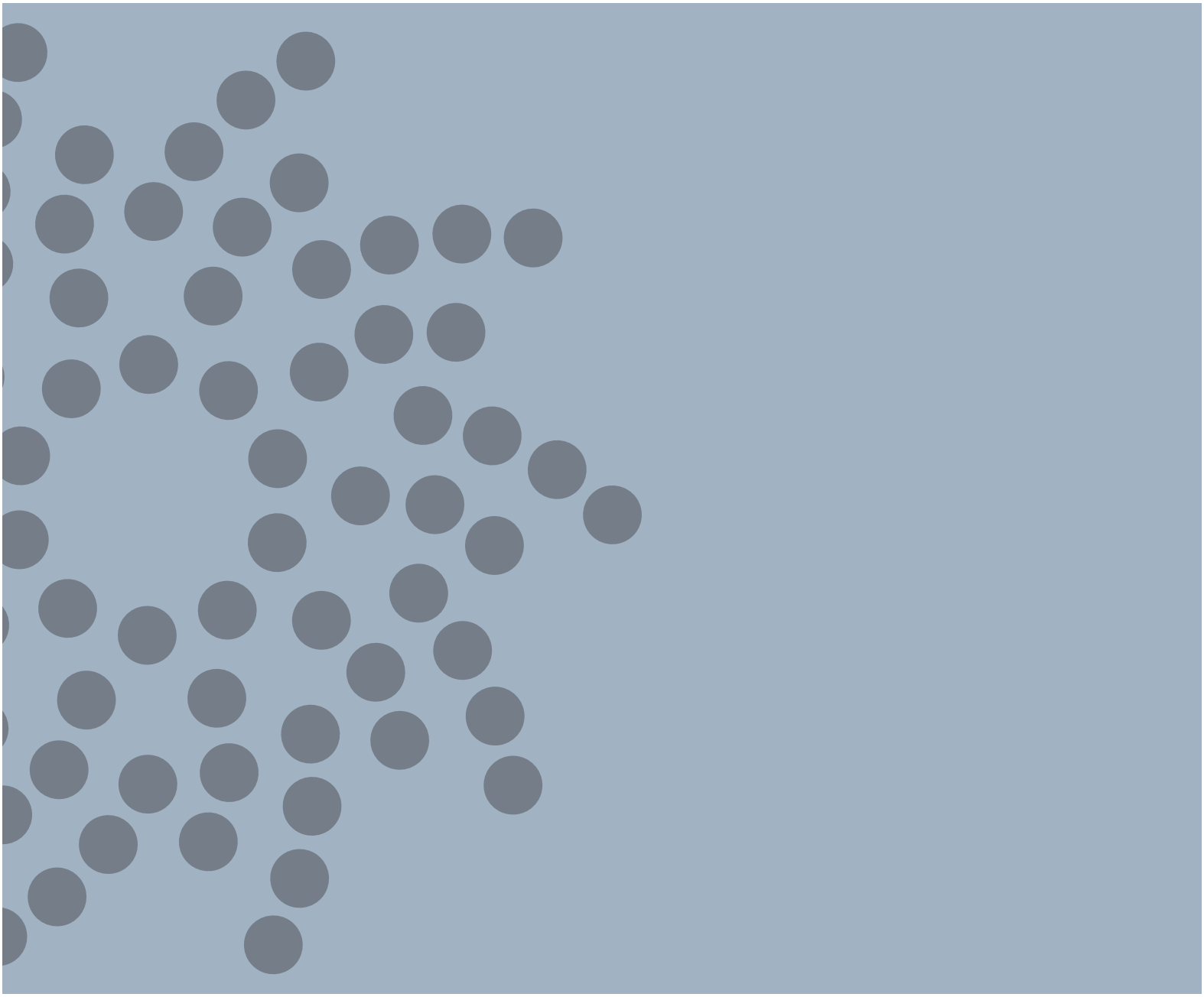
CCI
CENTER FOR CARE INNOVATIONS

# Spreading Innovations 2016

## Documenting Implementation & Spread of Health Care Innovations in the Safety Ne



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# Executive Summary

In 2014, the Center for Care Innovations (CCI) launched Round 1 of its *Spreading Innovations* program. Building on the success of the 2014 program, CCI launched its second round of funding in May 2015. Like the first program launched in May 2014, *Spreading Innovations 2015* was designed to support the dissemination of current successful innovations but with an eye on readying safety net organizations for a value based payment system and improving timely access to care. *Spreading Innovations 2015* is a joint effort of CCI and Blue Shield of California Foundation, with additional funding from Kaiser Permanente.

In its *Spreading Innovations 2015* program, CCI supported the spread of five types of innovations to improve care access across 16 safety net organizations: (1) telephone visits, (2) video collaboration and instant messaging, (3) patient portal, (4) co-visits, and (5) texting. Two of these five innovations were new to the 2015 program (co-visits and texting). Grantees had the opportunity to visit an innovation host site (with prior experience with the innovation), received one-on-one and group coaching support, received technical assistance on measurement and evaluation, and had access to a peer learning community. Grantees had one year to successfully implement the selected innovation and come up with a plan to sustain their innovation when program funding ended.

An external evaluation team (White Mountain Research Associates, LLC) was asked to evaluate the impact of the 2015 program. The evaluation included a combination of coaching around metrics selection and capturing staff/patient feedback, monthly data collection using an Excel workbook, and project milestone updates on innovation implementation. We also documented innovation spread over the course of the implementation process using various measures.

Overall, the majority of teams were successful in fully implementing their innovations, despite a number of hurdles reported by teams around software and work flow integration, staff and patient engagement, and other issues. Innovation teams were able to work around these challenges, resulting in successful implementation of the innovations, and in some cases, spread to other departments and/or clinic locations. Although a number of teams had already partially implemented their innovations when the project began, two-thirds of teams transitioned to full implementation and 19% of teams transitioned to spreading their technology by the end of the CCI project period in August 2016.

