Evaluation of AHRQ’s Partnerships for Quality Program

Final Report

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Debra Lipson
Marsha Gold
Melanie Au
Katherine Gruene Segersten

Submitted to:
Department of Health & Human Services
Agency for Healthcare Research and Quality
Redland Technology Center, 1st Floor
540 Gaither Road
Rockville, MD 20850

Project Officer:
Charlotte Mullican

Submitted by:
Mathematica Policy Research, Inc.
600 Maryland Ave. S.W., Suite 550
Washington, DC 20024-2512
Telephone: (202) 484-9220
Facsimile: (202) 863-1763

Project Director:
Marsha Gold
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EXECUTIVE SUMMARY

The Partnerships for Quality (PFQ) program sponsored by the Agency for Healthcare Research and Quality (AHRQ) aimed to accelerate the translation of research findings into practice on a broad scale through partnerships led by organizations well-positioned to reach end users. Initiated in 2002, PFQ was one of AHRQ’s first efforts to use partnerships to improve health care quality, safety and security. Hence, AHRQ is very interested in understanding what can be learned from the experience. AHRQ contracted with Mathematica Policy Research, Inc. (MPR) towards the end of the program to evaluate PFQ and discern the lessons it might have for future efforts at translating research into practice. This final report provides the results of MPR’s evaluation.

A. PFQ PROGRAM GOALS AND CONTEXT

AHRQ’s solicitation for the PFQ program represented an important departure from its traditional health services research grants. It was designed to encourage applicants beyond the usual academic institutions the agency had historically funded. AHRQ wanted to fund “change agents” that not only possessed the evidence-based knowledge to improve care but also could create the partnerships and had the capacity to influence changes in health care organization and delivery. In addition to their own projects, grantee agencies were expected to participate in cross-grantee meetings and activities designed to foster learning and develop new knowledge on how to use partnerships to achieve quality goals.

AHRQ spent about $20.5 million on PFQ over the life of the program, of which about $17.6 million came from AHRQ appropriations and about $3 million from other DHHS funds. Most grantees received four years of funding, although a few were for shorter periods of time either by design or because problems arose. AHRQ originally awarded grants to 22 organizations, but only 20 remained after the first year. One of the 22 withdrew from the program before it received funding, and another grant was not renewed after the first year. These two are therefore not included in this evaluation.

The 20 projects that are the focus of this evaluation targeted a broad range of diseases, conditions, and health care issues or settings. Most (17) projects focused on clinical quality improvement and received grant awards of about $300,000 per year. Of the 17 in this first subset, 15 focused on improving provider quality of care, and 2 focused on purchasers’ roles in influencing quality of care. The other three projects focused on improving the preparedness of health care providers to respond to bioterrorism and other emergencies, and received grant awards that were about $100,000 per year. Two of the 20 grantees had both bioterrorism preparedness and quality improvement components. In pursuing their goals, the 20 PFQ projects used a wide assortment of partnership models and partner organizations, and employed diverse strategies and techniques for increasing provider use and adoption of evidence-based practice.

When PFQ was developed, AHRQ’s mission was transitioning from focusing mainly on the production of knowledge to promoting the actual use of knowledge to improve care delivery. AHRQ senior executives involved at the outset indicated that they hoped the PFQ program would help promote a change in culture within the agency. Many AHRQ staff were involved in
developing the grant solicitation, although several of them are no longer with the agency. The perceived novelty of PFQ’s focus and the turnover in agency leadership involved in its development are important factors to understand in assessing PFQ’s experience, since they affected the strength and clarity of the agency’s direction for the program.

B. KEY EVALUATION QUESTIONS

The goals of this evaluation are to determine the effectiveness of the grant-funded projects, learn how partnerships could be used effectively to translate research into practice, and assess the overall contribution of the PFQ program to AHRQ’s strategic goals. This evaluation addresses four key questions:

1. What impact did PFQ project activities have on improved health care quality processes and outcomes, and on the dissemination of effective quality improvement methods? In other words, how effective were the projects in accomplishing what they proposed and what AHRQ funded?

2. Did PFQ generate partnerships and infrastructure important to sustaining change on an ongoing basis? How did the partnerships and networks created by the PFQ projects contribute to the project outcomes?

3. How adequate was AHRQ’s support and oversight of the program? How well did the agency support the projects and generate synergy and collaboration across projects?

4. What contribution did PFQ make towards AHRQ’s strategic goals, both through the individual projects and the program-wide activities?

C. EVALUATION METHODS

To guide the evaluation, MPR developed a conceptual framework that identifies key participants, the way they are linked, and the critical questions of interest from each perspective. The framework is based on the premise that the success of PFQ in achieving its goals depends on productive interactions among four core participating groups: 1) AHRQ staff, 2) the lead grantee organizations, 3) the relevant collaborators and targets for each grantee’s efforts, and 4) the coordinating activities put in place by AHRQ to foster program goals and link PFQ to AHRQ’s broader quality agenda and objectives. The evaluation framework also assumes that each actor/program component must successfully execute a set of relevant tasks, decisions, and communications for PFQ to achieve its goals.

The data for this evaluation were AHRQ and grantee documents, interviews with AHRQ staff and grantee leaders and partners, and observation of two AHRQ-grantee (AHRQ Council of Partners) meetings. The information derived from these sources was used to describe and assess the outcomes from the perspective of each set of actors and understand which factors facilitated or impeded their work. The evaluation is largely qualitative in nature. However, when grantee progress reports and self-assessments included concrete process or outcome measures of the reach and impact of their efforts, they were included in this evaluation.
D. MAJOR FINDINGS

1. What Did PFQ Grantees Seek to Do?

The central focus of PFQ was to apply evidence-based practices to improve quality of health care. PFQ also provided grants to improve the health care system’s readiness to address bioterrorism preparedness, although grants in this area were smaller. Of the 21 grants made initially, 18 received funds for the first purpose and 5 for the second. The latter five include two that included both components. The particular approach used by grantees varied substantially across grants, as did the conditions, settings, and populations they aimed to reach.

**Clinically Focused Grants.** Of the 18 grants focused on quality, 15 planned to work directly with providers (directly or through intermediary organizations) while 3 attempted to leverage purchasing power in ways that would change incentives to reward providers of high quality care. Of the 15 grants focused directly on changing provider behavior, 6 worked with hospitals, 4 with long-term care/home health providers, and 5 with office-based physicians. Most grantees planned to work through the full four-year period on interventions that were either sequenced and/or expanded to reach more providers and patients over time. Of the 15 grants that sought to influence provider behavior, all but 3 hoped to measure changes in care processes as a way of evaluating their success. These three exceptions had less tangible aims related to the development of infrastructure and knowledge that might ultimately support improvements in quality or safety. For the most part, the three purchaser-led grants (one of which was discontinued after the first year, reducing this subset to 2 of 17 quality oriented grants) planned to gauge their success by their ability to modify incentives, rather than by the effects of changing incentives, although one pilot project in this group examined whether workers modified their choice of hospital in response to discounts for using high quality facilities.

**Bioterrorism Preparedness Grants.** Bioterrorism preparedness projects typically defined their target audience more broadly than other grantees. The three projects devoted entirely to this goal sought to develop simulation models to test the utility of community response to bioterrorism threats or other vital emergencies, train practicing physicians on how to respond to threats, and assess bioterrorism readiness among provider systems in particular locales. Two grantees had dual purpose funding (quality improvement and bioterrorism preparedness) each of which had strong hospital links, which they sought to leverage in examining emergency and disaster preparedness more broadly. The bioterrorism preparedness grants did not typically include a formal evaluation component and instead proposed to judge their success by producing findings that would help to improve the health care system’s ability to respond to disease outbreaks or disasters.

**Lead Organizations.** Of the 20 PFQ grants that had more than a year of funding, 12 went to organizations of the type highlighted by the Request for Applications (RFA): 5 to provider-affiliated research groups, 5 to health professional organizations, one to an accreditation body, and one to an employer coalition. Of the remaining eight, four went to independent research organizations, two to state government agencies, one to a university, and one to a private company that sells electronic medical record systems. Though AHRQ did not allow academic institutions to be the grant recipient (except in the case of bioterrorism preparedness), they could be involved in the leadership group; principal investigators based in academic institutions led six grants.
Partners and Affiliates. Consistent with the RFA, grantees proposed partnerships with a variety of organizations and individuals that could help them achieve their goals. Both the number and types of organizations involved varied, as did their respective roles on the grants. Some partners were expected to work closely with the lead grantee on the overall leadership of the project. Instead, or in addition to this, others were chosen because of their ability to fulfill particular roles. Some were “intermediaries” who helped to recruit target organizations and create linkages for the grantee. Others were the “target organizations” themselves. Another group of partners included advisors with specialized expertise, such as clinical, health services research, or particular aspects of health delivery.

2. To What Extent Did PFQ Grantees Succeed?

For a program with limited visibility, PFQ does appear to have made a difference in health care security, quality and safety in some of the targeted health care organizations, and raised quality of care processes and outcomes for many Americans. Though final outcomes are not known yet for all projects, available results are encouraging, suggesting that some grantees made notable progress and others developed less striking, but important new knowledge. The report provides substantial detail about the projects’ impact in four categories: reach, implementation, effectiveness, and sustainability as well as potential for broader diffusion. Overall results are briefly described here.

Projects with Particularly Striking Outcomes. In terms of their ability to change clinical practice in ways consistent with evidence, four projects stand out based on the magnitude and scope of their effects: 1) Child Health Corporation of America, which improved clinical performance in several areas at 18 hospitals and has expanded quality improvement efforts at 42 children’s hospitals; 2) International Severity Information Systems, which streamlined care processes in nursing facilities in ways that led to demonstrated reduction in pressure ulcers; and has launched a follow-up project to spread its approach more widely; 3) Physician Micro Systems/MUSC, which has expanded an effective strategy to get performance data into greater use in physician offices for improved process of care; and 4) the Visiting Nursing Service of New York, whose model for diabetes home care has shown positive effects and is being extended in 10 states.

Projects Illustrating New Approaches That May Ultimately Generate Payoffs. Though less striking, four other projects developed new approaches to quality improvement that have the potential for attaining broader scope and merit greater attention: 1) the American Academy of Pediatrics, which has sustained its clinical improvement efforts through new projects that build on its practice-based, quality-improvement CME course, and has linked the approach to board certification; 2) the American College of Physicians, which had strong preliminary results in diabetes care improvement and is pursuing team-oriented CME projects in other clinical areas; 3) the AMA, which is now working with EMR vendors to integrate its performance measures into their systems; and 4) Catholic Healthcare Partners, whose work on improving heart failure care in hospitals is promising and is being disseminated nationally through the American Heart Association.

Projects That Generate Important Lessons Despite Disappointing Results. Other grants effectively pursued important areas but did not generate detectible positive improvements,
though they have important lessons to share within their respective fields. For example, The Leapfrog Group’s work on performance incentives may well be very important in enhancing understanding of the barriers to introducing these incentives. The Lehigh Valley Hospital and Health Network’s approach to diabetes control proved it was financially feasible for primary care physicians, but little was done to replicate it beyond the 10 small practices where it was tested. Similarly, the Association of California Nurse Leaders work on falls prevention, though ultimately disappointing in its results, was important and will likely enhance support for performance monitoring in other clinical areas. Others, like the work by JCAHO, while directed more at building knowledge than seeking immediate changes in practice, may have promise down the road in influencing care.

**Bioterrorism Preparedness Project Outcomes.** Among this set of projects, the tools developed for training physicians in Connecticut were important, even though project leaders found that training had only a short-term effect on physician knowledge. Findings from the other three bioterrorism preparedness projects may help some local health providers strengthen their plans, and produce new knowledge or tools for health system response planning, but their significance and overall contribution to the field are difficult to assess.

**Other Projects.** A few grants, however, did not appear to be well-conceived from the start, even though they were well-intended. For example, the fact that nursing needs to be a focus in improving quality in nursing homes should not have been a surprise to the American Medical Directors Association Foundation. More thought could have been given to the goals and approach behind HealthFront’s project, which achieved less than it originally planned. The impact of RTI’s study of the science of partnerships remains difficult to evaluate.

3. **What Role Did Partnerships Play in Contributing to Grantee Success in Accelerating the Translation of Research and Evidence-based Guidelines into Practice?**

A key premise of the PFQ program and of this evaluation was that the success of the projects depended on effective partnerships and working relationships among the lead grantee organizations, key collaborators and target organizations or providers. Without effective partnerships, the projects would be unlikely to achieve buy-in to evidence-based changes for improving health care quality, safety, and security. Without strong support from project collaborators and target organizations, health care improvements would be less sustainable.

The evaluation examined the form and composition of the partnerships created in the 20 PFQ grant projects and assessed the role they played in project success and sustainability. The projects used different partnership models, most of which appeared to be appropriate to their aims and targets. The projects that set goals for changing clinical processes or outcomes were most likely to establish direct working relationships with the target organizations, and use intermediaries to provide training, technical assistance and support. In general, projects that worked closely with target organizations tended to have more tangible outcomes, as measured by the grantees’ own results at the time of this evaluation. However, it could be the scale and purpose of the projects, rather than the relationships with the target organizations, that made achieving concrete outcomes easier or harder. A few projects used intermediaries to increase the reach of the project and to sustain quality improvement activities beyond the grant period, suggesting a model that might be used when broad reach and sustainability are key goals.
Certain characteristics and processes appear to contribute to effective partnerships in PFQ projects, based on some key themes that emerged from interviews with project PIs and their partners. These include:

- The position of lead organizations and intermediaries vis-a-vis the target organizations; professional associations and other national groups that represent the health care providers who were the targets were especially well-placed to command their respect and confidence.
- PFQ leaders also had to have some prior experience and skill in managing partnerships to make them work effectively.
- Progress is easier when partners have a prior history of working together, though there are ways to build trust quickly without it. A participatory approach to decision making is also useful for gaining buy-in, and the involvement of target organization administrators and staff in deciding how to implement the intervention is particularly important in many situations.
- Certain types of partners are needed to promote the sustainability and broader diffusion of an effective approach to quality improvement, who may be different than those needed for implementation at the local level.

While the PFQ projects all used varied forms of partnership as a mechanism to accelerate the translation of research into improved health care quality, safety, and security, they faced many of the same challenges confronting all efforts to diffuse innovation and change personal and organizational behavior. The most significant factors that appear to have enabled projects to overcome these challenges and make progress in meeting their goals include:

- Strong principal investigators and sponsoring organization leadership
- Good timing and a supportive external environment to motivate providers to use the interventions to meet performance expectations
- An ability to overcome provider resource constraints of competing priorities and limited time, staff or resources
- Effective use of information technology for quality measurement and provider feedback
- Effective leverage of AHRQ grant resources.

4. How Did the AHRQ Infrastructure and PFQ Program Components Contribute to Grantee’s Success?

The PFQ program contained several elements that sought to contribute both to the success of individual grantee efforts and to help the program achieve its overall goals. These included overall program oversight by AHRQ leadership, the PFQ program director, and the grants
management office; grantee oversight and support from 10-12 AHRQ project officers over the course of the four-year program; meetings and collaborative efforts across project investigators through the AHRQ Council of Partners (AHRQCoPs), working subcommittees, and other cross-grantee communication and networks.

**Overall Program Direction.** Perhaps because of the turnover in AHRQ leadership at the start of PFQ (including the departure of a key PFQ champion) as well as competing priorities, senior executives at AHRQ do not appear to have given PFQ the kind of ongoing attention and guidance that tends to be important in shaping important projects like this. Agency leaders appear to have been more deeply invested in conceiving the PFQ program and designing the RFA than they were in providing strong leadership and support to the program once it was launched. Lack of senior leadership was particularly an issue because lead program staff were not involved in developing the program, were located relatively low down in the organization, and otherwise faced challenges in leveraging the efforts of associated PFQ project officers distributed across the many divisions and centers within AHRQ. Important program decisions, such as the content of cross-cutting collaborative activities, appear to have been made without strong guidance and input from the agency leadership, despite the recognition that the program had a novel and challenging goal. While the program director sought to work together with individual project officers to define these parameters, critical decisions probably received less consideration and input than they could have.

**Project Officers.** PFQ was structured so that AHRQ staff who functioned as project officers were the primary means of oversight for individual grants. Project officers (POs) were drawn from centers throughout the agency, one of a number of AHRQ programs that began to use this approach around that time. PO assignments were usually but not always based on the focus and content of the grants, and appear to have been made by AHRQ management. Project officers had substantial flexibility to define their roles and the amount and kind of support they provided to each project. Some project officers, with expertise particularly matched to grantees, engaged with the projects in their portfolio frequently and substantively, providing suggestions on strategy and linking grantees to other initiatives and leaders in their fields, or helping to obtain additional funding and partners to expand their projects. PFQ projects that received such dedicated support said this helped them to succeed. Another group of project officers provided more traditional oversight, reading progress reports and giving some feedback to project investigators, though the amount of interaction varied, with some project officers providing little or no input or support to projects. Grantees typically appreciated it when their project officers were available and encouraging. Most were disappointed if they received little feedback on reports, though some seemed to desire more interaction than others. AHRQ could do better at providing guidance to project officers, but AHRQ’s structure also limits the rewards for good performance in this area.

**Grants Management.** For the most part, grants management appears to have operated smoothly from a fiscal perspective within PFQ. Some grantees expressed concern over the reporting needed to support annual approval of the following year’s funding. PFQ award amounts were set at the outset but re-approved annually, and grantees had to submit an annual report and justify any carry-over funds. Because PFQ was structured as a cooperative agreement, the program director decided to require quarterly reporting, a first for the agency though now more common. The grants management office experienced problems tracking these reports that were initially submitted to project officers. Some grantees, particularly with less
AHRCQ experience, found the requirements demanding and many expressed dissatisfaction with submitting reports for which they obtained little feedback. PFQ’s effort to create a database for electronic web-submission of data was unsuccessful as grantees found the web interface cumbersome and duplicative of other efforts.

**Program-wide Elements.** With the goal of creating a program-wide focus for cross-fertilization, PFQ required what turned out to be twice-a-year meetings of grantees, organized into a group called the AHRQ Council of Partners (AHRQCoPs). The Council divided the group into subcommittees on functional aspects of the projects—implementation, dissemination, partnerships, evaluation, and sustainability. While the meetings and subcommittee work were valued by some PIs, the majority of PIs expressed frustration with them, because they took away valuable funding, time and attention of the PIs from their projects and were not well-structured to foster synergy among the projects. The AHRQCoPs and its subcommittees will be producing a set of articles, to be published in a forthcoming special journal supplement, on partnership functions and lessons. However, these activities and any learning was linked only tangentially to the work grantees sought to carry out in their projects, and hence provided limited benefits to most efforts. While the meetings sought to foster cross-grantee collaboration and some examples of this occurred, the relationships formed as a result of the AHRQCoPs meetings seem fairly similar to what one might have expected from any meeting that allowed networking opportunities. Over time, a few principal investigators either assigned responsibility for attending to junior staff or stayed for only a portion of the meeting, sometimes due to scheduling conflicts. Many PIs, however, were very enthusiastic about the work of the group.

**5. How Significant Overall Was PFQ in Contributing to AHRQ’s Broader Strategic Goals?**

PFQ grantees clearly did not have the scale of impact originally expected by AHRQ’s program developers, or promised in the RFA or the program announcement. Such expectations were somewhat unrealistic, given the nature of the grants funded and the scale of the projects’ goals, which—though not trivial—did not match original ambitions. Yet, despite the relative invisibility of the program now within AHRQ and an infrastructure that was not very well-developed to provide all grantees with the level of support to amplify and diffuse their efforts more widely, many PFQ grantees attained substantial accomplishments, generating lessons which appear to be highly relevant to AHRQ’s priority of translation of research to practice.

While the theme of partnerships has bound these projects together, it is not the only, or perhaps even the most important outcome of the program. In many projects, the use of partnerships was one of several means to an end; and a focus just on partnerships would overlook some of the most important lessons to be mined from them to inform AHRQ’s strategy for closing the gap between evidence-based knowledge and actual practice in health care delivery.

In part because final results are still pending for a number of projects, little has been done to date to extract the lessons of PFQ and take advantage of the opportunities they present. The next six to nine months (January 2007 to September 2007) is a critical period for AHRQ senior managers to consider how to leverage the lessons and results of the PFQ projects, because the final outcomes and reports from nearly all projects will be submitted to the agency during this time. AHRQ has an opportunity to reap the benefits from its earlier investment in PFQ.
However, doing so will require agency leadership and commitment of resources in a number of ways:

- **Elements of Effective Partnerships.** PFQ grantee experiences and lessons can help AHRQ learn how to create effective partnerships for scaling and speeding up the translation of research into practice. Critical elements that need attention, among other things, include: 1) national organizations and individual leaders appropriate to the health care issue or topic of focus, 2) selection of well-connected intermediaries and target organizations, 3) skills and experience in partnership management, and 4) use of strategies and tools that overcome provider barriers to change.

- **Health Care Setting, Condition, or Issue-Specific Lessons.** A few of the AHRQ project officers that oversaw the PFQ grants have taken the initiative to connect principal investigators and their partners to other public and private quality improvement initiatives in their specific fields. All of the projects’ results should be assessed both individually, and collectively, to identify opportunities and avenues to apply their lessons and quality improvement capacity to other AHRQ initiatives and efforts. However, not all PFQ project officers at AHRQ have the level of expertise or connections to do this. In addition, staff workloads and incentive structures do not reward staff well for this type of grant oversight. Training and support would be valuable to help project officers maximize their contribution to grantee work within the time and other constraints they face. AHRQ should also pursue strategies to direct more attention to PFQ project results by key audiences through various dissemination vehicles that directly reach the providers and professionals in relevant fields.

- **New Quality Improvement Tools and Techniques.** Several PFQ projects made important advances in testing and demonstrating the effectiveness of new tools and techniques for helping providers adopt or more fully implement clinical care guidelines. From the effective use of appropriately-scaled information technology, to the development of practice-based CME, to the integration of performance measures into electronic health records, to purchaser’s design of incentive programs, the PFQ projects have important lessons to share about how these strategies can be used to help providers measure, report, and improve care quality. While some PFQ principal investigators have already begun to translate their success into lessons for those in these other fields, AHRQ staff can provide further support for these efforts.

- **Internal Agency Leadership and Support.** PFQ reinforces the importance of agency leadership to the successful transition of new approaches to funding and translation work. New programs warrant as much attention over the full course of their lives—including follow up after the grants officially end—as they do in their formation. The way AHRQ is structured makes the role of program manager very challenging, especially in programs without a “coordinating center” and sufficient staff resources, because success in this role requires skills of strong leadership and the ability to use informal support structures. Only a small subset of AHRQ staff is likely to have these skills, and AHRQ’s leadership would do well to nurture and support staff who can fulfill this role.
In sum, PFQ generated capacity and knowledge that can support other AHRQ’s efforts to translate research into practice. Harvesting its potential will further leverage the agency’s $20 million investment in PFQ and enhance the strategic value of this program as an early pioneer whose experience and lessons can inform attempts to translate research to practice on a broad scale.
STRUCTURE OF THE REPORT

Chapter I provides background on the origins and purpose of the PFQ program, the grant solicitation process and grants funded; and the infrastructure AHRQ created to oversee the program. Chapter II provides more detail on the evaluation approach, methods and data sources. Chapter III describes what grantees sought to accomplish in their PFQ projects and how they structured their partnerships. Chapter IV assesses the PFQ projects’ accomplishments and outcomes.

The next two chapters assess the contribution to PFQ projects’ successes of AHRQ’s oversight and program infrastructure (Chapter V) and partnerships and other factors (Chapter VI). Both chapters assess how these factors facilitated or hindered projects’ progress and outcomes. Finally, Chapter VII contains conclusions regarding the PFQ program’s overall contribution to AHRQ strategic goals, and what the outcomes and lessons from the program mean for any future efforts by AHRQ to use partnerships to translate research into practice on a broad scale.

While this report tries to identify common themes and lessons across the 20 PFQ projects, it cannot capture the richness and diversity of their experiences over the last four years. Appendix B partially fills this gap by providing brief summaries of the 20 projects’ goals, major activities, partners and partnership structure, key findings and products, and plans for continuation, where relevant.
I. BACKGROUND ON THE PFQ PROGRAM AND EVALUATION GOALS

The Partnerships for Quality (PFQ) program sponsored by the Agency for Healthcare Research and Quality (AHRQ) aimed to accelerate the translation of research findings into practice on a broad scale through public-private partnerships led by organizations well-positioned to reach end users. PFQ was one of AHRQ’s earliest efforts to structure work in ways designed to support this goal. As a result, AHRQ is very interested in understanding what can be learned from the experience. To support this interest, AHRQ contracted with Mathematica Policy Research Inc. (MPR) in the last few years of the program to evaluate PFQ and the lessons it might have for future efforts in translation.

In this first chapter of the final evaluation report, we review: 1) why partnerships are important to AHRQ’s goals, 2) the origins and purpose of PFQ, 3) the grantee solicitation process and grantees selected, 4) the infrastructure AHRQ created to promote and oversee the success of the program, and 5) the key evaluation objectives.

A. RELEVANCE OF PARTNERSHIPS TO AHRQ GOALS

The Agency for Healthcare Research and Quality (AHRQ) is increasingly focused on improving health care delivery and outcomes (Gray et al. 2003; Clancy 2004b). In its efforts to improve quality, AHRQ engages in four types of work: research to support evidence-based decision making; use of data to drive quality; accelerating the pace of quality improvement; and improving the infrastructure for quality health care (for example, informatics) (Clancy 2004a). AHRQ also views itself as the “science partner” to the Centers for Medicare and Medicaid Services and the states with respect to quality improvement. Collaboration is essential, given what AHRQ’s director Dr. Carolyn Clancy has termed the “Quality Challenge,” as reflected in the gap between current practices and what we know from research to be effective (Clancy 2005). This is what commonly is referred to as the challenge of “translating research to practice.”

A critical strategy used by AHRQ to reduce the gap is to accelerate the pace of quality improvement through partnerships with public and private sector organizations that can move research on effective care into practice across the health care system. Through these partnerships, AHRQ seeks to encourage the adoption of practices that research has shown to be effective. Examples of such partnerships include programs such as the Primary Care-Based Research Network, the ACTION program (formerly the Integrated Delivery System Research Network), the Put Prevention into Practice program, and the Partnerships for Quality program, which is the focus of this study. Through these and other programs, AHRQ seeks to strengthen its ties to organizations that are well-positioned to reach providers and other important parties able to influence health care delivery.

Research suggests that partnerships such as those AHRQ is investing in are critical to enhancing the use of evidence-based practices (Greenhalgh et al. 2004). For example, the diffusion of effective practices is more likely to occur if, among other things, it has the support of early adopters (opinion leaders receptive to change and well-integrated into the appropriate networks) (Berwick 2003). If early adopters make their practices observable and gain the trust of
relevant networks that are perceived as subscribing to similar values, further diffusion is much more likely to occur. Thus, involving key leaders who are respected in health care or influential in its practice is vital to encouraging practice changes that improve health care delivery.

B. ORIGINS AND PURPOSE OF THE PFQ

The process through which the Partnerships for Quality (PFQ) program was developed involved many people, including some no longer with the agency. Through the solicitation, AHRQ was seeking to move beyond its original efforts at translation to reach a broader set of providers and others who were well-positioned organizationally to effectively translate research to practice. While AHRQ had previously attempted some work of this kind through the Translating Research into Practice Programs (TRIP I and II) and PFQ could be considered “TRIP III,” staff also viewed the two sets of programs as distinct.

As some characterized it, the TRIP program begun in 1999 was more about small-scale researcher-driven studies that worked with health care organizations to determine which techniques led to effective use of research in the delivery of care. PFQ, on the other hand, aimed to encourage change in practice on a broad scale so that care was more consistent with emerging research evidence. One AHRQ staff member, for example, said that while TRIP was trying to translate research into practice, TRIP ended up funding rigorous studies on how to change outcomes in well-defined populations and didn’t have the reach intended by PFQ, which was meant to be broader to include the next generation. PFQ could reinforce, for example, ongoing partnerships between AHRQ and groups like the American Medical Association (AMA) and others that might be key to encouraging adoption—but unlikely to apply for a grant—and hence would not otherwise have a way to work closely with AHRQ on translation.

At the time the PFQ program was developed, AHRQ’s strategy was evolving from one that supported quality improvement by funding the production of knowledge to funding promotion of broader use of knowledge. The development of the PFQ initiative was indicative of a change in culture; the agency saw PFQ as the beginning of a series of projects with demonstrably broad impacts through which the agency could show “look, we are touching America,” as one former AHRQ executive characterized it. Through the PFQ program, AHRQ hoped to find out what could be accomplished and how sustainable it could be after the grants ended.

Top leaders of the agency (especially Lisa Simpson, who then was deputy and Carolyn Clancy who now is the director) say they conceived of the idea for the program and developed a one-page summary of it that reportedly was approved at AHRQ’s Executive Management Meeting (EMM) (AHRQ’s senior management group). Staff members were then tasked to develop the concept into a Request for Application (RFA). A senior staff member (Elinor Walker, since retired) was assigned to write the solicitation, working with a committee of AHRQ staff set up for the process. Staff involved in the effort said that designing the solicitation was challenging because the goals of the program were so ambitious in relation to the limited funds available for it.

The final RFA resulted from an iterative process between AHRQ leadership and the RFA development committee. One AHRQ senior official described the RFA development process as difficult and contentious. Though details reported by participants in the process are now somewhat vague and inconsistent, we understand that AHRQ leadership and the committee had
to grapple with competing views on a range of issues including: who to target with the solicitation (traditional researchers versus others), whether to allow the substantive focus to vary each year based on emerging research results from AHRQ or elsewhere (versus maintain a single focus over the years), whether to focus on clinical concerns only or broader strategies for quality improvement, and how to balance the desire for nontraditional grantees who had broad reach with concerns that such grantees were not used to working under a grant mechanism that held them accountable for the funds and could have limited experience with evaluating their projects. AHRQ leadership wanted internal grantee evaluations that might help the agency show that its findings were reaching or being adopted by health care providers nationwide—information that would be invaluable in gaining support for funding agency programs.

As ultimately released, the solicitation for PFQ applications was designed to encourage applicants beyond the usual academic institutions the agency had historically funded. AHRQ wanted to fund “change agents” that not only possessed the evidence-based knowledge to improve care but could also create the partnerships and had the capacity to influence changes in health care organization and delivery. The agency’s desire to fund a different kind of grantee, these “change agents,” required reworking the usual processes by which grantees were solicited, reviewed, and chosen. AHRQ barred universities from serving as grantees, though researchers affiliated with universities might be involved, even as project investigators.

Our ability to describe the origins of the PFQ program (or the decision process on awards) in more strategic terms is limited by the fact that many people who developed PFQ are no longer with the agency and many key decisions on strategy either are undocumented or not retrievable for the evaluation. Though we were able to interview several current or former staff involved in the program, these interviews did not take place until several years after the program was initiated. By then, some details were forgotten and some perceptions modified by more recent events.

