The ASCO Quality Training Program: Designing and Implementing a Medical Specialty Society–Based Quality Improvement Training Program

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The launch of the ASCO Quality Training Program (QTP) is the next step in the evolution of ASCO quality initiatives; the QTP moves beyond the society’s quality measurement focus to implement a novel approach to practice improvement. ASCO developed the Quality Oncology Practice Initiative (QOPI) as a measurement program to allow practices to assess the quality of care that they provide their patients, test their performance against a variety of process measures, and compare their result with national benchmarks. It was expected that QOPI participants would identify areas where improvement opportunities existed, share results with their practices, implement changes, and rapidly improve their performance as demonstrated by future performance on QOPI measures. Further, it was imagined that these improvements in QOPI measures by individual practices would be sustained over long periods of time because of permanent fixes put into place.1

In hindsight, it was naïve to imagine that simply sharing the results of process measures with QOPI participants would result in sustained improvement in practice performance. The results of a large analysis of QOPI practices that participated in more than one round of data collection show only small gains in composite performance over time, and these improvements were largely driven by only a few measures.2 Large, sustained improvement—which is what the founders of QOPI had imagined—was simply not identified. There is no doubt that some improvement—which is what the founders of QOPI had imagined—was simply not identified. There is no doubt that some improvements in QOPI measures by individual practices were sustained over long periods of time because of permanent fixes put into place.1

What ASCO and QOPI have recognized is that quality measurement alone does not reliably result in quality improvement. Two generations of quality scientists have demonstrated unequivocally that improving a process does not happen simply by exhorting staff to “do better.” A philosophy of improvement developed first in the manufacturing industry and then slowly, but surely, found its way into medicine. Physician leaders such as Donald Berwick, MD, MPP, Paul Batalden, MD, and Brent James, MD, sought out and studied with founders of industrial improvement science such as W. Edwards Deming and adopted proven principles and tools to improve medical care.4

The need to improve care, along with the requirement for a structured approach to improvement, is slowly being recognized by the medical community. The Accreditation Council for Graduate Medical Education (ACGME) now requires residents to be trained in quality improvement and to be involved in quality-related projects. The Next Accreditation System, which the ACGME now uses to track program adherence, and which became operational this year, assesses “how sponsoring institutions engage residents in the use of data to improve systems of care, reduce health care disparities and improve patient outcomes.”5(p2) The American Board of Internal Medicine has changed the requirements for recertification to mandate that physicians undertake a quality improvement project (Maintenance of Certification Part IV) at least every 5 years.6 Both organizations make an implicit assumption that residency and fellowship program directors and practicing physicians have sufficient knowledge to successfully plan and direct quality improvement programs, yet this is not a standard part of the curriculum for most medical schools and is only now becoming an area of interest for the Association of American Medical Colleges. Educational programs such as the QTP offer a structured approach to process improvement that supports the need for lifelong physician learning and fill gaps that currently exist in medical school curricula.

It is now generally accepted that, akin to medical education, training in quality improvement requires two distinct components: knowledge acquisition and skills development. Conceptual learning is required to understand the importance of, and context for, quality measurement and quality improvement, and is essential to establish knowledge of the science of improvement. Standard pedagogical learning approaches suffice to become knowledgeable in these areas. For the development of skills, however, experiential learning is essential, requiring hands-on training and expert coaching. Experiential learning is classic case-based learning, but applied to processes or systems, rather than to patients (Figure 1).7

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Quality improvement training programs have been developed for professional trainees and for health care system–based clinical personnel. Most programs are based on principles of adult learning and are designed to encompass the eight quality improvement knowledge domains defined by the Institute for Healthcare Improvement (Table 1).8,9 Trainee-based programs are largely geared toward satisfying the requirement for practice-based learning and improvement mandated by the ACGME. Training programs have also been instituted in many hospitals and health care systems with the goal of providing broad training of health care professionals; many of these programs are based on the Intermountain Institute for Health Care Delivery Research Advanced Training Program.10 Systematic reviews of both trainee- and professional staff–based training programs have demonstrated mixed results. However, successful programs focus on experiential learning and require that participants undertake a hands-on quality improvement project.11,12

