

How to Launch and Continually Enhance an Effective Medical Campus Faculty Development Program: Steps for Implementation and Lessons Learned

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Purpose: Drawing on the decade of experience of Boston University Medical Campus' Faculty Development Office, this paper reports strategies used to launch and continually improve faculty development programming within an academic health sciences campus.

Patients and Methods: The authors explain the steps that Boston University Medical Campus took to institute their set of faculty development programs, including an overview of resources on how to periodically conduct needs assessments, engage key institutional stakeholders, design and evaluate an array of programming to meet the needs of a diverse faculty, and institute real-time program modifications.

Results: In a step-by-step guide, and by highlighting vital lessons learned, the authors describe a process by which biomedical educators can create and sustain a robust faculty development office within their own institutions.

Conclusion: This paper identifies steps to launch and improve faculty development program. Faculty development programs should be expanded to support faculty in academic medical centers.

Keywords: faculty development, career development, mentoring, medical education

Introduction

In the mid-2000s, leaders in academic medicine recognized the challenges facing health sciences faculty—including increasingly competitive research funding, escalating clinical and educational demands, inadequate mentoring, and burnout—and shared a desire to enhance the capacity of faculty to reach their career goals and expand the impact of their work. Together, these motivations prompted leadership to develop programs promoting faculty advancement and professional development. Faculty development (FD) programs have proliferated academic medical centers in the United States.^{1,2} Previous literatures suggests that successful FD initiatives and programming can support compelling institutional benefits, including faculty retention,^{3–5} scholarly productivity,^{5–7} effective teaching,⁸ leadership,^{6,9} and promotion,^{5,6} as well as patient safety/quality improvement.^{10,11}

In 2007, under new leadership in the Boston University School of Medicine (BUSM) Department of Medicine (DOM), a Faculty Development and Diversity Committee was formed, and the following year a Vice Chair of FD and Diversity was appointed. The FD Office initially was based in the DOM, where it maintained

a dual focus on FD and diversity. In 2015, the Office broadened to serve the FD needs of the entire BU Medical Campus (BUMC), which includes BUSM, the School of Public Health, and the Goldman School of Dental Medicine.

The mission of the FD Office is to foster a creative, diverse, and collaborative environment to support faculty members in maximizing their contributions in the educational, research, clinical, and service missions of the Department, School, Campus, and community at large.¹² Since its inception, the FD Office has launched an array of programming, currently including: a seminar series, an individual faculty career consultation service, six longitudinal career and leadership development programs, and other resources and initiatives tailored to diverse faculty groups (Table 1). The goal of these programs is to recruit, retain, advance, promote, and nurture a vibrant and diverse faculty.

In this paper, we highlight lessons learned through an iterative process of refinement and expansion of the BUMC FD Office (Figure 1), with the hope that our experience may serve as a roadmap for other institutions seeking to build similar programs. We conclude each step with key lessons learned through the process.

Five Steps of Implementing a Faculty Development Program

Step I: Form a FD Committee and FD Office

The first step we used to implement a FD program was to convene a FD Committee to direct the ongoing process. Through periodic open solicitations, we identified DOM faculty invested in supporting the careers of their peers to serve on the Committee, ensuring representation across sections, career stages, and other demographics, including gender, race/ethnicity, and career track. Having a diverse committee is essential to represent the wide range of faculty interests, types, and backgrounds. The FD Committee's ongoing tasks have included: 1) reviewing periodic assessments of faculty's greatest professional needs, 2) determining program priority areas, and 3) serving as ambassadors to their sections to promote faculty engagement.

In parallel with the development of the FD Committee, we started the FD Office to manage the initiatives being developed through the work of the Committee. We initially hired one full-time staff member, the Director of FD, who worked closely with the Vice-Chair of FD to develop and

implement programming and to spearhead program evaluation. In our case, the Director possessed expertise in educational program development, adult learning, program management, and program evaluation. The Vice-Chair and Director developed program curricula and organized topics, facilitators, and preparatory work using evaluative feedback to enhance programs on an ongoing basis. Because our FD program continued to expand over the years, we eventually hired an Assistant Director to help with logistics, including recruitment and admissions, scheduling, and organizing materials.

