. A few practices recommended waiting until patients were ready to make a change, rather than trying to convince patients to do so against their will.

“Just being receptive to the fact that [patients are] human beings...you can't force them but you can just encourage and be available when they do want to change.”
—Nurse practitioner

Sharing information. Most site visit practices described their continued efforts to improve team communication with patients by encouraging patients to use electronic portals and by using plain language—that is, language free of confusing medical terminology—in messages to patients. Several practices used patient portals to communicate lab results and respond to patients’ messages. A few practices reported that some patients lacked Internet access or the technical knowledge needed to fully navigate and utilize the portal. Practices considered face-to-face communication the most effective way to engage these patients, but noted that in-person opportunities were usually limited to office visits. A few practices highlighted the importance of having Spanish-speaking staff to build trust with their large Spanish-speaking populations.

Patients’ perceptions of shared goals

Across the TBCI practices, most patients responding to the survey in 2016 and 2018 agreed that clinical staff in the practice always explained things in a way that patients could understand and respected patients’ stated concerns (Table III.2). A smaller number of patients reported that staff demonstrated their belief that patients were in charge of their own health. These results indicated that patients agreed that the TBCI practices made consistent efforts to engage patients in their care, but showed room for improvement in demonstrating a more patient-centered approach to care.

Table III.2. Patients reporting clinical or practice staff “always do the following,” 2016–2018

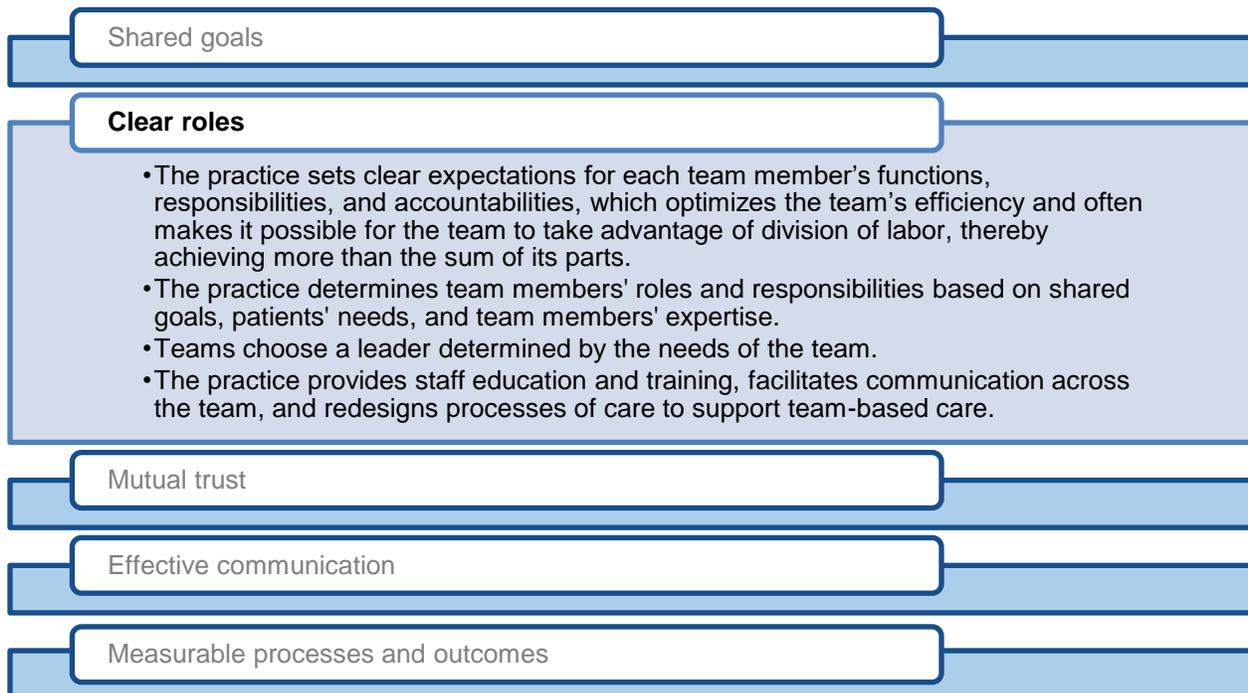
| Survey statement | April 2016 (n = 1,326) | April 2018 (n = 1,504) |
|---|---------------------------|---------------------------|
| The doctors and nurses who treat me explain things in a way that is easy to understand. | 75% | 75% |
| The doctors and nurses who treat me show respect for what I have to say. | 80% | 77% |
| The staff at this clinic believe I am in charge of my health. | 53% | 55% |

Source: Patient survey. In 2016, patient surveys were collected in 18 practices. In 2018, patient surveys were collected in 19 practices.

3. Clear roles

NAM found that practices need to “develop a deep understanding of and respect for how discipline-specific roles and responsibilities” support the achievement of shared goals. This requires that practices tailor team composition to the needs of patients, identify team member skills, and then assign responsibilities. Effective teams need clear leaders to ensure that team members are appropriately trained and that teams have good communication processes. Finally, practices need to redesign processes of care to support team-based care approaches (Figure III.6).

Figure III.6. Definition of clear roles



Source: “Core Principles & Values of Effective Team-Based Health Care” (Mitchell et al. 2012).

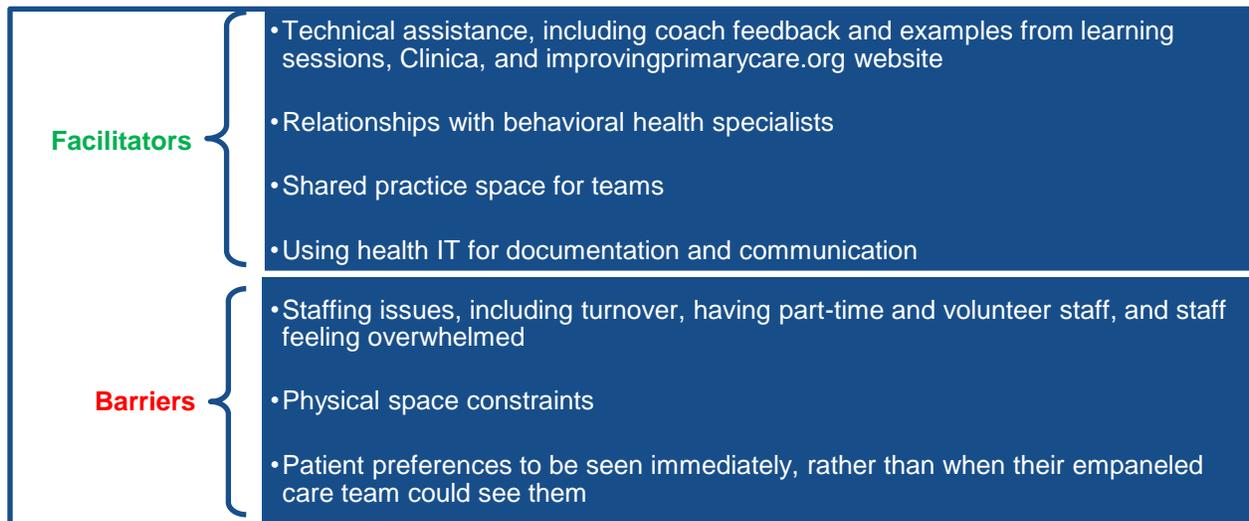
Overview of key findings, facilitators, and barriers related to clear roles. From the start of TBCI, practices made significant gains in setting clear expectations for team members and promoting a shared understanding of roles and responsibilities in order to optimize team efficiency. Findings from the PCTGA and site visits showed that practices improved team operations by having medical assistants and other team members consistently work with the same physician or nurse practitioner, developing and documenting written protocols and standing orders, and incorporating laypeople (such as front desk staff) into the care team, among other improvements. All site visit practices also described empaneling patients to clinicians and teams and providing ongoing staff training as part of their efforts to establish clear roles (Figure III.7). Practices that were most successful in these efforts reported that clarifying roles and responsibilities enhanced accountability, improved patient flow, improved coordination with extended team members, and enabled clinicians to focus more on patient care and less on administrative work. Technical assistance, relationships with extended care team members, shared practice space, and use of health IT were key facilitators of establishing teams with clear roles. The main challenges to establishing clear roles were staffing issues (including high staff turnover, having part-time and volunteer staff, and staff feeling overwhelmed by expanded workloads and changes to their responsibilities), space constraints within practices, and some patients' preferences to be seen immediately rather than when their empaneled care team could see them (Figure III.8).

Figure III.7. Key practice strategies contributing to success in establishing clear roles

| Defined roles within organized teams | Enhanced coordination | Organizational factors |
|---|---|---|
| <ul style="list-style-type: none"> • Clearly structured care teams • Transformed and defined responsibilities of all team members • New responsibilities and roles | <ul style="list-style-type: none"> • Integrated behavioral health services • Increased utilization of patient support services • Co-located or integrated oral health care | <ul style="list-style-type: none"> • Empanelment of patients to care teams • Development of written protocols and standing orders • Ongoing staff training |

Sources: PCTGA survey responses, clinician and staff survey, and site visit data.

PCTGA = Primary Care Team Guide Assessment.

Figure III.8. Facilitators of and barriers to establishing clear roles

Source: Site visit data.

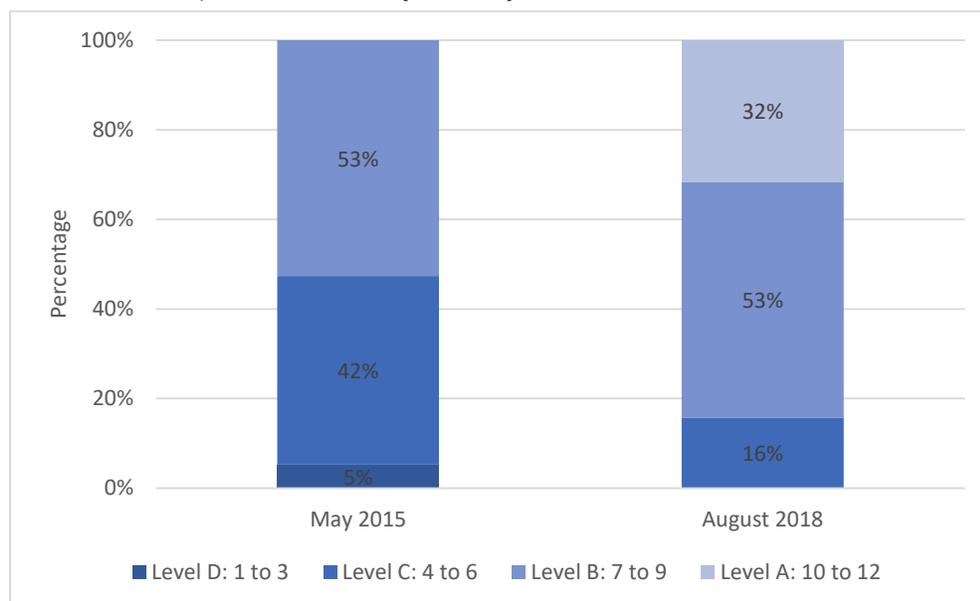
IT = information technology.

Practices' self-reported organization of team-based care over time

In 2015, nearly half of the TBCI practices reported that they were either just getting started or were in the early initial stages (levels D and C of the PCTGA) of making changes to improve the organization of team-based care. By 2018, all of the practices reported that changes in this area were under way, and six practices reported that they had achieved most or all of the changes needed in this area (level A) (Figure III.9). Changes in the organization of team-based care included developing new workflows, developing and using standing orders, and ensuring the effective integration of new and existing members of the care team into patient care.

Across all practices, mean scores on the PCTGA items related to the organization of team-based care mostly showed improvement between 2015 and 2018 (Table III.3). Improvements in six of the areas assessed by these questions were large enough to indicate a change in the level of functioning, on average, across the practices. Specifically, improvements in these areas meant that, on average, clinical support staff consistently worked with the same provider; workflows for clinical teams were documented and used to standardize practice; medical assistants collaborated with providers and played a major role in providing care to patients; laypeople were used as members of the care team; medication management included a pharmacist, nurse, or coach/educator who worked directly with patients individually or in groups; and a member of the care team provided oral health services or managed referrals to organizations with which the practice had formal agreements. Over time, the role of registered nurses remained relatively stable, with registered nurses typically performing tasks such as triaging phone calls and performing injections or other minor procedures.

