Thematic Analysis: Innovation Fellowship Interview Data
Project Years 1-2

March 1, 2019

PREPARED FOR:
Maren Batalden, Director, CHA Innovation Fellowship
Cambridge Health Alliance

PREPARED BY:
Institute for Community Health
350 Main Street
Malden, MA 02148
www.icommunityhealth.org

TEAM:
Kirstin Lindeman, MPH
Carolyn Fisher, PhD

ICH is a nonprofit consulting organization that provides participatory evaluation, applied research, assessment, planning, and data services. ICH helps healthcare institutions, government agencies, and community-based organizations improve their services and maximize program impact.

Contents

Executive Summary

Overall, **fellows are satisfied** with their experience in the fellowship. The majority of fellows agreed that the fellowship served **four primary functions**: meeting project goals, deepening understanding of co-production and quality improvement concepts and procedures, boosting their confidence as leaders in the CHA organization and bringing together a cohort of likeminded colleagues. Underlying these functions was the dedicated time for growth and learning.

> *"It's very important to have time to focus on the future and on doing something that will get rewarded in a long term. Sometimes in management, one would get stuck in the fire of today or the hassles of today, so having a space and time that one can think about future is huge."* Fellow, Cohort 2

High levels of satisfaction among fellows are attributable to **four key components** of the fellowship.
- **Set of tools**: The fellowship incorporated both theoretical knowledge and guided experiences with the practical application of those theories. Several fellows described leaving the fellowship with a 'set of tools' to use as they go forward with their work at CHA.
- **Improved leadership skills**: The fellowship supported the leadership development of these mid-career professionals. Fellows describe taking these tools back to their own teams and practicing these new skills, in addition to more confidently navigating and engaging with the broader institutional leadership structure.
- **Community of peers/mentorship**: Developing relationships among the fellows in each cohort is a strong positive for fellows. All fellows agree that they benefit from these relationships in a variety of ways. Fellows appreciate learning from each other, in both formal and informal settings. They report that these relationships benefit them both in and outside of the fellowship activities.
- **Dedicated time for growth and learning**: Fellows agree that an important benefit of the fellowship is dedicated time. Participation in the program gave them permission to set aside the time required to learn and practice new skills.

The opportunity to be **a member of a group is one of the most strongly positive components** of this fellowship as a whole. Connecting with the other fellows was strongly impactful on overall satisfaction with the fellowship and increased CHA engagement. Additionally, the fellowship cohort were facilitators of learning; acting as models, providing a safe space, and increasing institutional knowledge of CHA, as described below.

Fellowship outcomes include increased engagement with CHA, increased institutional knowledge of CHA, and the spread of best practices.

Fellows report an **increased engagement with CHA** as an organization. This increase of engagement may be attributed to a sense of ownership in the organization, a sense of renewed enjoyment of their practice (with new knowledge and skills to apply), increased confidence and satisfaction with their leadership roles, and an increased sense of being a part of a community with like-minds and common goals.

Increased knowledge of CHA as an institution was seen by some fellows as a strong positive of the fellowship. This knowledge was acquired throughout their project work and through developed relationships with other fellows. Fellows report this newly acquired knowledge of organizational features and structures serves to increase confidence in their own abilities as leaders and change makers, and a greater sense of engagement in CHA.

Most fellows described ways in which their knowledge of **co-production and QI tools were being practiced outside the scope of the fellowship**. Many reported including the language of co-production during committee and other meetings, ways in which their heightened awareness of co-production was changing their medical practice, and new ways in which they were applying QI tools to other areas of their work. More formally, many fellows report incorporating these co-production and QC concepts into their work as mentors and teachers.

Key learnings from the fellowship fall into three essential categories.
- **Filled out/deepened understanding of co-production**: All fellows reported an increase in knowledge and understanding about co-production, as well as practical means of application of this knowledge. While some fellows described this as new knowledge, others found this information was supplemental to existing prior knowledge.
- **Change is a process that naturally includes challenges**: Fellows described a change in the way they understand and approach challenges and failures. For some fellows, permission to set aside perfection was a key learning. More than that, fellows were told to expect failure and given procedures to follow when they experience it, thereby reducing fear of failure and feeling "stuck".
- **Change is a process that requires thoughtful management**: Fellows described an increased understanding of change management and approaches to managing institutional change. Fellows described their thinking about how these concepts apply to their departments and in CHA as a whole.

In addition to key learnings, **personal growth** occurred. Fellows describe ways in which their increase of knowledge and awareness of co-production has changed their way of working with patients, and approaching quality improvement projects. Some fellows also report changes to their own change mindset, specifically increased confidence about their ability to overcome obstacles.

Fellows' Satisfaction with Fellowship

Overall, fellows are satisfied with their experience in the fellowship. The majority of fellows agreed that the fellowship served four primary functions: meeting project goals, deepening understanding of co-production and quality improvement concepts and procedures, boosting their confidence as leaders in the CHA organization and bringing together a cohort of like-minded colleagues. Underlying these functions was the dedicated time for growth and learning.

Set of Tools

The fellowship incorporated both theoretical knowledge and guided experiences with the practical application of those theories. Several fellows described leaving the fellowship with a 'set of tools' to use as they go forward with their work at CHA.

