

UC Davis Health System's Certificate Program in Healthcare Improvement



PROGRAM PERSONNEL

Program Director

Ulfat Shaikh, MD, MPH, MS, FAAP

Director of Healthcare Quality, Associate Professor of Pediatrics, UC Davis School of Medicine

2516 Stockton Blvd, Suite 340, Sacramento, CA 95817

Telephone: 916-734-3690, Email: ushaikh@ucdavis.edu

Program Coordinator

Carol Howle, MHA

Office of Medical Education, UC Davis School of Medicine

4610 X Street, Suite 3104, Sacramento, CA 95817

Telephone: 916-734-0492, Email: cahowle@ucdavis.edu

BACKGROUND

There are significant gaps in health care delivery. Delays in care, ineffective treatment, disparities, and high costs are unfortunately too common. Thousands of patients are harmed every year from preventable medical errors.

Front-line clinicians and health professions trainees and students have unique insights into system problems, recognize variations in care, and are future healthcare leaders.¹ The Institute of Medicine's report, "Health Professions Education: A Bridge to Quality" advocates that healthcare professionals be proficient in team-based quality improvement (QI) and that their competence in this area be adequately evaluated.² While quality improvement is increasingly recognized as integral to better patient outcomes and system improvement, most clinicians and house staff lack knowledge and skills in improvement science.²⁻⁴

A survey of health professions students and trainees at the UC Davis Health System (UCDHS), presented at the 2014 Annual UC Davis Quality Forum, highlighted the urgent need to improve education in quality and safety, change local organizational culture so that all health professionals perceive quality and safety as a top priority, and increase efforts to involve trainees and frontline clinicians in interprofessional QI initiatives at UCDHS.

Current educational innovations in QI face several challenges. Key barrier identified are inadequate numbers of faculty trained to teach QI and challenges with optimal learner engagement. Many QI projects conducted by trainees are not well-aligned with organizational priorities, and improvements are frequently not sustained beyond the initial project period.⁵

Factors that are crucial in successful clinical practice redesign are directly involving top and mid-level leadership, strategically aligning and integrating improvement efforts with organizational priorities, systematically establishing infrastructure and processes for continuous improvement, and actively developing champions, teams, and staff.⁶

PURPOSE

The UCDHS Certificate Program in Healthcare Improvement is designed to advance health care improvement and patient safety competencies in the health professions. It focuses on key concepts in implementing,

evaluating, and sustaining population-level improvement initiatives. The Certificate will provide students, clinicians and staff in medicine, nursing, public health, pharmacy, health administration, informatics, and other health professions at UCDHS with the opportunity to learn about and participate in our QI and patient safety efforts.

This novel program systematically engages students, house staff and other learners in system-wide efforts to improve quality, access, patient experience, and efficiency, develops team-based training for medical, nursing and other healthcare professional students, and educates learners about new value-based payment models. Learners will include a mix of health professions students, trainees, staff, and faculty. Mentored by leaders and experts at UCDHS, learners will work within multidisciplinary teams on new and existing initiatives aligned with UCDHS' priorities, namely coordination across care settings, information technology, access, clinical outcome improvement, patient satisfaction, and cost reduction.