Figure III.9. Percentage distribution of practices' organization of team-based care scores, 2015–2018 (n = 19)



Source: Mathematica's analysis of the PCTGA practice survey results, using the 19 TBCI practices that responded in both 2015 and 2018.

PCTGA = Primary Care Team Guide Assessment; TBCI = Team-Based Care Initiative.

Table III.3. TBCI practices' self-reported organization of team-based care, 2015–2018 (n = 19)

| PCTGA subject | TBCI practices in May 2015 | TBCI practices in August 2018 | Difference 2015–2018 |
|--|----------------------------|-------------------------------|----------------------|
| Mean score across all 19 practices on the PCTGA scale (1 to 12)^a | | | |
| Clinical support staff as regular team members | 8.6 | 10.9 | 2.4 ^b |
| Workflows for clinical teams documented | 5.5 | 8.7 | 3.2 ^b |
| Standing orders that can be acted on under protocol | 6.9 | 8.5 | 1.6 |
| Medical assistant work roles | 7.5 | 9.7 | 2.2 ^b |
| Registered nurse work roles | 5.8 | 5.7 | -0.1 |
| Use of laypeople in care teams | 7.8 | 9.5 | 1.6 ^b |
| Pharmacist roles | 3.8 | 5.4 | 1.6 |
| Medication management by clinical care team | 6.0 | 8.5 | 2.5 ^b |
| Behavioral health services integration | 9.7 | 11.2 | 1.5 |
| Oral health services integration | 5.5 | 7.6 | 2.2 ^b |
| Overall team-based care score | 6.4 | 8.3 | 1.9 ^b |

Source: Mathematica's analysis of the PCTGA practice survey results, using the 19 TBCI practices that responded in both 2015 and 2018.

^a The range for each score is 1 to 12 (lowest- to highest-functioning). Composite scores were calculated using an average of each practice's response to all questions in a given area. Overall score is an average across all of the PCTGA questions listed.

^b Indicates a change in levels between baseline and follow-up. Levels are defined as follows: 1 to 3 = D, practice is just getting started and might want to review the resources page in that section of the guide to help prepare for the key changes described there; 4 to 6 = C, practice is in the early stages of change and can benefit from the action steps and resources in that section of the guide; 7 to 9 = B, practice has implemented basic changes and can build upon success with the action steps and resources in that section of the guide; 10 to 12 = A, practice has achieved most or all of the important changes required.

PCTGA = Primary Care Team Guide Assessment; TBCI = Team-Based Care Initiative.

Practices' activities, facilitators, and barriers related to clear roles

Defined roles within organized teams. Nearly all site visit practices had clearly organized care teams that both staff and patients referred to by name (for example, the “blue team”). Team composition varied across practices, reflecting differences in practice type, setting, size, goals, and resources. Practices commonly used clinician schedules to determine the organization of care teams. In addition, some reported that the physical layout of the practice influenced the organization of care teams. For example, one practice organized teams around its two wings; another practice had three main hallways, which lent itself to the creation of three care teams.

Although all site visit practices worked on developing teams over the course of TBCI, two practices did not have practice-wide teams in place at the time of our site visit. One small practice experienced several staff transitions in the last year (for reasons unrelated to TBCI), which required rebuilding care teams. In another case, the practice had one care team for a segment of its patient population, and staff were unclear about the team composition. The office manager explained that, moving forward, they planned to expand the team model across the entire practice and clarify roles and responsibilities.

All site visit practices described efforts to transform roles and define responsibilities over the course of TBCI. Practices most commonly reported making major changes to the roles and duties of medical assistants and laypersons (such as front desk staff), whereas changes to the roles and duties of nurses were less common. Many described substantial changes to team member roles, such as the following:

- Having medical assistants consistently work with the same physicians or nurse practitioners and take on new tasks. Medical assistants typically managed patient flow through clinics and ensured that patients received needed services. A physician in one practice described the medical assistant as the “glue that holds everybody together.”
- Expanding and clarifying the roles and responsibilities of front desk staff. A few practices viewed the front desk staff as “the heart of the clinic” because of their central role in connecting patients with care teams and services; a few also reported that front desk staff “had the brunt of the work” for TBCI. To strengthen communication between the front desk and care teams, a few practices assigned front desk staff to each care team.
- Adding behavioral health specialists, patient support roles (health educator, care coordinator, diabetes educator), or, at a few practices, nurses to care teams.

While practices made considerable progress toward establishing defined roles and organized teams, nearly all of the practices we visited faced challenges due to staffing-related issues. The most common barrier to maintaining clear roles on teams was staff turnover. In a few practices, we heard that changing responsibilities of medical assistants, nurses, and front desk staff led to some staff members feeling overwhelmed and leaving the practice. Introducing new staff to teams (and clarifying their roles) was a related challenge for these practices. Several practices also reported that having part-time and volunteer clinicians initially posed challenges, but they overcame this issue by building teams with multiple clinicians to ensure adequate coverage.

The physical space in several clinics also presented challenges to establishing teams with clear roles. A few practices reported that their clinics were cramped or otherwise lacked the right layout to confer as a team; others said team members were too spread out, which also impeded coordination. One practice said the isolated location of the front desk made it difficult for front desk staff to interface with the clinical teams. To address this challenge, the practice relocated a front desk staff member to the clinical space. For multisite practices, having staff spread across multiple clinics was a barrier to establishing defined team roles; however, having the same medical assistants and physicians or nurse practitioners consistently work together helped address this challenge.

The initiative's TA facilitated several practices' efforts to establish clear roles. In particular, practices told us that obtaining examples of standing orders from the learning sessions and the improvingprimarycare.org website, getting coach feedback on workflows, and seeing the composition of the care teams during the Clinica Institute supported work in this area.

Enhanced coordination. Several site visit practices reported clearer expectations for and improved coordination with members of the extended care team, including behavioral health specialists, patient support services (for example, health educators, health coaches, care managers, care coordinators, social workers, and enrollment specialists), and oral health providers. Nearly all practices described proactive two-way communication to identify patients in need of ancillary services and to arrange warm hand-offs. Care teams also enhanced coordination by establishing workflows that better integrated ancillary services into clinical visits. For example, a few practices reported that a behavioral health specialist met all new patients and those who scored above a certain threshold on a behavioral health screening. At other practices, case managers or health coaches met with all patients with diabetes. In addition, most practices were working on integrating on-site oral health care into clinical visits by incorporating oral health provider schedules into the clinic's EHRs, enlisting front desk staff to identify and schedule patients due for these services, and adding dental hygienists to the morning huddle.

"I think it's going a lot better than when we were in our own [separate] office just because they wouldn't use us as much [when] we were away from the pods. They're really busy [and] didn't want to come get us.... Now we're there, we know what's going on, they have easier access to us, and it's a lot better to know more history about the patient before you go in."
—Health educator

Although most practices successfully integrated ancillary services into clinical care, a few practices reported that the teams were still sorting out how to incorporate these services into existing workflows. For example, one practice had not yet established which patients should be referred to care management and the best timing for the case manager to meet with these patients during clinical visits.

Practice staff reported that strong relationships with behavioral health providers, shared health IT for scheduling services and communicating with extended members of the care team, and physically relocating behavioral health and patient support staff to care team pods facilitated efforts to improve coordination.

Organizational factor: Empanelment. Most site visit practices empaneled patients to improve care team efficiency and continuity of care, with varying degrees of success.⁹ Half of the practices described empanelment as the most profound TBCI-related change, citing improved clinic operations, clearer scheduling procedures, and more efficient patient visits. Several practices reported that empanelment improved continuity of care and strengthened care teams' relationships with patients, a finding that aligns with PCTGA results showing substantial improvement in continuity of care over the course of the initiative (Table III.1). A few practices, however, noted that patient preferences for certain staff or to be seen as soon as possible undermined empanelment goals. Coaches played a key role in supporting work on empanelment by explaining its purpose and providing tools and resources on how to approach implementation,

Empanelment is the act of assigning individual patients to individual clinicians and care teams to support population health management and continuity of care. (Source: Safety Net Medical Home website)

"It is helpful when you have continuity. You have a provider and a medical assistant who know that patient, which helps with that efficiency. You're not having to repeat and go over things, and things aren't missed as much as if you're seen at random by just anyone."
—Practice manager

helping practices track progress, and providing suggestions for improving the process. A few practices with part-time and volunteer staff overcame initial challenges to empanelment by building panels around full-time medical assistants and having backup physicians or nurse practitioners on each team. At the time of the site visits, practices continued to emphasize the importance of empanelment to front desk staff to ensure that patients were scheduled with their empaneled team.

Recognizing empanelment as foundational to TBCI, leaders at a few practices we visited had a renewed focus on empanelment in the final year of the initiative after determining that earlier efforts were not fully successful. Two practices were revisiting empanelment using the four-cut method. At one of these practices, the TBCI lead noted that physician turnover, combined with not having a designated person to manage panels, had caused the practice to backslide on earlier progress. Another practice, after seeing Clinica's example, planned to develop weighted panels to account for complex patients.

⁹ For more information on empanelment, see: <http://www.safetynetmedicalhome.org/change-concepts/empanelment>

Organizational factor: Standing orders.

Most of the site visit practices reported that the development of written protocols and standing orders was essential for clarifying team member roles and responsibilities. Additionally, the use of standing orders improved practice operations and efficiency, ensured standardization, and empowered medical assistants and nurses to work at the top of their skill set. Moving forward, several practices planned to develop more written policies and protocols to further clarify roles and improve operations and efficiency. For example, TBCI leads at two practices would like to develop a front office manual that lays out all the responsibilities and tasks associated with the role.

Examples of protocols and standing orders developed for medical assistants

- Chart-review and pre-visit planning protocols
- Automatic behavioral and oral health care referrals if triggering event occurred
- Lab work, immunizations, and throat cultures

Example of protocols and standing orders developed for nurses

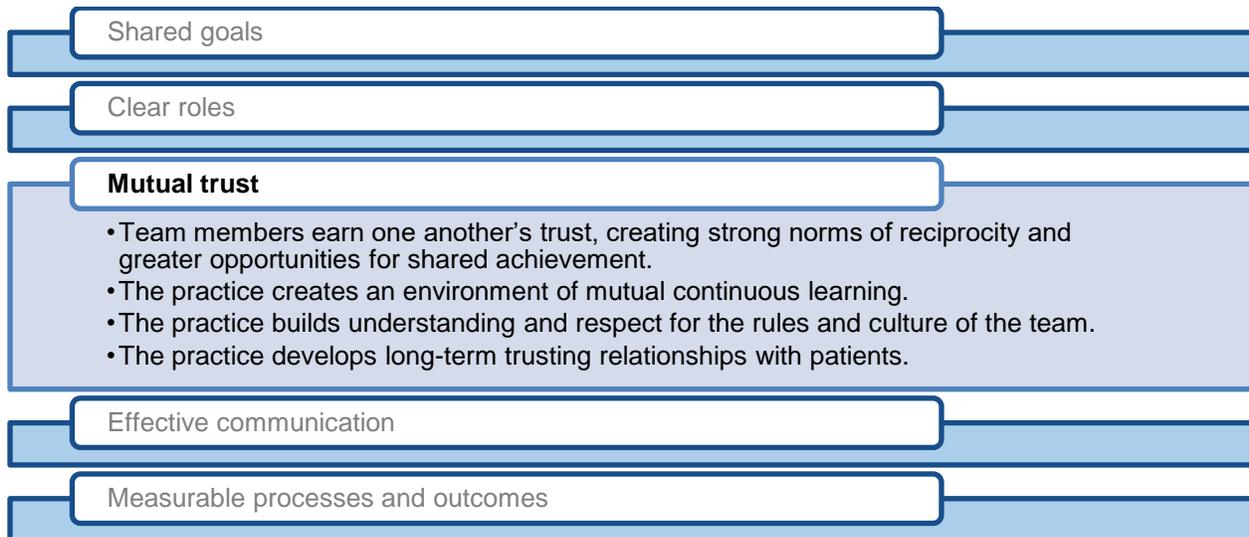
- Medication reconciliation for patients taking multiple medications
- Medication refills
- Cancer screenings
- “Flip visits” in which registered nurses follow standing orders to address patient issues such as pregnancy tests, follow-up wound care, immunizations, and lab work; providers then review diagnoses and care plans

Organizational factor: Training. Many site visit practices reported ongoing training efforts to help care team members better understand their roles. Practices focused on cross-training so that team members would know how to cover for other roles and support each other, as needed. A few practices built redundancies into the responsibilities of medical assistants, nurses, and patient support positions, noting that overlapping responsibilities ensured that different team members could address common patient needs. Practices also reported that cross-training balanced workloads by allowing team members to take on others’ tasks if needed. For example, one practice trained health educators to perform some medical assistant duties, so they could help the medical assistants during busy times. Many practices also cross-trained front desk staff so that each could perform the full set of front desk duties (scheduling, billing, patient navigation, patient follow-up, and so on) rather than having each front desk staff member responsible for only certain duties.

