EMORY | SCHOOL OF MEDICINE



Education Transformation

Recommendations Report – August 2023

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Executive Summary

Emory School of Medicine (ESOM) educational programs are widely known for producing superior clinical providers and outstanding scientists. When the MD program curriculum was last revised in 2007, Emory was among the first in the country to shorten the pre-clinical period, introduce early clinical exposure, implement a research block, develop a comprehensive service-learning curriculum, and prioritize our students' health and wellness. These accomplishments have laid the foundation for the next phase of medical education at Emory. Now, we must ensure our curriculum is keeping up with the demands on clinicians and scientists to solve the health challenges we face today and in the future.

By reimagining curricula and co-curricular elements across all ESOM learners and all ESOM degree programs, the recommendations set forth in this report are intended to be bold and aim to accelerate ESOM's path from excellence to eminence. Our goal is to graduate excellent clinicians and scientists who are capable of leading change across complex health systems and communities.

In the next iteration of ESOM education transformation, we envision *our shared learning model will empower ESOM learners to be change agents capable of addressing evolving health challenges.*

Aligned with the priority areas defined in the strategic planning phase, the following recommendations established the foundation for the 'operating principles' that will guide how we plan to achieve our goals.

- Forward-thinking Educational Programming...
 - Support learners by providing individualized learning and development based on their needs.
 - Teach learners how to work effectively within teams consisting of individuals from other professions, disciplines, and backgrounds.
 - Expose learners to new technology areas, artificial intelligence, and teach them how to integrate these technologies ethically and professionally.
- Program Evaluation...
 - Establish program evaluation guiding principles that are transparent and clearly described; to be shared across all programs.
 - Communicate ongoing course and curricular updates made in response to evaluations.
- Holistic Learner Success...
 - Center learner wellness as a core consideration by viewing all changes through the lens of improving overall wellbeing of learners.
 - Create explicit programming for professional development and wellness.
- Educational Experience and Instructional Delivery...
 - Deliver asynchronous didactic content.
 - Emphasize experiential learning through small group/peer-based teaching and problemsolving activities.
- Connectivity and Partnership...
 - Partner and align goals with healthcare partner organizations.
 - Develop a set of values to ensure education of learners through Interprofessional Education.

- Faculty, Staff, Resident Growth, Development, and Scholarship...
 - Create a Department/Center of Education to enable shared resources across all ESOM programs.
 - Ensure appropriate training of faculty, staff, and resident educators who teach students in any ESOM program.

Education Transformation



In 2021, ESOM completed a medical education strategic planning process that focused on developing innovative and transformative educational models for all ESOM learners. Under the leadership of the Dean of the ESOM and the EAD for Medical Education, the process began with a series of visioning sessions that included nearly 120 education thought leaders. Following the strategic planning, the education transformation process launched in March 2022 with final recommendations completed in Summer 2023.

A top priority of the education strategic plan is to reimagine and transform the curricula for all our degree programs:

- Doctor of Medicine (MD)
- Doctor of Physical Therapy (DPT)
- Master of Medical Science Anesthesiology (MMSc)
- Master of Medical Science Genetic Counseling (MMSc)
- Master of Medical Science Physician Assistant (MMSc-PA)
- Bachelor of Medical Science Medical Imaging (BMSc)

In the strategic planning process, we defined a vision and goals for medical education and outlined six priority areas of focus that would later serve as the working group structure for the education transformation process:

- Faculty, Staff, Resident Growth, Development, and Scholarship
- Holistic Learner Success
- Forward-thinking Educational Programming
- Connectivity and Partnership
- Educational Experience and Instructional Delivery
- Program Evaluation

Guided by a diverse steering committee comprised of thought leaders and experts across health professions education, we charged our working groups with developing recommendations for the curricula and cocurricular elements to support our vision and goals. Through a series of retreats with the steering committee, we prioritized and ultimately leveraged recommendations as the basis for the 'operating principles' to guide the next phase of transformation work.

Maintaining a commitment to interprofessional education (IPE), we developed several specific examples of shared learning opportunities across a variety of environments. Additionally, we created a straw model for developing shared infrastructure in the form of a 'center' or 'department' of education to support all ESOM learners was also contemplated.

Vision: What we aspire to

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- Our foundational values are compassion, curiosity, humility and professionalism.
- We are bold and transformational, not incremental.
- We will develop excellent clinicians and scientists and adapt to changing demands.
- Emory students and trainees will effectively contribute as members of a highly diverse community in different roles (e.g., advocates, team members, patients, and leaders).
- Emory learners will be inspired and inspiring as effective change agents for good.