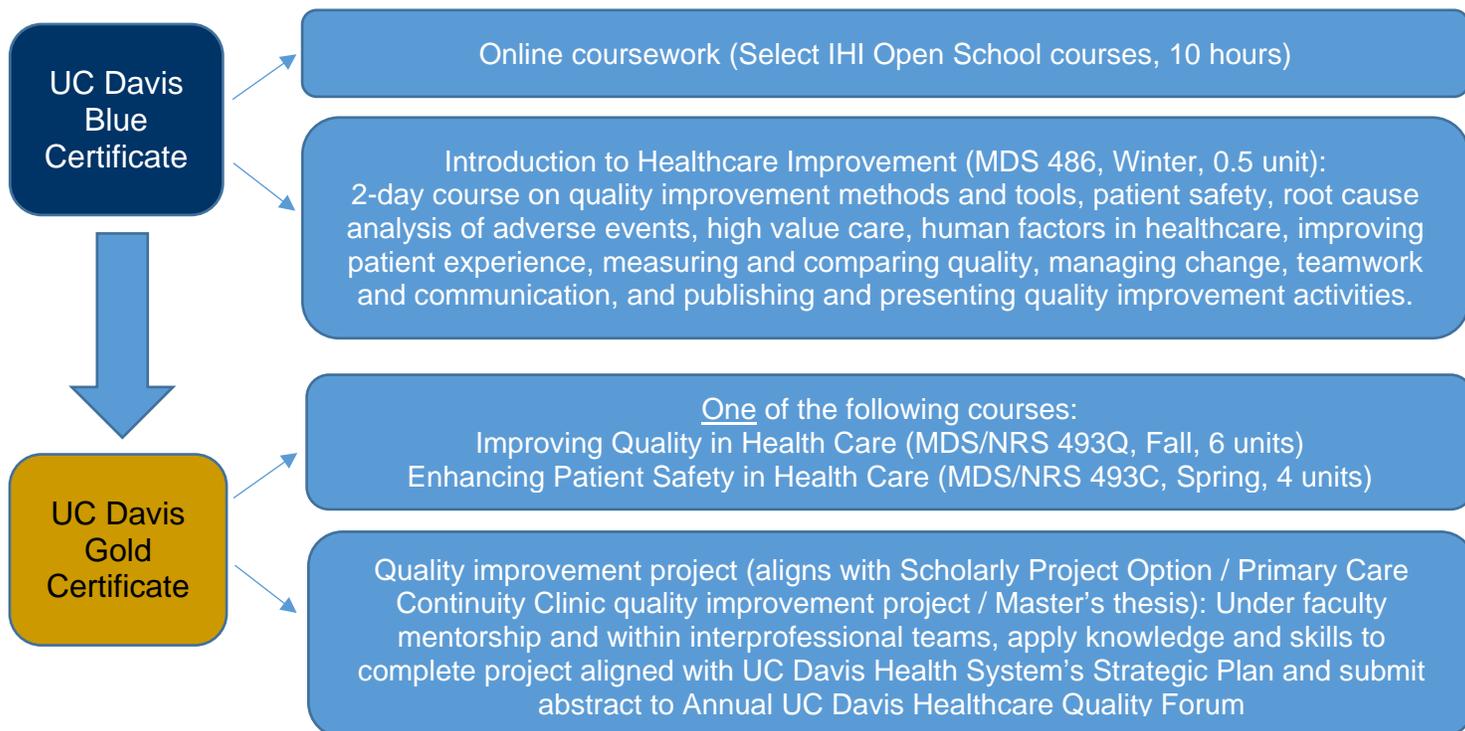
GOALS AND OBJECTIVES

Our goal is to use education as a strategy to enhance healthcare service delivery and access at UCDHS, improve care management and coordination, and to develop strategies to succeed under new value-based payment models.

Key objectives are to increase the ability of students, trainees, clinicians, and staff at UCDHS to (1) understand and apply tools and strategies designed to improve healthcare (2) actively participate in interprofessional teams to implement population-level improvements, and (3) contribute to or lead innovative change management efforts aligned with UCDHS strategic priorities.

COMPLETION REQUIREMENTS

The program builds on the experience and expertise of UC Davis and includes the following experiences:



Select Institute for Healthcare Improvement Open School online courses (approx. 10 hours)

Online courses on the IHI Open School website are **free** for students, residents and faculty. Register on www.ihl.org. For demographic information in the registration form, enter the following:

Job title: Type *Student / Medical Resident / Faculty*
Organization type: Select *School-medicine /School-nursing*
Organization: *University of California Davis*
Your primary role: *Student / Intern or Resident / Faculty*
Then complete the following courses at: www.ihl.org/education/ihopenschool/courses

QI 101: Fundamentals of Improvement, 1 hour 15 minutes
QI 102: The Model for Improvement: Your Engine for Change, 1 hour 30 minutes
QI 103: Measuring for Improvement, 1 hour
QI 104: The Life Cycle of a Quality Improvement Project, 1 hour 30 minutes
QI 106: Mastering PDSA Cycles and Run Charts, 2 hours
PS 100: Introduction to Patient Safety, 1 hour 30 minutes
QCV 101: Achieving Breakthrough Quality, Access, and Affordability, 1 hour 45 minutes

Topics in Health Care Improvement (MDS 486, Winter, 0.5 units, IOR: Shaikh)

2-day course (1.5 days of seminars + ½ day UCDHS annual Quality Forum)

The course will primarily use a discussion-based format and provide a broad multidisciplinary perspective on healthcare improvement. Additionally, learners who are interested in further exploring topics will have the opportunity to network with potential mentors at UCDHS to develop future QI projects aligned with UCDHS priorities. Topics include quality improvement (QI) methods, team-based care, patient-centered care, patient safety, systems engineering, Lean and Six Sigma in healthcare, patient experience, human factors, teamwork and communication, and measuring/comparing performance of health care providers and organizations. Sign up for course at School of Medicine registrar's office. If you are a School of Nursing student sign up for NRS 299 at School of Nursing registrar's office.

Improvement scholarly project (MDS 497A B C, or equivalent, 6 units)

Learners will apply their improvement and safety knowledge in emerging and existing initiatives aligned with national and organizational priorities. Learners will identify an area for improvement, choose a faculty advisor, identify an improvement project, set aims for improvement, determine potential changes, test changes, track their data, and summarize and share their work at the Annual UC Davis Quality Forum. Learners will complete and submit the following forms from the Institute for Healthcare Improvement Practicum website: project charter, cause and effect diagram, two PDSA forms, run chart, and a summary report.