Results from the clinician and staff survey reflected this broad organizational support for training. In 2018, most clinicians and staff in 16 of the practices reported having the necessary training to do their jobs (data not shown). This was a small increase from 2015, when most clinicians and staff in 15 of the practices reported the same. In a few practices, the need for additional staff training to support expanded roles and responsibilities associated with team-based care remained.

4. Mutual trust

A well-functioning care team requires that team members trust one another to work together to provide high-quality patient care based on shared goals established between the team and the patients it serves. The NAM report on team-based care identified three key factors in building mutual trust: (1) having a practice environment that encourages and builds the capacity for organizational learning; (2) establishing care teams with long-term, established relationships; and (3) having these teams establish longitudinal trusting relationships with patients (Figure III.10).

Figure III.10. Definition of mutual trust

Source: "Core Principles & Values of Effective Team-Based Health Care" (Mitchell et al. 2012).

Overview of key findings, facilitators, and barriers related to mutual trust. The survey of clinicians and staff revealed strong support for organizational learning in TBCI practices; this is an important foundation for practices seeking to establish mutual trust in teams. Most site visit practices reported developing mutual trust by creating a team culture in which clinicians and staff worked consistently with the same people and learned from one another, with the full support of practice leadership (Figure III.11). This approach fostered respect, confidence in each team member's abilities, and shared understanding of each team member's roles and responsibilities. In practices that were successful in cultivating mutual trust, staff felt empowered to take full advantage of their expertise and work at the top of their license. Factors that facilitated development of mutual trust included regular opportunities for team communication, common workspaces that encouraged development of trustful relationships, and supportive leaders who promoted a flat hierarchy that empowered team members to participate in practice change and contribute to patient care. The most significant barriers to developing mutual trust were staffing issues (including turnover; or having new staff, part-time and volunteer staff; or staff spread across multiple sites) and lack of leadership engagement in (or support for) TBCI-related changes (Figure III.12).

Figure III.11. Key practice strategies contributing to success in establishing mutual trust



Sources: Clinician and staff surveys and site visit data.

Figure III.12. Facilitators of and barriers to establishing mutual trust



Source: Site visit data.

Practices’ activities and findings related to mutual trust

Learning environment. The clinician and staff survey revealed strong support for organizational learning within TBCI practices. In all but one TBCI practice in 2018, most staff reported that their practice had an effective capacity for organizational learning that supported knowledge sharing among team members. There was no change in this finding from 2015 to 2018 (data not shown). This organizational capacity is an important part of an environment of mutual and continuous learning.

Team culture. Site visit practices reported that having consistent teams improved relationships among team members by enabling them to develop collaborative working styles, develop trust in one another, and anticipate the needs of the physician or other team lead. As team members strengthened relationships with one another over the course of TBCI, most of the

“I do like working with my same doctor. I think we support each other well because she will back me up if we have a difficult patient, she's a good support system. We're on the same page. I think that the huddle is very important.... With us working together, we know our patients and know what expectations we need to set with them.”
—Medical assistant

practices we visited reported a more supportive practice culture in which team members were willing to help one another.

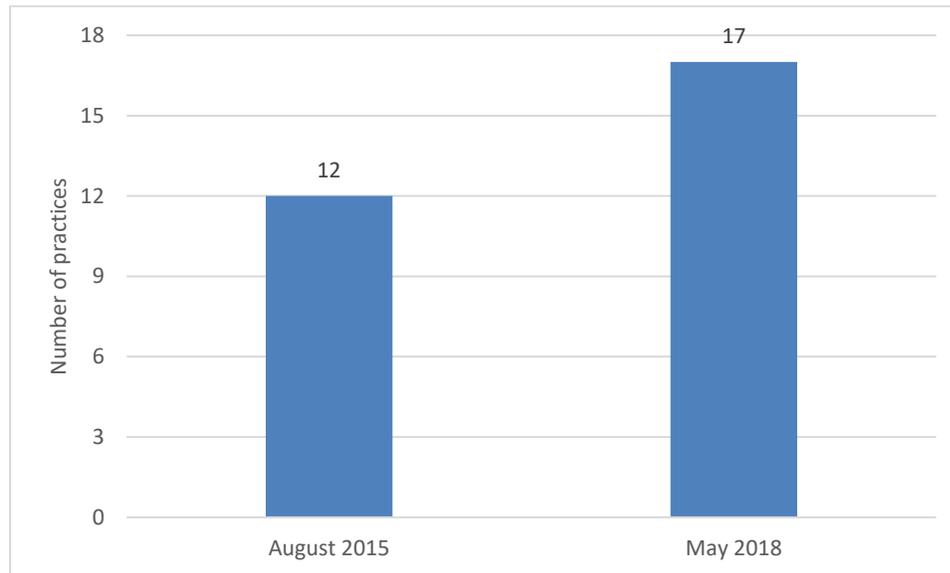
In practices that were successful in cultivating mutual trust, physicians and other team leads had more confidence in delegating tasks to other members of the team (such as nurses, medical assistants, and others in patient support roles), which in turn empowered all team members to work at the top of their skill sets. Results from the clinician and staff survey confirmed that practices improved efforts to have staff work at the top of their skill sets. In 2018, there were 18 practices in which most staff reported that their roles and responsibilities required maximum use of their training and skills. In 2015, there were only 14 such practices (data not shown).

Several practices described how regular opportunities for team communication and shared office spaces supported team building and development of mutual trust. Daily team huddles and other staff meetings and retreats provided venues for team members to raise issues and problem solve together. One practice, for example, described how monthly team meetings morphed into potlucks during which team members connected with one another, encouraging shared affection and better teamwork. Other practices described how having teams working in close proximity made it easier for team members to check in with and support one another. However, a few practices reported that staff also preferred to have more private spaces available for work, especially when contacting patients by phone.

While consistently working with the same team members fostered mutual trust, inconsistent staffing of teams hindered it. Specifically, several practices reported that staff turnover and introducing new staff to teams posed challenges to developing mutual trust. Finding and training new staff, and subsequently rebuilding trust within new teams, was time consuming and challenging. To mitigate this challenge, practice leaders ensured that job candidates were flexible, collaborative, and willing to take on new responsibilities.

Clinician and staff survey results confirmed site visit findings related to teamwork. In 17 of the TBCI practices, most staff reported that their practice environment encouraged teamwork in 2018. In these practices, staff members reported that they trusted and relied on their fellow team members and collaborated on important practice decisions and patient care. This was an increase from 2015 (Figure III.13).

Figure III.13. Practices with more than 50 percent of clinicians and staff reporting practice encourages teamwork, 2015–2018 ($n = 19$)



Source: Mathematica analysis of clinician and staff survey results, fielded by Kaiser Permanente Washington Health Research Institute in 2015 and Mathematica in 2018, using the 19 TBCI practices that responded in 2015 and 2018.

TBCI = Team-Based Care Initiative.

Leadership support. Most site visit practices reported that practice leaders (such as TBCI leads and, in some cases, chief executive officers or practice owners) played a key role in encouraging teamwork and promoting mutual trust. In practices where this support was most evident, team members described how practice leaders “removed the hierarchy” and established a “level culture” by showing respect to staff at all levels and encouraging staff to provide feedback on care team operations and TBCI changes. By creating an environment in which all team members felt comfortable giving and receiving feedback, practice leaders enhanced mutual trust and helped all staff feel like equal participants in a shared mission to improve practice operations and patient care.

Moreover, these leaders were able to effectively make the link between TBCI and practices’ missions to provide high-quality care for patients. When practice leaders viewed and explained TBCI-related efforts as being consistent with the core values of the practice, clinicians and staff were more engaged with TBCI and committed to its success. Specifically, some leaders noted that from the outset of TBCI, they framed the initiative as an opportunity to improve patient care, rather than an obligation to fulfill the requirements of a grant. This way of framing TBCI helped staff view TBCI-related changes as the “new norm” and “how we do business.”

Although most practices we visited reported having supportive leaders, a few practices’ leaders were less engaged with (or less supportive of) TBCI, which undermined staff efforts to create the environment of respect and mutual trust needed to accomplish TBCI-related changes. The most extreme case of unsupportive leadership came from one practice in which staff described the practice owner as “resistant to TBCI.” This leader’s resistance negatively affected staff morale and mutual trust. Staff did not feel empowered to work together on changes related

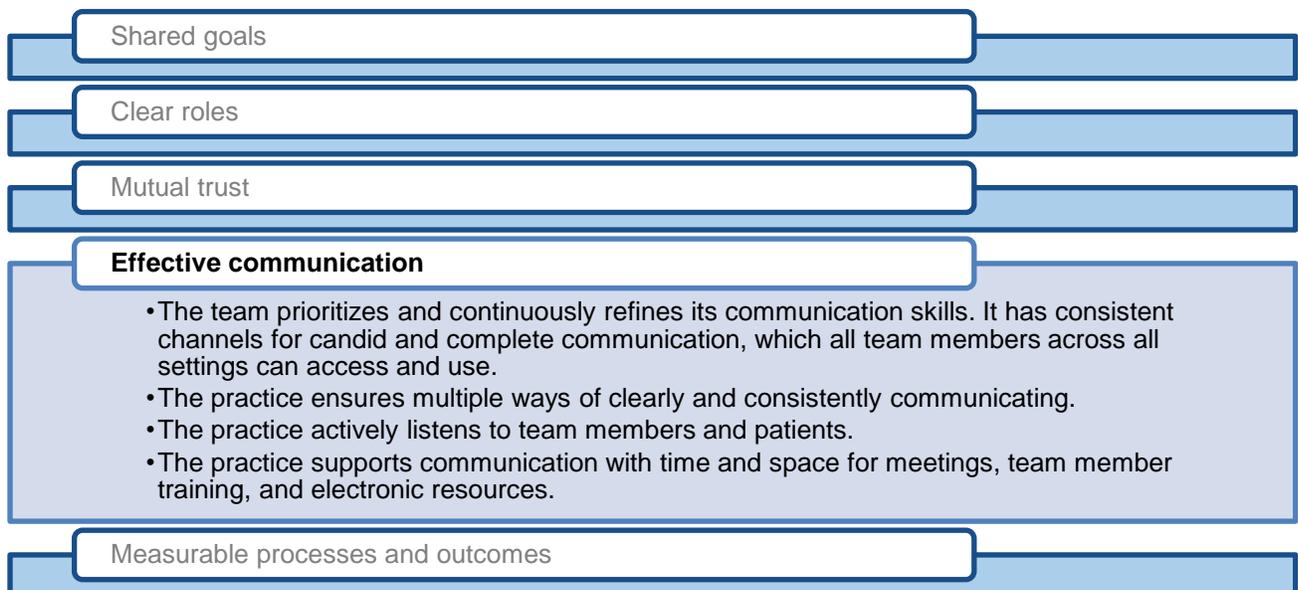
to TBCI and build trust among team members; instead, they focused their energy on trying to gain leadership support for the initiative.

