#### RECOMMENDATIONS SUMMARY

Faculty development is an expansive field, with an extensive body of research that has grown significantly over the past 20 years. The Faculty Development Initiative Task Force developed a framework to analyze faculty development efforts and found an abundance in the areas of *Teaching and Learning* and *Evaluation, Assessment and Feedback*. Significant literature exists in *Personal and Professional Development*, though this domain carries a wide range of topics within it. We used a rubric to evaluate the quality of curricula, including duration (time investment), formats, and outcomes. It should be noted that updates in faculty development occurred in 2021, over the span of our task force's work, with the finalized CoPA recommendations and the *Clinician Educator Milestone (CEM) Project* publication.

Our task force recommendations are based soundly on landscape review, are evidence-based, and incorporate major updates in the field. To note, our recommendations include areas of uncertainty, the need for further study, and areas we were unable to fully explore due to our one-year duration.

<u>Recommendation 1</u>: Given the state of faculty development and the role AAIM plays for medical educators, we recommend AAIM establish a Faculty Development Committee, with work groups organized around ongoing needs assessment, literature/resource reviews, and deliverables (website, conferences, a potential newsletter/social media). The committee should further explore the potential, development, and execution of a FD academy/certificate program, as well as deepen its external stakeholders and society collaborations/partnership. The Committee could be structured to allow rolling term limits, so there is continuity mixed with new members and fresh expertise.

We propose that within three months of its inaugural meeting, the Faculty Development Committee establish the work groups, identify key external stakeholders with whom to partner with, and develop a business plan with associated timelines. It is important that these work groups have a clear understanding of their respective scopes, and the business plan should articulate their respective activities and timeframes.

An alternative to a committee would be re-convening a task force every 3 to 5 years.

<u>Recommendation 2</u>: AAIM should adopt a framework to 1) organize faculty development content in the <u>Faculty Development Resources</u> page, 2) inform future offerings presented at AAIM conferences, and 3) serve as a "tagging" guide for user-friendly search functionality. Our collective expertise and research culminated into the six domains and sub-divisions listed in Table 1. We offer this framework for AAIM's consideration.

<u>Recommendation 3</u>: In step with the above recommendation, the Alliance, acting jointly with the succeeding Faculty Development Committee, should develop a repository of faculty development content to 1) serve as a feedback loop to understand the landscape and 2) to initiate a LMS for AAIM to grow and disseminate.

The Alliance, through the succeeding Faculty Development Committee, should endeavor to create effective FD interventions to address identified gaps. As noted in the Literature Review Work Group's gap analysis, greater opportunities are needed in 1) effective teaching in a virtual setting, 2) competency-based learner assessment, to include the application of milestones and Entrustable Professional Activities (EPAs), 3) assessment and teaching of struggling learners, 4) how to be an

effective mentor or mentee and the role of coaching in leadership, 5) effective role-modeling, and 6) professional identity formation. Content development in these areas should be considered to increase and elevate the Alliance's FD offerings, as these areas would help prepare leaders and participating faculty engage effectively and fairly in Clinical Competency Committees. Developing train-the-trainer sessions on these areas should be explored, as many medical schools and hospital systems are becoming more geographically separated.

To help facilitate the identification and curation of these sources, the Alliance should consider acquiring a seasoned librarian's expertise.

<u>Recommendation 4</u>: The Clinician Educator Competency-Based Milestones is timely to adopting a faculty development framework. Our framework has more detailed domains (competencies) and sub-divisions (sub-competencies) when compared to the CEM; however, our framework lacks milestones. As such, the succeeding Faculty Development Committee should further study the CEM and determine how best to incorporate competency-based milestones into our proposed framework.

<u>Recommendation 5</u>: Literature highlights the need for standardized and rigorous evaluation of faculty development curricula. We recommend utilizing the rMETRIQ as a rubric to evaluate the sundry of non-traditional resources. The *Coding Sheet* developed by the Literature Review Work Group can be used to evaluate academic publications.

<u>Recommendation 6</u>: Given the dynamic nature of faculty development and the steady growth of resources, periodic needs assessments in literature and non-traditional resources should be carried out. In addition, cyclic FD-focused surveys should be conducted. AAIM should administer an extensive literature and resource review every 3 – 5 years and produce audience specific surveys every 3 – 5 years.

Our Survey Composition Work Group proposes that the surveys investigate the six domains' access venues, barriers to participation, gaps in FD offerings, and innovative opportunities to deliver content. The survey should not be limited to program directors and clerkship directors; rather, it should capture, associate program directors, fellowship directors, core faculty, and other AAIM educators that don't hold one of these titles. Further, the Alliance, through its Faculty Development Committee, should consider surveying chief medical residents and other junior faculty to capture their unique needs and unique insights.

The surveys should continue to identify trends, gaps, barriers, priorities, formats, and incentives that can define and drive future faculty development. Our Survey Composition Work Group developed the enclosed blueprint to assist the Faculty Development Committee generate the first-ever FD survey instrument (Appendix 3). Furthermore, the Faculty Development Committee should develop a strategy that would map out surveys over the next 10 years, catering to the various AAIM constituencies and domains within FD.

To ensure success, the Faculty Development Committee should partner with the AAIM Survey and Data Center to constitute the various survey populations, determine incentives to garner the appropriate number of responses, and ascertain the ideal number of responses.

<u>Recommendation 7</u>: Among our six domains, a notable number of resources and publications exist in *Teaching and Learning, Evaluation, Assessment, and Feedback,* and *Personal and Professional Development*. These categories are large, but we found quality evidence addressing most topics. We

were encouraged by seeing a significant number of resources for *Personal and Professional Development*, as this has been highlighted as a critical need by national experts.<sup>25,26</sup> Topics within this domain most often addressed are mentorship, well-being, and bias training.

For areas less represented in the literature, we recommend AAIM assess membership interest in additional content offerings in *Curriculum Development and Instructional Design*, *Scholarly Activity*, and *Leadership*, *Administration*, and *Organizational Structure*.

As earlier stated, our TF charge included faculty development in assessment tools. *Evaluation, Assessment, and Feedback* is one of the more frequently published domains. Our review of literature, non-traditional resources, and *MedEdPORTAL* have identified a significant number of resources. The task force is happy to share those researched sources, though we recommend that the subsequent Faculty Development Committee continue the work and curate these resources. Members of the former AAIM Assessment Task Force should be approached to serve on an advisory capacity.

<u>Recommendation 8</u>: Establishing a listserv or online community dedicated to faculty development should be initiated and is viewed by the collective as a low-hanging fruit that can be easily implemented in year one of the FD Committee's inauguration. Member "champions" should be assigned to ensure engagement (i.e., post discussion topics weekly or bi-weekly) and to foster a mentoring/coaching environment. Regarding the latter, it would be ideal that this be folded into the AAIM Mentor Program.

<u>Recommendation 9</u>: To help broadcast non-traditional resources, a social media platform dedicated to all-things IM FD related should be initiated to facilitate the circulation of resources to members and the medical education community at-large. Other organizations have used Twitter effectively, and their techniques/approaches should be adopted. Identifying volunteer "champions" to serve as content experts, facilitating the curation and dissemination of resources, should be considered.

<u>Recommendation 10</u>: The Non-Traditional Resource Work Group's landscape examination revealed that resource development is less needed; rather, curation and communication of existing resources would be an efficient and high-yield effort for the Alliance. Being that non-traditional materials are new, proliferating, and a bit elusive to some, the Alliance should consider developing pointers or content on the utility of NTR.

<u>Recommendation 11</u>: The NTRWG did not audit AAIM's FD track offerings from *Academic Internal Medicine Week* and the *APDIM Fall Meetings*. The group recalled that some of these workshops were relevant and satisfactorily executed. The Faculty Development Committee should review all high-yield workshops and consider re-packing these as blogs, snippets, or re-designed with a Ted Talk-like tenor.

Recommendation 12: AAIM should take strides to re-organize and enrich the Faculty Development Resources page. An enhanced Faculty Development Resources page would advance the organization and illuminate members on the variety of available FD sources. The NTRWG further advises implementing tagging features for all AAIM content and offerings, further elevating the search functionality. High-yield and current medical education articles should be a daily staple in the Resource Page and should fall under the appropriate domain.

<u>Recommendation 13:</u> AAIM should consider organizing materials on the website with a time-based mindset, which could help distinguish NTR based on a clinician educator's time bandwidth. To expound,

categorizing NTR within the appropriate domains and further sub-categorizing them based on duration: 5 - 10 minutes, 10 - 20 minutes, 20 – 30 minutes, etc.

<u>Recommendation 14</u>: We recommend that the AAIM Program Planning Committee partner with the succeeding Faculty Development Committee in steering calls for abstracts, workshops, and pre-courses based on gaps and needs. This may be challenging on a yearly basis, so a 3–5-year strategic plan may align with fresh needs assessments.

<u>Recommendation 15</u>: We recommend AAIM create a faculty development certificate program and/or academy for educators. Our task force discussed features inherent in a FD certificate program, which included goals, content, and requirements. This would be a high stakes investment, requiring detailed exploration and planning. We did not reach consensus on defining features of a certificate program or academy but propose the following goals, content, design, and incentives:

- Goals: skill acquisition, promotion, and educator well-being.
- <u>Content</u>: mentorship, portfolio development, education project, near-peer activities, and AAIM conference engagement
- Design: master learning, with competency-based milestones in focused areas of faculty development.
- Additional incentives: special programming and committee placement

Launching a faculty development certificate program would require significant dedicated time and personnel: with one overseeing the educational content, while another supporting the administrative and logistical functions. Certificate programs or academies would logically be housed in a learning management system (LMS), and the allotment of appropriate CMEs would be ideal and worthy of exploration.

We recommend AAIM explore the literature and expertise highlighted in our reference section below.

