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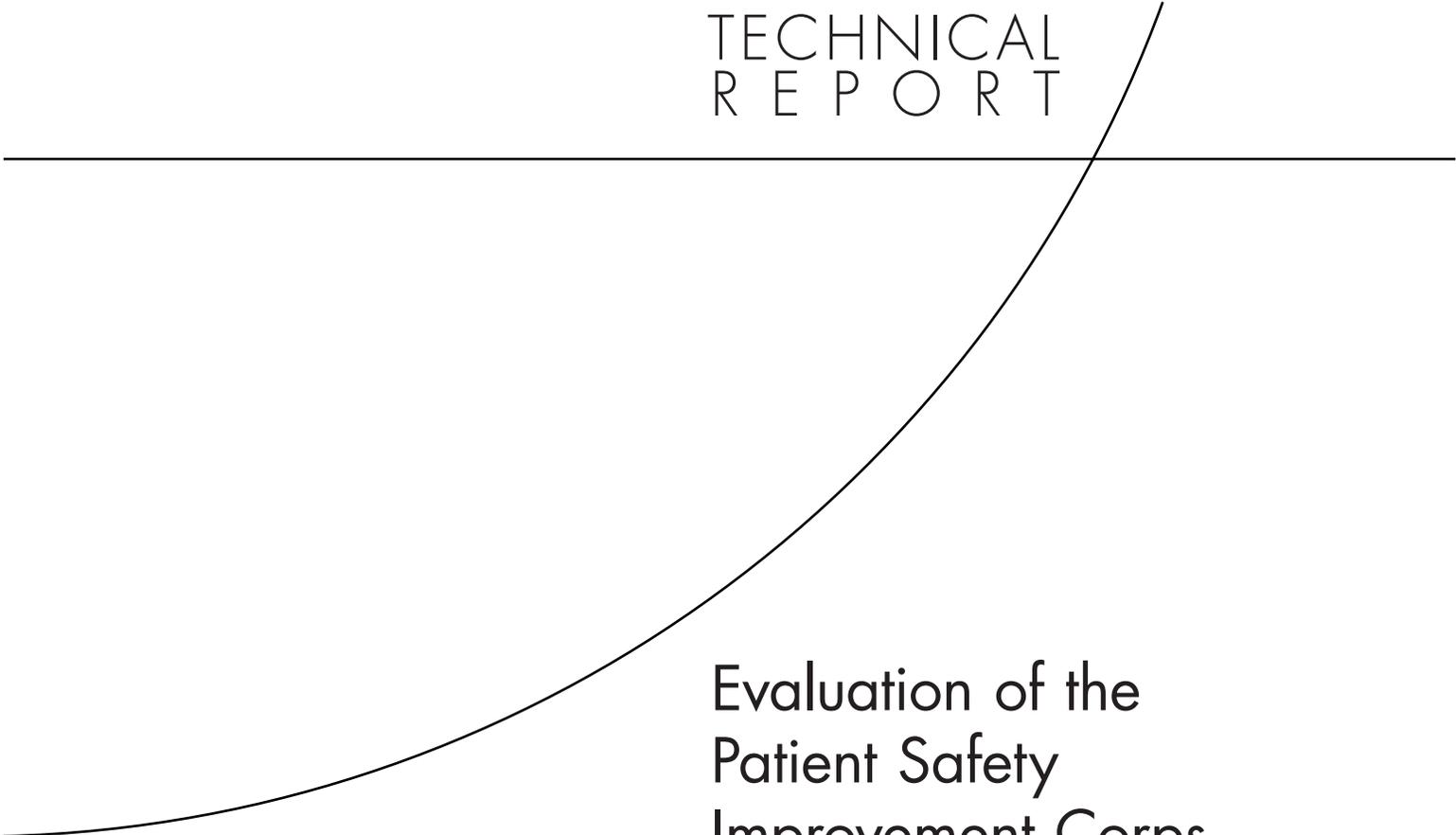View document details