Staff turnover made it hard to cleave to the original PFQ vision. Current PFQ experience needs to be understood in this context as do past pressures to address other priorities after the grants were awarded. Without strong guidance from leadership, AHRQ’s ability to ensure the original program vision and concept into the day-to-day work of program implementation was hampered, as discussed later in the report.

C. GRANTEE SOLICITATION AND AWARDS

1. Solicitation Process

Because PFQ reflected a new program strategy for AHRQ, it required changes in the usual way grants are reviewed. To facilitate PFQ’s agenda, the agency had to ensure that 1) the RFA was different from previous solicitations, encouraging more health system leaders to apply than in the past, 2) the review panel maintained a good balance of academics and people with operational experience with health care delivery, and 3) the funding committee balanced both rigor and relevance in its funding decisions.
The PFQ request for applications, released on May 10, 2002, sought applicants for cooperative agreements\(^1\) to conduct projects designed to “accelerate the pace with which research findings are translated into improved quality of care and the health system’s ability to deliver that care.”\(^2\)

The solicitation encouraged applicants with the capacity to influence health care organization and delivery and evaluate the impact of their efforts, such as health care professional organizations, accrediting agencies, practice networks, employer coalitions, and health insurers. Academic institutions could be one of the partners, but not the grantee. The multi-year projects had to:

- Identify high-priority areas that are important to core audiences and for which evidence-based findings can guide improvements;
- Translate, disseminate, and implement evidence-based findings, with a preference for those supported by AHRQ research;
- Annually update opportunities for collaboration and efforts to respond to issues on security, safety, quality, effectiveness or outcomes of care;
- Estimate the impact of implementation efforts on policies, processes, or outcomes and stakeholders; and,
- Facilitate AHRQ’s understanding of research needs as perceived by diverse stakeholders relevant to the PFQ.

The solicitation described a program structure that envisioned an initial planning phase of one year for each grant and a second phase of up to three additional years of funding for grantees able to show potential. By the end of the sixth month in the second phase, grantees would have to demonstrate that the aims would be accomplished if funding continued. The solicitation also encouraged shorter projects with more limited objectives. Budgets for the initial year were not to exceed $100,000, with subsequent annual funding potentially two to four times that amount. Funding for the second phase would depend on what had been achieved in the initial phase. Each project was to include an evaluation, as well as progress reports, at stipulated intervals. In a late modification, AHRQ decided to expand the focus of PFQ to include projects relating to bioterrorism. In contrast to the original grants, which were made with AHRQ’s direct funds, bioterrorism grants were funded with money AHRQ received from other parts of the Department of Health and Human Services to address bioterrorism readiness needs. The amount of the

\(^{1}\) Agencies signing cooperative agreements with AHRQ are not “grantees” in the traditional sense, since the cooperative agreement connotes a more collaborative relationship. “Cooperative activities are intended to strengthen individual projects and at the same time generate collaboration across projects.” However, cooperative agreements are a type of grant and in practice, lead agencies were referred to as grantees, so we use this term hereafter.

bioterrorism grant awards after the first year (about $100,000 per year) was considerably lower than the other awards under the PFQ program (about $300,000 to 400,000 per year).

We have little information on the selection process. Our interviews with staff suggest that AHRQ succeeded only partially in its efforts to recruit a more diverse review panel than was typical. However, there was enough diversity of the panel to create some discomfort among those more experienced in the traditional review panel process. For example, one participant told us:

There were people that felt that the reviewers were too researchy. I think I felt uncomfortable during a lot of the review because there was a lot of conflict, a lot of inconsistency. For some of the reviewers, the whole emphasis of the review would be on the research. And for some of the others, research wasn’t sufficient. I didn’t feel that a great many of them gave adequate attention to all the aspects—the feasibility, the likely value of the program, the evaluation. My feeling is that unless you’ve got a decent evaluation, you aren’t going to learn much that you can use. I was kind of uncomfortable. But again, we didn’t have a mode.

The panel had to have some researchers and some doers. The researchers didn’t have a lot of meat to chew on and I was uncomfortable with what the doers were really bringing to the table. There were a lot of arguments and in each case, you weren’t sure who to believe because you couldn’t be sure what they were basing their comments on. It’s not that researchers don’t have disagreements like that, but it’s generally clear what they are basing their arguments on.

Not surprisingly, differences of opinion carried over into how participants on the panel viewed the ultimate decisions on awards. Some staff told us with concern that AHRQ’s final decision on PFQ awards did not strictly follow the ranked technical scores. Some said that the review summary did not reflect the panel’s richer views. AHRQ leaders, however, say that adjustments between proposals’ ranking based on technical scores and actual awards are now routine to achieve a balance in work across topic areas.

Another factor that complicated the grant selection process was that AHRQ planned to allocate funds to PFQ’s overall budget for projects focused on children’s mental health from a dedicated source. Even though several applications that planned to focus on this area scored well, available funds were insufficient to fund all of them. They were therefore “skipped” in order to fund projects focused on a broader set of health issues and conditions.

Establishing an appropriate set of reviewers for grants as path-breaking for the agency as those envisioned under PFQ must have been challenging. As one interviewee noted, awards needed to balance rigor against relevance, with an applicant pool other than “the usual suspects.” Balancing traditional grant reviewers that focus on the rigor of design with other reviewers looking more at operational practicality probably was not easy. We heard, for example, one AHRQ staffer say that some of the latter were not “objective” whereas another felt the panel didn’t have enough experience with quality improvement. It is unfortunate that detailed documentation of the review process is not available as it could have helped us provide more concrete feedback to the agency on lessons for future reviews of this sort.
2. PFQ Grantees

AHRQ spent about $20.5 million on PFQ grants over the program’s life, of which about $17.6 million came from AHRQ appropriations and about $3 million from other departmental funding (see Table I.1). Twenty-two grants were made originally, with 20 remaining after the first year. One of the 22 withdrew from the program before it received funding and another grant was not renewed after the first year. Grantees received an initial award and then up to three additional annual awards over the remaining period of the program. The initial grants were awarded in late September 2002, with federal FY 2002 funds used to support work in federal FY 2003. The final fourth-year grants were made in September 2005 with an end date of September 2006. Of the 20 multi-year grants, 14 had an end date of September 30, 2006, although some of these grantees have applied for or received no-cost extensions so their work will continue into next fiscal year.

### TABLE I.1

ANNUAL AND TOTAL AHRQ FUNDING FOR PFQ

<table>
<thead>
<tr>
<th></th>
<th>Total</th>
<th>FY 2002</th>
<th>FY 2003</th>
<th>FY 2004</th>
<th>FY 2005</th>
</tr>
</thead>
<tbody>
<tr>
<td>AHRQ Expenditure¹</td>
<td>$17,558,902</td>
<td>$1,757,669</td>
<td>$5,471,549</td>
<td>$5,391,424</td>
<td>$4,938,260</td>
</tr>
<tr>
<td>Funds provided</td>
<td>$2,988,672</td>
<td>$599,968</td>
<td>$891,276</td>
<td>$899,305</td>
<td>$598,123</td>
</tr>
<tr>
<td>through other HHS</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>programs²</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total Grant</td>
<td>$20,547,574</td>
<td>$2,357,637</td>
<td>$6,362,825</td>
<td>$6,290,729</td>
<td>$5,536,383</td>
</tr>
</tbody>
</table>

Source: Information provided by the Division of Financial Management at AHRQ; received by MPR in 10/2005. Updated information was not provided in time for this report.

¹AHRQ expenditure refers to funds appropriated directly to AHRQ

²Includes funds transferred to AHRQ from the Health Resource and Services Administration (HRSA) and from the Department’s Office of the Secretary’s Office of Public Health Emergency Preparedness. Also includes AHRQ funds earmarked for children’s mental health (NME funds).

³ The American Board of Family Medicine was approved for work with NCQA to incorporate validated quality measures into recertification requirements for family physicians but the application was withdrawn before funding. In addition, the Pacific Business Group on Health received funding for one year before mutually agreeing with AHRQ to terminate due to its inability to obtain CMS data that was needed to implement its project.
Table I.2 lists the 21 grantee organizations, the principal investigators affiliated with each grant, the total award, and predicted end date and status as of September 2006. Most grantees ultimately received the full four years of funding though funds were dispersed on an annual basis based on renewal application. A few were for shorter periods of time, either by design or because problems arose. Since one of the original 21 grants was terminated after the first year, this evaluation focuses on the 20 grant projects that continued for more than a year. We defer describing the characteristics and focus of these 20 grantees until Chapter III.

D. PROGRAM INFRASTRUCTURE AND OVERSIGHT

AHRQ executives said that there was not a lot of discussion in advance of PFQ on how the program would be administered. Establishing an administrative infrastructure was further complicated because several of the staff involved most closely with the program in its formation would soon be retiring or were otherwise unavailable.

The PFQ infrastructure that was ultimately established appears to be a blend of the way AHRQ traditionally oversees grants with some program-wide elements designed to encourage synergy across grants on issues of mutual interest. This infrastructure relied on internal AHRQ staff and was not heavily resourced. The basic elements of the infrastructure are as follows.

1. Organizational position of PFQ within AHRQ

PFQ was housed within one of AHRQs main operational centers—the Center for Primary Care, Prevention, and Clinical Partnerships (CP-3). That was at least in part because Charlotte Mullican, who headed the program and monitored several grants, was located in that center, as were two project officers for six additional PFQ grants.

Seven additional project officers who oversaw individual PFQ grants came from a variety of centers within AHRQ. PFQ was one of the first programs in the agency, in addition to TRIP I and II, to draw its project officers from across the agency (rather than from a single center), reflecting the scope of the program. Individual project officers appear to have been assigned by dividing grants across AHRQ’s line centers based on the grant focus. Specific project officers were assigned by center directors based on availability of appropriate project officer staff. This resulted in a matrix form of organization in which individual project officers had lead responsibility for individual grants, while the PFQ program director managed program-wide meetings and tasks that would benefit from consistent efforts across grantees. Early in the program, the program director had weekly meetings with project officers to discuss common elements of the program and issues of mutual concern (for example, grantee reporting requirements) though such meetings ended well before our evaluation began.

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4 Staff told us these were modeled after the formal councils that were part of AHRQ’s ongoing work with the Translating Research into Practice program in Phase I and II.
<table>
<thead>
<tr>
<th>Grantee Organization &amp; Principal Investigator (PI)</th>
<th>Total Funding Dollars (Years of Funding)</th>
<th>Expected End Date and Current Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Altarum Institute (HS013683) PI: George J. Miller</td>
<td>$397,835 (4 years)</td>
<td>September 2006 (Completed)</td>
</tr>
<tr>
<td>2. American Academy of Pediatrics (AAP) (HS013721) PI: Carole M. Lannon, Center for Healthcare Quality, Cincinnati Children’s Hospital Medical Center</td>
<td>$1,298,266 (4 years)</td>
<td>September 2006 (Completed)</td>
</tr>
<tr>
<td>4. American Hospital Association (AHA), Health Research and Education Trust (HS013685) PI: John R Combes</td>
<td>$1,282,730 (4 years)</td>
<td>September 2006 (Completed)</td>
</tr>
<tr>
<td>5. American Medical Association (AMA) (HS013690) PI: Karen S. Kmetik</td>
<td>$1,211,074 (4 years)</td>
<td>September 2006 (Completed)</td>
</tr>
<tr>
<td>6. American Medical Directors Association (AMDA) (HS013710) PI: David F. Polakoff</td>
<td>$1,299,164 (4 years)</td>
<td>September 2006 (Completed)</td>
</tr>
<tr>
<td>7. Association of California Nurse Leaders (HS013704) PI: Nancy Donaldson, CalNOC &amp; UCSF School of Nursing</td>
<td>$1,160,856 (4 years)</td>
<td>September 2006 (Completed)</td>
</tr>
<tr>
<td>8. Catholic Healthcare Partners (CHP) (HS013723) PI: Donald E. Casey</td>
<td>$1,278,719 (4 years)</td>
<td>September 2006 (Active-No Cost Extension to September 2007 under review)</td>
</tr>
<tr>
<td>9. Child Health Corporation of America (CHCA) (HS013698) PI: Paul J. Sharek, Stanford University School of Medicine &amp; L Packard Children’s Hospital (member of CHCA)</td>
<td>$1,144,950 (4 years)</td>
<td>September 2006 (Completed)</td>
</tr>
<tr>
<td>10. Connecticut Department of Public Health (HS013693) PI: Louise Dembry, Yale-New Haven Health System &amp; Yale School of Medicine</td>
<td>$299,999 (3 years)</td>
<td>September 2005 (Completed)</td>
</tr>
<tr>
<td>11. HealthFront (HS013718) PI: Michael Callahan</td>
<td>$1,281,576 (4 years)</td>
<td>September 2006 (Completed)</td>
</tr>
<tr>
<td>15. Lehigh Valley Hospital and Health Network (HS013712) PI: Mark Young, later Kenneth D. Coburn</td>
<td>$294,841 (2 years)</td>
<td>September 2005 (Ended September 2004)</td>
</tr>
<tr>
<td>18. Physicians Micro Systems, Inc. (HS013716) PI: Steven M Ornstein, Medical University of South Carolina</td>
<td>$1,294,555 (4 years)</td>
<td>September 2006 (Active-No Cost Extension through March 2007)</td>
</tr>
</tbody>
</table>
In interviews, project officers conveyed different approaches to their oversight tasks. From our perspective, there appear to be two different strategies taken by project officers. The first, typically preferred by project officers with a strong substantive interest in a given topic area, was to work closely with their grantees to help form linkages with others involved in the same issue. The second was what can be viewed as a more generic oversight role that focused on overseeing adherence with grant requirements rather than seeking involvement in the substance of the work. Project officers pursuing the first strategy typically focused more on work with individual grantees rather than program-wide activities, though they might do both. Regardless of strategy, the amount of time spent by project officers on oversight varied substantially based on their interests and competing work assignments.

2. Program-wide Structure and Elements

AHRQ desired to encourage a program-wide focus with communication across grantees. The infrastructure to accomplish this included 1) periodic meetings of all grantees serving as a “Council of Partners;” and 2) a website where materials could be placed to foster communication. The concept behind the AHRQ Council of Partners (AHRQCOPs) was not well-developed in the original RFA, though grantees were asked to include funds to attend an annual meeting.

AHRQ leadership appears to have left the decision on how to form AHRQCOPs to staff who, we were told, decided to model it on the structure used for the Translating Research into Practice (TRIP) grants. At the initial AHRQCOPs meeting, grantees were asked to elect leadership and approve a charter. The intent was that AHRQCOPs was to be grantee run with AHRQ support. Early meetings involved grantee presentations. Later on, the group divided into five subcommittees perceived to reflect the main challenges shared across all grantees: 1) science and partnership, 2) evaluation, 3) implementation, 4) dissemination and impact, and 5)
sustainability. Each subcommittee took responsibility for structuring one of the semi-annual COP meetings and set an agenda that addressed each subcommittee’s area of interest (for example, implementation). The meetings included a combination of speakers and time for subcommittee work. Later on, participants on AHRQCoPs suggested that they work together on a journal supplement that would complement their work by documenting what had been learned about their experience. This supplement was under active development at the end of the program. The decision to focus on subgroups by cross-cutting challenge rather than substantive focus areas of the grantees was made after some debate among the program director and project officers.

In Chapter V, we provide additional details on the way AHRQCoPs functioned and how AHRQ staff and grantees viewed it as contributing to the success of their individual grants and the program as a whole.

E. EVALUATION OBJECTIVES

PFQ is a complex program involving a multiplicity of organizations and substantive foci. AHRQ asked that the evaluation not just document the richness of the program, but sort through the experience of diverse grantees to answer questions of interest to AHRQ. These questions are:

1. What impact did PFQ project activities have on improved health care quality processes and outcomes, and on the dissemination of effective quality improvement methods? In other words, how effective were the projects in accomplishing what they proposed and what AHRQ funded?

2. Did PFQ generate partnerships and infrastructure important to sustaining change? How did the partnerships and networks created through the PFQ projects contribute to the project outcomes?

3. How adequate was AHRQ’s support and oversight of the program? How well did the agency support the projects and generate synergy and collaboration across projects?

4. What contribution did PFQ make towards AHRQ’s strategic goals, both through the individual projects and the program-wide activities?

In addition, AHRQ leadership expected that the evaluation would inform internal management and operations of programs similar to PFQ. For example, the results of the evaluation could inform the development of future RFAs and their review, funding processes for projects similar to PFQ, appropriate leadership structures for AHRQ programs that are cross-center versus those owned by a single center, and the roles and responsibilities of project officers in overseeing and documenting impact of grantee projects.
II. EVALUATION FRAMEWORK, METHODS, AND DATA SOURCES

A. EVALUATION FRAMEWORK

To guide the evaluation, we developed a conceptual framework that identifies key participants, the way they are linked, and the critical questions of interest from each participant’s perspective. Figure II.1 presents this framework.

The framework highlights the fact that the success of PFQ involves successful interaction of four core participating groups whose contributions are essential in improving quality of care. These are: 1) AHRQ, 2) the lead grantee organizations, 3) the relevant collaborators and targets for each grantee’s efforts, and 4) the coordinating activities put in place by AHRQ to foster overall program goals and link PFQ to AHRQ’s broader quality agenda and objectives.

The second dimension of the framework involves a series of relevant tasks, decisions, and communications that each actor/program component must successfully execute if PFQ is to achieve its goals. Specifically:

- **AHRQ** needs an infrastructure to support the program and ensure that it is well-linked to the agency’s overall goals. AHRQ must establish effective project officer guidance and oversight of each grantee, along with effective overall program management and linkages to other AHRQ activities. Grants management needs to support the program, and PFQ staff must be able to access needed resources (financial and otherwise) on a timely basis.

- **Lead grantee organizations** are the link between AHRQ and those in the field whose involvement is pivotal to quality improvement. The chosen organizations need to be well-situated to influence their constituencies and must demonstrate access to the appropriate collaborators and communication channels, as well as the existence of working agreements—all of which are prerequisites for change. But focus is critical to change. Though the specific focus will vary across grantees, each grantee needs an effective focus relevant to those it seeks to influence and the focus must be suited to making concrete improvements in quality. In addition, activities need to evolve over time to generate increasing impacts appropriate to the project’s span and its goals.

- **Collaborators, target organizations and providers** are the places where care is delivered, and are the core stakeholders. Their involvement is essential to individual grantees’ strategies for improving care quality. Improvements in quality cannot occur unless targets “buy in” to the grantee’s goals and are provided with the motivation and support to achieve them. To achieve AHRQ’s goal for PFQ, these changes in practice or in purchaser decision making need to be sustained and ultimately diffused more broadly both in and across individual organizations.
FIGURE II.1
KEY COMPONENTS OF PARTNERSHIPS FOR QUALITY
STRUCTURE AND HOW THEY DRIVE OUTCOMES

AHRQ
- Effective overall program management?
- Effective project officer guidance, participation and support?
- Good linkages to related AHRQ activities and programs?
- Solid grants management support?
- Efficient access to needed resources

Coordinating Activities (AHRQCoPs and other cross-cutting efforts)
- Effectively structured?
- Well- respected by stakeholders?
- Effectively targeted?
- Substantive contribution to goals?

Lead Grantee Organization
- Well situated to influence relevant constituencies?
- Appropriate collaborators, working agreements, communications?
- Effective and relevant focus for work?
- Phased work appropriate to time frames?

Collaborators and Target Organizations
- Aware of grantee efforts?
- “Buy-in” to work?
- Make changes?
- Changes have effects?
- Changes sustained?
- Practices diffused more broadly?
• **Coordinating activities** are those efforts carried out by AHRQ or others aimed at helping grantees learn from one another, and linking PFQ’s work to the broader quality agenda. They include the PFQ website (the website run by National Institutes of Health and used to foster electronic communication), the PFQ database, and AHRQCoPs and its subcommittees. To be effective, coordinating activities need to be well-structured, well-regarded and well-supported by those whose involvement and participation is critical, and well-targeted to support substantive contributions to PFQ goals.

**B. OVERVIEW OF EVALUATION DESIGN**

Our approach to the evaluation involved a combination of document review, interviews, and limited observation of selected AHRQCoPs meetings. The intent was to use these sources to capture information on how each component was executed and what factors facilitated or impeded work. The evaluation is largely qualitative in nature. However, to the extent grantee progress reports and self-assessments include concrete measures of the “reach” and impact of their efforts on process or outcome measures, we include them in this report.

Table II.1 summarizes the overall evaluation design. It shows the four key questions or areas of interest described in Chapter I, the key measures that are relevant to answering them as derived from the evaluation framework, the data sources that were used to create the data needed on each measure, and how the analysis was conducted.

**C. SOURCES OF INFORMATION**

1. **Program and Grantee Documents**

   At the start of the evaluation, MPR worked with AHRQ staff to gather documentation about the program and about each grantee.

   **Program Documents.** We could not obtain documents that described PFQ’s history, purpose, and design. While we had access to the RFA, we were unable to review the original documents detailing the idea behind the program, such as e-mail or internal memos summarizing the discussions that occurred during the development of the RFA on the issues of the program’s purpose, focus, and targeted participants.

   Leadership indicated that because the program was taking AHRQ in a new direction of translating research into practice, the processes for reviewing/scoring applicants and selecting grantees required new methods that diverged from the traditional AHRQ methods. Unfortunately, we were unable to obtain documentation that may have explained how these processes differed from the agency’s traditional methods (for example, list of technical reviewers, technical review scores for applicants, AHRQ’s executive management meeting (EMM) notes). What we were able to learn about the genesis of the program and grantee selection primarily came from interviews with AHRQ staff, discussed in Chapter I. AHRQ’s Office of Grants Management generated a spreadsheet of total funding given to each grantee over PFQ’s four years.
<table>
<thead>
<tr>
<th>Purpose (area of interest)</th>
<th>Key Measures</th>
<th>Data Source</th>
<th>Analytic Method</th>
</tr>
</thead>
<tbody>
<tr>
<td>Impact of Grant</td>
<td>Who was reached?</td>
<td>Grantee self-assessment</td>
<td>Synthesize information by grantee and across grantees</td>
</tr>
<tr>
<td>(Evaluation Question 1)</td>
<td>Did practices change?</td>
<td>PFQ progress reports</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Any observable impact on care outcomes?</td>
<td>Interviews with selected grantees targets</td>
<td></td>
</tr>
<tr>
<td>Generation of partnerships and infrastructure important to sustaining change</td>
<td>Strength and sustainability of partnerships?</td>
<td>Interviews with AHRQ staff, grantees, and selected grantees targets</td>
<td>Synthesize information by grantee and across grantees</td>
</tr>
<tr>
<td>(Evaluation Question 2)</td>
<td>Adequacy of communication flows and buy-in to decisions</td>
<td>MPR assessment of contribution of partnerships to outcomes</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Quality of activities undertaken?</td>
<td>Program and coordinating committee documents</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Ability to obtain support from other ongoing processes and structures?</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Likelihood activities would have occurred without PFQ?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Adequacy of AHRQ program support and oversight</td>
<td>Effective substantive grantee guidance?</td>
<td>Interviews with AHRQ staff and grantees</td>
<td>Synthesize information across areas of interest program-wide</td>
</tr>
<tr>
<td>(Evaluation Question 3)</td>
<td>Oversight of timeliness and performance?</td>
<td>Grantee progress reports</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Effective grant management?</td>
<td>PFQ database use</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Adequate AHRQ linkages?</td>
<td>PFQ website use</td>
<td></td>
</tr>
<tr>
<td>PFQ’s continuation to enhance quality and outcomes consistent with AHRQ’s and HHS’ strategic goals</td>
<td>Appropriate grantees and linkages?</td>
<td>Grantee applications and progress reports</td>
<td>Synthesize information by grantee and across grantees</td>
</tr>
<tr>
<td>(Evaluation Question 4)</td>
<td>Execution of concrete efforts to promote evidence-based quality improvement with “reach”?</td>
<td>Interviews with AHRQ staff and grantees</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Effective linkages and contributions to broader context?</td>
<td>Program and AHRQCoPs documents</td>
<td></td>
</tr>
</tbody>
</table>
Grantee Documents. We had greater success accumulating materials on individual grantees, including original applications, annual renewal applications, technical reviewer comments (when available), quarterly progress reports, funding recommendations, and funding awards on all 20 of the PFQ grants. MPR staff went on-site to AHRQ’s Office of Grants Management, which housed grantee documents, to sort through and copy relevant materials from grantee files. Not all files were complete because either PIs did not submit all the quarterly progress reports, or grantee POs did not forward copies to Grants Management for filing. To conserve use of resources on this unbudgeted function (the evaluation RFP had indicated AHRQ would provide materials), MPR staff read materials for all 21 grants initially funded, and copied the documents that seemed most relevant, such as those listed above. This meant that some materials attached in appendices, such as survey tools, that supplemented the progress reports were not copied.

To provide a concise overview of each project’s focus, progress, and results, we drafted summaries of each grant project using the documents available to us. We supplemented the summaries with information from interviews with grantee PIs and partners and materials provided after the interviews, such as progress reports, project data/outcomes, articles, and presentations. We provided PIs the opportunity to review and comment on our draft summaries before finalizing them for this report. See Appendix B for the final summaries of all PFQ projects, containing information on project goals, activities, partners and partnership functioning, results, major products, and potential for sustainability or follow-on projects.

Program Tools. AHRQ gave MPR access to the PFQ website that had information on grantee projects, subcommittee notes and tools, and an events calendar. The website also contained a checklist for the database that grantees used to enter information about their projects. MPR staff reviewed the PFQ database information to extract information on grantee partners, tools, and target populations as entered in June 2004, shortly after the database was created. But MPR could not use the database to track grantee progress, since few grantees updated the information.

MPR also had access to other parts of the PFQ website, which was used as a tool for communication among grantees as well as a central storage area for work related to AHRQCoPs. Since grantees found e-mail or telephone calls to be more convenient as a method of communication, the website was not widely used, though there are several documents on AHRQCoPs work products, such as an evaluation framework and implementation assessment tool, and meeting minutes from the AHRQCoPs’ semi-annual conferences.

2. Interviews

We interviewed AHRQ staff and individuals associated with each grantee to support this evaluation. Notes from the interviews were coded by major topic and entered into Atlas.ti, a searchable information database, which we used to analyze themes across grants and interviewees.

• AHRQ Staff. We interviewed 17 AHRQ staff, including 4 current and former staff involved in PFQ program development and grant selection about the program’s history and goals, 9 current project officers and one former project officer overseeing
grants about their roles and their views of grantee and program success, 2 staff members from the Office of Grants Management on managing the grants, and one representative from the Office of Communications and Knowledge Transfer about program and grantee plans for information dissemination. Interviews ranged in time from 30 to 60 minutes and were conducted in Fall 2005 early in the evaluation. We conducted a longer interview with the program director, who also served as a program project officer. Most interviews were in person at the AHRQ offices; the rest were by telephone. Topics for each type of interview are shown in Table II.2. Two MPR staffers participated in each interview—the project director and an analyst who took notes and documented the interview for use in the evaluation.

- **Grantees and Affiliates.** We conducted in-depth telephone interviews with 19 of the 20 grant principal investigators. For the remaining project, we spoke with primary project staff who were knowledgeable about the grant work. Most of the grantee PI interviews lasted 90 to 120 minutes. In addition to speaking with the PI, we spoke with people who were considered partners or collaborators for the grantee projects.

The actual number of partner interviews scheduled for each project was determined after reviewing documents and holding interviews with PIs to consult them on which partners were important for us to contact. For projects in which the activities were primarily research or the partners were not involved to a significant degree, only the PI and one or two other people were interviewed. For more elaborate projects, with diverse types of partner organizations, we interviewed three to five partners per project. Most interviews with partners were 30 to 60 minutes.

The purpose of the PI interviews was to obtain additional details on grant-related activities and partnership structure and functioning that would complement the information in grantee reports. The interviews with PI and partners covered the same general topics, discussing grant history and rationale, the evolution of project goals and activities, project accomplishments, partnership functioning, AHRQ support, and perceived sustainability of project activities. However, the PI interviews covered the topics in more depth and were used to gather factual information on the project’s progress as well as PI perception on the grant experience. The partner interviews did not cover the topics in as much depth and were primarily used to collect information on the partner perception of the grant experience. See Table II.3 for a list of topics.

In total, we conducted 76 interviews, including 19 grantee PI interviews and 57 partner interviews. Given the number of grants, we decided to conduct the interviews in waves, with earlier interviews focused on grants that had been completed earliest so there might be results to discuss. At the time this report was written, 12 grantee projects had been completed, 7 had received no-cost extensions, and one had requested a no-cost extension.

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5 We attempted but were unable to secure an interview with a former staff member who oversaw the technical review process to gain additional insight into how the process differed from AHRQ’s traditional methods.

6 Information provided by an AHRQ Grants Management Office report, created October 23, 2006. If there was a discrepancy between information provided by the PI and the report, we assumed the Grants Management report had the most updated information.
<table>
<thead>
<tr>
<th>Type of Interview or Activity and Estimated Number of Interviews</th>
<th>Topics Covered</th>
</tr>
</thead>
</table>
| Selected Executive Management Meeting (EMM) Staff and Other Critical Function Leaders (4 individuals) | Program history and links with broader AHRQ objectives; expected measures of success  
Aspects of communication flows, relationships with associated program staff, overseers, grantees, and collaborators |
| PFQ Program Director (1 individual) | Roles and responsibilities within PFQ, relationship to other responsibilities  
Review of program operations, activities of the coordinating committee and related groups  
Experience with gaining administrative or decision-making support  
Perceptions of individual grantees, their efforts, and relevant history  
Selected reports on aspects of communication flows, relationships with associated program staff, overseers, grantees, and collaborators |
| Individual Project Officers (10 individuals, including 1 past project officer) | Responsibilities for particular grantees and the associated history  
Approach to task and view of role and appropriate time commitment  
Experience with gaining administrative or decision-making support  
Summary of history and relevant efforts of individual grantees for which they are responsible, key issues or insights to consider, questions to ask  
Selected reports on aspects of communication flows, relationships with associated program staff, overseers, grantees, and collaborators |
| Grants Award and Monitoring and Dissemination staff (3 individuals) | Role and responsibilities  
Perceptions of individual project officers and grantees with whom they are involved or responsible, key issues or insights to consider  
Awareness of broader context  
Selected reports on aspects of communication flows, relationships with associated program staff and grantees |

1 Interview numbers add to 18 because the program director also served as a project officer.

2 We intended to discuss the process of making grant awards but could not as the staff involved had refused.
D. KEY CONSTRAINTS AND LIMITATIONS

The evaluation was constrained by a number of factors. These included:

- **A Late Evaluation Start.** While the program began in October 2002, the evaluation did not begin until October 2005. As discussed previously, the late start meant that our ability to understand the origins of the program was limited, as many key decisions were not documented and the facts were elusive. We also were unable to observe the evolution of AHRQCoPs directly since all but two meetings occurred before the evaluation began.

- **Limited Primary Data Collection.** Our evaluation relied on grantees’ own evaluations of their success. Each grantee defined their evaluations differently, capturing different information. In many cases, evaluations were not complete when our evaluation report needed to be completed and some investigators were more willing to share early findings with us than others.