Recommendation 16: Addressing the challenges and complexities besieging the medical education continuum have become a central focus in academic medicine. We have reviewed the CoPA UGRC recommendations and mapped those recommendations relevant to faculty development to our FDI TF framework and CEM's domains. We recommend additional work be done by AAIM to merge these CoPA UGRC recommendations with our TF domains and CEM milestones to produce a cohesive, comprehensive faculty development blueprint.

Recommendation 17: We recommend exploring a strategic partnership with MedEdPORTAL, to include the curation of faculty development publications relevant to the AAIM membership. Additionally, to foster educational scholarship, AAIM members could take advantage of MedEdPORTAL's Faculty Mentors Program, which allows associate editors to mentor potential authors in translating their teaching resources into publications in MedEdPORTAL

Recommendation 18: Most of the topics across our six domains apply equally to educators in UME and GME. The landscape review identified significant publications and curriculum for medical students and residents. Many of these publications could be adopted by fellowship educators but require some tailored content. Given the prominent role that fellowship training holds in internal medicine, we recommend AAIM continue to grow the role of ASP, increase content offerings specific for fellowship educators at AAIM national conferences, and highlight fellowship specific resources on the AAIM website.

<u>Recommendation 19</u>: The Common Cause and Common Purpose: Strategies to Increase Engagement in Faculty Development Activities should be a key resource within the Faculty Development Resource page and serve as a guide for future AAIM conference content planning.

<u>Recommendation 20</u>: While we found some unique features of faculty development that pertained to program type, we do not believe this is an area in need of significant resource allocation.

Recommendation 21: Additional partnerships with organizations, universities, and individuals that are leaders in faculty development would be of value. Influential to our task force learning and efforts were interviews with Dr. Steinert and Dr. O'Sullivan. Universities such as UCSF and Stanford offer faculty development programs for personnel outside of their institution. SGIM recently started the *TEACH* faculty development certificate program, and ACGME has offered longitudinal workshops in assessment.

We recommend AAIM invite these leaders to serve as advisors in webpage enhancement, content development, academy establishment, and needs assessments. Brief interactions would provide expert and evidence-based insights and create an avenue for new collaborations.

#### **AAIM Faculty Development Initiative Task Force**

Operational from September 1st, 2020, to September 30th, 2021

# Overview

#### **Members**

Aashish K. Didwania, MD	Chair
Valerie O	Administrative Director

# Literature Review Work Group

Amna Anees, MD, FACP	Member
Mel L. Anderson, MD, MACP	Work Group Lead
Anita Sikha, MD	Member
Aditi Puri, MD	Member
Trek Langenhan, MD	Member

# Survey Composition Work Group

Craig F. Noronha, MD	Member
Grace C. Huang, MD	Member
Kanta Velamuri, MD, M.Ed.	Work Group Lead
Katie Suddarth, MD	Member
Karen Ann Friedman, MD, MS-HPPL, FACP	Member

#### Non-Traditional Resource Work Group

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Sarita Soares, MD	Work Group Co-Lead
Laxmi A. Suthar, MD, FACP	Member
Ateeq U. Rehman, MD, FACP	Member
Joshua D. Hartzell, MD	Work Group Co-Lead

# Scope

The AAIM Faculty Development Initiative (FDI) Task Force (TF) was charged with examining the landscape of how various programs undertake professional and personal development of its faculty. The Task Force was asked to identify common challenges and share best practices on how UME and GME institutions engage and develop faculty to improve performance. Areas of interest include:

- Assessment tools
- Virtual interviews
- Telemedicine

Inclusion of community, university, and ambulatory based programs were important as we undertook our comprehensive landscape review.

# Organization

Considering the breadth of faculty development (FD), we used our initial meetings to organize ourselves in a logical, practical manner. Our first internal survey asked task force members to list and prioritize topics of eminence in faculty development, as well as identify gaps. The survey's results are detailed in the "FDI TF Outline" section. This exercise was crucial in informing our subsequent internal survey,

wherein we ascertained how to organize our review process and create work groups reflective of our efforts.

We deliberated if said work groups should focus on FD domains, training period (UME, GME-Residency, GME-Fellowship), or review methodology. Consensus among task force members was to form work groups around review methodology, given the overlapping nature of faculty development across topics and training periods. We also found distinction in important review methodology. As a result, the following three work groups were established:

- 1. Literature review
- 2. Non-traditional Resource (e.g., app-based curriculum)
- 3. Survey Composition (to include deployment)

Task force members self-selected the group that embodied their expertise, and a designated lead was appointed.

# **Timeline, Communication, Content Experts**

Commencing November of 2020, our work groups began monthly meetings with e-mail communication in between. Task force meetings were conducted bi-monthly, as platform for work groups to share progress and keep the landscape review cohesive. Discussion items for each work group included editing domains, developing review rubric, curating resources, and survey development.

In addition to work group and task force meetings, content experts in faculty development were identified through literature review, contacted, and invited to meet with task force members. Two international leaders, Yvonne Steinert, PhD, CM, and Dr. Patricia O'Sullivan, Ed.D., imparted knowledge, best practices, and future trends to further inform and shape our direction. Our Literature Review Work Group procured the collective expertise of two systematic review experts: Craig Gunderson, MD, SFHM, and Alyssa Grimshaw, MSLIS, IPI PMC.

# **Landscape Review**

#### **Outline**

**Domains and Topics** 

We conducted an anonymous internal survey of our 15 physician members, which solidified faculty development domains and topics as well as identified FD priorities and gaps. We used this survey, literature review, and subsequent task force meetings to create a framework that grouped topics under six common domains (Table 1). While there are several published frameworks, none provided this degree of depth.<sup>1-3</sup>

A substantial majority of faculty development publications over the last 20 years is in the domain of *Teaching and Learning*. Close in order are *Personal and Professional Development* and *Evaluation, Assessment and Feedback. Leadership, Administration, and Organizational Development* was least frequently described in the literature. Topics within each domain vary greatly in publication of needs assessments or quality interventions. Non-traditional resources, as described in the "Non-Traditional Resource Work Group: Summary of Efforts and Outcomes" (Section I), are a vast and unstudied area of faculty development, with little known about how they may catalogue in domains and topics.

# **Table 1: Six Core Domains in Faculty Development**

#### **Teaching and Learning**

- Theories of learning and motivation
- Clinical Teaching
  - o Teaching on rounds/Bedside teaching
  - Precepting in ambulatory setting
  - Small group facilitation (Other venues)
  - Large group didactic teaching (Other venues)
  - Teaching Reasoning and Decision
     Makina
  - Procedural teaching
  - Medical Knowledge
- · Simulation based teaching
- Teaching a Struggling learner
- Counseling for each transition
- Teaching in a virtual setting
  - Interactive methods of teaching
    - Team based learning
    - o Flipped classroom
    - Problem based learning
    - o Case based learning

# **Evaluation, Assessment, and Feedback**

- Assessment methods
  - Direct Observation
  - o Other
- Validity and Reliability of assessment tools
- Feedback
  - Verbal
  - Written
  - o Formative and Summative
- Competence assessment based on assessments (Standard setting)
- Milestones/EPAs
- Evaluating learners for Implicit Bias
- Standardization of assessment tools what does it look like? How do you teach your faculty? How would you create one?
- Clinical Competency Committees
- Remediation of struggling learner
- Letter of Recommendation/IM SEL

# **Personal and Professional Development**

- Well-being
  - o Financial
  - Work-life balance
- Career advancement
- Mentoring, Advising and Coaching
- Selecting a mentor and Mentee-ship
- Implicit bias and diversity
- Equity and Advocacy
- Digital media in professional life
- How to incorporate non-traditional resources?
- What do core faculty use in terms of non-traditional resources/methods?
- Financial component (personal)
- Counseling for each transition
- SMART goals
- MoC
- Collaboration/networking
- Documentation/coding/billing
- CV
  - Organization, prioritization skills, time management
- Interviewing skills

# Instructional Design and Curriculum Development

- Course goals and objectives
- Curricular approaches
  - Small/large group lectures and other modalities
  - Curricular design how to develop and implement effective curriculum
- Blueprinting
- Needs Assessments
- Curriculum evaluation
- Simulation
  - Case-based
  - o Procedural
  - o Communication (breaking bad news, etc.)
  - o Slide deck creation
  - Audience interaction/engagement
  - Creating simulations

# **Scholarly Activity**

- Types of Scholarship and various methods of dissemination
- Research methodology
  - o Quantitative
  - Qualitative
- Writing (Manuscript, Grant, Narrative)
- Designing Workshops
- Abstract Preparation and Presentation Skills
- Oips
- IRB/CITI program
- Literature Review
- Local/regional/national committee membership

# Leadership, Administration, and Organizational Development

- Leadership models
- Organizational structures and culture (including DEI)
- Power and Authority (including DEI)
- Creative and Strategic management
- Conflict resolution
- Recruitment
- Financial management of an organization
- Committee membership
- Role modeling
- Negotiations
- Formation into an academic leader

The framework we developed allows for cataloguing and tagging faculty development curricula. We placed topics (subdivisions) with domains they most closely align with, though many topics may be relevant to various domains. Diversity, equity, and inclusion is an example of a topic that can apply to multiple domains. One recommendation is that the Alliance, acting jointly with a succeeding Faculty Development Committee, develop a repository of faculty development content to 1) serve as a feedback loop to understand the landscape and 2) to initiate a repository for AAIM to grow and disseminate.

Competency-Based Framework for Medical Educators

Timely to our Task Force's work was the publication of the *Clinician Education Competency-Based Milestones Project* – a joint effort by the ACGME, ACCME, AAMC and AACOM.<sup>4</sup> This project noted three

major forces that have stimulated the progress of clinician educators over the last few decades: faculty development, educational scholarship, and the advent of communities of learners. The Clinician Educator Milestones (CEM) provides a framework for assessing clinical teaching faculty in a developmental fashion – from novice to mastery.

