MASTER IN
CLINICAL SERVICE OPERATIONS

A MASTER’S DEGREE PROGRAM OFFERED BY
HARVARD MEDICAL SCHOOL

hms.harvard.edu/mcso
The Master’s Degree in Clinical Service Operations (MCSO) provides physicians, clinicians, nurses, allied health professionals, and administrators with the operations management training they need to lead teams, optimize efficiency, and improve patient experience. Designed with working professionals in mind, the MCSO is an intensive, 36-credit residential program that can be completed in just nine months. In addition to traditional didactic learning, the program incorporates innovative case studies, simulations and a comprehensive capstone experience in clinical operations at a Harvard Medical School-affiliated hospital.

With the rapid pace of change in modern health care, the importance of formal training in operational aspects of health care has never been more critical. Health care organizations require high performing teams, working together seamlessly to deliver care. Multidisciplinary service lines are now considered standard and clinical operations experts work in a complex environment. The genesis of this transformation has been new platforms that underpin “the DNA” of every health care operation, including the electronic medical record, real-time accounting systems, just-in-time delivery of materials, a highly specialized workforce, and artificial-intelligence-driven technology at the bedside. The simultaneous demands of innovation and evolution of clinical research require clinical operations with the academic mastery and practical experience to drive clinical operations forward. Further, as patients and families increasingly focus on value, efficiency, and supportive care services, our leaders must implement and refine patient-centered programs. The MCSO program provides learners with the clinical operations skillsets and knowledge that are essential to lead health care organizations in the United States and internationally.
Program Objectives

Upon completion, learners will be able to:

1. Improve overall clinical operations, manage operational workflows, optimize supply chains, and facilitate hospital and system-wide innovation in an effort to provide high value care and an outstanding patient centered experience.
2. Build collaborative teams of multi-disciplinary stakeholders including physicians, advanced practice providers, nurses, and administrators who are well-equipped to work with a hospital’s corporate functions.
3. Evaluate productivity and financial measures; manage operational, organizational, and capital budgets; assess physician and staff compensation; and understand regulatory compliance and audits.
The MCSO curriculum has been tailored to prepare health care professionals and administrators to lead clinical service operational infrastructures. Coursework will include a review of fundamental concepts and tools, combined with a mentored capstone experience and longitudinal seminar series.

Our innovative approach to learning incorporates traditional teaching methods with novel approaches to pedagogy. The core curriculum is specifically designed to ensure the seamless integration of core learning objectives across modules, while allowing students to simultaneously master the practical skills that accompany these important concepts.

Because teamwork and collaboration are critical ingredients, MCSO students will learn how to work in teams and develop networks, and will experience unparalleled teaching in leadership and management skills as they relate to clinical operations.

Together with classroom work and team and leadership exercises, the main feature of the MCSO program is completion of a mentored clinical operations project. In this setting, students are expected to apply their newly acquired theoretical and practical knowledge in relation to the implementation, interpretation, and presentation of their individual project.
### CORE COURSES

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
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<tbody>
<tr>
<td>Clinical Operations Management and Workflows</td>
<td>4</td>
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<tr>
<td>Financial Planning and Management in Healthcare Organizations</td>
<td>4</td>
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<tr>
<td>Highly Functioning Teams</td>
<td>2</td>
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<tr>
<td>Quantitative Science and Clinical Research in Healthcare Service Operations</td>
<td>3</td>
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<tr>
<td>Effective Healthcare Resource Management</td>
<td>2</td>
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<tr>
<td>Supply Chain Management</td>
<td>2</td>
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<tr>
<td>Health care Service Line Planning and Operations</td>
<td>4</td>
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<tr>
<td>Integrating New Technology into Healthcare Delivery</td>
<td>2</td>
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<tr>
<td>Creating a Learning Organization in Healthcare Settings</td>
<td>2</td>
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<tr>
<td>Clinical Services Operations Skillsets</td>
<td>3</td>
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<tr>
<td>Seminar Series: Real World Experience in Managing Healthcare Organizations</td>
<td>2</td>
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<tr>
<td>Capstone and Practicum</td>
<td>6</td>
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<td><strong>Total</strong></td>
<td><strong>36</strong></td>
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**Evaluation of Didactic Components**

Students receive a final grade for each core subject module they take. This may be a letter grade or a satisfactory/unsatisfactory rating.

**Evaluation of the Capstone**

The Capstone committee will be comprised of the primary site mentor, their faculty facilitator, and a MCSO program representative. A structure framework for the capstone theses will be provided. Students must meet regularly (three times over the one-year period) with their Capstone committees and submit progress reports on each occasion.
**Curriculum**

**LEARNING METHODS**

**SKILLS-BASED LEARNING**

Students will benefit from practical experience in clinical operations. Content will be integrated across domains (clinical operations management, financial and strategic planning, resource planning, quality and safety, systems design performance improvement and information systems integration). The theory presented in each core curriculum topic will be further integrated with complementary hands-on sessions.

Examples of these exercises include: analysis of case studies, application of skills such as performance improvement and LEAN thinking concepts, and modeling business and strategic plans. The MCSO will also leverage simulation facilities across the Harvard affiliates to practice skills application and scenario planning.

**SEMINAR SERIES**

A core component of the MCSO is a longitudinal seminar series. This seminar will focus on providing students with access to real world clinical management experiences. Clinical and administrative leaders will be invited to share their career paths and to enhance networking opportunities. Students will have the opportunity to obtain feedback on capstone and other MCSO projects. A routine journal club will be formed where students research different thematic areas in “hot topics” in clinical operations.