Across teams, statistically significant improvements in two of three spread factors—"people-based factors" and "innovation-based factors"—were documented from baseline to the final reporting period. A majority of teams were able to expand their reach at all levels—to patients, providers and staff, and other clinics or departments—by the end of the project. Virtually all teams had plans to continue spreading the innovation to other clinics and/or departments.

# Background

The Center for Care Innovations (CCI) released in May 2015 its second *Spreading Innovations* request for proposals (RFP). Like the first program release in May 2014, this RFP was designed to support the dissemination of current successful innovations that improve access to care in safety net organizations. Specifically, through its most recent RFP, CCI supported the spread of five types of innovations to improve care access: (1) telephone visits, (2) video collaboration and instant messaging, (3) patient portal, (4) co-visits, and (5) texting. Two of these five innovations were new to the 2015 RFP (co-visits and texting). Grantees received awards ranging from $10,000 to $25,000, depending upon the innovation selected. Grantees had the opportunity to visit an innovation host site (with prior experience with the innovation), and gained access to one-on-one and group coaching support, measurement and evaluation experts, a peer learning community, toolkits, training curriculum, and educational materials. Grantees had one year to successfully implement the selected innovation and come up with a plan to sustain their innovation when program funding ended. Host sites included Shasta Community Health Center (patient portal), Riverside University Health System (telephone visits), West County Health Centers and Petaluma Health Center (video collaboration), and Clinica Family Health Services in Colorado (co-visits).

*Spreading Innovations 2015* is a joint effort of CCI and Blue Shield of California Foundation, with additional funding from Kaiser Permanente. The following 16 health care delivery systems and clinics were awarded grants through this project:

| Innovation Type | Clinic |
|---|---|
| **Video Collaboration** | La Maestra Community Health Centers |
| **Texting Solutions** | Monterey County Health Department<br>Martin Luther King, Jr. Outpatient Center<br>OLE Health |
| **Patient Portal** | Native American Health Center<br>Western Sierra Medical Clinic<br>Foothill Community Health Center<br>Golden Valley Health Centers<br>La Clinica de La Raza |
| **Co-Visits** | Serve the People Community Health Center<br>Redwood Coast Medical Services |
| **Telephone Visits** | Indian Health Center of Santa Clara Valley<br>Northeast Valley Health Corporation<br>San Mateo Medical Center<br>Multnomah County Health Department (OR)<br>Kern Medical Center |

# Evaluation Approach

The evaluation included a combination of quantitative and qualitative data collection. Each team tracked and reported on a quarterly basis metrics on patient volume, efficiency, quality, and satisfaction with care. The evaluator also provided coaching around metrics and data collection. Innovation spread over the course of the implementation process and program successes and challenges faced also were documented. These evaluation activities are summarized below:

- **Innovation Metrics (Quantitative)** – The evaluation team worked with each site to define a set of tracking measures. Excel workbooks were created for each team so that measures could be tracked and reported on a quarterly basis. The workbook contains self-generating charts, so that teams could track their progress in meeting their measurement goals.

- **Changes in Organizational Capacity for Innovation Spread (Quantitative) –** The NHS Institute for Innovation and Improvement's *Spread and Adoption Tool*[1] is a diagnostic tool that is easy to use and allows teams to explore opportunities for growth across three areas of innovation: people-based success factors (e.g., leadership support, incentives for staff), innovation-based success factors (e.g., benefits to organization, easily adapted), and context-based success factors (e.g., infrastructure supports innovation, positive experience with other innovations). The survey was modified to use as a Likert scale in an Excel spreadsheet and administered to each site. Pre/post changes were assessed within and across teams and by innovation type.

- **Project Milestone Updates (Qualitative)** – Teams provided quarterly project updates and this information was used by CCI staff, the coaches, and evaluator for feedback, as needed. Information collected included stage of innovation implementation, self-reported measure of spread of innovation among providers, patients, departments, and clinics, staff and patient training, challenges faced in areas including patient recruitment, leadership support, provider recruitment, software integration, data collection, marketing, training, HIPAA compliance, legal issues encountered, and staff time and engagement.

- **Technical Assistance** – The evaluators worked with grantees either directly or through their coach to help them identify the best metrics and measurement strategy for their innovation. Technical assistance needs varied across the grantees, but included feedback on tracking measures, assistance with development of patient and provider/staff feedback surveys, survey sampling strategies, and data analysis and interpretation.

- **Coach Rating of Team Progress** – Each of the three coaches provided a quarterly team progress rating for each of their clinics. This measure is useful to the internal project team to gauge individual grantee success across projects and has been used successfully for performance improvement initiatives.

[1] Healthcare Improvement Scotland (2013). Guide on spread and sustainability. July 2013.

# Evaluation Findings

## Innovation Metrics – Team Highlights

Overall, teams were successful in launching their innovations, despite a number of hurdles reported by teams around software and work flow integration, staff and patient engagement, and other issues. In many cases, innovation teams were able to work around these challenges, resulting in successful implementation of the innovations, and in some cases, spread to other clinic locations. Sites collected monthly data on measures that fell broadly into four categories: patient volume, efficiency, quality measures, and patient/provider satisfaction with care. Teams were most successful at capturing patient volume, as well as staff and patient feedback/satisfaction measures. We provide below a summary of these findings for each innovation type by team.

## Video Collaboration

**La Maestra Community Health Centers** implemented video collaboration and recruited patients with chronic conditions for medication management by a pharmacist via video conference. Patients were referred through a warm-handoff from the medical assistant to a pharmacy technician. Offered initially to patients with chronic conditions at their National City clinic, the team broadened the scope to specialty needs, such as ENT patients because of high no-show rates among patients with chronic conditions (upwards of 86% no show rates). The team also experienced high no-show rates with its ENT patients due to lack of transportation, inconvenient hours, and language barriers. The team subsequently expanded video collaboration to its El Cajon site for chronic condition patients, where no-show rates are relatively lower. Over time, the team was able to significantly reduce the no-show rate for ENT patients from 50% to 13%.