- **Limited Documentation.** While grantees were required to file quarterly and annual reports, grantees varied in both the completeness and timeliness with which they responded. The reports also were not always forwarded to the grants office and in the grantee official file.

- **Grantee Diversity.** The diversity of grantees and foci of the interest made the evaluation challenging. Individual grantees not only focused on different substantive areas of translation, but the way they defined success and the strategies they pursued to do so differed greatly. This meant that the appropriate metrics for evaluating each grantee’s results were not the same.

- **Timing.** AHRQ wanted to get formative feedback from PFQ as early as possible and structured the evaluation so that it would provide results soon after the formal end of the program. This timing, together with the sheer number of grantees, meant that many interviews were conducted well before grantees finished their work. Though we were able to ask grantees to update their experience in early October 2006, this still was too soon for some to have finished their evaluations. Ultimately, of the 20 grantees, 12 (8 of those with clinical improvement goals, and 4 of those producing bioterrorism preparedness studies) were able to provide some preliminary results or outcomes in time to include in this report. Most of the other eight projects had information about their reach into target providers, lessons about the implementation process, or some indication about the likelihood of sustainability or further diffusion of their approach.
<table>
<thead>
<tr>
<th>Type of Interview and Estimated Number of Interviews</th>
<th>Topics Covered</th>
</tr>
</thead>
</table>
| Project Principal Investigator (2 hour interview)—19 Interviews | Grant history, strategy and rationale  
Overall Responsibilities of PFQ PI |
| Partner/Collaborating Organization (30 minute to 1 hour interview)—57 Interviews | Evolution of Project Goals, Activities and Partners over time  
Project Accomplishments  
Partnership Functioning and Effectiveness  
Factors promoting/inhibiting success  
Perceived sustainability and role of grant/partnership  
AHRQ support, effectiveness and efficiency of oversight/management/guidance  
Contribution of Program-wide PFQ Activities and Communication⁷ |

⁷ We covered this topic with all PIs but only a few project partners who had participated in AHRQCoPs meetings.
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III. WHAT DID GRANTEES SEEK TO DO?

This chapter describes the PFQ grantees and their goals. Specifically, it discusses the intended grant focus; intervention strategies; the characteristics of the organizations awarded PFQ grants, proposed partners and their roles; and the expected outcomes and how they intended to measure their success. We focus on grantees’ initial intentions, based on the applications and interviews conducted with grantees. We defer to Chapter IV for our analysis of grantees’ success in implementing these plans and the outcomes of their efforts.

A. PFQ PROJECT FOCUS

The central focus of PFQ was to apply evidence-based practices to improve quality of health care. PFQ also provided grants to improve the health care system’s readiness to address bioterrorism, although grants in this area were smaller than were the core grants focused on improved quality of health care. Of the 21 PFQ grants, 18 received funds for the first purpose and five for the second. The latter five included two (JCAHO and RTI) whose grants had both clinical quality improvement and bioterrorism preparedness components.

The RFA allowed grantees substantial flexibility in choice of focus and approach, though it encouraged work in at least one of AHRQ’s targeted priority health care settings, health conditions/issues, and/or populations. These priorities are broadly defined and so were the foci of PFQ grants. Appendix Table A.1 provides details on the specific focus of each grantee, but the themes across the projects are briefly described here.

Quality Improvement Grants. Of the 18 grants funded to encourage providers to better use evidence-based care to enhance its quality, 15 did so by working directly with providers, or through intermediaries that represented them, and 3 by attempting to leverage purchasing power to change incentives to reward providers that provide high quality care. Of the 15 grants focused directly on changing provider behavior (see Box 1), 5 worked to improve the quality or safety of hospital-based care, 4 with long-term care/home health providers, 5 with office-based physicians, and one with large integrated health delivery systems.

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7 The RFA stated that grants could focus on priority health conditions, including: cancer, diabetes, heart disease, chronic kidney disease, or respiratory disease, as well as priority health issues, including maternal and child health, mental health, long-term care, and bioterrorism. Some of these priority conditions and issues were expected to fall within the categories to be addressed by AHRQ’s National Health Care Quality Report, under development when the RFA was released. The 2005 National Healthcare Quality Report identified nine clinical conditions or care settings: cancer, diabetes, end stage renal disease, heart disease, HIV/AIDS, maternal and child health, mental health and substance abuse, respiratory disease, and nursing home and home health care.

8 The RFA stated that PFQ applications should address priority populations identified in AHRQ’s authorizing legislation: inner-city areas and rural areas (including frontier areas); low-income groups; minority groups; women; children; the elderly; and individuals with special health care needs, including individuals with disabilities and individuals who need chronic care or end-of-life health care.
BOX 1

15 GRANTS TO IMPROVE PROCESS OF CARE AND CLINICAL OUTCOMES
BY CHANGING PROVIDER BEHAVIOR (GROUPED BY SETTING)

HOSPITAL

- **American Hospital Association/Health Research and Education Trust (Original grantee: Institute for Healthy Communities) (J.R. Combes):** Increase and enhance hospital-based palliative care by creating learning center hospitals to host site visits from staff from other hospitals.

- **Association of California Nurse Leaders (N. Donaldson):** Decrease incidence of hospital-based falls and falls-with-injury by coaching nurse “linkers” to implement evidence-based interventions in medical-surgical hospital units.

- **Catholic Healthcare Partners (D.S. Casey):** Improve health care outcomes for patients with congestive heart failure using hospital-based approaches to encouraging consistent use of evidence-based guidelines for care.

- **Child Health Corporation of America (P.J. Sharek):** Work with a subset CHCA’s member children’s hospitals to integrate evidence-based practices on pain management, medication safety, and patient safety.

- **JCAHO (J. Loeb):** Identify whether the introduction of JCAHO’s core performance measure sets for hospital care for patients with four conditions were perceived as valuable by hospitals, whether and how they influenced the process of care, and with what impact. (See separate bioterrorism component next page.)

LONG-TERM CARE AND HOME HEALTH

- **American Medical Directors Association Foundation (D. Polakoff):** Create local long-term care partnerships and pilot test the use of clinical practice guideline implementation toolkits in nursing facilities in six states.

- **International Severity Information Systems, Inc. (S. Horn):** Incorporate findings from the National Pressure Ulcer Long Term Care Study into routine, evidence-based practice in long-term care facilities.

- **New York State Department of Health (S. Broderick/B. Dichter):** Evaluate two alternative methods for disseminating evidence-based best practices in long-term care and adult care facilities.

- **Visiting Nurse Service of New York (P.H. Feldman):** Establish a national learning collaborative for home health care agencies to improve care for elderly clients with diabetes.

PHYSICIAN OFFICE PRACTICE

- **American Academy of Pediatrics (C. M. Lannon).** Improve care for children with ADHD by using web-based tools and practice-based CME to encourage pediatrician’s adherence to evidence-based guidelines, and if successful, extend the model to other conditions.

- **American College of Physicians (V.T. Snow).** Develop and test a team-oriented, practice-based continuing medical education strategy focused on improving care for patients with chronic disease and develop a business case to support its practical application.

- **American Medical Association (K.S. Kmetik):** Test two approaches for transferring clinical data to support large-scale improvement in ambulatory care for patients with chronic diseases—adult diabetes, coronary artery disease, and major depressive disorder—by promoting use of AMA’s performance guidelines.

- **Lehigh Valley Hospital and Health Network (M. Young/K. Coburn):** Develop and test a cost-efficient educational intervention to improve care for diabetes in primary care practice.

- **Physicians Micro Systems Inc. (S. Ornstein):** Expand availability and use of clinical indicators in physician offices for practice-based quality improvement in practices using one electronic medical record system.

INTEGRATED DELIVERY SYSTEM

- **RTI (L. Savitz):** Unlike other PFQ grants, this project focused generically on partnerships. It sought to leverage the experience of its health system partners in the Integrated Delivery System Research Network to improve quality, support more communication across partners, and study partnership issues in AHRQCoPs.
Each grantee defined its target group in different ways. Of the three projects whose quality improvement strategies focused on purchasers, shown in Box 2, one focused on office-based physician care (HealthFront), one on rewarding higher quality hospitals (The Leapfrog Group), and one on creating general measures of performance by the health care system (Pacific Business Group on Health, whose project terminated prematurely, and is therefore not described in the report after this point).

**BOX 2**

**THREE GRANTS TO MODIFY PURCHASER INCENTIVES TO PROMOTE QUALITY**

- **Health Front (M. Callahan)**: Develop nationally recognized measures of provider performance and use them to support purchaser value-based decision making on the part of health plans.

- **The Leapfrog Group (S.F. Delbanco)**: Leverage payer and purchaser groups in select communities involved in Leapfrog’s “Regional Roll Out” to pilot test financial reward and incentive programs targeting hospital and consumer groups.

- **Pacific Business Group on Health (D. Hopkins)**: Develop comparative performance data on physicians using Medicare claims. Project was terminated early when access to the necessary data could not be negotiated.

In addition to provider type and health care setting, most grantees also focused their efforts by health condition or population group. The most common priority health issues and conditions addressed by the PFQ grants awarded include diabetes (five), long-term care (three), heart disease (four), mental health (three), and child health (two). Fire projects targeted two or more conditions. The most common priority populations targeted by grantees included: the elderly (six projects), special needs populations, including those with disabilities, chronic care, or end of life care (six projects), and children (two projects).

**Bioterrorism Preparedness Grants.** Projects addressing bioterrorism and emergency preparedness often defined their target audience more broadly than did grantees seeking to improve quality. The three grants funded exclusively to focus on bioterrorism preparedness pursued goals related to increasing health providers’ ability to respond to bioterrorism or other disasters.

Both grantees with dual-purpose funding (JCAHO, RTI)—to improve both quality and bioterrorism preparedness—built on strong hospital links and sought to bring in other community groups as appropriate. JCAHO’s bioterrorism grant sought to assess the existence and effectiveness of linkages for community-wide bioterrorism preparedness among health care, public health, public safety, and government agencies. JCAHO also planned to compare preparedness for communities with and without disaster experience and identify exemplary practices. RTI hoped to develop and use the same infrastructure used for a previous AHRQ-funded project with its integrated health system partners that used evidence-based research to improve quality, and to facilitate communication that would also address bioterrorism preparedness in the health systems.
BOX 3

THREE GRANTS TO IMPROVE BIOTERRORISM AND EMERGENCY RESPONSE PREPAREDNESS BY HEALTH PROVIDERS

- **Altarum Institute (PI G. Miller).** This project focused on developing simulation models to project demand for medical care within communities in response to a bioterrorist attack or acute outbreak of infectious disease. The intent was to test the utility of these models in planning with an urban and a rural healthcare network.

- **Connecticut Department of Public Health (PI L. Dembry).** The project focused on developing, providing, and evaluating the effectiveness of web-based bioterrorism preparedness and response training for “front line” practitioners in Connecticut.

- **Texas A&M University Health Sciences Center PI (J. Williams).** The bioterrorism preparedness component of this grant, which ultimately became its exclusive focus, focused on analyzing bioterrorism readiness among provider systems in counties in and around San Antonio and Dallas/Fort Worth, Texas.

B. INTERVENTION MODELS AND STRATEGIES

1. Models

PFQ projects were expected to design their interventions to include three major types of activities: 1) designing, supporting and facilitating evidence-based improvements in health care security, safety, and quality; 2) sustaining these improvements by making them part of the ongoing practice of health care providers and clinicians; and 3) disseminating improvements beyond targeted selected population groups. The AHRQ grant solicitation instructed grantees to design their interventions using one of the following models:

1. Short-term; single, relatively limited target
2. Complex plan of multiple targets requiring a sequence of interventions over a longer period
3. Expand over time, adding additional targets or partners in a planned sequence over the period of time

PFQ ultimately included few short-term grants (type 1), with the vast majority of grants funded for at least three years and designed to fit models (2) or (3). An example of the first model is the Connecticut Department of Health Grant that developed a bioterrorism preparedness training program for physicians. An example of the second model is the American Medical Directors Association Foundation grant that focused on nursing facilities in six states to determine the effectiveness of an approach for training nursing home staff to implement clinical practice guidelines and to evaluate nursing homes’ experiences and lessons in using implementation toolkits. An example of the third model is the American Hospital Association-HRET grant that planned to expand the number of palliative care learning centers from the three Pennsylvania-based units in Phase I to an additional four national facilities in Phase II.
Some projects followed a model that combined these strategies. For example, over the course of the grant period, Physician Micro Systems, Inc. in collaboration with the Medical University of South Carolina, aimed both to increase the clinical indicators tracked from 22 to over 70 and the number of participating physician practices from 40 to 100 (model 3), and to involve a sequence of interventions, including quarterly reports, site visits, and annual network meetings (model 2). While most of the grantees planned to expand their targets, interventions, and/or partners over the course of the grant periods, some ran into hurdles, such as recruiting issues and staff turnover that delayed and/or inhibited their progress (discussed further in Chapter IV).

Because the PFQ solicitation required that the proposed interventions use successful care models, most of the PFQ projects built on work already underway. One grantee noted that the PFQ program “offered an opportunity to continue what we had already started and what we wanted to do.” PFQ funding allowed organizations to expand upon their prior quality improvement or bioterrorism preparedness work and/or accelerate their efforts. Several used the funding to strengthen operational and/or infrastructure support to more comprehensively carry out their work. In addition, a few of the grantees transformed concepts from proposals rejected by other funders into projects that were more in line with the aims of the PFQ program.

Though the RFA encouraged applicants to build their proposed interventions on published evidence of effectiveness, the evidence base is stronger in some areas than others. Bioterrorism projects, in particular, were challenged to address topics where a strong base of evidence and knowledge of how to proceed is just now developing and has many gaps.

2. Intervention Strategies

To achieve their quality improvement goals, PFQ grantees intended to implement a variety of changes in health care systems, organizations, and clinical practices. Projects seeking direct improvements in clinical care primarily utilized training, education, or technical assistance to implement organizational and/or operational process changes in target organizations. Projects seeking to utilize purchaser power to leverage change focused on mechanisms for implementing policy/reimbursement changes. Some bioterrorism preparedness projects also included training and technical assistance, and some studied or developed emergency preparedness planning processes and tools. The effectiveness of these strategies will be examined further in Chapter V.

Changes in Provider Practices and Operations. Of the 15 grants focused directly on changing provider behavior, 12 planned to conduct some form of training, education, or technical assistance to increase use of clinical guidelines in daily practice. This involved staff training on guidelines and/or working with staff to change workflow, the documentation of care processes, or organizational policies to increase adherence to clinical guidelines. Most of these grantees also planned to offer follow-up support to providers.

The majority of these 12 grantees combined the three strategies to maximize providers’ adoption of clinical guidelines. For example, the American College of Physicians developed a practice-based continuing medical education course, based on the Institute for Health Improvement (IHI) rapid cycle quality improvement model, to train teams of doctors, nurses, and office administrators on how to improve quality of care and outcomes for patients with chronic diseases. They also developed a toolkit to help the teams implement clinical, administrative, and
patient education techniques to be incorporated into daily workflow, and planned to follow up in between training sessions via conference calls to help providers deal with problems putting the tools into practice.

A few grantees provided intensive on-site training/technical assistance to their targets. For example, project leaders from the Medical University of South Carolina made site visits to some of the groups participating in the practice partner research network (PPRNet) in PMSI’s project. During these visits, PPRNet staff or consultants would meet with all members of the practice for about a half day to assess the practice’s performance, highlight what was working well and explore opportunities for improvement.

In addition to ACP’s project, two grantees incorporated IHI’s rapid-cycle quality improvement approach as the basis for their interventions. CHCA adopted this approach in the last two years of its project, to bring more rigor and consistency to its quality improvement efforts in pediatric hospitals. It launched two rapid-cycle improvement projects, each with different sets of hospitals. The hospitals sent teams to learning sessions and received intensive coaching on change implementation in conference calls between sessions. Like ACP, CHCA also created and tested toolkits for implementing patient safety best practices in hospitals. VNSNY also used the IHI rapid-cycle improvement model to design and implement diabetes care improvements in the eight participating home health agencies.

Several grantees planned to collect data on provider performance and report back to them on their progress in following clinical guidelines or meeting performance standards. Lehigh Valley Hospital and Health Network, for example, used a system called Achievable Benchmarks of Care (ABC™), which sets a benchmark for care based on best practices of regional peers and reports to physicians on how they compare to their peers.

Changes in Payment Policies to Reward Quality. The two purchaser-focused PFQ grants used different strategies for creating or aligning payment incentives to promote quality care. The Leapfrog Group recruited payer and purchaser groups to pilot test financial incentive and reward programs that utilized their recommended hospital patient safety practices in six health care markets around the country. One of the pilots was led by the Boeing Company, which worked with consultants secured by the Leapfrog Group to implement a program for employees enrolled in the company’s PPO, which offered a discount on care provided in hospitals that met Leapfrog’s quality and patient safety practices. In another pilot project, Leapfrog arranged for technical assistance to the Maine Health Management Coalition to help design and implement a bonus pool for high performing hospitals. HealthFront, which led the other purchaser-focused project, studied the current status of pay-for-performance and public reporting in two health care markets, to identify the degree of alignment among insurers and payers in their use of provider incentive programs. HealthFront reported its findings to the purchasers to prompt discussions about how to make the incentives more consistent. The project also conducted surveys of medical group managers in Minnesota and physicians in Colorado to determine their awareness of and response to different types of incentive programs.

Study of Providers’ Bioterrorism/Emergency Response Preparedness. While the five bioterrorism/emergency response preparedness grantees all sought to improve the capacity of the health care delivery system to respond to crises, they did so in different ways. Connecticut Department of Health, in partnership with Yale New Haven Health System, proposed to create
and evaluate the effectiveness of a training program for front-line clinical staff. JCAHO assessed the linkages between the health care system and public health infrastructure through the use of a survey of hospitals and community health centers. Altarum Institute modeled the surge capacity of health care systems in the event of a bioterrorism event, under varying assumptions regarding the public health response.

C. PFQ GRANTEE ORGANIZATIONS AND PARTNERSHIPS

1. Lead Grantee Organizations

The PFQ solicitation encouraged applicants with the capacity to influence health care organization and delivery and the ability to evaluate the impact of their efforts (see Chapter I). Specifically, the solicitation targeted applicants from health care professional organizations, accrediting agencies, practice networks, employer coalitions, and health insurers. Twelve of the 20 PFQ grants were awarded to organizations falling within these categories: five were awarded to provider groups, five to health care professional organizations, one to an accrediting/certifying body, and one to an employer coalition/purchaser collaborative. Of the remaining eight grants, four were awarded to research organizations, two to state government agencies/departments, one to a university, and one to a private company. The organizational types of the PFQ grantees are shown in Box 4.

Seeking to fund a “different kind” of project, AHRQ’s RFA solicitation excluded universities from being eligible for PFQ grants, though academically-based individuals were not precluded from being involved in the grants. In fact, Principal Investigators affiliated with academic institutions led 6 of the 20 PFQ grants. Of these six, only one of the academic institutions was the actual grant recipient (Texas A&M University). This grant was also the only one of the six that focused on bioterrorism preparedness, which we believe may have been the reason for this exception. The remaining five university-affiliated Principal Investigators applied to the PFQ program through other organizations, whose responsibilities included an administrative/fund disbursement role.9

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9 The remaining five university-affiliated Principal Investigators led projects for two professional organizations, one provider group, one state government department, and one private company.
2. Partners and Other Affiliates

Number of Partners. In contrast to traditional research grants, the PFQ program encouraged grantees to form partnerships with a variety of types of organizations and individuals that could help reach target providers. The numbers of partners involved in PFQ grant activities varied tremendously across the projects. Some had few partners, while others had as many as 20 or more partners with varying levels of involvement. A full list of partner organizations is shown in Appendix Table A.2, which displays the partners associated with each project according to organizational type.

Grantees structured relationships and communication among partners differently, depending on the scope and focus of their projects. The projects led by the AMA, ISIS, Lehigh Valley Health and Hospital System, and VNSNY intended to collaborate with a dozen or fewer provider organizations as working partners, usually because their interventions were more time-intensive, either for the lead agency or the provider organizations. Other projects, such as those led by the American Academy of Pediatrics, American College of Physicians, Child Health Corporation, and PMSI, planned to engage between 35 and 180 provider organizations, and in these cases group training sessions, quarterly reporting and occasional teleconferences were used to interact with a larger number of target organizations.

Types of Partner Organizations. The four most common types of partner organizations affiliated with PFQ grantees included:

| Provider organizations (PFQ grant usually housed in the research division) | American Hospital Association/HRET  
| | Catholic Healthcare Partners  
| | Child Health Corporation of America  
| | Lehigh Valley Hospital and Health Network  
| | Visiting Nurse Service of New York  
| Health professional associations | American Academy of Pediatrics  
| | American College of Physicians  
| | American Medical Association  
| | American Medical Directors Association Foundation  
| | Association of California Nurse Leaders  
| Health care accrediting/certifying body | Joint Commission on the Accreditation of Healthcare Organizations (JCAHO)  
| Employer/purchaser collaborative | The Leapfrog Group  
| Independent research organizations | Altarum Institute  
| | HealthFront  
| | International Severity Information Systems  
| | RTI  
| State health departments | New York State Department of Health  
| | Connecticut Department of Health  
| University | Texas A & M University System  
| Private company | Physician Micro Systems, Inc.
1. Research organizations or university-based researchers, typically responsible for leading the projects’ research and evaluation design and implementation

2. National or state health care professional organizations led 5 of the 20 projects as noted earlier, but were involved in several other projects as partners to help promote QI approaches or recruit their members to participate

3. Provider organizations or practices, which were often the targets of QI tools and methods

4. State or local public health agencies, one of which led a project (NYS-DOH) and involved as partners in bioterrorism and emergency preparedness projects

**Type of Role.** Partners played different roles with the grantee team. In some cases, partners were expected to work very closely with the lead grantee on overall leadership for the project. They could be involved in any or all of the following: grants management, research design, quality improvement training, data collection and analysis, and marketing/dissemination of the project results. Instead, or in addition to being part of the leadership team, some partners were asked to perform the following roles:

- **Intermediaries,** sometimes referred to as key collaborators, who recruited, trained or provided technical assistance to the target organizations, and served as a critical link between leadership and targets. Those filling the intermediary role included a variety of health care professional organizations, providers, or quality improvement organizations (QIOs).

- **Targets,** who included the health care organizations or providers on whom the quality improvement intervention was focused, as discussed earlier.

- **Advisors,** who provided expert input to project leaders in their areas of clinical, health services research, and health delivery expertise.

**Types of Partnerships.** While the way in which each grantee worked with its partners differed greatly among the projects, there were two major types of partnerships, which differed by how the grantee organization related to the target organizations:

- In one model, used largely by the projects that focused on bioterrorism and emergency preparedness, grantees largely involved target organizations as advisors or as study participants.

- In the second model, used by the 14 projects that targeted providers for quality improvement efforts, and 2 focused on purchasers, grantees forged direct working relationships with the target organizations to design, implement, and assess the success of efforts to translate research into quality improvements. Virtually all of the projects adopting this model also involved advisors as partners, but the advisors usually had little or no interaction with target organizations.
We describe in more detail in Chapter VI how these partnerships actually worked – how the partnerships functioned, how partners communicated and made decisions, and how they involved staff in target organizations. Chapter VI also assesses how partnership structure and function contributed to the success of individual projects and to the overall goals of the PFQ program.

D. EXPECTED OUTCOMES AND EVALUATION APPROACHES

The AHRQ solicitation required all PFQ projects to evaluate the effects of their interventions, though it did not clearly specify how the evaluation was to be conducted or what purpose it would serve.\textsuperscript{10} As discussed in Chapter I, some originators of the PFQ concept viewed the evaluation requirement as a feedback requirement more than as research for its own sake. According to this view, evaluation was intended to document how projects were helping to move evidence-based research findings into practice on a large scale.

Grantees, however, interpreted the requirement in different ways. Some paid more attention to the evaluation requirements than others. Grantees varied on how clearly they sought to measure the outcomes of their work, how rigorously they tried to pursue their analyses, how much of the grant resources were allocated to the evaluation, and how they viewed the role of such findings to their overall goals.

The rest of this chapter reviews key characteristics of the evaluations proposed by grantees, including the outcomes, research design, and the affiliations they developed to support the evaluation. Appendix Table A.3 provides more detail on evaluation approaches and measures for each grantee. The chapter concludes with a brief discussion about how the variation in evaluation approaches influences the ability of this evaluation to draw insights or compare results across grantees.

1. Evaluation Focus

The focus of evaluation efforts typically differed between clinical improvement and bioterrorism projects. Most of the clinical improvement projects sought to evaluate their success by measuring improvements in the process of care and in clinical outcomes. In contrast, bioterrorism grants planned to measure success simply on the basis of the production of findings on how health providers could improve emergency preparedness.

Projects Focused on Improving Clinical Quality. As discussed previously, 17 grants had this as their goal, including 15 that sought to directly influence provider behavior. Of the 15, all but three (AMA, JCAHO, RTI) planned to measure the changes in care processes that resulted from their work under the grants. The American Academy of Pediatrics grant, for example, planned to compare the percentage of patient charts demonstrating target levels of care for seven

\textsuperscript{10} The RFA stated, “AHRQ intends that funded projects be models, and as such yield information that may be useful to other organizations. Evaluation relevant to an individual project must be part of all plans, with an emphasis on acquiring information that will permit assessment and reporting of progress against approved aims as well as internal decision making by the grantee and consortium members. Cost and other resource dimensions must be addressed in evaluation at this level.”
ADHD care components between those practices enrolled in e-QIPP and receiving AAP training support with those only entering practice data onto the e-QIPP system. Ten projects (ACP, AHA, AMDA Foundation, ACNL/CalNOC, CHCA, ISIS, Lehigh Valley, NYS-DOH, PMSI, VNSNY) intended to go further by capturing data on patient outcomes of care as well.

The clinical outcomes were most often short-term changes in patient lab scores, patient satisfaction, and similar measures that might be expected to change within the time frame of the project. The Lehigh Valley Hospital and Health Network project, for example, planned to evaluate its project on both process and outcome-based measures by monitoring diabetes process of care measures, and selecting indicators of diabetes control for patients in participating physician practices at baseline, 6 months, and 12 months post intervention. Similarly, the New York State Department of Health planned to examine the degree to which facilities and staff implemented interventions (the process measures), as well as patient falls, hospitalizations, weight loss, and incontinence (the outcome measures) by comparing pre-post measures for two intervention groups and one control group. In addition, the American College of Physicians planned to conduct telephone surveys pre-intervention, during intervention, and post-intervention to evaluate patient satisfaction.

Two projects planned to collect financial information. The project led by the American Hospital Association/HRET had a plan to compare financial data at baseline from three learning labs to post-program data from six learning labs. This metric was likely included in this evaluation because of the PI’s interest in creating a business case for implementing palliative care units at hospitals. Lehigh Valley Hospital and Health Network also planned to obtain financial data to help it calculate the cost of the interventions.

To provide context for understanding these outcomes, some grantees proposed a process evaluation. For example, the International Severity Information Systems planned to conduct staff focus groups and interviews to determine staff satisfaction; it also planned to examine how the intervention supported the use of best practice protocols in study units, became integrated into daily workflow, achieved process efficiencies, and gained user acceptance. The American Academy of Pediatrics monitored the frequency and participation in QI activities in treatment and control practices, as well as collecting qualitative information on the factors promoting AAP chapters’ ability to develop and sustain QI activities. VNSNY also tracked implementation experiences and perceptions of value by surveying CEOs and other staff in participating home health agencies.

Three of the 15 grantees focused on improving clinical care but did not plan to measure their success based on actual change in the process or outcomes of care (AMA, JCAHO and RTI). The AMA project’s planned measure of success was the ability to show that physician groups

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11 The RFA stated, “Documentation of results must include benefits to patients and also costs and benefits to individual providers and to the organizations that are likely to have a bearing on long-term adoption and sustainability of the changes [emphasis added]. In other words, it is desirable to 1) institute policy, organizational, or operational efforts that will motivate and support changes in practice to improve quality, and 2) provide evidence that the changes in quality are cost-beneficial to the relevant participants so that they can be expected to continue, independent of this or other grant funding”.

31
could transfer clinical data electronically, and that data could be compared to AMA performance standards. JCAHO did not plan to formally evaluate its project, though it did plan to track progress in its survey of hospitals’ perceptions of the value of JCAHO’s core performance measures for quality improvement initiatives. The RTI project’s primary measure of success was the production of lessons on how to create effective partnerships for translating research into practice, based on the experiences of its integrated delivery system partners to spread effective quality improvement methods across and within the systems.

The purchaser-focused grants proposed to gauge their success on whether or not they could modify reimbursement systems and incentives to promote quality care rather than measure the changes in care per se. The most ambitious of these was The Leapfrog Group’s plan to study whether purchaser incentives would influence employees’ choice of hospitals if they received a discount for using hospitals that met Leapfrog’s patient safety standards. HealthFront proposed to measure the proportion of the insured population in two markets that were subject to “aligned incentives.”

**Bioterrorism preparedness projects.** The bioterrorism-focused grants proposed to judge their success by producing findings about what is needed to improve health care system preparedness. The exception was the Connecticut Department of Public Health together with Yale/New Haven Hospital System’s Office of Emergency Preparedness, which planned to formally measure success of improving knowledge about bioterrorism preparedness among physicians.

2. **Research and Evaluation Approaches**

Formal research designs were employed in 12 of the 15 clinical projects that focused on processes and outcomes of care, and in one of the bioterrorism preparedness projects. The rigor and approach to the design varied across these grants. In most cases, investigators proposed quasi-experimental designs that involved pre-post measurement of relevant clinical or other indicators (sometimes with comparison groups), and qualitative studies of implementation processes and participant experiences. Only one grantee—the AMDA Foundation—used a randomized design; it randomly assigned each participating nursing home to one of two clinical practice guideline implementation groups, each serving as cross-controls to the other. However, a few grantees compared results of experimental groups with those of control groups, by allowing those in the latter set to participate in the intervention after the former completed data collection.

3. **Evaluation Responsibility**

Many of the evaluations were carried out by the grantee organizations themselves, many of whom are non-academic applied research groups, such as Altarum, ISIS and RTI, or research arms of provider organizations, such as JCAHO’s Division of Research, VNS of New York’s Center for Home Care Policy and Research, Lehigh Valley Hospital and Health Network’s Community Health Studies division, and AMA’s Clinical Quality Performance Measurement unit.
Some grantees worked closely with researchers or quality improvement measurement experts from non-academic research institutions. For instance, New York State Department of Public Health had co-PIs from the Research Division of the Hebrew Home for the Aged at Riverdale. HealthFront worked with researchers from Park Nicollet Institute. AMDA Foundation worked closely with Quality Partners of Rhode Island, the CMS-designated QIO support center for nursing home quality improvement.

A few projects engaged researchers from either academia or other research institutions to conduct independent evaluations of their projects. These included Catholic Health Partners, which had an academic researcher conduct a formative evaluation; the Leapfrog Group, which had three academic researchers conducting process and outcome evaluations of its pilot projects; and AMA, which sub-contracted with RAND for an evaluation.

