

IHI Open School Quality Improvement Practicum Frequently Asked Questions for Faculty Advisors

Contents

Faculty Advising.....	2
I have basic QI training and would like to learn more. How can I do this?	2
How do I connect with other Faculty Advisors who are guiding improvement projects?	2
How do I find additional Faculty Advisors to help mentor and guide student work?.....	2
Choosing a Project	2
My students are having difficulty choosing a project. How can I help them?	2
What is the right scope for a student’s project?	4
Successful Completion of a Practicum	4
Why is there a suggested timeframe? I am concerned because it does not work with my course.	4
Do my students’ projects need to result in improvement?	4
Do my students have to complete a project from start to finish?	5
Can students/residents in the midst of a local Practicum project still participate in the IHI Open School Practicum? ..	5
Project Management	5
If I am the Faculty Advisor of multiple projects, can I see which documents have been submitted?	5
Do individuals and teams have to submit the same documents?.....	5
Forming a Team.....	5
Do improvement projects need to be done with an interprofessional team?	5
How many students/residents should be working on one Practicum project?	5
What are some tips to help students work in interdisciplinary teams?.....	5
Research vs. Quality Improvement	7
Will my students need IRB clearance to work on their quality improvement projects?	7
Adding Value and Evaluating the Practicum	7
Where can I advise my students to present the results of their projects?	7
What value does this work provide to students?.....	7
Using Other Improvement Tools and Models	7
Can my students use other models (e.g., TPS, Lean, Six Sigma) for improvement?	7

Faculty Advising

I have basic QI training and would like to learn more. How can I do this?

The IHI Open School online courses are a great place to start. We offer a range of courses that teach the fundamentals of quality improvement, patient safety, patient- and family-centered care, managing health care operations, and leadership. [IHI's website also has a variety of resources](#) including improvement stories and tools, publications, and white papers. In addition to the free resources, IHI has many [offerings](#) such as conferences, seminars, and professional development trainings that can help you.

How do I connect with other Faculty Advisors who are guiding improvement projects?

The IHI Open School has established a [User Group](#) dedicated to promoting exemplary teaching and supporting faculty development. This User Group has several tools available to support your improvement work and enable you to connect with others around the world who are also engaged in improving health and health care. [Join the group](#) to be a part of this community.

How do I find additional Faculty Advisors to help mentor and guide student work?

Faculty Advisors are essential to guide the project and provide extra coaching when necessary. They also approve the charter, provide feedback, and help manage relationships within the health care setting. Here are some suggestions for identifying additional Faculty Advisors in your local setting:

- Reach out to your local health system's office that deals with patient safety and quality improvement (i.e. the quality or patient safety office, department, or committee at your institution).
- Find faculty at the schools of public health or management in your learner's area that are involved in operations and management
- Consider contacting staff or faculty who would be most directly involved in the work your learners want to do, even if this means going outside your discipline (i.e. different department heads)
- Ask your Dean, chair, chief, or provost, if they know of champions in the learner's topic of interest
- See what IHI has to offer:
 - Review the list of [Patient Safety Officers](#) (PSOs)
 - Review the list of [Improvement Advisors](#) (IAs)
 - Review the list of [IHI Fellows](#)
 - Reach out to find a mentor using [IHI's mentor matching tool](#)
- Connect with local organizations using the [IHI Network Map](#)

Choosing a Project

My students are having difficulty choosing a project. How can I help them?

Students should choose projects in which they have an interest or are in the clinical setting where they are working. In many cases, it can work well for students to be a part of a larger, ongoing QI project where they have responsibility and ownership over at least two PDSA cycles.

If students are struggling to find a project, the Faculty Advisor can help by:

1. Thinking about the quality improvement priorities in their local setting (if they also work in a health care system) and determining if students can play a role in helping those initiatives.
2. Asking the quality lead in their local health care setting about problems that have been identified, but have yet to be addressed.
3. Reaching out on the student's behalf to set up an introductory meeting to discuss the project with appropriate stakeholders.

