
**Brigham and Women's Hospital
Center for Patient Safety Research and Practice
Research and Education Program**

The [Center for Patient Safety Research and Practice](#) at Brigham and Women's Hospital is recognized as a world leader in developing knowledge and technology to safeguard patients. The Center is a premier convener of experts in patient safety including educators, policy makers and investigators and has an extensive track record of recognition for excellence in making original contributions to advancing the state-of-the-art in building safer healthcare. Areas of excellence include medication safety and reengineering healthcare delivery using and studying advanced methods and health information technology (HIT) tools; all of which aim to enhance a culture of patient safety.

The Center has evolved from a government funded Center of Excellence in 2004 with a primary focus on medication errors and patient safety research to a broader mission of evaluating advanced patient safety tools and concepts intended to reduce medical errors and to improve healthcare quality. The Center and its investigators undertake pioneering research examining the scope and magnitude of patient safety problems and evaluate interventions, systems, education and public policy to create new knowledge and improve the safety of patients in a full range of settings from the hospital to the community.

The Center offers a unique learning experience for individuals seeking to expand their knowledge and skill set for initiating safer and higher quality care. To date, the Center has provided training opportunities for more than 50 individuals from the United States and 18 countries around the world. The learning program curriculum covers the topics described below; however, participants have the opportunity to define an individualized area of interest under the supervision of a program director. The participants will be expected to work with the Patient Safety and Quality leaders at the Brigham and Women's Hospital (BWH) and Harvard Medical School (HMS). They are expected to learn how quality and safety are operated, measured and reported at the departmental, hospital, institutional, national, and international levels.

There are two tracks available: a research track and an educational track.

1. Research Track

Participants will spend a significant portion of their time engaged in research. They will be paired with faculty mentors to work on activities and projects related to their areas of interest. The broad overview of our research is focused on quality and safety in delivering healthcare. Our Center has a strong focus on innovation and use of HIT. Participants will be expected to design and implement various research projects in an area appropriate to the program, and within their area of interest. They will work with Center investigators to learn about the research process including study design, human subject protocol, implementation, data collection, database development, basic statistical analysis, manuscript preparation and dissemination. Participants will gain insights into our process for grant application, project management and learn about our institutional and federal policies and procedures for conducting research. Participants will have the opportunity to participate in the BWH Research Day. In addition to presenting at our monthly research seminars, the participant will be strongly encouraged to present their work at a national or international meeting.

Our areas of research focus on the following:

Adverse Drug Events
Building measurement systems for quality and safety
Cultural change
Communication and coordination
Cost effectiveness of risk reducing strategies
Clinical Decision Support
Diagnosis Errors/Improvement
Electronic Prescribing (CPOE)
Errors/Enhancements
Fall Prevention
Healthcare Patient Safety

Human factors consideration/Usability of interfaces of IT
Infection Prevention
Informatics
Lack of adequate test follow-up
Medication reconciliation
Nursing informatics
Nursing sensitive outcomes
Natural language processing, data mining and machine learning
Patient-centered care, Patient experience and engagement
Pharmacovigilance

2. Education Track

This program has a number of didactic activities throughout the year including faculty-led seminars, lectures, workshops and conferences. Participants will take part in ongoing informatics and patient safety workshops and seminars led by Harvard faculty. Participants will work to develop a program suitable for their home institutions. There is potential to purchase the training tools taught. Participants will learn of the impact of team training.

Through its affiliation with BWH, Partners HealthCare System (PHS) and HMS, the Center offers professional and academic* development opportunities such as interdisciplinary rounds focusing on general medicine, nursing, patient safety, quality and informatics; the Harvard T. H. Chan School of Public Health summer [Program in Clinical Effectiveness](#) and HMS continuing medical education (CME) courses to enrich the educational experience.

The Center collaborates with other Centers of Excellence within BWH as well as other hospitals affiliated with HMS. Moreover, the Center collaborates closely with PHS Information Systems on the development, implementation, and evaluation of new technologies (e.g. computerized physician order entry, clinical decision support, and personal health records). Through its affiliation with the Division of General Internal Medicine and Primary Care, the Center provides the core faculty for the Program in Clinical Effectiveness, a joint program with the Harvard T. H. Chan School of Public Health.

Curriculum Topics

- **Quality and Safety:** The participant will be expected to work with Patient Safety and Quality leaders at the BWH. Participants are encouraged to attend Quality Rounds. They will learn how the BWH and PHS focus on quality assurance and risk reducing strategies. They will attend a session in Adverse Drug Event training as well. There will be a focus on risk management and participants will have an opportunity to meet with CRICO staff, the Harvard medical malpractice insurer, to gain insight into risk management from the insurer's perspective.
- **Information Technology:** Participants will meet with PHS Information Systems faculty to learn about approaches to IT solutions. As noted earlier participants will take part in ongoing informatics workshops and seminars to learn about updates in informatics.

* To qualified applicants

- Leadership: Participants will meet the executive council members and attend semi-annual meetings with the council to engage in conversation with leaders from other academic institutions, industry and governmental agencies. They will have opportunities to engage and potentially shadow BWH and PHS leadership across many areas.
- Clinical Operations: Participants will have opportunity to meet with our providers in clinical units. These include nursing, the Hospital Medicine Unit which incorporates both the hospitalist and nocturnist services, the Medicine-Pediatrics Unit and Primary Care.
- Education: Participants will have several opportunities to attend courses offered by HMS, Harvard T.H. Chan School of Public and PHS. Academic courses and CME courses may have additional tuition costs. The program includes a monthly research lunch which discusses current research activity. There are opportunities to engage with the Center for Clinical Investigation, Center for Clinical Excellence and the Innovation Hub at BWH.
- Diagnosis Safety and Improvement: Participants will have opportunities to work with Center leaders and CRICO the Risk Management Foundation of the Harvard Medical Institutions Inc. staff who have a strong interest and track record in learning from and preventing malpractice claims from diagnosis errors, and delays. There will be opportunities to work with a member of the Society to Improve Diagnosis in Medicine who participates in quarterly Morbidity and Mortality (M&M) conferences focused on diagnostic error.

Program Requirements

Participants will meet with a member from our Center leadership at the onset of the program year to identify specific areas of interest in research and education. The Center leadership will guide the participant towards faculty members that will oversee and guide the program curriculum and research. Participants will identify at least 2 of the topics from the curriculum options, and are expected to attend all scheduled activities, teaching sessions, mentorship meetings and administrative meetings. Working with the assigned mentor, participants are required to identify and complete a project and produce at least one scholarly piece of work of publishable quality if they have chosen the research track or design a curriculum if they have chosen the educational track. We offer a six month, twelve month or a two-year program. In general, the longer a participant can stay, the more gain they are likely to realize from the experience.

Program Certification

Upon successful completion, the participant will receive a certificate documenting his/her experience and successful completion of the program.

Center Leadership

Executive Director: David Westfall Bates, M.D., M.Sc.

Associate Director: Gordon Schiff, M.D.

Program Director: Patricia Dykes, Ph.D., R.N.

Business Director: Ronen Rozenblum, Ph.D., M.P.H.