

Leading change in health-care quality with the Institute for Healthcare Improvement Open School

The Institute for Healthcare Improvement Open School for Health Professions is an international organization that provides the next generation of health-care leaders with the skills to lead improvement in health care. This article discusses how doctors can get involved and implement change at their hospital.

Medical students and junior doctors are leading change in health care to improve the experience of patients in hospitals across the UK. A growing number of students and junior doctors joining the Institute for Healthcare Improvement Open School for Health Professions, which provides free online courses to health-care professional students anywhere in the world. The courses cover health-care quality, patient safety and leadership – all of which improve employability.

Knowing how and where to begin a leadership journey can be daunting. This article introduces the Institute for Healthcare Improvement Open School, outlines courses available and their content, and gives an overview of how anyone can begin organizing a community to improve health care at their hospital.

Health-care quality and leadership: why now?

The government has tasked the Department of Health with saving £20 billion by 2015

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while simultaneously improving the quality of delivered care (Department of Health, 2009). Junior doctors and medical students should be encouraged to take a proactive role in this challenge as they can bring fresh insights to improving health care. However, instead of encouragement, many junior doctors face barriers that hinder their involvement in patient safety and quality improvement (Hawkes, 2009), including lack of senior support and cooperation, and a punitive culture (Kroll et al, 2008).

In March 2012, the General Medical Council published *Raising and acting on concerns about patient safety* (General Medical Council, 2012a) and *Leadership and Management for all doctors* (General Medical Council, 2012b). These professional guidelines underscore the duty of doctors to report and address patient safety concerns and to make recommendations on tackling efficiency, productivity and inequality in resource allocation respectively. The Institute for Healthcare Improvement Open School offers junior doctors the opportunity to deliver those guidelines in practice.

What is the Institute for Healthcare Improvement Open School?

The Institute for Healthcare Improvement Open School is an international, interdisciplinary community with a mission to: 'Advance health care improvement and patient safety competencies in the next generation of health professionals worldwide' (Institute for Healthcare Improvement, 2012a).

The Institute for Healthcare Improvement is a US-based, non-profit think tank that has helped transform the quality and safety of health organizations across the globe. The Institute for Healthcare Improvement has motivated and built the will for change in health-care professionals, has identified

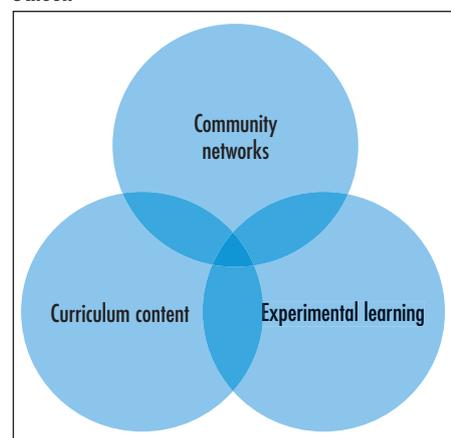
and tested models of care in partnership with both patients and health-care professionals, and has ensured the broadest possible adoption of best practices.

'Students' of the Institute for Healthcare Improvement Open School include everybody with an interest in improving health-care quality and safety. The Institute for Healthcare Improvement Open School courses can be accessed online at any time. Students can work individually, in a community by starting an interest group of their own locally, or by connecting with the wider international community of like-minded others.

The Institute for Healthcare Improvement Open School offers three inter-related learning opportunities: community networks, curriculum content and experiential learning (Figure 1).

The curriculum content has been written by health-care quality improvement experts who form the Institute for Healthcare Improvement Open School faculty and is delivered via online modules covering: quality improvement, patient safety, patient- and family-centred care, leadership, and managing health-care operations (Institute for Healthcare Improvement, 2012b). Students acquire the relevant knowledge to help them understand why errors occur and enable them to identify opportunities to minimize health-care harm.

Figure 1. The three inter-related opportunities of the Institute for Healthcare Improvement Open School.



Experiential learning builds on the concept that clinical-based learning is more effective than traditional classroom-based learning (Davidoff, 2007). Students implement strategies learned from online courses and test out new knowledge and skills in practice.

Community networks allow students and faculty staff to connect both locally and internationally, to share ideas and work on projects. Institute for Healthcare Improvement Open School learners (students) can form 'chapters' (groups) at their hospital or higher education institution. The chapter community is the place where students can use their new knowledge and skills from online courses with colleagues locally to make their learning relevant to their own community and within their particular health-care setting.