## Texting Solutions

**Monterey County Clinic Services Bureau** implemented *Care Message* at seven of its clinics by providing text message reminders to its patients. The team currently has about 4,700 patients who receive appointment reminders through text messaging, representing 20% of their appointment reminders. The team estimates that manual confirmation work time has been reduced by 70%. The text messaging software is not integrated with the EMR, but the implementation team is working with *OCHIN* and *Care Message* to develop a bidirectional interface.

**Martin Luther King, Jr. Outpatient Center**, Los Angeles County, Department of Health Services experiences a no-show rate of about 20% and nursing staff have to do reminder calls every day. Through a needs assessment, staff determined that 84% of patients were receptive to text message reminders. The team piloted *Twilio* text messaging software at their patient-centered medical home, where no-show rates range from 25-30%. Although data are still preliminary, early results indicate a decrease in no-show rates. The team was able to initiate a new communication bridge for patient outreach, integrate their EHR data with SMS technology, generate a prospective appointment scheduling reminder report, and open an additional data collection pathway for patient behavioral analysis.

**OLE Health** implemented texting reminders using *eCWMessenger* with over 200 patients at their St. Helena Health Center. Early in its implementation, the team surveyed patients to gain feedback on using the text messaging software. In general, patient feedback was positive, but they did offer useful feedback to improve the content of the reminders. For example, some patients were not sure how to confirm or cancel their appointments while others provided feedback on the timing of the reminder (e.g., day of or day before appointment) and how to make the message sound friendlier. As the team moves forward with its launch of the reminder system, they are working with their compliance officer to be sure their work flows are in compliance with *eCWMessenger* and are continuing to explore ways to mass enable their patients.

### OLE Health's Early Feedback from Patients

*"I wasn't sure how to answer it because it didn't give me an option to confirm or cancel by replying with a number."*

*"It should be a day before [my appointment]."*

*"If I have questions, I have to call back."*

*"I didn't know how to respond to confirm; it's in English and confusing."*

## Patient Portal

**Native American Health Center** faced initial challenges with portal implementation, ranging from software integration and upgrade issues to buy-in from staff and providers. However, despite these challenges, the team was successful in launching the portal and fully implementing it at its school-based clinics. By the end of the project, the team had 132 patients enrolled in the portal, developed work flows and trained staff members on portal use, and created a marketing brochure for its members on how to use the portal. The team plans to continue staff training and support, integrate telephone support for its members, and increase enrollment numbers.

**Western Sierra Medical Clinic** successfully enrolled over 3,600 members into its *My Health Gatewa*y patient portal. The team also developed a rigorous training protocol to use the portal to ensure buy-in from staff and clinicians. Every clinician and staff member has been through multiple trainings in group settings and each has received one-on-one training for their respective scope. Use of the portal is also reviewed in onboarding for new staff and clinicians. Over the course of the project, the team also documented a decrease in call volume from about 11,500 calls in September 2015 to about 7,900 calls in July 2016.

**Foothill Community Health Center** successfully launched its *Health Connect* patient portal at three locations: Foothill Family Health Center, Monterey Plaza Clinic, and Gilroy Health clinic. The team has reported that patients are actively using secure messaging with providers and staff and other portal functionalities like appointment reminders and confirmations and lab views. The implementation team also reported a reduction in phone calls to the clinics requesting patient medical records. As implementation of the portal moves forward, the team is working with its vendor to make the portal available in Spanish by the end of the year. Finally, the implementation team is exploring the use of patient kiosks at the front desks of its three clinics to help streamline front desk operations.

**Golden Valley Health Centers** targeted their Senior Health and Wellness Center and Women's Health Clinic. The team faced a number of challenges around portal implementation, including unengaged staff, lack of leadership support, staff turnover, and inability to engage patients in using the portal. By the end

of the project, the implementation team was able to break down many of these barriers. Staff competition and incentives were successfully used to boost patient enrollment in the portal, and the team reported that about 30 patients a month receiving tokens prior to the pilot, while during the pilot the average increased to about 315 patients a month. Bolstered by these successes, the portal team continues to explore strategies to boost patient enrollment and patient use of the portal. The implementation team also plans to expand use of the portal at other clinic locations, release other portal functions like the appointment feature, and encourage self-enrollment by patients into the portal.

**La Clinica de La Raza** was able to "rejuvenate" the launch of its patient portal at 11 new clinics across Solano, Contra Costa, and Alameda Counties since the start of the CCI project, despite competing challenges, such as an EHR rollout. The implementation team began accepting patient-initiated enrollment and created their own portal dashboard that they could use as a springboard for their own internal analytics. While the team continues to face slow patient enrollment into the portal and low use, it has learned that while an initial spike in enrollment is typical early in the implementation process, to sustain a boost in enrollment numbers, monthly feedback on enrollment numbers to the clinics is critical. The team also learned that exploring new features of the portal while simultaneously rolling it out to new clinics was not wise; they faced technical challenges with different testing environments with the portal. The implementation team plans to continue rolling out the portal to all remaining Alameda clinics in the first quarter of 2017.

## Co-Visits

**Serve the People Community Health Center** in Santa Ana serves primarily a Latino population of adult insured. The team implemented nurse co-visits with the goals of improving patient access to care, improving team-based care, and giving patients more choice in when they are seen. Since implementing co-visits, the care team experienced a number of positive changes around patient access. When the project rolled out in January 2016, the provider saw an average of 2.3 patients per hour and by June 2016, provider productivity rate increased to 3.0 patients per hour. By adding a nurse to the care team, the care team was able to add 2 patients per provider per day and create a total of 6 new slots for co-visits per day. Another success has been an increase in their patient show rate: the initial show rate was 69% and this increased to 77% by June 2016. The team also documented a decrease in cycle time from an average of 66 minutes in February 2016 to 52 minutes in May 2016, saving patients an average of 16 minutes per visit. To take advantage of their new EHR, the team is tailoring a template that is appropriate for the expanded functions of the nurse in the co-visit. The care team is also developing a planned visit template to be used by the whole care team, similar to a dashboard which provides a history at a glance of the patient's conditions, medications, and treatment plan. The implementation team believes the co-visit model is financially sustainable; the addition of the RN to the team adds 6 more billable visits per day, which adds about 120 extra billable visits on top of their regularly scheduled patients. Based on these successes, the implementation team is planning on spreading nurse co-visits to the rest of their care teams, expanding the list of co-visit types, and is moving to complete two co-visits per provider per day.

