# Sponsoring and Implementing Hospital Learning Collaboratives

*Lessons Learned by the Robert Wood Johnson Foundation's National Program Office for Aligning Forces for Quality*

Initial paper prepared by Lise Rybowski of The Severyn Group in October 2011. Revised and updated by the Aligning Forces for Quality National Program Office in February 2015.

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## Introduction

Aligning Forces for Quality (AF4Q) is the Robert Wood Johnson Foundation's (RWJF) signature effort to lift the overall quality of health care in targeted communities, reduce racial and ethnic disparities and provide models for national reform. As part of this commitment, the AF4Q National Program Office (NPO) has conducted a number of hospital quality improvement (QI) learning collaboratives focused on improving the quality of care provided to patients and reducing disparities. Each offering has focused around three content areas: improving language services delivery, reducing hospital readmissions, and reducing emergency department crowding. The intention of the learning collaboratives was to help hospitals build the capacity to achieve their QI goals by applying what they learn about effective practices and assessing the impact of those practices on patient care.

Between 2006 and 2009, learning collaboratives were conducted as more traditional collaboratives with face-to-face meetings and site visits conducted between participating hospitals and the NPO. In 2009, RWJF recommended that the NPO pursue a virtual approach as the economic downturn was impacting participation in in-person collaboratives, especially related to expenses associated with travel. For this reason, a completely virtual learning collaborative was offered in each content area from 2010-2012.

The learning collaboratives were explicitly designed to provide access to expert input, promote problem-solving, foster a sense of urgency, and encourage rapid change. Each collaborative was specifically structured and designed to motivate and drive changes within the participating organizations. Each generation included monthly educational sessions for shared learning, progress reports, a website for access to program materials, and a password protected portal for data submission of standardized performance measures. The first two generations included face-to-face meetings and sites visits; whereas, the third (and final) generation was conducted as a virtual collaborative where hospitals did not meet in-person and all content was delivered via webinars and the website.

**Common elements of a learning collaborative**

- Participation of a number of multi-professional teams.
- Focused clinical or administrative subject.
- Evidence of large variations in care or gaps between best and current practice.
- Participants learn from expert faculty.
- Participants use a specific method for making and evaluating small changes quickly.
- Teams set measurable targets and collect data to track performance.
- Participants meet at least twice for 1-3 days
- Between meetings, participants exchange ideas and organizers provide extra support.

(Ovretveit J, 2002)

## Purpose of this paper

The purpose of this paper is to capture the lessons learned by the NPO in its role as the organizer and sponsor of a range of hospital learning collaboratives. The use of collaboratives as a quality improvement strategy, which gained widespread acceptance as a result of the Institute for Healthcare Improvement's Breakthrough Series, is growing and a few studies have focused on assessing the value and impact of

specific collaborative features (Nembhard, 2009) as well as the overall strategy. (Schouten L, 2008) Guidance, however, for potential organizers and sponsors on how to plan and implement a collaborative is limited. The AF4Q NPO seeks to address that gap by sharing its own experiences.

This paper does not attempt to assess the impact of any of the NPO's collaboratives with respect to measurable results or the long-term impact of the collaborative (i.e., whether the results were sustained or changes were spread beyond the original team). While the collaboratives did aim to change the culture of organizations in a way that enables them to sustain and spread improvements, the burden is on the organizations to move forward once the collaborative ends.

### The basis for these lessons

The lessons and other findings presented in this paper were distilled from interviews with the collaborative leaders and their colleagues at the NPO, participants in the collaboratives, and experts in the development and use of learning collaboratives as a quality improvement strategy.

## An Overview of the NPO's Collaboratives

The NPO organized and implemented three generations of hospital quality improvement collaboratives. (See table below.) Within generations, the focus areas of each collaborative differed, but they were all structured similarly. Across generations, each collaborative differed in the number of participating hospitals as well as the types and intensity of interaction between the NPO and the participants. The principal difference in the generations is a shift over time from a high-contact, more traditional collaborative approach to a low-contact, virtual collaborative approach that relied more heavily on technology as a medium for communications.