What is a chapter?

A chapter, akin to a society in the UK, is an established group of students and faculty who work and learn together, sharing experiences of health care in order to create and implement change to improve health-care quality (Institute for Healthcare Improvement, 2012c). There are 461 chapters in 54 countries, with 93 895 students and junior doctors and 9877 faculty and deans registered on IHI.org (Institute for Healthcare Improvement, 2012a).

Approximately half of UK medical schools currently have a registered chapter. The chapter is the physical place where its members can go to think together about ways to improve health-care quality. Students and doctors can identify whether there is a chapter close to them by searching the Institute for Healthcare Improvement Open School chapter directory online (Institute for Healthcare Improvement, 2012c).

Chapters often galvanise initial support from colleagues through poster campaigns, group emails, formal and informal meetings, all of which create a snowball effect. Some chapters have sought inspiration from outside speakers, for example they have invited the clinical governance manager or improvement leads from their hospital to talk about ways junior doctors' improvement projects can complement the organization. Others have organized a lecture series on patient safety or breakfast sessions with the Chief Executive to talk about the top ten things which they have identified

that would improve their working productivity. Having senior support at chapter meetings is valuable and can often provide a source of experience and guidance on how to tactfully approach thorny clinical quality problems with colleagues in practice.

For chapters starting out or looking for fresh ideas, there is an online resource repository where chapters across the globe contribute suggestions for group activities, ideas for improvement projects and examples of work undertaken by members (Institute for Healthcare Improvement, 2012a). For instance, a listserv serves as a useful source for learning about what other chapters are working on. The Institute for Healthcare Improvement Open School has also built a database of willing mentors with expertise in patient safety, systems quality and leadership for students to buddy up with and benefit from their experiences.

What has been achieved already?

Emergence of high-profile patient safety initiatives in the UK nations highlights the power of collaborative networking and is encouraging for the next generation of health professionals aspiring to lead improvement, such as the Scottish Patient Safety Programme (www.scottishpatientsafetyprogramme.scot.nhs.uk/programme), 1000 Lives Plus (www.1000livesplus.wales.nhs.uk/home), and Patient Safety First (www.patientsafetyfirst.nhs.uk).

The Institute for Healthcare Improvement Open School 'Check a Box. Save a Life'

campaign, which encouraged students and junior professionals to raise awareness and implement the World Health Organization's (2008) Surgical Safety Checklist in as many hospitals as possible across the world, also hit a triumphant turning point in patient safety culture when it became the first junior professional-run campaign (Henderson et al, 2010). Most recently, the Institute for Healthcare Improvement Open School 'Hear Our Voice: Collecting Patient Experience Stories' project saw students mobilize to see health care through the eyes of their patients (Institute for Healthcare Improvement, 2012d). Listening and learning from their patients' stories enabled them to start working to identify ways to improve the patient experience of health care.

In the UK, the 3rd annual Institute for Healthcare Improvement Open School conference 'Small Changes, Big Impact' (1000 Lives Plus, 2012) hosted students, clinicians, patients and higher education institution faculties to discuss their improvement stories and challenges.

Examples of junior doctor-led quality improvement projects are presented in *Table 1*.

Institute for Healthcare Improvement Open School courses

The Institute for Healthcare Improvement Open School online courses provide the foundations for identifying ways of improving health-care quality. The Institute of

Table 1. Examples of quality improvement work by UK junior doctors

A simple intervention to aid safe drug prescription and administration for new anaesthetists and recovery staff
Development of a checklist to improve safety of out-of-theatre intubations
Electronic handover system for out-of-hours service in a busy district general hospital
Implementing change: an improved method of documenting lumbar punctures following a quality assessment audit at a district general hospital
Patient safety first – empowering junior doctors to improve care for patients
Development of postgraduate education in improving the safety of pleural procedures
Shortcomings of surgical handover practice and recommendations implemented to improve patient safety and quality of care
Improving consent in patients undergoing surgery for proximal femur fractures through the introduction of 'consent cards' for junior doctors
Transforming treatment rooms – improving patient safety and reducing waste using lean thinking
Limiting unnecessary preoperative testing of elective surgical patients can result in considerable financial savings

From The Network (2012)

Medicine (2001) outlined six aims for quality, including:

1. Safety (to avoid unintentional harm from care provided to patients)
 2. Efficiency (avoiding waste)
 3. Effectiveness (providing care informed by best available evidence which provides clear benefits)
 4. Patient-centred (providing care that is respectful of the patients' needs and values and their families)
 5. Timeliness (reducing harmful delays)
 6. Equity (providing high-quality care regardless of a patient's characteristic).
- Students are encouraged to use these aims as a framework for identifying where they can begin to focus changes to improve health care.