**Redwood Coast Medical Services** is a community health clinic in a "frontier" area. The care team initially considered implementing the nurse co-visit model with chronic care patients, but given their focus on acute cases and a very busy and robust Urgent Care department, the care team decided to implement co-visits with Urgent Care. Urgent care is staffed by two physician assistants and four registered nurses. Since implementing the co-visit model, the care team has demonstrated an increase in provider and

patient satisfaction. Between April and July 2016, the care team implemented 476 co-visits. The care team notes that an unanticipated but welcome outcome of the co-visit model is an increase in staff empowerment and confidence in bringing patients in soon after arrival and initiating the visit—resulting in reduced wait times and happier patients. Although one of the Urgent Care providers has not fully adopted co-visits, the staff has contributed greatly to a reduction in the wait time for patients for this department. One of the RNs that regularly rotates in Urgent Care has the technical capability to help create templates for standing order visits that will help lay the groundwork for initiating co-visits in the Primary Care setting.

## Telephone Visits

**Indian Health Center of Santa Clara Valley** began piloting telephone visits with one medical provider in January 2016. The provider scheduled phone visits on Mondays and Fridays for two hours each day. The team originally targeted patients with hypertension but then decided to expand to all patients who may benefit from the telephone visits. Eligibility staff was included in the pilot to increase phone coverage. With about 400 newly assigned patients, the team decided to do patient intakes over the phone instead of through clinic-based appointments. This proved to be a success, and as a result the telephone visits were expanded to include Health Educators and RN Case Managers. Health Educators frequently do breast health questionnaires before the PCP visits, so the care teams utilized the same script and started doing the breast health assessments over the phone. The care team determined that a breast exam clinic visit did not need to be scheduled and they could directly order their mammograms. As a result, this opened up more slots in the providers' schedules, which could be used for other patient care encounters. Based on these early successes, the team expanded telephone visits to a second medical provider by the end of February 2016. Although the team lost one of the two primary care providers, the project includes one medical provider, four Eligibility staff, and the Clinic Support team (Women's Health and Health Education). During the course of the project, the mammography rate increased from 55% to 60%, the number of patient walk-ins decreased by 60% following the new phone-based eligibility intake protocol, and health education productivity increased from 55% to 78%.

**Northeast Valley Health Corporation's** care team experimented with different approaches to conducting telephone visits, including documenting unscheduled (i.e., documenting current experiences with both outgoing and incoming, unscheduled calls to patients) and scheduled visits, and including either care team members (i.e., non-providers) or providers. Unscheduled calls were implemented by a variety of care team members at Pacoima as well as San Fernando and Valencia Health Centers to provide chronic disease management and follow-up to health education and self-management goals. Between the first and second quarters of 2016, care team members increased their unscheduled calls from 32 to 720. Although the team is early in the process with conducting scheduled telephone visits, there are currently 18 providers and 35 care team members conducting telephone visits. The CCI project gave the care team an opportunity to develop a system to quantify telephone visits and the amount of time spent on these visits. As the team moves to payment reform and alternative encounters, this project is an important step in that direction and has raised awareness of the financial impact of utilizing telephone-based vs. in-person patient encounters.

**San Mateo Medical Center** began conducting telephone visits in two clinics: Daly City and Coastside Clinic. With this as their starting point, the implementation team has been quite successful in spreading this innovation across sites. Since September 2015, staff has conducted about 1,000 telephone visits across five primary care clinics and one specialty clinic. Telephone visits have been adopted by 15

providers and nine nursing staff. One of the major goals of the project was to improve access to care for patients. Although the team has been unable at this point to improve time to third next available appointment (TNAA), average TNAA is still below the team's goal of less than 10 days. Another goal was to improve their patient satisfaction scores around "likelihood to recommend". The team was able to improve this score over the course of the project at their Coastside Clinic. In addition to documenting patient volume metrics, major diagnoses treated and efficiency, the implementation team also recognized the importance of coding and submitting telehealth encounters correctly, so staff received training and refresher training. Over the course of the project, the team improved the percentage of encounters that were coded correctly from 56% in September 2015 to 93% in June 2016.