While the collaboratives varied in several significant ways that are discussed in detail below, they were characterized by an openness to sharing information and a spirit of constructive collaboration. Participants interviewed for this report were uniformly positive about their experiences and how it enhanced their hospitals' skills, knowledge, and creativity. Interestingly, even those who expressed some negative comments were quick to insist that the issues were on their end.

### Topics for the collaboratives

As shown in the table, each collaborative focused on a specific topic or problem. RWJF selected the focus areas based on its sense of national priorities; the NPO then refined those topics for the purposes of the collaboratives. Additionally, RWJF and the NPO strove to select topics that had a known "solution," i.e., a set of changes that have been proven to be effective, because a collaborative is most effective when everyone involved has a high degree of belief that they know what will get a result. All of the focus areas addressed issues that many hospitals were already working on; none of the collaboratives introduced something entirely new. Moreover, several of the topics repeated across two or three generations of collaboratives.

Timing was also a consideration for the NPO when selecting potential focus areas. For example, public reporting of hospital quality measures was a big concern when Expecting Success was introduced, and so

the collaborative focused on improving the core measures of care for patients who had a heart attack or heart failure that were being reported by CMS.

**Table 1. Collaboratives Sponsored by the National Program Office of Aligning Forces for Quality**

| Name | Topic | Length of Collaborative | Number of Participants |
|---|---|---|---|
| **First Generation (Prior to AF4Q)** | | | |
| ***Urgent Matters*** | Patient flow in emergency departments | 18 months | 10 hospitals* |
| ***Expecting Success*** | Hospital readmissions | 3 years | 10 hospitals* |
| ***Speaking Together*** | Language services delivery | 18 months | 10 hospitals* |
| **Second Generation** | | | |
| ***Language Quality Improvement Collaborative*** | Language services delivery | 18 months | 9 hospitals |
| ***Equity Quality Improvement Collaborative*** | Hospital readmissions | 18 months | 8 hospitals |
| ***Urgent Matters*** | Patient flow in emergency departments | 18 months | 6 hospitals* |
| ***Transforming Care at the Bedside (TCAB)*** | Nursing care | 3 years | 17 hospital units |
| **Third Generation: Hospital Quality Network** | | | |
| ***Increasing Throughput*** | Patient flow in emergency departments | 18 months | 40 hospitals |
| ***Reducing Readmissions*** | Hospital readmissions | 18 months | 77 hospitals |
| ***Improving Language Services*** | Language services delivery | 18 months | 32 hospitals |
| ***Transforming Care at the Bedside (TCAB)*** | Nursing care | 18 months | 135 hospital units in 6 AF4Q communities |

*Hospitals participating in these collaboratives did not need to be located in one of the 16 AF4Q communities.

## Similarities across the NPO's collaboratives

The collaboratives were all tightly organized to guide hospitals through the process of improving quality in the focus area. To that end, they had several elements in common, including:

- A nurturing relationship between the NPO and the participants;
- A commitment to ambitious, well-defined goals and the use of performance measures;
- An emphasis on data reporting and feedback;
- The process by which the hospitals work;
- High-quality education sessions and resources designed to impart expert knowledge, share information among hospitals, and plan action steps for hospitals;
- Consultation with QI leaders and other experts; and
- Documenting best practices for shared learning and spread of effective, replicable tools and strategies.

In each collaborative, hospitals had varying technical assistance needs. Some hospitals had substantial experience with quality improvement tools and techniques, such as performance measurement, data analysis, and rapid cycle change strategies, while other hospitals were less equipped to undertake such transformational quality improvement projects. The NPO provided a range of technical assistance designed to jumpstart quality improvement efforts in all participating hospitals. In each collaborative offering, the NPO offered guidance in:

- Forming a multidisciplinary core team;
- Developing a work plan with targeted goals and strategies;
- Collecting and reporting performance measure stratified by patient race, ethnicity, and language (R/E/L) data; and
- Developing, testing and adopting tools and strategies that ensure evidence-based care.