Findings from the clinician and staff survey supported site visit findings showing that the majority of practices had leaders who were fully engaged in the TBCI. In both 2015 and 2018, there were 15 TBCI practices in which more than half of the clinicians and staff responding to the survey agreed or strongly agreed that their practices had supportive leadership (data not shown).

5. Effective communication

Team-based care requires effective communication across team members from multiple disciplines and training backgrounds to ensure a coordinated effort to address patients' needs and shared goals. This requires that teams communicate in multiple ways, have clear communication expectations, and actively listen to all of the team members (including patients). Practices can support effective communication by providing teams with the time, space, and technologies for communication (Figure III.14).

Figure III.14. Definition of effective communication

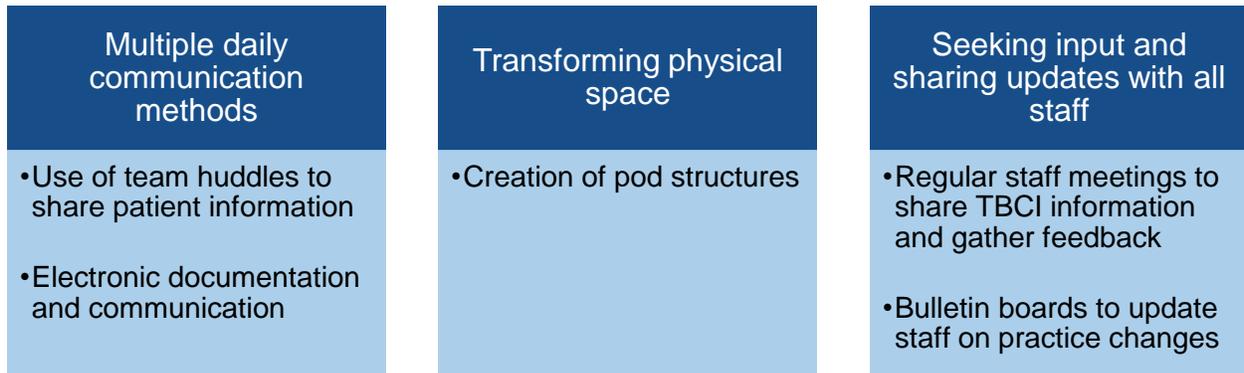


Source: “Core Principles & Values of Effective Team-Based Health Care” (Mitchell et al. 2012).

Overview of key findings related to effective communication. All site visit practices reported prioritizing team communication by establishing multiple, clear, and consistent communication channels. Practices reported using daily team meetings (“huddles”), electronic documentation and communication, redesigned clinic spaces, and regular all-staff meetings to foster effective communication within teams and across the practice (Figure III.15). Practices that implemented effective communication strategies reported that all team members felt empowered to provide input as valued contributors to patient care and TBCI-related practice changes. Key facilitators to effective team communication included a positive learning environment in which all staff were encouraged to provide feedback, the regular use of electronic resources for communication, and a physical space that enabled teams to easily connect with

each other in-person throughout the day. The biggest barriers to effective communication included staff not being available to participate in meetings and challenges with electronic communication (Figure III.16).

Figure III.15. Key practice strategies contributing to success in establishing effective communication



Source: Site visit data.

Figure III.16. Facilitators of and barriers to effective communication



Source: Site visit data.

Practices’ activities, facilitators, and barriers related to effective communication

Multiple daily communication methods. All site visit practices reported using huddles to communicate within teams, which many did not do prior to participating in TBCI. Typically, huddles took place in the morning before patients arrived at the practice and commonly included physician (or nurse practitioner) and medical assistant dyads. Several practices noted that they planned to extend the huddles to include the front desk staff, nurses, or integrated care team staff (for example, behavioral health staff and oral health providers). Most practices appreciated that huddles provided an opportunity for teams to conduct pre-visit planning and share information about patient needs. However, a few practices struggled to find time to huddle because of competing demands and varying schedules of the members of the care teams.

“I think that’s been the real value for having those huddles...the medical assistants really do coordinate a lot of that flow for who’s going into which room and when. As a provider, that happens almost behind the scenes. It just magically happens, which is great.”
—Physician

Several practices also reported that electronic resources supported communication within TBCI care teams. For these practices, EHRs were helpful for documenting patients' needs and communicating about nonurgent issues. For example, one practice explained how teams used the EHR to document lab test results and issues requiring follow-up, which allowed all care team members to check on next steps in a patient's care. Commonly, medical assistants and case managers also used EHRs to document notes from patient phone encounters, which clinicians and other members of the care team could review prior to patient visits. Practices also reported that they used instant messaging to keep information flowing among team members. For example, one practice's front desk staff sent instant messages to medical assistants and nurses when patients arrived for appointments. During patient visits, care team members sent instant messages if they needed anything while the patient was in the room. However, in a few practices, instant messaging did not work as well because of technical issues or inconsistencies in care team use.

Transforming physical space. During TBCI, several site visit practices transformed their clinic spaces to promote more frequent in-person communication and collaboration within teams. These practices implemented the pod structure, in which team members sat together in a centralized location. A few of the practices reported that the pod structure facilitated informal communication between clinicians and the rest of their team. One practice highlighted that the pod structure reduced the number of repetitive tasks because each team member could see what the others were doing. A few practices commented that the pod structure had some downsides (in particular, making common areas overcrowded and posing privacy issues when calling patients), but most appreciated the proximity of care teams and frequent interactions throughout the day.

Seeking input and sharing updates with all staff. All site visit practices reported holding regular meetings to engage staff in discussions on TBCI activities and gather input on practice changes. In several practices, early frustration among practice staff about a "top-down" approach to TBCI implementation prompted practice leaders to establish regular staff meetings to discuss TBCI. One practice took the additional step of closing the clinic for a TBCI retreat in which all staff participated in team-building activities. Several practices also began to display materials about TBCI and practice changes on bulletin boards in staff lounges and lunchrooms, which helped reinforce information shared in meetings. A few practices faced challenges with getting some staff to attend meetings, especially part-time and volunteer clinicians, because of their inconsistent schedules. However, overall, practices reported that participating in TBCI helped to move open communication to the top of team members' priority lists and reinforced that each team member was a valuable contributor to ideas related to practice change.

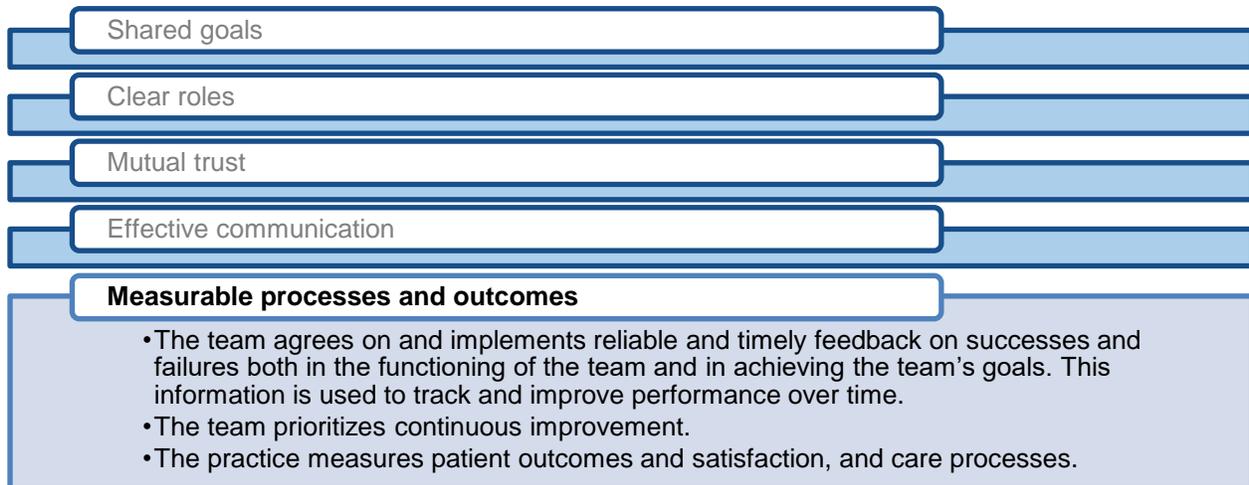
"What works well is that we talk a lot. We confront things when they happen. We praise as needed. Those kinds of things... I think we set the tone to be very straightforward, and I think that works well."
—Practice leader

6. Measurable processes and outcomes

For practices to successfully implement team-based care, they have to measure the effects of changes in the practice on the functioning of care teams and on outcomes that matter to the patients they serve. To measure the processes and outcomes of team-based care, practices must have continuous improvement processes in place that focus on assessing and monitoring quality

of care, tracking and monitoring patients' satisfaction, and seeking patients' input on practice improvement efforts (Figure III.17).

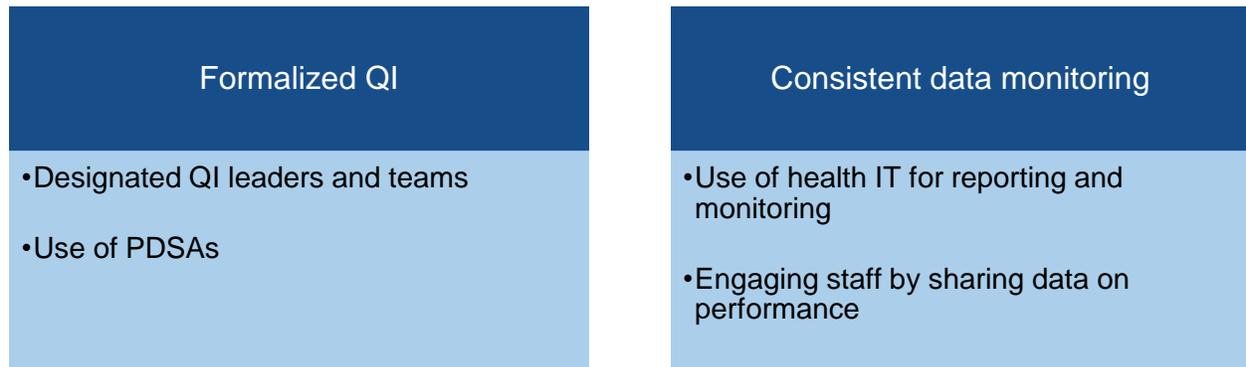
Figure III.17. Definition of measurable processes and outcomes



Source: "Core Principles & Values of Effective Team-Based Health Care" (Mitchell et al. 2012).

Overview of key findings related to measurable processes and outcomes. According to the PCTGA, nearly half of TBCI practices reported achieving most or all practice changes related to continuous QI by the end of TBCI, and the remaining practices reported that changes were under way. All of the site visit practices reported designing and implementing QI projects targeting a range of care delivery processes and performance measures; however, only half reported consistently using data to track and improve performance over time. Practices that successfully established measurable processes and outcomes designated QI leaders to engage staff in PDSAs focused on improving care team operations; they also established robust data monitoring processes and involved staff in reviewing performance data to encourage continuous improvement (Figure III.18). Having strong QI leaders, tailored guidance from coaches, familiarity with data reporting (including quality reporting requirements among FQHCs), and user-friendly health IT facilitated practice efforts to establish measurable processes and outcomes. The most common impediments to establishing measurable processes and outcomes were a lack of designated QI leaders and staff and high staff turnover (Figure III.19).

Figure III.18. Key practice strategies contributing to success in establishing measurable processes and outcomes



Sources: PCTGA and site visit data.

IT = information technology; PCTGA = Primary Care Team Guide Assessment; PDSA = Plan-Do-Study-Act cycles; QI = quality improvement.