 "It provided a set of **tools** and a broad swath, not a lot of depth into each tool. The fellowship succeeded at providing a **community of peers** and external individuals who can help us think through our challenges. It did both things beautifully." Fellow, Cohort 2

""The fellowship has given a great conceptual description of what change is all about." Also gave **a practical experience** on how to change things - PDSA cycles, how to develop measurements to understand the result of PDSA cycles… That has been powerful and something he has been implementing already in different settings." Fellow, Cohort 1 [not verbatim]

"**Concrete tools**, like I'd used the x before, but reviewing them, and setting goals, and… you know you should set goals, but being forced to sit down and actually do it concretely." Fellow, Cohort 1

Improved Leadership Skills

The fellowship supported the leadership development of these mid-career professionals. Fellows describe taking these tools back to their own teams and practicing these new skills, in addition to more confidently navigating and engaging with the broader institutional leadership structure.

"This experience has been **great for my team**. Our collaborations are better and my team feels more supported." Fellow, Cohort 2

"People in my group all have leadership roles. That's been really helpful for me to understand integrated care more and to **understand leadership dynamics in CHA**." Fellow, Cohort 2

"We focused on patients, but what we learned here was **how to partner with our institution**." Fellow, Cohort 1

"This fellowship has given me the skills to figure out how to create this system … that better addresses the needs of the patient, … and combines that with **leadership skills**, which is something that we're not often formally taught, but is formally teachable." Fellow, Cohort 2

Developing relationships among the fellows in each cohort is a strong positive for fellows. All fellows agree that they benefit from these relationships in a variety of ways. Fellows appreciate learning from each other, in both formal and informal settings. They report that these relationships benefit them both in and outside of the fellowship activities.

"I think having other **people as a sounding board** was really helpful, even though that was a secondary goal of the group. It was REALLY important." Fellow, Cohort 1

"Very nice for personal and professional life, our group of **fellows developed trust** and we interact with each other in other work at CHA." Fellow, Cohort 2

"One of the biggest positives has been working with **a cohort**, and the leadership in sort of a dedicated fashion with a dedicated role. Mid-career folks don't get to do this much, but it's nice to get together to talk about ideas (refreshing)." Fellow, Cohort 1

"**Getting to know them was an added benefit**, they were in the same stage of their career. They continue being a real resource to me, not just for the project, but getting to know and navigate the institution." Fellow, Cohort 1

"It's been so nice! They're people whose names I knew, I knew a couple of them. It's been special to get to know them. I really enjoy the **peer coaching** and feel like I have a network of **people to lean on** within the institution. It's been fabulous." Fellow, Cohort 2

Dedicated Time for Growth and Learning

Fellows agree that an important benefit of the fellowship is dedicated time. Participation in the program gave them permission to set aside the time required to learn and practice new skills.

"I have been doing more **dedicated reflection time** to think about what's my responsibility to lead change, and what's somebody else's and how you can facilitate that. That requires a lot of reflection. That's a mechanism that I hope to carry forth because it's very important to me." Fellow, Cohort 2

"I feel more confident carving out a chunk of **my and others' time** and say "we all need to do it as an institution" + there's homework every month. Accountability is important." Fellow, Cohort 2

"It's very important to have **time to focus on the future** and on doing something that will get rewarded in a long term. Sometimes in management, one would get stuck in the fire of today or the hassles of today, so having a space and time that one can think about future is huge." Fellow, Cohort 2

Key learnings

Filled out/Deepened understanding of Co-Production

All fellows reported an increase in knowledge and understanding about co-production, as well as practical means of application of this knowledge. While some fellows described this as new knowledge, others found this information was supplemental to existing prior knowledge.

"My understanding, it's filled out. I knew what it was, but what it looks like in practice, what you can fit in it vs other ways to engage a certain population, what language to use…that's filled out. This has changed the way I thought to engage the community" Fellow, Cohort 2

"I have deepened my appreciation for how powerful a patient-centered intervention can be, co-production is more of a priority now." Fellow, Cohort 1

"I think they've been… re-enforced, and maybe slightly stronger. But I wouldn't say there's been a qualitative shift. And I think **more skills to do it in a way that gives results that are useful** as opposed to being just a vague idea or theoretical framework." Fellow, Cohort 1

"1. Getting all players involved from the beginning; 2. Include patient voice even if you don't think it makes a difference; 3. Attention to the language you use; 4. Ask open questions to leave room for a honest answer ("Do you take your medications?" vs "Did you have a chance to pick up your medications?")" Fellow, Cohort 1

Change is a process that naturally includes challenges

Fellows described a change in the way they understand and approach challenges and failures. For some fellows, permission to set aside perfection was a key learning. More than that, fellows were told to expect failure and given procedures to follow when they experience it, thereby reducing fear of failure and feeling "stuck".

"The idea that as we encountered obstacles starting smaller and starting smaller. It got to the point where one PDSA cycles was just talking to one physician at one site. That was really helpful because it was very different. It was getting unstuck. Not just spinning your wheels in the snow." Fellow, Cohort 1

"The idea of learning from failed PDSA cycles, things on small test of change, thinking resistance as an opportunity, all of the coaching, and my one-time meeting with Maren in August was extremely helpful." Fellow, Cohort 2

Fellows described an increased understanding of change management and approaches to managing institutional change. Fellows described their thinking about how these concepts apply to their departments and in CHA as a whole.