Evaluation of the Patient Safety Improvement Corps

Experiences of the First Two Groups of Trainees

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Executive Summary

BACKGROUND

In early 2000, the Institute of Medicine (IOM) published a report entitled *To Err Is Human: Building a Safer Health System*, which highlighted the severity of the *patient safety*[1] problem in the U.S. health care system and mobilized national efforts to improve the safety of the system (IOM, 2000). The IOM called for leadership from the Department of Health and Human Services (DHHS) in reducing *medical errors*, identifying AHRQ as the national focal point for patient safety research and practice improvements. In response to the IOM report, the Quality Interagency Coordination Task Force (QuIC), a collaborative effort among Federal agencies,[2] issued a report in February 2000: *Doing What Counts for Patient Safety: Federal Actions to Reduce Medical Errors and Their Impact* (QuIC, 2000). This report laid out a strategy of more than 100 actions designed to create a national focus on reducing errors, strengthen the patient safety knowledge base, ensure accountability for safe health care delivery, and implement patient safety practices.

Since 2000, the Agency for Healthcare Research and Quality (AHRQ) has had a congressional mandate to take a leadership role in helping health care providers reduce medical errors and improve patient safety. When the U.S. Congress established patient safety as a national priority and gave AHRQ this mandate, it provided AHRQ with funding to support related research and implementation activities. AHRQ has been fulfilling its mandate by developing a comprehensive strategy for supporting expansion of knowledge about the epidemiology of and effective practices for patient safety, and identifying and disseminating the most effective practices for use in the U.S. health care system. The AHRQ patient safety work is one of numerous and important patient safety initiatives being undertaken by a variety of organizations across the country.

The Patient Safety Improvement Corps (PSIC) is a nationwide training program being carried out as part of AHRQ's overall patient safety initiative. The PSIC was designed to improve patient safety in the nation by ultimately providing patient safety training to teams from all U.S. states and the District of Columbia over a three-year period. Operated in partnership by AHRQ and the Department of Veterans Affairs (VA) National Center for Patient Safety (NCPS), the PSIC's primary goal was to improve patient safety by providing the specific knowledge and skills necessary to

- Conduct effective investigations of reports of medical errors (e.g., close calls, errors with and without patient injury) by identifying their root causes with an emphasis on underlying system causes.
- Prepare meaningful reports on the findings.
- Develop and implement sustainable system interventions based on report findings.

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[1] Definitions of select patient safety terms that are italicized in this document appear in the Glossary.

[2] The QuIC is composed of members representing the Departments of Commerce, Defense, Health and Human Services, Labor, State, and Veterans Affairs; Federal Bureau of Prisons; Federal Trade Commission; National Highway Transportation and Safety Administration; Office of Management and Budget; Office of Personnel Management; and the U.S. Coast Guard.

- Measure and evaluate the impact of the safety intervention (i.e., mitigate, reduce, or eliminate the opportunity for error and patient injury).
- Ensure the sustainability of effective interventions by transforming them into standard clinical practice (AHRQ, PSIC Fact Sheet, 2006).

The core content of the annual curriculum was developed by AHRQ based upon the findings of a feasibility study as well as consultation with experts and key stakeholders. AHRQ contracted with the VA NCPS to organize and conduct the training sessions, given the latter organization's experience in implementing patient safety education. Most of the instructors are staff from the NCPS, but the PSIC partners also draw upon outside expertise at AHRQ or in the private sector for some aspects of the program content (e.g., probabilistic risk assessment, just culture, evaluation methods, patient safety indicators, mistake proofing, leading change, patient safety culture, designing for safety).

The annual curriculum was repeated each year, with teams from a portion of the states participating in each training round. When the third training year is completed, AHRQ plans to shift the PSIC to a train-the-trainer model through which it will teach teams how to train others within their state about patient safety skills and tools incorporated in the PSIC program. The goal of the train-the-trainer portion of the PSIC is to broaden the reach of the PSIC to more individuals and organizations throughout the United States.

