

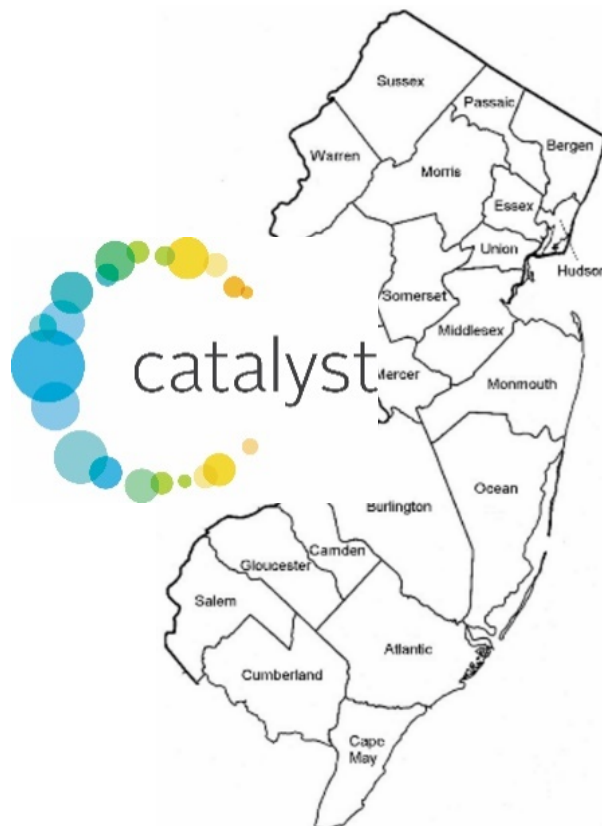


CCI

CENTER FOR CARE  
INNOVATIONS

# New Jersey Innovation Catalyst Initiative 2015

Leveraging Innovation to Improve Care for  
Safety Net Populations



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# Executive Summary

In January 2014, the Center for Care Innovations (CCI) received a 4-month planning grant from The Nicholson Foundation to advance innovation in safety net systems in New Jersey. The goal of the planning grant was to better understand the needs and capacity of safety net providers and other stakeholders to participate in programs to advance innovation. Based on the findings from the planning grant and in partnership with The Nicholson Foundation, CCI launched the NJ Catalyst Initiative. The goals for the NJ Catalyst Initiative were to help create a network of innovators beginning with a selected number of health care organizations in New Jersey, manage a competitive grants program to develop and implement innovations that potentially could be spread to other health care delivery systems throughout New Jersey, and promote a culture of innovation at these organizations through training, coaching, and peer learning.

CCI's framework for the NJ Initiative was based on its successful implementation of an array of innovation-centered programs targeting safety net organizations throughout California. Along with its partners, gravitytank, Gobe Group, and White Mountain Research Associates, CCI staff provided intensive group training on human-centered design thinking, assigned innovation coaches to work with individual teams on their innovation challenge grants, and provided technical assistance on measurement and evaluation to monitor the impact of the teams' innovations.

The NJ Catalyst Initiative supported innovation teams at nine organizations in the first phase of a competitive grants program. The first phase was four months and served as a ramping up phase for the innovation teams selected to develop a solution to a pressing health care problem the team wanted to address. Proposed solutions addressed three improvement areas in health care delivery including access to care, patient engagement, or social determinants of health. All but two of these organizations received additional funding to test and implement their solution in a second phase of the Initiative.

All Phase 2 innovation teams were successful in launching their innovations with the majority focusing on patient innovation. Of the seven teams, four are currently implementing their solutions, two are preparing to spread to other patient populations, and one team is piloting. All teams are committed to fully implementing their solutions in the coming months. While teams' perceptions of their organizations' culture of innovation have slightly improved over time, teams have in fact made important shorter-term strides in changing the culture of innovation at their institutions through application of innovation tools and resources to solve other problems, creation of active pockets of innovation, asking questions differently and soliciting team input, and better understanding the added value of soliciting patient perspectives and feedback to formulate a solution. The observed modest gains in average scores across the six building blocks associated with organization-wide innovation are not surprising given the long period of time that is needed for culture change.

Overall, the NJ Catalyst Initiative was successful in training a group of change agents within the safety net who will continue to drive transformation within their own organizations by using a new arsenal of innovation tools and techniques to advance new technologies and programs and improve care



processes. As Catalysts continue to use these resources and facilitate additional changes in innovation development and implementation at their own organizations, it is hoped that their work will help to accelerate adoption of health care innovations by safety net organizations across NJ, facilitate continued cultural shifts in innovation design and implementation to improve health care quality at safety net organizations, and spur an expansion of the network of safety net organizations and partnerships to enhance adoption of health care innovations throughout the NJ safety net.



# Background

In January 2014, the Center for Care Innovations (CCI) received a 4-month planning grant from The Nicholson Foundation to advance innovation in safety net systems in New Jersey. The goal of the planning grant was to better understand the needs and capacity of safety net providers and other stakeholders to participate in programs to advance innovation. CCI staff interviewed key leadership in the state and identified overarching challenges around financing to support integrated care and better alignment across healthcare organizations to support integrated systems of care. While most stakeholders saw innovation as a tool to achieve the Triple Aim and a means to strengthen integrated care delivery, many identified barriers to successfully using innovation, including internal capacity to develop and implement innovations, the need for protected time, and availability of resources. Despite these challenges, CCI staff identified an interest among stakeholders to learn more about how innovation could be leveraged and applied in their organizations.<sup>1</sup>

Based on the findings from these interviews and its planning grant, CCI was invited to develop a framework to support innovation and transformation of safety net systems in New Jersey through a subsequent two-year contract. In partnership with The Nicholson Foundation, CCI's goals over the next two years were to help create a network of innovators beginning with a selected number of health care organizations in New Jersey, manage a competitive grants program to develop and implement innovations that potentially could be spread to other health care delivery systems throughout New Jersey, and promote a culture of innovation at these organizations through training, coaching, and peer learning. The Nicholson Foundation's overall objectives of this grant were to advance and promote innovation in New Jersey to improve care for vulnerable populations, build upon its current innovation investments in New Jersey, and, in the long-term, identify organizations that could become robust New Jersey Healthcare Innovation Centers to test and implement innovations on an ongoing basis, helping promote the transformation of care delivery and the patient experience throughout New Jersey.

CCI's framework for the NJ Initiative was based on its successful implementation of an array of innovation-centered programs targeting safety net organizations throughout California. These programs included the Safety Net Innovation Network, which brings together leaders from health care safety net organizations to support adoption and spread of innovations that improve care delivery, the Innovation Challenge Grant program to support safety net clinics in the development of their own innovations, the Catalyst program to build skills and expertise in designing and implementing innovations, and the Innovation Center for the Safety Net program to advance partnerships with entrepreneurs and start-up companies to develop innovative solutions for safety net health care delivery systems.

# Program Approach

Along with its partners, gravitytank, Gobee Group, and White Mountain Research Associates, CCI staff provided intensive group training on human-centered design thinking, assigned innovation coaches to work with individual teams on their innovation challenge grants, and provided technical assistance on measurement and evaluation to monitor the impact of the teams' innovations. The following resources were provided to the New Jersey innovation teams over the course of the initiative:

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<sup>1</sup> Center for Care Innovations. Themes from interviews for Nicholson Foundation. March 2014 (internal document).

<sup>2</sup> Dozois S, Langlois M, Blanchet-Cohen N (2010). DE 201: A practitioner's guide to developmental evaluation. The

## NJ Catalyst Kick-Off Orientation Meeting

On September 2, 2015, newly selected NJ Catalysts participated in an orientation webinar. The goals of the webinar were to introduce Catalysts to each other and to the program team, review goals and expectations for the NJ Initiative, and provide a preview of the 3-day Catalyst training at the Newark Museum.

## Competitive Grants Program

The NJ Initiative was split into two phases. The first phase was four months and served as a ramping up phase for the teams selected to develop a solution to a pressing health care problem the organization wanted to address. Proposed solutions addressed three improvement areas in health care delivery including access to care, patient engagement, or social determinants of health. From 17 applications that were received, the nine teams selected by CCI and Nicholson included CompleteCare Health Network, Henry J. Austin Health Care Center, Hospital Alliance of NJ, Newark Beth Israel Medical Center, NJ Primary Care Association, Robert Wood Johnson University Hospital, St. Joseph's Regional Medical Center, Trinitas Regional Medical Center, and Visiting Nurse Association Health Group. At the end of Phase 1, teams submitted their final deliverable, which described the solution they developed over the course of Phase 1 and their plans for testing and implementing the innovation in the second phase of the initiative. Teams selected for Phase I received \$10,000 to offset their time plus reimbursement for travel costs. Seven teams progressed to Phase 2 and received an additional \$25,000 to offset staff time and resources to test and implement their solutions. Teams participated in periodic Innovation Fairs, received continued coaching from Gobee coaches through one-one-one phone and in-person site visits, as well as measurement and evaluation coaching to help assess the impact of their innovations.

## NJ Catalyst Training

On September 16-18, 2015, Catalysts from nine organizations received training in human-centered design thinking with the purpose of equipping Catalysts with the skills and resources to lead innovation efforts and serve as change agents to help their organizations think and work differently to develop solutions to improve care delivery. The 3-day Catalyst training was facilitated by gravitytank, a design and innovation consultancy based in Chicago; gravitytank co-developed the training with CCI and also trained previous cohorts of Catalysts in California.