E. IMPLICATIONS OF DIVERSE PROJECTS FOR EVALUATION

In evaluating a program like PFQ, which includes grantees with diverse goals, one can evaluate outcomes against overall program goals, as well as against the individual goals each grantee sets for itself in the proposal that AHRQ funded.

In terms of overall goals, AHRQ clearly desired PFQ to have a broad reach in changing health care delivery. Hence, the scale of grantee efforts and their collective reach is an important issue to examine as part of the overall evaluation of the PFQ. To our knowledge, the agency was less prescriptive about strategies for translating research into practice and how trade-offs were to be made when projects brought the potential for large-scale influential national sponsors. But it did propose approaches that were less directly or immediately tied to changing individual provider performance within the time period of the grant. In addition, AHRQ itself acknowledged that given the novelty of the PFQ program, it expected the grantees would learn as they went along. In this context, only a subset of grants might be expected to succeed even if the program as a whole was successful.

We can also assess grantees’ successes against their own goals and their implementation progress, but only a subset of projects was designed to achieve (or measure) change in clinical practice. In the next chapter, we evaluate grantees’ successes through an overall assessment of the collective experience of grantees, while remaining sensitive to the differences in goals set by each grantee and how concretely they planned to measure success.
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IV. WHAT DID THE PFQ PROJECTS ACHIEVE?

AHRQ sought projects that aimed to make a “significant improvement in quality of care for a substantial part of the population of the United States. AHRQ is seeking projects that will, in aggregate, affect the quality of care of patients numbering in the hundreds of millions.” (PFQ RFA, May 2002) This chapter assesses the achievements of the PFQ grantees over the course of their projects. After a brief overview of the project’s overall outcomes, it reviews the experiences and results of all 20 grants by areas of common focus.

A. OVERALL OUTCOMES

For a program with limited visibility, PFQ does appear to have made a difference in health care security, quality and safety in some of the targeted health care organizations, and raised quality of care processes and outcomes for many Americans. Though final outcomes are not known for all projects, it appears that some projects achieved better results than others (see Table IV.4).

In terms of their ability to change clinical practice in ways consistent with evidence, four projects stand out based on the magnitude and scope of their effects: 1) Child Health Corporation of America, which improved clinical performance in several areas at 18 hospitals and has expanded quality improvement efforts at 42 children’s hospitals; 2) International Severity Information Systems, which streamlined care processes in nursing facilities in ways that led to demonstrated reduction in pressure ulcers; and has launched a follow-up project to spread its approach more widely; 3) Physician Micro Systems/MUSC, which has expanded an effective strategy to get performance data into greater use in physician offices for improved process of care; and 4) the Visiting Nursing Service of New York, whose model for diabetes home care has shown positive effects and is being extended in 10 states.

Though less striking, four other projects developed new approaches to quality improvement that have the potential for attaining broader scope and merit greater attention: 1) the American Academy of Pediatrics, which has sustained its clinical improvement efforts through new projects that build on its practice-based, quality-improvement CME course, and has linked the approach to board certification; 2) the American College of Physicians, which had strong preliminary results in diabetes care improvement and is pursuing team-oriented CME projects in other clinical areas; 3) the AMA, which is now working with EMR vendors to integrate its performance measures into their systems; and 4) Catholic Healthcare Partners, whose work on improving heart failure care in hospitals is promising and is being disseminated nationally through the American Heart Association.

Other grants effectively pursued important areas but did not generate detectible positive improvements, though they have important lessons to share within their respective fields. For example, The Leapfrog Group’s work on performance incentives may well be very important in enhancing understanding of the barriers to introducing these incentives. The Lehigh Valley Hospital and Health Network’s approach to diabetes control proved it was financially feasible for primary care physicians, but little was done to replicate it beyond the 10 small practices where it was tested. Similarly, the Association of California Nurse Leaders work on falls prevention,
though ultimately disappointing in its results, was important and will likely enhance support for performance monitoring in other clinical areas. Others, like the work by JCAHO, while directed more at building knowledge than seeking immediate changes in practice, may have promise down the road in influencing care.

In the area of bioterrorism preparedness, the tools developed for training physicians in Connecticut were important, even though project leaders found that training had only a short-term effect on physician knowledge. Findings from the other three bioterrorism preparedness projects may help some local health providers strengthen their plans, and produce new knowledge or tools for health system response planning, but their significance and overall contribution to the field are difficult to assess.

A few grants, however, did not appear to be well-conceived from the start, even though they were well-intended. For example, the fact that nursing needs to be a focus in improving quality in nursing homes should not have been a surprise to the American Medical Directors Association Foundation. More thought could have been given to the goals and approach behind HealthFront’s project, which achieved far less than it originally planned. The impact of RTI’s study of the science of partnerships remains difficult to evaluate.

TABLE IV. 1

PRELIMINARY IMPACTS OF PFQ PROJECTS

<table>
<thead>
<tr>
<th>Level of Impact</th>
<th>PFQ Projects</th>
</tr>
</thead>
<tbody>
<tr>
<td>Large positive effects on practice or strong potential for sustainability or wider diffusion</td>
<td>Child Health Corporation of America, International Severity Information Systems, Physician Micro Systems/MUSC, Visiting Nurse Service of New York</td>
</tr>
<tr>
<td>Small positive effects on practice or potential for sustainability or wider diffusion</td>
<td>American Academy of Pediatrics, American College of Physicians, American Medical Association, Catholic Healthcare Partners</td>
</tr>
<tr>
<td>Little or no tangible impact but useful lessons if widely disseminated</td>
<td>American Hospital Association/HRET, American Medical Directors Association Foundation, Association of California Nurse Leaders, HealthFront, JCAHO (performance measurement component), The Leapfrog Group, Lehigh Valley Health and Hospital Network, Research Triangle Institute, New York State Dept of Health</td>
</tr>
<tr>
<td>Findings and tools from bioterrorism preparedness projects</td>
<td>Altarum Institute, CT Dept. of Public Health/Yale New Haven Health System, JCAHO (bioterrorism preparedness component), Texas A &amp; M University System Health Sciences Center</td>
</tr>
</tbody>
</table>
B. OUTCOMES OF PROJECTS SEEKING TO CHANGE CLINICAL PRACTICE

The concepts of the RE-AIM evaluation framework—reach, effectiveness, adoption, implementation and maintenance—are particularly relevant to assessing the impact of the 17 PFQ grants seeking to affect clinical quality of care. The RE-AIM framework is oriented toward assessing the potential for translating research to practice, and for wider dissemination. While this framework can be used to assess interventions at both the individual and organizational levels, in this evaluation we focus on the PFQ projects’ effects at the organizational level, since the PFQ projects were intended to scale up proven health care interventions already demonstrated as effective for individuals. This section assesses 17 PFQ grantees’ impacts in the RE-AIM framework domains relevant to these projects—reach, implementation, effectiveness, and maintenance/sustainability.

1. Reach

When it announced the original 22 projects to be funded, AHRQ stated that they would “involve more than 88,000 medical providers; 5,800 hospitals, nursing homes, and other health care facilities; and 180 health plans.” Although these estimates were based on overly optimistic predictions at the start of the program, PFQ did not achieve short-term effects on the delivery system on this scale.

The number of organizations targeted ranged widely across the PFQ projects, even among those targeting the same type of organizations. (See Appendix Table A.4 for a visual display of the number of organizations, patients, or other targets chosen by each project.) For instance, in projects targeting hospitals for their interventions, the number initially targeted ranged from just a handful (Catholic Healthcare Partners) to between 10 and 40 (CalNOC and CHCA) to 100 (AHA/HRET, Leapfrog) Among those targeting nursing homes, the number targeted ranged from 8 (ISIS) to 30-50 (NYS-DOH and AMDA). In projects targeting physician practices, the number ranged from 8 (Lehigh Valley) to 10-35 (AMA ACP) to more than 100 (PMSI and AAP).

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12 RE-AIM is a “systematic way for researchers, practitioners, and policy makers to evaluate health behavior interventions. It can be used to estimate the potential impact of interventions on public health,” according to its developers. For more information, see http://www.re-aim.org/index.html and Glasgow, et al., 1999. AHRQCoPs Subcommittee on Dissemination and Impact also found the RE-AIM framework useful in examining the impact of three PFQ projects.

13 For example, in the RE-AIM framework adoption refers to the percentage and representativeness of the sites or providers that agree to participate. The representativeness of the participants is important because the results cannot be generalized or may not be broadly replicable if those who participated are more motivated or ready to change than those who did not. This is difficult to assess in the PFQ projects. Because these were applied research projects, virtually none of them randomly selected organizations to participate. A few projects tried to compensate for this by randomly assigning those who agreed to participate to an experimental or control group, or to one or another intervention. A few stated that they tried not to recruit those who were innovative or best-in-class, but they were not able to verify this with any data. Thus, this analysis does not address adoption.

Projects meeting or exceeding planned reach/participation. Among 17 projects that specified the number of target health care delivery organizations, physician practices, or other local partners they planned to recruit for an intervention, 14 enlisted at least the number of entities projected in their original proposals. This is not an insignificant accomplishment, since few of the projects paid provider organizations anything for participating other than nominal fees to offset the cost of data collection or travel to project meetings. The only participation incentives project leaders could offer were the free training or technical assistance to improve care quality, and in some cases, the opportunity to learn from others.

Some projects had low targets, so they attained them easily. For example, ISIS enrolled 12 nursing homes, VNSNY enrolled 8 home health agencies, and Catholic Healthcare Partners recruited 6 hospitals. Other projects set substantially higher targets, but still met them. For example, the PMSI project, conducted with the Medical University of South Carolina, expanded the number of primary care practices participating in its performance measurement system from 40 to about 100. Recruiting the practices was part of the PMSI’s regular operations, and participation was relatively easy for provider practices, once they purchased the electronic medical record system sold by PMSI. ACP met its target of about 35 physician practices for its team-oriented, practice-based CME training programs, which required practices to send 3 staff members out of the office to participate in training, implement workflow redesign in their practices, and submit data regularly.

Some projects had to revise their recruitment or research design strategy to reach their target. For example, when AMDA realized that the best way to gain nursing facilities’ participation was by persuading the Director of Nursing, rather than the Medical Director, it switched its focus. AMDA also loosened its participation criteria and allowed “rolling” enrollment, rather than all at one time. Even Catholic Healthcare Partners initially had a hard time recruiting its own hospital CEOs to participate in its program, when they couldn’t see “clear hospital revenue and profitability gains.” They overcame the CEOs’ resistance by asking the system’s ultimate decision makers—the nuns who govern the system—to persuade the CEOs to cooperate.

One project far exceeded the participation target it had originally projected. In the third year of its four-year project, CHCA significantly expanded the number of hospitals eligible to participate in its QI efforts from the original 14 CHCA participating hospitals to all 42 member hospitals. This expansion occurred in part because non-participating sites realized the value of the quality improvement efforts and early PFQ interventions, which coincided with member hospital CEOs recognizing that QI was not just something for the quality department; rather that “quality was the business they were in”.

Projects falling short of planned reach/participation. Three PFQ projects did not recruit the targeted number of participating organizations, primarily due to difficulty in overcoming barriers to provider involvement. For example, the American Hospital Association–Health Research and Education Trust (AHA-HRET) sponsored a project that worked with seven hospital-based palliative care units to offer on-site visits and support to other hospital teams wishing to develop or enhance their own palliative care units. This project found that even when most program costs were subsidized, the difficulty of making the business case to hospital administrators dampened interest.
NYS-DOH did not recruit all of the adult care facilities it planned to participate in its training program, largely because these organizations are not required to provide staff training and resource problems make it hard for them to spare staff to participate. Long-term care facilities, especially those that are small, appear to be less willing or able than hospitals to take on any “extra” activities, particularly when the incentives or rewards for doing so are long-term or uncertain. The Connecticut Department of Health/Yale New Haven Health System found it very hard to persuade physicians to take its bioterrorism preparedness course, and as a result did not expand the effort to target other groups of professionals or to hospitals and practitioners in other parts of the state as originally intended.

2. Implementation of the Intervention Model/Strategy

Implementation in the RE-AIM framework refers to the fidelity to the core elements of an intervention protocol, that is that they are implemented consistently with the design or model. In this evaluation framework, the question of fidelity is framed as whether the intervention was delivered as intended. While most grantees were successful in this regard, a few encountered problems that required they modify original plans and adapt models.

One of these, the American Medical Association project, had to change its strategy significantly from one that planned to test and compare two models for collecting data from physicians on performance measurement, to a focus on just one of the models. This change occurred after the groups involved in testing the so-called “community model” for collecting data from payers encountered resistance to sharing data on physician quality measures. The project shifted gears to focus exclusively on the “practice model,” in which physicians transfer data electronically to a central data repository. In making this change, AMA expanded beyond its original focus to invite a variety of physician practices—a large specialty group, a university-based outpatient group, and a publicly-sponsored ambulatory care network—to test the model and help it learn how different types of electronic health information systems could be adapted to export data for measuring performance against AMA-developed standards.

Also encountering operational constraints, the New York State Department of Health reduced the number of best practices it expected nursing homes and adult care facilities to implement to make it easier for them to participate and increase their ability to train staff in the best practices.

HealthFront also encountered operational problems that challenged the original project concept. Originally hoping to develop a nationally recognized provider performance measurement system, the grantee decided to focus more intensively on supporting purchaser capacity in two markets (Minneapolis and Colorado) after one of the key partners had to withdraw. Key partners in these markets had competing obligations; they supported the work of the grant but couldn’t provide the fast response originally assumed. As a result, this project transitioned into a strategy focused more on generating information on how financial incentives to doctors could be aligned and how providers perceived incentives than its original focus on introducing these incentives over the course of the grant.

Use of IT to support quality improvement. While nearly all PFQ projects collected data from target organizations to track progress and evaluate outcomes, three projects (AAP, ISIS,
PMSI) sought to introduce new information technology into facilities or provider practices as a tool for quality improvement or quality measurement. Several others (AMA, Lehigh Valley, ACP, CHCA, VNSNY) collected data from providers and used third parties to deliver timely reports to provider organizations to provide frequent feedback on the success of quality-related efforts.

Most solved the difficulties of incorporating the new technology or data collection and reporting tools into daily workflow. But some ran into problems that slowed their progress or caused them to make significant shifts in strategy. For example, the American Academy of Pediatric’s intervention relied on pediatricians’ use of a new on-line tool for reporting care processes, called eQIPP. When the PFQ project began, this tool was still new and not completely reliable. The American College of Physicians found that the data coordinating center it used was slow to produce results needed by the participating physician practices to assess changes in their patients’ clinical indicators.

Adapting interventions to each participating organization/group. Several projects found it challenging to identify essential elements of their intervention versus those that could be modified to adapt to each organization’s culture, IT infrastructure and staffing patterns. For example, RTI’s project found that many health care innovations are complex and have multiple elements, but evaluations of their effectiveness do not distinguish between elements that are required or optional. ACNL/CalNOC’s project allowed each hospital to select which evidence-based practices to implement to reduce hospital-based falls, but when its results did not show a significant reduction in hospital falls or falls-with-injury, variation in the interventions may explain the lack of impact.

3. Effects on Health Care Delivery Processes and Clinical Outcomes

Of the 17 grants focused on health care quality or patient safety, 12 set measurable goals related to change in clinical practice or outcomes. Of these 12, 8 had preliminary results to report by September 2006. See Appendix Table A.5 for a brief summary of all projects’ preliminary outcomes. All but one of the eight detected some improvement in the measures examined, suggesting the majority were at least somewhat successful. However, the magnitude of the changes is not consistent across measures and in some cases, is difficult to assess from the information provided by project staff.

a. The American College of Physicians examined process of care measures, such as eye and foot exams and flu vaccines, and clinical outcome measures, such as blood pressure, LDL below recommended levels, and so on among patients with type 2 diabetes that were tracked in 35 physician practices participating in the team-oriented, practice-based CME program. Early results from a four-practice pilot program

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15 Among the four projects with clinical practice or outcome goals whose results are not yet known (AAP, AHA-HRET, AMDA, NYS-DOH), one has indicated it expects positive impact, but implementation delays and problems with the other three indicate that they may not have as positive results to report as those in the eight projects with preliminary findings.
showed that 75 percent of patients’ blood pressure scores improved from baseline, and an average of 3.6 new patients participated in group sessions each month.

b. **Association of California Nurse Leaders/CalNOC** tracked data reported to the California Nurse Outcomes Coalition data repository before and after interventions in about 90 participating medical-surgical units in 32 hospitals to reduce falls and fall-related injuries, compared to 260 non-participating units in the same hospitals. Pre-post data analysis found mean change in falls and mean change in falls with injury were not significantly different between participating and non-participating units. While the falls per 1,000 patient days in participating units decreased slightly after the intervention, project researchers are trying to determine if the lack of a statistically meaningful difference is due to improved reporting, widespread attention to falls due to a JCAHO focus during the intervention period, or the interventions not having sufficient impact on a relatively rare event.

c. When PFQ began, **Catholic Healthcare Partners** already had a system to report quality of care processes for treatment of heart failure patients via MIDAS, a proprietary data warehouse for hospital benchmarking. It collected data on ACE inhibitors prescribed at discharge, left ventricular function assessment, smoking cessation counseling, and appropriate discharge instructions. The PFQ project, called Heart Failure (HF) Guidelines Applied in Practice (GAP), aimed to attain a score for each of the four measures at or above 75 percent of all HF patients or the top 25th percentile in MIDAS, whichever was greater. It also set an organization-wide goal of reducing 30-day all-cause readmission rates for patients with an HF admission. About 18 months after implementing interventions in six hospitals, preliminary results indicate that patients under the care of HF advocates experienced a 41 percent drop in readmissions, and almost a doubling of the period between readmissions.

d. **Child Health Corporation of America** (CHCA)’s quality improvement strategies focused on several areas, including hospital patient safety, medication safety and pain management, and initiated many QI projects involving different subsets of CHCA member hospitals. One of the most successful projects involved an effort to reduce adverse drug events (ADEs) related to narcotics. Over an 18-month period, the 18 hospitals participating in this project showed a 49 percent decrease from 39.1 to 17.1 ADEs per 1,000 narcotic doses. Another successful project focused on reducing bloodstream infections by implementing best practices in 29 hospitals. The results showed 57 percent improvement in infection rates for 18 of the 29 hospitals, a drop in bloodstream infections from 6.9 to 4.8 per 1,000 line days for all 29 hospitals, and 88 percent compliance with IHI and CHCA-created “best practice” guidelines.

e. The **International Severity Information System** (ISIS), whose PFQ project streamlined nursing facility documentation of patient care processes, tracked operational measures related to interventions and clinical care measures for pressure ulcers. Seven facilities that implemented interventions starting in April 2005 reduced the number of high-risk patients with pressure ulcers by 33 percent. Pressure ulcer prevalence in participating facility units dropped over the project period to 8.7 percent on average, compared to the national average of 14 percent, which remained flat over the life of the project. Facilities that implemented the interventions more completely, such as regularly submitting care process forms and using the reports in
care planning meetings had better results—pressure ulcer prevalence of about 5-6 percent—than those that partially implemented the interventions.

f. Lehigh Valley Hospital and Health Network (LVHHN), which provided a package of educational interventions to physicians and patients to improve care of type 2 diabetes patients, monitored process of care measures and clinical lab scores for selected patients in participating primary care physician offices at baseline, six months and 12-months post-intervention. About 18 months after the start of the project, it reported improvements in the percent of physicians screening for glycosylated hemoglobin (HBA1c) and lipids (but not micro-albuminuria) in a timely manner relative to ADA guidelines. Patients also showed progress in adherence to recommended practices and statistically significant improvements in blood pressure, lipid levels, cholesterol, triglycerides and hemoglobin.

g. Physicians Micro Systems, Inc. (PMSI)/Medical University of South Carolina (MUSC) sought to improve adherence to clinical guidelines for more than 70 indicators in eight sets of medical conditions, including heart disease/stroke, diabetes, cancer screening, immunizations, respiratory disease, mental health and substance abuse, nutrition and obesity, and drug prescribing for the elderly. Participating practices all used PMSI’s electronic medical record system, which made it easy to extract data and generate quarterly reports. MUSC staff and consultants provided educational services and support to physician practices on clinical guidelines in each area. Preliminary results indicate statistically significant improvements in the summary index measure for the percent of eligible targets met in the 78 indicators, rising from 33 percent at baseline (9/02) to 46 percent three years later. According to the project investigator, the results are not as large as they could have been if the project had focused on a smaller number of practices and fewer quality indicators.

h. Visiting Nurse Service of New York (VNSNY) worked with eight home health agencies from around the country on its first phase of quality improvement efforts, focused on care for diabetic patients. Each agency submitted monthly data from chart reviews on clinical measures related to glycemic control, foot care, and medication management. The proportion of people with diabetes receiving a comprehensive foot exam by a nurse within 10 days of admission to home care increased more than 50 percentage points over the course of the project. Also, patients with blood pressure in their target range most or all of the time increased 30 percentage points, with similar increases in patients who received and an individualized glycemic control plan, foot care education and a review for medications with possible contraindications. The second phase of the project, which focuses on reducing hospitalization in home care patients, has preliminary data suggesting a drop of 2.5 percentage points for the 70 home health agencies.

4. Effects of Projects Focused on Infrastructure and Learning

Among the 17 projects that were trying to improve clinical quality of care, three that focused on health care providers (AMA, JCAHO, RTI) and two that focused on purchasers (The Leapfrog Group and HealthFront) had goals that could not be measured quantitatively. As mentioned in Chapter III, only two of these five projects—the AMA and The Leapfrog Group—
tried to formally evaluate their success, so we have limited ability to judge the effects of the other three projects.

Of the three provider-based grants focused on infrastructure and learning, two involved major national organizations (AMA and JCAHO). AMA’s work to examine electronic transfer of data for performance measurement had, sponsors say, important lessons about the practical issues and challenges to data extracting exporting and validation. With CMS and others calling for the introduction of performance measures for physicians in office-based practice, these findings have the potential to be very important. JCAHO’s work involved a survey of hospitals about their perceptions of the value of performance measures, as well as a comparison of self-abstracted data on performance measures with data abstracted by third parties. They found that the self-abstracted and third-party abstracted data is essentially similar, which may help build confidence that hospitals’ own data is reliable enough to use in pay-for-performance systems.

Among purchasers, The Leapfrog Group worked with purchasers in six markets to encourage use of quality information in selecting hospitals. Though Leapfrog sought to evaluate the effects of these efforts, only three of its six pilot projects were implemented and evaluation results were available from only one of the pilots for this report. That pilot involved a differential patient co-payment to encourage use of hospitals meeting Leapfrog’s quality and patient safety practices. Preliminary results show no effects on choice because physicians’ admitting privileges appear to play a stronger role in influencing patients’ hospital selection. Leapfrog continues to evaluate these efforts and says that it has gained valuable experience in establishing pay-for-performance programs.

There was no information on impacts of the projects led by RTI and HealthFront, although HealthFront reports that stakeholders in the two markets it targeted have been interested in the results from surveys of providers’ perception of incentive and reward programs.

C. OUTCOMES AND FINDINGS FROM BIOTERRORISM AND EMERGENCY PREPAREDNESS PROJECTS

Four of the five projects that aimed to improve the health system’s preparedness for bioterrorism events and other emergencies had findings to report from their studies or modeling exercises in time for this evaluation. 16 It is inherently difficult to measure the utility of these findings in the absence of real events or disaster response exercises that show whether and how health care providers and public health officials actually use the information to prepare and implement plans. For this reason, the utility of the findings is based on the perceptions of project staff. The one exception is the Connecticut Department of Public Health project that included a formal study of the effectiveness of the training provided through their PFQ grant.

- Altarum Institute, which used two models to simulate the flow of patients into health care facilities in the event of smallpox and other disease outbreaks, provided information to public health officials in the San Antonio area, which they say helped

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16 The fifth, RTI, did not provide information on findings or results of their bioterrorism preparedness projects.
them accurately estimate the number of smallpox vaccinations and distribution sites needed to control an epidemic. The information was also used to develop a purchasing strategy for bioterrorism preparedness supplies.

- The *Connecticut Department of Public Health/Yale New Haven Health System* project’s on-line training program for front-line physicians showed that it effectively increased the knowledge of those who took the course; but six months later, their exam scores declined almost to their pre-test scores. Project investigators speculate that since physicians have no opportunity to use the information, it quickly dissipates. Annual training or drills may be needed to retain the information.

- One of two studies conducted by the *Joint Commission on Accreditation of Healthcare Organizations* (JCAHO) under the PFQ program focused on the existence and effectiveness of linkages for community-wide bioterrorism preparedness among health care organizations, and public health, public safety and other governmental agencies. According to the article that published the results (Braun, et al., 2006), while the majority of hospitals conducted drills or exercises, had plans to acquire additional supplies or equipment, and were prepared for decontamination needs, only 40 percent had 24-hour access to a live voice at their local health department. The survey’s list of 17 elements of an effective emergency preparedness plan is regarded as a useful checklist for hospitals.

- *Texas A&M University System Health Science Center* conducted a number of studies on factors affecting bioterrorism and emergency preparedness. A case study of federal bioterrorism funding allocation in the San Antonio area showed the importance of formal and informal communication networks throughout the region. A study of disease surveillance and reporting systems on the U.S.-Mexico and U.S.-Canada borders showed that communication infrastructure at the local level needs to be improved; that funds should be targeted to disease surveillance methods with the greatest potential for mitigating disease burden; and that bi-national organizations are needed to overcome the problems created by the existence of public health bureaucracies in three national governments, dozens of U.S. states, Mexican states, and Canadian provinces, as well as numerous county and local jurisdictions.

D. SUSTAINABILITY AND BROADER DIFFUSION OF PROJECT ACTIVITIES

In the RE-AIM framework, sustainability is called “maintenance,” and it means the extent to which a program or innovation becomes institutionalized in organizational policies and practices. Both sustainability and broader diffusion were important goals for the PFQ projects. AHRQ’s RFA for the program expected project-initiated improvements in health care security, safety, and quality to be sustained and further disseminated. Sustainability would be shown if PFQ-initiated activities became part of ongoing practice in the targeted health care providers or if these providers “invest[ing] their own resources sufficiently to show commitment and the likelihood of sustained [quality] improvement.” (RFA HS-02-010, May 2002). Dissemination could be shown by efforts to diffuse the improvement strategy or model beyond the initial target population or providers.
1. Sustainability Indicators

Although final results are not known for all projects, at least 13 of them have led already to sustainable improvements in health care security, safety or quality if one uses a minimal benchmark—reports that some or most of the target organizations have integrated the improvements initiated by PFQ projects into ongoing or routine practice. Details for each project are shown in Appendix Table A.6. Though some of them will need support from lead agencies or partners to continue these activities, others will continue to build on effective practices without outside support. For example:

- Six of 10 AAP chapters report that they will continue collaborating with physicians on practice-based educational programs to improve their care of patients with ADHD. AAP also gained recognition of the practice-oriented quality improvement CME program it developed for new American Board of Pediatrics “maintenance of certification” requirements.

- Midwest Heart Specialists and the Northwestern University Medical Faculty will continue working with AMA to refine electronic data transfer for performance measurement.

- Five of the six Catholic Healthcare Partners hospitals will continue to employ the Heart Failure Advocates using their own funds, rather than AHRQ’s PFQ funds.

- Effective diabetes care interventions reportedly remain in place in: 1) the 10 primary care practices that participated in the Lehigh Valley’s program two years after it ended, 2) in many of the practices that were involved in the American College of Physician’s project, and 3) in the 8 home health agencies in VNSNY’s project.

- A few of The Leapfrog Group’s pilot project partners are implementing the reward and incentive programs initiated by the PFQ project without PFQ funding support.

- Lasting changes in workflow, documentation, and care planning processes have been made in all 11 of the nursing facilities that participated in the ISIS-led project.

Cost Savings. Another important indicator of the potential for sustainability is the cost of the interventions, and specifically, any savings that the interventions yield for providers. Lehigh Valley Hospital and Health System, for example, calculated the financial costs of the intervention to physician practices and showed that the patient diabetes education groups with a minimum number of patients could generate enough billable revenue to sustain the program without the PFQ-funded certified diabetes educators. CHCA demonstrated that the adverse drug events prevented saved between $1.7 and $3.1 million. The catheter-associated bloodstream infections avoided by one of CHCA’s collaboratives was estimated to save the hospitals almost $1 million. Catholic Healthcare Partners program, however, showed the difficulty of introducing a program that reduces hospital admissions because it lowers hospital revenue.
2. Indicators of Broader Diffusion

Almost all PFQ projects have begun to disseminate the results of their projects to via journal publications and presentations at conferences. This is important to establish the credibility of the project’s approach in professional circles, and it may be very useful to project investigators when they seek another AHRQ grant, or funds from other sources. However, this is arguably the most passive approach to dissemination, one that AHRQ was trying to diverge from in the PFQ program. Moreover, its impact on diffusion is difficult to measure.

Twelve projects are making more significant efforts to diffuse the security, quality or patient safety approaches tested in the PFQ project to organizations or providers beyond those targeted. They are using three strategies to accomplish this, listed below from the least to the greatest potential for spread.

a) Making widely available and easily accessible tools/toolkits, resources, or training materials developed by the project, via websites and other media. A slightly greater effort is required to disseminate the materials developed by the projects to wider audiences by making them available on websites. For example, Yale New Haven Health System made available online its bioterrorism/emergency preparedness course and reportedly 300 physicians have taken it and the exam for CME credit. Texas A&M University is making available the disaster preparedness training exercises developed in the PFQ project to medical students and rural hospitals in Texas. CHCA plans to use its website and conferences to spread project results and make the NICU trigger tool and other resources available to its members. The ACNL/CalNOC team executed an agreement with the American Nurses Association to use the ANA National Database for Nursing Quality Indicators website to transform live coaching into a self-directed online process. While this dissemination strategy is easy and relatively inexpensive, it does not guarantee use and uptake of the resources, if not accompanied by aggressive and ongoing efforts to publicize the availability of the tools and resources, and support for their implementation.

b) Securing commitments and funds from new partners, organizations, providers, and funders to promote and diffuse evidence-based improvements more broadly. Several grantees have already initiated new efforts to spread the quality, safety or security improvement models embodied by their PFQ projects. A few began these diffusion efforts with PFQ grant funds in the latter years of the projects, but most sought and received new funds either from AHRQ, or other sources for this work.

• New funds and new target organizations. The American College of Physicians obtained funds from a drug manufacturer to conduct two additional team-oriented practice-based CME programs to improve care for patients with diabetes and cardiovascular disease, with 20 physician practices participating in each group. The AMA and Midwest Heart Specialists obtained an AHRQ Health Information Technology grant to spread the MHS model for reporting quality information to six other physician practices, using different EHR systems. AMA also received another grant to work with MHS, Northwestern, and other sites on related activities.