Each annual training program consists of three one-week sessions in September, January, and May. The training is composed of didactic sessions led by NCPS and other experts, homework and reading assignments to complete between sessions, and a patient safety improvement project that each team conducts in its home organization(s). As required by the interagency agreement (IAA), technical assistance conference calls are offered to the trainees. The VA facilitates these optional, biweekly conference calls, in which trainees may participate if they find them useful. These calls provide a technical assistance support system to PSIC participants and a vehicle for exchange of ideas and experiences among participating teams.

Eligible participants in the PSIC are teams of state staff responsible for patient safety activities and up to two of each state's selected hospital partners (for a total of four participants maximum per state). The original focus of the training was directed towards state staff. Hospital representatives were included in the training at the request of the states participating in the pre-PSIC program conference calls. The PSIC program is tuition-free, and teams selected to participate also are reimbursed for airfare, lodging, per diem, and local travel costs. In addition, each participant receives a library of books and other resource materials.

In the first year of the PSIC (2003–2004), teams representing 15 states completed the program. In the second year (2004–2005), teams representing 21 states completed the program. In some cases, some state-designated Quality Improvement Organizations (QIOs) spearheaded a state team in states where the state departments of health elected not to participate.

Through the training, participants progress from learning basic patient safety principles and concepts in the first session to training in more sophisticated skills, such as statistical techniques for assessing patient risks, in the second session. In the third session, each state team presented its patient safety project and results. All three sessions focus on the practical application of patient safety science, change implementation and management, medical error reporting and analysis, medical/legal issues, and patient safety tools.

EVALUATION APPROACH

The PSIC is an important component of AHRQ's patient safety initiative, which is designed to strengthen the national infrastructure by supporting patient safety improvement activities across the participating states. Therefore, our evaluation focused on this program (1) to provide feedback to AHRQ and the VA on the participants' experience with the program and suggestions for ways to make the program as useful as possible for them, and (2) to assess the extent to which the knowledge and skills gained from the PSIC training have been put to work by the participants in actions for patient safety improvements.

To gather information on these questions, we used a combination of group interviews with participating teams and follow-up interviews with PSIC graduates. (Refer to Appendixes A through C for the interview protocols used.) RAND researchers conducted group interviews with many of the teams during their final training sessions in May of each year (2004 for teams in the first training round and 2005 for teams in the second round). Although we interviewed only a subset of the teams (11 of 15 in 2004, and 12 of 21 in 2005) because of time constraints, those we interviewed had similar perceptions and responses about their experiences with the training. All trainees interviewed in person volunteered to participate; thus the sample is considered a convenience sample.

The individual follow-up telephone interviews were conducted with graduates of the program about 10 months after they completed the PSIC program. In March through May 2005, we conducted these interviews with 38 representatives from the 15 state teams that participated in the first (2003–2004) PSIC training (15 from states and 23 from hospitals). Trainees were not required to participate in the group or individual interviews.

TRAINEE PERCEPTIONS OF THE PSIC TRAINING

In this section, we describe the responses of the PSIC trainees to the training they were provided. We gathered this information from the trainees who participated in the first two PSIC training rounds, in interviews conducted at the final training session in May 2004 and 2005. Therefore, this information represents the trainees' perceptions of the program at the time they were finishing their training. Responses from the trainee teams participating in the first and second PSIC rounds are reported separately, to provide comparisons of the experiences of the two groups. In the discussion, we refer to the two groups as "Year 1" and "Year 2" trainees or participants. We also report separately the perceptions and uses of the program by the staff from state offices and those from hospitals, recognizing their distinct, and often complementary, needs and priorities. As shown in our findings, AHRQ's inclusion of the hospital representatives in the training, as requested by the state participants, has diversified both the scope of knowledge and the practices in the field across both types of organizations.

Team Composition and Formation

As required by AHRQ, the state teams comprised representatives from both the states (e.g., an employee of a state health department) and hospitals. In 2003–2004 (Year 1), participants from the states had a variety of roles (e.g., director of hospital programs, assistant attorney general, epidemiologist), and participants from hospitals tended to be quality improvement and/or risk managers. More so than the Year 1 trainees, the Year 2 trainees from hospitals tended to hold positions with responsibilities directly related to patient safety (e.g., patient safety officer), perhaps reflecting increased national awareness of the importance of patient safety.