## Coaching

Each team was assigned one of two coaches from the Gobee Group (Jaspal Sandhu and Graham Gardner) to help them identify, prototype, and develop a solution to test and implement throughout the initiative; a third coach from CCI (Kat Esser) also worked with selected teams in Phase 2. Coaches provided support through periodic phone calls and also provided in-person support through site visits to the NJ teams. An evaluation coach (Seth Emont) from White Mountain Research Associates helped teams develop a set of measures to track the success of their innovation; the evaluation coach also provided other evaluation-related technical assistance, including help constructing patient and staff feedback surveys, identifying validated measures, and analyzing and interpreting data, as needed.

## Innovation Fairs

Periodic, in-person one-day meetings were held so that teams could re-connect with their fellow Catalysts, present their ideas and receive feedback from peers, coaches, and CCI staff, participate in small group discussions, and interact with technology vendors to learn about innovations that teams may be interested in implementing.

## Other Resources

Teams participated in periodic webinars/learning exchanges hosted by CCI staff. Webinar topics included additional innovation resources that could be adopted and applied by the teams, review, reflection, and feedback from peers and coaches on progress made to date and emerging challenges on innovation development, and approaches to measuring the impact of their innovations. Teams also had access to the WeAreCatalysts.org learning community hosted by CCI. The website offers a variety of strategies, resources and tools that can be used by teams for innovation design and implementation, as well as a platform for engaging with other Catalysts, including current Catalysts and alumni from California. A few teams also were invited to attend CCI's Safety Net Innovation Network Meeting to learn about innovations and approaches outside of New Jersey; the three Catalyst teams attending included CompleteCare Health Network, Hospital Alliance of NJ, and Robert Wood Johnson University Hospital.

The following organizations received grants and access to the resources described above. The type of support received is noted in the table.

Health Care Organization	Innovation	Grant Support
<b>CompleteCare Health Network</b>	Mammography <i>Pathway to Wellness</i> aimed to resolve a problem of inefficiency and gaps in care that result in delays in care for patients and potentially delays in cancer diagnosis	Phase 1 and 2
<b>Henry J. Austin Health Care Center</b>	Identify the right level of service for urgent patient requests received through the call center; work flow changes were explored for prescription refills, referrals, and same-day scheduling	Phase 1 and 2
<b>Hospital Alliance of NJ</b>	50X Ping is a tech-enabled, people-driven ER diversion concierge service for low-acuity patients who frequently visit the Emergency Room at St. Joseph's Hospital in Paterson, New Jersey	Phase 1 and 2
<b>Newark Beth Israel Medical Center</b>	The Beth Greenhouse at Newark Beth Israel Medical Center in partnership with Garden State Urban Farms would supply healthy food to the neighboring community and provide transformational educational opportunities for those residents	Phase 1
<b>NJ Primary Care Association</b>	Increase the value of trainings and participation levels at trainings to assist their health centers in achieving clinical, financial and other goals	Phase 1 and 2
<b>Robert Wood Johnson University Hospital</b>	Improve the patient experience for Spanish-speaking patients in the Emergency Department who are triaged as emergency severity index levels 4 and 5	Phase 1
<b>St. Joseph's Regional Medical Center</b>	Develop practical tools for self-management of chronic illness; provide heart failure patients with tools and resources to proactively manage their symptoms and maintain wellness	Phase 1 and 2
<b>Trinitas Regional Medical Center</b>	Use paramedics and emergency medical technicians as front line non-emergency community health workers to improve the health, wellness, and access to care for a defined population	Phase 1 and 2
<b>Visiting Nurse Association Health Group</b>	Develop an easy to use centralized tracking system that clinicians could access electronically to standardize basic patient information across programs and evaluate what services patients have access to or could benefit from	Phase 1 and 2

# Evaluation Approach

An external evaluation team (White Mountain Research Associates, LLC) was asked to evaluate the impact of the NJ Catalyst Initiative. The evaluation included a number of quantitative and qualitative measures to document the impact of the initiative as well as coaching around metrics selection, tracking, and survey development to capture staff and patient feedback. These evaluation activities are summarized below:

## Quantitative Measures

**NJ Catalyst Training Feedback** – At the completion of their 3-day training program, Catalysts were asked to complete a survey about the most and least valuable aspects of the training program, the most useful tactics learned, any improvements to the training they would recommend, and to grade the overall training program.

**Innovation Skills Assessment** – This instrument was used to document pre/post changes in innovation skills in the group as a whole; the survey was modified from the IBSA Workforce Innovation Survey Tool and gives individuals the opportunity to self-assess innovation capability across four “pillars” critical to innovation success.

**Culture of Innovation** – “Building Blocks of Innovation” survey measures various factors that contribute to a culture of innovation and changes over time; analysis includes cross-site pre/post changes in various domains of innovation capacity-building.

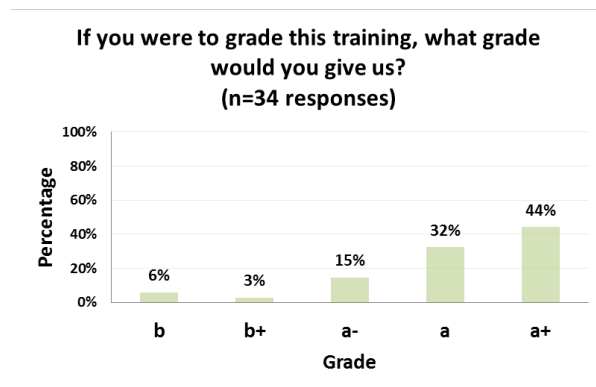
## Qualitative Measures

**Innovation Journey Measures** – Provides more in-depth information from teams and coaches about engaging in the innovation process, lessons learned, challenges along the way, and qualitative reports of organization-wide cultural changes resulting from engaging in the innovation process.

**Case stories** – Four profiles of selected teams, highlighting innovation capacity building and innovation implementation.

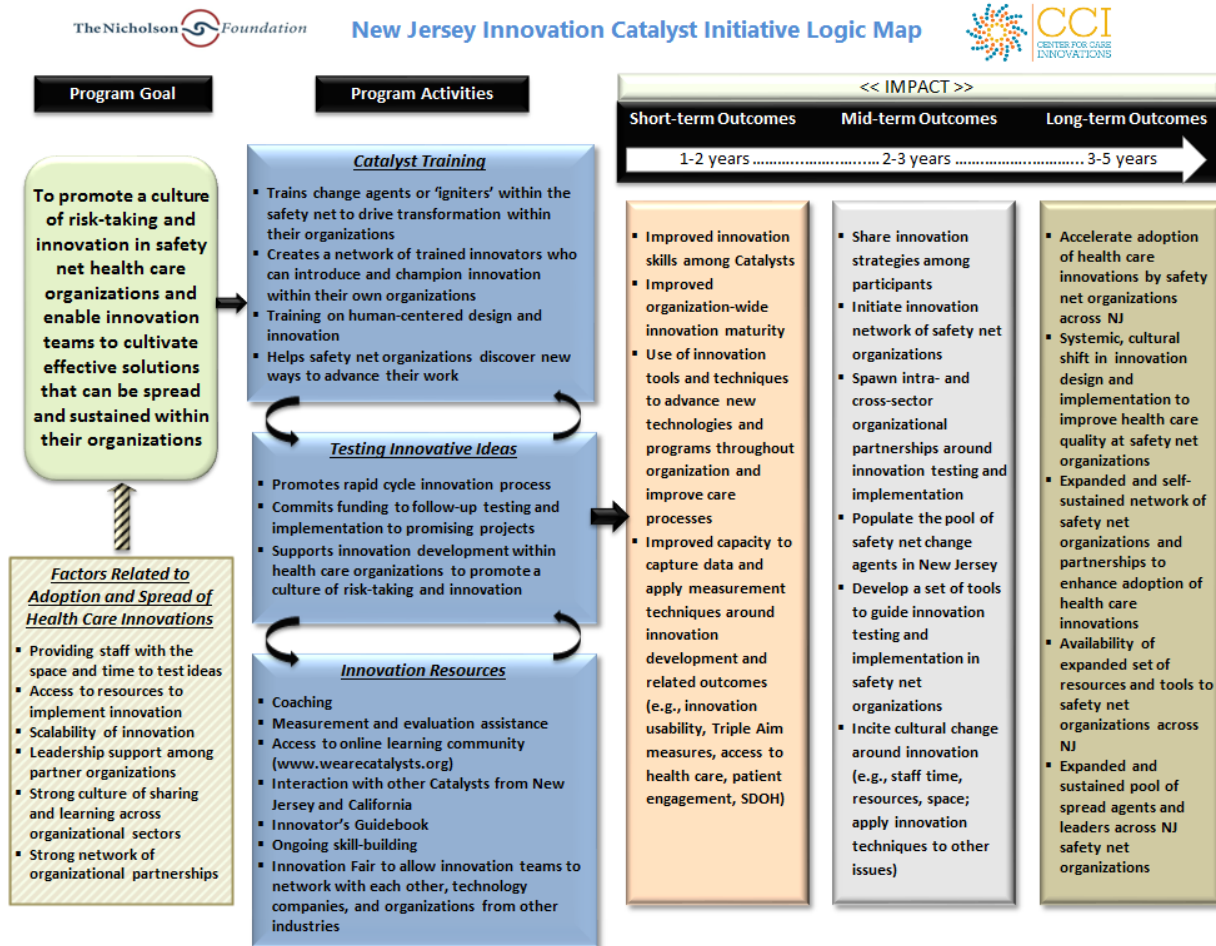
## Evaluation Frameworks

The framework below serves as a higher level blueprint for monitoring expected short-term to longer-term program impacts over a 5-year period. Over this timeframe, the corresponding program inputs would be expected to promote a culture of risk-taking and innovation in safety net health care organizations and enable innovation teams to cultivate effective solutions that can be spread and sustained within their organizations. As described above, primary program activities





include Catalyst training, promoting and testing innovative ideas, and providing innovation resources. In addition to this high-level framework to guide the program and long-term outcomes, staff at CCI also was interested in applying a short-term developmental evaluation framework to guide innovation development for each of the NJ innovation challenge grantees. Developmental evaluation is a relatively new area that emerged in response to support real-time learning in situations that include multiple stakeholders, high levels of innovation, fast-paced decision-making, and uncertainty.<sup>2</sup> This framework fully supports the activities of each of the NJ Catalyst teams as they develop and fully implement their solutions.