The multi-society assembly noted the utility of milestones to develop educational plans for faculty educators and as an educator assessment tool for growth and promotion. The utility of CEM may be particularly useful for departments, academies, or societies with dedicated faculty educator development pathways.

The CEM Project identified four domains of competence for the clinician educator: Administration; Educational Theory and Practice; Well Being; and Diversity, Equity, and Inclusion (Table 2).

Table 2: Clinician Educator Milestone Project: Domains of Competence<sup>4</sup>

Domains of	Competencies Subcompetencies		
Competence	- Compatibilities		
Administration	Demonstrate administrative skills relevant to their professional role, program management, and the learning environment that leads to best health outcomes for the society	<ul> <li>Administration Skills</li> <li>Leadership Skills</li> <li>Learning Environment</li> <li>Change Management</li> </ul>	
Educational Theory and Practice	Ensure the optimal development of competent learners through the application of the science of teaching and learning to practice.	<ul> <li>Feedback</li> <li>Scholarship</li> <li>Professionalism</li> <li>Learner Assessment</li> <li>Program Evaluation</li> <li>Remediation</li> <li>Teaching</li> <li>Science of Learning</li> <li>Learner Professional Development</li> </ul>	
Well Being	Apply principles of wellbeing to develop and model a learning environment that supports behaviors which promote personal and learner psychological, emotional, and physical health	Well-Being of Self, Learner, and Colleagues	
Diversity Equity and Inclusion	Acknowledge and address the complex intrapersonal, interpersonal, and systemic influences of diversity, power, and inequity (power, privilege) to promote equity and inclusion in all settings to optimize patient outcomes and so that all educators and learners can thrive and be successful.	Diversity, Equity, and Inclusion	

Mapping our Task Force's six domains to the four of CEM, we noted that our *Leadership, Administration*, and *Organizational Development* domain closely aligned with CEM's *Administration*. Our *Personal and Professional Development* domain aligned most closely with CEM's *Well Being*. Faculty development in mentoring and learner well-being cognizance were areas where we revised our framework to further clarify and emphasize these topics within the *Personal and Professional Development* domain.

Teaching and Learning; Evaluation, Assessment and Feedback; and Instructional Design and Curriculum Development map closely with CEM's Educational Theory and Practice. As a task force, we agreed that scholarship activities should be classified as a unique domain. The CEM notably highlights this as one of the three main forces impacting faculty development but chose to include it in Education Theory and Practice, along with other skills.

Our approach to include more domains and detailed subdivisions in our framework is purposeful, as we collectively agree that this categorization will help AAIM organize, develop, and disseminate content. The success of the CEM's effort is to provide milestones that can guide an educator's development. We believe these efforts and concepts are complementary and should be merged into a detailed framework like ours, with CEM-like milestones. We comment in our recommendations that further work by AAIM can influence the evolution of CEM, along with CEM adoption and implementation. As noted in the CEM charter, further study is still needed for literature review, content validity, educator outcomes, response process characteristics, and reliability.<sup>3,4</sup>

The CEM project also accounts the importance of faculty development to the organization itself -- faculty development is not just for faculty, but for the entire organization that is dedicated to education.<sup>5</sup>

# **Rubric Development**

Our review process necessitated an evidenced based approach to evaluate the quality of curricula. We used the former AAIM Education Committee's curriculum review rubric, developed in 2017, as a starting point (Figure 1).<sup>6</sup> Our rubric evolved to include variables that stood out during our literature and non-traditional resources review. A key example includes the length, or duration, of the faculty development curriculum, given the frequently identified barrier of time. PRISMA and MERSQI were reviewed to provide additional guidance. Ultimately, the rMETRIQ was utilized by the Non-Traditional Resource Work Group, and an adapted, expanded version of the former Education Committee's rubric was utilized by the Literature Review Work Group (*Appendix C, LRWG Coding Sheet*).

Figure 1: AAIM Education Committee Faculty Development Toolbox Review Form<sup>6</sup>

Faculty Development Toolbox Review Form
Program Name
Program Type (Community/Univ/Mixed)
Location (Urban/ Suburban/ Rural)
Category of faculty development curriculum
Target faculty educators for curriculum (Hospitalist, GIM, Sub-specialty medicine, Core educator, All, Other)
*Comment box
Clarity of description of the curriculum (1-5)
Importance of topic to residency education (1-5)
Educational effect/impact (5)
Potential impact on residency education (1-5)
Reproducibility, consistency, equivalence (3)
Educational effect/impact (5)
Ease of implementation (1-5)

Feasibility, cost effective, ease of use, resources required (4)

#### Evidence of effectiveness (1-5)

Validity, coherence, reliability, acceptability (1)

Reproducibility, consistency, equivalence (3)

Educational effect/impact (5)

# Innovation/novelty (1-5)

Catalytic effect (2)

#### Notes for review committee

#### Notes to be shared with submitter

- Positive impressions
- Areas for clarification or improvement
- (1) Validity or coherence. There is a body of evidence that the curriculum is coherent ("hangs together") and that supports the use of the results of the curriculum for a particular purpose.
- (2) Catalytic effect. The assessment provides results and feedback in a fashion that creates, enhances, and supports education; it drives future learning forward.
- (3) Reproducibility or consistency. The results of the assessment would be the same if repeated under similar circumstances. Equivalence. The same assessment yields equivalent scores or decisions when administered across different institutions or cycles of testing.
- (4) Feasibility. The assessment is practical, realistic, and sensible, given the circumstances and context.
- (5) Educational effect. The assessment motivates those who take it to prepare in a fashion that has educational benefit. Educational impact The educational impact standard specifies that methods should yield results that stimulate positive change in individual resident performance, knowledge, skills, or attitude or

Highlighted variables noted in Table 3 were identified as essential to grading the quality of faculty development curricula.

# **Table 3: Characteristics of Faculty Development Curriculum**

- Tier 1 Outcomes knowledge acquisition, attitude change or increased confidence.
- Tier 2 Outcomes skill acquisition, behavior change or promotion.
- Duration of the Faculty Development curriculum
- Formats
  - Interactive distance/Remote learning
  - o Non-interactive didactics (e.g., live lecture, video, podcast)
  - Workshops including small and large group
  - Individual coaching
- Degree of mentoring or monitoring
- Incentives
  - Financial/Time (FTE)
  - o Promotion
  - Requirements

# **FDI Task Force Work Groups**

# Literature Review Work Group: Summary of Efforts and Outcomes

#### Overview

The Literature Review Work Group (LRWG), in collaboration with an external Clinical Research/Education Librarian and Associate Professor both highly experienced in systematic reviews, initiated a formal scoping review of faculty development literature. The search methodology was

adapted from Steinert, et al,<sup>7</sup> but was broadened to not to be limited to clinician-educators and was without limitations on publication date. A total of over 15,000 citations were retrieved. Titles and abstracts were screened by two separate reviewers, with differences resolved through group deliberation. Roughly 6,000 titles were screened as of September 2021, with 349 unique studies selected for more detailed review. This summary represents an overview of the screening experience to date. Detailed data extraction will follow completion of screening.

# Notable references

# Steinert, et al, 20068

A systematic review with qualitative description of FD interventions intended to address the primary research question of the effects of FD on the knowledge, skills, and attitudes of medical educators and upon their respective institutions. They identified six randomized trials and 47 quasi-experimental studies published between 1980 and 2002. Steinert and colleagues found high satisfaction with FD interventions, positive changes in attitudes toward FD and teaching, increased knowledge of educational principles, and changes in teaching skills. They emphasize that more rigorous research methodologies are needed and that FD interventions should follow best practices for adult learners. The review was limited to FD interventions targeting educational and teaching skills.

# Steinert, et al, 2016<sup>7</sup>

This systematic review provided a 10-year update to the above paper, covering literature published from 2002 - 2012. A total of 111 studies were identified, which extended the range of reported outcomes to include new educational initiatives, new educational leadership positions, and scholarly output.

#### Alexandraki, et al, 2021<sup>9</sup>

This scoping review identified 31 studies of FD interventions published between 1998-2018. Studies were grouped by the FD topics of teaching skills, research/scholarship skills, leadership skills, or a combination of these. The review included reports of educational fellowships and degree programs. The authors also note that program evaluation was not as robust, limiting conclusions about net impact. Studies were limited to those targeting clinician-educators specifically.

# Themes

# Teaching / Education

Many published FD interventions target teaching skills – including educational theory, direct clinical teaching and teaching of clinical reasoning, simulation-based teaching, and teaching in a problem-based learning setting. Training in feedback was often included. Less frequent were FD interventions around developing and implementing effective curricula. A notable subset of FD targets how to teach effective communication skills, particularly communicating difficult news to patients.

# Leadership

FD in effective leadership included personal and financial well-being, work-life integration, implicit bias and diversity, CV building, conflict resolution, strategic planning, and networking. Programs for "Executive Leaders in Academic Medicine" described substantial positive outcomes among participants.

# Research / Scholarly Activity

FD interventions included topics such as types of scholarship (for example, non-traditional scholarship for clinician educators), formal quantitative and qualitative research methodology, grant and manuscript writing, and presentation skills.

Further notable themes around how FD is structured were evident -- that peer mentoring can be a powerful mechanism for achieving FD; interventions that create or reinforce a community of educators can be particularly effective; FD must employ current adult learning principles in design and conduct; and higher-quality evaluation of impact is needed.

#### Gaps

Greater opportunities for FD are needed in 1) effective teaching in a virtual setting, 2) competency-based learner assessment, to include the application of milestones and Entrustable Professional Activities (EPAs), 3) assessment and teaching of struggling learners, 4) how to be an effective mentor or mentee and the role of coaching in leadership, 5) effective role-modeling, and 6) professional identity formation. Dedicated faculty development is needed to prepare leaders and participating faculty engage effectively and fairly in Clinical Competency Committees.