• Spread via QIO collaborations. Both ISIS and VNSNY decided that the best way to diffuse their quality improvement approaches was to train and work with Quality Improvement Organizations, as part of QIOs’ nursing home and home health quality
improvement initiatives. With support from an AHRQ HIT grant, ISIS is now working with six QIOs around the country and 30 nursing facilities to implement “real-time optimal care planning” using digital pen or internal IT systems to streamline documentation. VNSNY obtained funds from the Robert Wood Johnson Foundation to continue working with 10 QIOs and 69 home health agencies on techniques to reduce acute care hospitalization among home care patients. QIOs involved in AMDA’s project may use its approach to clinical guideline implementation as part of its nursing home quality improvement work, but AMDA is not actively promoting it like ISIS and VNSNY.

- **Replication in facilities within health care systems.** An especially significant by-product of the ISIS project is that a large nursing home chain and a large health system which had one or more of their facilities participate in the project are spreading the model to their systems’ other nursing facilities—240 in the large chain. It is not known, however, whether the model is being fully implemented in all facilities in the systems.

- **Creating new coalitions and adding new partners.** Catholic Healthcare Partners decided that the best way to expand and spread heart failure quality improvement efforts was to establish a state-based coalition in Ohio with key stakeholders. It is also encouraging the American Heart Association’s Heart Failure “Get with the Guidelines” program to use CHP’s Heart Failure Advocates as teaching faculty.

c) **Developing capacity for future quality improvement projects and institutionalizing that capacity in host organizations.** PFQ projects are also trying to diffuse their quality improvement approaches more widely through the creation of infrastructure that can support ongoing and possibly larger QI initiatives.

- **Adding QI infrastructure.** Based largely on the successful response to, and outcomes from, their PFQ projects, both the American Academy of Pediatrics and CHCA recently decided to expand their QI departments and staff that were hired to work on PFQ projects. These organizations have committed operational funds for permanent staff, data system infrastructure, and QI support to member providers. AAP is developing additional eQIPP modules to support on-line quality reporting and a measurement system and has recently hired new staff. CHCA is also expanding its staff and quality reporting systems. This enhanced capacity portends well for ongoing national QI support to pediatricians and children’s hospitals in the short to medium term. The AMA’s AHRQ-funded HIT project is also creating a data warehouse for feedback and benchmarking purposes for physician-directed QI that may become a resource for wider use.

- **Enhancing QI capacity.** Other membership associations, including AMDA, ACP, and ACNL report that their experience working with state chapters and members on “real” QI projects through PFQ projects has enhanced their ability and credibility to undertake similar projects in the future.
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V. CONTRIBUTION OF AHRQ AND PROGRAM-WIDE INFRASTRUCTURE

The PFQ program structure had elements that sought to contribute to the success of individual grantees and to help the program achieve its overall goals. In this chapter, we assess the role that grantee oversight played, what PFQ’s infrastructure within AHRQ contributed, and how effective AHRQCoPs and other cross-grantee elements were in contributing to both grantee efforts and the success of the program overall. Our analysis is based largely on what we learned in our interviews and reflects the perceptions of AHRQ staff and grantees.

A. GRANT OVERSIGHT

1. The Project Officer Role

As with other grants, an AHRQ project officer was assigned to each PFQ grant. Decisions over assignments were made at the beginning of the program by AHRQ’s management. The assignments made an attempt to match grantees with AHRQ staff who had expertise in the grant area, though this was not the case for all grantees. In many cases, AHRQ staff from particular centers may already have been involved at the application stage and these relationships continued. PFQ was one of the first AHRQ programs, in addition to TRIP I and II, to draw project officers from diverse centers.

Project Officer Perspectives. In our interviews with AHRQ project officers, we found substantial diversity in how they defined their roles and also in the time they put into overseeing each grant. Traditionally, project officers have been expected to perform in administrative capacities. One project officer depicted grantees as “customers” and said, “My role is to be a facilitator and answer their questions, and I should be able to ask them questions in return.” Another described his role as, “You do as much as you can to help people.” Project officers often had many grants and spent limited time with any one of them. This was only slightly modified by the fact that PFQ was, as project officers told us, a cooperative agreement and thus included more legally sanctioned interaction than the agency’s traditional grantees. For the most part, such project officers saw themselves as facilitating a process, not necessarily as substantively contributing to the work.

Some PFQ project officers were exceptions, with strong substantive interest and authority in areas addressed by particular grants (for example, market forces, home health and long term care, and bioterrorism preparedness). These project officers aimed to leverage their knowledge and relationships to help grantees make connections with other efforts and resources that could help the grantees make progress or spread their impact. Typically, such resources were outside the PFQ program and sometimes they were outside AHRQ itself. While this subset of project officers did not necessarily spend a lot of time with any particular grant, they concentrated their efforts in ways that they hoped might leverage the substantive contributions of that potential grantee. While oriented this way, they also reverted to a more traditional project officer role when overseeing grants in areas outside their expertise, as might happen in PFQ, particularly as some grants had multiple purposes. The project officers also triaged their time by providing more support at points where they viewed grantees needed it (like early in the project when it was being refined).
Grantee Perspectives. Not surprisingly, grantees had different perceptions about how valuable their project officers had been. Those whose project officers were able to help them make substantive connections with others working in similar areas clearly valued the contribution. A grantee said of one such project officer, “___ has added so much to what we’ve done. Our project officer has made such a difference…. Our project officer is wonderful, gives us fabulous ideas, has a vision for dissemination and hears what people are saying.” Another said of a different but similarly focused project officer, “___ has been terrific—our project officer’s been broadly involved. Early on, we had weekly leadership calls and our project officer actually participated in several of these.” Similarly, others cited help the project officer had provided in making connections elsewhere in AHRQ that ultimately led to related work at DHHS.

Bioterrorism preparedness grantees were particularly grateful for the support of their project officer, the sole AHRQ staffer for that externally funded bioterrorism preparedness work. This project officer had what one grantee characterized as “an encouraging attitude that has been very important to the project team. It gave the team the flexibility to let their work evolve from findings in the field… The team was initially concerned about whether AHRQ would see value in this type of work, but the deeper they got into the project, the team realized that AHRQ couldn’t help but see the importance…”

Grantees’ also were appreciative when project officers brought other assets to their roles. One said they “loved and adored” their project officer who had been “wonderful and encouraging, always giving good advice and as laid back as possible in the parameters as the project officer could be.” Another appreciated that their project officer always responded to reports, questions and thoughts, participated in some calls, came to many meetings, and helped when it was time to renegotiate the budget. Enthusiasm also was valued in a project officer viewed as a “cheerleader” whose role was also to “make sure that we were hitting the mark.”

However, almost all grantees’ comments were negative when they received little feedback from their project officers. One expressed this by saying, “I got no substantive feedback at any time in response to any of the reports I submitted….Maybe there was nothing to say. After you’ve worked so hard on reports, however, some acknowledgement and feedback would be good. I never even got an e-mail saying they got the progress reports.” Another grantee was disappointed by never being called by the project officer who was the only expert in their area at AHRQ. “Every time we call, we don’t get a response….It’s always back and forth 20 times.” One grantee felt differently: “___ and I have a very good relationship. I don’t bother my project officer and my project officer doesn’t bother me. I do what I say I’m going to do and my project officer helps out when necessary.”

Over time, some project officers were changed due to departures from the agency or problems. One grantee said the first project officer (no longer with the agency) was “very poor, wasn’t supportive of our efforts, showed no interest in coming to our conferences, didn’t provide any useful feedback on progress reports and was summarily unhelpful.” But the replacement was found to be supportive, sending out reminders when things were due and making suggestions for progress reports which the project officer also looked over and commented on.

The principal investigator for this project suggested that AHRQ “needs to figure out what a project officer should provide in terms of support.” From its perspective, the grantee said,
“project officers should function as advocates for their projects. To do that, they need to understand the projects better, spend some time with the projects’ principal investigators to craft appropriate reports…and maybe provide information on other grant possibilities or presentation opportunities. Furthermore, a project officer should function as a point person for a particular grant and help the grant better integrate with AHRQ and other national groups.” They also should not be obstructive, using as an example the actions of the first project officer who, the principal investigator felt, did not understand the project, asked for a lot of extra things that were irrelevant, and was viewed as acting in an adversarial rather than advocacy role.

One PI suggested that AHRQ invest in better training and monitor the role project officers play. But in doing so, we perceive, AHRQ will have to address the personal preferences of its staff in a climate that appears not to value the project officer role or the time and energy demands needed to spend on any one grant. Perhaps AHRQ might invest in training specifically to help project officers identify how they can be most strategic and effective in their support.

2. Grants Management

For the most part, fiscal aspects of grants management within PFQ appear to have operated smoothly, though our ability to assess this is limited by the fact that our evaluation began several years into the program. The main criticism the grants office had was that PFQ, like most other agency programs, worked with a calendar that had renewals at the end of the fiscal year, thus creating imbalances in the workload. Grants staffers indicated that memories of any earlier problems may have been erased by time or personnel reassignments, though they perceived the program to have been fairly ordinary in its experience.

Grants Management Structure. AHRQ’s grants management office told us that they typically have about 500 active grants, not including ones that need to be closed out and others on no-cost time extensions. Though their role is administrative rather than programmatic, they see themselves as taking “care of everything from cradle to grave,” with broad functions that include helping the agency determine funding mechanism, helping draft RFAs and answer questions from potential applicants, and monitoring awarded grants. PFQ grants were awarded as “cooperative agreements,” which the grant office views as appropriate because of the targeted interest. While the grants management function does not change, they said, with cooperative agreements, there is more post award burden as grantees have less flexibility. A good example is the request to use carry-over funds—which under cooperative agreements but not traditional grants—must be supported by a budget, funding memo, and explanation of why the funds were not used.

Cooperative agreements are more closely monitored than grants. PFQ had an additional burden because PFQ decided to require grantees to submit progress reports quarterly, something that is rare with grants but more common under cooperative agreements. PFQ evidently was one of the first AHRQ programs to require quarterly reports, which required the grants management office to establish processes to track receipt. Problems arose when project officers did not forward the quarterly reports to the AHRQ grants management office or when turnover among project officers occurred. The office has subsequently automated the system for tracking progress reports so that submissions are automatically tracked for other AHRQ programs. PFQ reporting is discussed further in the next section on overall program management.
The grants management office at AHRQ uses about 4-5 specialists to help manage programs like PFQ, which has 20-21 grants, assigning a “coordinator” who is responsible for creating consistency across the information specialists provide, for example, standardized grant terms and reporting requirements. The coordinator has participated in some PFQ meetings.

Agency Perspectives. Grants management staff perceives that things went fairly well. There were “a few new grantees that needed a little more hand-holding,” but the amount was not inordinate. Grants management and program staff worked well together in addressing the most serious grantee issue that arose in PFQ: the need to terminate a project because data to support the research was unavailable. They also processed the grantee applications and paperwork needed annually within PFQ because grantee funds are awarded annually based on amounts set at the outset of the grants. Grantees seeking to use carry-over funds had to provide additional justification that these funds would be well-used. (Carry-over funds did not diminish the next year’s award.) While the office experienced some challenges in getting project officers to be equally diligent in moving funding memos and other issues involved in grant renewal, the problems were not regarded as any different from those typically encountered. Because project officers may not necessarily spend much time in that role, sometimes, the grants management office said, they may not be as aware of the rules as they should be and thus provide grantees poor advice. For example, they might tell a grantee that its grant would follow it to another institution without realizing that this does not happen automatically. The grants office might not learn of this until the grant renewed the next year.

From its perspective, the grants management office perceived that both the PFQ program director and individual grantees were working hard to make the program a success. While staff believed there was some disappointment among grantees because of limited program interest by AHRQ leadership and the program’s end, the office also viewed this as a generic problem for grants. At some point, office staff said, you had “to cut the apron strings and the people with good, sustainable initiatives will be able to self-sustain.” The office acknowledged that attracting general agency funds for PFQ grantees to build on the work in future efforts might prove difficult given the current agency priorities.

AHRQ’s project officers were the primary interface between individual grantees and the grants management office; the program director was mainly involved in setting general policies or problem-solving. AHRQ’s PFQ project officers appear to have worked well and closely with the grants management office. The project officers differed on their perspectives on the value of grants versus contracts and which one they preferred. One project officer felt that PFQ was pushing grantees to work almost as contractors because of the commitment to joint meetings, conference calls and tool development. One preferred contracts to the PFQ mechanism because of the additional control the former allows. Another, in contrast, thought quarterly reports did not add much and mainly used the annual reports.

Grantee Perspectives. Grantee perspectives on the grants management process varied. Most said the process went relatively smoothly or “as expected.” Some grantees were more negative. More than one investigator said that the grants management office might tell them they never received anything several months after it was sent, and they were annoyed at having to resend it. At the beginning, there seems to have been a problem authorizing funding for several grantees, resulting in a delayed start (nine months for at least one grantee).
Organizations new to the federal-funding process seemed to have more difficulty knowing how to proceed than others. As one said, “This was our first AHRQ grant. It was a nightmare. It was so hard to get answers to questions…it was confusing to figure out the requirements: When things were due, the format they wanted etc—it felt like a black hole.” Principal investigators from academic institutions whose grants were held by another organization to meet AHRQ requirements tended to perceive that situation as less than ideal. One noted that because the grantee had never done this kind of thing before, errors in the paperwork were frequently made. Another felt that requiring the non-academic partner to be the lead was a hardship because it required a new infrastructure. While grantees commended AHRQ on its support, they still felt that the agency had made their team go through “contortions.”

While the feedback suggests the grants management went relatively smoothly, we believe the findings also suggest that AHRQ may need to think more carefully about how to orient grantees and project officers to AHRQ cooperative agreements. Additional attention to both the burden of reporting requirements and how reports are transferred, stored and used also could be valuable.

B. OVERALL PROGRAM MANAGEMENT

AHRQ uses a variety of models to support its programs, in some cases providing support with an external resource center, in others handling direction internally with limited resources, and sometimes using a mixture of the two to support different functions. For the most part, PFQ program support followed the second model and was funded from existing operational funds. AHRQ’s solicitation required grantees to cover, within their budgets, travel to attend an annual PFQ meeting; when twice-yearly meetings were held, AHRQ assumed grantees would re-budget to cover the costs of the additional meetings. AHRQ drew upon the agency’s pool of meeting support funds to cover the costs of PFQ meetings and upon its existing staff to oversee the program.

While a fair amount of energy went into thinking about the PFQ program goals and design, less attention appears to have been placed on how the PFQ would be supported within the agency. A former agency official said the agency spent some time discussing program management infrastructure at the inception of the program because it had learned that cooperative agreements require substantial agency staffing. However, actual decisions on PFQ oversight were made after the grants were awarded, which executives said created some confusion at the beginning, though perhaps not an abnormal amount. At AHRQ staff’s suggestion, and because it makes sense, our evaluation focuses on assessing the infrastructure that AHRQ eventually built to support the PFQ, rather than the process it took to get there.

1. Program Management Structure

PFQ is directed by a member of the AHRQ staff residing in one of its centers—the Center for Primary Care, Prevention and Clinical Partnerships (CP3). While project officers in other AHRQ centers oversee individual grants, the program director has lead responsibility for program-wide elements. This includes working with the grants office and project officers on decisions that affect all grantees, like reporting requirements. It also includes oversight of program-wide elements like the Council of Partners (AHRQCoPs) and other mechanisms of
communication, like the website. The current director, who has been there since the first year of the program, was not deeply involved in soliciting grantees or structuring the program, but was asked later to take the program director role. She also served as project officer for several PFQ grants. AHRQ management was kept apprised of the program through weekly reports to and quarterly meetings with the CP3 center director.

AHRQ staff, across the board, perceived that PFQ was not very high on the agenda of AHRQ’s leadership. The CP3 center director communicates any important news about the PFQ program in regular meetings with the AHRQ Director. Once or twice a year, PFQ is on the AHRQ Director’s meeting agenda and PFQ activities are discussed. Because the PFQ program is not big, and “there are new kids on the block that take up…focus (i.e. attention by top agency leadership),” the PFQ program is not closely monitored.

The PFQ program director worked almost full-time on the program in its first 12-18 months. The program director developed the program-wide elements, such as AHRQC0Ps and Contracts. She convened weekly meetings with PFQ project officers and other staff during the first several months of the program. Project officer participation in these meetings varied, with some more likely to attend than others. But participation declined over time, particularly when meetings became less predictable due to varied scheduling. To our knowledge, decisions about the overall PFQ infrastructure (for example, role of AHRQC0Ps and how often it was convened) were made at the staff level with relatively little input from AHRQ leadership on broad concepts or goals.

PFQ used two strategies to facilitate regular communication among grantees and AHRQ, in addition to AHRQC0Ps meetings, which are discussed later in this chapter. The two strategies were:

- **Grantee Reporting.** As discussed previously, each grant is required to report quarterly on its progress, with annual reporting that also serves as the application for the next year’s funding and request for use of any carry-over funds. Later on in the program, a PFQ progress report checklist was created (and posted on the PFQ website). Grantees were encouraged to fill out and submit in order to make it easier to track the progress and status of projects.

- **PFQ Website.** The website was the primary tool PFQ created to facilitate cross-grantee communication and interaction outside of in-person meetings. Grantees were encouraged to use it as a message board and place to store cross-cutting PFQ documents. The site also included an events calendar for AHRQC0Ps and its subgroups.

**PFQ Staff Perceptions.** PFQ staff within AHRQ found it hard to get necessary resources to adequately support the overall program. A good example was the website, which was delayed by difficulties securing resources and whose functionality was limited as a result. In addition, managing a program like PFQ can be difficult for a staff member located in a complex agency. Without stronger links to the other parts of the organization, it was hard to connect all grantees with related activities elsewhere in the agency. The structure of AHRQ also means that program directors must rely on the interest and goodwill of project officers in other centers in helping support the program. While the PFQ uses a matrix management structure, individual AHRQ staff
are evaluated by the center director without input from others. Thus, a program director has little
formal authority over who oversees individual grants or their performance. Structurally, this
means that the program director’s effectiveness depends on an ability to work through the
informal system of relationships, and on the cooperation, participation and support he or she gets
from project officers.

The absence of strong input from agency leadership also appears to have limited how well
project officers understood and supported the PFQ program. Some POs had content expertise but
weak administrative skills or little interest in participating in PFQ project officer team meetings.
Thus, many decisions and tasks were left to the program director. One project officer believed
that PFQ “started out with a bang and ended up with a whimper,” with limited attention to
partnerships. Several said they perceived the program was not well-thought out and some grants
were not appropriate. Another said that project officers did not know what the original goals of
the program were and that the concept morphed as it went along.

**Grantee Perceptions.** Though none of the grantees was enthusiastic about reporting
requirements, some seemed to accept them as part of the routine cost of doing work. Grantees
with less experience typically found these requirements more demanding as they had to learn
how the system worked. Some perhaps took them too literally and created more work than was
necessary. Grantees did not use the PFQ website and did not like the reporting requirements of
the PFQ program. The majority of grantees we interviewed said they did not use the website,
mostly because the site was difficult to navigate and PIs did not have the time to learn its
functions. Moreover, since grantees perceived that the website was only used for
communicating and delivering documents, most found it easier to perform necessary activities by
e-mail and phone call.

Most also said they did not use the progress report checklist, which impeded AHRQ staff
from regularly updating the database with project information. The PFQ website was needed to
access the checklist, and the fact that PIs found the website difficult to navigate may have been
one reason why the checklist remained unused. In addition, some PIs had issues with the design
of the checklist. One PI indicated that the terminology for the checklist was ambiguous, and
would have benefited from a glossary, and another said the tool’s categorical type responses
lacked meaning or context. Lastly, PIs did not appear to understand the purpose for the database,
given that they were already submitting quarterly reports to update the agency on their projects’
progress. Filling out the checklist for the database seemed like a “waste of time,” said one
grantee. We tried to make use of the database in this evaluation and can confirm that there is no
updated information after the initial entries.

C. AHRQ COUNCIL OF PARTNERS

1. Council Structure

With the goal of creating a program-wide focus to encourage cross-fertilization of ideas,
PFQ required meetings twice a year of grantees organized into the AHRQ Council of Partners
(AHRQCoPs). AHRQ staff indicated that the requirement to come to these semi-annual
meetings was not typical of all grant contracts, but the agency felt that the meetings were a
necessary component of the program to give people face-to-face interaction, time to exchange
ideas, and learn from each other. Moreover, AHRQ saw the cross-project work grantees were
asked to do during these meetings as fulfillment of cooperative agreements signed with the agency.

The intent was that grantees would “own” these meetings, create their agendas, and run them. However, AHRQ appears to have been the driver behind both AHRQCoPs and its structure. The RFA required grantees to budget travel funds to meet annually. AHRQ’s general meeting budget was tapped to fund the hotel rental and meals, and other indirect costs of the meetings, all of which were convened in the Washington, D.C. area to make it easier for AHRQ staff to attend.

AHRQ used the first few AHRQCoPs meetings to familiarize grantees with each other’s work, and PIs presented their individual projects. However, at the first meeting, AHRQ staffers proposed the infrastructure for the Council, developed by the PFQ program director in consultation with individual grantees. They proposed that the Council ratify a charter, elect a chair and vice chair, and organize itself into subcommittees. The chair turned over several times over the course of the program, more rapidly than originally intended for a variety of reasons (death, change of employment). Four different PIs took on the position of chair over the four years of the program.

AHRQ proposed subcommittees on Implementation, Dissemination, Partnerships, Evaluation, and Sustainability, since these were all areas important to each of the projects. Earlier, AHRQ staff had discussed an alternative that involved forming subgroups by focus areas. However, this was rejected in the interest of working on common concerns related to partnerships. The diversity among grantees was a source of ongoing tension within AHRQCoPs as it made finding areas of mutual interest challenging.

By the second meeting, AHRQCoPs had elected a chair. Each of the principal investigators and each of the AHRQ project officers chose one of the subcommittees to participate in. Subsequent COP meetings were convened by the subcommittees and included time for both general sessions and subcommittee work. Each subcommittee organized content for one of the meetings, and often invited an outside speaker to address a topic consistent with the theme. AHRQ staff reported that grantees initially objected to AHRQ’s requirement to collaborate on work outside of their individual projects but acquiesced once it was clear the agency was adamant.

Over the course of the PFQ program, there were seven AHRQCoPs meetings. Why and how the schedule shifted from an annual to a semi-annual focus is not clear. Later, meetings—which lasted two days—focused more on the collaborative work the grantees were doing in the subcommittees, and jointly as AHRQCoPs.

2. Perceptions of the AHRQCoPs Meetings

PI Perceptions. According to several PIs, the greatest benefit of the grantee interaction facilitated by the meetings was the opportunity to network and collaborate. The AHRQ Council meetings helped grantees form relationships, learn from each other, help each other, and initiate some independent cross-grantee work. Not surprisingly, the magnitude of this benefit varied among PIs, with some indicating that they benefited a great deal from this interaction and others
finding less benefit, believing that the diversity in funded grants hindered grantee-to-grantee learning.

Some grantees found the meetings useful, some did not. Some grantees found meetings to be “important,” “very useful,” and “helpful” because they provided learning opportunities (such as outside speakers) that “added depth to grantee insight and expertise,” which informed decisions about their individual projects. By contrast, some grantees found the meetings to be “unfocused,” “not useful,” and “painful,” requiring time investments they did not have for activities that did not benefit their individual projects. The grantees that were enthusiastic or interested in the meetings attended regularly and participated; others who found the meetings unhelpful and time-consuming attended infrequently. Some grantees attended regularly simply because they felt they had to, but in some cases they delegated attendance to more junior staff. Over the course of PFQ’s history, most principal investigators continued to attend at least a portion of most meetings and some brought several staff. The predominant view appeared to be that the meetings were interesting for general learning but not particularly germane to their project work.

Some grantees believed strongly that there was misalignment between AHRQ’s expectations and what grantees thought they had to do at the start of the program. They pointed to the budgetary implications of twice a-year meetings, when they had been asked to budget for one. They also were concerned about the resources they perceived AHRQ expected them to spend on these activities, particularly via subcommittees. They felt these demands competed for attention with what they were supposed to be doing under the grant. Some also expressed concern about the lack of clear guidance on the desired outcome from collective action. Others, typically leaders in the process, strongly disagreed and saw substantial value to cross-grantee work. Additionally, the high turnover in AHRQ Council leadership only amplified this perceived lack of structure.

**AHRQ Project Officer Perceptions.** The PFQ program director encouraged project officers and other program-related AHRQ staff to attend AHRQCoPs meetings. Some did so regularly, whereas others participated less often. Those who did not said it was because their schedules did not allow it; they had more pressing demands, or had attended but did not find the meetings all that interesting.

Because our evaluation started late, we had limited opportunity to observe the AHRQCoPs meetings. However, based on the two meetings we attended, we concur with those grantees who thought more attention could have been given to setting clearer goals, structuring a tighter agenda, and ensuring a better balance between presentation and discussion time.

### 3. Subcommittee Work

**Nature of Work.** A part of each AHRQCoPs meeting, after the first two, was devoted to subcommittee work. Each of the subcommittees also led one of the semi-annual meetings to inform other grantees about their topic, and some chose to bring in guest speakers. The PIs and POs in subcommittees also communicated outside semi-annual meetings through e-mails and scheduled (sometimes monthly) phone calls. Table V.1 provides a summary of who participated in each subcommittee and what the subcommittee produced.
While there appears to be consensus that some subcommittees were more productive than others, PFQ grantees disagreed substantially on the value of the subcommittees and their work. Most, though not all, chairs were enthusiastic about their subcommittees. Subcommittees that were productive seemed to have a higher proportion of positive members; however, the subcommittee also had to function collaboratively to achieve this effect. Thus, while one subcommittee was very well regarded by AHRQ and AHRQCoPs leadership, its members were much more mixed about the process.

**Outcomes.** Grantees most positive about the subcommittees cited two main accomplishments. First, the selected topics helped “crystallize” the five components of translational work in the context of partnerships. Second, the subcommittees created resources that grantees could use in current and future projects. For example, one grantee said that participation “prompted groups to repetitively think about the five areas [of partnership, implementation, evaluation, sustainability, and dissemination] in terms of their own projects and gave groups the opportunity to see how those areas played out in real-world contexts.” Some PIs suggested that the subcommittees gave grantees learning that would inform current and future projects.

In contrast, other grantees found the subcommittee work “painful,” believed the five topics were an artificial way to link grantees together, and did not benefit individual projects. “[The subcommittee experience] was like [throwing] a physiologist, a biochemist, and a urologist into the same room and saying work together,” said one PI. While several grantees suggested that grouping grants by content, rather than the five selected topics, would have worked better, others believed that the diversity in projects made it impossible to group grantees in any meaningful way.

Early on, many of the subcommittees created tools and surveys, which were intended to be useful to grantees. The implementation subcommittee, for example, developed a survey on barriers to implementation that they fielded and shared with AHRQCoPs (see Table V.1). However, since subcommittee work and individual grantee projects progressed simultaneously, it was difficult for most projects to incorporate resources as they were produced. Some subcommittees produced tools that their members used, but few of the other grantees used them. For example, the evaluation subcommittee created an evaluation tool it had hoped all PIs would apply to their projects, but many of the grantees chose not to use it because they had already planned and budgeted an evaluation component of their own design. However, some grantees believe that the tools and resources produced by the subcommittees will be useful in future work.

Later in the program, AHRQ and the subcommittee chairs decided that each subcommittee would write an article on its respective topic that would be published together in a journal supplement. We believe their interest was spurred first by a paper on partnerships that the chair of one subcommittee developed, by some of their own interests, and by the desire to leave some program legacy both to their former deceased chair (Mark Young) and to the program as a whole, which they perceived to be under-recognized. The journal supplement would be a way to disseminate grantee experiences and learning under PFQ. The articles have been an important focus of AHRQCoPs’ last two meetings. Though many PIs consider the supplement to be a worthy effort, several grantees have not completed their data collection and have found the push to develop the journal supplement and the seemingly unrealistic time frame frustrating. Another
<table>
<thead>
<tr>
<th>Subcommittees</th>
<th>Principal Investigators and Partner Members (Grantee Affiliation)</th>
<th>Resources Produced</th>
</tr>
</thead>
</table>
| Science of Partnerships | Principal Investigators:  
Lucy Savitz (Chair, RTI)  
Josie Williams (TAMU)  
Steve Ornstein (MUSC & Physicians Micro Systems, Inc)  
Jerod Loeb (JCAHO)  
Partners:  
Rasa Salinas (TAMU)  
AHRQ Staff:  
Margaret Coopey  
Denise Burgess | Draft of a journal article on partnerships to be published in the journal supplement |
| Implementation         | Principal Investigators:  
Louise Dembry (former Chair, Connecticut State DPH)  
Paul Shark (CHCA)  
Karen Kmetik (AMA)  
Vincenza Snow (ACP)  
Partners:  
Dave Knutson (current Chair, HealthFront)  
Mark Antman (AMA)  
AHRQ Staff:  
Charlotte Mullican  
Cynthia Palmer | Survey tool to collect information from the PFQ grantees on barriers encountered in the implementation of their respective partnership initiatives  
White paper summarizing survey results, analysis, and recommendations  
Draft of a journal article to be published in the journal supplement |
| Dissemination and Impact | Principal Investigators:  
Mike Callahan (Chair, HealthFront)  
Carole Lannon (PICHC)  
John Combes (AHA/HRET)  
Suzanne Broderick (New York State DOH)  
Partners:  
Irma Megane-Sims (JCAHO)  
Ann Watt (JCAHO)  
AHRQ Staff:  
Sally Phillips  
Ron Rabbu  
Ronda Hughes  
Joanne Alexandre | Dissemination Planning Tool, 2004 |
Perceptions on Subcommittees. The primary frustration expressed by grantees about the subcommittees was that they were not aware at the outset that the subcommittee work was part of AHRQ’s expectations. As one said, “To some extent, this was seen as an unbudgeted, unreimbursed mandate.” Many PIs, including the ones that found the subcommittees beneficial, saw the activities as an unexpected add-on to their grant work. If the subcommittees had been envisioned in advance and budgeted for by the grantees, maybe the PIs could have done more with them, they said. Grantees also were frustrated by the lack of initial focus. One grantee indicated that because AHRQ did not clearly state their goals early on, the PIs “spent a lot of time muddling through the whole process.” She continued, “Had it been clear from the outset [what the agency wanted], it would have released a lot of angst.” However, even without a coherent framework explaining how these subcommittees fit together and what they were supposed to accomplish, some grantees thought the subcommittees managed to create some interesting resources.
A substantive concern we heard from several grantees was that the focus on the subcommittee work took a lot of time and effort that, according to some grantees, may have been better spent becoming familiar with each other’s work and helping each other on individual projects. Several PIs and POs indicated that the downside of focusing on subcommittee work was that people never developed a sense of where the individual projects were going and what they were doing. One PI indicated that the AHRQCoPs meetings would have been more helpful had they included more feedback and problem-solving from AHRQ on individual projects.

Because AHRQCoPs was the most visible part of PFQ to AHRQ PFQ staff and leadership, we believe that for some of them AHRQCoPs and its work became the PFQ rather than merely an adjunct, however important, to the grantees’ own work. To the extent this is true, it is unfortunate because PFQ’s resources were mainly devoted to the work funded through grants and, as we have described before, grantees typically worked on their projects, some achieving notable successes.