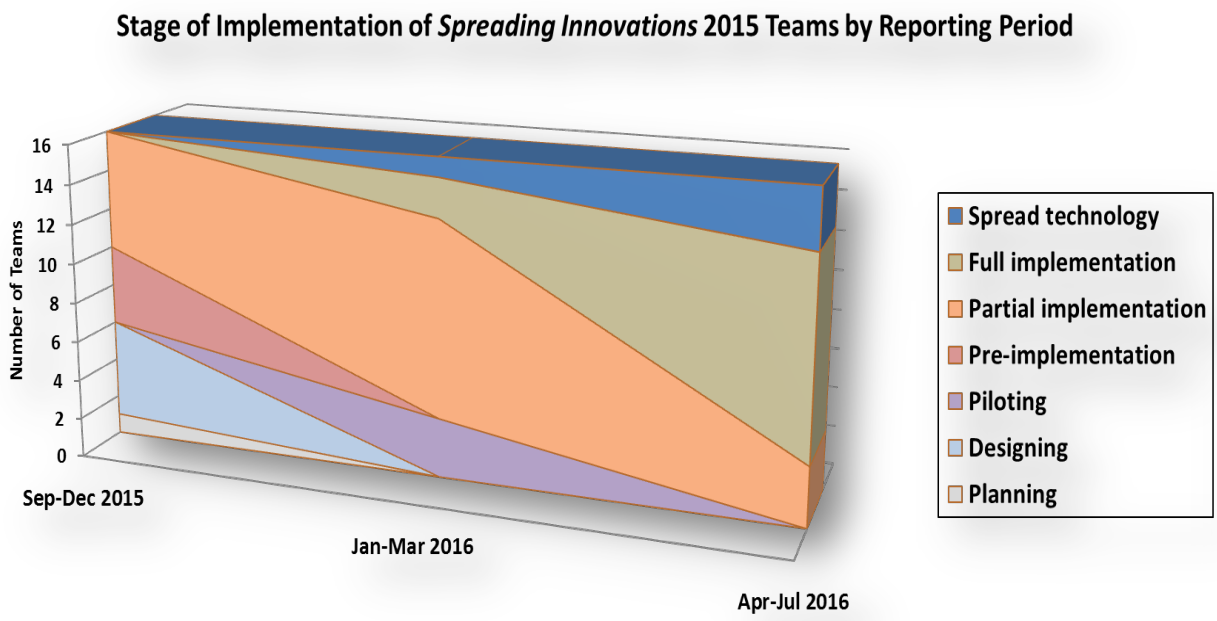
**Multnomah County Health Department's** goals for its televisit program were to increase patient access from 20 to 24 patient touches per day and improve patient and provider satisfaction. The implementation team was cautious with their rollout and piloted televisits with just one provider from December 2015 through May 2016. Over time, the implementation team received much feedback from their providers and patients, and now 100% of their patients prefer a phone visit when appropriate. Interestingly, the care team found that over time, some patients thought that they no longer had an option for either an office visit or a televisit, so they had to clearly communicate and remind patients that they still had options for the type of appointment they wished. The implementation team developed a tool kit and work flows, and continues to provide "elbow visits" to enhance and refresh their training with providers. Starting in September/October 2016, the team plans to expand their services to include nurse visits and behavioral health provider visits.

**Kern Medical Center** launched their televisits pilot with two providers from their Pediatrics Department. Providers began by blocking off one hour per week for phone consults. During the initial launch of their phone consults, the implementation team was faced with numerous technological setbacks and had to develop workarounds for these issues. One of the greatest obstacles that the team continues to face is with software integration; the clinic uses several different platforms for scheduling and billing that do not communicate well with each other and also uses an older EMR system. This has impacted the pre-registration and registration process; the process is time consuming and information must be entered into multiple interfaces before the physician is to be able to generate a phone visit note in the EMR. Because of this, the care team has only been able to make "cold calls" for patient phone visits. While the team was able to develop workarounds for these technology issues, they are still not at the point yet where the two pilot providers feel comfortable with expanding the types of phone visits and have limited communication to patients to lab and radiology results. Despite these setbacks, the two providers are staying within their goals of conducting 48 phone visits per month.

# Spread Metrics

In addition to documenting changes in patient volume, efficiency, and quality measures, we also were interested in tracking the extent to which the sites were successful in launching, implementing, and spreading their innovations over the course of the project. During each of the three reporting periods, we tracked stage of implementation for each team using the following stages:

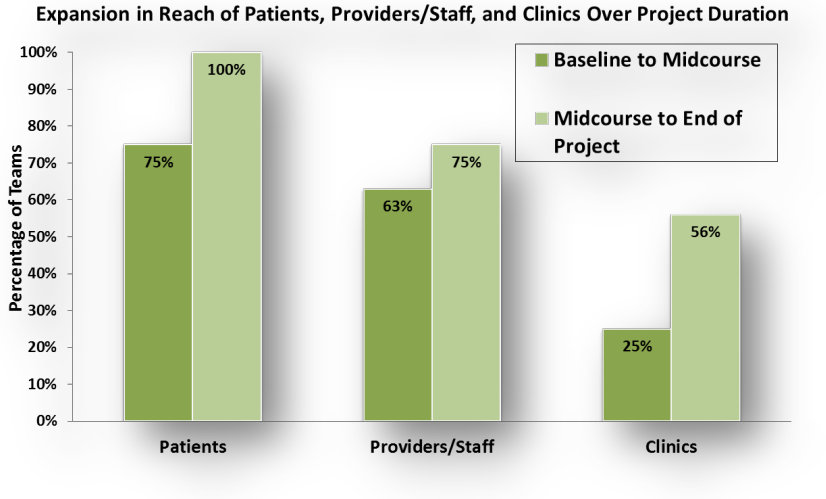
- *Planning* (define scope and approach, determine resources needed, and create a high-level plan for project)
- *Designing* (design project solution from a technical and operational perspective)
- *Piloting* (test innovation/solution with a limited number of providers, staff, patients; develop work flow plan)
- *Pre-implementation* (create and execute training plan, develop go-live plan, refine and execute work flow plan)
- *Partial implementation* (Go-Live, initial rollout of innovation to some providers and patients)
- *Full implementation* (rollout complete at site/clinic, continue training, monitoring)
- *Spread technology/innovation* to other sites/clinics within organization




The area chart above illustrates the progression of teams moving from planning and designing through full implementation and spread. Although a number of teams were already in partial implementation when the project began, 63% of teams transitioned to full implementation and 19% of teams transitioned to spreading their technology by the end of the CCI project period. The number of teams transitioning into higher stages of implementation improved significantly across the three reporting periods (Friedman test; $\chi^2$ (2, N=16) = 25.1, p<.001)(see table below).