#### **Barriers**

One of the barriers that we encountered at the beginning is organization of literature on FD. We tackled this through the development of a rubric that can be used to organize the landscape of faculty development (*Appendix B, FD Domains and SubDivisions Framework*). This was an important step without which such an assessment would not be possible given the number of abstracts we discovered. The rubric developed with the group will be an important starting point for the faculty development assessment by AAIM in the future.

The availability of a librarian was another key step in the LRWG's search and would be valuable to consider for future assessments in faculty development. AAIM should consider partnering with such experts in future committee/task force efforts.

#### Future Directions and Recommendations

The Alliance, through the succeeding Faculty Development Committee, should endeavor to create effective FD interventions to address the identified gaps. Establishing a listserv or online community dedicated to faculty development should be initiated and is viewed by the collective as a low-hanging fruit that can be easily implemented in year one of the FD Committee's inauguration. The succeeding FD Committee should align faculty clinician educator milestones to specific FD opportunities. Finally, a call for greater attention to FD program evaluation should be explored.

# Non-Traditional Resource Work Group: Summary of Efforts and Outcomes

# Definition

Non-traditional resources (NTR) are educational resources that are available through non-traditional teaching methods such as social media – including websites, podcasts, Twitter, videos, etc. This is a rapidly evolving set of resources.

#### Search methodology

The Non-Traditional Resources Work Group (NTRWG) used a variety of methods to identify what exists in the virtual/technology space, as well as potential gaps related to NTR. The group conducted a

literature review, seeking examples of NTR and how they were optimized. While not an extensive and comprehensive review, it is clear that while this is an area of growing interest in medical education, there remains a paucity of data related to NTR and their effectiveness within medical education. The group also searched social media resources to identify examples and best practices.

# Notable references

The group recognized that there were many different formats of non-traditional resources and attempted to categorize them in a manageable way. Using such a framework would be one way that AAIM could attempt to organize these resources moving forward: social media platforms, websites, podcasts, blogs, and videos. A few notable examples of each are below. These NTR offer a wide range of topics, varying formats, varying lengths, and variable peer review. One important point about most of these resources is that each offer "just in time" training when needed, and many are vignettes which are useful for busy faculty.

Medium	Sample High Quality Resources		
Twitter	@AMEEFacDev		
	@IDSAMedEdCOP		
	@MedEdMustReads		
	@Womeninmedchat		
Blogs	https://www.harvardmacy.org/index.php/hmi		
Websites	https://clinicalproblemsolving.com/		
	https://hopkinsbayviewinternalmedicine.org/must-reads/		
	https://www.aliem.com/		
Podcasts	https://www.royalcollege.ca/rcsite/canmeds/keylime-podcasts-e		
	https://podcasts.apple.com/us/podcast/leading-the-rounds/id1516013076		
	https://www.lauriebaedke.com/podcasts/		
	https://thecurbsiders.com/		
Videos	https://www.ted.com/talks/abraham verghese a doctor s touch?language=en		
	https://www.ted.com/talks/atul gawande want to get great at something get a coach		
	https://www.ted.com/talks/amy edmondson how to turn a group of strangers into a tea		
	m?language=en		
	https://www.youtube.com/watch?v=3LdEwYDDJBg		
Certificate	https://www.sgim.org/communities/education/sgim-teach-program#		
Programs	https://medschool.usuhs.edu/about/faculty-affairs/faculty-development		
	https://www.mcgill.ca/medicinefacdev/programs/faculty-development-certificate-program		
	https://faculty.med.virginia.edu/facultyaffairs/development/education-professional-		
	development/nxgen-certificate-series/		

#### Themes

The group identified several resources, some of which are not listed above. Many resources are of high quality but were not easily searchable, not frequently used, or were unfamiliar to our work group. The NTRWG's landscape examination revealed that resource development is less needed; rather, curation and communication of existing resources would be an efficient and high-yield effort for the Alliance. Given the large number of traditional and NTR for faculty development, a long-term strategic communication plan is needed and should include social media. A key variable the work group identified, to further distinguish NTR, was curricula duration. AAIM should consider organizing material into pre-determined categories of duration.

#### Gaps

The NTR method and use of these platforms is possibly a knowledge gap for AAIM members. While social media resources have been adapted by some within the larger medical education community, it remains an area that offers promise. As such, the Alliance should consider developing pointers or content on the utility of NTR within the space of FD.

#### **Barriers**

That greatest barriers to NTR are 1) awareness and 2) curating what is an ever-expanding number of resources. A plethora of resources exist and are continuously being developed; to be kept abreast of these burgeoning materials is a full-time affair, let alone curate those that are pertinent to IM clinician educators. To help broadcast to the membership these flourishing NTR, a social media platform dedicated to all-things IM FD related should be created. Further, an enhanced <u>Faculty Development Resources</u> page would advance the organization and illuminate the membership on the variety of available FD sources.

Launching a Faculty Development Certificate Program would require significant dedicated time and personnel: with one overseeing the educational content, while another supporting the administrative and logistical functions. Certificate programs or academies would logically be housed in a learning management system (LMS), and the allotment of appropriate CMEs would be ideal and worthy of exploration.

#### **Future Direction and Recommendations**

# Enhanced Faculty Development Resource Webpage

AAIM should take strides to re-organize and enrich the <u>Faculty Development Resources</u> page. The NTRWG further advises implementing tagging features for all AAIM content and offerings, further elevating the search functionality. High-yield and current medical education articles should be a daily staple in the Resource Page and should fall under the appropriate domain.

AAIM should consider organizing materials on the website with a time-based mindset, which could help distinguish NTR based on a clinician educator's time bandwidth. To expound, categorizing NTR within the appropriate domains and further sub-categorizing them based on duration: 5 - 10 minutes, 10 - 20 minutes, 20 - 30 minutes, etc.

#### Increased Social Media Presence and Listserv Development

AAIM should establish a faculty development social media platform/account to facilitate the circulation of resources to members and the medical education community at-large. Other organizations have used Twitter effectively (@AMEEFacDev or @IDSAMedEdCOP), and their techniques/approaches should be adopted. Identifying volunteer "champions" to serve as content experts, facilitating the curation and dissemination of resources, should be considered.

AAIM has a variety of listservs for the purposes of constituencies and special interest. These avenues have been used as a means of communication and networking. The NTRWG recommends that a FD listserv be developed for that purpose. Just as above, champions should be assigned – this time, to ensure engagement (i.e., post discussion topics weekly or bi-weekly) and to foster a mentoring/coaching environment. Regarding the latter, it would be ideal that this be folded into the AAIM Mentor Program.

Faculty Development-Focused Workshops

Though the NTRWG did not audit AAIM's FD track offerings from *Academic Internal Medicine Week* and the *APDIM Fall Meetings*, the group recalled that some of these workshops were relevant and satisfactorily executed. The Faculty Development Committee should review all high-yield workshops and consider re-packing these as blogs, snippets, or re-designed with a Ted Talk-like tenor.

# Survey Composition Work Group: Summary of Efforts and Outcomes

#### Overview

The Survey Composition Work Group (SCWG), in reviewing the framework developed by the overall task force, discerned that *Teaching and Learning, Instructional Design and Curriculum Development*, *Scholarly Activity*, and *Personal and Professional Development* are core tenets of faculty development. As a result, the SCWG developed a survey blueprint around these areas. Being that the Alliance has an in-house survey development team, the AAIM Survey and Data Center (SDC), the SCWG partnered with their team of process and content experts.

Prior to structuring a survey blueprint, the SCWG combed through APDIM and CDIM survey results from 2017 through 2020 to establish a baseline of what FD areas were studied, as well as their outcomes. Though some past survey sections, as a listing, appeared to touch on faculty development areas, a deeper dive into the instruments ascertained that FD was not inquired, and therefore unexplored, from the membership; as such, a FD-focused survey is warranted.

Task force leaders met with Yvonne Steinert, PhD, CM, Professor of Medicine and Health Sciences Education, to absorb some best practices in medical education. Her advice to this group was to determine if the survey's purpose is a needs assessment or an avenue to collect best practices from various programs. Being that the charge of the task force is to provide recommendations on AAIM's future faculty development content and offerings, the SCWG agreed to focus on needs assessment. With that in mind, the SCWG proposes that the survey investigate the six domains' access venues (i.e., institutional workshops, online webinars, independent self-learning, etc.), barriers to participation (i.e., clinical responsibilities, lack of institutional support, work-life balance, etc.), gaps in FD offerings, and innovative opportunities to deliver content (i.e., longitudinal courses, video vignettes, social mediabased activities, etc.). Use of the preceding AAIM Education Committee's survey results on engaging faculty to seek and obtain professional development should be utilized to dig deeper into faculty development implementation and delivery.<sup>6</sup>

The APDIM Survey and Scholarship Committee broadcasted a call for survey section topic proposals for consideration in academic year 2023. As the survey development process is extensive and demanding — and this process does not account for survey population development — the SCWG agreed to develop a survey section to acquire baseline information. The SCWG's survey section sought to 1) assess PDs' satisfaction with current FD opportunities and their preferences for instructional approaches, 2) to characterize specific domains and topics within faculty development that program directors perceive as areas of need for both their individual and faculty's growth, and 3) to assess PDs' interest in future opportunities for FD. To date, the survey proposal was accepted, with the SCWG submitting a detailed survey section for consideration. It was shared that the APDIM Survey & Scholarship Committee will render a decision later in the fall.

#### Gaps

The Alliance annually fields surveys targeted at program directors and clerkship directors. These are an overly surveyed population, and, though their insights are valuable to faculty development, the Alliance

should take steps to survey other populations within its membership: assistant/associate program directors (APDs), core faculty, chief residents, and other junior faculty. Survey of chief residents may offer a window into what recent resident-learners would prioritize for faculty development.