D. CROSS-GRANTEE COLLABORATION

An important goal behind regular meetings of PFQ grantees was the hope that such meetings would encourage grantees to learn from one another and build collaborations and partnerships independent of AHRQ. In general, such collaboration did not develop on a widespread basis. However, there were some notable successes as PFQ grantees were able to form collaborations with each other that were useful for their individual projects.

For example, Texas A&M and Altarum (two bio-terrorism grantees) formed a working partnership; researchers at Texas A&M provided information from the field that was used to provide input data to Altarum’s simulation model, and Altarum gave Texas A&M contacts in Michigan to assist in its surveillance work on the Canadian border. The two organizations have had regular face-to-face meetings outside PFQ activities and were very positive about the collaboration based on shared interests.

Another example of cross-grantee collaboration is reflected in the help Catholic Healthcare Partners gave to other grantees in connecting them with people or organizations within or affiliated with the CHP system that were relevant to their work. Two CHP long-term care facilities participated in the ISIS project, and CHP identified a cardiology group to collaborate with the AMA for a project named Cardio-HIT, which builds on PFQ work and is funded by AHRQ.

PFQ generated other efforts by grantees with common interests to explore issues of mutual concern. For example, two major national provider organization grantees talked to a provider group grantee about pursuing a common initiative, but the endeavor failed to proceed when one withdrew because of lack of funds. Two grantees focused on pediatric care talked with each other to see what they might learn. While most grantees did not build formal collaborations with each other, several PIs indicated that the meetings and subcommittee work led to informal conversations that were useful for exchanging ideas, brainstorming on how to handle various situations, and providing feedback on individual project work.

While PFQ led to increases in communication, these typically were relatively limited in scope and appear to be similar to what one might expect from any meeting opportunities for
networking. Even when collaboration occurred, it is difficult to determine how many go beyond what would normally have happened in any environment where people come together to discuss research versus what was made possible because of the PFQ structure and its emphasis on partnerships. Some grantees expressed disappointment that PFQ did not include more grantees with similar foci to their own.

Whether a different structure for AHRQCoPs and its subcommittee work might have facilitated great sharing is unclear. Some grantees indicated that they might have collaborated more with others had there not already been a huge time commitment to work on subcommittees and produce tools and papers. Others, however, indicated that the projects were so different that cross-fertilization and collaboration were not possible, and that this “artificial sense of community” did not make it any more possible.
VI. CONTRIBUTION OF PARTNERSHIPS AND OTHER KEY FACTORS TO PROJECT SUCCESS AND SUSTAINABILITY

Partnerships are promoted to address health problems because they can often achieve what no organization can do on its own. Diverse partners, with different strengths and networks, can increase resources to address a problem, broaden the reach of interventions, and persuade others to adopt innovations. The power of partnerships comes not just from combining resources, but capitalizing on each partner’s strengths, capacities, and influence with different audiences to create synergy (Lasker, et al., 2001). They can help create the tipping point that leads to widespread adoption of innovations and ideas (Gladwell, 2000).

The assumption behind the PFQ program, which we built into the evaluation framework, was that the relationships among the lead grantee organizations, key collaborators and target organizations or providers would be critical for achieving buy-in to evidence-based changes for improving health care quality, safety, and security. Strong support from each project’s key collaborators and target organizations, as framed in the rationale for the PFQ program, was key to the implementation and sustainability of health care improvements.

This chapter examines the composition and structure of the partnerships created in the 20 PFQ grant projects, assesses the elements of effective partnerships, and discusses other important factors that contributed to the projects’ success and sustainability. It concludes with a set of lessons for AHRQ about how to structure effective partnerships to translate research into practice on a large scale.

A. VARIATION IN PARTNERSHIP STRUCTURE AND COMPOSITION

AHRQ provided relatively little guidance in the RFA on the structure of the partnerships, or who should be involved. The agency recognized that the diversity of organizations targeted to achieve improvements, and the specific types of changes proposed to translate evidence-based research into practice, required flexibility in selecting the most appropriate partners and deciding how they would work as a group.

Partnership structure and composition differed across the projects first and foremost by their grant focus, as shown in Box 3. The bioterrorism and emergency preparedness projects generally formed partnerships with target organizations that were looser and more informal than those focused on clinical quality or safety improvements. This may reflect the fact that the first set of projects sought to assess needs and develop tools, whereas the second set was more likely to seek change within the targeted organizations.
For example, the bioterrorism preparedness projects led by JCAHO and Connecticut Department of Health/Yale New Haven Health System used target organizations as participants and subjects in studies and training courses. Target organizations also provided information, data, and lessons for studies on bioterrorism preparedness, or participated in modeling exercises and case studies, conducted by Altarum Institute and Texas A&M University, and on the value of performance measurement for JCAHO’s other study.

Partnerships formed around the two purchaser-led projects also reflected the role that payers play in the health system. Both HealthFront and The Leapfrog Group worked closely with local coalitions of employers, large health plans, and large companies. While their ultimate quality improvement targets were physicians and hospitals, respectively, the two project teams had little communication or collaboration with providers, other than as survey participants. When they wished to communicate with providers, the most common model was to use them in a convening role. For instance, HealthFront, Altarum Institute, and Texas A&M University organized and held seminars with target organizations to present their preliminary or final results, and discuss how the results could be used in practice.

Partnership structure differed in the 14 projects that focused on clinical quality and safety improvements, usually seeking close working relationships with target organizations. Project leadership teams worked directly with provider organizations or practitioners in the design, implementation, and assessment of the effects of interventions to translate research into quality

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**BOX 3**

**PFQ PROJECT PARTNERSHIP MODELS**

<table>
<thead>
<tr>
<th>Partnerships with Provider Organizations &amp; Practitioners</th>
<th>Partnerships with Health Care Purchaser, using target organizations as study participants</th>
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<tbody>
<tr>
<td>Direct Relationship between Leadership Team and Target Providers</td>
<td>HealthFront The Leapfrog Group</td>
</tr>
<tr>
<td>American College of Physicians</td>
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<td>American Medical Association</td>
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<td>American Medical Directors Assn.</td>
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<td>Assn of California Nurse Leaders/CalNOC</td>
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<td>Catholic Healthcare Partners</td>
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<td>Child Health Corp of America</td>
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<td>International Severity Info Systems</td>
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<td>Lehigh Valley Hospital &amp; Health Network</td>
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<td>New York State Dept. of Health/RDHHAR</td>
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<tr>
<td>Physician Micro Systems, Inc./MUSC</td>
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<tr>
<td>Research Triangle Institute</td>
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<tr>
<td>VNSNY (Phase I diabetes collaborative)</td>
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<th>Intermediaries heavily involved in work with Target Providers</th>
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<td>American Academy of Pediatrics</td>
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<td>American Hosp Assn/HRET</td>
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<td>VNSNY (Phase II acute care hospitalization reduction)</td>
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<th>Partnerships using Target Organizations as Advisors or Study Participants</th>
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<td>Altarum Institute</td>
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improvements, though the strength of the relationship differed. These projects typically had three partnership components, which varied in the regularity of their communication:

1. **The Leadership Team**, consisting of PIs, co-PIs, and project directors or managers, who communicated at least weekly, and sometimes daily during certain periods, on tasks as diverse as grant management and reporting, provider training, advisory group consultations, research design, data collection and analysis, and target organization relations,

2. **Structured Relationships between the Leadership Team and Target Organizations**, through such mechanisms as annual or semi-annual training workshops, learning collaborative sessions, site visits, and conference calls with leadership team members and other intermediaries and support organizations;

3. **Ancillary Support through Linkages between the Leadership Team and Advisors**, whose support could be organized into formal advisory groups that met at the start of the project, and occasionally after that, or as an informal group, with advisors providing expertise and input into the design of the intervention as needed.

For these projects, the relationships with target audiences were critical to changing behavior. While all of these grantees partnered with the target groups, they differed in how heavily they relied on intermediary partners to support the targets. Twelve projects had direct relationships between grantee leadership teams (PIs, co-PIs, and other key collaborators) and target organizations, and used other individuals or organizations to provide training and technical assistance. These projects typically targeted fewer provider organizations, with the exception of PMSI/MUSC, which targeted over 100 primary care practices, but conducted site visits and conference calls with a smaller subset.

In the other strategy—used by AAP and AHA/HRET plus VNSNY in the second phase of its project—intermediary organizations played a stronger role in the partnership in order to: 1) increase the amount of training and support to a larger number of providers, and 2) build capacity to support and train providers independent of the lead grantee.

For example, AAP worked with more than 180 pediatric practices. To do so, it involved state AAP chapters in recruiting pediatricians, organizing training workshops, and providing ongoing training and technical assistance. AHA-HRET’s palliative care unit expansion strategy used partnerships with six exemplary palliative care programs, which served as learning labs for 60-70 hospital teams that made site visits and provided some post-site visit support to those teams. VNSNY described its project evolution as a switch from a “retail” strategy in its first learning collaborative project on diabetes care, where it worked directly with home health agencies, to a “wholesale” strategy in its second collaborative project, where it is working with 10 collaborating QIOs in order to reach almost 70 home health agencies to reduce acute care hospitalization among home health patients. In all three projects, a secondary but key goal was
to build capacity of the intermediaries to carry on the work on their own, as part of a strategy to assu re sustainability.  

B. FACTORS BEHIND SUCCESSFUL PARTNERSHIPS

Certain characteristics and processes appear to contribute to effective partnerships in PFQ projects, based on themes that emerged from interviews with project PIs and their partners. This analysis primarily concerns the 15 projects that tested quality interventions. It excludes those that used partnerships primarily to produce knowledge—the bioterrorism preparedness projects and the quality improvement study projects led by RTI and JCAHO.

1. Position of Lead Organizations and Intermediaries

AHRQ expected lead organizations to be well-situated and capable of influencing directly the target organizations that were the focus of quality improvement efforts. Most grantee agencies, or others in the leadership team, were well-positioned to influence target organizations by virtue of being national or state associations representing the target organizations. According to one PI, “Having the credibility of the [national association] behind our work was helpful.” In two cases, grantees were health systems that owned or were affiliated with the target providers (CHP and Lehigh Valley). VNSNY is a recognized leader in the home health field, giving it credibility among its peers. One of the home health agency staff in its project said, “Because of the size of [VNSNY] and the work they’ve done, agencies are very proud that it’s one of our agencies that really spearheaded this . . . there’s a sense of credibility to that.”

In one instance, the lead organization had existing regulatory relationships with the organizations targeted for project interventions. This held certain advantages. It made it easier to recruit target organizations because they felt that they could not refuse. “When [they] ask something of us, it’s not a good idea to say no,” said one participating organization. It also gave the lead organization a chance to turn their historically adversarial relationship with providers to a more helpful one. The downside is that regulators still wield power over the target organizations, so the latter felt obligated to take on more than they could handle. Had the target organizations felt comfortable enough expressing this to the project leadership team early on, the project design could have been modified to improve the intervention’s success and sustainability.

2. Experience and Skill in Managing Partnerships

Despite having strong potential for influencing target organizations, not all grantee agencies or leadership team partners had experience or skills in managing partnerships. Several national association PIs admitted that this was their first attempt to create working relationships on quality improvement activities with members, and considered it a great success just to show they could implement the partnership. But implementation is not the same as effective management.

17 ISIS is pursuing a similar strategy in its work with six QIOs to replicate the “real-time”, computerized care process documentation system in 30 more nursing homes, using digital pens or facility IT systems. This work is supported by a separate AHRQ Health Information Technology grant.
and some were better than others at building consensus, defining structures and processes for work to progress, developing leadership and joint ownership of the project, resolving conflicts, and finding ways to maximize each partner’s strengths and contributions.

Partnership management takes time. The projects with more partners, more partnership groups, and more intense levels of collaboration with providers or target organizations had to spend more time managing the interactions and communication among all the partners. Sometimes, there was not enough time to do all the partnership management that some believed necessary to make the project work better. According to one PI, “I might have tried to do more one-on-one with everyone in the group [to gain consensus and work through problems] to supplement the monthly calls.” Another project ran into similar problems in creating a partnership at the national level. According to one PI, “National partnerships need a lot of care and feeding, constant reminders and tasks. You need to keep up the momentum, [and] I think this project probably caught on to that a little late.” One project limited the demands of partnership management by delegating responsibility and money to partnerships at the local level. The grantee organization communicated with local pilot projects to get progress reports, and assess their need for technical assistance; but the pilots rather than the national organization assumed most of the partnership management function. These experiences suggest the need for projects involving partnerships to build in adequate time for partnership management, and to consider the costs and benefits of creating partnerships at different levels.

3. Partners’ Prior History in Working Together

Some projects had the advantage of starting with an existing partnership to which they could add new quality improvement targets or approaches. Projects led by The Leapfrog Group, the American Academy of Pediatrics, Lehigh Valley, CHCA, California Nurse Outcomes Coalition, and Catholic Healthcare Partners had distinct advantages in this regard. Their intended target organizations or intermediary partners were already organizational members or affiliated providers, making both the task of recruiting them easier and minimizing the need to start from scratch in defining common goals. According to one respondent, the project leadership team “has been together for so long. We are all equal in the design process, and having an effective team that has been together for so long has been invaluable.”

The 14 CHCA members who had worked together under the “Child Health Accountability Initiative” banner had some experience and success in joint quality improvement projects before they began the PFQ project, and therefore had a head start in working together. Based on their early successes, the rest of the CHCA members wanted to join their efforts. But integrating into the project was challenging. Even though the new partners were already members of CHCA, they had not previously been exposed to the QI concepts and approaches or data collection requirements of the project. Getting them up-to-speed on the core partners’ values and mode of operation took almost a year, slowing down the project’s momentum. However, the PI believes that in the long-run, the time invested to integrate these organizations into their quality improvement efforts will have a large pay-off in expanding the number of children’s hospitals involved in more rigorous and measurable QI activities.

Other projects began with little or no history of partnerships between the lead agencies and the target organizations, so they had to spend time building trust and a common vision to be successful. For example, the AMDA Foundation had prior relationships with the medical
directors of nursing homes, but not with the staff most responsible for quality improvement in these facilities – directors of nursing. AMDA Foundation staff therefore had to build relationships with these individuals. VNSNY and ISIS also had to quickly establish partnerships with provider groups; they did so by holding semi-annual meetings and regular conference calls, which rapidly created group cohesion and facilitated an open exchange of ideas and lessons.

4. Involvement of Target Organization Administrators and Staff in Decision Making

According to emerging health care organization theory on partnerships, partners’ roles in decision making and partnership governance are critical factors in partnership effectiveness. (Mitchell and Shortell, 2000; Shortell, et al., 2002, Bolda, et al. 2006). The experience of the PFQ projects provides some support for this theory. Partnerships that involved partners in making collective decisions on the project’s intervention were more successful in gaining buy-in and long-term commitment to the intervention. Partnerships that used partners to advise and legitimize the efforts of the lead organization seemed to have less success in gaining target organizations’ commitment to adopt or sustain the intervention.

Involving administrators from participating organizations is critical, according to some of the PFQ project partners. “You’ve got to have administrative buy-in to support this,” according to one PI. Even in a large health system such as Catholic Health Partners, there are limits to the “command and control” approach. “The HF advocates that have been very successful have had complete buy-in from [their managers] . . . this just shows that if you are starting something like this, you have to have commitment from administration.” While involving target organizations in project decision making may take more time to achieve consensus on goals, strategies, or tactics, it may create stronger buy-in in the end and appears to result in greater commitment of resources and long-term organizational change.

Some of the most successful projects involved people at all levels of the target organizations deciding how to adapt the intervention to their organizations, which helped produce tangible improvements and fostered better teamwork. ISIS and VNSNY, for example, not only involved administrators and nursing directors, but also nursing assistants and home health aides. ACP invited teams of physicians, nurses and office managers to their practice-based, team-oriented training programs on diabetes care improvement. According to one of the partners, “What’s remarkable is that, in terms of process, the office administrators are saying [the ACP training] is helping them feel like they’re more part of the care process, and now they understand how they can fundamentally improve care. This has opened up dialogue between physicians and staff in how they can improve quality and makes the practice feel like they have social value.”

Meetings among staff from the participating organizations to share and learn from each other were also important factors in success. According to one respondent, “The interactions we had with other facilities [in the study] were great. Our meetings with [them] helped us to develop best practices.” In another project that had prior relationships but had not met in person before the PFQ project, one respondent said, “My partners’ involvement contributed to the project’s progress. The ability to meet with the partners through in-person interactions in a concentrated, focused way has led to interesting work, and I’ve learned a lot.” Another interviewee claimed that, “Creating a learning network has helped us move forward. Everyone having the opportunity to say, ‘here’s what I learned this week, here’s what’s working and here’s what’s not working,’ that’s an enabler.”
5. Partners who Can Promote Sustainability and Broader Diffusion

In several PFQ projects, partners changed over the life of the project, depending on their strengths and connections. Some partners are better suited to test an approach, while others are needed to take an intervention to scale. The Leapfrog Group, for example, selected a small group of regional purchasers from its membership to test different approaches to quality incentive programs in the six pilot projects. But for broader diffusion, Leapfrog is working with a larger number of its employer coalition members for its “regional roll-out” initiative. Similarly, VNSNY worked with a small group of eight agencies willing to test the use of the IHI rapid cycle quality improvement learning collaboratives in the home health setting. But for its wider diffusion efforts, VNSNY (and ISIS in a follow-on project) are involving quality improvement organizations (QIOs) in different parts of the country to take their approaches to scale. To the extent that VNSNY can build capacity in QIOs to carry on rapid-cycle quality improvement in the home health care setting, it will expand this approach to a larger group of home health agencies than it could in the first phase of the project.

C. ROLE OF OTHER KEY FACTORS IN PROJECT SUCCESS/ SUSTAINABILITY

While the PFQ projects all used some form of partnership to accelerate the translation of research into improved health care quality, safety, and security, they faced many challenges to changing professional and organizational behavior. Below are the most significant factors that appear to have enabled or hindered progress in the PFQ projects, and how they tried to overcome these challenges.

1. PI Leadership

Many of the partners interviewed for this evaluation stressed the contribution of the leadership by the principal investigators (PIs) and others in the leadership team as a key factor in their perceived success in implementation and diffusion. The particular qualities of leadership differed from person to person, but they all functioned as champions in one way or another. Some partners mentioned the PIs’ energy and enthusiasm for the project as a key factor in the success of the project, while others cited his or her expertise in the subject matter. Several partners credited their projects’ successes to the support and ideas provided by the lead organization staff, their willingness to work collaboratively with providers, and their flexibility in dealing with problems that emerged. In contrast, one project partner mentioned the PI’s lack of organization as a detriment to greater success, another said turnover in leadership slowed the project’s progress, and a third said that one of the partners didn’t really play a strong leadership role, leading to failure to launch a pilot project in one site.

However, to succeed, PIs need more than a stellar record of research published in peer-reviewed journals. As the previous section stressed, PIs and their leadership teams must have experience in partnership management to structure and use them effectively. PIs that had these skills, or could invest the time to develop them, appeared to be more effective in harnessing their partners’ contributions towards the attainment of project goals.
2. **Good Timing and a Supportive Environment**

Some projects benefited from external developments and forces that lent their efforts greater relevance or urgency with the target organizations. The bioterrorism preparedness projects had an initial advantage in this regard, since memories of terrorist and anthrax attacks in September and October 2001 were still fresh when the PFQ projects began in September 2002. The Katrina and Rita hurricanes in the fall of 2005 represented important reminders of the need for the health care system to be prepared to deal with emergencies, and increased interest by partners in working with Altarum Institute’s and Texas A&M University’s projects.

As the drive to implement pay-for-performance and electronic health record systems gained momentum, driven by CMS and the Office of the National Coordinator for Health Information Technology, as well as large national health plans and employer purchaser groups, the PFQ projects that worked with providers to help them measure and report their performance against national standards also gained relevance. One PI said, “Our timing for the project was also right because the grant started just before pay-for-performance got big, and we had it up in time before the P4P angst started. At that time, our [physician] members were tired of the talking-head learning experience and were ready to do something in their practices.” Another PI affirmed this sentiment: “People are cognizant of the IOM studies and realize that we’re not doing as good a job as we should be, but then people don’t know how they should be doing things differently. This project came in and offered to show the physicians how to do it.” Increased expectations for physicians to use electronic medical records had the same constructive effect. “It also helped that the practice sites knew that EMR was where all the big groups were headed. It helped to have a mix of a few small sites and few big organizations because that reinforced to the small sites that rather than being just another academic exercise, this was where the industry was going.” Such forces help to overcome resistance to change, though they do not always succeed. Hospitals’ resistance to being held accountable for performance outcomes blocked progress in several of the Leapfrog Group’s pilot projects, for example.

Several projects’ experiences reinforce the importance of picking the right health condition for focus. AAP was glad it decided to focus on ADHD because “it was an easy sell - the interest was very high . . . the topic had a lot to do with it, so we did not have much of a problem with recruitment.” The long-term care projects’ focus on pressure ulcers in LTC facilities, and primary care practices’ focus on diabetes care benefited because these are conditions on which providers are more likely to be measured and reported in current or emerging public reporting systems.

3. **Ability to Overcome Provider Resource Constraints**

To secure provider participation, and successfully implement their interventions, all projects needed to overcome common barriers confronting providers. Most health care organizations face the pressure of limited funds, time, staff, and other resources needed to test new approaches to quality improvement, patient safety, and emergency preparedness. Even if they recognize its potential value, natural resistance to behavior change and uncertainty about the benefits of new ways of working can be powerful deterrents to adopting new practices. And even when change begins to take hold, staff turnover at all levels can affect the pace of progress. As the following quotes show, these issues presented enormous problems in nearly every project:
• **Time and Competing Priorities.** “Lack of time and money and an overwhelmed environment were the challenges that most hindered our progress... the practicing physicians are incredibly overwhelmed. People do not want to take on this kind of [work] because it will increase the workload...” “The competing priorities of the organizations were a huge barrier to trying to get anything done. They've got so many things people are telling them they've got to get done...” “Practices are just so busy, and even the highly motivated practices see this as an add-on to their daily routine.” “To some facilities, this just seemed like “another project” that would take a lot of time without being certain it would improve their quality measures.” “At the end of the day, when someone is volunteering and there are multiple demands on their time, we can't dictate the progress they make. That's our biggest stumbling block - that we don't have a command and control scenario.”

• **Funding.** “[Although] the program was ‘free’ it required them to devote staff time to something that didn't have a guaranteed reward or positive outcome.” “The business case is very difficult... there are many hospitals where even if they wanted to do this, they can't afford to do it upfront.” “While the pot of money at the top [for bioterrorism preparedness] looks big, by the time it gets to the states and the states divvy the money up to their regions, there isn't much left.”

• **Turnover:** “An inhibiting factor is turnover at the senior leadership level. If you get turnover at the chief nursing officer or nurse manager level, you potentially have to start over, so that hinders us at the longitudinal level.” “The turnovers are tough. The turnover at the ______ plan caused us to lose momentum, and even though [a project collaborator’s move to another organization] was a blessing in disguise, the project lost time because of it.” “In some cases, we would get all ramped up but then go back a month later and the person was gone.” “At one hospital, the CEO left and a new person took over who didn't buy into the [program]...”

• **Speed and willingness to change.** “One of the challenges for all agencies... was getting the nurses to change what we wanted them to change at the speed that we wanted them to - having to continually get people to buy-in. “...different doctors went through the stages of change differently. Some went through the stages easily and other took much longer. Some doctors tested us by giving us the toughest patients first so they could see what we did with them. Eventually, when they saw that we dealt with those patients well, they were persuaded to engage more.”

Successful efforts to overcome provider resistance required flexibility and smart use of available resources. For example, some projects modified their interventions to reduce barriers to participation, or gave providers the ability to adapt the intervention to their organizational culture or practice. By design, some projects sought to provide more support than others, especially when their interventions required more significant change in organization policies or operations. While most projects overcame the challenges associated with recruitment, they varied in their ability to provide sufficient flexibility and support to providers, which may have affected the degree of success in achieving project goals.

While some projects provided intensive training and support to target organizations to implement new quality measurement and improvement tools and techniques, other projects
intentionally limited the amount of support they offered to providers after an initial training course, believing that more intensive follow-up support would not be sustainable after AHRQ grant funds ran out. Examples of the latter model included projects run by NYSDOH and AHA/HRET, which provided target organizations with brief training courses or site visits, but had minimal follow-up, except for collecting data for evaluation purposes. Preliminary results suggest that the first strategy—intensive follow-up support—was more successful in making or sustaining changes. It may be that such support enabled participants to realize the benefits of the intervention more quickly, generating greater commitment. However, as final results are not yet known, this warrants further investigation.

Since staff turnover is inevitable, it is important to learn from those projects that found ways to minimize its impact on their interventions. The most successful projects appeared to be those that worked with teams from organizations, rather than with one person. That way, even if one of the team members left, the others were already on board and could train new staff.

4. Effective Use of IT for Quality Measurement and Provider Feedback

Projects that made effective use of information technology to measure and motivate care process improvements had more measurable, and possibly better, progress in improving adherence to clinical guidelines or yielding higher scores on clinical outcome indicators. Eight projects (AAP, ACP, AMA, CHP, ISIS, Lehigh Valley, Physician Micro Systems/MUSC, and VNSNY) used IT-based measurement systems to give practitioners the measures and the tools to compare their own performance with others.

When the IT systems were working well, the ability to provide feedback on an immediate and regular basis gave providers “actionable information” that they could use in their day-to-day patient care and practice management, as well as strong motivation to improve if their scores were below national standards or those of their peers. When combined with a rapid cycle quality improvement approach, such as IHI’s learning collaboratives, projects could use the data to accelerate the testing and refinement of quality improvement methods. For example, according to one interviewee, “there needs to be an IT system in place for data collection... You need to be able to do real-time data collection that will show you whether you are doing the right thing for patients.” A physician participating in one of the projects said that success was largely attributable to “the report that we receive quarterly 100-page pamphlets with all of the graphs.” Projects that worked with EMR vendors, such as the PMSI/MUSC project, had an advantage in this regard, “Because of the way we’ve developed this network and they all use electronic records, there’s no work to get the data....”

Having available IT tools was not enough though, unless grantees could make effective use of them. Logistical issues still present hurdles as the AMA project discovered. “Physician practices had difficulty getting their data into an HL-7 format to get it transferred. That was a lesson on needing standards for data transfer...” Other projects found that just making tools available on a website doesn’t guarantee people will access or use them, suggesting the importance of making web-based tools more interactive and a part of the learning/quality improvement cycle.
5. Effective Leverage of Grant Resources

The fact that all projects were grant-funded sometimes worked for, and sometimes against, efforts to make progress. On the positive side, the grant funds obviously provided financial support for many activities and infrastructure development that could not have been achieved without the grant. “We definitely would not have been able to pay for or support the coaches . . . or the hierarchical analysis without the AHRQ grant [and it] provided us with support to establish some things that we’ll be able to continue,” said one interviewee. Another said, “By giving the chapters some money, we were providing them with a lot of infrastructure support.”

Many PIs and their partners also said that the external deadlines and deliverables associated with the grant had a salutary effect. Several of them said that providers and partners, especially those participating in learning communities, had more incentive to implement quality strategies, if only to be able to report their progress at the next meeting or teleconference. For example, said one PI, “Anytime you have a deadline, that's helpful. You had an element of peer pressure there as well [as motivation] to get things done in relation to this project.” One of their partners affirmed that “Having ___ hold you accountable with the conference calls [was a motivation to do the work]. We had other meetings and conference calls that were held internally . . .which [also] helped the individual practices stay in line.” Having deadlines, said another PI, “made us report back and provide data and say what we're doing at a level of scrutiny that pushed us forward... the external deadlines we had... [made us] continually focus.”

On the negative side, the amount of grant funds needed to make large-scale change was limited in relation to the overall goal. Projects funded for clinical quality improvement projects had between $300,000 and $400,000 for each of the four years, while those conducting bioterrorism preparedness projects had just $100,000 for each of the four years, so it was unrealistic to expect the 20 projects to reach millions of people as the AHRQ RFA envisioned.

In addition, the requirement to evaluate the project’s impact led grantees to spend funds on research and data collection activities that reduced the amount available for project infrastructure or partnership management. Several PIs complained about the need to prepare and obtain Institutional Review Board approval for their data collection activities. 18 For example, one said, “Dealing with IRBs was an enormous problem...in quality improvement work, we're being asked to adhere to standards of research, but we're not really doing research. This needs to be looked at in a big way.” Others ran into resistance from providers in submitting data needed for the evaluation. “The data collection was always a big problem. . . [it was a burden for practices and we haven't figured out how to make it easier],” said one PI.

This suggests the need to revisit how best to document the impact of QI interventions while not running afoul of patient rights. Whether or not grantees could have designed their work to avoid these problems is something AHRQ may want to consider in formulating future projects of this type.

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18 It is unclear whether IRB approval was required by AHRQ or by the sponsoring institution for many of the PFQ grant projects.
D. LESSONS ON ELEMENTS OF AN EFFECTIVE PARTNERSHIP FOR QUALITY

If one is planning to use a partnership to accelerate the translation of evidence-based research into health care practice on a wide scale, there are a few things that appear to be necessary to the success of such an endeavor, with implications for other AHRQ efforts to fund projects involving partnerships.

- **Partnership structure.** The composition, size, and form a partnership takes should fit the goals and scale of the project. If the goal is to make large-scale change, projects should seek intermediaries to help with provider recruitment, training, and ongoing support for quality improvement; and efforts should be made to build capacity of these intermediaries to continue this work on their own over the long-term. Partnerships should try to recruit participants who are committed to the project and are well-connected to their peers.

- **Leadership.** National organizations and project directors that have strong credibility with, and influence on the target, should take the lead in partnerships. This affirms the importance of taking the PI’s reputation and track record into account when reviewing grant applications. It also supports AHRQ’s practice of allowing PFQ projects to travel with the PIs when they switch employers, or transfer to different sponsoring organizations. In the context of partnerships, though, leadership does not equate solely with a record of scholarship and peer-reviewed journal articles; it also means having the enthusiasm for this sort of work, as well as commitment to, and flexibility in working collaboratively with partners.

- **Partnership management skills.** Leaders need skills and experience in partnership management, and make a commitment to spend time on forging consensus, fostering regular communication, sharing lessons, and resolving problems at all partnership levels. Partnerships that involve all partners in decision making and staff at all levels in the target organizations in tailoring the intervention to their own organization may be more successful in building commitment and sustaining activities in the long-run.

- **Strategies to overcome provider constraints.** Partnerships should anticipate and prepare tools and strategies to address the needs and constraints of providers. They should also decide in advance how much room to allow providers to adapt the intervention so that it fits each organization’s culture, and can be adjusted to each provider’s pace of change.

- **Effective use of data and IT.** Partnerships to improve quality should consider seriously how best to make effective use of IT and data collection to measure and motivate providers to make care process improvements in “real-time”.

- **Regular interaction.** Partnerships should organize regular opportunities for organizations and providers to talk or meet with each other, since the need to report progress, share successes, and learn what works and what does not appears to accelerate providers’ progress.
• **Timing.** If at all possible, the initiative should be timed to take advantage of external demands on providers that make the intervention more relevant and responsive to those demands.