Together, the Vice-Chair, Director, and Assistant Director of FD work with facilitators to create session facilitators' guides (Supplement 1), which outline learning objectives, content, and pedagogy using experiential learning methodologies. The Vice-Chair for FD and Diversity ultimately became the BUMC Assistant Provost for FD. The FD staff serves as an important resource for faculty participants regarding all aspects of their involvement with a program, as well as with their careers more generally.

Our FD programming has expanded over the years: in 2011 we provided one longitudinal program for 18 faculty participants, whereas by 2019–2020 we were offering five longitudinal programs and a seminar series (Table 2) to BUMC as a whole, and one longitudinal Clinical Leadership Program to BUSM Medical Directors. As the scope of the office has grown, so have our multidisciplinary partners throughout the campus, who all serve in important roles for program effectiveness. For example, we collaborate with Boston University's Ombuds Office and Organizational Development and Learning, as well as the DOM Education Evaluation Core. These collaborations provide broader expertise, which has proven instrumental for our effectiveness in meeting the needs of a large faculty body. We also have connected with regional¹³ and national groups¹⁴ on FD to share resources and expertise, building external networks that have been central for gathering ideas regarding new programs and for fortifying existing programming.

Lessons Learned at Step I

- The creation of practical and valuable areas in which FD Committee members can engage is vital to their ongoing commitment.
- A diverse and representative FD Committee is essential for considering the needs of faculty from different backgrounds, disciplines, and career stages.

Table I BUMC Faculty Development Programming

Program	Participants	Summary
Academy for Faculty Advancement (AFA) Early-Career Program	Instructors and Assistant Professors at BUMC	The AFA Program includes peer and senior mentoring, experiential career development seminars, and the completion of an academic project. Participants meet fourteen times for 2.5-hour sessions from September to May.
Career Planning and CV Review	Faculty at all academic ranks	Faculty may meet with the BUMC Assistant Provost for Faculty Development or the Director of Faculty Development throughout the year to improve effectiveness of their CVs and to strategize for career advancement and promotion.
Clinical Leadership Program (CLP)	Inpatient and ambulatory Medical Directors at Boston Medical Center	CLP participants engage in self-reflection and evaluation, peer and senior mentoring networks, and the development of strategic leadership and inter-disciplinary collaboration skills through experiential and project-based learning. Participants meet for one 2-day module.
Mid-Career Faculty Leadership (MFL) Program	Late Assistant Professors (≥ 7 years), and Associate Professors at BUMC	The MFL program uses experiential and project-based learning to engage participants in 360° evaluation, self-reflection, inter-disciplinary collaboration, broad peer and senior mentoring networks, and the enhancement of transformational education, clinical, research, and strategic leadership skills. Participants meet for six 2-day modules from July to May.
Narrative Writing Program (NWP)	Faculty at all academic ranks	The NWP provides faculty with an opportunity to develop narrative skills and competencies through reflective writing, reading, and listening to foster writing skills and professional well-being while offering a framework for establishing empathic and collaborative teams. Participants are coached in preparing at least one piece of writing to a form suitable for submission to a peer-reviewed journal/newspaper/creative anthology/website by the end of the course.
Seminar Series	Faculty at all academic ranks, BU/BMC administrative directors, and senior directors	Seminars focus on leadership, education, research, quality improvement, wellness, diversity, and academic promotion. Hour-long lunchtime and late afternoon seminars are offered on different days of the week from September to June for CME credit. Sample topics include: Using your time wisely to achieve your career goals, How to not be afraid to talk to the media, Advocacy 101, How to get promoted and CV review, Biometrics: measuring your scholarly output and impact, How to publish an education project, Responding to microaggressions by patients, Tips for effective collaborations between clinical and basic scientists, Systematic Reviews and meta-analyses, and How to give effective feedback.
Under-represented Racial and Ethnic Groups in Medicine (URG) Leadership Program	Faculty from under-represented racial and ethnic groups in medicine	The URG Program uses self-assessment and reflection, experiential learning, and peer and senior mentorship. The goals are to provide faculty with the tools necessary to navigate a successful career in academic medicine, and to foster leadership skills that enable participants to positively affect change in their current and future roles. Participants meet monthly for 1.5-hour sessions from October to June.
Women's Leadership Program (WLP)	Women faculty in leadership roles at BUMC	The program uses self-assessment and reflection, experiential learning, and peer and senior mentorship to provide faculty with the tools necessary to navigate a successful career in academic medicine, and to foster leadership skills that enable participants to positively affect change from where they stand. Participants meet fifteen times for 2-hour sessions from September to June.