And here are some suggestions we provided in QI 201: Guide to the IHI Open School Quality Improvement Practicum on how students can identify something to change:

1. Critical thinking about the current system

Sometimes, simply reflecting on problems within a system can generate some good ideas for change. If you make a flow chart of your current process – say, how medications are delivered to patients in a timely fashion – it may be possible to identify parts of the system that aren't working or are needlessly complex. Another way to go about critical thinking is to gather and analyze data on the way your system currently works – which can then help you identify problems and develop changes to address them. For example, are patients being woken up at 3 a.m. for morning labs and then again at 7 a.m. for IV catheter replacement? Would it make more sense to wake the patient up once instead?

2. Benchmarking

Comparing your own process to “best practice” can help you identify where your own system falls short. Based on that analysis, you can develop ideas for improving your performance. This is known as benchmarking. For example, is there a hospital across town that had 50% fewer falls than your facility last year? Why is that? What are they doing in their hospital that you adopt and integrate into your own local setting?

3. Using technology

Technology – such as automation, new equipment, or new information systems – can lead to improvement. But be careful – technology that isn't reliable, or that simply makes a bad system more accessible via the Internet, isn't necessarily the fix you're looking for. For example, computerized physician order entry (CPOE) is increasing patient safety by alerting clinicians to duplicate orders and drug-drug interactions. However, because there are so many alerts (the phrase “alert fatigue” is used in the literature), clinicians often ignore and override them. How can this process be improved?

4. Creative thinking

Where do new ideas come from? You can spur creative thinking in various ways, including simply taking the time to do this sort of thinking; exposing yourself to situations (such as taking the role of a patient) that can spark new ideas; identifying the boundaries that limit the changes you can make and then finding ways to dismantle those boundaries; and temporarily considering unrealistically ambitious goals (“No patient will ever fall in this hospital again”) that can prompt you to break out of your old way of thinking. For example, can you reduce the ER waiting time at your facility to 15 minutes or less? What barriers stand in the way? Students are fresh observers of a system. Turn lack of knowledge into a strength.

5. Take the patient's perspective

When you see the care system from a patient's perspective, you'll see opportunities for improvement that might not be apparent as a caregiver. Is it too loud when you're trying to sleep? Do bright lights give you a headache? Do you have to wait too long to get your test results? Patient shadowing and interviewing are useful techniques when coming up with good ideas to change.

6. Reaching out to other professionals

Another way of finding a project is to talk with the care providers in your organization about their on-going quality and safety efforts. They may have a project or topic already being worked on that you could explore. In past tests of the IHI Open School Quality Improvement Practicum, we’ve found that projects that are already high priorities in a local organization have a much better chance of success – especially in the long run. As we’ve mentioned, you won’t really learn quality improvement by just collecting data, but there are likely important changes that need to be tested and are just waiting for the will and energy of a student like you!

What is the right scope for a student’s project?

Scope defines the work that needs to be accomplished to finish a project. As you may recall from QI 102, quality improvement is different from clinical research. The smaller the scope, the faster the learning. Instead of interviewing 100 patients before taking action (research), quality improvement encourages you to ask only one or two patients before conducting a small test of change. This chart that compares measurement for research and measurement for improvement should help explain the difference:

	Measurement for Research	Measurement for Learning and Process Improvement
Purpose	To discover new knowledge	To bring new knowledge into daily practice
Tests	One large blind test	Many sequential, observable tests
Biases	Control for as many biases as possible	Stabilize the biases from test to test
Data	Gather as much data as possible, just in case	Gather just enough data to learn and complete another cycle
Duration	Can take long periods of time to obtain results	Small tests of significant changes accelerate the rate of improvement

Quality improvement is about doing something, as we say at IHI, by “next Tuesday.” But remember that scope isn’t just about the number of patients; it’s also about the time and effort needed before you get to your first test of change. Think two to three weeks – or even two to three days! – instead of two to three months. (If you find yourself three months into a project and you haven’t tested anything yet, take another look at the scope.)

Successful Completion of a Practicum

Why is there a suggested timeframe? I am concerned because it does not work with my course.