## Evaluation Findings

### NJ Catalyst Training Feedback

All Catalysts participated in a 3-day training program in fall 2015 focusing on key innovation and design thinking skills, including deep end-user empathy, exploring broadly, and rapid experimentation. At the completion of their 3-day training program, Catalysts were asked to complete a survey about the most

<sup>2</sup> Dozois S, Langlois M, Blanchet-Cohen N (2010). DE 201: A practitioner's guide to developmental evaluation. The J.W. McConnell Family Foundation and the International Institute for Child Rights and Development.

and least valuable aspects of the training program, the most useful tactics learned, and any improvements to the training they would recommend. The majority of participants (76%) gave the overall training an “A” or “A+”.

The most useful aspects of training reported by NJ Catalysts included problem-solving methods, tools and activities, working with their innovation team in structured activities, and the high energy and facilitation skills of the speakers. The knowledge/tactics that Catalysts reported they were most likely to use in their job included journey mapping<sup>3</sup>, using Post-its® to facilitate brainstorming, and using prototyping for testing and demonstration. There were three aspects of the training that Catalysts thought could be improved: logistics around scheduling of activities (long days with little break time), too much reflection, and the need for more examples of innovations that work and their practical application.

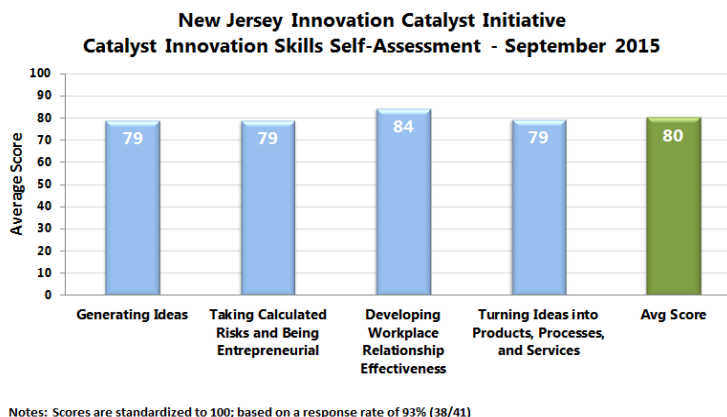
## Innovation Skills Assessment

Each Catalyst was given a baseline skills assessment on innovation in August/September 2015. The survey was modified from the *IBSA Workforce Innovation Survey Tool*<sup>4</sup> and gives individuals the opportunity to self-assess innovation capability across four “pillars” critical to innovation success:

- **Pillar One:** Generating ideas
- **Pillar Two:** Taking calculated risks and being entrepreneurial
- **Pillar Three:** Developing workplace relationship effectiveness
- **Pillar Four:** Implementing (Turning ideas into products)

This instrument was used to document changes in innovation skills in the 2013 and 2014 Catalyst cohorts in California and also can be used to identify areas of need for individual Catalysts through their interaction with coaches. NJ Catalysts as a group scored the highest on *developing workplace relationship effectiveness* (similar to 2013/2014 CA Catalysts) and scores across the three other domains were very similar (ranging from 79 to 80).

The chart below shows adjusted average scores at baseline across the four domains for the 2015 NJ Catalysts.



The following chart provides a summary feedback description for the innovation skill level based on the respondent’s scores from the baseline instrument. Unadjusted average score descriptions for the 2015 NJ Catalysts are shaded in red:

<sup>3</sup> To better understand a user’s journey, you can create a diagram representing the distinct activities within their experience.

<sup>4</sup> <http://innovationtool.ibsa.org.au/>

YOUR SELF-ASSESSMENT SCORES SUGGEST THAT...				
<b>Pillar 1: Generating Ideas</b> <b>63</b>	<b>16 - 32:</b> You like consistency and routine. You tend to work best within well-defined parameters and boundaries. You prefer to follow the lead of others. You look for patterns and trends.	<b>33 - 48:</b> You approach challenges in a structured, logical and mannerly fashion. You tend to focus on issues that are clearly defined and well understood. You consider both new and tried solutions.	<b>49 - 64:</b> You share a balance between careful observation and getting the ball rolling on important tasks. You enjoy developing issues—often before they are apparent to others. You like to seek out new solutions.	<b>65 - 80:</b> You like to challenge things. You tend to experiment with new ideas and applications. You like to solve problems and make decisions by finding new solutions. You nurture and recognise creativity.
<b>Pillar 2: Risk Taking Skills</b> <b>47</b>	<b>12 - 24:</b> You tend to avoid risk. You prefer to plan things out systematically. You tend to logically analyse ideas. Typically, you think through plans step-by-step and study at length before making decisions.	<b>25 - 36:</b> You are attentive to detail and analysis. You prefer to understand situations and assess risks thoroughly before determining how best to overcome a situation or challenge. Once prepared, you act.	<b>37 - 48:</b> You can respond to changing circumstances. You tend to be open to discussing and negotiating new solutions. You are comfortable taking on actions without knowing the outcomes.	<b>49 - 60:</b> You are confident. You willingly take on new challenges and risks. You like to experiment with new ideas. You encourage others to put forward new ideas. You learn from your experiences—good or bad.
<b>Pillar 3: Workplace Relationship Effectiveness</b> <b>63</b>	<b>15 - 30:</b> You prefer to work alone. You tend to make decisions without consulting others. You prefer to deal with issues and solve problems by reading, analysing models or attending lectures.	<b>31 - 45:</b> You work comfortably with others or alone and are willing to assume full responsibility for your actions. You tend to wait for others to collaborate and build relationships with you. You like to be convinced of other opinions before any action.	<b>46 - 60:</b> You prefer to work with others. You recognise and respect individual differences and perspectives. You share information and expertise willingly. You make an effort to build and maintain good working relationships.	<b>61 - 75:</b> You seek out and engage others in teams. You respect other peoples' ideas and insights. You work best when sharing information with others. You encourage others to share ideas and to collaborate.
<b>Pillar 4: Turning Ideas into Products, Processes and Services</b> <b>68</b>	<b>17 - 34:</b> You prefer things the way they are. You like to gather information and analyse situations. You require good reasons to act on an innovative idea, but once convinced you want to get on with things.	<b>35 - 51:</b> You tend to focus on procedures and processes. You offer a range of possibilities and solutions for an issue or task. You seek consensus from others on difficult problems and let them take the lead.	<b>52 - 68:</b> You tend to see things through to completion. You enjoy working on new projects from start to finish. You are pragmatic and are accountable for your actions and the actions of others.	<b>69 - 85:</b> You embrace change. You consistently see new projects through to conclusion. You act on new ideas effectively. You are persistent, resilient and flexible. You value and support initiative.
<b>SELF-ASSESSMENT TOTAL SCORE</b> <b>241</b>	<b>60 - 120:</b> You prefer to focus your skills and attention on fact gathering and information analysis. You shy away from doing things differently or doing new things. You seek stability and clarity.	<b>121 - 180:</b> You are insightful. You are accountable for your actions. You are honest and credible. You work well independently and you are adaptable and flexible when needed to be.	<b>181 - 240:</b> You tend to seek out the meanings, significance and implications of your actions and the actions of others. You leverage diversity of thought. You enjoy taking new ideas and transferring them into new solutions.	<b>241 - 300:</b> You exhibit strong innovation skills, attitudes and behaviours. You tend to seek resolution and action. You like to think about future directions and next steps. You constantly challenge yourself.

In addition to individual scores, short summaries of strengths and development needs were self-reported by each NJ Catalyst at baseline. A list of the top five strengths and development needs follows, as self-identified by Catalysts.

### Catalyst Top 5 Strengths

- Relationship building/collaboration
- Positive personal attributes (e.g., honest, hard-working, optimistic)
- Creativity/generating new ideas
- Open to new ideas
- Seeing a task through/solution-oriented

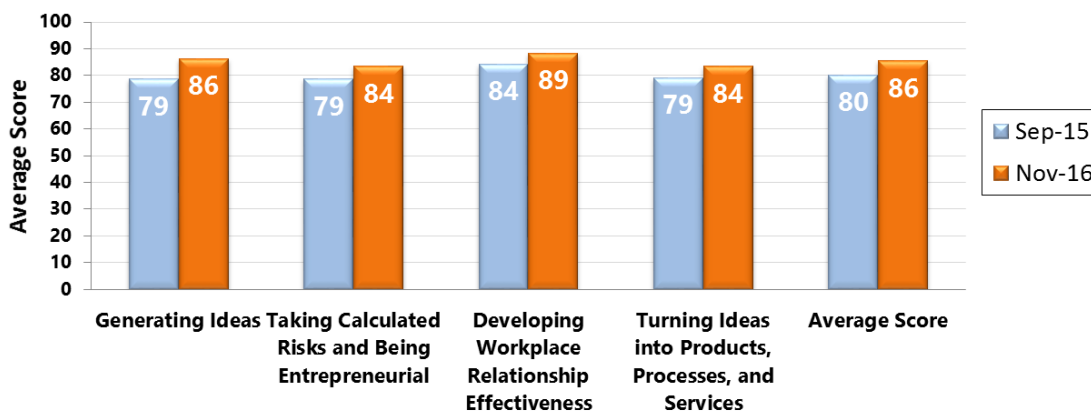
### Catalyst Top 5 Development Needs

- Confidence/taking risks/fear of failure
- Relationship building/collaboration
- Idea implementation/delegation
- Creativity
- Providing leadership and motivation (tied)
- Technical skills (tied)