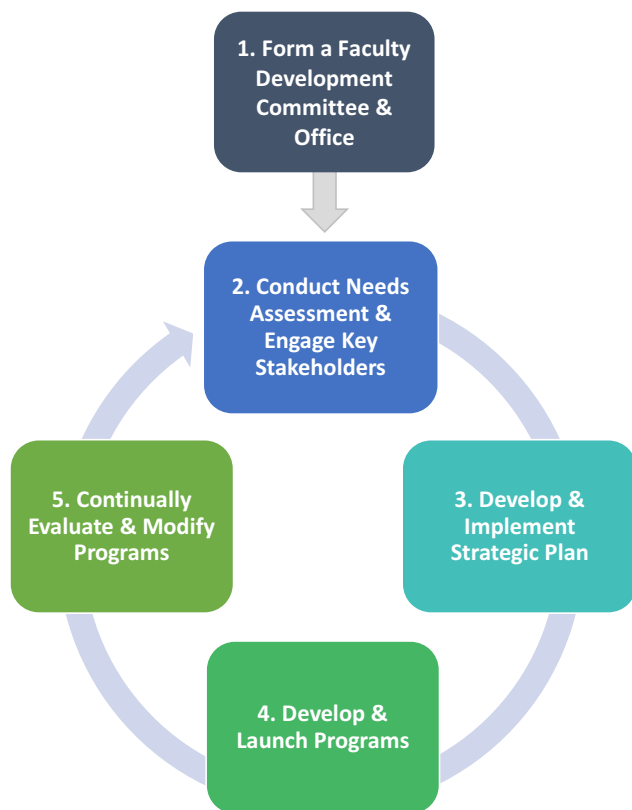


Figure 1 Steps to launch and improve faculty development programming.

- It is vital to have at least one full-time staff member to develop and support FD programs.

Step 2: Conduct a Needs Assessment and Engage Key Stakeholders

Immediately after its founding, the FD Office conducted a needs assessment to understand the scope of faculty needs. The assessment design included surveys, interviews, and community forums. We started by reviewing results from a recent Boston University Climate Survey, which identified that 76% of faculty at BUSM did not have a formal mentor in their department, 42% did not receive adequate mentoring, 46% did not think the criteria for promotion were clear, and 26% were likely to leave within the next three years.¹⁵

We augmented the climate survey data with interviews from key informants, including section chiefs, other university leaders, and faculty from groups that experience barriers to career advancement, including faculty from under-represented racial and ethnic groups in medicine (URG). We also reviewed recommendations from a previously convened Women's Task Force. Finally, we conducted community forums for faculty in the DOM to ensure that we understood

what they perceived to be their greatest needs. We sought best practices by conducting informal interviews with URG faculty and FD colleagues from other academic medical centers to understand how peer institutions support their faculty. We began attending the annual conference of the Association of American Medical Colleges' Group on Faculty Affairs to learn from and share best practices with other institutions. Informed by this work, we focused our inaugural program on the highest priority area: mentoring early-career faculty.