Each collaborative was resource- and labor-intensive; however, each varied in the ways in which they delivered resources to participants. In the traditional collaboratives, the NPO devoted a great deal of time and effort to providing personalized support and guidance and spent time preparing for multiple site visits and in-person meetings. The popularity of the virtual Hospital Quality Network (HQN) collaboratives meant that the NPO had to develop the capacity to deal with huge amounts of the data and interact with a large number of participants virtually. This resource issue was different than that of the traditional collaboratives, but no less challenging.

This section discusses how the NPO implemented the common elements and features.

## Ambitious goals

Each collaborative established specific goals that gave participants a way to measure success relative to quantitative targets. In every case, the NPO set the targets intentionally high. For the HQN's Reducing Readmissions collaborative, for example, one goal was to reduce 30-day readmission rates following hospitalization for heart failure by 20 percent from baseline by March 2012. Each month, hospitals tracked and reporting their progress towards that specific goal.

Participating hospitals were not necessarily expected to achieve those targets, as they were intended to help the hospitals focus and feel a sense of urgency. The goals were also a way to communicate the idea that the collaborative was just a first step; participants were expected to keep working towards the goal targets after the collaborative ended.

In addition to collaborative specific goals, there were program level goals and indicators that the NPO was expected to meet. For instance, the NPO assessed the success of the HQN collaborative by looking at whether the hospitals showed improvement in the measures overall in order to meet RWJF's goal that 50% of the HQN hospitals demonstrate improvement in their performance.

## Use of performance measures

The NPO required that hospitals agreed to collect and report on a common set of performance measures to emphasize the importance of having real-time data that the participating hospitals could act on. The performance measures used by the NPO included metrics approved by the National Quality Forum, the

Hospital Quality Alliance, CMS, and/or the Joint Commission. For some of the collaboratives, the measures had to be developed by the NPO. For instance, the language services collaboratives used measures that had been developed during the "Speaking Together" collaborative.

This approach contrasts with that of the Institute for Healthcare Improvement (IHI), which asks participants to measure the same things but not necessarily by using the same data definitions. Although IHI's approach may limit the amount of time and effort the hospitals have to put into the measurement process, it means that the hospitals' results cannot be aggregated and compared. The NPO found that using a common set of measures for each collaborative provided a uniform process by which to compare improvements both within and between hospitals and, in some cases, between generations of the collaboratives.

## Data analysis and reporting

The data requirement to submit data each month was central to the NPO's collaborative approach. Hospitals were required to submit data monthly to the NPO for the agreed-upon measures stratified by R/E/L.[1] All data was submitted on through a website portal. Due to refinements over the years, this process was widely regarded as user-friendly.

This data reporting requirement impacted the hospitals' commitment to the program and forced them to participate actively. Without it, the NPO believes that some hospitals would have reduced their level of participation to being silent listeners. Data reporting also enabled the NPO to assess the level of activity and engagement for each team. One participant noted that submitting the data forced the team "to stay on top of it and pay attention to results." Another commented that having data for meaningful performance measures gave them the evidence they needed to support requests for more resources; it allowed them to "speak with data, not just opinions."

> *One participant in the HQN's Reducing Readmissions collaborative commented that collecting baseline data was "extremely helpful – probably the best thing (she) did." Both the process of gathering the data and the data itself were valuable, in part because they helped her get a feel for what was driving readmissions to the hospital. This data also gave her the information she needed to talk with others in the hospitals about what was happening.*

All hospitals and other applicable departments and staff (i.e., registration, information technology, etc.) were trained by the NPO on how to collect and report on the performance measures for each collaborative. Personnel were also trained on the standard collection of R/E/L data using the Office of Management and Budget (OMB) categories using training materials were based on the Health Research & Educational Trust (HRET) toolkit.

[1] There are two exceptions to this general rule. First, the hospitals participating in the Improving Throughput collaborative submitted patient records rather than a small number of measures; the NPO staff pulled the data for the measures out of those records. Second, the hospitals that participated in the regional TCAB program submitted their data to the collaborative sponsor in their respective regions; those regions then sent a report to the NPO three times a year.