# **Barriers**

The SCWG recognizes that developing survey populations of APDs/core faculty and chief residents/junior faculty would be a massive undertaking for the SDC and the Faculty Development Committee. Though laborious, these constituencies' insights would be invaluable.

The work group further acknowledges the SDC's extensive and vigorous survey schedule. Determining an appropriate timeframe to survey the aforementioned populations would be challenging, even if these groups are to be surveyed every three years. As such, the group acknowledges that the jump to reoccurring surveys would be a Herculean effort, given that a FD-centered survey has not been executed by the Alliance.

# **Future Direction and Recommendations**

The leap to a reoccurring survey, as mentioned, would take considerable effort and time for both volunteers and staff alike. As such, the SCWG recommends that a short survey be developed by the succeeding Faculty Development Committee. This pulse survey can be deployed as part of the Alliance-wide membership survey. The survey could focus on gaining baseline data regarding:

- How do members/institutions currently receive FD training?
- What types of in-training members provide their faculty?
- What types of training would our members ideally want for their faculty?
- Who within the AAIM membership institutions is/are responsible for faculty development? If these items are excluded, an alternative is to circulate via the AAIM Ambassador Program. Of course, if opportunity to deploy a stand-alone survey outside of the critical survey junction is possible, then efforts should be centralized to make this happen.

The Alliance, through the Faculty Development Committee, should take strides to cull APDs and core faculty from its membership and juxtapose their database information with an accredited body's data, thereby ensuring accuracy. Though chief residents and junior faculty are not listed as active members of the Alliance, it would behoove the organization to also curate a list of these individuals so that AAIM may also gather their invaluable insights on faculty development.

The succeeding Faculty Development Committee, in partnership with the SDC, should develop surveys commensurate with the survey population and have a strategic timeline between three (3) to ten (10) years, which align with AAIM resources and the pace of change in faculty development. To expand, FD surveys targeted at PDs would have varying content from surveys aimed at core faculty, etc.

As the inaugural survey is cross-sectional, the succeeding FD Committee's primary analytic approach may be descriptive. The SCWG recommends conducting secondary analyses: for instance, overall satisfaction vs. satisfaction with domains, overall satisfaction vs. categories of barriers, preferences for instructional approaches vs. barriers. AAIM and the FD Committee should consider disseminating the outcomes in several ways – to include publishing findings in a peer-reviewed journal, presentations at future AAIM conferences, and as a poster abstract/research presentation. It should be further noted that the Non-Traditional Resources Work Group may recommend other avenues for content circulation and possible innovations in content offerings. These should be considered by the Alliance and FD Committee once the inaugural survey's results are primed for circulation.

Finally, should the APDIM Survey & Scholarship Committee accept the SCWG's survey section, the survey results from the 2023 APDIM Annual Fall Survey should be shared with the FD Committee.

# **Trends and Gaps**

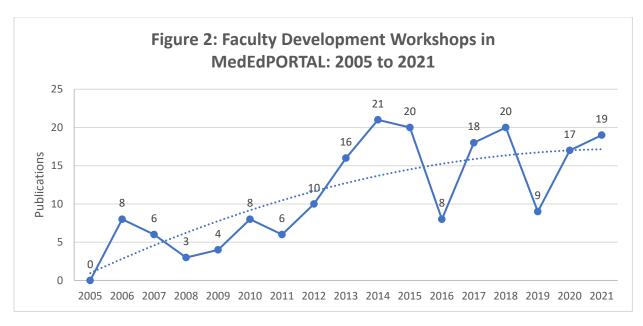
The most notable literature reviews were conducted by Steinert, et al, in the *Best Evidenced Medical Education (BEME) series issues 8 and 40.*<sup>7,8</sup> *BEME 8,* conducted from 1980 to 2002, and *BEME 40,* conducted from 2002 to 2012, included an exhaustive literature search that explored the success of faculty development efforts, particularly curriculum formats and outcomes. *BEME 8* and *40* both assert that the impact of faculty development efforts across the board are highly successful. To note, in *BEME 40*:

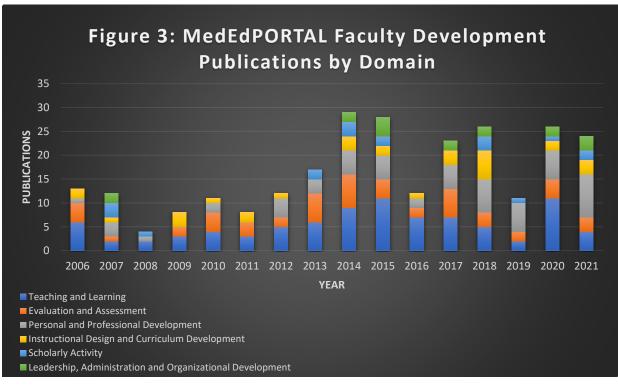
Overall satisfaction with faculty development programs was high. Participants reported increased confidence, enthusiasm, and awareness of effective educational practices. Gains in knowledge and skills, and self-reported changes in teaching behaviors, were frequently noted. Observed behavior changes included enhanced teaching practices, new educational initiatives, new leadership positions, and increased academic output. Organizational changes were infrequently explored. Key features included evidence-informed educational design, relevant content, experiential learning, feedback and reflection, educational projects, intentional community building, longitudinal program design, and institutional support.

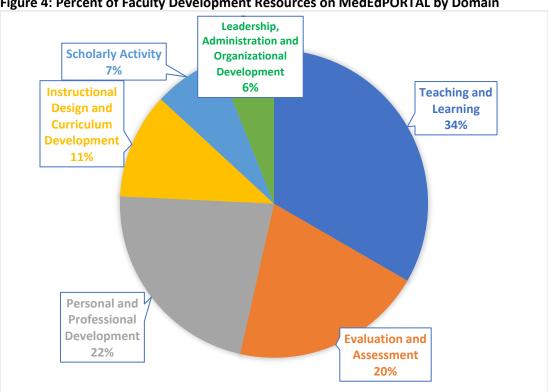
Our landscape review identified a clear increase in publications centered on formal faculty development efforts across the country. This rate of increase is most notable over the last 20 years and possibly parallels the development and implementation of the ACGME competency-based milestones. 10,11

It is important to note that faculty development efforts that led to publication are just the tip of the iceberg for the state of faculty development curricula. There are a multitude of formal curricula and efforts that remain unstudied, unpublished, or uncirculated through society conferences (i.e., as workshops or abstracts). This is particularly true for non-traditional resources.

A notable example of these trends is *MedEdPORTAL*, a AAMC journal that publishes peer-reviewed resources specially catered to medical educators: lectures, workshops, curricula. Using the search term, "Faculty Development," we identified over 1,000 articles, of which 193 qualified as faculty development-related resources. Figure 2 visualizes the growth of published curricula. The breakdown of curricula, in accordance with our faculty development domains, are evident in Figure 3. This figure highlights the high proportion of publications in *Teaching and Learning* and *Evaluation, Assessment and Feedback*. We found a notable proportion of curricula in the areas of *Personal and Professional Development*, particularly over the last decade. There is an overall dearth of curricula in *Scholarship and in Leadership*, *Administration and Organizational Structure* (Figure 4).







#### Figure 4: Percent of Faculty Development Resources on MedEdPORTAL by Domain

# **Barriers and Solutions**

Despite the rise in published faculty development resources, as well as unpublished non-traditional resources, there are significant barriers for faculty to access FD resources. Numerous needs assessments identify common barriers – including awareness or access to faculty development and time to participate, and, with respect to curriculum developers, access to resources to guide and inform their efforts. 12,13 The AAIM Education Committee's Faculty Development Work Group published a review in 2021, Common Cause and Common Purpose: Strategies to Increase Engagement in Faculty Development Activities. <sup>6</sup> This review offered detailed solutions to help individuals, programs, and institutions broach many of the barriers.

# **Awareness**

There is evidence that faculty may struggle with identifying the right resource at the right time. Our landscape review showed an abundance of resources but a lack of structure, organization, or framework through which faculty could easily search, list, and view. As with most resources, there is also no clear measure of quality or effectiveness, only a presumption of higher-quality material existing in peerreviewed published sites. While these issues may be intrinsic to the natural development of content across the country, there may be opportunity for AAIM to be a leader in organizing faculty development for the large Internal Medicine education community. Additionally, personnel (whether member volunteers or staff) assigned to facilitate the curation process would be beneficial.

# Time

The duration of faculty development content is highly variable and based on topic, faculty needs, and the desired outcome(s) in knowledge or skill acquisition. A notable variable in our evaluation rubric is time or duration of curriculum, which we suggest should be included in the evaluation and dissemination of faculty development content, given time's importance to faculty, and it often being cited as a primary limitation.

# Resources

Resource barriers are less of an issue, given the abundance of online options ranging from modest to high-quality. Some of the more involved forms of faculty development, such as certificate programs or national conference attendance, come with a cost. For those that design and implement faculty development curricula, administrative support is a large barrier and typically required for sustainability. Some institutions, depending on time and level of experience, may struggle with identifying faculty to effectively deliver the material. Virtual sessions provide one solution, but institutions should also consider inviting and optimizing external faculties' expertise. This not only relieves the local institution, but it brings about academic career advancement for faculty, bolsters camaraderie, and broadens networking. Developing train-the-trainer sessions should be considered, as many medical schools and hospital systems are becoming more geographically separated.

#### Solutions

The AAIM Education Committee's Faculty Development Work Group provides expert guidance in four common themes: *Institutional Culture, Reimbursement, Appreciation,* and *Utility and Accessibility*. The authors provide evidence-based strategies, as well as potential strategies still to be tested. While these strategies largely focus on the role institutions and departments may play in improving faculty development, the guidance is applicable to the role societies and AAIM can play and are incorporated in our recommendations.