Course content is grounded by real-life examples from the frontline, and certification is available for professional development portfolios (Institute for Healthcare Improvement, 2012b). After completing several courses, the Institute for Healthcare Improvement Open School sends the participant a Basic Certificate of Completion. The certificate provides recognition that the participant understands the basic tools of improvement and can identify opportunities to improve health-care systems. To date, 59965 participants have taken a course and 3923 have earned a certificate (Institute for Healthcare Improvement, 2012a). Several members have also completed the Institute for Healthcare Improvement Open School Quality Improvement Practicum (Institute

for Healthcare Improvement, 2012e). This is a course designed to guide the implementation of knowledge learnt from the curriculum into physically organizing and accomplishing an improvement project in practice (Figure 2).

How can I get involved?

Junior doctors are becoming increasingly engaged with patient safety and quality improvement in the workplace. There are several ways to get involved and begin working with the Institute for Healthcare Improvement Open School (Table 2).

How can I set up my own chapter?

Setting up a local chapter is not complicated. A blueprint for setting up a chapter from the ground-up is included in Figure 3. The Institute for Healthcare Improvement Open School has produced 'how to' guides and a toolkit for new chapters including a 'getting started checklist' and a 'chapter interest survey' to identify members' needs and interests. The Institute for Healthcare Improvement Open School website also contains operational resources for running chapter meetings including resources for group activities and guidance based on the experiences of others to make the first chapter meeting a success.

Chapter membership can vary from simply expressing interest to being a regular

Figure 2. The Institute for Healthcare Improvement Open School Quality Improvement Practicum.

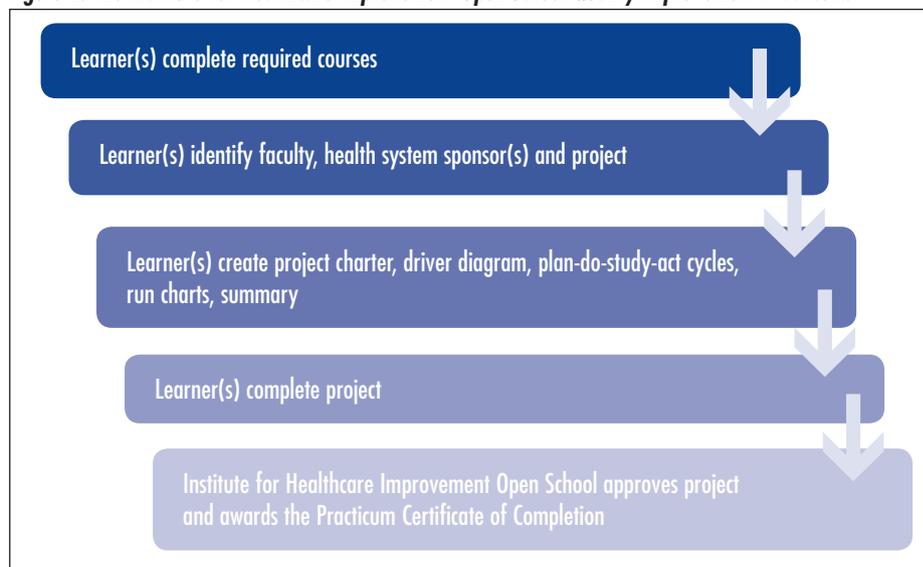


Figure 3. How to set up a chapter. IHI = Institute for Healthcare Improvement.