This list mirrors most of the criteria that AHRQ set out in the RFA for applicants to the PFQ program, affirming to a large extent the assumptions and thinking that went into the program’s initial development. When one looks at the qualifications and proposals of the grantees that were originally funded in 2002, most met the majority of these criteria.

Projects that met the PFQ applicant criteria closely and put into practice these elements of effective partnerships appear to be most successful in achieving their goals or those of the overall program. Projects that did not meet the criteria as well, or were not able to apply these elements of effectiveness, appear less successful. As a new program for AHRQ, PFQ represented a form of venture capital, and as with all such investments, one can expect a certain number of failures. Despite the fact that some projects did not succeed as much as program architects may have hoped, they too have the potential to shed insight into the challenges of doing this type of work.
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VII. HOW SIGNIFICANT OVERALL WAS PFQ IN CONTRIBUTING TO AHRQ’S BROADER STRATEGIC GOALS?

A. PFQ’S ACCOMPLISHMENTS AND LIMITATIONS

From our perspective, PFQ was reasonably successful as a grant program taking into account the varied objectives of the diverse grantees that were funded. Most grantees did what they said they would, although the overall impact of all 20 projects was not as fully realized as AHRQ program initiators had hoped.

PFQ had a core set of 12 grants focused on directly changing clinical practice and outcomes, at least 8 of which already have some evidence of positive outcomes. Most of these efforts produced sustainable changes in day-to-day practice that will enable and foster regular quality monitoring and continuous quality improvement in nursing homes, primary care physician offices, hospitals and home health agencies. While five other projects had goals that also focused on improving clinical quality and outcomes but stopped short of trying to directly change practice, they did generate valuable lessons about how to provide an infrastructure and set of financial incentives for such efforts. The bioterrorism preparedness grants, whose goals were to improve the health system’s ability to respond to emergencies, also appear to have generated valuable knowledge.

For a pioneering program, these accomplishments are impressive. They provide a foundation of learning that AHRQ can build on for improving the safety, quality and effectiveness of health care delivery. The partnerships created have leveraged resources from national and community-based organizations for promoting improvement, and forged stronger linkages between researchers and those on the front line of health care delivery.

While relatively successful on these metrics, PFQ had some shortcomings. First, a few of the grants probably were not, with the benefit of hindsight, well-conceived originally, despite their best intentions. Second, PFQ grantees did not have the scale of impact originally expected by AHRQ’s program developers, or promised in the RFA and the program announcement.19 While the grantees’ interventions reached a meaningful number of providers, they clearly reached fewer than one would expect solely by the membership of major organizations involved with PFQ (e.g. AMA, AHA etc). However, those initial expectations on the part of AHRQ were probably unrealistic, given the nature of the grants funded and the scale of the projects’ goals. Third, this evaluation suggests that PFQ’s efforts to promote collaboration and mutual learning across PFQ grantees through AHRQCoPs and other cross-grantee work was not very successful in supporting grantees, though it may generate some useful publications.

B. FUTURE OPPORTUNITIES AND LESSONS

Particularly because PFQ was an early initiative to support one of AHRQ’s current priorities—transforming research into practice—the formal ending of the PFQ program provides an important opportunity to harvest lessons that may be valuable to AHRQ for the future. While AHRQ could expect some failures in a program that aimed to encourage innovation, AHRQ can learn from its experience on how it managed the PFQ program and apply the lessons to current and future initiatives designed to translate research into practice, and to use partnerships to extend the reach of its quality, safety, and security improvement efforts.

To date, little has been done to extract the lessons about what worked well and take advantage of the opportunities they present. The lessons learned about what did not work are equally useful. The initial lessons and findings presented in this report can help AHRQ achieve many of its goals. We review here four of the most significant lessons and insights from PFQ, and offer several avenues for AHRQ to apply the lessons to its current priorities.

1. Elements of Effective Partnerships for Translating Research into Practice

PFQ grantee experiences and lessons can help AHRQ create more effective partnerships for bringing to scale and speeding up the translation of research into practice. Critical elements of effective partnerships, listed at the conclusion of Chapter VI, include: national organizations and individual leaders with expertise and well-regarded reputations in the health care issue or topic of focus, selection of well-connected partners at all levels—grantees, intermediaries and target organizations—and strategic use of each one’s resources and connections; skills and experience in partnership management; and the ability to overcome provider barriers to change.

Partnerships, and how to promote them, are important to many AHRQ programs. For example, the concepts have immediate relevance to the ACTION program, AHRQ’s latest effort to use “field partnerships” to translate research into practice. In fact, several PFQ grantees are participating in ACTION networks, offering an opportunity for them to share their own lessons in partnership building with the collaborators in each network. But other ACTION grantees also would benefit from knowing more about the collective experience and lessons from the PFQ projects to gain insight in fostering teamwork and partnerships. Other AHRQ programs involving partnerships, such as the 17 projects funded by the Partnerships in Implementing Patient Safety (PIPS), may also benefit from learning more about the PFQ experience and lessons.

AHRQ managers and staff also participate in a wide variety of partnerships with other federal agencies and private health care organizations, from work on CAHPS to leadership of the AQA-HQA efforts to develop standardized performance and quality measures. Lessons about effective partnerships are potentially applicable to AHRQ’s work in these other efforts as well. A work group within the agency might be created to distill the lessons on effective partnership management from these initiatives, and determine how they could be applied to strengthen AHRQ’s existing and future partnerships and programs.
2. Leveraging AHRQ’s Internal Resources to Help Translate Research into Practice

The PFQ program provides good examples of the way an effective project officer can help leverage the work of grantees. Specifically, those AHRQ project officers that brought with them connections and deep knowledge of particular issue areas took the initiative to connect principal investigators and their partners to other public and private quality improvement initiatives in their specific fields. With AHRQ’s focus on portfolios, such support for grantees creates potential synergies across programs and connections between similarly focused grants that may be conducted under diverse auspices. Although not all project officers have such skills, it may be valuable to encourage AHRQ staff to think more creatively about how best to use the knowledge and enthusiasm they bring to help leverage the work of individual grantees.

AHRQ also may benefit from a more careful review of findings in particular topic areas, with a view towards forming tighter connections with other AHRQ initiatives and efforts in the same areas. For example, the results of the three PFQ projects that focused on long-term care could be examined to determine how their results could be leveraged with current quality initiatives in the long-term care field. AHRQ staff with expertise in diabetes prevention and control could examine the results of the five PFQ projects that focused on control of diabetes in primary care or home health settings to assess opportunities for spreading effective approaches more broadly. They might also help the PIs of those projects connect with leaders in the diabetes prevention and control field. The experience of the purchaser-led grants similarly provides important input on the factors that promote or inhibit purchasers from leveraging their influence to promote change in quality incentives and care within communities.

AHRQ could widely share the synthesis of findings and lessons in this evaluation, supplemented by final results from PFQ grantees that will be produced by September 2007. Aside from this report and publications by individual grantees, there are currently no other ways to easily obtain information on what the PFQ program was and what grantees accomplished. The program remains relatively invisible, a belief shared by grantees and many of those directly associated with the program at AHRQ. AHRQ staff in various parts of the organizations should consider how best to translate the results of the most promising projects to relevant providers and professionals in the field.

3. Appropriate Use of Quality Improvement Tools and Techniques for Translating Research into Practice

Several PFQ projects made important advances in testing and demonstrating the effectiveness of new tools and techniques for helping providers adopt or more fully implement clinical care guidelines. They include the effective use of appropriately scaled information technology, the development of practice-based CME, the integration of performance measures into electronic health records, and the design of quality reward and incentive programs by purchasers. National and local quality improvement leaders wishing to replicate these strategies on a bigger scale can draw on the lessons of the PFQ projects. While some PFQ principal investigators have already begun to translate their success into lessons in these other fields, AHRQ staff can provide further support for these efforts.

To take one example, several PFQ projects made important advances in introducing information technology to health care facilities or to individual physician practices to aid in
tracking adherence to clinical guidelines or to performance standards. The ISIS-sponsored PFQ project is a featured case study in the AHRQ National Resource Center on Health Information Technology\(^{20}\) and leveraged its success in the PFQ project to obtain new funding under AHRQ’s Transforming Healthcare Quality through Information Technology (THQIT) Implementation Grants. Other PFQ projects have had some success as well, but efforts are needed to bring them to the attention of experts in the HIT field, so their lessons or implications for IT development in particular settings can be more carefully assessed. Assessment of the PFQ project results might also be performed to determine if they should be included in AHRQ’s new Innovations Clearinghouse.

4. Future Design of Programs for Translating Research into Practice

PFQ provides valuable insights about the importance of agency leadership and program structure to the successful transition to new approaches to funding and translation work. From our review of the PFQ experience, we suggest several lessons important to the success of future programs seeking to translate research to practice.

- PFQ highlights the importance of senior leadership guidance on refining program strategy over time, not just when new programs are being conceived.

- The selection and placement of program directors is important. AHRQ can do a better job of considering explicitly the structural constraints associated with the program director’s role in order to pick and position individuals to increase their effectiveness in working with staff across the agency, and in communicating with top leadership. AHRQ’s current structure makes the role of program director in a cross-center program like PFQ very challenging. Since center directors are not held accountable for the program’s success, responsibility rests with the program director to marshal the necessary resources, guide and motivate project officers to oversee grantees, and maintain commitment to the program’s vision and goals through staff turnover and changing center and agency-wide priorities. The challenges are similar for project officers who get little support for actively supporting grantees in a cross-center program. Consideration might be given to adjusting staff workloads and incentive structures to reward staff for this type of grant oversight work.

- Agency managers need to think through more clearly their expectations for cross-grantee work. While some PIs valued the AHRQCoPs meetings and subcommittee work, the majority of them expressed frustration with the meetings, because they took away valuable funding, time and attention from their own projects and were not well-structured to foster synergy among the projects. AHRQCoPs and its subcommittees are producing a set of articles on partnership functions and lessons, to be published in a forthcoming special journal supplement. However, these activities and any learning they produced were linked only tangentially to the grantees’ work and hence provided limited benefits to most of their projects. If AHRQ expects grantees in a program to

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\(^{20}\) “Long-Term Care Facilities Embrace Health Information Technology”, located on the AHRQ HIT National Resource Center website: http://healthit.ahrq.gov; click on AHRQ-Funded Projects, and then on Case Studies.
work collaboratively, the final products should be more clearly defined and communicated to applicants in advance, and the agency should make clear to prospective grantees the amount of time and effort this activity will require.

- AHRQ needs to better match grantee selection criteria to the goals of cross-grantee work. The PFQ grantees were too heterogeneous to foster significant collaboration, particularly without a strong content or focus that was relevant to all their needs. Programs like PFQ that seek to attract well-connected national and regional organizations whose base is outside of research also need to appreciate better the demands on the time of these individuals, which may mean limiting reporting requirements and collaboration work to the essential core.

In sum, PFQ generated capacity and knowledge that can support broader AHRQ’s efforts to translate research into practice. Harvesting its potential will further leverage AHRQ’s $20 million investment in PFQ and enhance the strategic value of this program as an early pioneer whose experience and lessons can inform attempts to translate research to practice on a broad scale.
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REFERENCES


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<thead>
<tr>
<th>Grantee Organization &amp; Principal Investigator</th>
<th>Health Conditions</th>
<th>Health Issues</th>
<th>Priority Populations</th>
<th>Health Care Entities</th>
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<tbody>
<tr>
<td>Altarum Institute PI: George J. Miller</td>
<td></td>
<td>Bioterrorism &amp; Emergency Preparedness</td>
<td>1 rural hospital; large urban public health district</td>
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<td>American College of Physicians PI: Vincenza T. Snow</td>
<td>Diabetes</td>
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<td>35 physician practices in 2 states</td>
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<td>American Medical Association PI: Karen S. Kmetik</td>
<td>Diabetes, Heart Disease (CAD), Major Depression</td>
<td>Individuals needing chronic care</td>
<td>Physician practices in Pittsburgh &amp; Chicago; large cardiology practice and ambulatory clinic network in Chicago</td>
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<td>American Medical Directors Association PI: David F. Polakoff</td>
<td>Pain management, Pressure ulcers</td>
<td>Long-term care</td>
<td>50-60 nursing facilities in 6 states</td>
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<td>American Hospital Association-HRET PI: John R Combes</td>
<td>Falls and falls with injury</td>
<td>Hospital patient safety</td>
<td>32 hospitals in California</td>
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<td>Association of California Nurse Leaders PI: Nancy E. Donaldson (UCSF)</td>
<td>Congestive heart failure</td>
<td></td>
<td>6 hospitals in the Midwest system’s 9 regions</td>
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<td>Catholic Healthcare Partners PI: Donald E. Casey</td>
<td>Pain management</td>
<td>Hospital patient safety and medication safety</td>
<td>Children</td>
<td>14 (later 42) children’s hospitals in the U.S.</td>
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<td>Connecticut State Department of Public Health PI: Louise Dembry</td>
<td>Value purchasing/pay-for-performance</td>
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<td>2 Employer coalitions and health plans (Minn-St Paul &amp; Colorado)</td>
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<td>HealthFront PI: Michael Callahan</td>
<td>Pressure ulcers</td>
<td>Long-term care</td>
<td>12 nursing facilities in 10 states</td>
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<td>Joint Commission for Accreditation of Healthcare Organizations (JCAHO) PI: Jerod M. Loeb</td>
<td>Acute Myocardial infarction, Heart Failure, Community-acquired pneumonia, Pregnancy &amp; related conditions.</td>
<td>Bioterrorism &amp; Emergency Preparedness</td>
<td>Hospitals and community health clinics; community emergency preparedness systems</td>
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<tr>
<td>Leapfrog Group PI: Suzanne F. Delbanco</td>
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<td>Hospital patient safety and value-based purchasing</td>
<td>Employers, employer coalitions, and health plans; hospitals in 6 target markets</td>
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<tr>
<td>Lehigh Valley Hospital and Health Network PI: Mark Young (decreased), followed by Kenneth Coburn</td>
<td>Diabetes (type 2)</td>
<td>Individuals in need of chronic care</td>
<td>10 physician practices in SE Pennsylvania</td>
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<td>Pacific Business Group* on Health David Hopkins</td>
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<td>Quality measurement and performance reporting</td>
<td>Physicians</td>
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<tr>
<td>Physicians Micro Systems, Inc. (vendor) PI: Steven M Ornstein (MCSC)</td>
<td>Heart disease/stroke; Diabetes; Cancer prevention; immunizations; resp/infectious disease; MH/SA; nutrition and obesity; Rx for the elderly</td>
<td></td>
<td>100+ participating practices from 35+ states; practices range in size from solo practitioners to 10+ clinicians</td>
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<tr>
<td>Research Triangle Institute PI: Lucy A. Savitz</td>
<td>Broader adoption of QI methods for a variety of conditions &amp; care processes</td>
<td>Bioterrorism and emergency preparedness; and general quality improvement</td>
<td>4 (later 5) large health systems in selected regions</td>
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<tr>
<td>New York State Dept Of Health PI: Suzanne M Broderick</td>
<td>Falls, weight loss, incontinence</td>
<td>Long-term care and avoidance of acute hospitalization</td>
<td>45 nursing homes and 14 adult care facilities throughout NY State</td>
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<tr>
<td>Texas A&amp;M University Health Sciences Center PI: Josie R Williams</td>
<td></td>
<td>Bioterrorism and emergency preparedness</td>
<td>Texas Department of Health, Region 8; 12 small rural hospitals in TX (part of TX A &amp; M/RCHI network)</td>
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<td>Visiting Nurse Service of New York PI: Penny H Feldman</td>
<td>Diabetes</td>
<td>Home health care and avoidance of acute hospitalization</td>
<td>Elderly</td>
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*aThe grant with PBGH was dropped after 15 months.*
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<tr>
<th>Grantee Organization &amp; Principal Investigator (PI)</th>
<th>Research Organizations</th>
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<th>State/Local Government Agencies</th>
<th>Other</th>
</tr>
</thead>
</table>
| 1. Altarum Institute  
PI: George J. Miller | Altarum                | Smithville Regional Hospital, Balstrop County TX | San Antonio Metropolitan Health District; Texas Dept. of Health | University of Texas Health Science Center; University of Michigan Medical Center Dept. of Emergency Medicine; Michigan Center for Biological Information |
| 2. American Academy of Pediatrics (AAP)  
PI : Carole M. Lannon, Center for Health Care Quality, Cincinnati Children’s Hospital Medical Center | Center for Children’s Healthcare Quality (CCHQ) (formerly National Inst. for Child Healthcare Quality) | American Academy of Pediatrics and 10 state AAP chapters | 160-180 pediatric practices in the 10 states | American Board of Pediatrics |
| 3. American College of Physicians (ACP)  
PI: Vincenza Snow | Northwestern University | American College of Physicians | Pilot: 4 PA and IL practices  
Trial: 31 physician practices in Philadelphia (in Abington Health System) & Chicago | Advisory Board: IHI, ICIC, AMA, AHIP, ANA, ADA, and others |
| 4. American Hospital Association (AHA) Health Research and Education Trust (originally, grantee was Hospital and Healthcare Systems of Pennsylvania - HAP)  
PI : John R Combes | AHA, Health Reseasrch and Education Trust (HRET) | 7 palliative care “Centers of Excellence” around the country | 60-70 hospital –based teams | |
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<tr>
<th>Grantee Organization &amp; Principal Investigator (PI)</th>
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<th>Other</th>
</tr>
</thead>
<tbody>
<tr>
<td>5. American Medical Association (AMA)</td>
<td>RAND (project evaluation contractor)</td>
<td>American Medical Association, Physician Consortium for Performance Improvement</td>
<td>Northwestern University General Internal Medicine/Northwestern Medical Faculty Fdn; Midwest Heart Specialists; Ambulatory and Community Health Network/Cook County Board of Health Services</td>
<td>Iowa Foundation for Medical Care (QIO); United Healthcare/Ingenix; Pittsburgh Regional Healthcare Initiative; Midwest Business Group on Health; BCBSA; and CMS</td>
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<tr>
<td>PI: Karen S. Kmetik</td>
<td>Co-PI based at University of Pittsburgh</td>
<td></td>
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<tr>
<td>6. American Medical Directors Association (AMDA)</td>
<td>American Medical Directors Association (AMDA) &amp; AMDA Foundation; American Health Care Association, AAHSA, AHQA &amp; other national orgs</td>
<td>American Medical Directors Association (AMDA) &amp; AMDA Foundation; American Health Care Association, AAHSA, AHQA &amp; other national orgs</td>
<td>50-60 nursing facilities in 6 states (CA, FL, IN, OH, PA, TX)</td>
<td>Quality Partners of Rhode Island (QPRI) (co-PI formerly worked there)</td>
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<tr>
<td>PI: David F. Polakoff</td>
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<tr>
<td>7. Association of California Nurse Leaders</td>
<td>CalNOC; UCSF School of Nursing; Cedars-Sinai Research Institute; CA State University Fullerton</td>
<td>Association of California Nurse Leaders and ANA-California</td>
<td>32 California hospitals participating in the California Nurse Outcomes Coalition (CalNOC), 91 med-surg units from those hospitals</td>
<td>VA NOD; Moore Foundation; AHRQ; MiNOD American Nurses Association;</td>
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<tr>
<td>PI: Nancy Donaldson, CalNOC &amp; UCSF School of Nursing</td>
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<td>8. Catholic Healthcare Partners (CHP)</td>
<td>Xavier University (project evaluator)</td>
<td>American Heart Association</td>
<td>Catholic Healthcare Partners; six regional health systems within CHP and affiliated hospitals and cardiologists</td>
<td>“Observers”: Other large Catholic health systems; Greater Cincinnati Health Council</td>
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<tr>
<td>PI: Donald E. Casey</td>
<td>National Heart Failure Training Program at Case Western University</td>
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<td>Grantee Organization &amp; Principal Investigator (PI)</td>
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<tr>
<td>9. Child Health Corporation of America (CHCA)</td>
<td>Child Health Corporation of America</td>
<td>Lucile Packard Children’s Hospital at Stanford and 13 other CHCA member hospitals, in the Child Health Accountability Initiative (CHAI); later expanded to all 42 CHCA hospitals;</td>
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<td>Vermont Oxford Neonatal Network; Institute for Health Improvement (IHI); National Association of Children’s Hospitals &amp; Related Institutions; National Inst. for Children’s Healthcare Quality</td>
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<tr>
<td>PI: Paul J. Sharek, Stanford University School of Medicine &amp; L Packard Children’s Hospital</td>
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<tr>
<td>10. Connecticut Department of Public Health PI : Louise Dembry Yale-New Haven Health System</td>
<td>Yale University School of Medicine, Dept. of Epidemiology and Public Health</td>
<td>Yale/New Haven Health System, Office of Emergency Preparedness</td>
<td></td>
<td>Connecticut Department of Public Health</td>
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<tr>
<td>11. HealthFront PI: Michael Callahan</td>
<td>Park Nicollet Institute</td>
<td></td>
<td></td>
<td>Health Front 2 business coalitions (MN and CO)</td>
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<tr>
<td>12. International Severity Info Systems, Inc. PI: Susan Horn</td>
<td>International Severity Info Systems, Inc.</td>
<td>American Association of Homes and Services for the Aging, Institute for the Future of Aging Services</td>
<td>11 nursing homes in 10 states, including: Good Samaritan (1) Mercy Health Partners (4) Christina Home (1)</td>
<td></td>
<td>6 QIOs in CA, MD, WA, TX, etc.</td>
</tr>
<tr>
<td>13. Joint Commission for Accreditation of Healthcare Organizations (JCAHO) PI: Jerod M. Loeb</td>
<td>JCAHO, Division of Research</td>
<td></td>
<td></td>
<td>Consultant in emergency preparedness; advisory committee members</td>
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<td>Grantee Organization &amp; Principal Investigator (PI)</td>
<td>Research Organizations</td>
<td>National/State Provider &amp; Professional Associations</td>
<td>Health Care Organizations and Practitioners</td>
<td>State/Local Government Agencies</td>
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<td>14. The Leapfrog Group PI: Suzanne Delbanco</td>
<td>Evaluators from Penn State University (Scanlon), University of MN (John Christianson); and Tulane (Eric Ford)</td>
<td>The Leapfrog Group</td>
<td>Hospitals in the six target markets participating in the pilots</td>
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<td>6 purchaser or payor-led groups: 3 employer coalitions in ME, MN &amp; TN); 2 groups of large employers; and 1 health plan (Blue Shield of CA)</td>
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<td>Consultants from Medstat, Towers Perrin, and Ropes &amp; Gray</td>
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<td>15. Lehigh Valley Hospital and Health Network PI: Mark Young (later Kenneth D. Coburn)</td>
<td>Lehigh Valley Hospital and Health Network, Community Health Studies</td>
<td>Penn State Univ. College of Medicine, Health Eval. Sciences</td>
<td>Lehigh Valley Hospital and Health Network, Helwig Diabetes Center</td>
<td></td>
<td>10 primary care practices in SE Pennsylvania</td>
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<tr>
<td>16. New York State Dept Of Health, Division of Community-Based Care PI: Suzanne Broderick &amp; Beth Dichter</td>
<td>Research Division of Hebrew Home for the Aged at Riverdale (RDHHAR)</td>
<td>American Health Care Association; Institute for the Future of Aging Services; Association of Health Facility Survey Agencies</td>
<td>45 nursing homes and 14 adult care facilities throughout NY State</td>
<td>NYS DOH, Division of Community-Based Care</td>
<td>Columbia University Stroud Center; The Commonwealth Fund</td>
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<td>17. Physicians Micro Systems, Inc. PI: Steven M Ornstein, Medical University of South Carolina</td>
<td>Medical University of South Carolina (MUSC)</td>
<td></td>
<td>100+ participating practices from 35+ states; practices range in size from solo nurse practitioners to 10+ clinicians</td>
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<td>Physician Micro Systems, Inc., (an electronic medical records vendor) and Practice Partner Research Network (PPRNet), a consortium of primary care doctors, PMSI &amp; MUSC</td>
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<td>Grantee Organization &amp; Principal Investigator (PI)</td>
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<td>National/State Provider &amp; Professional Associations</td>
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<tr>
<td>18. Research Triangle Institute</td>
<td>RTI</td>
<td>5 large health systems: University of Pittsburgh Medical Center (UPMC) Health System; Providence Health System; Intermountain Health Care; UNC Health Care; and Baylor Health System</td>
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<td>PI: Lucy A Savitz</td>
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<td>19. Texas A&amp;M University Health Sciences Center, Rural and Community Health Institute (RCHI)</td>
<td>Texas A &amp; M University Health Sciences Center: 1) Rural &amp; Community Health Institute (RCHI), and 2) Healthcare Evaluation Inst.</td>
<td>Texas Department of Health, Region 8</td>
<td>Texas Dept of Health, State Epidemiology Office</td>
<td>Texas Dept of Health, State Epidemiology Office</td>
<td>US Air Force, Texas Center for Medical Strategy Training and Readiness (TC-Medstar)</td>
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<tr>
<td>PI: Josie R Williams</td>
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<td>20. Visiting Nurse Service of New York, Center for Home Care Policy and Research</td>
<td>VNSNY, Center for Home Care Policy and Research</td>
<td>8 home health agencies in 7 states for the diabetes collaborative</td>
<td>10 QIOs for the ReACH collaborative</td>
<td>69 home health agencies for the ReACH collaborative</td>
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<tr>
<th>Grantee Organization and Principal Investigator (PI)</th>
<th>Evaluation Approach</th>
<th>Measures</th>
</tr>
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</table>
| 1. Altarum Institute  
PI: George J. Miller | Evaluation of the tool by partners via assessment of the face validity and utility of the model’s structure, clinical protocols, and outputs. Project was evaluating alternatives for responding to bioterrorist events by simulating these alternatives in the model. | | |
| 2. American Academy of Pediatrics (AAP)  
PI: Carole M. Lannon, Center for Health Care Quality, Cincinnati Children’s Hospital Medical Center | Quantitative measures of ADHD disease management processes, comparing treatment group (eQIPP-enrolled and participating in AAP training/support) with controls (enrolled only in eQIPP) at baseline and follow-up points  
Comparison of QI activities in treatment and control practices  
Qualitative study of factors contributing to AAP chapters’ ability to develop and sustain QI | % of charts demonstrating target level of care for 7 ADHD dx and rx components  
Frequency and participation in QI activities for the two types of practices | |
| 3. American College of Physicians (ACP)  
PI: Vincenza Snow | Pseudo-randomized trial comparing pre-and post measures or indicators from experimental practices (those receiving practice-based, team-oriented CME training) to control practices (same training but at a later time)  
Qualitative evaluation to elicit experiences of the practice teams and determine most useful aspects of the program. | Patient outcome and practice patterns: process of care and clinical indicators from 15 enrolled diabetes patients in each practice at baseline, during intervention and post-intervention  
Patient satisfaction, pre-post levels  
Practice team experiences: pre-post levels of team collaboration | |
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<th>Grantee Organization and Principal Investigator (PI)</th>
<th>Evaluation Approach</th>
<th>Measures</th>
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<tr>
<td>4. American Hospital Association (AHA), Health Research and Education Trust PI: John R Combes</td>
<td>Compare baseline data from 3 initial learning labs to post-program data from 6 learning labs on length-of-stay, patient and family satisfaction, and financial measures</td>
<td>Baseline clinical and financial information</td>
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<tr>
<td></td>
<td># of new hospital-based palliative care units created or enhancements to existing units as a result of visits to learning labs</td>
<td>Patient/family satisfaction measures with palliative care were not collected</td>
</tr>
<tr>
<td></td>
<td>Hospitals participating in visits to learning labs surveyed before and after their visits on the range of palliative care services offered, and on whether learning objectives for the visit were met.</td>
<td>6-month post visit reports of value of training, lessons learned, and new or enhanced services developed</td>
</tr>
<tr>
<td>5. American Medical Association (AMA) PI: Karen S. Kmetik</td>
<td>Process evaluation to assess project progress, and impact, of the two models for electronic data transfer of physician care practices; success of the rollout and sustainability on a large scale over time; and generalizability of the models to other chronic conditions.</td>
<td>Changes in AMA-developed process of care performance measures for diabetes, CAD and major depressive disorder in participating physician practices</td>
</tr>
<tr>
<td>6. American Medical Directors Association (AMDA) PI: David F. Polakoff</td>
<td>Compare process of care and clinical measures at baseline with those at 9 and 15 months post-intervention; randomized each participating NF to one of the two clinical practice guidelines to serve as cross-controls (“nested”)</td>
<td>Process of care and clinical outcomes for pain management and pressure ulcers in nursing facilities that participated</td>
</tr>
<tr>
<td></td>
<td>Clinical practice guideline implementation experiences of participants</td>
<td># of staff and amount of staff time spent on implementation, participation in each component of implementation process</td>
</tr>
<tr>
<td>7. Association of California Nurse Leaders PI: Nancy Donaldson, CalNOC &amp; UCSF School of Nursing</td>
<td>Compare baseline and post-intervention patient outcome measures in participating med-surg units in the 35 intervention hospitals to non-participating units in the same hospitals.</td>
<td>Falls per 1000 patient days</td>
</tr>
<tr>
<td></td>
<td>Qualitative assessment of implementation progress.</td>
<td>Falls with injury/1000 patient days</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Coaching processes milestones, linker and learner feedback.</td>
</tr>
<tr>
<td>Grantee Organization and Principal Investigator (PI)</td>
<td>Evaluation Approach</td>
<td>Measures</td>
</tr>
<tr>
<td>----------------------------------------------------</td>
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<td>----------</td>
</tr>
<tr>
<td>8. Catholic Healthcare Partners (CHP) PI: Donald E. Casey</td>
<td>Quasi-experimental design: tracked pre- and post-intervention process of care measures for patients with heart failure, and compare these measures in participating and non-participating hospitals in 6 CHP regions. Track intervention implementation progress in participating hospitals and assess effectiveness of HF GAP Clinical Advocates in influencing the measures. Assess effectiveness of the CHP HF GAP Partnerships (system-wide and regional)—i.e. synergy, level of involvement, etc. using tool created by PFQ subcommittee on evaluation</td>
<td>4 HF inpatient performance measures: ACE inhibitor prescribed at discharge, LVEF assessment, smoking cessation counseling and appropriate discharge instructions 30 day “all cause” readmission rates for patients with an index admission for DRG 127 Appropriate use and dosage of beta-blockers &amp; ACE inhibitors prescribed in outpatient settings Appropriate identification &amp; referral of chronic HF patients to palliative or hospice care at or near the end of life Participation rates by cardiologists and primary care MDs in office-based QI activities Successful negotiation of P4P incentives on above</td>
</tr>
<tr>
<td>9. Child Health Corporation of America (CHCA) PI: Paul J. Sharek, Stanford University School of Medicine &amp; L Packard Children’s Hospital</td>
<td>Monitor process of care measures for targeted pediatric conditions in participating hospitals, and compare measures of compliance against AHRQ Hospital Patient Safety Best Practices</td>
<td></td>
</tr>
<tr>
<td>10. Connecticut Department of Public Health PI: Louise Dembry, Yale-New Haven Health System &amp; Yale School of Medicine</td>
<td>Quasi-experimental design comparing short and long-term knowledge of bioterrorism preparedness among physicians taking the course (N=41) and a control group (those eligible to take the course at a later time) (N=51)</td>
<td>Measures of knowledge of course content before the course, immediately after (only for those taking the course), and 6-months after the course was administered.</td>
</tr>
<tr>
<td>11. HealthFront PI: Michael Callahan</td>
<td>Assess the degree of “horizontal alignment” among purchasers, plans and government agencies within a region in their use of payment incentives, e.g. P4P, tiered networks to accelerate adoption of best practices</td>
<td>Proportion of total insured population that is subject to “aligned incentives” in the plans that use them.</td>
</tr>
<tr>
<td>12. International Severity Info Systems, Inc. PI: Susan Horn</td>
<td>Assessment of baseline and follow-up data on clinical, utilization and operational measures in participating nursing facilities, as well as staff-related measures Qualitative assessment via focus groups and interviews of how the intervention supports use of best practice protocols in study units, integrates into daily workflow, achieves process efficiencies &amp; gains user acceptance.</td>
<td>Pressure ulcer incidence acquired in and out of the facility; hospital admissions, ER visits, # of forms used before and after intervention, annual turnover rates, staff satisfaction.</td>
</tr>
<tr>
<td>Grantee Organization and Principal Investigator (PI)</td>
<td>Evaluation Approach</td>
<td>Measures</td>
</tr>
<tr>
<td>--------------------------------------------------</td>
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<td>----------</td>
</tr>
</tbody>
</table>
| 13. Joint Commission for Accreditation of Healthcare Organizations (JCAHO)  
PI: Jerod M. Loeb | Project’s outcomes were not the subject of its evaluation; it planned to evaluate the success of the project by comparing the goals and objectives accomplished against those outlined in the proposal. | - Employee admissions to hospitals that do or do not meet Leapfrog patient safety standards. |
| 14. The Leapfrog Group  
PI: Suzanne Delbanco | Measure the impact of payer use of incentives to promote the use of higher quality hospitals on employees’ choice of hospitals and hospital adoption of recommended patient safety practices; one of the 6 sites measured employees use of hospitals pre and post incentive program, comparing employees subject to the incentives with those not affected | - Hospitals applying for and meeting standards in the pilot communities |
| 15. Lehigh Valley Hospital and Health Network  
PI: Mark Young, later Kenneth D. Coburn | Monitor diabetes process-of-care measures and selected patients’ clinical lab scores in participating physician practices at baseline, 6 months and 12 months post intervention. Six-month reports to each practice included their own process performance data and the latest ABC benchmarks for all practices. | Process: % of MDs screening for HbA1c, lipids and microalbuminuria  
Clinical: blood pressure, lipid levels, cholesterol, triglycerides, hemoglobin |
| 16. New York State Dept Of Health  
PI: Suzanne Broderick/Beth Dichter | Quasi-experimental design with 2 intervention groups and 1 control group, comparing pre-post measures for all 3 groups. One intervention group had only provider staff trained; the other had both provider staff and surveyors trained. | -Implementation: % of residents receiving the interventions; other measures of the degree to which facilities and staff implemented the interventions  
-Clinical measures: falls, hospitalizations, weight loss and incontinence |
| 17. Physicians Micro Systems, Inc.  
PI: Steven M Ornstein, Medical University of South Carolina | Monitor changes in physician adherence to clinical practice guidelines for 73 clinical indicators grouped into 8 areas among the 100 practices participating in the project, and track change in physician practices participating. Will also conduct in-depth case studies of 10 practices | Summary Quality Index: % of processes and outcomes that are up-to-date or under control for a given patient or practice; and a Diabetes Care Summary Quality Index |
| 18. Research Triangle Institute  
PI: Lucy A Savitz | Assess partnership strength and synergy created by the partnership in diffusing evidence-based practice |  |
| 19. Texas A&M University Health Sciences Center, Rural and Community Health Institute (RCHI)  
PI: Josie R Williams | Project outcomes were not evaluated, other than its progress in improving hospital and public health systems’ ability to respond to bioterrorism events and disasters. |  |
<table>
<thead>
<tr>
<th>Grantee Organization and Principal Investigator (PI)</th>
<th>Evaluation Approach</th>
<th>Measures</th>
</tr>
</thead>
<tbody>
<tr>
<td>20. Visiting Nurse Service of New York, Center for Home Care Policy and Research PI: Peny H Feldman</td>
<td>Process evaluation to assess the progress and success of initial collaborative and its feasibility as a vehicle for quality improvement. CEO &amp; staff surveys of implementation experiences, perceptions of value, etc. Monthly chart review tracking of clinical measures for diabetes care and control and hospitalization rates for participants in the ReACH project.</td>
<td>CEO &amp; team perceptions of value; Org. implementation measures Indicators of spread beyond pilot group and sustainability Clinical measures for glycemic control, foot care &amp; medication management Average agency-wide hospitalization rates</td>
</tr>
</tbody>
</table>
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<table>
<thead>
<tr>
<th>Grantee Organization and Principal Investigator</th>
<th>Target Population</th>
<th>Participating Organization, Providers &amp; Patients</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Number</td>
<td>Type</td>
</tr>
<tr>
<td>1. Altarum Institute</td>
<td>300,000</td>
<td>Not specified</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PI: George J. Miller</td>
<td>160-180</td>
<td>186</td>
</tr>
<tr>
<td>2. American Academy of Pediatrics (AAP)</td>
<td>3,100,000 children with ADHD</td>
<td>10</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2000</td>
</tr>
<tr>
<td>PI: Carole M. Lannon, Center for Health Care Quality, Cincinnati Children’s Hospital Medical Center</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. American College of Physicians (ACP)</td>
<td>384</td>
<td>Not specified</td>
</tr>
<tr>
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<td></td>
<td></td>
</tr>
<tr>
<td>PI: Vincenza Snow</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. American Hospital Association (AHA), Health Research and Education Trust</td>
<td></td>
<td></td>
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<tr>
<td>PI: John R Combes</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. American Medical Association (AMA)</td>
<td>200</td>
<td>9 + 3 more large practices in test</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PI: Karen S. Kmetik</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. American Medical Directors Association (AMDA)</td>
<td>50</td>
<td>54</td>
</tr>
<tr>
<td></td>
<td>5000</td>
<td>Not specified</td>
</tr>
<tr>
<td>PI: David F. Polakoff</td>
<td>500-1000</td>
<td>Not specified</td>
</tr>
<tr>
<td>Grantee Organization and Principal Investigator</td>
<td>Target Population</td>
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</tr>
<tr>
<td>-----------------------------------------------</td>
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<td>-------------------------------------------------</td>
</tr>
<tr>
<td>7. Association of California Nurse Leaders</td>
<td>Number</td>
<td>Number Planned, Number Actual, Type</td>
</tr>
<tr>
<td>PI: Nancy Donaldson, CalNOC &amp; UCSF School of Nursing</td>
<td>30-35</td>
<td>35 Hospitals</td>
</tr>
<tr>
<td></td>
<td>100</td>
<td>91 Med-surg acute care units</td>
</tr>
<tr>
<td>8. Catholic Healthcare Partners (CHP)</td>
<td>4</td>
<td>6 Hospitals in participating regions (31 total in system)</td>
</tr>
<tr>
<td>PI: Donald E. Casey</td>
<td>33,492</td>
<td>FTEs in affiliated hospitals</td>
</tr>
<tr>
<td></td>
<td>8,926</td>
<td>Affiliated MDs</td>
</tr>
<tr>
<td>9. Child Health Corporation of America (CHCA)</td>
<td>14</td>
<td>33 Children’s hospitals—33 of 42 participated in at least one QI project</td>
</tr>
<tr>
<td>PI: Paul J. Sharek, Stanford Univ. School of Medicine &amp; L Packard Children’s Hospital</td>
<td></td>
<td></td>
</tr>
<tr>
<td>10. Connecticut Department of Public Health</td>
<td>4</td>
<td>1 Hospital and its affiliated physicians Clinicians</td>
</tr>
<tr>
<td>PI: Louise Dembry, Yale-New Haven Health System &amp; Yale School of Medicine</td>
<td>Not specified</td>
<td>91</td>
</tr>
<tr>
<td>11. HealthFront</td>
<td>2</td>
<td>2 State/regional employer coalitions Physicians in the regional health care markets</td>
</tr>
<tr>
<td>PI: Michael Callahan</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>12. International Severity Info Systems, Inc.</td>
<td>&gt;8</td>
<td>12 Nursing facilities (1 dropped out)</td>
</tr>
<tr>
<td>PI: Susan Horn</td>
<td></td>
<td></td>
</tr>
<tr>
<td>13. Joint Commission for Accreditation of Healthcare Organizations (JCAHO)</td>
<td>285</td>
<td>575 Hospitals responding to survey</td>
</tr>
<tr>
<td>PI: Jerod M. Loeb</td>
<td>90</td>
<td>490 CHCs responding to survey</td>
</tr>
<tr>
<td>14. The Leapfrog Group</td>
<td>6</td>
<td>6 Purchaser groups in 6 markets</td>
</tr>
<tr>
<td>PI: Suzanne Delbanco</td>
<td>100</td>
<td>Not specified Hospitals</td>
</tr>
<tr>
<td>Grantee Organization and Principal Investigator</td>
<td>Target Population</td>
<td>Participating Organization, Providers &amp; Patients</td>
</tr>
<tr>
<td>-----------------------------------------------</td>
<td>-------------------</td>
<td>-----------------------------------------------</td>
</tr>
<tr>
<td>15. Lehigh Valley Hospital and Health Network</td>
<td>3000 Patients with diabetes</td>
<td>8 10 Primary care practices Primary care physicians</td>
</tr>
<tr>
<td>PI: Mark Young, later Kenneth D. Coburn</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