"This whole idea of, finding the momentum in the organization, going with that and contributing to it, has been really helpful." Fellow, Cohort 1

"The idea of the PDSA ramp, how do you start something, move it through the process of figuring out if something works, move it up the ramp or down the ramp, which is a pretty fundamental part of process improvement." Fellow, Cohort 1

"How to approach and launch a project to make it successful at CHA. Now we know who to ask, what to ask for, how to explain the process in terms of the overall work going on at CHA." Fellow, Cohort 1

Specific learnings mentioned

Tools
- PDSA Cycle
- Process mapping
- Control charts
- Fishbone diagrams
- Rubrics for change
- Flip
- A framework for implementing a project: from conception to development to implementation

Knowledge
- why the system works in a way that excluded co-production
- Who to activate
- working with existing systems
- Learning CHA institution
- I learned about the value of small and frequent data analyses.
- I have a language I can use when mentoring staff.
- I learned about how to be more savvy about how to engage stakeholders in PI in pediatrics, and how to insert a coproduction project in the current pediatrics framework.

Skills
- communicating with different stakeholders
- use data to inform an intervention
- How to manage meetings
- Leadership skills

- Coaching
- communication skills
- Measuring outcomes and describing outcomes in a way you can share

Attitudes (not related to Co-production)
- 'perfect is the enemy of the good'
- A change doesn't have to be perfect, you try and keep adjusting.
- working with resistance to change

Personal Growth

Fellows describe ways in which their increase of knowledge and awareness of co-production has changed their way of working with patients, and approaching quality improvement projects. Some fellows also report changes to their own change mindset, specifically increased confidence about their ability to overcome obstacles.

Changes to practice

"I am willing to spend more time with patients to attend to them in a different way. I think more about how to help patients have input in the plan etc." Fellow, Cohort 2

"I think that the awareness I have of co-production makes me look for opportunities and when I identified those opportunities I think I really recognize how **the power of co-production really can enhance a project** in ways that nothing else can." Fellow, Cohort 1

"First thing I say is 'who else needs to be involved in this?' 'Who is best person to answer this question?' **Oftentimes it's the patient**." Fellow, Cohort 1

"Before, I was thinking of change as a provider. **Now, I am more intentional**, and thinking about what it's like for them, and asking them, not just speculating." Fellow, Cohort2

Changes to mindset

"How to tackle obstacles: the fellowship taught me that 'perfect is the enemy of the good'." Fellow, Cohort 2

"At the beginning of the fellowship, my approach was to push hard to overcome obstacles, but it is not a productive approach." Fellow, Cohort 1

"My project have been a great learning experience, teaching me 1) the power of persistence – despite planning things, they were not fooled proof as I thought. 2) how hard change can be, 3) I have a tendency to do things on my own, **but it's better if I can engage more people**." Fellow, Cohort 1

"I **feel more confident** about being engaged with institutional change" Fellow, Cohort 1

Commitment / Engagement with CHA

Fellows report an increased engagement with CHA as an organization. This increase of engagement may be attributed to a sense of ownership in the organization, a sense of renewed enjoyment of their practice (with new knowledge and skills to apply), increased confidence and satisfaction with their leadership roles, and an increased sense of being a part of a community with like-minds and common goals.

A community of Like-minded individuals

"I have new relationships with people in different departments now, I imagine **I will have more and more of a role to lead change at CHA**. It's been super helpful to have this people as part of my group. It was nice to join a group of likeminded clinicians." Fellow, Cohort 2

"Very positive, was looking for a way to use my skills and interest to tackle some of the problems that CHA is facing. Knowing there's more people to consult with and feel supported creates a more constructed engagement with the system." Fellow, Cohort 1

"I want to go back to the friendship, trust, and relation building theme. There are some people from the fellowship I knew before but didn't know very well. I can see as the project going along, there's going to be more fun because I got these relationships with others by doing the same work." Fellow, Cohort 2

"It's only because of this fellowship that I can build a strong and deep relationship with people outside of my division, which is fantastic." Fellow, Cohort 2

"**I feel more attached to CHA** by being attached to these particular fellows. I think anywhere you go ultimately if you feel like part of a community that's trying to create good in the world together that can go a really long way and the fellowship is exactly that. Belonging to a community is a very important piece of feeling satisfied and engaged in the institution." Fellow, Cohort 2

Ownership of Projects + Institutional Change

"Implementing the project has been fun and challenging. We are making a dent in improving the service. I am grateful that Maren created this amazing program. **CHA is a much richer place to work for me** and I feel lucky I have done it." Fellow, Cohort 2

"Through the fellowship, working with the other fellows give me a much better sense of what's going on in the institution, how the priorities are being implemented in real time, and how that resonates with what I am doing or how I can align my department's priorities with that. I try to carry that back to the people I work with, and **that's a big piece of engaging people in the work of the institution**." Fellow, Cohort 1

"Co-production **makes my work more satisfying**. By default, I am part of something that I try to help change as opposed to "I have to do it because it's my job"." Fellow, Cohort 1

"**I feel invested in the institution** in a way I have not felt previously." Fellow, Cohort 1

"Although there are some down sides to being a first-adopter, this project shows CHA is being innovative about how we use the technology and I think **we'll end up being a resource for other institutions** that think about doing this. It's a pretty impressive thing to be in the cusp of accomplishing." Fellow, Cohort 1

"It's very rewarding and enriching to get a different perspective about leadership and QI, as well as getting support and teaching from people who are not in my field**. I'm developing career mentors** through the fellowship, that's a pleasant surprise to me" Fellow, Cohort 2