Team members from the states tended to be employed by state health departments in a regulatory capacity. A number of team members in Year 2 also were affiliated with QIOs. Based upon the participants we spoke to at the end of their training year, Year 1 team membership remained stable over the course of the year-long training. In Year 2, seven of the 12 teams interviewed reported changes in membership or that some members had to miss some parts of the training. Trainees had learned about the PSIC program in a variety of ways. In Year 1, team formation was typically initiated by one or two individuals who saw an announcement about the program on AHRQ's Web site and approached others about applying; hospitals were more frequently the initiators of the team formation. In Year 2, many individuals had heard about the PSIC and actively tracked the call for applications in the second year. As was required by AHRQ, in both Years 1 and 2, one organization representing the state undertook the actual application process.

Expectations of PSIC Trainees

Year 1 participants entered the program with a cursory-yet-accurate understanding of its purpose and requirements, and a belief that their involvement would be worthwhile. However, they tended to underestimate the amount of reading and homework required, and the magnitude of effort needed to complete the team project.

Expectations of the Year 2 trainees entering the program varied widely: Some knew a great deal about the program; others were not sure of the details. All hoped to learn valuable skills. The majority of second-year participants were aware that the program would be demanding in terms of reading assignments and the team project. They also recognized that as participants in the PSIC, they were expected to share what they learned with colleagues at home.

Prior Knowledge and Experience of Trainees

The patient safety knowledge and experience level of Year 1 participants varied widely. Some had used or taught about patient safety tools, designed interventions for improvement, and evaluated such interventions; others were being exposed to these concepts for the first time. In Year 2, most trainees had a general understanding of patient safety issues (91 percent) but were not as familiar with tools and interventions (57 and 68 percent, respectively).

Content of the PSIC Training

Both groups of trainees interviewed felt that the content of the training was targeted at the appropriate level. Of the skills and tools taught during the course, the ones used most often by the trainees were Root Cause Analysis (RCA) and Healthcare Failure Mode and Effects Analysis (HFMEA); this was especially true in Year 1, reflecting the initial emphasis for teams to focus on these two methods in their projects, the topics of which were selected by the participants. (In Year 2, trainees were encouraged to tackle any patient safety project topic of their choice with the expectation that one of the tools or methods provided in their training would be used to complete the projects.) The networking aspects of the course were also valued highly. The majority of trainees took the responsibility of sharing information with colleagues at home very seriously, and trainees were already taking steps on this front during the training year.

As summarized in Table S.1, most of the Year 2 participants we interviewed reported having a high skill level in major patient safety areas by the end of the Year 2 PSIC training session. On a scale of 1 to 5 (with 5 being the highest skill level), all but a small percentage of Year 2 trainees rated themselves at skill level 4 or 5. These participants felt that their team had been successful in conducting their PSIC project despite implementation challenges.

(Comparable data were not collected for Year 1 trainees. Given that the evaluation goals of the first year were exploratory, we tracked only the initial experiences and dynamics of the PSIC program. In subsequent years, we increasingly tracked results and outcomes in a more quantifiable manner.)

Table S.1
Skill Levels Reported by Year 2 Trainees at the End of the Year 2 PSIC Training

Skill Area	Percentage Reporting Skill Level (N=45)				
	1 (None)	2	3	4	5 (Very skilled)
Select the appropriate tool(s) to investigate an error or near miss.	0%	0%	9%	56%	36%
Conduct an investigation of a medical error or near miss and prepare reports based on your findings.	0	0	11	56	33
Develop an intervention based on the findings from your investigation.	0	0	16	62	22
Measure and evaluate the impact of the safety intervention you developed.	2	0	16	58	24
Translate patient safety interventions into standard clinical practice.	0	2	22	60	16

NOTE: Percentages within a category may not sum to 100 percent due to rounding error. Comparable data were not collected for Year 1 trainees. Given that the evaluation goals of the first year were exploratory, we tracked only the initial experiences and dynamics of the PSIC program. In subsequent years, we increasingly tracked results and outcomes in a more quantifiable manner.