The NPO provided individualized feedback to hospitals via data analysis, trends and benchmarking reports on a quarterly basis. Reports were also sent to the CEO of each hospital. The reports from the NPO were regarded as high-quality and suitable for sharing in the hospitals. At regular intervals, the NPO conducted analyses of the data across the collaborative and shared blinded reports with the hospitals so that they could see their own data compared to the collaborative's. The consensus among the NPO and participants the ability to combine and report data at the level of the collaborative was a strong contribution to the learning process.

Within HQN, this process became challenging for the NPO due to the size of the collaboratives. For the Reducing Readmissions collaborative, which had 77 hospitals, it could take 3 to 4 months for the NPO to turn around the data. This is not necessarily an impediment for the hospitals, which could review and act on their own raw data, but it made it difficult for the NPO to immediately identify issues and advise individual hospitals.

## Plan for Improvement and Progress Reports

At the start of each collaborative, hospitals were required to develop a plan for improvement, which included the time-specific and measureable strategies the team planned to achieve the aims and goals of the collaborative. To track progress toward the plan for improvement, hospitals were required to submit regular progress reports.

Progress reports were critical to the NPO's efforts to understand each team's activities and support them in moving forward. In addition to forcing hospitals to document their changes and results, the reports provided challenges, lessons learned, and successes that the NPO could share with key stakeholders, such as physician committees, hospital administrators and other regional collaboratives.

The NPO was committed to providing written feedback to the hospitals' improvement plans and progress reports. Feedback included ideas the hospitals may not have thought of, tools they may not be aware of, and comments on aspects of their plan and/or progress (e.g., team composition, involvement of hospital administrators, excessive burden on one person). This written feedback was intended to provide positive and supportive feedback to help maintain enthusiasm and motivation. These reports also helped the NPO plan future education session offering for webinars or face-to-face meetings.

> *One participant commented that being involved in the collaborative seemed overwhelming at first: "Like a full-time job on top of my regular job." But the work became easier as the team gained experience with doing PDSAs and submitting reports. Now that the team has practiced and mastered the methodology, they don't do anything without initiating a PDSA. For this participant, putting this methodology into daily practice was one of the main effects of the collaborative.*

Over time, the progress reports evolved from monthly to quarterly requirements because the NPO found that they could be onerous for participating hospitals and were not necessarily helpful when completed so often. In addition, the effort to provide regular, personalized input was challenging in the context of the virtual collaboratives due to the number of hospitals involved.

## Educational sessions

Each collaborative retained the critical elements that foster shared learning and the spread of effective quality improvement tools and strategies within and among participating hospitals; however, over time, the collaborative structure evolved toward a less resource intensive model.

During the first two generations of the collaboratives, face-to-face meetings at the beginning and the end of each collaborative provided opportunities for shared learning and the spread of effective, replicable tool and strategies. National experts and individuals from previous collaboratives served as faculty and mentors during these meetings. Face-to-face meetings were not offered during the virtual HQN collaboratives as all content was delivered during webinars.

The use of monthly conference calls/webinars were the mainstay of the NPO's efforts to support the hospitals as these sessions were the pipeline for delivering content and the main opportunity for cross-pollination, especially for the virtual collaboratives. The monthly sessions typically featured expert speakers as well as presentations by select hospitals on specific strategies being undertaken. Collaborative participants reported that the webinars were timely and helpful, often providing the evidence needed to support strategies the hospitals wanted to undertake. Several HQN participants commented on the value of being connected to national experts or resources and being able to learn how other hospitals were handling similar issues. One participant noted that her concerns often coincided with the issues addressed on the webinars and she could also look in the archives to find recordings on whatever topic she is dealing with.