"I'm, ah, I have a ways to go. But when we get it fully implemented **it's going to be really exciting** to see it in place." Fellow, Cohort 1

"One of the biggest positives has been working with a cohort, and the leadership in sort of a dedicated fashion with a dedicated role. **Mid-career folks don't get to do this much**, but it's nice to get together to talk about ideas (refreshing)." Fellow, Cohort 1

"Before the fellowship started, I was burned out. Bringing back that humanity by stopping to talk with a patient **reminded me of why I do what I do as a clinician**." Fellow, Cohort 1

"With going through the exercises on fishbone diagrams and PDSAs which are taught by people on healthcare administrative positions, people doing QI processes or not, and MDs and providers, now **I feel more comfortable** having that talk and being in that world." Fellow, Cohort 2

"There is a clear way and I have a clear time. This makes my life much easier**. I feel myself asking more mature questions** about myself and my own development. How do I want to do this? What is the best way to formulate it? It's not just me now." Fellow, Cohort 1

"Seeing myself more as a facilitator of change, seeing the opportunities to make the connections as opposed to having to do everything myself." Fellow, Cohort 1

Connections with other Innovation Fellows

The opportunity to be a member of a group is one of the most strongly positive components of this fellowship as a whole. As discussed in other code reports, connecting with the other fellows was strongly impactful on overall satisfaction with the fellowship and increased CHA engagement. Additionally, the fellowship cohort were facilitators of learning; acting as

models, providing a safe space, and increasing institutional knowledge of CHA, as described below.

Dedicating time to building these relationships promoted learning through group discussions and individual coaching about project obstacles and successes. During these discussions, fellows were models for communication and leadership skills for one another, as well as problem-solving.

"As far as the relationship with other people facing similar challenges in their areas as we transition from fee-for-services to population environment management, it was helpful to think with them and hear their prospective, how our work complement each other, where we need to make changes." Fellow, Cohort 1

"We want things to go a certain way, and when they don't it can be upsetting to us, and we try to figure out why, and it can be demoralizing. And having others around us having similar experiences, and seeing how they worked through it was really helpful. And seeing how they articulated it was really helpful. I think, there's a lot of modeling behavior." Fellow, C1

"I think there was a support and a respect within the group that felt very validating and respectful. I think that was really important. And then we also had time to do individual coaching and a few of the people I met with were really candid about their own frustrations and what was driving them crazy. Refreshing to be able to take a breath ..." Fellow, Cohort 1

Creating a safe space

Fellows built trusting relationships, creating a safe space to admit to failures and work through obstacles. These trusting relationships promoted learning during the fellowship activities and have the potential to support risk-taking and problem-solving among fellows in the future.

"Having that conversation anyway you wanted it, in a really safe way, it was priceless. I felt I could tell them anything, and they could tell me anything." Fellow, Cohort 1

"We are able to support each other even when we're not working together, because we know we have a community that we can bring our challenges back to." Fellow, Cohort 1

"In a concrete answer we met once a month in a concrete meeting, share our projects in more structured way, etc... and successes when they were there, we commented on each other's presentations in a really safe way. People had really good ideas." Fellow, Cohort 1

"A neat way to be thinking about our projects regularly and to be able to describe what we've been up to 1-on 1. It's safer space to wonder out loud to brainstorm barriers." Fellow, Cohort 2

"Helpful to have a group of **people that you develop trust in** and understand their perspectives over time. You can trust they give you a honest opinion." Fellow, Cohort 2

Fellows also provided windows into the structure and operations of other departments, thereby increasing knowledge about CHA. This increased organizational knowledge gives fellows a boost in confidence that they can go forward as change-makers. [See also section below]

"They gave me a sense of whom in primary care I should talk to for my projects. I learned about how to be more savvy about how to engage stakeholders in PI in pediatrics, and how to insert a coproduction project in the current pediatrics framework." Fellow, Cohort 2

"People in my group all have leadership roles. That's been really helpful for me to understand integrated care more and to understand leadership dynamics in CHA." Fellow, Cohort 2

"Having the group of fellows to work with has been powerful in terms of understanding different parts of the organization more intimately and the different challenges within the organization." Fellow, Cohort 1

"Deeper relationships with all of the fellows, but also a deeper understanding of the role they play in the institution, their projects and how those things come together. Through that a much clearer picture of the institution starts to take shape. Because if you put the fellows and their project together you get a clearer picture of the landscape." Fellow, Cohort 1

Learning CHA

Increased knowledge of CHA as an institution was seen by some fellows as a strong positive of the fellowship. This knowledge was acquired throughout their project work and through developed relationships with other fellows. Fellows report this newly acquired knowledge of organizational features and structures serves to increase confidence in their own abilities as leaders and change makers, and a greater sense of engagement in CHA.

