

Characteristics of Successful Quality Improvement Teams: Lessons from Five Collaborative Projects in the VA

Peter D. Mills Ph.D., MS; William B. Weeks MD, MBA

**Veterans Affairs Medical and Regional Office Center
White River Junction, Vermont, USA**

Key Contact Email: Peter.Mills@med.va.gov

Background: The Veterans Health Administration (VHA) developed a partnership with the Institute for Healthcare Improvement to conduct facilitated multiple-hospital quality improvement efforts called Breakthrough Series. Our research has shown that the Breakthrough Series model can be effective in improving care in the VHA system (1-4), but we have found that participating improvement teams can vary widely in their individual performance. We studied the aggregate results of five national breakthrough series run within VHA to identify the organizational, interpersonal and systemic characteristics of successful improvement teams.

The ability to work as part of a team to improve medical practice is also part of the ACGME Core Competencies. Specifically, the improvement teams in this study were demonstrating both system-based practice and practice-based learning and improvement (5). In addition, the most productive teams demonstrated good interpersonal and communication skills. We hypothesized that teams with strong support from senior leadership and front-line staff, experience with improvement and measurement, good working relationships among team members, and an accurate understanding of patient needs would be more successful in all types of quality improvement efforts.

Purpose: To identify characteristics of successful medical quality improvement teams.

Methods: We studied 134 medical quality improvement teams participating in 5 Breakthrough Series in the VHA between 1999 and 2002 (see table 1). All of the teams consisted of volunteer clinicians interested in improving care in a specific area who learning of the project through internal advertising. Team characteristics were assessed using a team questionnaire assessing critical elements of successful healthcare “microsystems” (6-8) and team performance (9-12). Each team was asked to complete the questionnaire during the first and last learning session. We gave the questionnaire to each team and asked that they answer the questions together as a team. Answers are on a Likert scale from 1, “strongly disagree” to 7, “strongly agree”. Teams that were able to sustain at least a 20% improvement from baseline for at least 2 months prior to the end of the Breakthrough Series were rated as “successful”.

Results: Fifty seven percent of participating teams were rated as successful by our measure. In the first learning session, more high performing medical quality improvement teams perceive their work to be part of their organization’s key strategic goals (ANOVA, $F = 3.04$, one-tailed $p = .0425$); their team members know and respect each other (ANOVA, $F = 4.55$, one-tailed $p = .018$), and have worked together before (ANOVA, $F = 4.230$, one-tailed $p = .022$). By the end of the Breakthrough Series, high performing teams have stronger team leadership (ANCOVA, $F = 3.72$, one-tailed $p = .029$). We also found no difference in outcomes between Breakthrough Series with two and three face-to-face meetings.

Conclusions: Our results confirm that, across a wide variety of topics, use of the Breakthrough Series model has been effective at achieving improvement within VHA for volunteer teams. They also suggest that high performing quality improvement teams have several characteristics that predictably differentiate them from lower performing teams, and that these differences are sustained across very different types of improvement projects. Strong organizational support, strong team leadership and high levels of interpersonal team skills will help medical quality improvement teams go further to improve clinical care. It is recommended that quality improvement teams become integrated with their organizations key strategic goals, that improvement teams stay together, and that leadership and team training be provided to improve clinical outcomes.

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Table 1: Characteristics of Breakthrough Series Topics analyzed.

Breakthrough Series Topic	Number of Teams	Face to face Meetings	Dates of Projects	Number of Months	Percentage of Successful Teams
Reducing Adverse Drug Events	27	3	9/99 – 4/00	7	51%
Improving Safety in “High Risk Areas”: Intensive Care Units, Operating Rooms and Emergency Rooms.	22	3	9/00 – 5/01	8	68%
Improving Home Based Primary Care for Dementia Patients	20	3	1/01 – 9/01	8	50%
Improving the Compensation and Pension Examination Process	28	2	6/01 – 1/02	7	50%
Reducing Falls and Injuries Due to Falls	37	2	7/01 – 3/02	8	65%
Totals	134				57%