Although the team projects were diverse in both years, the nature of the projects differed between the two years: At the encouragement of the AHRQ/VA partnership, Year 1 topics included methods presented in the previous training (especially RCA and HFMEA) to solve patient safety challenges and to reinforce the use of and familiarity with the concepts and tools included in the PSIC. Year 2 topics were approached with less emphasis on using RCA and HFMEA, and teams were encouraged to use any of the skills/tools to tackle their real-world problems, such as assessing the patient safety culture. Teams in both years identified many challenges in reaching their project goals. Challenges reported by the Year 1 trainees included initial distrust between hospitals and state regulators. The AHRQ/VA partnership anticipated this issue and hoped it would be overcome with a training program that included teams composed of both state and hospital staff, and focused on preventing harm to patients—a common goal across all trainees. Other challenges reported by Year 1 trainees were lack of patient safety culture in trainees' home organizations, lack of home organization resources, geographic distance between PSIC team members, and lack of full support for the project from the state or the corporate executive officer (CEO), despite the PSIC requirement of official affirmation of CEO support. (CEO involvement was required as part of the application process in the form of a signed commitment letter as well as participation in a telephone call to learn about their employees' participation in the PSIC and its impact on the organization.) The Year 2 trainees reported challenges of balancing PSIC project work with other job commitments and of determining the topic and scope of the team project, lack of accountability at home institution(s)

for engagement in the PSIC project, and of organizing a team that was newly formed and represented multiple home organizations with no formal incentives to complete a project.

When asked how to improve the program content, the Year 1 trainees suggested more hands-on exercises, more direction about practical interventions, and more time for discussion among themselves to get to know each other and share experiences. The Year 2 trainees suggested the addition of more information on reporting systems, patient safety leadership, patient safety in long-term care and nursing home facilities, the business case for patient safety, and positive corrective actions, among others. Trainees from both years also suggested that the VA and AHRQ actively recruit more sharp-end clinicians (e.g., MDs, RNs) to participate in the training. In addition, they felt that attendance at the PSIC training by representatives from the Centers for Medicaid and Medicare Services (CMS) and the Joint Commission on Accreditation of Healthcare Organizations (JCAHO) would be useful to increase their awareness of the importance of a "just culture" rather than a "blame" environment, and also to gain additional perspective on how their policies affect providers' ability to pursue patient safety improvements.

Although the Year 2 trainee group was larger than the Year 1 group, the training ran smoothly and with no apparent effects of having a larger number of participants. In fact, the larger group appeared to provide more networking opportunities and more exposure to diverse projects and experiences.

Use of the PSIC Training

In Year 1 of the program, trainees used the skills and tools taught through the PSIC—especially RCAs, HFMEAs, and reporting systems—in real time as the training progressed and shared them with others throughout the course of the program. In Year 2, RCA and HFMEA remained important, but the survey on patient safety culture and the materials on a just culture replaced reporting systems in use by participants—likely due to a more widespread focus on using any tool presented up to that point, rather than an emphasis on RCA and HFMEA as was posed in Year 1. Trainees from both years also reported that they had implemented initiatives as a result of the PSIC. Key barriers to using the PSIC skills and tools on a regular basis at their home organizations as reported by trainees included lack of time, too few staff, and inadequate funding in their home organizations

Participants in the Year 1 PSIC training expressed increased confidence and a more in-depth appreciation of the complexities of patient safety coming out of the program, but they underscored a need for continued training beyond the end of the third week of training. The Year 2 trainees had similar comments, but typically those in clinical settings with more opportunities to practice PSIC-learned methods felt more confident than others.

FEEDBACK ON THE PSIC EXPERIENCE ONE YEAR LATER

In this section, we summarize the findings of the individual interviews conducted with the Year 1 PSIC trainees one year after they completed their training. We asked them to consider in hindsight the value of their experience and to identify how they had put their training to work during the past year. For many of the topics, we report separately the feedback by the state and hospital participants, recognizing their distinct, and often complementary, needs and priorities. As shown in our findings, the inclusion of the hospital representatives in the training, which was requested by states as part of the pre-PSIC program formulation, expanded both the scope of knowledge and the practices in the field across both types of organizations.