| | Reporting Period | | |
|---|---|---|---|
| **Clinic** | **Sep-Dec '15** | **Jan-Mar '16** | **Apr-Jul '16** |
| Foothill Community Health Center | Pre-Implementation | Full Implementation | Spread |
| Golden Valley Health Centers | Partial Implementation | Partial Implementation | Full Implementation |
| Indian Health Center of Santa Clara Valley | Designing | Partial Implementation | Partial Implementation |
| Kern Medical Center | Pre-Implementation | Partial Implementation | Partial Implementation |
| La Clinica de La Raza Inc | Partial Implementation | Partial Implementation | Partial Implementation |
| LA County Department of Health Services | Designing | Piloting | Full Implementation |
| La Maestra Family Clinic | Designing | Partial Implementation | Full Implementation |
| Monterey County Health Dept. | Designing | Partial Implementation | Full Implementation |
| Multnomah County Health Dept. | Partial Implementation | Partial Implementation | Full Implementation |
| Native American Health Center | Partial Implementation | Partial Implementation | Full Implementation |
| Northeast Valley Health Corp. | Pre-Implementation | Partial Implementation | Full Implementation |
| OLE Health | Pre-Implementation | Piloting | Full Implementation |
| Redwood Coast Medical Services | Designing | Piloting | Full Implementation |
| San Mateo Medical Center | Partial Implementation | Spread | Spread |
| Serve the People | Planning | Partial Implementation | Full Implementation |
| Western Sierra Medical Clinic | Partial Implementation | Full Implementation | Spread |

In addition, a majority of teams were able to expand their reach to patients, providers and staff, and other clinics or departments by the end of the project (see figure below). Virtually all teams had plans to continue spreading the innovation to other clinics and/or departments.

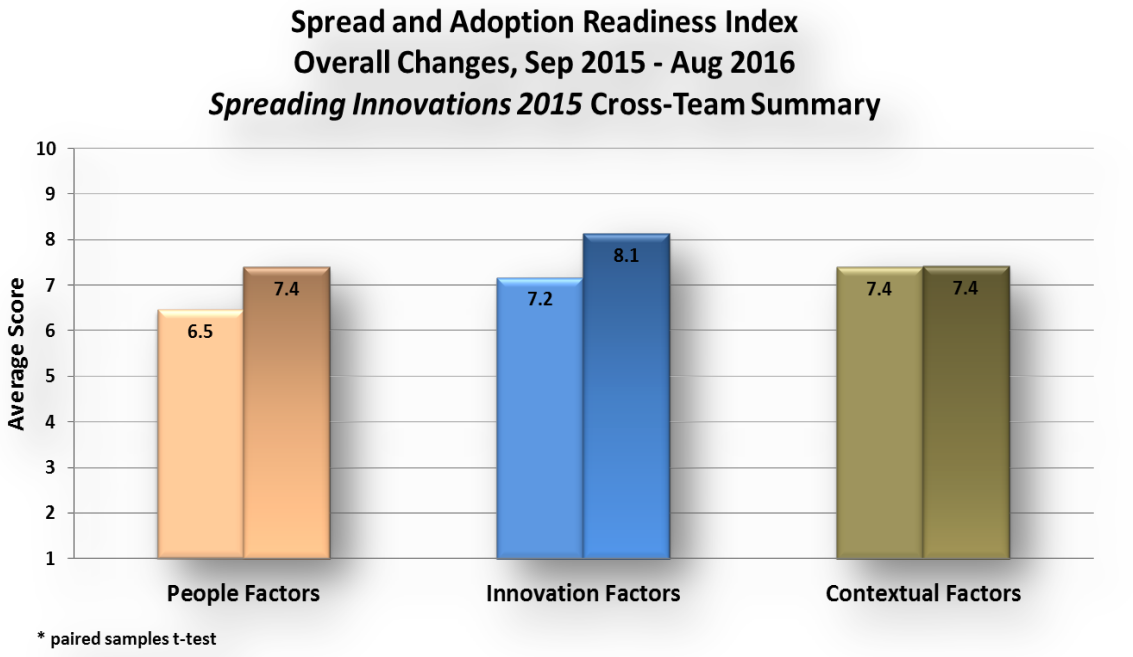


We also asked the innovation project team leader at each site to complete a *Spread and Adoption Tool* at baseline and then again at the end of the project. Change in organizational capacity for innovation spread was measured using the NHS Institute for Innovation and Improvement's *Spread and Adoption Tool*. As described earlier in this report, the *Spread and Adoption Tool* is a diagnostic tool that allows teams to explore opportunities for growth across three areas of innovation: people-based success factors, innovation-based success factors, and context-based success factors. Pre/post changes were assessed within and across teams and by innovation type. Additionally, to supplement the innovation scores, we asked each of the three coaches to score each their teams periodically, based on team progress in implementing their innovations using the following rating scale:

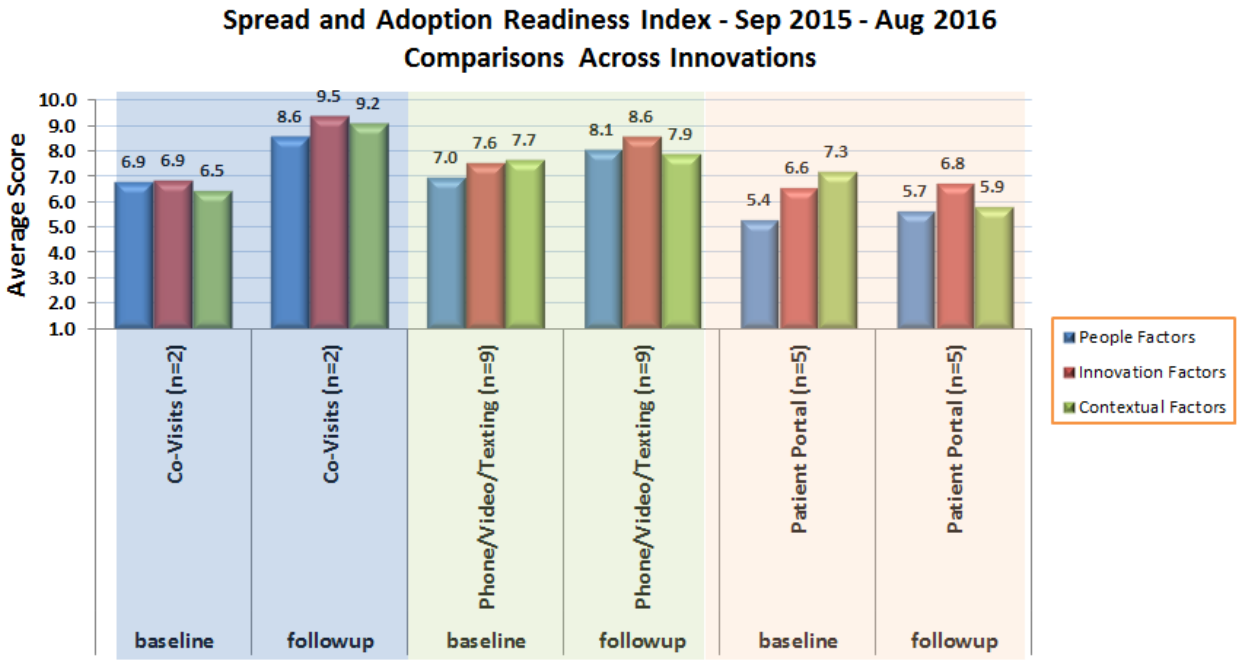
## Coach Rating Scale

1.0 = nonstarter; no report
1.5 = beginning activities
2.0 = activity and clear goals set; no changers
2.5 = began testing; no measurable progress
3.0 = testing; initial measurable progress
3.5 = testing multiple changes; measurable progress made
4.0 = innovation has been implemented with clear changes in structure and care processes
4.5 = innovation is institutionalized with plan for spread to other parts of organization
5.0 = innovation has been successfully spread across organization with sustainable business model

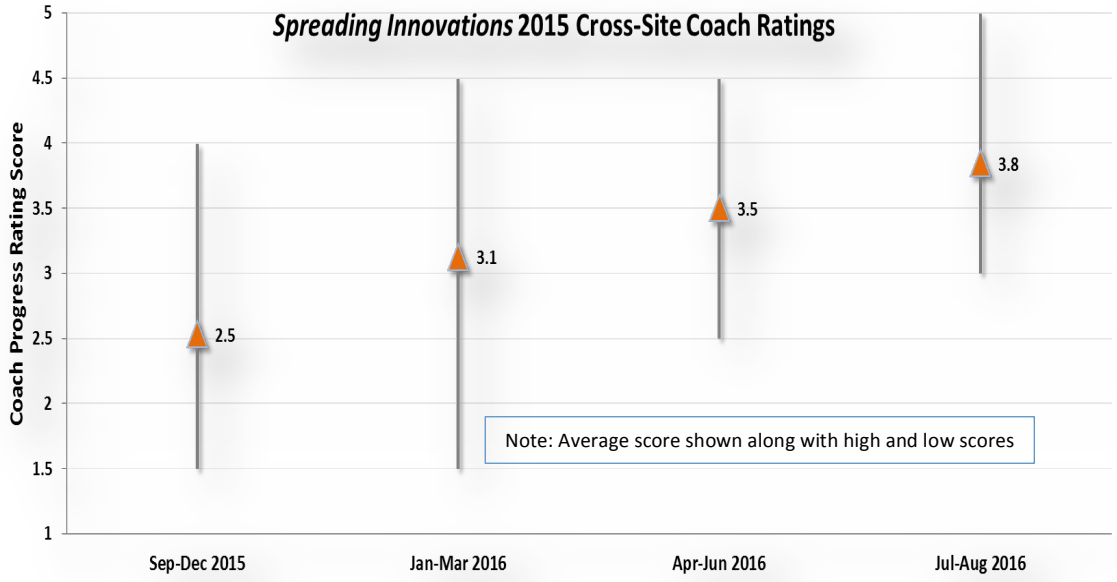
Across teams, statistically significant improvements in "people factors" and "innovation factors" were documented from baseline to the final reporting period, but not for contextual factors (see figure below).

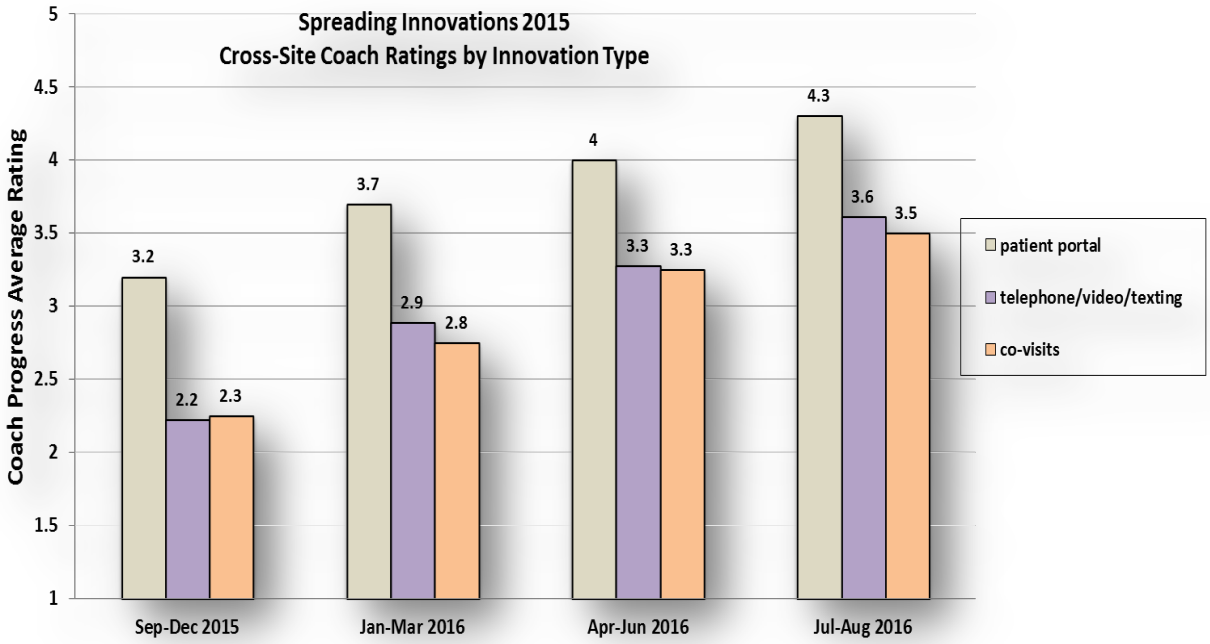


In addition, across innovation types, with the exception of contextual factors for patient portal grantees, improvements across all factors were documented from baseline to the final reporting period. In general, scores at the end of the project period were the highest for sites implementing co-visits and phone, video, or texting innovations (see figure below).