# **Organizational Structures of Faculty Development**

Faculty seek formal professional development at both the local and national levels. There are a few national organizations, societies, and resource libraries that are the primary in delivering faculty development to Internal Medicine faculty. These include the American College of Physicians (ACP), the Society of General Internal Medicine (SGIM), the Society of Hospital Medicine (SHM), and *MedEdPORTAL*. ACGME has become a fast-growing leader at delivering faculty development content, particularly in the domain of *Evaluation and Assessment*. While the American Medical Association (AMA) and other IM sub-specialty societies offer faculty development resources, these are less so. The American Board of Internal Medicine (ABIM) offers clinical skills development, specific to board certification and the board exam.

Examples of society-driven faculty development include SGIM's new *TEACH Program*, which focuses on *Teaching and Learning*, and *Evaluation*, *Assessment*, *and Feedback*. Further, the Association of American Medical Colleges (AAMC) has workshops in leadership training for under-represented minority faculty educators. <sup>16</sup>

Certificate programs or Academies promote skill acquisition, collaboration, and peer support. <sup>17,18</sup> These areas are key to FD and, if developed and cultivated by the Alliance, would prop the organization to become the national leader in faculty development. The costs put towards faculty development are not well understood, but the benefits noted in cited literature justify their worth. <sup>7,8,19</sup> Additionally, few faculty development programs include rigorous program evaluation. <sup>20</sup> Fernandez and Audetat suggest that complex FD evaluation would likely uncover unseen benefits for the institution.

# The Virtual World

A distinction should be made between faculty development in tele-education and continuous medical education in tele-health. The former may include the education of residents in tele-health. The latter is more relevant for direct patient care and is not reviewed here.

There is a rapidly growing list of resources on how to develop virtual curricula and virtual conferences/workshops.<sup>21,22</sup> There have been publications to guide faculty and other advisors on how best to shepherd residents through virtual interviews.<sup>23</sup> There has also been an increase in remote/distance learning curricula, though this had been growing exponentially pre-pandemic.

The rapid growth in this area further supports an iterative approach to literature and curriculum review, which can and should be conducted by AAIM via the recommended Faculty Development Committee, with a focus on developing and disseminating high-quality resources and best evidence.

# **Programs and Demographics**

# **Primary Care, Community, and University**

There is a paucity of literature that distinguishes IM faculty development specific for the various residency training program types. There may be good reason for this. The needs assessments that exist in faculty development and the variety of resources available indicate little distinction in what faculty at these different types of programs are seeking. There are certain resources that emphasize teaching, learning, assessment, and feedback in the ambulatory setting that will carry prominence for the primary care-oriented programs. Scholarly activity resources may carry more interest at university programs.

Access to faculty development also appear to be equal across settings, with the abundance of online resources and the prominence of society meetings as a frequent form of faculty development delivery.

# Undergraduate Medical Education, Residency, and Fellowship

Considerable distinction exists between faculty duties in the UME and GME settings. Our landscape review identified distinct curricula within the domains of *Teaching and Learning* and *Evaluation*, *Assessment, and Feedback*, designed with differing clinician educator audiences: one specific for medical school settings and another specific for resident training. Despite this, we came across resources applicable to all; however, few resources address sub-specialty educators' unique needs.

Topics within our six domains vary in importance on each educational level, but this variation is not specific enough to be exclusive. As an example, the need for faculty educators in a procedural-based fellowship training program to enhance their acumen in simulation-based curriculum design.

# Coalition for Physician Accountability (CoPA): Undergraduate Medical Education-Graduate Medical Education Review Committee (UGRC) Report

CoPA published its final report on August 2021. <sup>24</sup> Eight of the final 34 recommendations apply to faculty development. Themes from the recommendations fall largely under our task force's domains of

Personal and Professional Development, and Evaluation, Assessment, and Feedback. Some recommendations fall under the confines of the CEM competencies of Diversity, Equity, and Inclusion and Educational Theory and Practice. Table 4 maps these FD-oriented CoPA recommendations to both our FDI TF framework and the CEM competency framework.

**Table 4: CoPA UGRC Faculty Development Recommendations:** 

Recommendation Number	Recommendation	Mapping to Competency Framework
5	Members of the medical educational continuum must receive continuing professional development regarding anti-racism, avoiding bias, and ensuring equity. Principles of equitable recruitment, mentorship and advising, teaching, and assessment should be included.	<ul> <li>AAIM FDI TF: Personal and Professional Development - Implicit bias and diversity, Equity, and Advocacy</li> <li>CEM: Diversity, Equity, and Inclusion</li> </ul>
7	Evidence-informed, general career advising resources should be available for all medical school faculty and staff career advisors, both domestic and international. All students should have free access to a single, comprehensive electronic professional development career planning resource, which provides universally accessible, reliable, up-to-date, and trustworthy information and guidance. General career advising should focus on students' professional development; inclusive practices such as valuing diversity, equity, and belonging; clinical and alternate career pathways; and meeting the needs of the public. Specialty-specific match advising should focus on the individual student obtaining an optimal match.	<ul> <li>AAIM FDI TF: Personal and Professional Development - Mentoring, Advising and Coaching</li> <li>CEM: Educational Theory and Practice – Learner Professional Development</li> </ul>
8	Educators should develop a salutary practice curriculum for UME career advising.	<ul> <li>AAIM FDI TF: Personal and Professional Development - Mentoring, Advising and Coaching</li> <li>CEM: Educational Theory and Practice – Learner Professional Development</li> </ul>
9	UME and GME educators, along with representatives of the full educational continuum, should jointly define and implement a common framework and set of outcomes (competencies) to apply to learners across the UME-GME transition.	<ul> <li>AAIM FDI TF: Evaluation,         Assessment and Feedback –         Milestones and EPAs</li> <li>AAIM FDI TF: Instructional         Design and Curriculum         Development</li> <li>CEM: Educational Theory         and Practice – Learner         Professional Development</li> </ul>
10	To eliminate systemic biases in grading, medical schools must perform initial and annual exploratory reviews of clinical clerkship grading, including patterns of grade distribution based on race, ethnicity, gender identity/expression, sexual identity/ orientation, religion, visa status, ability, and location (e.g., satellite	<ul> <li>AAIM FDI TF: Personal and Professional Development - Implicit bias and diversity, Equity and Advocacy</li> <li>CEM: Diversity, Equity, and Inclusion</li> </ul>

11	or clinical site location), and perform regular faculty development to mitigate bias. Programs across the UME-GME continuum should explore the impact of bias on student and resident evaluations, match results, attrition, and selection to honor societies.  The UME community, working in conjunction with partners across the continuum, must commit to using robust assessment tools and strategies, improving		AAIM FDI TF: Evaluation, Assessment and Feedback CEM: Educational Theory
	upon existing tools, developing new tools where needed, and gathering and reviewing additional evidence of validity.		and Practice – Learner Assessment
12	Using the shared mental model of competency and assessment tools and strategies, create and implement faculty development materials for incorporating competency-based expectations into teaching and assessment.	•	AAIM FDI TF: Teaching and Learning AAIM FDI TF: Evaluation, Assessment and Feedback CEM: Educational Theory and Practice – Teaching and Learner Assessment
26	Develop a portfolio of evidence-based resident support resources for program directors, designated institutional officials (DIOs), and residency programs. These will be identified as salutary practices, and accessible through a centralized repository.	•	AAIM FDI TF: Personal and Professional Development - Mentoring, Advising and Coaching CEM: Educational Theory and Practice – Learner Professional Development
27	Targeted coaching by qualified educators should begin in UME and continue during GME, focused on professional identity formation and moving from a performance to a growth mindset for effective lifelong learning as a physician. Educators should be astute to the needs of the learner and be equipped to provide assistance to all backgrounds.	•	AAIM FDI TF: Personal and Professional Development - Mentoring, Advising and Coaching CEM: Educational Theory and Practice – Learner Professional Development

# **Summary and Recommendations**

Faculty development is an expansive field, with an extensive body of research that has grown significantly over the past 20 years. The Faculty Development Initiative Task Force developed a framework to analyze faculty development efforts and found an abundance in the areas of *Teaching and Learning* and *Evaluation, Assessment and Feedback*. Significant literature exists in *Personal and Professional Development*, though this domain carries a wide range of topics within it. We used a rubric to evaluate the quality of curricula, including duration (time investment), formats, and outcomes. It should be noted that updates in faculty development occurred in 2021, over the span of our task force's work, with the finalized CoPA recommendations and the *Clinician Educator Milestone (CEM) Project* publication.

Our task force recommendations are based soundly on landscape review, are evidence-based, and incorporate major updates in the field. To note, our recommendations include areas of uncertainty, the need for further study, and areas we were unable to fully explore due to our one-year duration.

Recommendation 1: Given the state of faculty development and the role AAIM plays for medical educators, we recommend AAIM establish a Faculty Development Committee, with work groups organized around ongoing needs assessment, literature/resource reviews, and deliverables (website, conferences, a potential newsletter/social media). The committee should further explore the potential, development, and execution of a FD academy/certificate program, as well as deepen its external stakeholders and society collaborations/partnership. The Committee could be structured to allow rolling term limits, so there is continuity mixed with new members and fresh expertise.

We propose that within three months of its inaugural meeting, the Faculty Development Committee establish the work groups, identify key external stakeholders with whom to partner with, and develop a business plan with associated timelines. It is important that these work groups have a clear understanding of their respective scopes, and the business plan should articulate their respective activities and timeframes.

An alternative to a committee would be re-convening a task force every 3 to 5 years.

<u>Recommendation 2</u>: AAIM should adopt a framework to 1) organize faculty development content in the <u>Faculty Development Resources</u> page, 2) inform future offerings presented at AAIM conferences, and 3) serve as a "tagging" guide for user-friendly search functionality. Our collective expertise and research culminated into the six domains and sub-divisions listed in Table 1. We offer this framework for AAIM's consideration.