During HQN, the NPO found it difficult to support and engage discussion during the monthly webinars, so they were mostly educational in nature. This may have affected attendance, which varied from month to month and across the collaboratives. In the smaller traditional collaboratives, everyone attended. In the virtual collaboratives, attendance varied from 50 to 70 percent of the participating hospitals.[2]

## Instruction regarding quality improvement methods

The NPO saw quality improvement methods such as rapid cycle or PDSA as foundational to implementing change within hospitals. Each collaborative devoted time to getting participating hospitals familiar and comfortable with quality improvement methods and provided access to interventions, strategies, approaches, tools and actions that had helped other hospitals improve quality and clinical outcomes. Hospitals were also encouraged to access their focus area's quality improvement leader as needed to problem solve specific areas related to performance or seek additional coaching on quality improvement methods.

For some hospitals, involvement in the collaborative was the first time they assessed their services in the context of quality improvement methodologies and used a structured process for identifying and tackling problems. One collaborative participant noted that her department had always collected data but did not necessarily have a good use for it until their participation in the collaborative. For most hospitals, the

[2] One exception is the mandatory webinar where participants were trained on how to collect standardized data on race, ethnicity, and language.

methods eventually become part of their day-to-day process for approaching challenges: by measuring how they were doing, coming up with a plan for improving, and measuring the impact.

## Web-based toolkit

The NPO offered participants access to toolkits on a password-protected website portal. The toolkits, which included training, tools, articles, posters, case studies, slides from webinars, and other resources, were intended to supplement the education sessions and technical assistance provided by the NPO. The resources also provided participants with information they could use to justify and implement changes within their hospital.

Each toolkit started as a set of resources and grew over time as the NPO and the participants added materials. The NPO could tell from the activities undertaken by participating hospitals that they did access and download the tools, especially in the beginning of the collaborative, but there was no effort to explicitly track use of the resources. Some participants volunteered that they used or posted resources in the toolkit. One woman noted that the tools available were more extensive than what had been available to her in other similar quality improvement initiatives.

## Communication within Collaboratives

During the second and third generation collaboratives, hospitals received a bi-weekly email update from NPO which provided them with timely focus area updates about newly available resources and tools or upcoming webinars and conferences that may assist in their quality improvement work.

Listservs were made available to enable hospitals to communicate with each other; however, they had a mixed record as an effective tool. While the listserv appeared to be a useful for some of the earlier collaborative hospitals and during the TCAB collaboratives, it got little traffic in the HQN collaboratives despite regular reminders from the NPO of its availability, perhaps because the information needed was available in other ways – for example in the bi-weekly emails, during webinars or on the website.

In HQN, the NPO experimented with scheduled times for office hours or "affinity groups" to facilitate discussion among people dealing with the same issue. However, the hospitals showed no interest in this opportunity to problem-solve with peers, which the NPO attributed to the availability of the NPO for technical assistance on demand.

## Staffing

Each collaboratives required a cadre of staff. The staff assigned to manage the work of the collaboratives included:

- Registered Nurses (1 FTE or less per collaborative) with a minimum of a master's degree in nursing, content knowledge, and extensive experience in conducting quality improvement initiatives in healthcare.

- Research Assistants/Associates (1 FTE per collaborative) with a minimum of bachelor's degree with 1-3 years of experience for an assistant and a master's degree with 1-3 years of experience for an associate. These staff members functioned as project managers.
- A Data Analyst (1 FTE shared across collaboratives) with a minimum of bachlors degree with 1-3 years of experience

In addition to the staff directly supporting the initiatives, other staff including management, communications specialists, and a senior statistician contributed effort to each of the projects. Participants across all the collaboratives commented on the benefits of having ready access to encouragement and support from subject matter experts at the NPO.

While the HQN collaboratives were less "hands-on" than the previous collaboratives, staffing levels remained the same to manage the challenges associated with supporting a much larger number of participants at a greater distance. In hindsight, the NPO should have better matched the capacity of the program office (i.e. staffing, technical expertise and technology) with the number of participants. The nearly 6-8-fold enrollment compared to earlier collaboratives was unexpected and required significantly more staff resources even in a virtual environment.

