



**HARVARD**  
MEDICAL SCHOOL

## MASTER OF SCIENCE IN HEALTHCARE QUALITY AND SAFETY



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**Systematically ensuring the best  
possible care and outcomes**



## FAST FACTS

- This virtual program offers both a full-time, one-year option and a part-time, two-year option
- Our faculty are recognized leaders in the nation's most successful health care systems
- Our learning model combines concrete theory with applied learning
- Students gain a community of peers, forming a diverse and global network that will last throughout their careers
- Goal is to learn best practices being used within the prestigious Harvard network of hospitals and effectively adapt them to one's local organization



## Message from the Program Director

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Thank you for your interest in Harvard Medical School's Master of Science in Healthcare Quality and Safety program.

There is growing awareness of the need to provide more formal training opportunities for clinicians and leaders on the operational facets of safety and quality improvement. Ultimately this will create a new generation of experts who are better equipped to lead their organizations to success in this area. Regardless of where the medical field is a decade from now, operational leaders will be needed to serve as links between frontline physicians and executives to help ensure that their systems are functioning in the safest and most effective ways.

Our goal through this program is to deliver a truly transformational educational experience for our students. In addition to learning theories and fundamentals, you will gain real-world experience in approaching new problems, designing solutions to address

the underlying issues, and implementing change initiatives. By going through this process, and then taking the time to reflect with a global group of classmates and faculty, you will see and do things differently. You will be prepared to make a positive, long-lasting impact on the way health care is delivered.

I hope you will strongly consider applying for this program and join an elite group prepared to make a positive, long-lasting impact on the delivery of healthcare.

Sincerely,

A handwritten signature in white ink, appearing to read 'Anjala V. Tess'.

Anjala V. Tess, MD

Vice Chair for Quality and Safety  
Department of Medicine, Beth Israel  
Deaconess Medical Center  
Director, HMS Master of Science in  
Healthcare Quality and Safety  
Associate Professor of Medicine,  
Harvard Medical School





## MASTER OF SCIENCE IN HEALTHCARE QUALITY AND SAFETY

### Systematically ensuring the best possible care and outcomes

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Though health care quality and safety are paramount concerns today, the emphasis on patient safety as a mission oriented imperative has only been common in the last 25-30 years. Medical and surgical procedures are complex undertakings involving numerous care providers, advanced equipment, and ever-present risks. Ensuring that every measure has been taken to do no harm is a continuous challenge requiring specific skills.

Harvard Medical School's Master of Science in Healthcare Quality and Safety program is designed for working clinicians and clinical administrators who want to design and lead strategic, systemic initiatives in quality improvement, risk management, and patient safety at their home institutions or health systems. Students come from all over the world to our virtual classroom, bringing their expertise and experiences as

physicians, registered nurses, nurse practitioners, dentists, allied health care professionals and administrators in safety, quality, clinical informatics, risk management, and health leadership.

Typical applicants have at least three years of clinical experience and an advanced degree. Applicants without an advanced degree or clinical experience but with extensive experience in QI and Safety will be considered on a case-by-case basis.