**CAPSTONE**

Another longitudinal component of the MCSO is a 6-credit capstone project at one of the HMS affiliate hospitals. The capstone will focus on clinical operations, and examples of capstone projects include: patient throughput, operational efficiency, implementation of new technology, reducing over-utilization, reducing patient wait days. Each student will have a capstone mentor, and students will be provided with a capstone report structure; the capstone report will build over the course of the degree and portions of the report will be submitted at key milestones. Students will receive feedback from peers and lecturers in the seminar series. As students will be embedded in the affiliate hospital over 9 months, there will also be opportunity for shadowing core clinical operations.

**DIDACTIC LECTURES**

While traditional didactic lectures are used in the core curriculum to deliver key learning objectives, the program also pushes pedagogic innovation by incorporating contemporary teaching methods such as short lectures and associated practice sessions. The program will also employ a flipped classroom.
Who Should Apply

The MCSO is designed for health care professionals and administrators who aspire to leadership positions in operations management.

Applicants should hold an advanced degree and possess at least five years of clinical experience or requisite work experience in the clinical setting.

Ideal candidates include:
- Medical directors
- Clinical leaders
- Physicians
- Clinicians
- Nurses
- Allied health professionals
- Advanced practice clinicians
- Administrators

Students accepted into the program must demonstrate, through grades and performance in graduate level training, the potential to learn effectively in a rigorous educational environment.

Upon successful completion of this program, graduates will be well positioned to pursue leadership roles including:
- Chief Operating Officer
- Service Line Director
- Administrative Director
- Clinical Operations Director
- Program Director
- Clinical Research Director
- Chief Patient Experience Officer
- Nursing Director or Manager
- Advanced Practice Clinical Director
- Allied Health Director
WHY CHOOSE HARVARD MEDICAL SCHOOL?

Since its establishment in 1782, Harvard Medical School has become synonymous with excellence in biomedical research, education, and clinical care. Our world-class faculty continually push the boundaries of science and innovation as we strive to fulfill our mission to nurture a diverse, inclusive community dedicated to alleviating suffering and improving health and well-being for all through excellence in teaching and learning, discovery and scholarship, and service and leadership.

Consistent with Harvard’s mission, this intensive 36-credit program over 9 months provides clinical operations leaders with the skills necessary to succeed in the ever-changing health care delivery environment. The curriculum is delivered by leading Harvard faculty, whose expertise in clinical operations provides an unrivaled learning experience while our rigorous curriculum is specifically designed to deliver the practical skills that will complement a mentored experience at a Harvard Medical School affiliate hospital.

We invite you to join our academic community of more than 12,000 individuals working to advance the boundaries of knowledge in every aspect of health care delivery at a local, national and even global level.

LEARN MORE ABOUT THE APPLICATION PROCESS AT HMS.HARVARD.EDU/MCSO
Faculty

PROGRAM DIRECTORS

J Kevin Tucker, MD
Faculty Director, Accreditation and Maintenance of Certification, Harvard Medical School, Medical Director of the Dialysis Clinic Inc. (DCI) Brigham/Faulkner Hospital Dialysis Unit, Director of the BWH/MGH Joint Nephrology Fellowship Program, Assistant Professor of Medicine, Harvard Medical School

Mara Bloom JD, MS
Executive Director of the Massachusetts General Hospital Cancer Center

COURSE DIRECTORS

Clinical Operations Management and Workflows:
Ann Prestipino, Senior Vice President, MPH, Massachusetts General Hospital

Financial Planning and Management in Healthcare Organizations:
James Heffernan, Senior Vice President, Chief Financial Officer and Treasurer, Massachusetts General Hospital Physicians Organization and John Szum, Chief Financial Officer, CRICO

Highly Functioning Teams:
Ajay Singh, MD, MBBS, FRCP, MBA, Harvard Medical School, Senior Associate Dean of Post Graduate Education

Quantitative Science and Clinical Research in Healthcare Service Operations:
Inga Lennes, MD, MPH, MBA, Senior Vice President, MGPO Service Excellence and Practice Improvement

Effective Healthcare Resource Management:
David McCready, MBA, MHA, President, Brigham and Women's/Faulkner Hospital

Supply Chain Management:
Susan Dempsey, MBA, Vice President, Brigham and Women's/Faulkner Hospital

Integrating New Technology into Healthcare Delivery:
Trung Do, MA, MBA, Vice President, Business Development, Partners Healthcare

Director of Healthcare Service Line Planning:
Susan Chapman Moss, MPH, Senior Vice President, Strategy, Partners Healthcare, Healthcare Service Line Planning and Operations

Director of Creating a Learning Organization in Healthcare Settings:
Tony Weiss, M.D., M.B.A., M.Sc., C.P.E., F.A.P.A., Chief Medical Officer, Beth Israel Deaconess Medical Center, Creating a Learning Organization in Healthcare Settings

Director of Clinical Services Operations Skillsets:
Peter Dunn, Vice President, Perioperative Services and Healthcare System Engineering, MGH

Capstone & Seminar Series:
John Kevin Tucker, MD and Mara Bloom, JD, MS

Director of Clinical Operations Skillset:
Gaurdia Banister, RN PhD NEA-BC FAAN Executive Director, The Institute for Patient Care, Director, Yvonne L. Munn Center for Nursing Research, Connell - Jones Endowed Chair for Nursing and Patient Care Research
APPLICATION DEADLINES
Please check our website for the most up-to-date program deadlines.

Once you are accepted to the program, payment is required either in full or through a payment schedule. A 10 percent deposit by the deposit deadline date secures your place in the program.

Tuition includes facility fees for the three workshops and access to all four lecture modules (summer, fall, winter, and spring). Fees do not include supplemental books, supplies, software, or workshop travel and accommodation expenses.

ADDITIONAL APPLICATION AND REGISTRATION INFORMATION IS AVAILABLE ONLINE AT: HMS.HARVARD.EDU/MCSO