## Differences Across the NPO's Collaboratives

While each generation of collaboratives had much in common, they also varied in several important ways:

- "High-touch" versus virtual contact
- The application process
- Grant funding to participants
- Size
- Period of time
- Role of senior leadership

### High-touch versus virtual contact

The most significant difference between the first two generations of collaboratives and the HQN collaboratives was the degree of contact between the NPO and the hospitals and among the hospitals. The first two generations included "high-touch" activities. For example, the original Speaking Together collaborative included four in-person meetings, two site visits at each hospitals, and monthly conference calls, progress reports, and data reports. The second generation collaboratives employed a less intense approach but were still hands-on. EQIC and LQIC, for example, included two in-person meetings, one site visit to each hospital, and monthly conference calls, progress reports, and data reports. The NPO believes that participants benefited from the resulting camaraderie and collaboration, but not to the extent seen in the first generation of collaboratives.

In 2008, RWJF commissioned a firm to explore the reasons why hospitals chose not to participate in learning collaboratives. The most common reasons for not participating were related to staff time required (i.e., not having time to implement the program and attend in-person meetings) and financial considerations (i.e., travel and staff costs associated with attending meetings). However, over half said they

would be interested in receiving the technical assistance and expert consultation that was offered as part of the program.

These findings were instrumental in developing the HQN collaboratives. In HQN, a number of elements of the previous collaboratives were eliminated including the competitive enrollment process and its associated extensive grant making process, all site visits, and all face-to-face meetings. In addition, the number of required progress reports and performance measures were reduced. The majority of contact in the HQN occurred virtually through webinars, emails and website access. Unlike the earlier initiatives which provided stipends to the participating hospitals to help defray expenses, no stipends were provided to participate in HQN.

The transition to virtual collaboratives offered both benefits and disadvantages. On the one hand, the virtual collaboratives allowed for significant diffusion of quality improvement methods and evidence-based practices. Virtual collaboratives were also relatively low-cost for both the hospitals and the NPO. However, participants did not appear to be as engaged in and committed to the work and contact between the participants and the NPO staff and expert faculty was limited in depth and scope. The virtual nature of HQN lacked a sense of personal connection, which affected the extent to which hospitals regard the activities—including the submission of data and progress report—as a priority.

A participant in one of the early collaboratives commented that the intense, hands-on nature of the program played an important role in getting everyone involved in addressing performance standards out of their respective siloes and to the table together. It generated necessary pressure as well as a sense of accountability to do what they were supposed to do. This approach was especially valuable for an organization that had never participated in this kind of endeavor or combined disciplines to address a problem. But participants noted that once you have been through this kind of experience, you do not need that level of monitoring again. For hospitals that have had the experience of learning and teaching the methods to others and have acquired an improvement culture and skill set, the level of support in the HQN was appropriate.

## The application process

For each generation, applications were made available to the hospitals several months before the official collaborative launch. Although each application included a form that to be signed by the hospital Chief Executive Office to signify high-level commitment to the collaborative, the overall application evolved over time.

### Involvement of Alliance project directors.

The NPO offered the second generation of collaboratives within the AF4Q communities but did not involve the project directors. When few hospitals signed up, the NPO realized that this strategy was not effective. As a result, a core decision for recruitment of the HQN was to employ a decentralized approach. The NPO conducted individual calls with each AF4Q Project Director to discuss the Alliance's questions and ideas about recruiting hospitals and the value of HQN to their market.

Each Alliance was asked to recruit two or three hospitals using materials provided by the NPO to explain the program. The approach was more successful in some communities than others, depending on the

relationship between the Alliance and the hospital organizations in the community and the level of interest of the project director in the HQN. This approach was overwhelmingly successful, resulting in far more participants than the NPO had anticipated.

### Use of selection criteria.

For the first two generations, the application process was competitive and involved rigorous selection criteria. In addition, the number of hospitals that could participate was capped.

In contrast, the HQN welcomed hospitals of all sizes and types. Once the hospital decided to enroll, the CEO was asked to sign a short memo of understanding/letter of commitment that outlined the responsibilities of the hospitals and the NPO. Unlike previous generations, in HQN, hospitals were able to choose to participate in one, two, or all three of the focus areas – Reducing Readmissions, Increasing Emergency Department Throughput, and/or Improving Language Services. The HQN afforded small, rural, critical access hospitals an opportunity to participate in a national program funded by RWJF. Although participation in the HQN meant resource demands, many hospitals found that removing the travel requirement made it possible for them to commit to full participation.