We also assessed changes in innovation skills between the baseline and follow-up survey administered about one year later. Across the four pillars critical to innovation skills, average scores increased from baseline to follow-up. Although these changes are not statistically significant, it is likely that scores will continue to improve over time as Catalysts become more confident with using their innovation skills and subsequently acquire additional skills. These results are consistent with improvements documented among California Catalysts.<sup>5</sup>

<sup>5</sup> [http://www.careinnovations.org/uploads/Catalyst\\_2013\\_Final\\_Report.pdf](http://www.careinnovations.org/uploads/Catalyst_2013_Final_Report.pdf)

## Improvements in Catalyst Innovation Skills Self-Assessment - September 2015 to November 2016

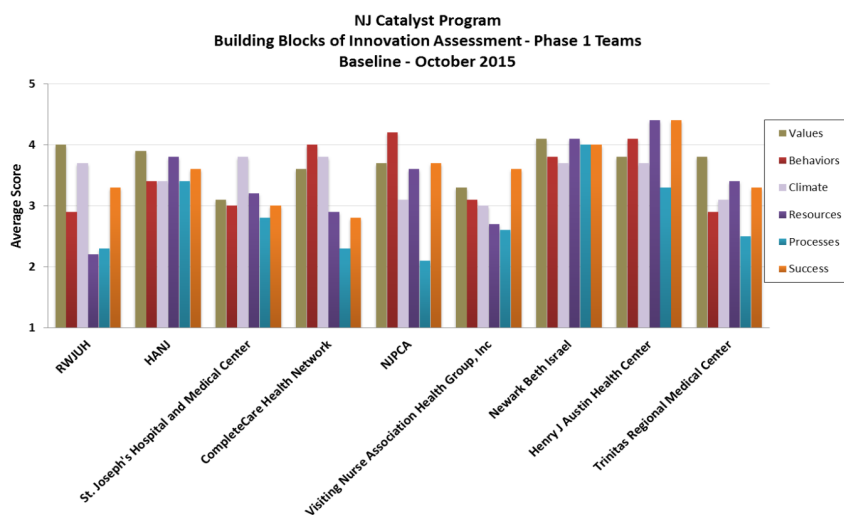


Note: Scores are standardized to 100

## Culture of Innovation

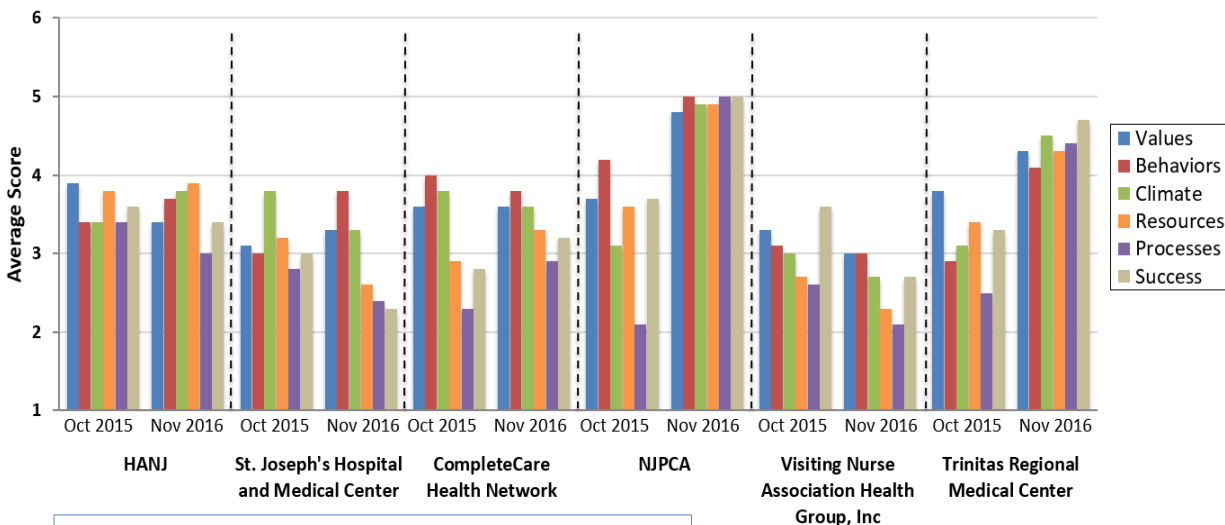
An important aspect of the work of the innovation teams is the extent to which they are influencing innovation development throughout their institutions beyond their training and the innovation challenge grant. Each innovation team completed a baseline *Building Blocks of Innovation* assessment<sup>6</sup> in October 2015 and a follow-up survey in November 2016. The Building Blocks assessment is a practical 360-degree assessment tool that can help organizations pinpoint innovation strengths and weaknesses and better understand how conducive an organization’s culture is to innovation.

The baseline survey indicated that all sites rated themselves the lowest on “processes”, suggesting that all sites needed to put a system in place to review, prioritize, and prototype projects. In addition, all teams rated themselves the highest on “values”, which reflects an investment in promoting creativity and encourages continuous learning among staff. These results are consistent with the baseline findings from CCI’s California-based Innovation Centers.<sup>5</sup>



<sup>6</sup> Rao J and Weintraub J. How innovative is your company's culture. MIT Sloan Management Review, Spring 2013.

**NJ Catalyst Program  
Building Blocks of Innovation Assessment - Phase 2 Teams  
October 2015 - November 2016**



Note: Follow-up data was not received from Henry J Austin Health Center

The one-year follow-up survey indicated that the majority of teams had slightly improved their ratings across these factors with large variations in ratings between teams. Two teams did score themselves higher a year later (NJPCA and Trinitas), while one team scored themselves lower after one year (VNA). The largest improvements were seen for behaviors and processes with statistically significant improvements noted for behaviors. The observed modest gains in average score across the six innovation elements are not surprising. These results are consistent with the CCI Innovation Center hubs even after a two-year period. Notable reasons for lack of stronger improvements in these factors include the following:

Building Block	Average Score at Baseline	Average Score at Follow-up
Values	3.6	3.7
Behaviors	3.4	3.9*
Climate	3.4	3.8
Resources	3.3	3.6
Processes	2.6	3.3
Success	3.3	3.6

\* paired t-test: t(5)=2.1, p<.05 (one-tailed)

- ◆ Organizational culture (system-level) is extremely difficult to change within a short amount of time (1 year); however, active “pockets of innovation” have been created.
- ◆ It is likely that NJ teams “didn’t know what they didn’t know” a year ago in terms of the steps involved and process for testing, implementing, and sustaining an innovation. Virtually all CCI Innovation Center hubs reported this to be the case. The teams did not have experience doing innovation in this way and were optimistic and idealistic about its prospects, but now that they have gone through several cycles of setbacks and lessons learned, the innovation teams have a more realistic view of their capabilities.

In addition to quantifying changes in the culture of innovation, we asked teams to provide examples of how they are influencing cultural change at their respective organizations. While teams’ perceptions of their own changes around culture of innovation have slightly improved over time, it is important to

point out that teams have in fact made important shorter-term strides in changing the culture of innovation at their respective institutions. Some notable examples of changes in the culture of innovation include the following:

- ◆ *“I believe my Innovation experience generated new energy in me to pursue innovation. It has helped me to be more patient and not look for the quick fix but rather explore all possibilities. Our team still faces some challenges ahead in getting buy-in to pursue our project, but we will use the skills we have gained in making our sell. I found it helpful to hear what other teams were doing and learn from them. In fact, we were able to connect our team with other folks who have been very helpful in sharing their project with our team in the hopes of doing something similar here. All in all very rewarding and an opportunity to meet some very nice, creative people. Thank you.”*
- ◆ *“We shared the results and tools internally; we found storyboarding very helpful.”*
- ◆ *“Aside from the innovation work through the Catalyst Initiative, we have taken an innovation based approach to hospital advocacy. The critical question of “how might we” goes a long way, especially when the ultimate question is “how might we make a lasting impression/point?” This has prompted our team to engage in candid discussions and try new approaches in our work and messaging. It is an important goal of ours to engage in non-traditional approaches in advocacy, and we look forward in continuing to take risks and distinguishing our work.”*