A project can take anywhere from 4 weeks to 6 months, depending on the complexity and other time commitments. While we suggest this time frame, there is no required length of time. We give you this time frame so that we can make sure that you fit within the scope and project work. We want to offer you the flexibility to tailor the timeline of your learner’s efforts to whatever works locally — whether that’s an eight-week elective or two-year program.

Do my students’ projects need to result in improvement?

Your students’ project doesn’t have to be successful for them to receive credit. We, of course, hope it is successful, but the goal of the Practicum is for learners to practice using quality improvement knowledge in a clinical setting. We believe that the process and the learning are more important than the outcome.

Do my students have to complete a project from start to finish?

Improvement never really ends. We hope that whatever positive change is made in your local system stays long after the project is over. But for the purposes of a project that students come up with, no, setting something up isn't enough. They also need to identify some potential changes, test at least two changes, and track the results. (They can also join an ongoing project at a health care organization, but they need to take ownership of at least two tests of change.)

Remember, the scope of the project can be very small. They don't have to improve the discharge process at a 1,000-bed hospital down the street. They should strive to improve the hand-off process on one ward.

Can students/residents in the midst of a local Practicum project still participate in the IHI Open School Practicum?

Successful completion of the IHI Open School Practicum is based on completion of QI 201: Guide to the IHI Open School Quality Improvement Practicum. Students working on quality improvement projects may complete the Practicum as long as they submit the necessary forms throughout the course.

Project Management

If I am the Faculty Advisor of multiple projects, can I see which documents have been submitted?

Yes. As long as you and your participants are all registered under the same organization on IHI.org, there is an option available for you to see which documents have been submitted. [Send an email to the IHI Open School](#) to set up this administrator role. Be sure to include your organization's name and your participants' names.

Do individuals and teams have to submit the same documents?

Credit for completing the Practicum is awarded on an individual basis, not a team basis. At this time, we cannot give credit to team members that have not submitted certain documents, even if their team members have. Each individual is required to go through the entire course and submit all of the required documents.

Forming a Team

Do improvement projects need to be done with an interprofessional team?

We recommend that teams include learners from different backgrounds (e.g., nursing, medicine, public health, etc.), but it is not required.

How many students/residents should be working on one Practicum project?

We recommend that your team include 2-3 members, but interdisciplinary group projects can be up to 6-7 members if this helps inclusivity of other professional groups.

What are some tips to help students work in interdisciplinary teams?

You should encourage your students to take the time to get to know other members of their team, especially those in other professions. Understanding the roles and responsibilities of every member of their team is critical to successfully completing a project.