One downside of this non-competitive application process was that the hospital staff tasked with the collaborative work did not always know that a senior leader agreed to participate or anything about the AF4Q program. Another related issue was that there was no clear, meaningful role for the project directors once the recruitment stage was over, although each Alliance received a stipend to support some kind of convening or event with the hospitals. The NPO initially asked hospitals to keep the Alliance directors up to date on their activities but quickly realized that most hospitals were not aware of the Alliance until they were recruited. The burden shifted to the Alliance to reach out to the hospitals in the hope that the continued involvement of the Project Directors could overcome any gaps between the Alliances and the hospitals and enable them to work together to accomplish other goals of AF4Q.

In hindsight, better defined eligibility criteria would have benefited the HQN. Some hospitals did not actually need help with the focus area of the collaborative, while other were not truly committed to the goals of the collaborative. In addition, many hospitals had such small volumes of readmissions or emergency department patients that data was not meaningful, generalizable, or helpful in quality improvement efforts.

## Grant funding to participants

Hospitals in the first generation of traditional collaboratives—which required a great deal of work and time on the part of the hospital—received significant funding from the RWJF to support their participation. Hospitals in Expecting Success, for instance, received $200,000. Hospitals in Speaking Together received $60,000 each. That level of funding gave the NPO some leverage that it lacked with participants in the HQN, who received no funding. Prior to the launch of the HQN, the NPO questioned whether hospitals would be willing to go through the same effort in the absence of that kind of money, especially in 2008's economic environment. The money was believed to create an obligation on the part of the hospitals.

In the first TCAB collaborative, the hospitals were offered no funding at all, which was found to be a barrier to uptake. (Social and Scientific Systems, Inc., April 2009) But this barrier did not come into play with the

popular HQN collaboratives, which also did not include any financial support for participants. The strategy reversed direction with the initiation of the regional TCAB collaboratives, for which the Alliance sponsors could charge the hospitals to participate. Each region handled this differently. For example, one community charged for meeting attendance only; another charged $5000 to cover the costs of the regional leader who oversaw the collaborative.

## Size

The first two generations of collaboratives were small in size, with only 10 or so hospitals participating in each collaborative. This number doubled with the national TCAB collaborative. With the HQN collaboratives, the NPO had to manage a significantly larger number of hospitals.

Because the 16 AF4Q project directors were asked to recruit two or three hospitals each for the HQN, the NPO anticipated a maximum of 46 hospitals for each focus area, for a total of 138 hospitals. In the end, 167 hospitals and 235 teams signed up for the HQN, partially due to some hospitals signing up for multiple focus areas. In light of the NPO's experience with earlier collaboratives, this level of uptake was unexpected and the NPO was not prepared with the level of resources needed to meet the needs of so many hospitals; however, they could not limit the number of participating teams and hospitals after the fact.

Some hospitals did end up dropping out of the HQN collaboratives. The Improving Throughput collaborative, for example, ended up with 44 of the 77 hospitals that initially signed up. Most decisions to leave the collaboratives were the hospitals' choice: some determined that the work was more demanding than they had anticipated, others needed to cut back on the number of collaboratives they enrolled in. Drop-outs also occurred when a key person left the hospital.

## Period of time

Nearly all of the collaboratives took place over an 18-month period, not including the application and enrollment process or the time needed for the NPO to prepare materials. The first Expecting Success collaborative and the ongoing national TCAB collaborative, on the other hand, stretched over 3 years

The NPO felt that 18 months was the minimum length that a collaborative should be offered, but expressed concerns about the upfront time needed to prepare for improvement work. It can take 3 to 4 months for hospitals to deal with information technology issues, such as changes to registration systems, to generate the required data. Many hospitals also struggled during those first few months to form an effective team, a process that is often complicated by personnel issues (e.g., turnover, vacations, the lack of a team leader). Consequently, it was not unusual for hospitals to be several months into the collaborative before they got to the real working phase of implementing and testing improvements.