Since then, we have conducted a needs assessment prior to launching new FD programs. For our Academy for Faculty Advancement (AFA) Early Career program, Mid-Career Faculty Leadership (MFL) program, and Women's Leadership Program (WLP), we convened task forces to inform the program goals and structure. The task forces have intentionally diverse membership, with representation from different schools, departments, career stages, race/ethnicities, genders, and career tracks to ensure an understanding of the needs and perspectives of multiple constituents. To provide recommendations for program design, implementation, and evaluation, task forces review the literature and best practices from peer institutions and consider the specific challenges facing faculty on our campus. Task force members also are helpful in promoting the program among their colleagues and encouraging applications from individuals at the appropriate career stage.

We engage with multiple stakeholders across the BUMC to coordinate efforts, co-brand programs, reduce resource redundancy, and foster cross-disciplinary collaboration. Because of the multidisciplinary nature of BUMC, it has been important for the FD Office to develop relationships with stakeholders in all three schools, the affiliated teaching hospital, and providers' organization. We meet every two years with department chairs in the BUSM and annually with section chiefs in the DOM to describe the programs and resources that we offer, as well as to identify new challenges facing faculty.

Lessons Learned at Step 2

- The quality of FD programming is improved by leveraging existing resources and stakeholders on campus to assist with program facilitation.
- Diverse faculty needs must inform program priorities and development.
- Needs assessments and program evaluations are essential to develop and adapt relevant program content

Table 2 BUMC Faculty Development Program Participants, 2012–2019

Program/Year	AFA	URG	MFL	WLP	NWP	Seminars*	Total Participants/ Year
2011–12	18					*	18
2012–13	17	-	-	-	-	*	17
2013–14	18	-	-	-	-	*	18
2014–15	21	10	-	-	-	*	31
2015–16	19	10	16	-	-	*	45
2016–17	25	8	20	12	-	*	65
2017–18	22	4	15	14	12	170	237
2018–19	28	4	18	21	18	103	192
2019–20	30	8	20	18	14	P†	90†
Total Participants/Program	198	44	89	65	44	273†	713†

Notes: *We began tracking seminar attendance in 2017–18. †Denotes seminar attendance for 2019–2020 is pending – programming disrupted due to COVID-19. The Clinical Leadership Program (CLP) denoted in Table 1 is only offered to BUSM in and outpatient medical directors.

Abbreviations: AFA, Academy for Faculty Advancement Early Career Program; URG, Underrepresented Racial and Ethnic Groups in Medicine Program; MFL, Mid-career Faculty Leadership Program; WLP, Women's Leadership Program; NWP, Narrative Writing Program.

- Engaging with key stakeholders on a regular basis enhances buy-in, adds new insights, and allows institutional leaders to identify organizational needs and priorities.

Step 3: Develop and Implement a Strategic Plan

An early step in launching our FD Office and related programs was the development of a strategic plan to map priorities, timelines, and approaches to previously identified needs. With the assistance of the FD and Diversity Committee and key leaders across campus, we designed a plan to close the gaps highlighted in the initial needs assessment, recognizing that different types of programs fill unique needs, depending on faculty members' career stages, interests, and challenges (Table 1).

We offer multiple types of programs and opportunities to support faculty. One-time FD seminars are designed to encourage and support faculty across the breadth of needs. The seminars occur at different times and days of the week throughout the academic year and can be taken for CME credit (Table 1).¹⁶ Because outside trainings can improve the career trajectories of faculty,³ we work with DOM to offer competitive grants of up to \$5000 (funded jointly by the DOM and the awardee's section) to attend programs and conferences beyond their national society meetings to advance their skills in research, education, clinical work, or leadership. The grant application¹⁷ and criteria for awarding¹⁸ are posted on our website. The DOM also sponsors annual faculty awards to recognize the diverse array of outstanding faculty contributions to the

department. The awards include research mentoring, junior faculty mentoring, outstanding citizenship, special recognition teaching, clinical quality improvement, clinical excellence, clinical innovation, and education mentoring.¹⁹

Our needs assessment highlighted the desire for a greater sense of community among faculty. In response, we offer networking dinners throughout the academic year for different DOM faculty constituencies, including educators, investigators, women, URG and allies, and LGBTQ+ and allies. Faculty report that dinner attendance has enhanced feelings of connectedness to their colleagues and departments and generated new professional collaborations.