Table 3-3.
KEY CHARACTERISTICS OF HEALTH CARE PROFESSIONALS

	Physician*	Nurse†	Pharmacist‡	Health Care Administrator
Key values of the profession	<ul style="list-style-type: none"> • Competence • Honesty with patients • Patient confidentiality • Appropriate relationships with patients • Improved quality of care • Improved access to care • Just distribution of finite resources • Scientific knowledge • Maintenance of trust through management of conflicts of interest 	<ul style="list-style-type: none"> • Competence • Integrity • Compassion and respect for the inherent dignity of all patients • Primacy of commitment to the patient, whether an individual, a family, or the community • Effective collaboration with other team members to achieve health goals of patients • Protection of the health, safety, and rights of patients • Maintenance of competence, improved work environments, and improved quality of care 	<ul style="list-style-type: none"> • Welfare of humanity and relief of suffering • Application of knowledge, experience, and skills to ensure optimal outcomes for patients • Respect for and protection of all personal and health information • Obligation to improve professional knowledge and competence • Highest principles of moral, ethical, and legal conduct • Changes that improve patient care • Utilization of knowledge, skills, experiences, and values to educate and train the next generation of pharmacists 	<ul style="list-style-type: none"> • Competence • Teamwork • Fiduciary duty • Efficiency and effectiveness • High ethical standards • Organizational change • Relationships with all stakeholder groups • Leadership
Educational pathway	<ul style="list-style-type: none"> • Four-year undergraduate degree • Four years of medical school • Postgraduate residency training in a specialty (three to eight years) 	<ul style="list-style-type: none"> • Two to four years of undergraduate coursework to become eligible for basic R.N. licensure exam (A.D.N. or B.S.N. degree) • Two to three years graduate education (M.S.N. or D.N.R.) to become eligible for certification as advanced practice nurse (C.R.N.A., C.N.M., N.P., C.N.L., or C.N.S.) 	<ul style="list-style-type: none"> • Two to four years of undergraduate coursework • Four years of pharmacy school • Voluntary postgraduate residency training for one to two years 	<ul style="list-style-type: none"> • B.S. in health care administration for entry-level positions • Masters of health administration (M.H.A. or equivalent) for middle and executive management • One year postgraduate fellowship desirable but not required
Important historical facts	<ul style="list-style-type: none"> • The first medical school in the United States was founded in 1765. • Most medical schools today still follow curriculum (two years classroom and two years clerkships) recommended by Abraham Flexner in 1912. 	<ul style="list-style-type: none"> • Florence Nightingale pioneered nursing schools in 1860, when she opened the Nightingale Training School for Nurses. • In the United States, the first autonomous (non-hospital-service-based) nursing school opened in 1923 as the Yale School of Nursing. • Nurses comprise the largest group of health care workers in the United States. 	<ul style="list-style-type: none"> • The first pharmacy school in the United States was founded in 1821. • Movement to a doctoral level of training began in 1960 and was mandated in 2000. 	<ul style="list-style-type: none"> • Formal health administration education started at the University of Chicago in 1934 and Northwestern University in 1943. • The Association of University Programs in Health Administration (AUPHA) brings together more than 140 certified undergraduate and accredited graduate health care management programs from across North America.

Note: Health care professionals such as physician assistants, advance practice nurses, dieticians, physical therapists, and others play a significant role in performance improvement as well.

* The key values for the physician are modified from the American Board of Internal Medicine (ABIM) recommendations regarding professionalism.

† The key values for the nurse are modified from the American Nurses Association Code of Ethics.

‡ The key values for the pharmacist are modified from "The Oath of the Pharmacist," updated and approved by the American Association of Colleges of Pharmacy House of Delegates in July 2007.

Research vs. Quality Improvement

Will my students need IRB clearance to work on their quality improvement projects?

Some quality improvement projects may need approval by an Institutional Review Board, or as it is more commonly known, the IRB. IRBs are independent ethical committees that oversee, approve, and monitor research that involves human subjects. The role IRBs play in quality improvement projects remains an ongoing discussion. Faculty Advisors should help students determine if their projects need approval as early as possible in the process. This will prevent delays further down the road. In addition, this list of frequently asked questions from the Department of Health and Human Services will provide some guidance: <http://answers.hhs.gov/ohrp/categories/1569>

Adding Value and Evaluating the Practicum

Where can I advise my students to present the results of their projects?

There are many opportunities and venues for students to present their work. Students that have granted the IHI Open School permission will have their projects posted in a library of projects on our website. In addition to this opportunity, IHI also offers storyboard presentation opportunities at the Annual National Forum and International Forum. Please advise your students to look for these opportunities within the program offerings for these events. There are several conferences and journals outside of IHI that are likely receptive to student work. [Visit this page for more information on publishing student work.](#)

What value does this work provide to students?

Along with the ultimate goals of making care safer for patients and improving systems, the Practicum allows students to gain practical experience in quality improvement, which is valued by educational systems and future employers. It also allows them to work closely with faculty members with quality improvement knowledge and skills, become more familiar with a health care system, and improve care in an area of interest. They also have the opportunity to earn the IHI Open School Practicum Certificate.

Using Other Improvement Tools and Models

Can my students use other models (e.g., TPS, Lean, Six Sigma) for improvement?

Yes, as long as they submit all of the required documents. At IHI, we use the Model for Improvement because it has been used successfully by thousands of health care organizations in many countries to improve a variety of health care processes and outcomes. There are other useful models to guide improvement out there, including Lean, Six Sigma's DMAIC (define, measure, analyze, improve, control), and the 7-Step Problem-Solving Method. Any of these frameworks is useful. The important thing isn't which framework you choose; it's choosing one and getting to work on improving care!