<u>Recommendation 3</u>: In step with the above recommendation, the Alliance, acting jointly with the succeeding Faculty Development Committee, should develop a repository of faculty development content to 1) serve as a feedback loop to understand the landscape and 2) to initiate a LMS for AAIM to grow and disseminate.

The Alliance, through the succeeding Faculty Development Committee, should endeavor to create effective FD interventions to address identified gaps. As noted in the Literature Review Work Group's gap analysis, greater opportunities are needed in 1) effective teaching in a virtual setting, 2) competency-based learner assessment, to include the application of milestones and Entrustable Professional Activities (EPAs), 3) assessment and teaching of struggling learners, 4) how to be an effective mentor or mentee and the role of coaching in leadership, 5) effective role-modeling, and 6) professional identity formation. Content development in these areas should be considered to increase and elevate the Alliance's FD offerings, as these areas would help prepare leaders and participating faculty engage effectively and fairly in Clinical Competency Committees. Developing train-the-trainer sessions on these areas should be explored, as many medical schools and hospital systems are becoming more geographically separated.

To help facilitate the identification and curation of these sources, the Alliance should consider acquiring a seasoned librarian's expertise.

<u>Recommendation 4</u>: The Clinician Educator Competency-Based Milestones is timely to adopting a faculty development framework. Our framework has more detailed domains (competencies) and sub-divisions (sub-competencies) when compared to the CEM; however, our framework lacks milestones. As such, the succeeding Faculty Development Committee should further study the CEM and determine how best to incorporate competency-based milestones into our proposed framework.

<u>Recommendation 5</u>: Literature highlights the need for standardized and rigorous evaluation of faculty development curricula. We recommend utilizing the rMETRIQ as a rubric to evaluate the sundry of non-traditional resources. The *Coding Sheet* developed by the Literature Review Work Group can be used to evaluate academic publications (*Appendix C, LRWG Coding Sheet*).

<u>Recommendation 6</u>: Given the dynamic nature of faculty development and the steady growth of resources, periodic needs assessments in literature and non-traditional resources should be carried out. In addition, cyclic FD-focused surveys should be conducted. AAIM should administer an extensive literature and resource review every 3 – 5 years and produce audience specific surveys every 3 – 5 years.

Our Survey Composition Work Group proposes that the surveys investigate the six domains' access venues, barriers to participation, gaps in FD offerings, and innovative opportunities to deliver content. The survey should not be limited to program directors and clerkship directors; rather, it should capture, associate program directors, fellowship directors, core faculty, and other AAIM educators that don't hold one of these titles. Further, the Alliance, through its Faculty Development Committee, should consider surveying chief medical residents and other junior faculty to capture their unique needs and unique insights.

The surveys should continue to identify trends, gaps, barriers, priorities, formats, and incentives that can define and drive future faculty development. Our Survey Composition Work Group developed the enclosed blueprint to assist the Faculty Development Committee generate the first-ever FD survey instrument (*Appendix D, SCWG Survey Blueprint*). Furthermore, the Faculty Development Committee should develop a strategy that would map out surveys over the next 10 years, catering to the various AAIM constituencies and domains within FD.

To ensure success, the Faculty Development Committee should partner with the AAIM Survey and Data Center to constitute the various survey populations, determine incentives to garner the appropriate number of responses, and ascertain the ideal number of responses.

Recommendation 7: Among our six domains, a notable number of resources and publications exist in *Teaching and Learning, Evaluation, Assessment, and Feedback,* and *Personal and Professional Development*. These categories are large, but we found quality evidence addressing most topics. We were encouraged by seeing a significant number of resources for *Personal and Professional Development*, as this has been highlighted as a critical need by national experts.<sup>25,26</sup> Topics within this domain most often addressed are mentorship, well-being, and bias training.

For areas less represented in the literature, we recommend AAIM assess membership interest in additional content offerings in *Curriculum Development and Instructional Design*, *Scholarly Activity*, and *Leadership*, *Administration*, and *Organizational Structure*.

As earlier stated, our TF charge included faculty development in assessment tools. *Evaluation, Assessment, and Feedback* is one of the more frequently published domains. Our review of literature, non-traditional resources, and *MedEdPORTAL* have identified a significant number of resources. The task force is happy to share those researched sources, though we recommend that the subsequent Faculty Development Committee continue the work and curate these resources. Members of the former AAIM Assessment Task Force should be approached to serve on an advisory capacity.

<u>Recommendation 8</u>: Establishing a listserv or online community dedicated to faculty development should be initiated and is viewed by the collective as a low-hanging fruit that can be easily implemented in year one of the FD Committee's inauguration. Member "champions" should be assigned to ensure engagement (i.e., post discussion topics weekly or bi-weekly) and to foster a mentoring/coaching environment. Regarding the latter, it would be ideal that this be folded into the AAIM Mentor Program.

<u>Recommendation 9</u>: To help broadcast non-traditional resources, a social media platform dedicated to all-things IM FD related should be initiated to facilitate the circulation of resources to members and the medical education community at-large. Other organizations have used Twitter effectively, and their techniques/approaches should be adopted. Identifying volunteer "champions" to serve as content experts, facilitating the curation and dissemination of resources, should be considered.

Recommendation 10: The Non-Traditional Resource Work Group's landscape examination revealed that resource development is less needed; rather, curation and communication of existing resources would be an efficient and high-yield effort for the Alliance. Being that non-traditional materials are new, proliferating, and a bit elusive to some, the Alliance should consider developing pointers or content on the utility of NTR.

Recommendation 11: The NTRWG did not audit AAIM's FD track offerings from *Academic Internal Medicine Week* and the *APDIM Fall Meetings*. The group recalled that some of these workshops were relevant and satisfactorily executed. The Faculty Development Committee should review all high-yield workshops and consider re-packing these as blogs, snippets, or re-designed with a Ted Talk-like tenor.

Recommendation 12: AAIM should take strides to re-organize and enrich the Faculty Development Resources page. An enhanced Faculty Development Resources page would advance the organization and illuminate members on the variety of available FD sources. The NTRWG further advises implementing tagging features for all AAIM content and offerings, further elevating the search functionality. High-yield and current medical education articles should be a daily staple in the Resource Page and should fall under the appropriate domain.

Recommendation 13: AAIM should consider organizing materials on the website with a time-based mindset, which could help distinguish NTR based on a clinician educator's time bandwidth. To expound, categorizing NTR within the appropriate domains and further sub-categorizing them based on duration: 5 - 10 minutes, 10 - 20 minutes, 20 – 30 minutes, etc.

<u>Recommendation 14</u>: We recommend that the AAIM Program Planning Committee partner with the succeeding Faculty Development Committee in steering calls for abstracts, workshops, and pre-courses based on gaps and needs. This may be challenging on a yearly basis, so a 3–5-year strategic plan may align with fresh needs assessments.

Recommendation 15: We recommend AAIM create a faculty development certificate program and/or academy for educators. Our task force discussed features inherent in a FD certificate program, which included goals, content, and requirements. This would be a high stakes investment, requiring detailed exploration and planning. We did not reach consensus on defining features of a certificate program or academy but propose the following goals, content, design, and incentives:

- Goals: skill acquisition, promotion, and educator well-being.
- Content: mentorship, portfolio development, education project, near-peer activities, and AAIM conference engagement

- Design: master learning, with competency-based milestones in focused areas of faculty development.
- Additional incentives: special programming and committee placement

Launching a faculty development certificate program would require significant dedicated time and personnel: with one overseeing the educational content, while another supporting the administrative and logistical functions. Certificate programs or academies would logically be housed in a learning management system (LMS), and the allotment of appropriate CMEs would be ideal and worthy of exploration.

We recommend AAIM explore the literature and expertise highlighted in our reference section below.

Recommendation 16: Addressing the challenges and complexities besieging the medical education continuum have become a central focus in academic medicine. We have reviewed the CoPA UGRC recommendations and mapped those recommendations relevant to faculty development to our FDI TF framework and CEM's domains. We recommend additional work be done by AAIM to merge these CoPA UGRC recommendations with our TF domains and CEM milestones to produce a cohesive, comprehensive faculty development blueprint.

Recommendation 17: We recommend exploring a strategic partnership with MedEdPORTAL, to include the curation of faculty development publications relevant to the AAIM membership. Additionally, to foster educational scholarship, AAIM members could take advantage of MedEdPORTAL's Faculty Mentors Program, which allows associate editors to mentor potential authors in translating their teaching resources into publications in MedEdPORTAL

Recommendation 18: Most of the topics across our six domains apply equally to educators in UME and GME. The landscape review identified significant publications and curriculum for medical students and residents. Many of these publications could be adopted by fellowship educators but require some tailored content. Given the prominent role that fellowship training holds in internal medicine, we recommend AAIM continue to grow the role of ASP, increase content offerings specific for fellowship educators at AAIM national conferences, and highlight fellowship specific resources on the AAIM website.

<u>Recommendation 19</u>: The Common Cause and Common Purpose: Strategies to Increase Engagement in Faculty Development Activities should be a key resource within the Faculty Development Resource page and serve as a guide for future AAIM conference content planning.

<u>Recommendation 20</u>: While we found some unique features of faculty development that pertained to program type, we do not believe this is an area in need of significant resource allocation.

<u>Recommendation 21</u>: Additional partnerships with organizations, universities, and individuals that are leaders in faculty development would be of value. Influential to our task force learning and efforts were interviews with Dr. Steinert and Dr. O'Sullivan. Universities such as UCSF and Stanford offer faculty development programs for personnel outside of their institution. SGIM recently started the *TEACH* faculty development certificate program, and ACGME has offered longitudinal workshops in assessment.

We recommend AAIM invite these leaders to serve as advisors in webpage enhancement, content development, academy establishment, and needs assessments. Brief interactions would provide expert and evidence-based insights and create an avenue for new collaborations.