When we began our FD work, our approach was to make high-quality programs available to all faculty. Whereas we have always paid special attention to ensuring gender, race, and ethnicity diversity, we assumed that “a rising tide would lift all boats.” What we learned, however, was that programs targeting specific faculty demographics are essential for providing specialized support for different types of faculty. Our needs assessments identified particular faculty communities that required greater support, including early-career, mid-career, women, and URG. As part of the strategic plan, we developed 9–12-month longitudinal programs for each of these communities (Table 1).

Lessons Learned at Step 3

- FD programs should vary by levels of time-commitment, including one-time seminars and longitudinal programs.
- New programs should be based on faculty needs. Program length, intensity, and focus should be explored as part of an initial needs assessment.

- Different groups of faculty have heterogeneous requirements. Offering targeted programs to specific types of faculty provides a more comfortable environment for conversation or mentorship that may not occur in a general FD program.

Step 4: Develop and Launch Programs

For each longitudinal program that we offer, we follow a similar template for design and implementation. We begin by identifying the central goals of the program from the needs assessment to keep the primary objectives in the forefront of program planning, implementation, and evaluation (example in [Table 3](#); [Figure 2](#)).

We develop an executive summary, a 1-page overview succinctly describing the program, for broad distribution and advertising (example in [Supplement 2](#)). As we begin

curriculum planning, we consider the program arc, including: emphasizing program goals, developing the program component “flow” to build across sessions, creating an environment of trust that fosters peer mentoring and relationship building, and using experiential pedagogical approaches that enable participants to apply content to their professional work.

Certain topics are relevant to all faculty regardless of career stage, and thus are included in all our programs. For example, time management, resiliency, diversity, and difficult conversations are essential concepts, regardless of one’s career stage. The central message of these topics remains the same from program to program, but we customize the learning objectives, pedagogical strategies, and areas of emphasis according to the group.

Table 3 Participant Goals and Institutional Goals for Mid-Career Faculty Leadership (MFL) Program

Participant Goals		Institutional Goals	
<ul style="list-style-type: none"> • Enhance self-reflection and awareness • Connect longitudinally to cohort and larger organization to foster innovations across all health sciences, including in education, clinical care and team science • Collaborate effectively across roles, disciplines and sectors • Develop leadership skills to positively impact change 		<ul style="list-style-type: none"> • Enhance faculty diversity, recruitment, self-efficacy, vitality, networks, retention and advancement • Develop a cohort of faculty that can innovate, effectively strategize to advance quality, and promote resource effective change in education, clinical care, public health and research at BUMC and beyond 	
See Figure 2			
Module 1	Your Role in Tomorrow’s Health Sciences	Module 2	Effective Teams
Day 1	Challenges & Opportunities in Health Sciences	Day 1	Strategies for Effective Team Project Management
	Peer Coaching Transactional & Transformational Leadership		Scoping Your Project
Day 2	Introduction to Group Projects	Day 2	Leading High Performing Teams
	Project Planning, Process, and Management		Having Feedback Conversations with Peers
Module 3	Leading Self	Module 4	Leading Others
Day 1	Time Management	Day 1	Mentoring & Developmental Networks
	Peer Coaching: Part II		Meeting the Needs of Stakeholders
Day 2	Addressing Unconscious Biases	Day 2	Difficult Conversations: Managing up the org chart
	Resilience in Academic Health Sciences		Crucial Accountability
Module 5	Leading Organizations	Module 6	Envisioning the Future
Day 1	The Financial Perspective	Day 1	Creating a Strategic Plan for Work & Life
	Managing Process for Efficiency & Effectiveness		Change Leadership
Day 2	Group Project Presentations Trial Run	Day 2	Group Project Presentations & Lessons Learned
	Creating Cultures of Innovation		Continuing on the Transformative Journey