Attendance and Support Needed to Attend PSIC Training

Attendance across all three training weeks was strong, and the continuity of team membership during the training year was reasonably steady. The majority of participants (89 percent) felt that they received adequate support from their home institutions to attend the sessions and carry out the team project. However, they also mentioned that the time to do reading assignments and team project work was often an "add-on" to their normal workloads. Trainees encouraged any organization contemplating participation in the PSIC to be receptive to the knowledge that participants bring from the course and to realize the intensity of the commitment of staff time when signing up for the PSIC. We note that this organizational support differs from the issue reported previously regarding inadequate CEO support for the teams conducting their PSIC project within their organizations, which involves a higher level of commitment than sending them for training.

Usefulness of the PSIC Tools One Year Later

One year after their PSIC training ended, Year 1 participants reported that the training had been most useful to them for learning about RCA (95 percent), HFMEA (95 percent), human factors engineering (92 percent), and the reporting of adverse events and near misses (92 percent). Other tools they found fairly useful were the VA's Safety Assessment Code (SAC) (84 percent) and identifying high-alert medications (71 percent). Hospital representatives most often reported using in daily practice the tools and skills related to RCA (87 percent), human factors engineering (83 percent), and reporting of adverse events and near misses (78 percent). Similarly, state representatives said they tended to actually use in daily practice the reporting of adverse event tools and skills (80 percent); they also frequently use the tools to identify high-alert medications (60 percent) and to analyze patient safety data (60 percent). Additionally, participants viewed the networking opportunities and first-hand experience of hospitals and states working collaboratively on patient safety issues as equally important PSIC tools and skills. To help them increase their use of the tools more generally, trainees said additional training and hands-on exercises after the end of the PSIC program would be beneficial, as would periodic refresher courses and literature updates. Across the board, trainees valued the consultative services of the VA and AHRQ, as well as the extensive library provided to each PSIC participant.

Impact of the PSIC on Patient Safety Actions in the First Year Following Training According to Year 1 Trainees

One year later, the PSIC training was reported to have had a substantial impact on patient safety actions taken by states and hospitals participating in the Year 1 training. As shown in the interview responses summarized in Tables S.2 for states and S.3 for hospitals, a variety of specific patient safety actions had been taken by states and hospitals within the first year following their training.

Table S.2
Influence of PSIC Training on Patient Safety Actions by States,
Reported by Year 1 PSIC Trainees One Year Following the Training

Patient Safety Action	Percentage Responding "yes" ($N = 15$)
Initiation of or influence on regulation(s) or legislation	47%
Modification of hospital oversight procedures when an adverse event occurs (e.g., change content of Root Cause Analysis)	47 *
Modification of an existing state reporting system to improve how it captures patient safety issues or how information is reported to others	33
Creation of a statewide reporting system	20
New membership in or formation of a patient safety coalition of stakeholders	20

* For 7 percent of the respondents, this question was not applicable, not relevant to the respondent's type of organization or role within that organization, or the respondent could not answer the question.

Almost half of the 15 states (47 percent) reported they have used information gained through the PSIC training to initiate or influence legislation, or to modify adverse event oversight procedures. They also have used it in their work to improve existing state reporting systems (33 percent) or create new reporting systems (20 percent). The training also has contributed to efforts by 20 percent of the states to join or form patient safety coalitions.

The hospital representatives also said that the PSIC training was an important factor in modifications they have made to adverse event oversight procedures (83 percent), to promote patient safety culture (78 percent), and to share data across organizations in an effort to better understand causes of error (52 percent). The training also contributed to changes made by hospitals in review of adverse events (48 percent) and creation of institutional adverse event reporting systems (30 percent).