Figure III.19. Facilitators of and barriers to developing measurable processes and outcomes



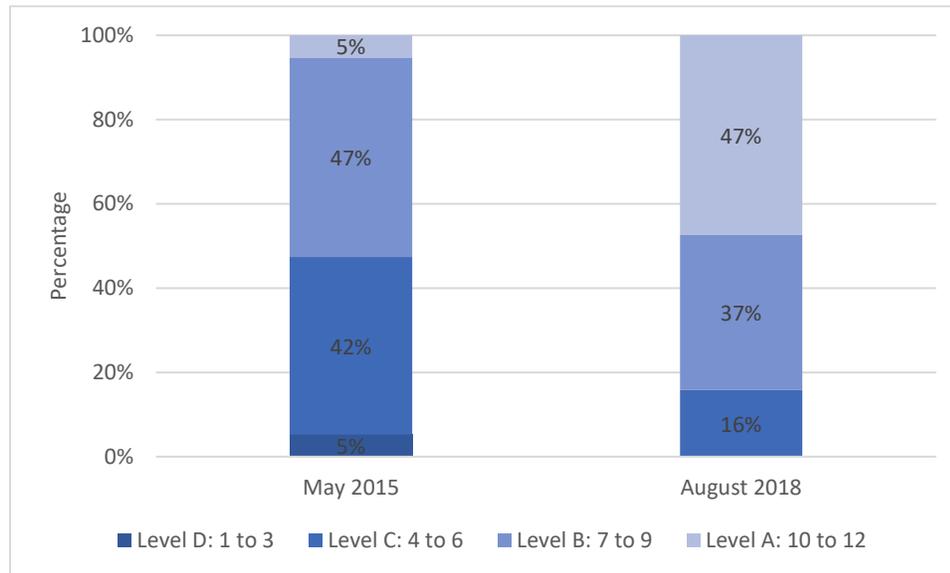
Source: Site visit data.

IT = information technology; FQHC = Federally Qualified Health Center; QI = quality improvement.

Practices’ self-reported development of continuous QI over time

In 2015, nine TBCI practices had either just started or were in the early initial stages (levels D and C of the PCTGA) of making changes related to continuous QI. By 2018, all of the practices reported that changes in this area were under way, and nine practices reported achieving most or all of the changes (level A) (Figure III.20). Practices that reported the highest levels of performance indicated that clinical leaders consistently engaged teams in improving care and provided the resources to support these efforts, had a QI infrastructure that involved patients and families, and regularly assessed the training needs of staff (Table III.4).

Figure III.20. Percentage distribution of practices' continuous QI scores, 2015–2018 (*n* = 19)



Source: Mathematica analysis of the PCTGA practice survey results, using the 19 TBCI practices that responded in both 2015 and 2018.

PCTGA = Primary Care Team Guide Assessment; TBCI = Team-Based Care Initiative.

Table III.4. TBCI practices' self-reported organization of continuous QI, 2015–2018 (*n* = 19)

| PCTGA statement | TBCI practices in May 2015 | TBCI practices in August 2018 | Difference 2015–2018 |
|---|----------------------------|-------------------------------|----------------------|
| Mean score across all 19 practices on the PCTGA scale (1–12)^a | | | |
| Clinical leaders are committed to QI process | 8.3 | 9.6 | 1.3 ^b |
| QI is conducted by practice teams with infrastructure support | 6.0 | 8.5 | 2.5 ^b |
| The practice routinely assesses training needs and ensures appropriate training to meet patient needs | 5.2 | 8.0 | 2.9 ^b |
| Overall continuous QI score | 6.5 | 9.0 | 2.6 |

Source: Mathematica analysis of the PCTGA practice survey results, using the 19 TBCI practices that responded in both 2015 and 2018.

^a The range for each score is 1 to 12 (lowest to highest functioning). Composite scores were calculated using an average of each practice's response to all questions in a given area. Overall score is an average across all PCTGA questions.

^b Indicates a change in levels between baseline and follow-up. Levels are defined as follows: 1 to 3 = D, practice is just getting started and might want to review the resources page in that section of the guide to help prepare for the key changes described there; 4 to 6 = C, practice is in the early stages of change and can benefit from the action steps and resources in that section of the guide; 7 to 9 = B, practice has implemented basic changes and can build upon success with the action steps and resources in that section of the guide; 10 to 12 = A, practice has achieved most or all of the important changes required.

PCTGA = Primary Care Team Guide Assessment; QI = quality improvement; TBCI = Team-Based Care Initiative.

Practices' activities, facilitators, and barriers related to measurable processes and outcomes

Formalized QI. All site visit practices used QI processes such as PDSA cycles to test and implement practice changes over the course of the initiative. Practices reported developing targeted QI projects to address a wide range of issues related to care team operations and the delivery of patient care. Overall, practices perceived that their QI efforts improved care team efficiency, practice operations, and the quality of patient care. For example, one practice found that teams were not consistently performing medication reconciliation because it was unclear when the process should happen, which team members were responsible, and which patients required this assistance. Therefore, the practice developed a QI process to specify timing, team roles, and patient conditions that would trigger medication reconciliation. Once implemented, the new process improved both patient safety and care team operations. Another practice developed QI processes designed to increase screening for and provision of preventive care services; this practice reported that the process led to smoother workflows for the team while also ensuring that fewer patients with gaps in care “slipped through the cracks.”

Examples of QI projects conducted by TBCI practices

- Workflow evaluations (for example, patient follow-ups, patient hand-offs, delegating activities to midlevel staff, implementing standing orders, implementing huddles)
- Referral tracking and management
- Population health management (for example, asthma tracking)
- Preventive care management (for example, cancer screenings, immunizations)
- Patient navigation management
- Medication management
- Implementing behavioral health screenings
- Implementing oral health care screenings
- Implementing and improving patient/family advisory boards and patient feedback surveys
- Space redesign efforts

Many practices relied on their TBCI coach to guide them in developing a sustainable framework for continuous data-driven improvement. In particular, coaches helped practices identify problems and design feasible QI projects to address them. With support from coaches, practices were able to pilot-test manageable or “bite-sized” changes that they could implement on a larger scale if found effective.

Practices with dedicated QI leaders and resources reported greater success with developing a culture of data-driven improvement than did those without such staff. Dedicated QI leaders and staff spearheaded formalized QI activities and typically held regular (weekly or monthly) staff meetings to review QI activities, although some practices incorporated such reviews into morning huddles. Staff found that dedicated time for regular QI meetings helped keep QI efforts in the forefront, propelling this work forward. These findings aligned with clinician and staff survey results showing that practices with high performance on QI activities reported having leaders who engaged teams in QI processes and dedicated resources to support these efforts (Table III.4).

A few practices lacked strong QI leaders and/or staff to carry out QI activities, which hindered efforts to establish formalized QI programs. In addition, several practices reported that staff turnover impeded QI activities because of the time and resources involved in hiring and training new team members. Similarly, varying schedules among a few practices' team members (due to part-time staff or rotating staff schedules) made it difficult for teams to come together to plan QI projects. Even in practices that struggled with QI and lacked formal QI leaders, coaches

helped practices implement PDSAs that led to practice changes. However, these practices were not confident that regular QI activities to further improve team operations and efficiency would continue after the end of TBCI.

Consistent data monitoring. Only half of the site visit practices reported continuously tracking and using quality and performance measures. Practices that tracked such measures described monitoring performance metrics to assess both TBCI-related practice changes (for example, empanelment metrics) and the quality of patient care (for example, clinical quality measures for diabetes control).

Practices with robust data monitoring processes made staff aware of their performance, which they said fostered a culture of improvement. TBCI and QI leaders reported monitoring process and outcomes data and shared team-level numbers to motivate teams to reach quality targets. Staff from these practices described how seeing team performance posted on QI bulletin boards spurred healthy competition. One practice even offered monthly awards to incentivize high performance.

Common performance metrics tracked by practices

- Empanelment metrics (panel size and continuity)
- Population health management metrics (for example, cancer screenings, lab tests, vaccinations),
- Electronic clinical quality measure performance
- Behavioral health metrics

Practice familiarity with quality reporting and health IT resources facilitated TBCI-related data monitoring. In particular, FQHCs were typically more familiar than non-FQHCs with the process of tracking and using quality data because of FQHC reporting requirements. These FQHCs also had advanced data monitoring systems in place to track required measures; this was not commonly the case at other TBCI practices we visited.

“I can get a pretty good report with just a few clicks. I’m pretty certain in about 10 minutes I could probably prepare a report; whereas, before [receiving TA from the health IT consultant] I might take half a day to try to figure out and manually filter through different things and come up with a report that was probably very flawed data wise.”
—QI lead (from a non-FQHC practice)

Among non-FQHC practices we visited, a few described how efforts to become more adept with their health IT systems over the course of TBCI enabled them to better use health IT resources to support improved data monitoring activities. The QI lead at one practice, for example, described how the TBCI health IT consultant greatly enhanced her ability to use EHRs to produce simple and reliable monthly reports.

B. Common characteristics of site visit practices that were the most and least successful in implementing team-based care

The evaluation team used the TBCI success rubric (Table III.5) to assess the relative success of each site visit practice in implementing various elements of TBCI, and to identify common features of practices with the most and least implementation success. Specifically, the evaluation team reviewed site visit interview transcripts and field notes and used the success rubric criteria to assess each practice's implementation success, both overall and in each domain of the success rubric. After completing this exercise, we found that two site visit practices were highly successful with overall TBCI implementation, two were moderately successful, two were minimally successful, and four were unsuccessful.

Practices that were highly successful with TBCI implementation made multiple changes to improve across the various elements of the success rubric, including engaging patients, fostering understanding and acceptance of team-based care among staff, integrating practice changes into regular practice operations, and identifying and implementing ways to sustain team-based care when funding ends. In site visits, these two practices reported several common facilitators of TBCI implementation. Most fundamentally, these practices had clinicians and staff available to develop strong teams that were committed to TBCI practice changes, as well as practice leaders who supported TBCI and empowered teams to make these changes. According to these practices, creating a culture in which team members at all levels were equal contributors and encouraged to provide continuous feedback was key to establishing buy-in for TBCI. Having dedicated and experienced QI greatly facilitated these practices' work on QI projects and in tracking progress and measures over time. In addition, these practices had internal TBCI champions who enthusiastically planned to sustain team-based care changes going forward. Finally, these practices took full advantage of the initiative's TA and learning opportunities, and allocated additional resources to continue to support continuous QI processes and ongoing team communication (for example, daily huddles and regular staff-wide TBCI meetings).

Some keys to TBCI implementation success

- Leadership support for TBCI
- Egalitarian practice culture
- Availability of clinicians and staff to establish strong teams
- Clinician and staff belief in the value of TBCI
- Dedicated and experienced QI leads
- Internal champions who will continue to lead this work
- Use of technical assistance combined with other practice resources to prioritize and sustain TBCI implementation

The four practices that struggled the most with TBCI implementation reported high turnover, lack of buy-in among staff and/or leaders, and lack of mutual trust as barriers to practice change. Turnover among staff, clinicians, or practice leaders impeded TBCI implementation because TBCI concepts had to be reintroduced to new team members or practice leaders, stalling implementation of various TBCI-related practice changes. For example, one practice reported that losing its TBCI physician lead in the middle of the initiative caused many planned TBCI-related activities to fall by the wayside. Lack of buy-in among staff or leaders in these practices affected the distribution of TBCI work, such that the more engaged team members assumed most of the TBCI responsibilities while their less-engaged counterparts contributed little to the practice changes under way. Additionally, this group of practices reported that lack of mutual trust hindered team communication and task delegation. This

Table III.5. TBCI Success Rubric

| | Unsuccessful <i>No evidence of substantive changes. Status quo largely maintained.</i> | Minimally successful <i>Some evidence of changes. Status quo shifted minimally, or for a small number of team members and patients.</i> | Moderately successful <i>Evidence of changes. Status quo shifted moderately, or for a moderate number of team members and patients.</i> | Highly successful <i>Evidence of significant beneficial changes. Overall change in the status quo, or a substantial benefit for a large number of patients.</i> |
|-------------------------------|--|--|--|--|
| Patient engagement | Team members did not see the need for patient engagement and no visible efforts were made in this area. | Team members understood the need for patient engagement and plans for implementation were under way. | Team members implemented at least one change with regard to patient engagement. | Team members implemented multiple changes with regard to patient engagement. |
| Patient experience | Negative impact on patient experience. | No change in patient experience. | Improvement on at least one component of patient experience. | Improvement across multiple components of patient experience. |
| Team member experience | None of the team members understood team-based care approaches or team-based care is widely seen as negatively affecting work. | A small number of team members within a practice understood team-based care approaches, found them acceptable, and could identify how they had improved their work experience. | Several team members within a practice understood team-based care approaches, found them acceptable, and could identify how they had improved their work experience. | Most team members within a practice understood team-based care approaches, found them acceptable, and could identify how they had improved their work experience. |
| Practice change | Practices were not able to establish workflow changes to support team-based care. | Practices were able to establish and operate teams. | Practices were able to establish and operate teams. | Practices were able to integrate teams into regular practice operations. |
| Sustainability | Practices indicated that they will not be able to sustain teams without continued external TA or financial support. | Practices indicated that they have identified some ways for sustaining teams beyond the end of the initiative, but they have not yet implemented them. | Practices indicated that they have identified and implemented some ways for sustaining teams beyond the end of the initiative, but they have not yet evaluated them. | Practices indicated that they have identified and implemented some ways for sustaining teams beyond the end of the initiative, and they have evaluated these approaches to ensure that they are effective. |

Note: The Colorado Health Foundation, with input from Mathematica and the TAP, developed this success rubric in 2015.

prevented team members from relying on each other and from taking full advantage of their respective areas of expertise and training. These practices also highlighted that leaders' resistance to change limited staff efforts to implement TBCI-related changes into regular practice operations and plans to sustain TBCI.