## NJ Catalyst Team Highlights – Phase 2 Teams

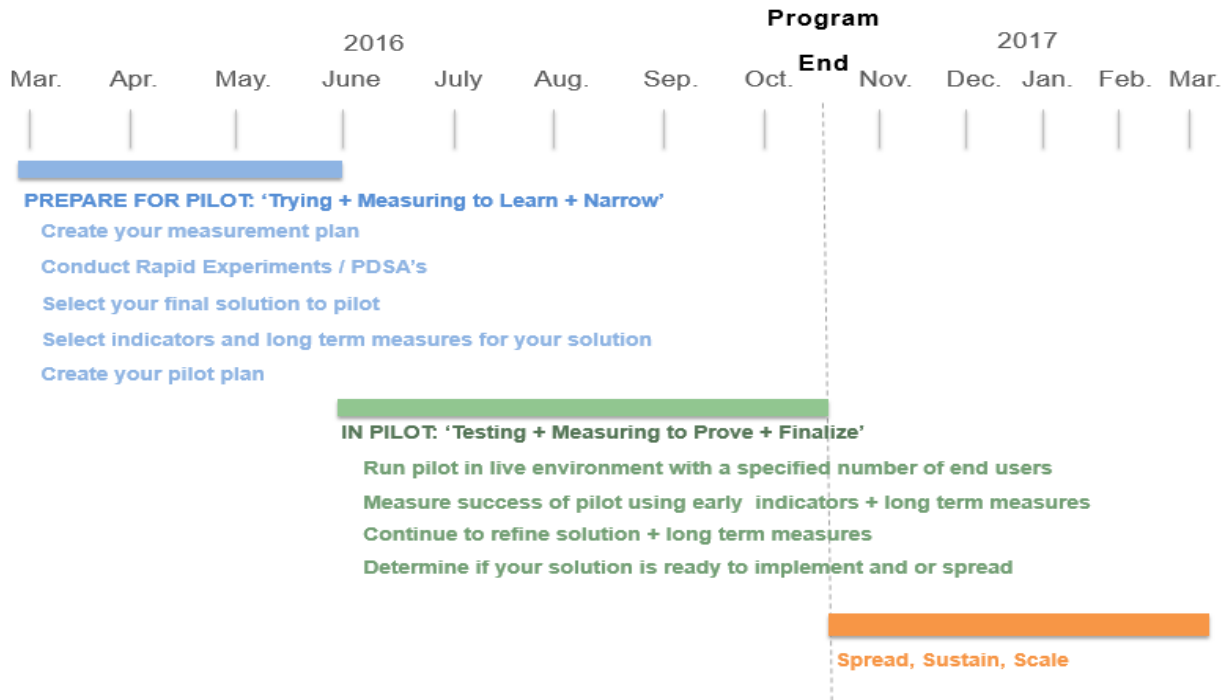
All Phase 2 innovation teams were successful in launching their innovations over the past year with the majority focusing on patient innovation and one team focusing on workforce innovation. Of the seven teams, four are currently implementing their solutions, two are preparing to spread to other patient populations, and one team is piloting but is well on its way to fully implementing their solution. All teams are committed to fully implementing their solutions in the coming months.

### Stage of Implementation and Future Plans for Phase 2 Teams

<b>Health Care Organization</b>	<b>Project Focus</b>	<b>Current Stage of Implementation</b>	<b>Plan for Project Implementation</b>
<b>CompleteCare Health Network</b>	Patient Innovation	Spread	Fully Implement Solution
<b>Henry J. Austin Health Care Center</b>	Patient Innovation	Implementation	Implement in Phases
<b>Hospital Alliance of NJ</b>	Patient Innovation	Pilot	Implement in Phases
<b>NJ Primary Care Association</b>	Workforce Innovation	Spread	More Research Needed / Fully Implement Solution
<b>St. Joseph’s Regional Medical Center</b>	Patient Innovation	Implementation	Fully Implement Solution
<b>Trinitas Regional Medical Center</b>	Patient Innovation	Implementation	Fully Implement Solution
<b>Visiting Nurse Association Health Group</b>	Patient Innovation	Implementation	Fully Implement Solution

In addition to regular coaching for designing and launching their solutions, teams received coaching around developing and tracking early indicators and long-term qualitative and quantitative measures to document the impact of their innovations. Because all teams were conducting rapid experiments with the launch of Phase 2 and were still piloting and refining their solutions by fall 2016, virtually all coaching and measurement plans during the Phase 2 timeline focused on early indicators. However, all teams were coached on defining longer-term measures once their innovations had been fully implemented. We provide below highlights for each NJ Catalyst team.

## Phase 2 Timeline



**CompleteCare Health Network** designed a patient-centered and streamlined pathway for staff and patients to follow to ensure that patients receive important testing and are given their results in a timely and sensitive manner all with the ultimate goal of providing high quality, preventive care that results in optimal outcomes. The innovation team coined this process *Pathways to Wellness* to underscore the creation of a clear path for patients and staff to navigate health directives and simplify the care pathway in what is typically a complex and overwhelming healthcare environment for both patients and staff.

The team's first pathway was to better facilitate follow-up and improve communication with patients who received mammograms. Given the changing guidelines in referring women for mammography, the importance of timely follow up, and the fear that can often be associated with receipt of a letter indicating there is "something abnormal", the innovation team aimed to personalize the process, involve patient navigators, and reduce the need for women to report to the clinic to hear results that do not require immediate action.

The innovation team developed a number of approaches to make their care pathway more efficient and also implemented a process to track their data more effectively. For example, the team worked with their navigator to reach patients who could not be contacted during the day and created a more inclusive feedback loop so more members of the care team knew what was going on with their patients.

Other changes included revising and streamlining the letters that are sent reminding people of their appointments for screening, focusing on a target age group of 50-74; appointing a nurse practitioner to be sure that individuals with borderline or suspicious results were being followed in a timely and appropriate manner; streamlining the process for writing prescriptions for follow-up tests, partnering with their local hospital to streamline referrals to an accredited breast cancer specialist and reduce the need for patients to return for tests that can be done on the same day (e.g., additional imaging views, ultrasound); training care managers to be alert to the need for cancer prevention screening in the patients they are following for other conditions; and exploring the use of their EMR integrated text and email technology to inform patients of mammograms (and other preventive screenings).

Not only was the innovation team successful in streamlining and refining its care pathway, it also was able to document positive changes that resulted from the new pathway. Over the course of the project, the percentage of mammograms completed increased from about 25% of those ordered to about 34%. The team attributed this increase to the personalized follow-up. The innovation team also cut the time to diagnostic resolution in half (measured from the time the mammogram is done to the time that any additional follow-up is completed), down from 30 to 15 days. Over the timeframe, seven patients with cancer were found among the women screened; according to CompleteCare staff, this is higher than the detection rate of the general population.

**Henry J. Austin Health Care Center** is a federally qualified health center serving the needs of underinsured, uninsured and underserved segments of the population in Mercer County and specifically in the capital city of Trenton. The innovation team at Henry J. Austin was initially interested in a technology solution to facilitate online appointment scheduling through their electronic health record portal. The Center's patient population has grown, but with that growth the care team faced challenges with appointment scheduling and access to care. Scheduling appointments over the phone was time consuming for staff and inconvenient for patients, who experienced difficulty in scheduling same day or next day appointments. Although patients had access to the Center's patient portal through which they could easily schedule appointments, patients were reluctant to use it.

The care team realized it needed to come up with a different solution to tackle patient access to care. On the one hand, if the provider has an optimal panel size for the number of appointments they have in a day and the clinic could improve its no-show rate, the innovation team felt that if a patient calls they should ideally be able to see his/her provider that day or even in a few days. On the other hand, realistically *many* patients who call want to see a provider that day and staff acknowledge they often cannot get patients appointments right away. The care team began investigating the types of urgent calls that came into the call center to identify the correct level of service needed and whether some patients' needs could be met without an appointment. Their investigation revealed that of those phone calls that come into their call center every day, about a third of them did not require a scheduled visit—usually because the patient required a referral or prescription refill. This led the team to make changes in the work flow for prescription refills, referrals, and same-day scheduling, since historically the work flow typically led to a scheduled visit regardless of the reason for the call.



The solution prototyped and then piloted by the innovation team included the development of a few different approaches. First, for their prescription refills, they hoped to better utilize their clinical pharmacist rather than their providers to reduce the time and involvement of their providers. Automatic refill protocols could be used as long as a patient was stable on a medication and had seen the provider within a certain period of time. Second, they also modified their work flow around their referral process since a significant amount of time was taken when an urgent referral was needed. The team was able to differentiate between urgent and non-urgent referrals, again with the purpose of reducing provider involvement where possible. Third, the innovation team developed a set of tools for their call center's triage nurse and also for the team nurses to help them identify those requests where a provider was needed versus requests that could be handled by non-providers. The goal was to offload requests that could be handled by the team nurses and minimize provider involvement.

“The initial core innovation was really trying to figure out who can have their needs met without scheduling a visit. We developed a couple of different tools...we did some work flow changes so now refills are managed by our clinical pharmacist rather than by our providers and we have nice standard protocols, which means there's really a lot less provider involvement and many more times when a patient can just routinely get their refill without taking up provider time. We also looked at our referral process and found that a significant amount of time was being wasted where someone needed an urgent referral.”

–Rachael Evans, MD  
Associate Chief Medical Officer  
Henry J. Austin Health Center

The innovation team tested its solution with two adult medicine teams at one of their locations and the results were very encouraging. Overall, the call center felt empowered since they found it much easier to meet patients' needs now that they were armed with new tools to triage patients. Patients were happier to be able to see their providers when they needed to—and, according to the care team, were equally as happy when they did not have to see the provider. In addition, providers were happier since it freed up their schedules to perform other tasks. However, an unexpected result was that the team nurses felt that the new work flow “took them out of their comfort zone.” The team acknowledged that more work needs to be done here before they roll out the model to other departments.

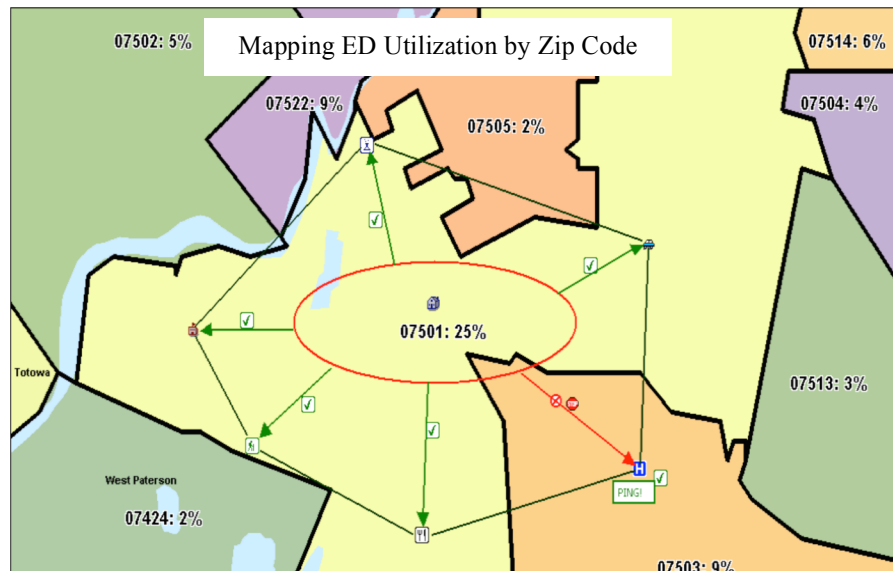
The **Hospital Alliance of New Jersey** (HANJ) represents safety net hospitals serving the largest populations of Medicaid and uninsured individuals in New Jersey. HANJ members represent 25% of the state's acute care hospitals and provide approximately 50% of care to underserved populations. In collaboration with St. Joseph's Regional Medical Center, New Jersey' largest provider of charity care, the innovation team was interested in developing a solution to reduce patients' utilization of the emergency department (ED) for services that could be provided in a primary care setting.