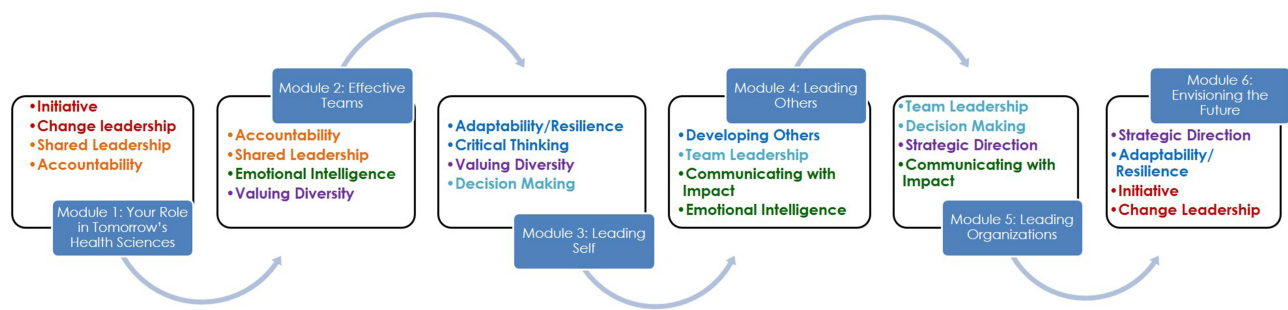


Figure 2 Midcareer faculty leadership program curriculum map.

Once we have a general idea of the content areas and program arc, we fill in the curriculum topics, identifying approaches to engage participants and make the learning experiential. When implementing our programs, we recruit individuals from across Boston University and beyond, to facilitate sessions. We identify facilitators based on their role, area of expertise, and areas of interest. For example, we engage staff from the Faculty/Staff Assistance Office or faculty with expertise on campus to speak to issues about mentoring, building peer networks, leading high performing teams, or managing conflict and difficult conversations. We work with facilitators using for a facilitator's guide template ([Supplement 1](#)), including diverse and creative strategies to foster experiential learning. The template ensures that facilitators plan the topic, content, and activity or pedagogy to ensure learning and application. During each session, participants are asked to make a commitment (eg, commit to practicing one time management strategy in the next week) and evaluate the session for future iterations. Each of our programs includes time for small group peer mentoring and/or longitudinal learning communities.

Experiential peer learning is central to all of our programs, since the literature suggests that peer-assisted, experiential learning is an effective educational strategy,^{20,21} particularly for the rising generation of health sciences professionals.^{22,23} Peer learning is supported through fruitful group discussions and projects. In the MFL program, faculty work together in groups to take on a project, and work with a leadership sponsor and staff member to support implementing the project prior to presenting at the end of the program. Between the group discussions and project work, MFL participants build strong relationships across the medical campus. Peer learning capitalizes on the expertise and experience of

participants to problem-solve each participant's challenges, while simultaneously helping to decrease the sense of isolation often experienced by faculty.

We require faculty to apply to the longitudinal programs to reinforce participants' rationale for involvement and their commitment to the program. Accepted faculty must commit to attending most or all sessions. We also use the application as an opportunity to gather applicants' goals for program, which we use to shape the curriculum to meet their needs and interests (example in [Supplement 3](#)).

We design programs in advance of the academic year, yet we adapt to address real time circumstances. For instance, at the time that we launched the MFL, one participant was distracted by family health issues. We had the participant lead the group in guided-meditation, which was so successful that subsequently we had all participants design a "5-minute activity" to share with their peers. The activities introduced creative, personal introductions to each person's life and promoted group collegiality. In response to COVID-19, we suspended our seminar series, and transformed our longitudinal programs into virtual sessions. Sensitive to the ongoing stress, we suspended attendance requirements, provided modified experiential curriculum, and provided time for real-time processing of the COVID crisis in virtual breakout rooms.

