

It's time to focus on teaching the teachers for healthcare improvement

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It's time to focus on teaching the teachers for healthcare improvement. The ability to improve healthcare is now an essential part of the training for all health professionals,¹ and patients increasingly expect a commitment to improvement as a part of our professional work.² Not only will accelerating the systematic development of such an academic cadre serve to expand the abilities of new health professionals, but also this expanded faculty should advance the scholarship of improvement of patient care and health systems.

POTENTIAL DRIVERS AND ACCELERATORS OF PROGRAMME DEVELOPMENT

Healthcare improvement competencies have become an integral part of professional development and are driven by changes both in healthcare and in the disciplines that specifically address improvement. First, ever more scarce resources demand greater efficiency and reduction of waste in both education and clinical care. Second, emerging professional competencies for all physicians include healthcare improvement and knowledge of effective systems. A prominent example is the development of the Six General Competencies for accreditation and certification of all physicians in the US³ with two of the six competencies being Practice-Based Learning and Improvement, and Systems-Based Practice. All specialties of medicine in the US are now required to define these competencies for their respective trainees. Third, increasing attention to clarity of theory that underlies rigorous improvement research,⁴ the epistemology and guidelines for scholarly publication,⁵ and typologies for formal research in improvement science⁶ are all developing at an

accelerating pace (*see page 403*). We argue that these changes both facilitate the development of an expert teaching faculty and make its development increasingly imperative. Finally, there are two constituencies that demand progress in training and education for a more effective health professions work force: the emerging next generation of health professionals impatient for opportunities to improve healthcare, and their patients.

CURRENT PARADIGM FOR FACULTY DEVELOPMENT

The new requirements for residents to demonstrate competence in aspects of improvement science inevitably will create a cadre of physicians with experience in incorporating improvement work into their clinical care. In addition, the process of maintenance of certification, which includes the same competencies, will further enhance the physician workforce with experience in improvement work. However, without attention to development of an expert faculty these trainees and clinicians are likely to find limited exposure to the deeper pedagogical and scientific basis for the work that underpins the science of healthcare improvement—the vast majority of clinician educators having modest experience in improvement work on which to base their teaching. The result is gradual change accompanied by development of faculty that is unlikely to meet the needs and expectations of their trainees and their future patients.

The development of faculty more deeply trained in the science of improvement currently can come from two sources. Some teachers will individually seek additional experience and training, motivated by their own professional interest or to serve a local need. Such efforts are random and, at best, create small pockets of expertise, which, while small, represent a critical resource. A more strategically generative source of expert faculty will be the formal programmes that are designed to advance the scholarship of improving healthcare. It is this latter

strategy that we advocate in order to hasten the development of an academic cadre to hasten implementation of knowledge for improvement across the spectrum of health professionals.

TEST BEDS FOR FORMAL PROGRAMMES

It is gratifying that the development of graduate level training is at an advanced formative stage in northern Europe, the UK and the US.^{4,7} It is worth examining two formal training programmes that have emerged over the last 5 to 10 years that may offer a test bed for pedagogical content and educational strategies for development of such a cohort of expert scholars. These programmes have trained sufficient numbers of graduates to examine whether the contributions of their graduates justify the resources required for their development.

One such programme, the Veterans Administration National Quality Scholars Fellowship Program (VAQS), was developed in 1998 by the US Veterans Administration health system as a 2-year training programme⁸ for physicians who had completed formal training in a clinical specialty. Its early development is described in detail elsewhere.^{7,9} Over 60 physicians have completed the programme in the six integrated VAQS sites across the US. The early graduates of this emerging programme suggest it has been successful in development of both teachers and researchers and health system leaders. Two-thirds hold academic faculty positions, including two who are medical school deans for medical education. Others have assumed leadership positions in government policy, or clinical and research roles in health systems. Three graduates have received career development awards for research in the VA. As a group, graduates of VAQS have published 110 articles in peer-reviewed journals during the past 2 years.

A second example, the Institute for Healthcare Improvement Fellowship Program, has offered a different approach to formal advanced improvement training. This Fellowship has offered a 1-year programme¹⁰ since 2003 for a broad spectrum of professionals—physicians, nurses and administrators—offering training for applicants from both the UK and US. With support from the Health Foundation and the George W Merck family, IHI Fellows are generally farther along in their careers when they undertake their training. They have returned to their sponsoring healthcare institutions

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and professional communities to assume leadership roles in healthcare improvement.