To better formulate a solution, the innovation team began with a review of its patient data to answer the question, “How do we reduce unnecessary ED visits while connecting patients to the resources they need to be healthy?” The team mapped the evidence using a map of Paterson, NJ (the team's initial focus for high ED users) to document the distribution of resources for the underserved, “hot-spotted” ED visits across the city, developed “how might we” and “ways of” statements, and, finally, clustered

and prioritized potential solutions. The innovation team also conducted two rounds of interviews with residents to better understand their needs.

The innovation team arrived at a solution they call “501 Ping”, which is a system to identify low severity ED users from the 07501 zip code and then connect them with a care navigator—a community health worker who identifies why these patients are showing up in the ED and attempts to connect them to more appropriate services. The innovation team’s solution includes a two-step process. First, 501 Ping sends a literal “ping” to care navigators, triggered from electronic medical records, when a user with a low acuity condition checks in at the ED. In order to set up an automatic ping of 07501 (or other zip codes as the project expands over time), the patient registry database requires code to be written so that all patients from a particular area with a low acuity diagnosis are identified and sent to a care navigator. Second, the care navigator offers patients services to better meet the patients’ needs in an attempt to reduce ED utilization by these patients in the future. In the process, the care navigator collects data on the needs of the population in targeted areas so that the innovation team can better identify health care and/or social services needed for their community.

The project is still being piloted, allowing the care team to carefully and methodically collect more data and learn more about patient needs, particularly around longer-term measures; these measures include the percentage of patients in the ED that identify as needing referrals to other services, the types of services needed (primary care physicians, housing, public assistance, food stores), barriers to utilizing referred services, identification of additional services needed, and changes in low acuity ED visits. Ultimately, the innovation team hopes to lay the groundwork for a more coordinated system of care that improves patient experience. In fact, the team has changed the name of the innovation from “501 Ping” to “50x Ping”, since it has aspirations to scale its model beyond the 07501 zip code.



The **New Jersey Primary Care Association** (NJPCA) represents 23 community health centers and 129 satellite community-based ambulatory healthcare facilities throughout the state of New Jersey, including school-based and mobile sites in each of the 21 counties of New Jersey. NJPCA's primary goal is to provide for the expansion and provision of quality, cost-effective and efficient primary healthcare through community health centers while seeking new and expanded revenue sources for these services. NJPCA's primary objective leading into the NJ Catalyst project was to increase health center staff participation at trainings and technical assistance provided by NJPCA with the intent of improving the performance of member health centers. With this focus, the NJPCA team was the only innovation team that specifically focused on workforce innovation.

To explore the reasons behind non-participation at trainings, the innovation team conducted telephone interviews with health center staff at various health centers. Before selecting the interview sites, the innovation team used affinity clustering to gain a better understanding of which health centers should be contacted for the interviews. Drawing upon this exercise, NJPCA team decided to focus on both frequent participants and non-participants at NJPCA trainings, trying to identify factors that both facilitate and dissuade participation. The interviews allowed the innovation team to gain important insights into participation in their training programs, and the team received feedback on how to increase participation. The interviews also revealed that while members are open to attending various trainings throughout the year, there are a few that do not believe they need all the trainings offered by NJPCA. Unless a training is directly related to a federal program requirement, many health centers choose not to participate in the trainings. So, the challenge that NJPCA faced is prompting these centers to participate even when the trainings are not mandated. Another challenge faced by the team is that health centers sometimes send the same staff person to all the training and technical assistance meetings. This reduces the effectiveness of the trainings by reducing information diffusion and channeling of tools and information resources to the appropriate staff person at the health centers.

The innovation team set out to create a solution to make its training programs and meetings more dynamic, interesting, and valuable to its participants. Early testing and prototyping included the development of a new and improved approach to training. The innovation team experimented with scent, sound, compelling imagery, videos, perception pins, edutainment and reflective data opportunities. The team incorporated these multipronged sensory presentations into its trainings, gained feedback from its members, and implemented these strategies at their annual conference. The team now uses strict criteria for selecting speakers, including those with solid expertise in a topic area and who can engage the audience. The speaker also must have visited or worked with a FQHC. NJPCA developed a tracking system for all 2016 trainings and utilizes its registration roster and training sign-in sheets to track each health center's participation at any given training event during the year. NJPCA also has instituted the use of a mid-term and annual evaluation summary from participants to track training effectiveness.

Since implementing their solution, the innovation team has documented increased participation in its meetings and feedback from these meetings reflects how valuable their Centers find them to be. For example, from 2015 to 2016, NJPCA's Annual Conference participation increased by 32.7%. Participation at individual training sessions also increased between 2015 and 2016. Additionally, a mid-term report card for 15 NJPCA trainings conducted between January and July 2016 indicated that over 90% of these trainings were rated at 93% or higher for increasing understanding of the training topic, as well as being useful for the participants' job. For 87% of these trainings, participants indicated that they would highly recommend these trainings to their co-workers.

Moving forward, the innovation team plans to continue using qualitative and quantitative feedback from trainings to plan and respond to its health centers' needs. The NJPCA innovation team also plans to match participation of the health centers with their overall performance to see if there is a relationship between participation at NJPCA trainings and overall health center performance. This information will be used to emphasize the need for appropriate staff attendance at various trainings in one-on-one conversations with the health center senior management staff.

**St. Joseph's Regional Medical Center** is the largest provider of charity care in New Jersey. In 2013, the Medical Center provided over \$83M of charity care to NJ's underserved population. The innovation

team at St. Joe's was interested in developing a new model for patient/caregiver education for their congestive heart failure (CHF) patient population that was more interactive (instead of passive) with the potential of spreading the model to other patient populations.

Based on the results of its rapid experiments, the innovation team instead focused on a low technology



solution to meet their patients' needs. The team developed a heart failure toolkit, which consists of a simple wall calendar and magnet. The wall calendar utilizes green/yellow/red zones of heart failure in an easy-to-recognize format, with green depicting that the patient feels well, yellow depicting the patient does not feel well, and red depicting emergency-related symptoms. The magnet lists the symptoms of CHF and what to do about them. For those patients with a CHF diagnosis, the magnet serves as a reminder of symptoms that may develop. The innovation team arrived at this solution because they wanted a tool that people would use every day and wanted patients to integrate their management of CHF into their daily lives.

The innovation team conducted a pilot with 29 CHF patients to test the value of the calendar and magnet. Prior to beginning the pilot, nurses educated patients on use of the zones to self-report their current health and the presence of any CHF-related symptoms. By the time the patient is ready to be discharged, they are given the calendar and the magnet. Once they are discharged, the nurse navigator makes a weekly phone call post-discharge over a four-week period to find out how the patient is feeling, whether they got their prescription(s) filled and are taking their medication, whether they have any questions around illness management and have made a follow-up appointment, and what color zone the patient was in that day.

Among the sample of CHF patients, the team reported a 78% user rate. Patients reporting their status as either "yellow" or "red" were taught what to do (e.g., follow low-sodium diet or fluid-restriction diet more strictly, see their physician at an earlier time, or come to the emergency room). The low tech approach was very well received by its patients, nursing and ancillary staff. The team reported that patients who came to the heart failure center were reporting on their status according to their color zone, so the calendar and magnet had lasting impacts on the center's heart failure patients. Even during the telephone follow-up calls, patients were able to identify their symptoms, which was a first step to better self-manage their illness. In the future, the innovation team hopes to expand the model throughout the hospital to other chronic illnesses and plans to offer their toolkit to use as a template for other APN-driven programs, including COPD and pediatric asthma.

**Trinitas Regional Medical Center** is a not-for-profit, safety net hospital in Elizabeth, New Jersey. Each year, Trinitas treats more than 17,000 inpatients, has over 450,000 outpatient visits, and is consistently among the five largest charity care providers in the state. Within the city of Elizabeth, disparities due to social determinants of health have resulted in a local population that is not only disproportionately affected by chronic illnesses such as diabetes, asthma, and heart disease, but also under-educated on how to properly self-manage these chronic conditions. Based on the results of a comprehensive community health needs assessment to evaluate the health needs of individuals living in the Medical Center's service area, Trinitas and its partners determined that lack of screening, poor awareness of risk

factors and improper management of chronic diseases were the most pressing health issues facing the city. In addition, many of the hospital's underserved patients choose the ED over primary care providers because they find it to be more convenient, cheaper, and easier than making an appointment when they need to see a provider. This has led to overcrowding in the hospital's ED, which was designed to handle 45,000 patient visits annually, but now sees over 73,000 patients every year.

Based on health care utilization data from Elizabeth's underserved population, the innovation team at Trinitas was interested in exploring the use of EMTs or Paramedics as Community Health Integrated Practitioners (CHIPs) who could serve as the point of contact with these patients. The CHIPs could then guide these patients into a proper care pathway to achieving better health outcomes. Successful models incorporating community paramedicine have been launched elsewhere in the country, including programs in California, Colorado, Minnesota, and Maine.