Table S.3
Influence of PSIC Training on Patient Safety Actions by Hospitals,
Reported by First Year 2003–2004 Trainees One Year Following PSIC Training

Patient Safety Action	Percentage Responding "yes" (N = 23)
Modification of processes to review/analyze adverse events or errors	83% *
Promotion of patient safety culture	78 *
Sharing data across organizations to better understand causes of error	52
Other changes in review of adverse events	48
Other state- or organization-wide initiatives	48 *
New membership in or formation of a patient safety group of stakeholders	35
Creation of institutional adverse event reporting system	30

* For 4 percent of the respondents, this question was not applicable, not relevant to the respondent's type of organization or role within that organization, or the respondent could not answer the question.

Contact with PSIC Colleagues, AHRQ, and VA After Year 1 Training's End

About three-quarters of the Year 1 PSIC trainees interviewed had communicated with their own PSIC team members during the year following the PSIC training, and nearly two-thirds had contacted the VA during this same period. To a lesser degree, they also remained in contact with other PSIC teams (39 percent). Contact with AHRQ was the least frequent, with approximately one-third of the trainees interviewed having contacted AHRQ since the end of training. Proportionately more hospital than state representatives tended to initiate contact with others after the end of the training. Both hospital and state representatives noted the value of having peers to consult with, and they underscored their appreciation for the assistance of the VA and AHRQ staff.

Helpfulness of PSIC Training and Advice to Others

Overall, 92 percent of the Year 1 participants praised the PSIC training one year after it ended, giving it ratings of 7 points or higher on a 10-point scale. More specifically, as shown in Figure S.1, all but a small percentage of the trainees rated highly the helpfulness of the training in improving processes to monitor and improve patient safety, although the state representatives rated its helpfulness somewhat higher than did the hospital representatives. An estimated 60 percent of the state representatives rated the program at 9 to 10 on a 10-point scale, whereas approximately half of the hospital representatives gave it that rating.

The majority of the Year 1 trainees also said that they would recommend enthusiastically the PSIC training to other states (89 percent) and hospitals (92 percent). Participants advised those contemplating participation to assemble a diverse team of senior management, front-line clinical staff (i.e., those providing direct patient care), and those involved directly in patient safety efforts from both hospitals and states (e.g., patient safety officers, risk managers).
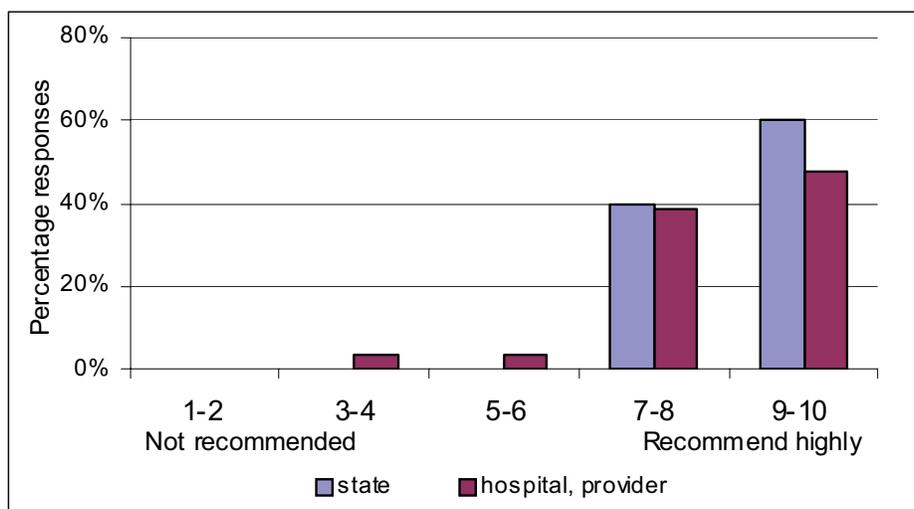
Figure S.1 Assessment by First-Year Trainees of the Helpfulness of PSIC Training in Improving Processes to Monitor and Improve Patient Safety

Past Experience and Interest in Training Others

In the year since the training's end, 87 percent of the Year 1 PSIC graduates said that they had trained others in the use of patient safety skills and tools. A slightly larger portion of hospital representatives (91 percent) had trained others than had state representatives (80 percent). A significant majority also said that they were willing to serve as trainers to others in their state in the future (82 percent). To do such training in a more formal capacity, trainees noted that they would need assistance from AHRQ and the VA for financing, course content, and logistics. The AHRQ/VA partnership anticipated some of these needs and plans to address them through its train-the-trainer course to be held after the completion of the Year 3 PSIC training. The interest expressed by these PSIC graduates in training others suggests that there is some demand for this course. Those who had not trained any staff, or who were not interested in doing so in the future, typically did not feel competent to do so or felt such training was not relevant to their current positions.