Finally, we summarized the coach ratings for teams in the two charts below. As illustrated in the charts, all coaches reported improvements in each team's progress with implementing their solutions; this was true across teams as well as across innovation types, reflecting the teams' ratings of progress with implementation and spread shown above.




Spreading Innovations 2015
Cross-Site Coach Ratings by Innovation Type
Coach Progress Average Rating
5
4.5
4
3.5
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2.5
2
1.5
1
3.2
2.2
2.3
3.7
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2.8
4
3.3
3.3
4.3
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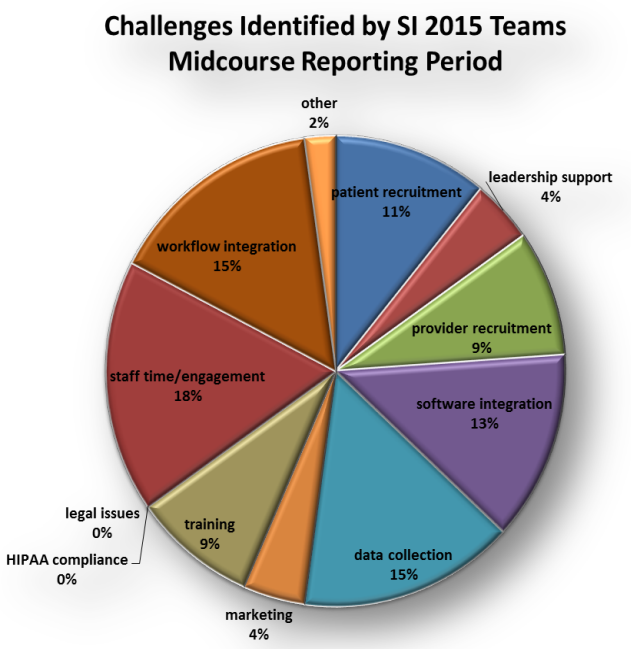
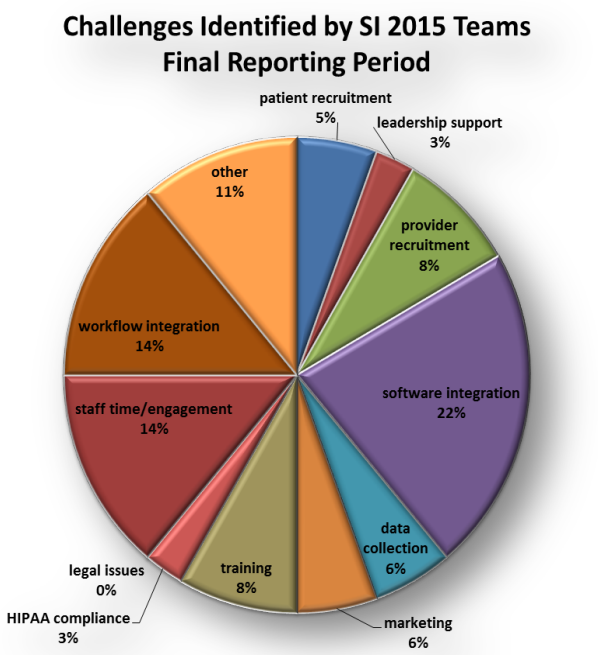
Sep-Dec 2015
Jan-Mar 2016
Apr-Jun 2016
Jul-Aug 2016
patient portal
telephone/video/texting
co-visits

# Team Challenges




Teams were asked to document the challenges to implementing their innovations over the course of the reporting period; we asked teams to summarize these challenges midcourse and then again at the end of the CCI project reporting period. At the project midpoint, all but one site reported some type of challenge associated with implementation of the innovation, and by the end of the project, all but two teams reported some type of implementation challenge. However, across all teams 46 total challenges were identified at midcourse compared to 36 by the end of the project. The pie charts below illustrate the types of the challenges faced by the teams, as well as their most commonly reported challenges. In general, although the teams were able to overcome a number of these challenges by the final reporting period, the teams still face these issues but many have developed workarounds for them or are working on ways to address these barriers.

The top three challenges across all innovation types identified at program midcourse included staff and provider time/engagement, work flow integration, and data collection, while at the end of the project, software integration (except for co-visits) was the biggest challenge followed by staff and provider time/engagement and work flow integration.

We also explored differences in top challenges identified by type of innovation implemented at midcourse and during the final reporting period. Regardless of innovation type, teams experienced these challenges to varying degrees. However, by end of project, the biggest challenges that persisted included software integration (except for co-visits) and data collection. Work flow integration appeared to be more of a challenge for teams that implemented texting, video visits, or televisits, as teams had to develop workarounds and new work flows for software incompatibility issues, until the issues were resolved.

# Conclusions

While teams were in varying stages of innovation implementation at the beginning of the program, the majority of teams were successful in fully implementing their innovations by the end of the project. Teams experienced a number of barriers to innovation implementation to varying degrees over the course of implementation; the top three challenges across all innovation types identified at the end of the project included software integration (except obviously for co-visits), staff and provider time/engagement and work flow integration. Innovation teams were able to work around these challenges, resulting in successful implementation of the innovations, and in some cases, spread to other departments and/or clinic locations. Two-thirds of teams transitioned to full implementation and 19% of teams transitioned to spreading their technology by the end of the CCI project period in August 2016.

Across teams, statistically significant improvements in two of three spread factors—"people factors" and "innovation factors", but not "contextual factors"—were documented from baseline to the final reporting period. A majority of teams were able to expand their reach at all levels—to patients, providers and staff, and other clinics or departments—by the end of the project. Virtually all teams had plans to continue spreading the innovation to other clinics and/or departments.