Practice characteristics varied within each of the groups of practices described above; there were no evident common characteristics within these groups. For example, the group of practices with high and moderate overall implementation success and the group of practices with minimally successful and unsuccessful overall implementation success included mixes of urban and rural practice settings, different practice sizes and types, and practices with part-time and volunteer clinicians.

C. Sustainability of practice changes

In the final year of TBCI, the practices we visited made plans to sustain several aspects of the team-based model of care, noting that many of the changes made to support TBCI over the last three years had already become ingrained in practice operations. Practices' plans to sustain TBCI-related changes depended on the extent to which these changes aligned with the current payment system, and on the strength of the staff and leadership's belief in the value of the initiative and commitment to engaging in team-based care over the long term. While most practices agreed that TBCI introduced efficiencies in delivering care, views were mixed on whether this led (or could lead) to increases in patient panel sizes.

1. TBCI-supported changes that practices plan to sustain

Most site visit practices reported plans to sustain several fundamental TBCI practice changes that had become a routine part of practice operations. Specifically, most practices reported that the following TBCI changes were integral to the way the practice delivered care and were therefore self-sustaining: having care teams with clearly defined roles and responsibilities, coordinating with extended care team members (such as behavioral health specialists and dental providers), and continuing to empanel patients. In addition, practices said that many new workflows developed to support TBCI had become standard procedures by the last year of the initiative.

Among these were having team members perform tasks that were appropriate for their roles (working at the top of their license), screening patients to identify behavioral health and other needs, conducting pre-visit planning, and having regular team meetings and huddles. Last, a few practices reported that TBCI helped them develop a culture of continuous improvement (including use of QI processes and tracking measures over time), which they aimed to sustain moving forward.

TBCI-supported changes that many practices plan to sustain

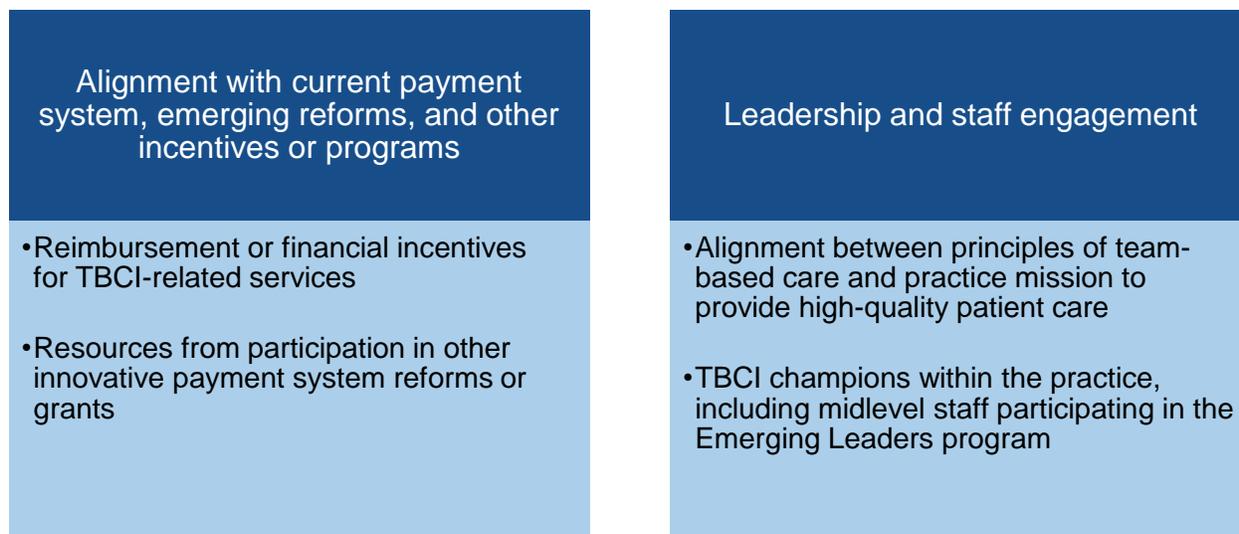
- Organized care teams
- Clearly defined roles and responsibilities
- Coordination with extended care team members
- Empanelment
- Team members working at the top of their license
- Screenings to identify patient needs
- Pre-visit planning
- Regular team meetings and huddles
- Culture of continuous QI

2. Factors influencing sustainability of TBCI changes

Practices described factors that they believed would influence the sustainability of TBCI-related changes for better or worse. The most common factors reported were (1) the extent to

which the team-based model of care aligned with current payment systems, emerging reforms, and other incentives or programs; and (2) the level of commitment to TBCI-related practice changes among practice staff and leaders (Figure III.21).

Figure III.21. Factors influencing sustainability of TBCI changes



Alignment with payment systems, emerging reforms, and other incentives or programs. Practices reported that the team-based care model’s degree of alignment with the current fee-for-service reimbursement system would shape decisions on which elements of the model could be sustained. Several practices expressed concern about the sustainability of particular TBCI-related changes that were not supported by the fee-for-service reimbursement model. For example, one practice’s behavioral health specialist reported that not being able to bill for some of her services affected the long-term financial viability of integrated behavioral health. Similarly, another practice’s QI leader said that “flip visits” enabled registered nurses to take on more responsibilities and benefited the practice.¹⁰ However, nurse-only visits—which would further expand registered nurses’ roles by allowing them to see patients independently—would not be billable under the current payment system. In addition, several practice leaders noted that financial pressures to see high volumes of patients under fee-for-service may preclude practices from protecting time for clinicians and staff to engage in continuous QI activities.

On a positive note, practices also identified ways that TBCI changes could be sustained financially. A few practices that questioned the financial sustainability of some elements of TBCI acknowledged that ongoing or emerging payment system reforms (for example, the establishment of accountable care organizations and shared savings programs) supported TBCI-related changes and incentivized provision of high-quality primary care. In addition, a few practices reported leveraging resources from other programs with goals that align well with TBCI (including Comprehensive Primary Care Plus and the State Innovation Model) and

¹⁰ In a flip visit, a nurse sees the patient and develops a diagnosis and care plan; then a provider and the nurse briefly confer and the provider checks and adjusts the nurse’s diagnosis and care plan. This converts the nurse’s visit into a billable provider visit. For more information, see <https://www.careinnovations.org/resources/in-the-incubator-flip-visits/>.

predicted that these additional resources would help sustain TBCI-related changes. A few practices added that reporting on key performance indicators for Colorado’s Medicaid program and the associated financial incentives were well aligned with TBCI’s focus on measurable processes and outcomes. Finally, one practice reported that TBCI participation led the practice to increase screenings to identify and subsequently meet patients’ unmet medical needs; this, in turn, led to increased revenue and supported the sustainability of this change.

FQHCs participating in TBCI reported being in a unique position to sustain TBCI changes due to relatively favorable reimbursement for behavioral health services. (The all-inclusive rate for Medicare and Medicaid enables FQHCs to receive reimbursement for behavioral health services just as they do for physical health services.) FQHCs said this factor was “essential” in their ability to sustain behavioral health integration moving forward. Non-FQHCs participating in TBCI recognized their comparative disadvantage in this area. One such practice reported plans to apply for FQHC look-alike status, which would enable the practice to apply for reimbursement under FQHC Medicare and Medicaid payment methodologies to support the provision of behavioral health services.

Leadership and staff commitment to TBCI. Several practices reported that sustainability of TBCI changes depended on having engaged leadership who saw the principles of team-based care as consistent with the practice’s mission to provide high-quality patient care. In particular, practice leaders who equated team-based care with improved operations and better care for patients viewed team-based care as the right thing to do for their practice and the patients the practice serves. Moreover, these leaders effectively shared this vision with clinicians and staff, which made them more committed to the sustainability of TBCI changes.

At the time of the site visit, several practices reported working with their TBCI coaches to identify an internal TBCI champion to continue the work of the TBCI coach. Many champions were midlevel staff who committed to participate in the Emerging Leaders program, a Foundation-sponsored program that supports the sustainability of TBCI by strengthening the leadership capacity of select staff at TBCI practices. These staff reported that virtual and in-person meetings for the Emerging Leaders program were helping them prepare for their roles as TBCI champions. They described continuing efforts to work with practice leaders to plan and prioritize the sustainability of TBCI. For example, several planned to continue regularly scheduled TBCI meetings as “part of our everyday culture and our routine.”

Effect of TBCI on panel size. Practices with organized care teams have smoother and more efficient care delivery processes. Theoretically, this improved efficiency could increase teams’ capacity to see more patients, which could help sustain TBCI changes. Site visit practices generally agreed that TBCI improved efficiency in care delivery, but had mixed opinions on whether this resulted in (or had the potential to result in) larger panel sizes.

“During some of our busiest days, if I was comparing pre-team-based care and post, if I had a 14-patient-day five years ago, it would have felt a lot more hectic than it felt this past winter.”
—Nurse practitioner

Several practices remarked that the optimized care team structure increased efficiency across the practice, which allowed teams to see more patients throughout the day while still providing high-quality care. These practices reported that TBCI made appointments more efficient, which helped teams stay on schedule. In addition, these

practices perceived that empanelment and scheduling changes for TBCI improved patient access to same-day appointments, and more consistent patient outreach produced more patient visits for preventive or follow-up care. However, a few other practices pointed out that TBCI-related changes could have the opposite effect: With more team members involved in providing more services to patients, patient visits may be efficient but may also last longer than before because of the stepped-up quality and comprehensiveness of care. One practice added that increasing panel sizes was “counter to our goal” of prioritizing quality over patient volume.

IV. HOW MEANINGFULLY HAS TBCI IMPLEMENTATION AFFECTED PATIENTS, CLINICIANS, AND PRACTICE STAFF?

As we detailed in Chapter III, practices participating in TBCI implemented multiple changes in care delivery and overall practice organization. These changes had the potential to disrupt the patients' experience of care in the practices and could lead, at least temporarily, to greater workloads and burdens on staff and clinicians. In this chapter, we describe the effects of TBCI on the experiences of patients, clinicians, and practice staff.

A. Patients served by the practices

In 2018, patients served by TBCI practices were largely adults, females, high school graduates (or less), of Hispanic or Latino descent, and White (Table IV.1). Patients most commonly reported that they had excellent, very good, or good health, and that they had been a patient at their clinic for at least three years. These demographics have remained relatively constant since the first patient survey in April 2016 (data not shown).