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# **Draft Outline**

# **Teaching and Learning**

- Theories of learning and motivation
- Clinical Teaching
  - Teaching on rounds/Bedside teaching
  - Precepting in ambulatory setting
  - Small group facilitation (other venues)
  - Large group didactic teaching (other venues)
  - Teaching Reasoning and Decision Making
  - Procedural teaching
  - Medical Knowledge
- Simulation based teaching
- Teaching a Struggling learner
- Counseling for each transition
- Teaching in a virtual setting
- Interactive methods of teaching
  - Team based learning
  - Flipped classroom
  - Problem based learning
  - Case based learning

# Evaluation, Assessment, and Feedback

- Assessment methods
  - Direct Observation
  - Other
- Validity and Reliability of assessment tools
- Feedback
  - Verbal
  - Written
  - Formative and Summative
- Competence assessment based on assessments (Standard setting)
- Milestones/EPAs
- Evaluating learners for Implicit Bias
- Standardization of assessment tools – what does it look like?
   How do you teach your faculty?
   How would you create one?
- Clinical Competency Committees
- Remediation of struggling learner
- Letter of Recommendation/SLOE

# Personal and Professional Development

- Well-being
  - Financial
  - Work-life balance
- Career advancement
- Mentoring, Advising and Coaching
  - Selecting a mentor
- Implicit bias and diversity
- Equity and Advocacy
- Digital media in professional life
- Financial component (personal)
- Counseling for each transition
- SMART goals
- MoC
- Collaboration/networking
- Documentation/coding/billing
- · CV
- Organization, prioritization skills, time management
- Interviewing skills

# Instructional Design and Curriculum Development

- Course goals and objectives
- Curricular approaches
  - Small/large group lectures and other modalities
  - Curricular design how to develop and implement effective curriculum
- Blueprinting
- Needs Assessments
- Curriculum evaluation
- Simulation
  - Case-based
  - Procedural
  - Communication (breaking bad news, etc.)
  - Slide deck creation

# **Scholarly Activity**

- Types of Scholarship and various methods of dissemination
- Research methodology
  - o Quantitative
  - Qualitative
- Writing (Manuscript, Grant, Narrative)
- Designing Workshops
- Abstract Preparation and Presentation Skills
- QiPS
- IRB/CITI program
- Literature Review
- Local/regional/national committee membership

# <u>Leadership, Administration, and</u> Organizational Development

- Leadership models
- Organizational structures and culture (including DEI)
- Power and Authority (including DEI)
- Creative and Strategic management
- Conflict resolution
- Recruitment
- Financial management of an organization
- Committee membership
- Role modeling
- Negotiations
- Formation into an academic leader

<ul><li>Audience interaction/engagement</li></ul>	
Creating simulations	

# Coding SheetAd

# **Administrative**

Reviewer -- drop down list

Citation information

Authors

Title

Publications (Year / Volume / Issue/ Pages)

# Aim/Goals of the Study

Objective /Purpose of the Study

Explicitly

Implicitly

Not Available

# **Domains**

(check all that apply) -- pending sub-domains

Teaching and Learning

Evaluation and Assessment

Personal and Professional development

Instructional Designs and Curriculum Development

Scholarly Activity

Leadership, Administration, Organizational Development

# **Target and Population**

Country/Location of Study

Number of participants/Size of the Group

Types of participants (PD's, Core Faculty, Clin/Ed, Volunteer, etc.) -- all that apply

Number of Facilitators

# **Program Participation**

Mandatory

Optional

Not Stated

# **Participants Profession**

Click all that apply

Internal Medicine

Family Medicine

**Pediatrics** 

Others

# **Program Types**

Workshop (interactive sessions with group activities / participant involvement)

Short Course (Didactic sessions less than 5)

Seminar Series ( Didactic sessions 5 and more )

Longitudinal Program

Fellowship

**Teaching Scholars Program** 

# Coding SheetAd

Others

Master's Program

Online Program

Other

# **Instructional Methods**

Click all that apply

Small Group Discussions

Structured Opportunities for Reflections

Experiential Learning

Role Plays and Simulations

Films and Videotapes

Independent Learning / Projects

Written Materials and Readings

Online Learning

Role Modeling

Work based Learning

Others

# **Evaluation Methods**

# Column Column1

Study Designs

Quantitative

Experimental Designs / Quasi - Experimental Designs / Non Experimental Designs (each w/ sub-headings)

Qualitative

Interpretive / Descriptive / Grounded theory/ Participatory research/

others (no sub-headings)

Mixed Methods

Action Research (participatory design...?)

Data Collection Methods

Questionnaire

Previously Validated Questionnaire/ New Questionnaire No validation /

**New Questionnaire** 

Interview

Focus Group

Observation

Videotape / Live

**Expert Opinion** 

CV Search

Student / Learner Outcome

Data Sources

**Program Participants** 

Program Coordinators / Faculty Developers

Colleagues and Peers

Students and Residents

Time frame of impact

# Coding SheetAd

# Impact of Intervention Studied (level of impact studied and summarize the results)

# Kirkpatrick Hierarchy

```
Level 2a Changes in attitudes ( outcome related to self reported )
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Level 2b Modification of Knowledge or Skills (relates to the acquisition of concepts)

Level 3a Behavioral Changes (self reported)

Level 3b Behavioral Changes (Observed)

Level 4a Change in the System/ Organizational practice )

Level 4b Change among the participant's students, residents and colleagues

# Did this intervention contribute to the building a faculty development community (Yes / No )

# Did this intervention have an impact on the building a community of practice in the work place where the teaching actually occurs (likely delete)

Enhance networking / interprofessional relationships / social connections ( Yes/ No )

Enhance teaching and educational activities (Yes/No)

Enhance coaching / mentoring for the faculty members (Yes / No)

Enhance organizational processes and /or cultural changes (Yes / No)

# Educator faculty development survey for AAIM core faculty

# **Demographics**

- 1. Gender
- 2. Practice setting
- 3. Type of academic institution
- 4. Level of learners taught (check all that apply: Medical students; APP students; APPs; Residents; Fellows; Faculty)
- 5. Academic rank and # of years at current rank
- 6. Role in medical education (drop down options: Core faculty; APD; Faculty)
- 7. # Years in medical education
- 8. # Years participating in AAIM activities
- 9. Advanced degree in medical education?

# Where do you access educator faculty development activities? (check all that apply)

A.	Institutional workshops		
B.	National/Regional/Local conferences		
	a.	AAIM	
	b.	ACP	
	c.	SGIM	
	d.	SHM	
	e.	AAMC	
	f.	ACGME	
	g.	Other:(specify)	
C.	Online webinars		
D.	). Independent self learning		
	a.	Literature	
	b.	Online repositories (i.e. MedEdPortal)	
	c.	Website resources (e.g. AAIM website)	
	d.	Videos on websites (e.g. YouTube)	
	e.	Podcasts	
	f.	Social Media (e.g. Twitter; TikTok)	
	g.	Other(specify)	
Ε.	Courses in medical education (e.g. Harvard-Macy; MERC courses; Stanford courses)		
F.	Advanced degrees in medical education		
G.	Other:_	(specify)	

# What are the barriers to accessing educator development activities?

A. Clinical responsibilities

- B. Work-life balance/Home responsibilities
- C. Lack of institutional support
- D. Lack of awareness of resources available
- E. Difficulty accessing resources on websites
- F. Lack of comfort with newer technological platforms
- G. Money
- H. Other\_\_\_\_\_(specify)

# How would you like AAIM to support educator development activities in the future?

- A. Sessions at AAIM Meetings
- B. Online webinars
- C. Longitudinal Courses through AAIM
- D. Website videos
- E. Social media-based activities
- F. AAIM faculty development certificate program

# Why do you participate in faculty development?

- a. Meet ACGME requirements
- b. Improve performance in current academic role
- c. Prepare for future leadership role
- d. Interest in learning about medical education
- e. Free text: \_\_\_\_\_

# Which of the following educator development offerings would you be interested in? (check all that apply)

- A. Teaching and Learning
  - a. Clinical teaching
    - i. Teaching on rounds/Bedside teaching
    - ii. Precepting in the ambulatory setting
    - iii. Small group facilitation
  - b. Simulation Based teaching
  - c. Teaching in a virtual setting
  - d. Interactive methods of teaching
    - i. Team based learning
    - ii. Flipped classroom
    - iii. Problem based learning
- B. Evaluation and Assessment
  - a. Assessment methods
  - b. Validity and Reliability of assessment tools
  - c. Feedback
    - i. Verbal
    - ii. Written

- d. Competency based assessment
- e. Milestones and Entrustable Professional Activities
- f. Standardization of assessment tools
- g. Implicit bias in assessment of learners
- h. Clinical Competency Committees

# C. Personal and Professional Development

- a. Well-being
- b. Career advancement
- c. Implicit bias and diversity
- d. Mentoring, Advising and Coaching
- e. Digital media in Professional life
- f. Equity and Advocacy
- g. Personal financial competency
- h. Transitions in career

# D. Instructional Design and Curriculum Development

- a. Writing course goals and objectives
- b. Curricular approaches
- c. Blueprinting
- d. Needs Assessments
- e. Curriculum evaluation
- f. Workshop design

# E. Scholarly Activities

- a. Types of Educational Scholarship
- b. Dissemination of educational scholarship
- c. Research methodology
  - i. Survey design
  - ii. Qualitative research methodology
  - iii. Mixed methods methodology
- d. Writing
  - i. Grant writing
  - ii. Manuscript writing skills
- e. Abstract preparation presentation skills
- f. Interactive workshops

# F. Leadership, Administration, Organizational Development (PD?/ Dept chairs?)

- a. Leadership models
- b. Organizational structures and culture
- c. Incorporating diversity, equity and inclusion into the institution
- d. Creative and Strategic management
- e. Conflict resolution

- f. Recruitment
- g. Financial management of an organization