With this promising approach, the innovation team at Trinitas decided to focus their project on the community that resides in buildings managed by the Housing Authority of the City of Elizabeth. The housing project of focus has approximately 1,000 residents. The innovation team determined that the housing project population had 895 emergency department visits and 90 inpatient admissions in 2013, with 10% of the population accounting for 30% of ED visits and 30% of residents accounting for 50% of inpatient admissions. With a focus on high health care utilizers, the innovation team is using a "high-touch" approach to better educate this community, help them be more proactive around wellness, disease prevention, and access to care, and connect these patients with primary care physicians so they can better self-manage their chronic illnesses.

Although early in its implementation, the innovation team is confident that the program is gaining traction in the community. The innovation team piggybacked their pilot on a community initiative that uses a mobile food market to supplement food for the last three days of the month, when subsidies to purchase food are more likely to run out. It was an opportunity for the team to meet with 178 residents on a single day, where they were able to engage the community by conducting screenings and talk to them about their needs. Through this process, they were able to engage an initial 23 patients. They are also exploring opportunities with the Family Success Center that sits in the middle of the housing project. The Family Success Center and the housing authority actually provided space for the community paramedics to meet with the residents. Residents can meet with the paramedics directly at their home or they can start a relationship with the paramedic team by going to this space that's well-established, safe, and well-known to this community.

Looking ahead, the innovation team is working with its IT department to mine through ED patient data on a quarterly basis to identify patients residing within Elizabeth Housing Authority buildings and build comprehensive reports containing the patients' ED utilization. The CHIPs will create an outreach plan that targets Housing Authority residents in three month intervals. Over the long-term, the innovation team hopes to document a financial return on investment for this promising model. And, finally, it should be noted that the project was recently featured in NJBiz this past October 2016, highlighting the potential for this approach to serve as a viable bridge between the community and needed health care resources and social services.<sup>7</sup>

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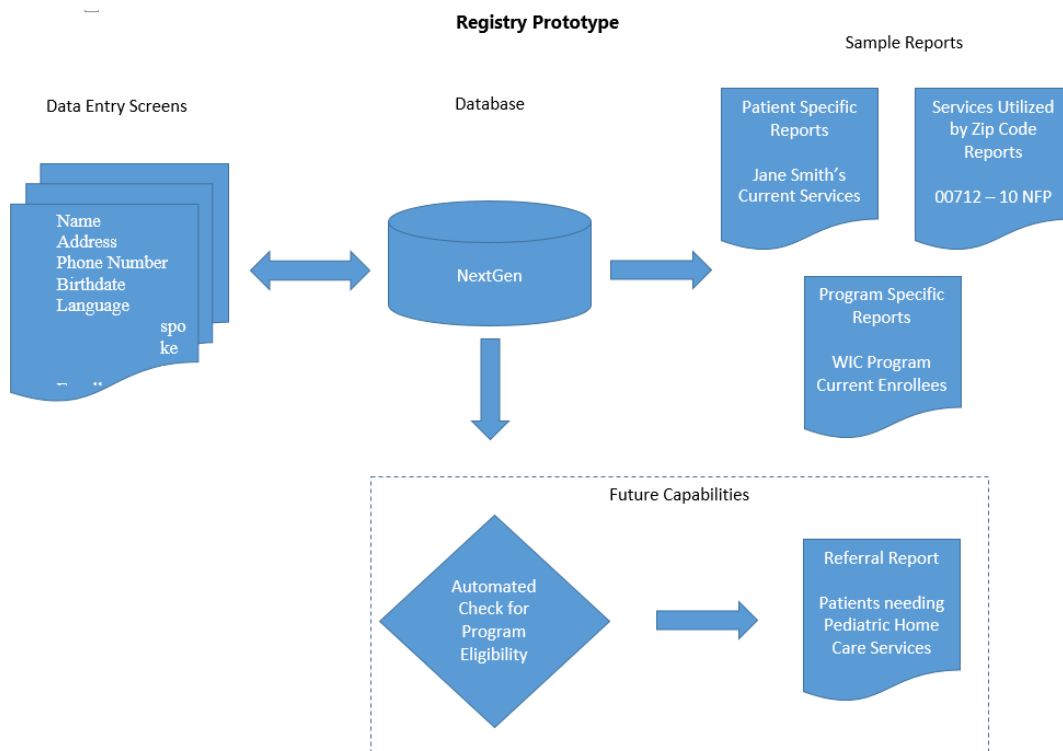
<sup>7</sup> Anjalee Khemlani. (2016). Help is on the way: Trinitas is training paramedics to help reduce unnecessary hospital visits. NJBIZ. Retrieved 14 December 2016.

The **Visiting Nurse Association Health Group** (VNAHG) is a non-profit organization dedicated to helping individuals and families achieve their best level of wellbeing by providing compassionate, coordinated, and innovative care in their homes and communities. As a safety-net provider, the VNAHG provides home health care, hospice services, and community-based programs for vulnerable populations and those in need. The VNAHG provides over 1,000,000 in-home and community-based units of service to over 120,000 individuals throughout the state annually, with services provided by a diverse workforce of 1,500 staff that are recruited from the communities in which they work.

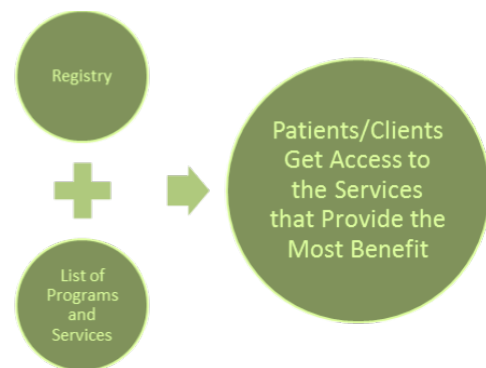
The innovation team at VNAHG was interested in developing a solution to its patients' lack of access to the range of services provided by VNAHG, in particular, with services offered through the Children and Family Health Institute (CHFI). There was no way for staff to track services patients were receiving from multiple programs in the CHFI in order to identify gaps in service, support care coordination and improve patient experience. In fact, neither patients nor staff understood the array of services that were available and how to access those additional services. The innovation team acknowledged that while there are numerous community resources to address many of these issues, identifying and accessing resources can be difficult for both the organization and the patient/client; it is confusing for patients/clients to identify which community resource will address their needs and how to access it and navigating through a maze of resources, services, and programs can be frustrating and time consuming, especially when the needs are critical and timely.

In their early work to formulate a solution, the innovation team uncovered two critical issues: patients have low expectations of what kind of care they can access (an "I'll take what I can get" attitude) and they do not know what services are available and thus cannot connect their needs to potential care services. Based on their interviews with patients, the team discovered that patients who come to the CHFI do not have a full view of all the services that are offered. Furthermore, the staff delivering services is not looking beyond their own area to determine if the patient/client could benefit from other services. As an example, the team could have a young mom in the Nurse Family Partnership that also could benefit from the WIC program. The innovation team believed that the cause of this problem is the lack of a centralized tracking system for their patients/clients to determine what services they are receiving and what services might benefit them. While VNAHG does maintain a comprehensive list of services, it is not readily available to patients/clients or staff. In addition, it is currently not possible to cross check if the client is receiving additional services nor is it possible to remind providers about a potential gap in services. The innovation team believed that once it deployed a centralized tracking system, its care providers would have a better sense of what services a patient/client is receiving and when they should make referrals to other programs. The patient/client could benefit from access to the services they need or for which they are eligible and the process of making referrals should also be faster. Ultimately, this should increase patient satisfaction as clients see that VNAHG is working to connect them with available services, while also closing health care and social service gaps between what patients need and what services are available.

In parallel with its work to create a solution that includes the development of a master registry of patients and services, the innovation team also developed summary program descriptions and scripts for staff to more appropriately direct callers to the right program with an identified contact number, trained staff in use of these summaries and scripts, created multiple patient flow charts to visually show how programs interact with one another based on different points of entry, created a master registry input form prototype in collaboration with NextGen advisors and an internal “design team” of system users to gather feedback and improve the design before launch, and created universal patient experience questions to measure outcomes consistently across VNAHG’s diverse programs. The innovation team also faced a number of challenges along the way, including the assumption that staff had a higher level of understanding of the CHFI programs, the need for more extensive work in integrating the master registry with NextGen software, and difficulty with translating what the team needed on the clinical side into a technical solution, due primarily to limited resources and competing projects.



As it overcomes these challenges, the innovation team is moving ahead with implementing its solution. Their solution includes a master registry deployed with a complete set of patient history data plus ongoing internal support to populate the registry as new patients seek VNAHG’s services and analytic reports to help the organization identify gaps in services for particular patients currently enrolled in at least one of their programs (but who may qualify for additional programs). Looking into the future, the innovation team would like to develop a “smart system” that will automatically identify when patients are eligible for other programs that are provided by VNAHG.



## *NJ Catalyst Team Highlights – Phase 1 Only Teams*

In addition to highlighting the accomplishments of the Phase 2 teams above, two other innovation teams completed only the first phase of the NJ Catalyst Initiative (Newark Beth Israel Medical Center and Robert Wood Johnson University Hospital) and we briefly summarize these Catalyst teams' Phase 1 accomplishments and the ideas they were pursuing.

**Newark Beth Israel Medical Center** is a regional care, teaching hospital that provides comprehensive health care services to its local communities and is a major referral and treatment center for patients throughout the northern New Jersey metropolitan area. The Medical Center has over 300,000 outpatient visits and 25,000 admissions annually.