Table IV.1. TBCI practices' patient demographics (*n* = 1,504)

| Patient demographic | April 2018 (percent) ^a |
|---|-----------------------------------|
| Age range | |
| Under 18 | 8 |
| 18 to 64 | 76 |
| 65 or older | 12 |
| Gender | |
| Male | 26 |
| Female | 68 |
| Other | 1 |
| Education | |
| High school graduate/GED, or less | 53 |
| Some college or two-year degree | 29 |
| Four-year college graduate or more | 12 |
| Hispanic or Latino origin or descent | |
| Race^b | |
| White | 67 |
| Black or African American | 8 |
| Asian or Native Hawaiian/Other Pacific Islander | 5 |
| American Indian/Alaska Native | 5 |
| Other | 19 |
| Self-rated general health | |
| Excellent/Very good | 37 |
| Good | 35 |
| Fair/Poor | 25 |

| Patient demographic | April 2018 (percent) ^a |
|--|-----------------------------------|
| Self-rated mental health | |
| Excellent/Very good | 49 |
| Good | 28 |
| Fair/Poor | 19 |
| Time at clinic | |
| One year or less | 24 |
| At least one year, less than three years | 19 |
| Three years or more | 54 |

Source: Patient survey. In 2018, patient surveys were collected in 19 practices.

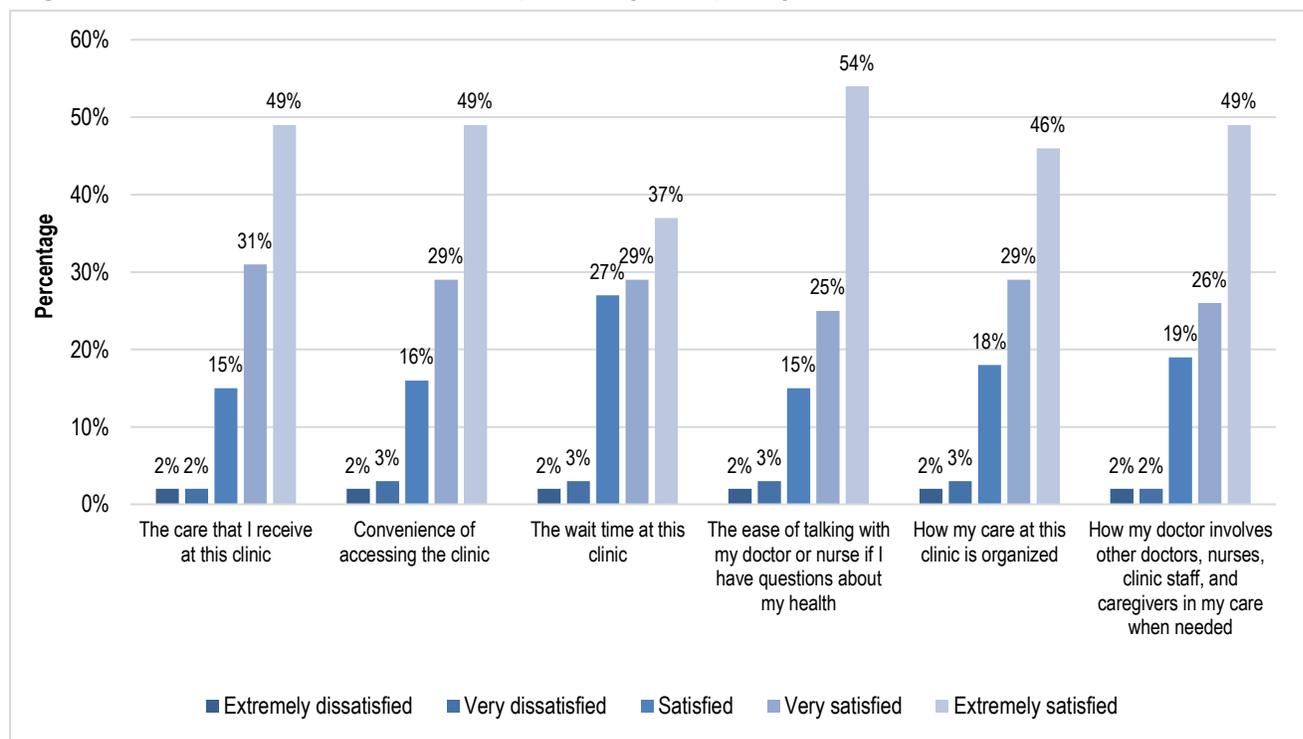
^a Percentages may not total 100 because of rounding and non-response.

^b Percentages may not total 100 because respondents could mark more than one race.

B. Patient experience

Overall, patients across all practices consistently reported positive experiences with access to care and the quality of care they received. Specifically, 80 percent of patients reported that they were very or extremely satisfied with the care they received. Most patients also reported high satisfaction with the convenience of access to the practice, wait times, the ease of getting questions about their health answered, the organization of care, and the manner in which care team members collaborated (Figure IV.1). Over time (2016–2018), the lowest relative levels of patient satisfaction were reported for “the wait time at this clinic.” Patient satisfaction results did not change significantly over the course of TBCI in any of these domains (data not shown).

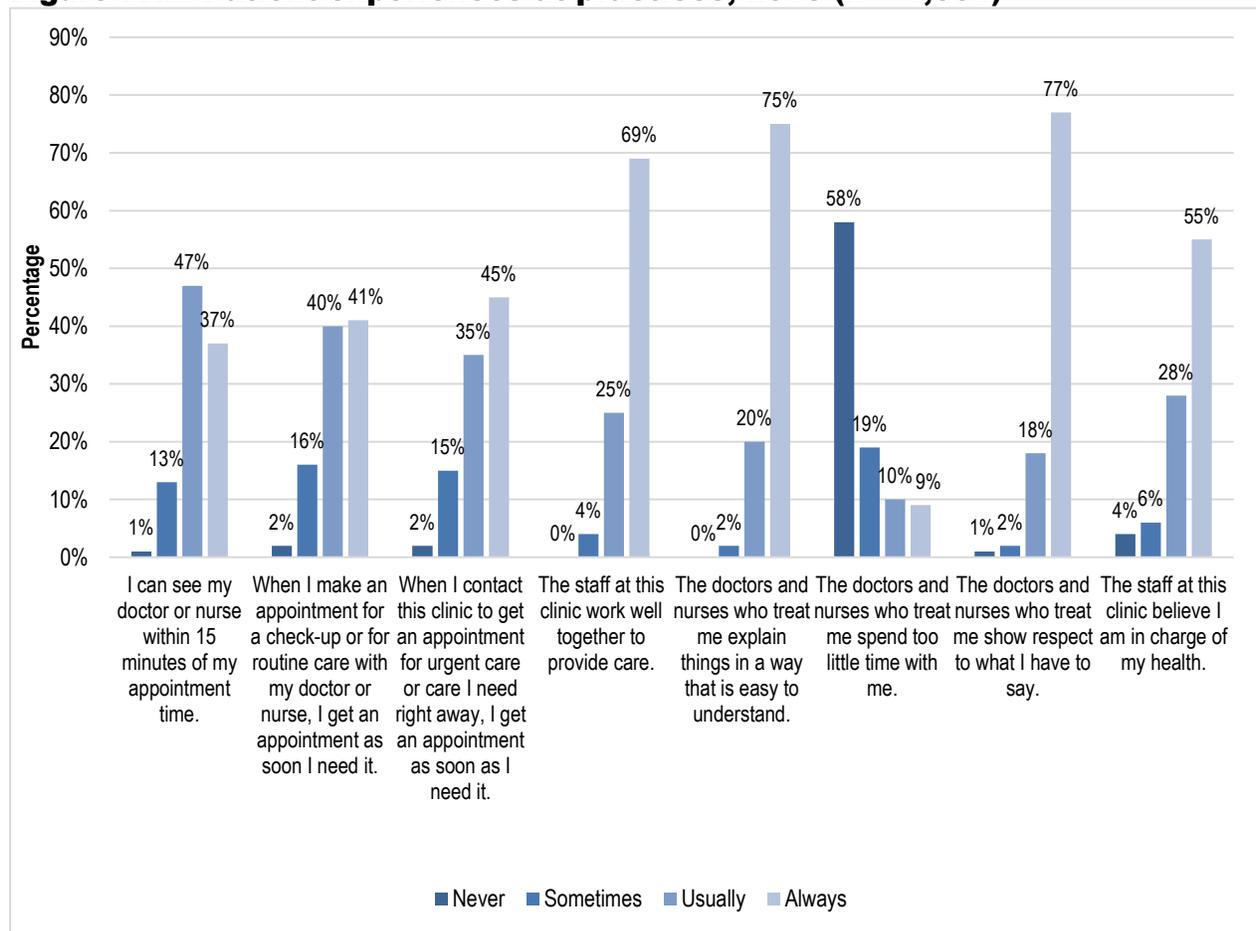
Figure IV.1. Patient satisfaction, 2018 (n = 1,504)



Source: Patient survey. In 2018, patient surveys were collected in 19 practices.

Patients across the practices consistently reported positive experiences receiving timely care and interacting with staff. Over 80 percent of patients reported that they usually or always could see their doctor or nurse within 15 minutes of their appointment time and could get an appointment as soon as needed for routine and urgent care. In addition, most patients said that usually or always the staff worked well together to provide care, doctors and nurses explained things in a way that was easy to understand and showed respect to patients, and doctors and nurses believed patients were in charge of their health (Figure IV.2). Patients’ reports of their experiences at clinics did not change significantly over the course of TBCI in any of these domains (data not shown).

Figure IV.2. Patient experiences at practices, 2018 (n = 1,504)



Source: Patient survey. In 2018, patient surveys were collected in 19 practices.

Across all practices in 2018, patients rated the care received at their clinic as 9.1 out of 10. This rating has remained consistent since 2016 (data not shown). In addition, patients’ responses to the question “Over the past 12 months, how has the care that you receive from this clinic changed?” remained consistent over time (Table IV.2). In 2018, most patients in 17 practices reported that care provided by the practice was the same as before. In two practices, most patients reported that the care provided was much better than the care provided in the previous year. In no individual practices did a majority of patients report that care was worse than before (data not shown).

Table IV.2. Patient perceptions of care quality, 2016–2018: Over the past 12 months, how has the care that you receive from this clinic changed?

| Response | April 2016 number (percent) | April 2018 number (percent) |
|---|-----------------------------------|-----------------------------------|
| Much better than before | 500 (38) | 550 (37) |
| The same as before | 622 (47) | 769 (51) |
| Much worse than before | 13 (1) | 19 (1) |
| Before today, I have not been to the clinic in the past 12 months | 120 (9) | 106 (7) |
| No response | 71 (5) | 60 (4) |
| Total patient surveys completed | 1,326 | 1,504 |

Source: Patient survey. In 2016 patient surveys were collected from 18 practices. In 2018, patient surveys were collected from 19 practices.

C. Clinician and staff experiences

In 2015 and 2018, most clinicians and staff in each of the TBCI practices reported that they were either satisfied or highly satisfied with their jobs, suggesting that TBCI implementation did not have a detrimental or disruptive effect on clinician and staff job satisfaction (data not shown).

Moreover, the implementation of team-based care may have had positive effects on feelings of burnout among clinicians and staff. In 2015, the majority of clinicians and staff in five practices reported at least moderate job-related burnout. In 2018, there were no practices with a majority of clinicians and staff reporting this (data not shown). Site visit interview data supported this finding, with several practices providing examples of how TBCI could be reducing feelings of burnout. These included practices' perceived benefits of shifting perspectives to the team-based care approach, which helped teams feel shared responsibilities for their patients and reliance on each other to collectively provide the best care possible. In addition, a few practices noted that initial pushback from clinicians and staff on TBCI-related changes transformed to enthusiasm for the initiative when new workflows proved to be more efficient and beneficial to clinicians, staff, and patients alike.

“No one person has the whole burden or care of the patient...it's spread throughout the team.”
—Physician

V. CONCLUSIONS AND IMPLICATIONS

This chapter simulates an “After Action Review (AAR),” in that we use our interview and survey data to answer five AAR questions: (1) What did TBCI intend to accomplish? (2) What were the results of TBCI? (3) What produced these results? (4) What difference did TBCI make? (5) What did we learn?¹¹ This format is meant to amplify key takeaways and facilitate learning from the evaluation.

A. What did TBCI intend to accomplish?

- TBCI aimed to strengthen the delivery of comprehensive, person-centered primary care, by improving the delivery of team-based care within primary care practices across Colorado.