Knowledge of the landscape

"I'm better at **working efficiently with existing systems** here. There is a learning that happens in the fellowship and there is the "invisible curriculum", that is how you relate to structure and leadership at CHA. … [Through] our system of discussion followed up by coaching, deeper relationships with all of the fellows, but also a deeper understanding of the role they play in the institution, their projects and how those things come together. Through that a much clearer picture of the institution starts to take shape. Because if you put the fellows and their project together you get a clearer picture of the landscape." Fellow, Cohort 1

"One of most important things at CHA is having balance of low – resource setting with trying to get things done… Biggest challenges at CHA is that the milieu is such that environment isn't friendly to change. Both organizational politics and just general resistance to change… Wording and tone of messages is something I've watched other fellows do. Inside our meetings, and outside our meetings, like when I was on a committee with them." Fellow, Cohort 1

"I was relatively new to CHA when I started the fellowship, I didn't have personal relationships with other fellows. It was a big education about CHA, too, and developing a lot of relationships with people at CHA, similarly positioned to me." Fellow, Cohort 1

"That's been really helpful for me to understand integrated care more and to understand leadership dynamics in CHA. I've learned from others about EPIC reporting. I learned a lot about primary care culture and organization, and how to work with primary care from a child psychiatric position. Coaching helped me to get the lay of the land more." Fellow, Cohort 2

Greater engagement

"Cultivating the skills, dispositions to partner with institutions as well. We focused on patients, but what we learned here was how to partner with our institution." Fellow, Cohort 1

"Through the fellowship, working with the other fellows give me a much better sense of what's going on in the institution, how the priorities are being implemented in real time, and how that resonates with what I am doing or how I can align my department's priorities with that. I try to carry that back to the people I work with, and that's a big piece of engaging people in the work of the institution." Fellow, Cohort 1

Fellows Career Trajectory

The fellows described ways in which their formal and informal roles as leaders at CHA are evolving.

New skills/knowledge improve confidence

"I am well positioned to support my dept to meet that expectation. I can be a bridge between what leadership is trying to do and the day-to-day life of my clinicians." Fellow, Cohort 2

"It's a constant process of integrating what we learn through the fellowship in the daily life, as a leader at CHA. Applying the skills related to process mapping and getting the right data

is something I've done more in the last 6-8 months than before then. I am applying the fellowship skills to the ongoing projects I am doing." Fellow, Cohort 1

"Through the fellowship, working with the other fellows give me a much better sense of what's going on in the institution, how the priorities are being implemented in real time, and how that resonates with what I am doing or how I can align my department's priorities with that." Fellow, Cohort 1

More thoughtful approach to leadership

"I have been doing more dedicated reflection time to think about what's my responsibility to lead change, and what's somebody else's and how you can facilitate that. That requires a lot of reflection." Fellow, Cohort 2

Fellowship as a facilitator

"I have new relationships with people in different departments now, I imagine I will have more and more of a role to lead change at CHA. It's been super helpful to have these people as part of my group." Fellow, Cohort 2

Mentorship roles

"I have shared my learning with the people I work with, they have been exposed to the basis and have been supported in applying them to their project. **Co-production is for everybody**: patients, doctors, managers, and staff." Fellow, Cohort 1

"**I feel empowered**, I have a language I can use when mentoring staff." Fellow, Cohort 2

"I do it mostly with our own faculty and our group of doctors and physician assistants in the ED. Sometimes it's the general approach, the idea of taking an operational / administrative issue and walking through defining the process, gathering data, analyzing it and using it to leverage the decision about what changes to make. Process mapping and all that stuff. I am trying to internalize it more and **as people come to me with issues, I try to apply it with them**." Fellow, Cohort 1

Promotions
Only a few formal promotions were reported by fellows. These are reported with names because they are not anonymizable.

C O'Brien:
"[I have a] new role, from managing PC BHI to developing BH ACO that means I represent the all psych department in the ACO. I promoted 3 clinicians to be regional managers for BHI, and I oversee their work."

L. Libaridian: "I took over from performance improvement and primary care." [I know this was concurrent with the fellowship,so not attributable to it.]

Project Results / Impacts

Project Facilitators

Three primary facilitators to their projects were mentioned by fellows. Two of these feature relationships. Relationships built within the fellowship were seen as instrumental in moving projects forward. Relationships and buy-in with other leaders and personnel were also cited. Less frequently, fellows noted specific tools or structural features (such as electronic medical records and shared drives) that were essential for promoting communication and sharing information as a part of their projects.

Relationships built within the fellowship

"It's validating to have this community here, when it's not validated on a day-to-day basis. Some people underestimate the transformative power of co-productive interventions. In some settings they are viewed as "new, burdensome" requirements…the **fellows bring a new energy**… Knowing there's more people to consult with and feel supported creates a more constructive engagement with the system" Fellow, Cohort 1

"I have new relationships with people in different departments now, I imagine I will have more and more of a role to lead change at HCA. It's been super helpful to have this people as part of my group." Fellow, Cohort 2

"I've been the beneficiary of a lot of assistance, from Maren and [adviser] especially. [Other fellow] now will definitely work with me to figure out the answer to some of the challenges." Fellow, Cohort 1

"The fellows have pointed [me] in the direction of the person that would be helpful to [my] needs." Fellow, Cohort 1

"I think it really has created a community within these fellows that will go beyond the fellowship. I can see us doing things together. Each definitely supported my work, the things that people said in my coaching sessions or during the fellowship sessions, I think they advanced the project in a meaningful way. My project wouldn't be what it is without their input." Fellow, Cohort 2

Other leaders or personnel invested in the project

"The CEO and CMO are very invested in seeing this work done. They marshal the resources and provide context." Fellow, Cohort 2

"Early buy-in from people at CHA. Fits in very closely and neatly with CHA's work on SDH and the way ACO is going." Fellow, Cohort 1

"The **team work between nursing and pharmacy** has been great – also the IT personnel. Team work out of the site has been really commendable… Every department in primary chipped in on this." Fellow, Cohort 1

"I had a lot of wonderful help along the way from EPIC, IT- I work with an analyst to write the report. Had wonderful support from the pharmacy, nursing, physicians in general." Fellow, Cohort 1
NOTE: Despite similarities, these last two quotes are from 2 different fellows.