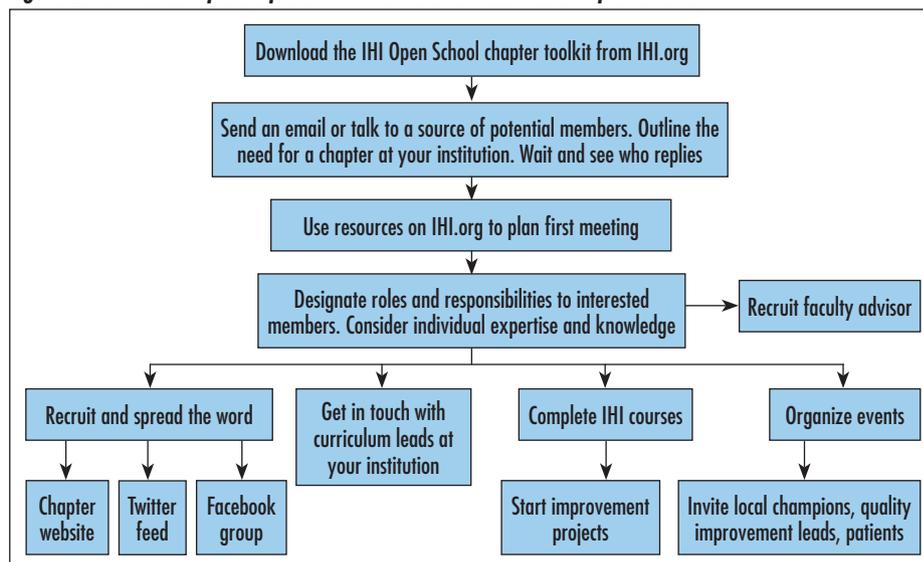


Table 2. How to get involved

Register with the Institute for Healthcare Improvement Open School
Join or start a chapter at a hospital or higher education institution
Organize meetings with members and discuss case studies and lessons that can be learnt
Organize a local event, e.g. skills sessions, seminar series, talks from influential people
Complete the Institute for Healthcare Improvement Open School online courses
Start a quality improvement project
Teach patient safety and quality improvement to peers
Campaign for inclusion of quality and safety in the university medical curriculum
Become known to local quality improvement departments and patient safety groups
Recruit more members and spread the word

attendee at events and meetings, to being a chapter leader – the level of involvement is optional (Institute for Healthcare Improvement, 2012f).

Getting to know the quality improvement department at a hospital early on can be useful for new chapters. Some chapters have recruited students to help with the organization of priority audits, which is a good starting point to learn about the ongoing work to improve the health-care system at their institution. Faculty staff can also be part of the chapter team, offering support, ideas for funding as well as clinical expertise. Also, inviting service users to the chapter helps to keep ideas patient-focused.

Figure 4 summarizes the initial start-up experience of the University of Nottingham Chapter.

How will this help my career?

Celebrating work undertaken by chapter members is essential. Several chapters and individual Institute for Healthcare Improvement Open School members have given oral and poster presentations at national and international conferences.

Employers realize the impact and merit of these types of employable skills. For instance, to score highly in the recruitment process for core medical or surgical training in the UK, a candidate might wish to show evidence of having completed an audit cycle, teaching to peers or medical

students, oral and poster presentations and published work (Royal College of Physicians, 2012). Involvement in the Institute for Healthcare Improvement Open School is a valuable opportunity for trainees to demonstrate these competencies and improve skills in leadership, teamwork and effective communication.

Finally, the General Medical Council has outlined clear expectations for doctors in terms of quality improvement and patient safety. Opportunities to demonstrate intelligent audit design, data-gathering methods and analysis, as well as identifying change opportunities, determining which changes lead to improvement, and attempting to spread and sustain improvement, are critical for achieving those recommendations in practice.

Conclusions

The current political climate, controversy and anticipation over the NHS create urgency for the next generation of health-care workers to step up and lead change for safer, better quality health care. The Institute for Healthcare Improvement Open School is already providing the next generation with the skills and confidence to achieve this. Support from senior colleagues in their efforts is critical. The UK has a growing presence within an international community of hundreds of collaborating chapters. What will you do to get involved? **BJHM**

Figure 4. Case study: starting the University of Nottingham Chapter.

We made full use of the Institute for Healthcare Improvement Open School online toolkits for the first chapter meeting. This allowed us to make members aware of the Institute for Healthcare Improvement courses and examples of what could be achieved by getting involved and leading an improvement in health care.