The principal challenge of creating the ASCO QTP is the geographical dispersion of the participants. The challenge has been managed by creating a program that includes both central on-site training (based at ASCO headquarters, Alexandria, VA) and supplemental virtual learning. All course material, including lecture notes and slides and a quality improvement tool kit, are housed on a protected Web site available to participants, which also serves as a discussion board. The key element of the virtual portion of the QTP, however, is the provision of regularly scheduled ad hoc one-to-one coaching sessions held telephonically. ASCO volunteers with experience conducting quality improvement projects have been identified and provided with structured training to meet the needs of the QTP. Coaches meet twice for face-to-face training provided by a master coach. These meetings coincide with the first two QTP training sessions held at ASCO headquarters; scheduling the meetings in this manner allows the added advantage of enabling the coaches and trainees to meet and interact in person.

The benefits of embedding a training program within a medical specialty society are significant. The QTP is able to leverage the extensive resources of ASCO, including the ability to recruit oncology practice teams from the membership and logistical coordination for in-person and virtual program components. More important, and in distinction to training audiences geared to a general medical audience, the QTP—which focuses only on cancer care delivery—enables providers from a variety of practice settings to create informal networks, to discuss common needs, and to share best practices.

The mission of the QTP is “to teach oncology providers to engage in successful quality improvement activities in their practice settings and to train oncologists to assume quality leadership positions and champion quality initiatives.” The didactic component of the course is rooted in qualitative and quantitative methods of quality measurement and improvement. The qualitative methods use the Model for Improvement, which provides a structured framework for undertaking iterative “plan-do-study-act” improvement cycles.13 The Improvement Guide: A Practical Approach to Enhancing Organizational Performance serves as the textbook for the course.13 The quantitative training focuses on use of the tools and philosophy of statistical process control as originally described by Walter Shewhart and later by W. Edward Deming. Statistical process control relies heavily on displaying data in graphical form (run charts, control charts, frequency plots, histograms, Pareto analysis, scatter plots and flow diagrams) and incorporates the concepts of analytic study, process thinking, prevention, stratification, stability, capability, and prediction.14 A simulated case suited to a general oncology audience (waiting time for care for a patient with a new diagnosis of breast cancer) is used to allow the participants to test each of the qualitative and quantitative tools in the classroom setting. The QTP also provides training in building and sustaining effective teams, an essential component to conducting successful quality improvement projects.15 Key areas addressed include facilitative leadership skills, selection of team members and roles, stages of group formation, relationship-centered communication, and conflict resolution.

Fifteen US and Canadian teams of two to three members each were recruited for the inaugural QTP, representing a broad cross-section of academic and community practices. Each QTP team was required to create a larger local improvement team and, using a highly structured approach, undertake an improvement project designed to meet a local need. Two day face-to-face meetings were held in October 2013 and January 2014. The teams then returned to ASCO headquarters in March 2014 to present their project results to their peers. QTP graduates are expected to continue their current projects, to participate in future projects, and to become site champions and experts for their institutions. Metrics for the program include pre-QTP and post-QTP surveys of participant knowl-

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**Figure 1.** Paradigm for teaching quality improvement in health care

Successful quality improvement training programs integrate conceptual and experiential learning methods. Adapted.7

**Table 1.** Institute for Healthcare Improvement QI Knowledge Domains9

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<tr>
<td>1. Health care as process, system</td>
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<td>2. Variation and measurement</td>
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<td>3. Customer/beneficiary knowledge</td>
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<td>4. Leading, following, and making changes in health care</td>
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<td>5. Collaboration</td>
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<td>6. Social context and accountability</td>
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<tr>
<td>7. Developing new locally useful knowledge</td>
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<td>8. Professional subject matter</td>
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edge and competence; assessment of lecture content, relevance, and speaker quality; successful completion of the improvement project; and ongoing participation in quality improvement projects (using follow-up surveys). The results of the inaugural program will be reported separately.

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