"We have outside funding (grant). It gives us a different institutional entrée." Fellow, Cohort 1

"We set up a shared drive where people could download material from to easily get a group off the ground, because many didn't have a model in their head." Fellow, Cohort 1

"Electronic referrals are expanding at CHA, but nobody is doing a video consult or a multidisciplinary consult. We build on [systems] that already exist… IT support" Fellow, Cohort 1

"Having the EPIC IT group be able to implement the electronic side of this, is making it possible to push it forward more broadly." Fellow, Cohort 1

Process measures of change

Fellows described the current status of their projects. Some fellowship projects are still in progress and outcome measurements are incomplete. Process descriptions varied per project, but fell into some broad categories, including relationship building, resource procurement, staff training and tool development. Below are examples, not a complete list.

Because the process and outcome measures are specific to time periods, quotes are identified by the time period in which the interviews took place, as follows:

Label	Fellowship year and time period	Month/Year
T1	Year 1 midpoint	March / April 2016
T2	Year 1 end	October 2016
T3	Year 2 midpoint	May 2017
T4	Year 2 end	January / February 2018

Relationship building

"Starting conversations e.g. develop recommendations for supporting advanced practice clinicians. Not much representation from that group in the organization, and not even in the committee." Fellow, Cohort 2, T3

"The other thing is I clarified the alignment of my project with the organization. This project is the co-production of a new treatment intervention and service delivery model." Fellow, Cohort 1, T3

"we are working with [individual] to improve referrals to [department]. These meetings involve senior leadership and frontline staff. I have been looking for ways to include the voices of pts in that process." Fellow, Cohort 2, T4

"I meet monthly with multidisciplinary working group (13-15 people) to brainstorm ideas to address avoidable ER admissions and to go over the data. Team is really broad and diverse (social workers, care givers, psych) with some folks from outside the CHA. They help me think through my project." Fellow, Cohort 2, T3

Staff training

"I wanted to pass along what I think is valuable about my QI training to my staff (psychologists and social workers), so I started a monthly seminar, and I started a program for the 3-hour rule credit so staff can earn credits toward that with their seminar projects." Fellow, Cohort 1, T3

"I have engaged the pedi team's parent partners to get feedback about our flyer and interview guide. I presented our work to other patient partners that [individual] supervises, and the parent advisory group in outpatient [department], and I presented my project at a national conference." Fellow, Cohort 2, T4

Resource procurement

"We set up a shared drive that people could download material from to easily get a group off the ground, because many didn't have a model in their head." Fellow, Cohort 1, T3

"We showed we could have data from people in the community in Epic, and IT could use it. This year, we have outside funding (grant). It gives us a different institutional entrée." Fellow, Cohort 1, T3

Tool development

"On one occasion, we shared a template with the patient advisory group about expectations for treatment. The feedback was helpful; we should replicate that strategy where feasible." Fellow, Cohort 2, T4

"We've got workflows in place that will hopefully become permanent. Increased referrals to pharmacists and nursing." Fellow, Cohort 1, T?

"The project got a bit hung up on IT-related issues (we worked with outside vendors and added new functionalities to the EMR.), but now it's near the end, it's 98% complete, 1-2 weeks away from being released ." Fellow, Cohort 1, T4

Outcome measures of change

Fellows described the current status of their projects. Some fellowship projects are still in progress and outcome measurements are incomplete. Below is a list of measured outcomes as described by fellows during in-depth interviews.

Outcome measures of change are reported with names because they are not anonymizable.

Pilot completed – "We did a pilot on having leaders at providers meetings, and collected information on that. It happened at 3 clinics, now we implement it at more." Zallman, Fellow, Cohort 2, T3

Improvements in patient outcomes "We have a tool kit. We rolled out the project in Nov. 2015. In Jan 2016 patients with controlled hypertension was 69%. We increased every single month until June-July 2017, when we were at 77%. Now we are at 74%, but we haven't pushed as hard." Libaridian, Fellow, Cohort 1, T4

Utilization goal [decrease] achieved, measured improvement in patient outcome - "It's clear that the COPD rescue pack is a good idea and can keep patients from going to the ER and be hospitalized. It's been incepted by doctors, nurses, patients, pharmacists. We have a strong foundation to work on… I look at utilization and number of ED visits and hospitalization that patients have the year prior to receiving the rescue pack and 6-12 months after they receive it" Balaban, Fellow, Cohort 1, T3

Utilization goal [decrease] achieved, measured improved pt outcome - "Compared with before the fellowship, the percent of dementia patients with one or more hospitalizations in December 2017 was 52.4%, down from 54.8% in December 2016. This is small change but at least it's changing towards the right direction. The percent of dementia patient who got two or more hospitalizations was 22.9%, down from 34.8% a year ago. The percentage of multiple hospitalizations of our patients has gone down. The patients who got referred to palliative care or hospice services went up from 11.9% (a year ago) to 18.1%. We achieved our goals." Chao, Fellow, Cohort 2, T4