We have found that offering one new program approximately every two years has been most successful. We started with areas in which we identified the greatest need and have developed new programs and resources over time based on the evolving priorities of faculty and leadership. Often, we start small by piloting a program in the DOM, which gives us an opportunity to identify program elements that are effective and those that need to be improved before scaling up to offer the program to faculty across BUMC. It is

important for leadership to encourage innovation and risk-taking with new programs, providing creative license to experiment with various approaches to learning.

Lessons Learned at Step 4

- Some FD topics are relevant across programs and career stages – consider the needs of different groups, adapt content accordingly, and reuse effective approaches across programs.
- Ensure that programs use adult learning principles and experiential learning to apply and practice new content in participants' lives.
- Be willing to experiment and nimbly adapt programs to real-time circumstances.
- To enhance resource effectiveness and networking across the institution, capitalize on institutional experts to facilitate sessions.
- Start small and pilot programs to provide space for innovation and rapid evaluation.

Step 5: Continually Evaluate and Modify Your Programs

We systematically evaluate our programs to ensure they are high value and aligned with our needs assessment and strategic plan. We use both qualitative and quantitative methods to evaluate past modules/programs, soliciting specific suggestions regarding how to improve programs for future iterations.

Depending on program size and complexity, we conduct both formative and summative evaluations, including: an initial needs assessment, post-session evaluations to understand immediate reactions and responses to program sessions, and end-of-program evaluations to obtain holistic program evaluations (examples in [Supplements 4–6](#)). Although faculty participants and department chairs have reported improvement in related competencies and high satisfaction, the degree to which that extends to personal academic advancement and achievement is difficult to measure.

Lessons Learned at Step 5

- Evaluations should be utilized both to measure program impact and to facilitate program improvement.
- Use a mixed methods approach to triangulate the cumulative impact of the program on participants.
- Develop an intentional time to review evaluations and conduct program redesign.

Discussion

We have identified five steps to designing, evaluating, and continually improving Medical Campus FD Programs ([Figure 1](#)). The steps include: 1) form a FD committee and FD office, 2) conduct a needs assessment and engage key stakeholders, 3) develop and implement a strategic plan, 4) develop and launch programs, and 5) continually evaluate and modify your programs. Following these steps can assist in the development, implementation, evaluation, and continual improvement of successful FD programs.

In short, our strategy relies on two key elements: 1) engage the faculty and leadership in the development and evaluation of programming, and 2) employ a continuous program assessment process, from needs assessment to final program assessments, to guide program development and continual program redesign.

A key challenge continues to be testing and reporting program impact. FD programs are one of many components that can drive individual faculty members to succeed, but measuring the unique impact of the program itself is difficult. While ongoing program evaluation is essential, deciding on appropriate metrics and methods remains an ongoing challenge. We rely on mixed methods approaches to examine both competencies and skills gained and overall experience of faculty in our programs. However, given that funding of FD programs is often dependent upon institutional leadership's buy-in, it is important to understand the metrics and impact valued by leaders.

A second key challenge is that faculty development programs cannot be a panacea to fix all faculty challenges. Faculty in academic medical centers report high stress, competitive environments, and high burnout.^{24,25} While faculty development programs that work to support faculty can help reduce burnout, they should be paired with other initiatives to support faculty, including clear communication, provider input and engagement, and recognizing individual achievements.²⁶

Finally, it is essential to experiment with new topics, approaches, programs, responsive to real-time events. Some programs or program components will work and others will not. Be creative and take risks to fulfill faculty needs in new ways. Think broadly about the resources around you, including other faculty supports or local expertise from across disciplines, to advance programmatic effectiveness.

Ethics Approval

Ethical approval has been granted for studies involving human subjects by the Boston University Medical Campus Institutional Review Board:

- Academy for Faculty Advancement (AFA) Early Career FD Program: H-29,897.
- Mid-career Faculty Leadership Program (MFL): H-37,874; H-32,681.
- Narrative Writing Program (NWP): H-37,884.
- Under-represented Groups Development Program (URG): H-37,229.
- Women's Leadership Program (WLP): H-36,827.

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- R01 HL141434: FHS-NEXT - Framingham Novel EXam using Technology.
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