| 16. New York State Dept Of Health              | 2,700 Nursing home residents | 740 – 2,600 Adult Care Facility residents Nursing homes
| PI: Suzanne Broderick/Beth Dichter            | Not specified 45 21 Not specified | Not specified Adultcare facilities
|                                               | 45 30-105 21 45 30-105 21 | 45 30-105 21 45 30-105 21 |

| 17. Physicians Micro Systems, Inc.             | up to 1,000,000 patients in participating practices | 100 125 total (but 99 >1 year) Primary care practices |
| PI: Steven M Ornstein, Medical University of South Carolina | 847,073 patients in participating practices | 300-500 600 Primary care practitioners |

| 18. Research Triangle Institute                | 4 14,000 Health systems Clinicians | 4 14,000 Health systems Clinicians |
| PI: Lucy A Savitz                             | 5 | 5 |

| 19. Texas A&M University Health Sciences Center, Rural and Community Health Institute (RCHI) | 2 2 Regional health district offices |
| PI: Josie R Williams                          | 2 2 Regional health district offices |

| 20. Visiting Nurse Service of New York, Center for Home Care Policy and Research | 8 8 Home health agencies |
| PI: Penny H Feldman                          | 8 8 Home health agencies |

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*aSome of the planned and actual participating facilities included those in control groups*
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APPENDIX A.5

PFQ GRANT OUTCOMES

<table>
<thead>
<tr>
<th>Grantee Organization and Principal Investigator (PI)</th>
<th>Reported Changes in Care Delivery Processes or Provider Practices</th>
<th>Reported Changes in Patient Outcomes (clinical indicators, functional status or health status)</th>
<th>Other Reported Outcomes</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Altarum Institute</td>
<td>NA</td>
<td>NA</td>
<td>Provided information useful to public health officials in planning for, and reducing demand for medical care in the event of a smallpox outbreak. Also validated the use of a model for estimating casualties and disease spread during outbreaks.</td>
</tr>
<tr>
<td>PI: George J. Miller</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. American Academy of Pediatrics (AAP)</td>
<td>Results not yet available as of 8/06 for the following measures:</td>
<td>Not measured; previous research established effectiveness of providing care in accordance with ADHD guidelines on better outcomes</td>
<td>Results not yet available as of 8/06 for the following measures</td>
</tr>
<tr>
<td>PI: Carole M. Lannon, Center for Health Care Quality, Cincinnati Children's Hospital Medical Center</td>
<td>- % of charts demonstrating target level of care for 7 ADHD dx and rx components</td>
<td>- Frequency and participation in QI activities for the two types of practices</td>
<td></td>
</tr>
<tr>
<td>3. American College of Physicians (ACP)</td>
<td>Results not yet available as of 8/06 for the following measures:</td>
<td>Results not yet available as of 8/06 for the following measures:</td>
<td>85% of experimental practices participated in entire training program</td>
</tr>
<tr>
<td>PI: Vincenza Snow</td>
<td>- process of care indicators, e.g. eye and foot exams, flu vaccines, from 15 enrolled diabetes patients in each practice at baseline, during intervention and post-intervention</td>
<td>- clinical indicators, e.g. blood pressure, % patients with LDL &lt; 100 mg/dL, etc. from 15 enrolled diabetes patients in each practice at baseline, during intervention and post-intervention</td>
<td>Training improved team collaboration by helping non-physician practice staff become more integrated in care process</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Early pilot program with 4 practices showed 75% of patients’ blood pressure levels improved from baseline, and 50% achieved their target BP goal.</td>
<td>Program spurred workflow changes (e.g. new forms and databases) to improve care of diabetes patients</td>
</tr>
<tr>
<td></td>
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<td></td>
<td>Experience prompted AMA and ANA to award CME credit for participating in practice-based training</td>
</tr>
<tr>
<td>Grantee Organization and Principal Investigator (PI)</td>
<td>Reported Changes in Care Delivery Processes or Provider Practices</td>
<td>Reported Changes in Patient Outcomes (clinical indicators, functional status or health status)</td>
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<td>---------------------------------------------------------------------------------</td>
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</tr>
<tr>
<td>4. American Hospital Association (AHA), Health Research and Education Trust</td>
<td>Results not yet available as of 8/06 for the following measures: - length-of-stay and financial/cost information for 3 initial learning labs' palliative care units</td>
<td>NA</td>
<td>60-70 hospitals visited learning labs over the course of the project – but not yet known how many established new palliative care units or enhanced existing units.</td>
</tr>
<tr>
<td>PI: John R Combes</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. American Medical Association (AMA)</td>
<td>NA</td>
<td>NA</td>
<td>Lessons on integrating performance measures into different types of electronic health record systems used in ambulatory care practices and data export issues/challenges</td>
</tr>
<tr>
<td>PI: Karen S. Kmetik</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. American Medical Directors Association (AMDA)</td>
<td>Results not yet available as of 8/06 for the following measures: - Process of care indicators for pain management and pressure ulcers in nursing facilities that participated</td>
<td>Results not yet available as of 8/06 for the following measures: - Clinical outcomes for pain management and pressure ulcers in nursing facilities that participated</td>
<td>Results not yet available as of 8/06 for the following measures - # of staff and amount of time spent on implementation, participation in each component of implementation process</td>
</tr>
<tr>
<td>PI: David F. Polakoff</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7. Association of California Nurse Leaders</td>
<td>NA</td>
<td>Preliminary analysis indicates no significant change in mean falls and falls with injury/1000 patient days between the pre and post period for participating units, nor were the changes significantly different between participating and non-participating units. But falls/1000 patient days in participating units were “trending” (downward).</td>
<td>3-year period needed to implement interventions may be too long in view of most hospitals’ single-year budget horizon.</td>
</tr>
<tr>
<td>PI: Nancy Donaldson, CalNOC &amp; UCSF School of Nursing</td>
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**TABLE A.5 (continued)**
<table>
<thead>
<tr>
<th>Grantee Organization and Principal Investigator (PI)</th>
<th>Reported Changes in Care Delivery Processes or Provider Practices</th>
<th>Reported Changes in Patient Outcomes (clinical indicators, functional status or health status)</th>
<th>Other Reported Outcomes</th>
</tr>
</thead>
<tbody>
<tr>
<td>8. Catholic Healthcare Partners (CHP) PI: Donald E. Casey</td>
<td>Preliminary data indicates that patients under care of HF Advocates have fewer hospital re-admissions, lower 30-day all-cause readmission rate, and longer time between re-admissions than those not under care of HF Advocates. Performance in 4 HF core measures have improved over the 4-year project period; CHP composite score = 95%. Final data not yet available as of 8/06.</td>
<td>NA</td>
<td>Increased referrals to palliative care and hospice. Improved document and coding by 20%.</td>
</tr>
<tr>
<td>9. Child Health Corporation of America (CHCA) PI: Paul J. Sharek, Stanford University School of Medicine &amp; L Packard Children’s Hospital (member of CHCA)</td>
<td>Results from preliminary data analysis of the hospitals that participated in the project to reduce adverse drug events (ADE) related to narcotics showed a decrease from 39.1 to 17.1 ADEs per 1000 narcotic doses, a 49% reduction. 12 sites that implemented measures to improve communication during transfers the ER and inpatient units improved pediatric patient safety as manifested by fewer duplicate or missed medications &amp; lab tests, and incorrect or absent infection control information.</td>
<td>Preliminary data shows lower infection rates in several sites; overall bloodstream infection (BSI) rate for all 29 participating hospitals decreased from 6.9 to 4.8 per 1000 line days, a 31% drop (statistically significant); 11 hospitals decreased catheter-associated bloodstream infection (CABSI) rates more than 50% and an estimated 112 CABSIs were avoided.</td>
<td>The CHCA pediatric trigger tool identified 22 times more adverse drug events than traditional reporting mechanisms (i.e. incident reports). Savings from the ADE collaborative, in which 662 ADEs were prevented, was between $1.7 and $3.1 million depending on the whether these ADEs were “not preventable” ($1.7 million) or “preventable” ($3.1 million) using the cost data provided by Bates et al. 1997.</td>
</tr>
<tr>
<td>Grantee Organization and Principal Investigator (PI)</td>
<td>Reported Changes in Care Delivery Processes or Provider Practices</td>
<td>Reported Changes in Patient Outcomes (clinical indicators, functional status or health status)</td>
<td>Other Reported Outcomes</td>
</tr>
<tr>
<td>------------------------------------------------------</td>
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</tr>
<tr>
<td>10. Connecticut Department of Public Health&lt;br&gt;PI: Louise Dembry, Yale-New Haven Health System &amp; Yale School of Medicine</td>
<td>NA</td>
<td>NA</td>
<td>Physicians taking the bioterrorism preparedness course had a statistically significant increase in knowledge from pre-test to immediate post-test mean exam scores (67.4 to 77.2), while those of the control group did not significantly change (56.6 to 55.6). However, long-term FU scores among MDs taking the course declined almost to the baseline score mean (64.4).</td>
</tr>
<tr>
<td>11. HealthFront&lt;br&gt;PI: Michael Callahan</td>
<td>NA</td>
<td>NA</td>
<td>Survey of medical groups and physician practices to understand their acceptance of and response to quality incentives showed that physicians are uncertain and wary of them.</td>
</tr>
<tr>
<td>12. International Severity Info Systems, Inc.&lt;br&gt;PI: Susan Horn</td>
<td>Results not yet available as of 8/06 for the following measures: - hospital admission and ER visits</td>
<td>Preliminary findings showed reduction in pressure ulcer incidence for all patients and for high-risk patients in all participating facilities; six of 11 facilities were below the national average – which did not decline over the project period.</td>
<td># of forms used in each facility for documenting patient status has declined in all facilities; data for QI is now available in “real-time” and reviewed at least weekly.</td>
</tr>
<tr>
<td>13. Joint Commission for Accreditation of Healthcare Organizations (JCAHO)&lt;br&gt;PI: Jerod M. Loeb</td>
<td>NA</td>
<td>NA</td>
<td>Performance measurement: Hospitals’ self-abstracted data on performance measures are statistically similar to third-party abstracts, rendering self-reports accurate enough for P4P purposes. Preliminary results show statistically significant correlation between perceptions of the value of core measures, QI actions taken and performance, but may not be clinically meaningful. Bioterrorism preparedness: The majority of hospitals responding to the survey conduct “basic readiness” drills and planning, but are not well linked to public health and community health care entities.</td>
</tr>
<tr>
<td>Grantee Organization and Principal Investigator (PI)</td>
<td>Reported Changes in Care Delivery Processes or Provider Practices</td>
<td>Reported Changes in Patient Outcomes (clinical indicators, functional status or health status)</td>
<td>Other Reported Outcomes</td>
</tr>
<tr>
<td>-----------------------------------------------------</td>
<td>---------------------------------------------------------------</td>
<td>--------------------------------------------------------------------------------------------</td>
<td>------------------------</td>
</tr>
<tr>
<td>14. The Leapfrog Group PI: Suzanne Delbanco</td>
<td>NA</td>
<td>NA</td>
<td>In one pilot site (Boeing) rigorously evaluated, program did not have any significant effect on consumer choice of hospitals; physician referral proved to be a stronger determinant. Overall, project increased knowledge and tools for creating successful incentive and reward programs.</td>
</tr>
<tr>
<td>15. Lehigh Valley Hospital and Health Network PI: Mark Young, later Kenneth D. Coburn</td>
<td>Preliminary data showed increases in % of MDs screening for all appropriate tests and lower-performing MDs showed improved scores on ABCs</td>
<td>Patient lab scores showed statistically significant improvement in all core clinical measures “corrected for regression to the mean”</td>
<td>Financial feasibility study of group visits found that 12-15 patients/group provides income comparable to routine office visits.</td>
</tr>
<tr>
<td>16. New York State Dept Of Health PI: Suzanne Broderick/Beth Dichter</td>
<td>NA</td>
<td>Results not yet available as of 8/06 for the following measures: falls, hospitalizations, weight loss and incontinence</td>
<td>Preliminary data indicates that many of the experimental facilities did not implement the interventions, despite having received training to do so.</td>
</tr>
<tr>
<td>17. Physicians Micro Systems, Inc. PI: Steven M Ornstein, Medical University of South Carolina</td>
<td>Preliminary mid-project results show the Summary Index Measure (% of eligible targets met for all 78 indicators, adjusted for patient complexity) rose from 33% at baseline (9/02) to 46% 3 and ½ yrs later (p &lt; .0001); 6 condition-specific indices also had statistically significant improvements.</td>
<td>NA</td>
<td>Regression analysis suggests the practices attending a 2-day network meeting had greater improvements in the diabetes summary measures than those that did not.</td>
</tr>
<tr>
<td>18. Research Triangle Institute PI: Lucy A Savitz</td>
<td>NA</td>
<td>NA</td>
<td>Lessons and findings for strategies to support knowledge transfer within and across health systems.</td>
</tr>
<tr>
<td>Grantee Organization and Principal Investigator (PI)</td>
<td>Reported Changes in Care Delivery Processes or Provider Practices</td>
<td>Reported Changes in Patient Outcomes (clinical indicators, functional status or health status)</td>
<td>Other Reported Outcomes</td>
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<tr>
<td>19. Texas A&amp;M University Health Sciences Center, Rural and Community Health Institute (RCHI) PI: Josie R Williams</td>
<td>NA</td>
<td>NA</td>
<td>Findings from studies regarding: 1) use of bioterrorism funding on response readiness, 2) disease surveillance at the US-Mexican and US-Canadian borders and 3) rural hospitals’ use of planning exercises and drills for emergencies.</td>
</tr>
<tr>
<td>20. Visiting Nurse Service of New York, Center for Home Care Policy and Research PI: Penny H Feldman</td>
<td>Clinical measures for diabetes care and control: chart review data showed improvement in the proportion of persons with diabetes receiving a comprehensive foot exam within 10 days of admission to home care, an increase of over 50 percentage points during the course of the project. Increases of over 30 percentage points were also demonstrated for % of patients with an individualized glycemic control plan, % receiving education about foot care, and % whose medications reviewed for contraindications. Preliminary data suggests acute care hospitalization reduction of 2.5 percentage points agency-wide (31.5% to 29%)</td>
<td>30 percentage point increase in % of patients with blood glucose in target range most or all of the time 40 percentage point increase in % of patients testing their blood glucose according to their care plan most or all of the time</td>
<td>Majority of CEOs &amp; clinical managers said that their agency’s participation led them to revise they way they approach QI initiatives, and helped to identify changes that they intended to spread across the entire organization.</td>
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Note: Results that are expected, but not available as of 9/06 are in italics.
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<tr>
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<th>Project Activities and/or Partnership will continue in Target Organizations</th>
<th>Further Diffusion of Project Interventions or Products</th>
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</thead>
<tbody>
<tr>
<td>1. Altarum Institute Pi: George J. Miller</td>
<td>Results integrated into one large community’s emergency preparedness plans</td>
<td>NA</td>
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</tbody>
</table>
| 2. American Academy of Pediatrics (AAP)  
Pi: Carole M. Lannon, Center for Health Care Quality, Cincinnati Children’s Hospital Medical Center | 6 of 10 AAP state chapters will continue collaborations with pediatricians on ADHD care improvement; 5 of 10 chapters will continue other QI projects of this type, some with new funding. | AAP hired full time staff to continue working with state chapters on quality improvement initiatives; AAP developing additional eQIPP modules. |
| 3. American College of Physicians (ACP)  
Pi: Vincenza Snow | Diabetes care process changes have become routine in some participating physician practices | ACP received funds to conduct 2 additional team-oriented practice-based CME programs on diabetes and CVD |
| 4. American Hospital Association (AHA), Health Research and Education Trust  
Pi: John R Combes | Some of the teaching hospital-based palliative care programs (“learning labs”) may host scaled down site visits | NA |
| 5. American Medical Association (AMA)  
Pi: Karen S. Kmetik | Midwest Heart Specialists (MHS) and Northwestern University Medical Faculty Foundation will continue activities and participate in follow-on projects as well. | AMA and MHS launched a follow-on 3-year project, “Cardio-Health Information Technology” funded by AHRQ to spread the MHS model to 6 other physician practice sites in 4 regions using different EMR systems, and set up a data warehouse to create feedback reports and benchmarking on other performance measures for physician-directed QI. With another grant, AMA will work with MHS, Northwestern and 4 more sites with different EMR systems. |
| 6. American Medical Directors Association (AMDA)  
Pi: David F. Polakoff | NA | Not yet known |
| 7. Association of California Nurse Leaders  
Pi: Nancy Donaldson, CalNOC & UCSF School of Nursing | NA | Project team executed an agreement with the American Nurses Association to use the ANA National Database for Nursing Quality Indicators website to transform “live” coaching at sites into a self-directed on-line process through the NDNQI website |
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<td>8. Catholic Healthcare Partners (CHP)</td>
<td>5 of 6 participating CHP hospitals will continue funding the HF Advocate positions on their own</td>
<td>Formed the Ohio Heart Failure Coalition (OHFC) 9/05 to gain support and participation of more organizations in HF quality improvement activities in Ohio based on CHP HF GAP; HF Advocates are presenting at regional and national AHA “Get With the Guidelines” HF workshops.</td>
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<td>PI: Donald E. Casey</td>
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<td>9. Child Health Corporation of America (CHCA)</td>
<td>Expanded participation in CHCA performance improvement activities (from 14 to all 42 members) will continue and be funded from regular CHCA revenues</td>
<td>CHCA website and conferences will be used to spread project results by making widely available the tools and resources created under the PFQ project</td>
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<tr>
<td>PI: Paul J. Sharek, Stanford University School of Medicine &amp; L Packard Children’s Hospital</td>
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<tr>
<td>10. Connecticut Department of Public Health</td>
<td>NA</td>
<td>Bioterrorism preparedness course developed by the project is available on the YNHHS website; about 300 MDs have taken the course since 1/06, after the PFQ project ended</td>
</tr>
<tr>
<td>PI: Louise Dembry, Yale-New Haven Health System &amp; Yale School of Medicine</td>
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<tr>
<td>11. HealthFront</td>
<td>NA</td>
<td>Not yet known</td>
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<td>PI: Michael Callahan</td>
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<td>12. International Severity Info Systems, Inc.</td>
<td>Lasting care monitoring and planning documentation and workflow changes in all 11 participating facilities. Also, 7 of 11 participating facilities joined a new ISIS-led, AHRQ-funded Health Information Technology.</td>
<td>1 large NH chain and 1 large health system that had facilities participating in the project spread the new documentation model to other facilities (240 more NHs in the chain). New AHRQ HIT grant funding work with 6 QIOs and 30 nursing facilities to implement IT-based care planning tools.</td>
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<td>PI: Susan Horn</td>
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<td>13. Joint Commission for Accreditation of Healthcare Organizations (JCAHO)</td>
<td>Bioterrorism/emergency preparedness survey instrument may be used as a “checklist” for hospital planning</td>
<td>NA</td>
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<td>PI: Jerod M. Loeb</td>
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<td>14. The Leapfrog Group</td>
<td>All 6 pilot leaders will continue as members of Thee Leapfrog Group and participate in its Regional Roll-Out program, working with local stakeholders to implement the Leapfrog action plan in their region</td>
<td>Leapfrog used lessons from the pilot projects to refine the design of its Hospital Rewards Program.</td>
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<tr>
<td>PI: Suzanne Delbanco</td>
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<td>15. Lehigh Valley Hospital and Health Network</td>
<td>Diabetes care interventions remain in the 10 primary care practices that participated.</td>
<td>NA</td>
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<tr>
<td>PI: Mark Young, later Kenneth D. Coburn</td>
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<tr>
<td>16. New York State Dept Of Health</td>
<td>Some facilities say they integrated new practices learned in the training into standard practice.</td>
<td>NA</td>
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<tr>
<td>PI: Suzanne Broderick/Beth Dichter</td>
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<tr>
<td>17. Physicians Micro Systems, Inc.</td>
<td>PPRNet received additional grants, focusing on alcohol and cancer, to continue some performance measurement and QI activities. PMSI &amp; MUSC jointly seek funds from participating practices to continue performance measurement activities.</td>
<td>PPRNet’s goal is to grow by 25-50 practices per year; 4 related studies grew out of the project.</td>
</tr>
<tr>
<td>PI: Steven M Ornstein, Medical University of South Carolina</td>
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<tr>
<td>18. Research Triangle Institute</td>
<td>All 5 health systems participate in a new AHRQ-funded, RTI-led ACTION (applied research) project and some of the 5 participate in another AHRQ-funded, RTI-led DEcIDE project</td>
<td>NA</td>
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<tr>
<td>PI: Lucy A Savitz</td>
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<tr>
<td>19. Texas A&amp;M University Health Sciences Center, Rural and Community Health Institute (RCHI)</td>
<td>NA</td>
<td>Disaster preparedness training exercises used to train medical students and rural hospitals in TX</td>
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<tr>
<td>PI: Josie R Williams</td>
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<tr>
<td>20. Visiting Nurse Service of New York, Center for Home Care Policy and Research</td>
<td>Diabetes Collaborative appeared to have long-lasting effects on QI activities in the 8 participating home health agencies; 7 of the 8 continued in the ReACH collaborative</td>
<td>ReACH (Reducing Acute Care Hospitalization) Collaborative will continue until 8/07, under a grant from RWJF, involving 10 QIOs and 69 home health agencies around the US in implementing evidence-based home care practices to reduce hospitalizations.</td>
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<tr>
<td>PI: Penny H Feldman</td>
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