The Beth Greenhouse, located at the Medical Center and Children's Hospital of New Jersey, provides access to fresh, nutritious, affordable produce to residents of the South Ward and surrounding communities. The South Ward of Newark is considered a food desert where 100% of residents have inadequate access to supermarkets that sell fresh produce.

The Catalyst team at the Medical Center recognized the importance of leveraging the Greenhouse as a way to address social determinants of health, such as food insecurity including lack of access to healthy food and nutrition education. Because food insecurity has not traditionally been a medical issue, the Catalyst team also recognized that hospital systems such as Barnabas Health (i.e., New Jersey's largest integrated health care delivery system) would benefit from the unconventional methodology that the Catalyst Initiative teaches and encourages.

Potential solutions that the innovation team explored included: development of a new Healthy Foods Navigation Program through which community health workers would provide navigation services to the community to connect individuals with affordable healthy foods, nutrition education, and recipes, as well as primary care and preventive services; expansion of the mobile food pantry and nutrition education for safety net patients and health screenings for recipients to monitor their wellness; build partnerships with local bodegas to incentivize them to sell produce from the Beth Greenhouse to expand access to healthy foods and begin to resolve the food desert in the South Ward of Newark; enhance their partnership with the Greater Newark Conservancy, which provides food vouchers to weekly farmers markets for seniors, pregnant women, and other underserved individuals to purchase affordable greenhouse produce; implement a new Vegetable Prescription Program in collaboration with the Medical Center's medical staff to provide patients with greenhouse prescriptions for healthy food upon discharge in conjunction with other treatments; and, create the infrastructure to expand the Medical Center's discharge planning and education to include connections to affordable food for patients.

Through their work with the Beth Greenhouse and community engagement, the innovation team's desired outcomes are increased access to healthy food and nutrition education needed to manage and prevent disease for safety net patients in the South Ward community of Newark and improvement in patients' behaviors, leading to better health outcomes and ultimately a reduction in inpatient admissions and emergency room visits.

**Robert Wood Johnson University Hospital** (RWJ) is a comprehensive health care system with campuses in New Brunswick and Somerville that serve all of Middlesex and Somerset Counties in New Jersey. In Middlesex County alone, 13% of the population is uninsured, with 8% of the total population



falling below the poverty line. RWJ's patient population is very diverse, as nearly 40% of patients are non-English speaking. Through a community health needs assessment it was determined that access to care and health information due to cultural and linguistic differences were identified as major health issues for communities in Middlesex County and Somerset. In addition, current signage in hospitals is not discernable to those who are unable to read English. The innovation team at RWJ decided to pursue a solution *"...that would create a safe space for patients where they feel comfortable disclosing that they have language barriers and reduce any fears they may have related to English not being their primary language."* The innovation team also wished to incorporate in their solution a health literacy education and training program for both healthcare workers and patients to further close the gap in care. Ultimately, these components would foster an environment where patients are more actively engaged in their health care and result in better health outcomes.

Over time and with the help of their coach, the innovation team decided to shift their focus to language barriers experienced during visits to the ED. Due to language barriers, patients in the ED can be misdiagnosed and/or have little to no understanding regarding the care they are receiving. The team was exploring a focus on the Spanish-speaking population that is triaged in the ED as Emergency Severity Index levels 4 or 5 (i.e., least extreme cases that visit the ED) and receive Limited English Proficiency (LEP) services. The team began using journey mapping to track patient experience and better understand where LEP patients are experiencing "pain points" along the ED journey. In their research, the team found that the main issue revolves around points of confusion along the patient's interaction with the care providers. LEP patients have anxiety because they don't understand what is going on at particular points of time. In addition, the team found that there are misunderstandings that result in confusion over what issue the care providers should be treating.

The innovation team developed a number of initial concepts they wished to prototype, including a quick registration kiosk that converts symptom descriptions in the LEP native language to an English language printout of what the patient is experiencing; a welcome packet that describes the level at which the patient has been triaged, expectations for treatment and wait times, and who the patient will be interacting with; video-conferencing with interpreters who can interact more seamlessly with care providers; and a pager/phone that serves as a digital version of the welcome packet.

## Cross-Cutting Themes

In this section, we provide cross-cutting themes that emerged through our synthesis of the NJ Catalyst initiative results, including insights from the NJ Catalysts. These themes were categorized into the areas of Catalyst experience, innovation development, and early indications of culture change resulting from the Catalyst initiative.

### Catalyst Experience

- ◆ Similar to findings from the California Catalysts, the NJ Catalysts found the training to be a *transformative* and *challenging* experience, with virtually all teams reporting on the added value of understanding the patient's perspective.
- ◆ Three of four Catalysts graded the training as either an "A" or "A+".

- ◆ The most useful aspects of training reported by NJ Catalysts included problem-solving methods, tools and activities, working with their innovation team in structured activities, and the high energy and facilitation skills of the speakers.
- ◆ Across the four pillars critical to innovation skills, average scores increased from baseline to follow-up. Although these changes are not statistically significant, it is likely that scores will continue to improve over time as Catalysts become more confident with using their innovation skills and subsequently acquire additional skills.
- ◆ Top strengths reported by Catalysts include relationship building/collaboration, positive personal attributes (e.g., honest, hard-working, optimistic), creativity/generating new ideas, open to new ideas, and seeing a task through/solution-oriented, while top development needs included confidence/taking risks/fear of failure, relationship building/collaboration, idea implementation/delegation, creativity, providing leadership and motivation, and technical skills. Note that strengths reported by some Catalysts were the same development needs reported by others, such as creativity and collaboration.
- ◆ In terms of feedback about the overall NJ Catalyst initiative, team reports were mostly positive. A majority of teams appreciated the training, in-person sessions, one-on-one coaching, access to CCI staff, and the critical shift in mindset to continue to look at the problem before leaping to a solution and to obtain stakeholder feedback and input. Negative aspects of the overall initiative reported by Catalysts included the need for more time to network with other Catalyst teams and take advantage of the online Catalyst community, rigidity to the process that does not work well for every project, too much structure to templates and reporting that requires a level of technical skills and time, and differences in health care delivery challenges faced by the East Coast compared to the West Coast.

## Innovation Development

- ◆ The majority of Catalysts had not previously used the tools and resources provided to them through the Initiative and the innovation teams soon understood the added value of using these tools to facilitate creative problem-solving.
- ◆ Virtually all teams commented on the ongoing and valuable input from their coaches both in the formative and implementation stages of projects.
- ◆ All Phase 2 innovation teams were successful in launching their innovations with the majority focusing on patient innovation. Of the seven teams, four are currently implementing their solutions, two are preparing to spread to other patient populations, and one team is piloting. All teams are committed to fully implementing their solutions in the coming months.
- ◆ Virtually all measurement plans during innovation development concentrated on early indicators. However, all teams were coached on defining longer-term measures once their innovations had been fully implemented.

## Culture Change

- ◆ The “Building Blocks of Innovation” survey revealed that all sites rated themselves the lowest on “processes”, suggesting that all sites needed to put a system in place to review, prioritize, and prototype projects. In addition, all teams rated themselves the highest on “values”, which reflects an investment in promoting creativity and encourages continuous learning among staff. The one-year follow-up survey indicated that the majority of teams had slightly improved their

ratings across these factors with large variations between teams by innovation factor. The largest improvements were seen for behaviors and processes with statistically significant improvements noted for behaviors. The observed modest gains in average scores across the six innovation elements are not surprising given the long period of time that is needed for culture change.

- ◆ While innovation teams' perceptions of their organizations' culture of innovation have slightly improved over time, it is important to point out that teams have in fact made important shorter-term strides in changing the culture of innovation at their respective institutions through application of innovation tools and resources to solve other problems, creation of active pockets of innovation, asking questions differently and soliciting team input, and better understanding the added value of soliciting patient perspectives and feedback to formulate a solution.
- ◆ The knowledge/tactics that Catalysts reported they were most likely to use in their job and apply to other issues included journey mapping, using Post-its<sup>®</sup> to facilitate brainstorming, and using prototyping for testing and demonstration.

## Conclusions

In partnership with The Nicholson Foundation, the Center for Care Innovations' (CCI) goals for the NJ Catalyst Initiative were to help create a network of innovators beginning with a selected number of health care organizations in New Jersey, manage a competitive grants program to develop and implement innovations that potentially could be spread to other health care delivery systems throughout New Jersey, and promote a culture of innovation at these organizations through training, coaching, and peer learning. CCI's framework for the NJ Initiative was based on its successful implementation of an array of innovation-centered programs targeting safety net organizations throughout California. Along with its partners, gravitytank, Gobe Group, and White Mountain Research Associates, CCI staff provided intensive group training on human-centered design thinking, assigned innovation coaches to work with individual teams on their innovation challenge grants, and provided technical assistance on measurement and evaluation to monitor the impact of the teams' innovations.

The Initiative was successful in training a group of change agents within the safety net who will continue to drive transformation within their own organizations by using a new arsenal of innovation tools and techniques to advance new technologies and programs and improve care processes. Over the course of the Initiative, innovation skills among Catalysts and organization-wide innovation maturity slightly improved. Innovation teams made important short-term strides in changing the culture of innovation at their respective institutions through application of innovation tools and resources to solve other problems and particularly through a better understanding of the added value of soliciting patient perspectives and feedback to formulate a solution.

As Catalysts continue to use these resources over time and facilitate additional changes in innovation development and implementation at their own organizations, it is hoped that their work will help to accelerate adoption of health care innovations by safety net organizations across NJ, facilitate continued cultural shifts in innovation design and implementation to improve health care quality at safety net organizations, and spur an expansion of the network of safety net organizations and partnerships to enhance adoption of health care innovations throughout the NJ safety net.