Patient support groups established - "So we trained a team of integrated therapists in this model and had them build the principles of this coproduction of these WRAP groups in to groups they were running at different primary care sites. Half a dozen groups up and running now, more planned for fall, funding identified, it's nice to have something up and started with the support from Gold group." O'Brien, Fellow, Cohort 1

Tool created, Completed process to change job description – "We set up a Google Drive for information about all the opioid disorder treatments in our system. This has shown to

be useful already: a nurse case manager from ED used it as learning resources to familiarize her with the treatments of opioid disorder. By defining the jobs of the future nurse case managers, we also changed the job descriptions of existing personnel." Grossman, Fellow, Cohort 2, T4

Established relationship with partner organization - "We concluded that it is possible to delegate this patient and family education to other people in the community. It resulted in us developing a relationship with a local branch of the Alzheimer's Association who has a program where a memory specialist to call the patients' family for 90 minutes to educate them about the issues and impacts of dementia." Chao, Fellow, Cohort 2, T4

Tool created – "We built a little sharing team site and a tool for building groups that has all the WRAP curriculum built into it. It'll be easier for someone to start a WRAP group using these tools. I'm working on the productivity requirements so that clinicians will be incentivized to run these groups." O'Brien, Fellow, Cohort 1, T?

Spread of Best Practices

Most fellows described ways in which their knowledge of co-production and QI tools were being practiced outside the scope of the fellowship. Many reported including the language of co-production during committee and other meetings, ways in which their heightened awareness of co-production was changing their medical practice, and new ways in which they were applying QI tools to other areas of their work. More formally, many fellows report incorporating these co-production and QC concepts into their work as mentors and teachers.

"I bring patients' perspectives in all departments, and people are open to that. I take pride in keeping patients in the center, and understand if co-production is relevant, possible, and how so. The advantage point is patient engagement, which is a component of co-production, but you can coproduce outcomes once the patient is engaged. I tried to promote that in our departments." Fellow, Cohort 1

"Co-production is for everybody, patients, doctors, managers, and staff. The idea is that we need to help find a motivation for people to engage and connect their day-to-day work with the larger vision of CHA. I hire many people...when they encounter a barrier they passively wait for the organization to remove it for them. **With QI we figure it out ourselves, it's empowering.** The participation of my staff in the seminar is voluntary, but there's a lot of enthusiasm. They have presented at poster sessions. So have I. I see how empowerment interventions play out at an organizational level." Fellow, Cohort 1

"These meetings involve senior leadership and frontline staff. I have been looking for ways to include the voices of patients in that process. In one occasion, we shared a template with the patient advisory group about expectations for treatment. The feedback was helpful; we should replicate that strategy where feasible. I use the word coproduction in meetings, but I am the only one." Fellow, Cohort 2

"I modeled meetings after gold seminars. I try to make them very interactive, not telling people what my ideas are, but asking to contribute their thoughts. At an early meeting, I asked the team to help me construct a fishbone diagram about ED visits. At our last meeting, I had the data and asked them to help me brainstorm strategies to implement an intervention." Fellow, Cohort 2

"But it's very powerful and once I was able to flip data showing that our one interim metric is improving and not by chance, but by a statistical control method, that was really helpful to be able to bring next thing as a perspective to the data. And then another thing is that stopping and reflecting is well worth that's rated improvement and so we had a reflection session in our last committee meeting and it was incredibly helpful to have people stop and say "wait. where are we where are we going with how robust they are we fulfilling or charged and what is there left to do?" It was a really useful exercise that I'm not sure I would have prioritized over as many other things that we need to get done. I'm glad that I did so." Fellow, Cohort 2

Sustainability

Fellowship projects were in various stages of completion at the time of interviews. While some fellows report tools and systems in place that should allow their projects to continue to positively impact patient outcomes, other fellows were unable make such reports. Challenges to sustainability faced by those fellowship projects include: reliance upon a specific sponsor, change resistance among staff, and resource and tool development remaining in progress.

Sustaining

"The project doesn't need support, it is sustainable and growing." Fellow, Cohort 1, T3

"It will always take work, but we're close to the goals we had established around [condition]. Sustaining will be a lot of work, but I feel good about the core of the work." Fellow, Cohort 1, T4

Reliance upon a specific sponsor

"CEO and CMO are very invested in seeing this work done. They marshal the resources and provide context. E.g. I might design a leadership grounding system, but I don't ask leaders to do it, it comes from CEO and CMO…My project couldn't exist or be advanced without real support from the executive sponsors." Fellow, Cohort 2, T3

Change resistance among staff

"It is important to keep the process going and allow us to really contribute what we learned in a real practical way. A continuation will make it worth it to the institution." Fellow, Cohort 1, T1

"[It would be good to have] demonstration projects with data that shows the benefits that [my] peer-support groups are having on the patients' health. It would help with buy-into the topic." Fellow, Cohort 1, T1

"Fits in very closely and neatly with CHA's work on SDH and the way ACO is going. This project is the ACO for this population. It shows CHA that this type of work with this population is possible. CHA is paying attention to immigrants in a way that it wasn't in the past." Fellow, Cohort 1, T3

Resource and tool development remain in progress.