One of the following courses:

Improving Quality in Health Care (MDS/NRS 493Q, Fall, 6 units, IOR: Bakerjian)

This inter-professional course is designed for medical, nursing, nurse practitioner, physician assistant, informatics, and public health students as well as residents, post-doctoral fellows, faculty and staff. Learners, working in interdisciplinary teams, explore the theory and practical methods employed to make improvement in healthcare systems. The process of identifying health systems problems, conducting root cause analyses, and designing, implementing, and evaluating QI is emphasized. Additionally, specific challenges to sustaining improvement are discussed. Clinical and organizational case studies and seminars involving underserved and diverse populations and patient-centered care will guide learners toward understanding elements for improvement and identifying and eliminating barriers to change. The course will cover fundamentals of QI and the opportunity to work within initiatives at UCDHS to identify a clinical problem that needs improvement and to conduct a literature review to ascertain evidence related to that problem.

Enhancing Patient Safety in Health Care (MDS/NRS 493C, Spring, 4 units. IORs: Bakerjian, Natale)

This inter-professional course is designed for medical, nursing, nurse practitioner, physician assistant, informatics, and public health students as well as residents, post-doctoral fellows, faculty and staff at UC Davis. Learners, working in interdisciplinary teams, will explore the theory and practical methods currently employed to improve patient safety in health care. The process of understanding patient safety from a patient-centered perspective will be emphasized. Additional focus will be placed on understanding the context of care, human factors, a culture of safety, and the professional responsibility of health care providers in improving

patient safety. Various case studies will be used for students to explore patient safety issues in a broad range of settings, as well as from social, clinical, cost, value, and other organizational systems perspectives.

APPLYING TO THE CERTIFICATE PROGRAM

Download application from www.ucdmc.ucdavis.edu/quality/certificate. Email completed application to Carol Howle, Email: cahowle@ucdavis.edu. Telephone: 916-734-0492. Space is limited to 60 attendees. Please apply only if you can fully commit to attending both days of the course.

EXPECTED OUTCOMES

Measurement of outcomes:

- Multiple choice quizzes to assess learner knowledge and attitudes about QI
- Outcomes of learners' healthcare improvement projects
- Number of learner projects that are presented at the Annual UC Davis Quality Forum.

Learner outcomes:

- Gain practical experience in QI, which is valued by future employers
- Work closely with UCDHS faculty member with QI knowledge and skills
- Become familiar with UCDHS' efforts in QI
- Improve clinical care in an area of interest
- Earn the UCDHS Certificate in Healthcare Improvement
- Exposure and networking from presenting project at Annual UC Davis Quality Forum

Faculty outcomes:

- Experience mentoring students in QI
- Improve care in an area of interest
- Exposure and networking at annual UC Davis Quality Forum

UCDHS outcomes:

- Improve clinical care and value in UCDHS priority areas
- See projects highlighted at the Annual UC Davis Quality Forum

IMPACT

The Certificate program utilizes the expertise of clinical and administrative leaders at UCDHS to empower those at the frontline to improve patient care, and to prepare future leaders in QI. It is well-aligned with UCDHS' Strategic Plan and integrates our educational, clinical excellence, and research missions. We have experience and early success in integrating students and trainees into QI initiatives to improve processes and outcomes in a variety of focus areas such as diabetes, obesity, preventative screening, fall prevention, and surgical care, highlighted in a video at the link: www.youtube.com/watch?v=Nyp6NAhRESc&feature=youtu.be. We anticipate that the Certificate program will further enhance QI skills within interdisciplinary teams, and will improve clinical processes and patient outcomes.

REFERENCES

1. Shaikh U, Meyers FJ. Commentary: decentralizing quality improvement. *Am J Med Qual.* 2013;28 (3):261-262.
2. Institute of Medicine. *Health professions education: a bridge to quality.* Washington, DC2003.
3. Audet AJ, Doty MM, Shamasdin J, Schoenbaum SC. Measure, Learn, And Improve: Physicians' Involvement In Quality Improvement. *Health Affairs.* 2005;24(3):843-853.
4. Accreditation Council for Graduate Medical Education. Common Program Requirements. 2011; http://www.acgme-2010standards.org/pdf/Common_Program_Requirements_07012011.pdf Accessed August 1, 2011.
5. Wong BM, Etchells EE, Kuper A, Levinson W, Shojania KG. Teaching quality improvement and patient safety to trainees: a systematic review. *Acad Med.* 2010;85:1425-1439.
6. Wang MC, Hyun JK, Harrison M, Shortell SM, Fraser I. Redesigning health systems for quality: Lessons from emerging practices. *Jt Comm J Qual Patient Saf.* 2006;32(11):599-611.