## Role of senior leaders at hospitals

In all of the collaboratives, the NPO expected the senior leaders at the participating hospitals to demonstrate commitment to the work of the team. It was considered critical for the project leaders in the hospitals to get buy-in from the senior administration and keep leaders informed about what they are doing and why. Involving senior leaders gave them a better understanding of the issues, made them more

supportive, and provided opportunities for recognition of what the team had accomplished. It also, at times, made it easier for the team to get the resources it needed and to communicate why the team's work should be part of the organization's strategic plan.

In the traditional collaboratives, the CEO and other senior administrators were required to attend some of the in-person meetings. One participant in an earlier collaborative noted that having the CEO attend made a big difference with respect to building relationships and communicating challenges and accomplishments in a specific area of the hospital's services. In the HQN collaboratives, this commitment was documented in the form of a signed letter from the CEO. Teams leading the effort were encouraged to keep senior leaders involved, but there was no structure for making that happen.

## Financial Considerations

The HQN was designed to be completely virtual as a way to eliminate the expenses related to site visits and meetings in order to increase the likelihood of hospitals participating as the economic downturn was forcing hospitals to decrease expenses while at the same time placing greater emphasis on quality improvement and patient safety activities. The table below compare the costs of the traditional collaboratives with the cost of the virtual collaborative.

| **Traditional Collaborative** | | **Virtual Collaborative** | |
|---|---|---|---|
| *Non-Salary Direct Expenses:* hospital stipends, NPO travel for sites visits, collaborative meetings, conference calls/webinars, hospital recognition awards and consultant fees* | **$551,00** | **$42,000** | *Non-Salary Direct Expenses:* webinars, recognition awards, consultant fees* |
| *Salary Direct Expenses:* 3 full-time equivalent (FTE) Registered Nurses, 3 FTE Research Assistants/ Associates plus 1 FTE Director and 1 FTE data analyst. Staffing levels were** | **$1,270,000*** ** | **$1,270,000*** ** | *Salary Direct Expenses:* 3 full-time equivalent (FTE) Registered Nurses, 3 FTE Research Assistants/ Associates plus 1 FTE Director and 1 FTE data analyst** |
| *Total Direct and Salary costs* | **$1,821,000** | **$1,312,000** | *Total Direct and Salary costs* |
| *Cost Per Team (n=21)* | **$87,000** | **$8,500** | *Cost Per Team (n=149)* |

* Does not include capital expenses (i.e., computers and other technology), materials and supplies, overhead, and some up-front costs like computer software.
** Does not include additional management (i.e., senior staff of the NPO), communications specialists, website and web team support, and a senior statistician who contributed effort to each of the collaboratives.
*** Because each set of collaboratives lasted approximately 18 months, with startup activities and wind down activities, the cost for personnel is most realistically calculated for 2 years.

As expected, the biggest cost savings between the two collaborative offerings was the elimination of the costs related to the hospital stipends, site visits, and collaborative meetings. The bulk of the collaborative costs, salary expenses, remained the same across each generation.

The popularity of the HQN in the AF4Q Alliances coupled with the reduction of some of the elements of the traditional collaboratives significantly reduced the cost per team; however, if NPO had recruited to its target enrollment, the cost per team would have been higher, but still under the cost per team for the traditional collaborative.

In addition, the stretched the staffing resources within the NPO and, in hindsight, the NPO should have flexed and increased staffing to meet the increased need even in a virtual environment. Increased staffing would have increased the direct expenses for salary and increased the cost per team for the virtual collaborative.

Although some of the aspects of the virtual collaborative were less expensive than those incurred during the more traditional collaboratives, there are financial tradeoffs that an organization must take into consideration when planning what type of collaborative to offer participants. For virtual collaboratives, the reduced costs for travel and meetings could be offset by costs related to staffing and infrastructure.

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