What lessons do these two test-bed programmes offer? First, they provide effective core curricula in research methods, knowledge for improvement and statistical methodology. The value of these curricular offerings for their graduates' roles as teachers, researchers and leaders should be readily measurable. Second, the number of candidates for matriculation in these programmes suggests there are more than enough young professionals who are willing to undertake the opportunity cost in time and deferred income to extend their training in improvement. While physicians have constituted the majority of professionals in these settings, the spread of such training to other professions such as nursing and health management would be a test of their broader utility. Toward this end, nurses will be included in future VAQS cohorts. Third, trainees from both programmes have found acceptance for their new competencies and skills in government, clinical, teaching and research settings, and have contributed to improvement both in their local environments and in broader national and international improvement communities—reflected in their leadership and policy roles, as well as their successful scholarly publication. Nevertheless, the small number of graduates probably have not reached the saturation point of the market for such expertise. This can be readily assessed by surveys of

employment possibilities. Fourth, trainees effectively lead formal improvement projects as part of their training, which provide hands-on experience in negotiating and leading change in complex healthcare systems. Their ability to implement institutional change successfully upon completion suggests that appropriate management and organisational competencies are being developed. Nevertheless, the challenge of change cannot be overestimated, and a greater curricular contribution from social sciences such as sociology and anthropology may be merited.¹¹ Fifth, their successful publication in scholarly journals suggests their scientific work is at a competitive level of rigour. This is a reasonable measure of scholarly return to society on this investment and readily measurable.

CALL FOR ACTION

We suggest government, philanthropic and health systems leadership should consider adding formal advanced training programmes in the science of healthcare improvement to their growing list of demands for increased resources. The leverage that can be provided by more competent human capital for improvement justifies acceleration of the development of the teachers to provide the training and education of future generations of professionals who will advance healthcare improvement. The time is ripe to commit systematically to teaching the teachers and other scholars for healthcare improvement.

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REFERENCES

1. **Batalden PB**, Davidoff F. What is "quality improvement" and how can it transform health care. *Qual Saf Health Care* 2007;**16**:2–3.
2. **Boat TF**, Chao SM, O'Neill PH. From waste to value in health care. *JAMA* 2008;**299**:568–71.
3. **Batalden P**, Leach D, Swing S, *et al*. General competencies and accreditation in graduate medical education. *Health Aff (Millwood)* 2002;**21**:103–11.
4. **Grol RPTM**, Bosch MC, Hulscher MEJL, *et al*. Planning and studying improvement in patient care: the use of theoretical perspectives. *Milbank Q* 2007;**85**:93–138.
5. **Davidoff F**, Batalden P, Stevens D, *et al*. Publication guidelines for quality improvement in health care: evolution of the SQUIRE project. *Qual Saf Health Care* 2008;**17**(1 Suppl):3–9.
6. **Rubenstein LV**, Hempel S, Farmer MM, *et al*. Finding order in heterogeneity: types of quality improvement intervention publications. *Qual Saf Health Care* 2008;**17**:403–8.
7. **Batalden PB**, Stevens DP, Kizer KW. Knowledge for improvement: Who will lead the learning? *Qual Manag Health Care* 2002;**10**:3–9.
8. Dartmouth Institute for Health Policy and Clinical Practice. Homepage for National VA Quality Scholars Program. <http://www.vaqs.org/> (accessed 11 Nov 2008).
9. **Splaine ME**, Aron DC, Dittus RS, *et al*. A curriculum for training quality scholars to improve health and health care of veterans and the community at large. *Qual Manag Health Care* 2002;**10**:10–18.
10. Institute for Healthcare Improvement. Homepage for Fellowship Programs. <http://www.ihl.org/IHL/Programs/ProfessionalDevelopment/FellowshipPrograms.htm> (accessed 11 Nov 2008).
11. **Bate P**, Mendel, Robert G. *Organizing for quality. The improvement journeys of leading hospitals in Europe and the United States*. Oxford: Radcliffe Publishing, 2008:252.