Five principles of team-based care

Shared goals. The team—including the patient and, when appropriate, family members or other support people—works to establish shared goals that reflect patient and family priorities, and can be clearly articulated, understood, and supported by all team members.

Clear roles. There are clear expectations for each team member’s functions, responsibilities, and accountabilities, which optimize the team’s efficiency and often make it possible for the team to take advantage of division of labor, thereby accomplishing more than the sum of its parts.

Mutual trust. Team members earn one another’s trust, creating strong norms of reciprocity and greater opportunities for shared achievement.

Effective communication. The team prioritizes and continuously refines its communication skills. It has consistent channels for candid and complete communication, which all team members can access and use across all settings.

Measurable processes and outcomes. The team agrees on and implements reliable and timely feedback on successes and failures in both the functioning of the team and achieving the team’s goals. These are used to track and improve performance immediately and over time.

- From 2015 to 2018, TBCI provided 19 practices with financial assistance and TA (including practice coaching, online resources, and in-person learning opportunities) to work toward integration of team-based care.
- To guide the initiative, the Foundation adopted the five principles of high-quality team-based care identified by the National Academies of Sciences, Engineering, and Medicine: shared goals, clear roles, mutual trust, effective communication, and measurable processes and outcomes (see the text box).
- The Foundation established a success rubric that defined success of the TBCI overall as the realization of integration of teams into regular practice operations, and identified benchmarks for different levels of success for these teams in patient engagement, patient experience, team member experience, practice change, and sustainability.

¹¹ Our AAR questions come from Fourth Quadrant Partners, LLC. True AARs are real-time conversations that follow important pieces of work, typically involving those most connected to that work.

B. What were the results of TBCI?

- Financial assistance provided by the Foundation supported practices' learning and planning activities, particularly by enabling clinicians and staff to spend dedicated time on TBCI activities in the practice and to attend learning forums. TBCI funding also promoted buy-in by leadership and staff.
- The most effective forms of TBCI-provided TA and learning activities were tailored assistance from coaches; learning forums; in-person health IT consultations; and the Clinica Institute. These activities helped practices plan and implement TBCI-related changes and engage with and learn from each other.
- Overall, TBCI practices reported substantial improvements in the implementation of team-based care since the beginning of Phase 2 in 2015. Practice team self-ratings on the PCTGA—a practice-level measure of team functioning and practice transformation across key domains relating to team-based care—rose steadily over time, suggesting that, on average, TBCI practices implemented many of the basic changes needed to improve primary care functioning.
- Site visit and survey data suggested that practices' overall progress toward implementing practice changes related to each of the five team-based care principles varied.
- Overall, we found the most evidence of progress in establishing **clear roles** and **effective communication**.
 - In support of clear roles, most practices made significant changes related to clarifying team members' roles and responsibilities, empaneling patients to care teams, training staff, establishing standing orders and workflows, and integrating primary care with behavioral health services. These changes enhanced team member accountability, strengthened coordination across the team, and improved the efficiency of patient care.
 - Practices also strengthened effective communication, particularly through the establishment of team huddles to discuss patient care, routine meetings to discuss TBCI-related changes, and, in some cases, redesigned physical spaces to facilitate team interactions. In implementing consistent communication strategies, practices empowered team members to share their thoughts and ideas, which made them feel like valued members of the team.
- For **shared goals** and **mutual trust**, we found moderate evidence of progress overall.
 - Teams made progress with engaging patients in making shared decisions about their health and health care. However, room for improvement remained, in part because some patients were not willing or able to engage in these activities.
 - Establishment of mutual trust within teams was successful in many practices that were able to maintain consistent team membership and build confidence in team members' abilities. However, some practices struggled to achieve mutual trust because of

Overall progress through the lens of the TBCI principles

This mixed-methods evaluation found that TBCI practices varied in their approaches to and success with implementation of activities related to the five team-based care principles. Overall, we found the most evidence of progress toward implementation of clear roles and effective communication, moderate evidence of progress toward implementation of shared goals and mutual trust, and the least evidence of progress toward implementation of measurable processes and outcomes.

leadership’s lack of support for TBCI, inconsistency in teams due to high staff turnover, or other issues.

- On the whole, TBCI practices made the least progress toward establishing **measurable processes and outcomes**.
 - Practices ranged widely in their activities and progress toward establishing continuous data-driven improvement processes. While establishment of basic QI processes was common—and an important first step for many practices—consistent use of data to track and improve practice performance over time was less common.
 - Practices with designated, experienced QI leaders who could analyze data, produce reliable reports, and engage practice staff in these processes were the most advanced in this area at the end of the initiative.
- Patient surveys throughout the period of the initiative found that patients across the practices consistently reported positive experiences in key areas concerning their access to care and the quality of care they received.
- Clinician and staff survey results showed fewer reports of burnout between 2016 and 2018, and site visit interview data provided examples of how TBCI may have contributed to reduced reports of burnout among clinicians and staff.

C. What produced these results?

- Site visit data provided rich insights into why and how certain practices achieved success with overall TBCI implementation while others struggled.
- Practices that were highly successful with TBCI implementation made multiple changes to improve across the elements of the success rubric, including engaging patients, fostering understanding and acceptance of TBCI among staff, integrating practice changes into regular operations, and identifying and implementing ways to sustain TBCI changes.
- These highly successful practices had several advantages in common (see the text box).
- Practices that struggled the most with TBCI implementation shared several common barriers to TBCI implementation, including high staff turnover, lack of TBCI engagement among staff or practice leaders (or both), and lack of mutual trust within teams. These barriers thwarted efforts to delegate tasks, enhance communication, and incorporate TBCI-related practice changes in regular practice operations.

Some keys to TBCI implementation success

- Organized care teams
- Leadership support for TBCI
- Egalitarian practice culture
- Availability of clinicians and staff to establish strong teams
- Clinician and staff belief in the value of TBCI
- Dedicated and experienced QI leads
- Internal champions who will continue to lead this work
- Use of technical assistance combined with other practice resources to prioritize and sustain TBCI implementation

D. What difference did TBCI make?

- As evidenced by site visit and survey results, TBCI practices varied in their implementation approaches and successes; however, the majority of practices made at least some significant, fundamental, and sustainable changes to the way they deliver care.
- TBCI did not disrupt patients' positive experiences with their primary care practices, as evidenced by consistently high patient satisfaction survey results over time.
- TBCI may have contributed to improved work experiences for clinicians and staff, as suggested by survey findings that showed reduced feelings of burnout among clinicians and staff between 2016 and 2018.
- In the final year of TBCI, practices made plans to sustain several core aspects of team-based care, many of which were already ingrained into practice operations as the “new norm” (see the text box).
- Sustainability of TBCI changes will depend on the extent to which changes can be aligned with current payment systems, emerging reforms, and other incentives or programs, as well as on the level of commitment to TBCI-related practice changes among practice staff and leaders.

TBCI-supported changes that many practices plan to sustain

- Organized care teams
- Clearly defined roles and responsibilities
- Coordination with extended care team members
- Empanelment
- Team members working at the top of their license
- Screenings to identify patient needs
- Pre-visit planning
- Regular team meetings and huddles
- Culture of continuous quality improvement

E. What did we learn?

TBCI practices' experiences offer lessons learned for others seeking to implement a team-based care approach to the delivery of primary care. Among them are the following:

- **Understand from the beginning that building a self-sustaining, thriving team-based care approach depends on practice leaders who believe this approach will improve patient care (and ultimately, patient outcomes) and who effectively communicate this outlook to clinicians and staff.** When TBCI practice leaders were successful in building enthusiasm for team-based care changes throughout the practice, teams were more committed to enduring the growing pains associated with this type of transition. When they started seeing the positive impacts of these changes on their day-to-day approaches to care delivery and on their patients' health, sustaining team-based care became an obvious choice. In the absence of leadership support and communication about the value of team-based care, teams struggled to implement TBCI and were more likely to view the initiative as just another set of requirements to fulfill.
 - Drawing on this lesson, funders who support this work may wish to consider: (1) assessing leadership support during future initiatives' application processes and defining this support as a key prerequisite for funding, (2) building in dedicated time and support to help leaders engage their entire practice in future initiatives to secure widespread buy-in, (3) performing periodic assessments throughout future initiatives to gauge leaders' ongoing commitment and identify needs for additional support; and (4) providing rapid

intervention in the event of leadership changes or leaders' expressions of need for additional support with engaging and motivating their clinicians and staff.

- **Employ creative, strategic, and tailored TA and learning opportunities to spark practices' engagement and to guide practices through the team-based care transition.** TBCI practices reported that tailored and in-person forms of support were most effective. Specifically, coaching that was attentive to individual practice goals and characteristics; customized, hands-on health IT consultation; and attendance at the Clinica Institute were essential for creating interest in and a commitment to team-based care, enabling practices to implement TBCI changes, and sustaining enthusiasm and practice changes over time. The initiative's TA and learning opportunities were most helpful when practices felt fully supported in their efforts to make changes, which was dependent on having coaches who were not only intimately familiar with TBCI models but also with the practices they assisted.
 - Drawing on this lesson, funders who support this work may wish to consider: (1) prioritizing tailored supports that are thoughtfully designed to match each individual practices' particular needs over more generic approaches; (2) ensuring coaches have the support and training they need to be experts in both the initiative and the characteristics and needs of the particular practices they are working with; (3) maximizing opportunities for in-person and hands-on approaches to TA; (4) facilitating practice participation in in-person meetings by addressing foreseen challenges (such as rotating meeting locations to equalize travel burden across participants, giving ample notice of meeting dates and times, and helping practices select the optimal mix of staff to attend learning events).
- **At the beginning of an initiative, develop a comprehensive understanding of each participating practice's starting point or baseline in order to tailor TA and learning opportunities to address specific practice needs.** Overall, TBCI practices made less progress toward establishing measurable processes and outcomes compared to other principles of team-based care. A possible explanation is that some practices lacked previous QI experience and internal leaders for this work at the start of the initiative and may have benefitted from earlier, more intensive support to overcome this deficit.
 - Drawing on this lesson, funders who support this work may wish to consider: (1) conducting rigorous assessments of practices' baseline status related to key principles or goals of the initiative; and (2) developing individualized, intensive interventions for practices that demonstrate particular needs, in order to help these practices "catch up" to the rest of the cohort.
- **Financial and technical supports are necessary, but not sufficient, in making successful and sustainable team-based care changes.** These supports were invaluable to practices that otherwise could not take clinician and staff time away from practice operations and seeing patients to tackle implementation of team-based care. However, practices with the most success in implementing TBCI across all five principles of high-quality team-based care, with plans to sustain these changes, relied on other resources as well. In particular, these practices had leaders who supported the initiative and got other clinicians and staff excited about it, an egalitarian practice culture in which all team members were encouraged to provide input, consistency in teams over time (due to lower staff and clinician turnover),

experienced and dedicated QI staff, and resources available to expand and maintain team-based care changes moving forward.

- Drawing on this lesson, funders who support this work may wish to consider how best to foster the development of these practice characteristics over the course of future initiatives in order to support sustainable change.

The TBCI contributed to equity in access to and use of high-quality, comprehensive primary care by improving the provision of team-based care in practices serving significant numbers of underserved patients. However, health inequities persist that impede some Coloradans' access to and optimal use of primary care. Possible next steps for the Foundation or other funders to advance the gains made through TBCI could be:

- Supporting primary care practices in developing collaborative partnerships with community-based services to address issues of access.
- Providing training to care teams to support patients with engaging more fully in healthcare decision-making and self-management support.
- Continuing to foster relationships and policies that advance the integration of primary and behavioral health care services.
- Working directly with communities to identify the specific social determinants of health that most commonly detract from Coloradans' engagement with primary care and developing targeted interventions to address them. Among many other things, these could include integration of enhanced patient support or navigation services, increased access to supermarkets to promote healthy food choices, and creation of green spaces and playgrounds to encourage physical activity.
- Providing training and resources to primary care practices and their patients and families to become advocates for health and health equity in their communities.

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