"You can't get three nurses to do the work of ten. It doesn't work. Something suffers. [I do not] have enough time to do all the things [I] want and need to do." Fellow, Cohort 1, T1

"I want more feedback from families who used the service and those who didn't but it's hard to get a hold on them. This was recommended by [other fellow], and it's a great interesting ideas to understand this barrier. I don't have a structured data report and it's hard to get one from IT." Fellow, Cohort 2, T3

Contribution to the Art and Science of Coproduction

Fellow comments indicate that they are actively thinking about how they may contribute to the art and science of co-production. At the time of interviews, a few fellows had given presentations and presented posters. Dissemination of co-production concepts and practice are occurring mostly within CHA.

During the interviews, no fellows reported having published an article yet, although several spoke of presentations and posters. Two key barriers to presentation and publication are time and lack of data. Time includes both the time-limited nature of the fellowship (projects are simply still in progress) as well as the limited time of busy practitioners for writing, etc. Lack of data can be attributed in some cases to the time-limited nature of the fellowship (projects are still in progress) and to the pilot nature of the projects themselves (low enrollments, etc.).

Planned distribution
"Moving forward, dissemination has become more a more part of how we do our business. We are looking at peer support group, that's an essential part of the services we offer to people. More formal dissemination is not happening now. **I hope to publish an article** about my project, and we wrote something on [a different topic], that's where I've been spending my time." Fellow, Cohort 1

"Conferences and publications **when data is available** (this project will be launched soon). There's a couple of natural conferences to present at." Fellow, Cohort 1

"Quite possibly... Paper because we did poster here already." Fellow, Cohort 1

"**I'm going to need to collect some data**. Ummm… let's see. It's conceivable. I might have six months worth of data which I could report on. So if I have that it might be enough to write a paper… I can present some preliminary data, maybe not something written. But I'm moderately confident that I'll have something that can be presented." Fellow, Cohort 1

"I will present in the poster events of CHA in May. I will have some leftover money in 2018 to hire a person to do quarterly data analysis of [condition] patients. And I'm going to write a scholarly paper on our experience with [project]. I want to use our story as an example of how one institution addressed it and the outcomes. I will get the analysis straight in May, and start to write the manuscript." Fellow, Cohort 2

"I have a **preliminary plan to write** the QI paper which will draw on the provider engagement data and through the fellowship we're doing interviews with the Senior vice presidents and so I think will draw from that data as well to describe our process and the PDSA cycles and what we learned from each of those." Fellow, Cohort 2

"I'm **trying to write a paper** on what we have done. And I also hope to present in a conference in Fall. The presentation will be about patient activation in general and all the different ways to approach it, with a brief touch on our findings." Fellow, Cohort 2

Barriers to distribution

"Need a **larger sample size** to reach the threshold where a journal would be interested. What I have in mind would combine a focus group with pediatricians done by a CLER fellow last year with the interviews we are doing now. It would be a rich publication." Fellow, Cohort 2

"I should be looking for opportunities to study that, but I have to do more thinking about that. Is it feasible to randomize integrated care providers? This is where I don't quite know how to suggest a statistically rigorous study. **The pressure just to roll it out is so great right now. I don't think there is much space to be academic about that**… If we had a longer fellowship to nurture the projects from the get-go to be more rigorous, they would get published more easily and would have a greater impact. It's hard to do given the limited amount of time we have each month." Fellow, Cohort 2

"As far as publishing or a conference, I could do that **if more people were enrolled**. The data collection process is set up to do so, so it's just a matter to get people in to see a pharmacist." Fellow, Cohort 1

"The scribing of this work will have a place to disseminate but I haven't got any plan on that. We are at a point that once we have a better navigation triage point system set up, it would be interesting to report on how our patient play in our system, how they are with this system. But **we are not there yet** as the system is not built yet." Fellow, Cohort 2

"I think there's going to be a lot that we have to say, my only hesitation is that there's **so many competing demands on my and everybody's time** and are we really gonna be able to do this." Fellow, Cohort 2

"**I have shared my learning with the people I work with**, they have been exposed to the basis and have been supported in applying them to their project. Co-production is for everybody, patients, doctors, managers, and staff... I've increased my role as a supervisor and a teacher. Writing still something I'm working on. I've done several presentations on it, want to figure out some way to increase our web footprint around integration of mental health and primary care in a way that honors the values of coproduction." Fellow, Cohort 1

"**[I have] shared with at least 2 or 3 other groups [I] work with**" – Talked about the importance of PDSA cycles, the importance of data collection, engaging patients in co-production. "Influencing [my] clinical care as well." Fellow, Cohort 1

"We do a lot of working with colleagues in other departments and patient advocate about how we deliver care. We did outreach and meetings with the National Association of Mental Illness." Fellow, Cohort 1

"I also **learned to communicate with people who are not in my same discipline** about the QI work we do and have them think of ideas to think of improvements in their discipline. The VP took a keen interest in making sure we all achieve these improvement goals. I can support him and have data ready for him." Fellow, Cohort 2

"I presented our work to other patient partners that [unclear name] supervises, and the parent advisory group in outpatient child psychiatry, and **I presented my project at a national conference**.... I attended a QI conference... a few weeks ago, this is the Academic Pedi Society, and they had a work-in-progress session that you could volunteer to present your work in, so I signed up, and they invited me to present my project. I had the opportunity to talk about this work with pretty senior QI people in pediatrics. There were a few other pediatricians there. It was a national platform for the project." Fellow, Cohort 2

"A patient partner and I submitted a work on co-production to an international conference in Baltimore. **We got accepted** and will present in June. The work focuses on the process but not on the outcome; it's about how to collaborate with patients." Fellow, Cohort 2