The chapter set up and maintained rapport with several different supervisors including local champions, patient safety leads and clinical governance officers as well as recruiting a Faculty Leader early on. Meetings with faculty stimulated new ideas and plans for curriculum integration. Our members quickly became involved in clinical audit as the initial step towards designing their own improvement project on hospital wards with support from senior doctors. Several members have since presented their work at national conferences.

LEARNING POINTS

- Junior doctors and medical students can bring fresh insights to improving the health-care system.
- The General Medical Council have outlined the duty of doctors to report and address patient safety concerns, and tackle system-quality issues.
- The Institute for Healthcare Improvement Open School for Health Professions is providing tomorrow's workforce with the knowledge and skills to lead in improvement in health-care quality.
- An active Institute for Healthcare Improvement Open School community exists within the UK and Ireland.
- Involvement of students and junior professionals within this movement is an opportunity to demonstrate leadership for better, safer quality health care.

Conflict of interest: Dr A Carson-Stevens receives travel expenses to attend the international Institute for Healthcare Improvement meetings to fulfil his role as the UK and Ireland Regional Leader for the Institute for Healthcare Improvement Open School for Health Professionals. All other authors: none.

- 1000 Lives Plus (2012) 'Small Changes, Big Impact' – The 2012 IHI Open School (UK) Conference. www.1000livesplus.wales.nhs.uk/small-changes-big-impact (accessed 5 May 2012)
- Davidoff F (2007) Focus on Performance: The 21st Century Revolution in Medical Education. *Mens Sana Monogra* 6(1): 29
- Department of Health (2009) Quality, Innovation, Productivity and Prevention (QIPP). www.dh.gov.uk/en/Healthcare/Qualityandproductivity/QIPP/ (accessed 5 May 2012)
- General Medical Council (2012a) *Raising and acting on concerns about patient safety*. General Medical Council, London
- General Medical Council (2012b) *Leadership and management for all doctors*. General Medical Council, London
- Hawkes N (2009) Standing up for safety. *BMJ* 338: 1416–17
- Henderson D, Carson-Stevens A, Bohnen J, Gutnik L, Hafiz S, Mills S (2010) Check a Box. Save a Life: How Student Leadership Is Shaking Up Health Care and Driving a Revolution in Patient Safety. *J Patient Saf* 6(1): 43–7
- Institute for Healthcare Improvement (2012a) Home. www.ihl.org/offering/IHIOpenSchool/Pages/default.aspx (accessed 5 May 2012)
- Institute for Healthcare Improvement (2012b) Courses and Certificates. www.ihl.org/offering/IHIOpenSchool/Courses/Pages/default.aspx (accessed 5 May 2012)
- Institute for Healthcare Improvement (2012c) IHI Open School for Health Professions: Chapters and Communities. www.ihl.org/offering/IHIOpenSchool/Chapters/Pages/default.aspx (accessed 5 May 2012)
- Institute for Healthcare Improvement (2012d) Hear Our Voice: Collecting Patient Experience Stories. www.ihl.org/offering/ihioopenschool/resources/Pages/CollectingPatientExperienceStories.aspx (accessed 11 June 2012)
- Institute for Healthcare Improvement (2012e) IHI Open School Quality Improvement Practicum. www.ihl.org/offering/IHIOpenSchool/Courses/Pages/Practicum.aspx (accessed 5 May 2012)
- Institute for Healthcare Improvement (2012f) IHI Open School Chapter Progress Report Results May 2011. www.ihl.org/offering/IHIOpenSchool/Chapters/Documents/CPR-May2011-Summary.pdf (accessed 5 May 2012)
- Institute of Medicine (2001) *Crossing the Quality Chasm: A New Health System for the 21st Century*. National Academy Press, Washington DC
- Kroll L, Singleton A, Collier J, Rees Jones I (2008) Learning not to take it seriously: junior doctors' accounts of error. *Med Educ* 42(10): 982–90
- Royal College of Physicians (2012) 2012 CT1 app form scoring. www.ct1recruitment.org.uk/the_application_form/scoring.html (accessed 11 June 2012)
- The Network (2012) The Network Casebook. the-network.org.uk/filedirectory/The%20Network/The%20Network%20Casebook.pdf (accessed 28 June 2012)
- World Health Organization (2008) Safe surgery saves lives. www.who.int/patientsafety/safesurgery/en (accessed 5 May 2012)