Need for Further Training/Refresher Course

One year after finishing PSIC training, 92 percent of the Year 1 participants were interested in additional patient safety training or some sort of refresher course. Suggestions for content ranged from consultation on individual projects to "big-picture" updates on new patient safety literature and tools. A preference was expressed for interactive sessions and a program length of one or two days.

DISCUSSION OF FINDINGS

Overall, the short- and longer-term experiences reported in the interviews by the first two groups of PSIC trainees were very positive. Participants said that they valued the broad perspective they gained about patient safety and the tools and skills they learned and were continuing to use. They appreciated and continued to draw upon the technical aspects of the training, the hands-on exercises, the knowledge gained through their own and other teams'

projects, and the extensive reference materials and library provided as part of the program. Additionally, they continue to view the networking opportunities created by the PSIC training as a significant resource.

Significantly, according to participant responses, there are strong indications that the PSIC program in both years has contributed to actions in the field to improve patient safety. These findings suggest that the PSIC is making important contributions toward building a national infrastructure to support implementation of effective patient safety practices.

During the Year 1 training, many state and hospital representatives shared information and materials with colleagues back home, and they were pushing to implement patient safety initiatives in a variety of areas, many directly related to their PSIC team project. One year later, these PSIC graduates reported that they had used many of the PSIC skills and tools to make meaningful changes on a variety of patient safety fronts. Their newly gained knowledge and enthusiasm, coupled with the general climate of increased attention on patient safety issues across the nation in the year after their training, has created a fertile ground for change and improvement.

Similarly, the Year 2 PSIC graduates have mastered a set of skills, and have been sharing the skills and tools learned in the training with others in their immediate organizations, as well as more broadly in their local communities and across their states. They have drawn upon these resources to launch new patient safety initiatives and to improve existing ones.

Notably, there was an early awareness among the Year 2 trainees of the necessity for somewhat adversarial parties to collaborate (e.g., hospital staff versus state regulators). Part of this change from the previous year probably is attributable to the increased interest in and awareness of patient safety issues nationally, and the ensuing realization by these parties of the benefits of collaboration. According to the attendees, the PSIC has played an instrumental role in changing attitudes. The experiences of the Year 1 group, coupled with the national trend of increasing awareness of patient safety issues, seems to have paved the way for easier interactions in the Year 2 group.

Trainees noted some barriers that created challenges for their ability to make changes at home. Such barriers ranged from lack of resources (e.g., time, funds) to lack of a patient safety culture at their home institutions. They also underscored a need for continued training beyond the end of the third week of the PSIC course, and they voiced the need to train larger, more-diverse teams that include sharp-end clinicians, high-level decisionmakers (e.g., CEOs), and senior staff from both hospitals and states. We note that AHRQ specifically did not target the CEOs for training because many patient safety training options already existed for them through other programs geared to health care executives.

In view of our assessment of the PSIC at this time, we offer the following suggestions for AHRQ action in crafting any future PSIC activities:

- Building upon the successful PSIC training that has reached the important audience of front-line hospital and state-level staff, AHRQ should consider alternative education models to engage key decisionmakers who make patient safety improvements happen, for whom other training programs do not already exist (e.g., state legislators).

- AHRQ should provide continued limited support to the PSIC graduates to help them remain engaged in patient safety issues, keep their skills and knowledge current, and encourage cross-fertilization among the PSIC graduates, as well as between graduates and others in the field, such as content experts and front-line clinical people with experience in implementing patient safety improvements.