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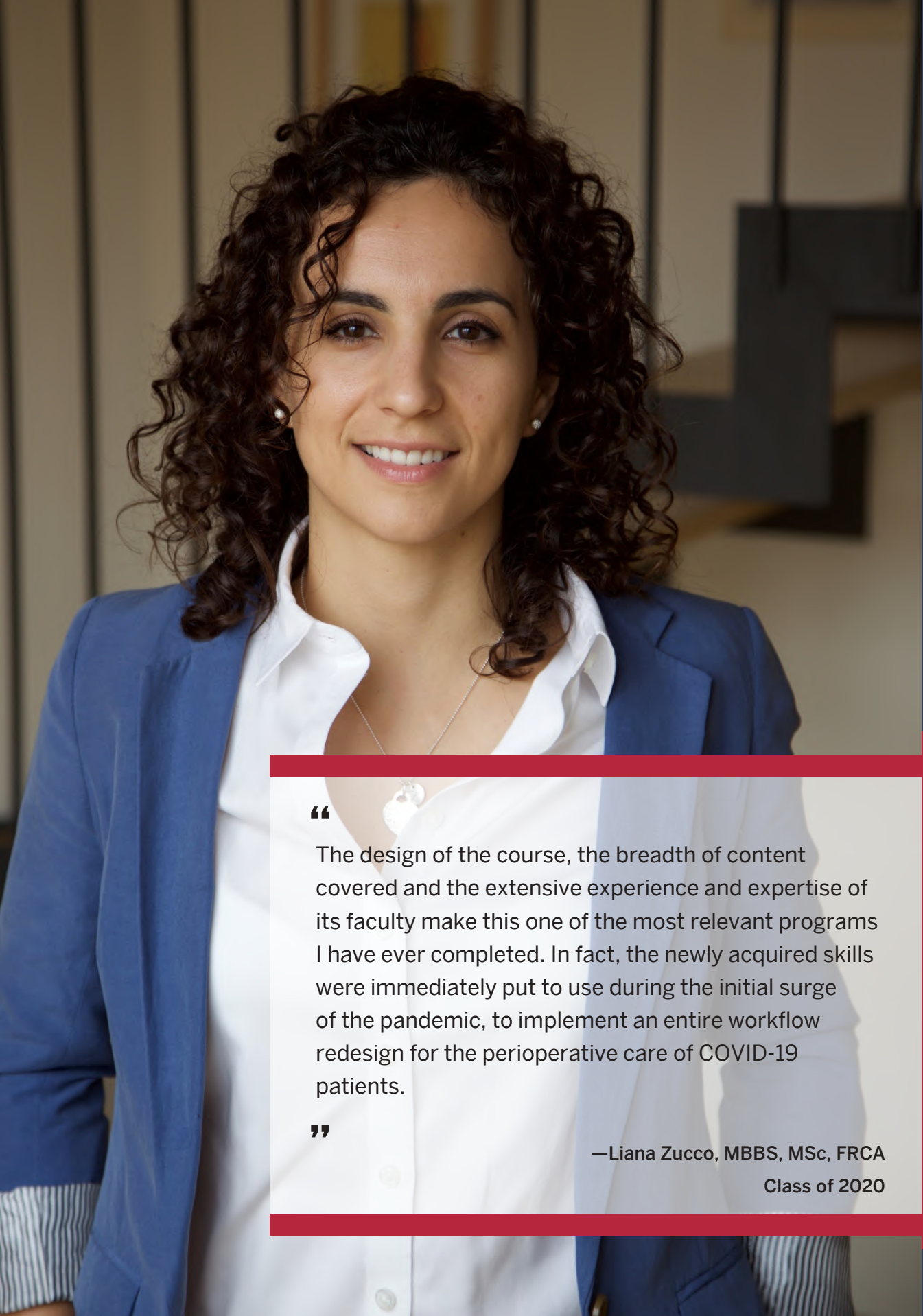
### **IDEAL CANDIDATES INCLUDE:**

- **Physicians**
- **Allied health care professionals**
- **Dentists**
- **Nurse practitioners**
- **Registered nurses**
- **Pharmacists**



Upon completion of the program, you'll be able to:

- Drive strategic change and foster a culture of quality and safety
- Generate data-driven solutions to address operational challenges
- Measure, interpret, and communicate meaningful health care outcomes
- Identify quality and safety gaps and develop strategies to address them
- Use data to support rational and evidence-based improvements
- Develop and implement quality improvement initiatives within a tight budget
- Assess and improve health care processes through evidence-based best practices
- Identify, design, and implement malpractice prevention and intervention strategies



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The design of the course, the breadth of content covered and the extensive experience and expertise of its faculty make this one of the most relevant programs I have ever completed. In fact, the newly acquired skills were immediately put to use during the initial surge of the pandemic, to implement an entire workflow redesign for the perioperative care of COVID-19 patients.

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—Liana Zucco, MBBS, MSc, FRCA

Class of 2020



# Welcome to the community.

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When you enroll in a master's program at Harvard Medical School, you join one of the world's premier learning communities. Harvard University is home to an unbelievable wealth of talent, creativity, and curiosity. We're eager to have you not only benefit from that tradition, but also contribute to it.

## LEARN. EXPLORE. APPLY.

You'll study alongside peers with wide-ranging life experiences, belief systems and perspectives as you build the skills to advance your career. To help you make the most of your experience, our faculty and staff advisers—whose ranks include some of the most respected experts in the field—provide close guidance and support at every step of the way.

Outside the classroom, Harvard hosts countless virtual and

in-person events over the course of the year that provide intellectual, academic, and cultural enrichment.

After completing your program, you'll continue to benefit from one of the greatest alumni networks in the world. Wherever your path leads, you'll always be part of Harvard's community.

## Course of Study

This applied program consists of three special topics, longitudinal seminars, and a capstone project. The special topics are:

- Medication Safety and Primary Care
- QI and Safety Education
- Health Equity

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This program was a truly eye-opening, life-changing experience. I consider the opportunity to have completely immersed myself in the curriculum and capstone project at Massachusetts General Hospital to be one the highlights of my professional career and development as a leader.

- Richard Handley,  
MD, DHSc, MHQS, PA-C  
Class of 2020

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## Learning Methods

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Offered in full-time and part-time options, this quality and safety program features a unique three-tiered academic model:

- Theoretical concepts that establish the foundational knowledge and skills required for quality and safety
- The opportunity to work one-on-one with a local mentor and be coached by HMS faculty to apply best practices in a health care setting
- The capstone experience, in which students design an intervention intended to make an improvement to a problem they have identified and analyzed

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**Upon completion of this program, you will be well-positioned for leadership roles including:**

- **Director of Clinical Quality and Patient Safety**
- **Senior Patient Safety Specialist**
- **Clinical Risk Manager**
- **Director of Patient Safety**
- **Director of Nursing Informatics**
- **Manager of Global Patient Safety, Quality and Compliance**
- **Chief Quality Officer**



## Program Pathways

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The Quality and Safety pathway is designed for clinicians and clinical administrators who aspire to leadership positions. The pathway offers foundational training in safety and quality science, followed by opportunities to learn from expert leaders on how to apply these principles in the real world. Students are exposed to unique perspectives on malpractice and the patient experience. Capstones offer opportunities to explore how quality and safety affect the frontline and how to engage all stakeholders in change.

The Clinical Informatics pathway is ideal for students who are interested in how the design of electronic systems and infrastructure can support improvements in safety and quality in their work and organization. This pathway provides students the tools to be able to function as leaders and guides their decision-making related to informatics. Students will explore the importance of the interface with frontline clinical providers and strategies in acquiring the appropriate clinical data to answer quality and safety questions.

## Capstone and Practicum

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The capstone experience is conducted at your institution. Through it, you'll apply the tools, strategies, and methods from the program's coursework to develop a solution to a real-world operational problem in health care. Under the guidance of a mentor from within a health care organization, you'll identify a topic area to address or investigate. The project will involve conducting evidence-based research into an issue, analyzing the impact on care and identifying best practices if they exist. You'll construct an implementation plan with measures for assessing outcomes and present early findings from the implementation.


**Working one-on-one with a local mentor and faculty coach, you will apply the tools, strategies, and methods gained from the case studies and coursework to develop a solution to an evidence-based problem in health care delivery. The selected challenge may be driven by a need in:**

- Quality
- Safety
- Informatics
- Risk Management

**Each student is required to conduct a capstone project at their home institution.**

**Examples of past capstone projects include:**

**Ideal Collaborative Care Models Between Physicians and APPs in the Hospital Medicine Unit at Massachusetts General Hospital**



**Design and  
Implementation of  
Digital Care Coordination  
for Pediatric Patients  
and Families Following  
Tracheostomy**

**Improving the Success  
Rate of Hysteroscopic  
Polypectomies at an  
Ambulatory Gynecology  
Care Center Using a Pain  
Relief Protocol**

**Improving Initial  
Hospitalist-Patient  
Communication  
Experience through  
Standardized  
Information Cards**



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The responsibility for system level QI has led to the creation of a new tier of operational leaders who can focus more fully on QI initiatives and can serve as a bridge between clinicians and executive leaders.”

—Anjala V. Tess, MD  
Program Director

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Harvard Medical School attracts the best and brightest faculty from all around the world. As a student in this cutting-edge program, you'll have access to outstanding teachers and mentors. The program faculty are drawn from Harvard Medical School and a network of nearly 12,000 faculty at our affiliated hospitals.



## Who Leads the Program?

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**Anjala V. Tess, MD**  
**Program Director**

Vice Chair for Quality and Safety  
Department of Medicine, Beth Israel Deaconess Medical Center  
Director, HMS Master of Science in Healthcare Quality and Safety  
Associate Professor of Medicine, Harvard Medical School



**Katherine Santos, MBA**  
**Associate Program Director**

Chief Strategy Officer, Legacy Lifecare



**Brittany Esty, MD, MPH**  
**Associate Program Director**

Director, Quality Improvement and Patient Safety,  
Division of Immunology, Boston Children's Hospital  
Physician, Allergy and Immunology  
Instructor of Medicine, Harvard Medical School



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As the result of what I learned at Harvard, I developed my vision in quality improvement and learned that it is a lot about driving change in culture. I've also become more strategic in how to implement quality improvement efforts and I've learned how to partner with others across the world.

—Mohammed Alkuwari, MB, BCh, BAO

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# HARVARD

## MEDICAL SCHOOL

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I would tell future applicants to think about this master's program as a unique opportunity for them to enhance their skill sets in operational QI and patient safety work and it will help them move towards leadership positions in their careers

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—Muhammad Hasan Abid, MBBS  
Class of 2019



### LEARN MORE AND APPLY

[hms.harvard.edu/hqs](https://hms.harvard.edu/hqs)

### CONTACT US

4 Blackfan Circle 4th Floor  
Boston, MA 02115

### EMAIL

[mhqs@hms.harvard.edu](mailto:mhqs@hms.harvard.edu)