Goals: Desired evidence we are getting there

- Challenge the status quo.
- Foster forward-thinking innovators.
- Empower problem solving and stimulate student passions.
- Encourage entrepreneurship.
- Promote compassion and social justice.
- Empower students to act as change agents.
- Offer self-regulated learning.
- Engage with and be immersed in the Atlanta community.
- Commit to diversity, equity, and inclusion.

Medical Education Transformation Steering Committee &

Working Groups

Operating Principles: How we will get there

Interprofessional Learning: Increase interprofessional learning activities within didactic, clinical, and community setting.

Active Learning: Primarily use active learning strategies such as case-based learning, small group learning, team-based learning, experiential learning, and patient-centered learning.

• **Enhance Active Learning:** Curate and/or develop asynchronous content to support selfdirected learning and interdisciplinary teaching and learning.

Self-directed, Lifelong Learning: Foster a growth mindset in our learners, educators, and staff.

• Use activities such as self-assessment of learning needs and identification of effective learning techniques and resources.

Development: Ensure professional development and well-being of our learners, educators, and staff.

Shared Infrastructure: Create a "Department / Center for Education"

Key Next Steps

Actualizing the vision and principles outlined through the transformation process will require a hands-on team of engaged educators, staff, and learners, and an investment of resources. The financial model associated with supporting education transformation is estimated to cost \$25-40M for the next five-year period. As the work continues to progress, ESOM remains committed to identifying and securing resources necessary to sustain continued transformation.

Over the upcoming fiscal year (FY24), ESOM has earmarked funding support for:

- Hiring an inaugural Senior Associate Dean for Education Transformation and Innovation
- Continued investment in the newly created Office of Student Success
- Additional funding support for engagement and development of our faculty educators
- Investments in information technology
- Administrative resources

Continued implementation planning efforts will need to continue over the coming months as broader communications regarding the recommendations in this report are established. At a minimum, though, additional key activities over the next six to twelve months will need to include:

- Aligning program calendars and curricula mapping to achieve interprofessional learning experiences to the extent outlined within this report, our programs will first need to align program start dates. To accomplish this, our programs will need to identify where there are similarities and develop curriculum structures to advance IPE while also maintaining program-specific requirements and needs.
- Identifying and adopting shared evaluation principles for all programs developing guiding principles will facilitate evaluation processes that align with each program's mission and the mission of the School.
- 3. Identifying, launching, and assessing outcomes of prototypes and pilots for shared learning experiences develop and test content and delivery, leveraging examples of IPE experiences developed during this process, as well as other ideas and opportunities that are identified.
- 4. Developing a shared infrastructure plan articulating and securing the resource needs required to support all programs at ESOM. One concept that was proposed is the creation of a shared 'Department/Center for Education.' This concept will continue to evolve as the plan develops.
- 5. Adapting the curricula for the implications of new technologies (i.e. artificial intelligence) in health professions education developing a shared approach to addressing the presence of artificial intelligence in teaching, patient care, research, and professional development will be critical in the next phase of work.

Introduction

Why Education Transformation?

Our educational programs are widely known for producing superior clinical providers and outstanding scientists, yet with increasing demands on our clinicians and scientists to solve the health challenges we face today and those unknown to us in the future, we must ensure our curricula are keeping up. We must prepare our learners for the future and equip them with the knowledge, skills, and attitudes to adapt to the ever-changing demands within our healthcare and education spaces. Several factors contributing to education transformation include:

- A need for a 21st century healthcare workforce.
- Evolving care models that will require team-based, interdisciplinary focus.
- Mental health and wellness support needed for learners due to:
 - Pressures to achieve high board scores
 - Demanding schedules
 - Rising student debt
- Equipping our graduates with emerging competencies such as:
 - o Addressing public health issues
 - o Designing and continuously improving health care systems
 - o Incorporating data and technology in service to patient care, research, education
 - o Reducing healthcare disparities and discrimination in medicine
- Learner requests for change and transformation of their educational experiences.

Structure and Steering Committee

The Education Transformation Steering Committee, a group of individuals comprised of program leads from each of our degree programs, working group leads, representatives from the SOM Office of Equity and Inclusion, School of Medicine IT, Graduate Medical Education leadership, and our health care partners, launched the initial phase of the Education Transformation process in March 2022. The diverse group of thought leaders and experts across health professions education met regularly to guide the process.

Steering Committee Composition and Representation		
Degree Programs	Representatives from each degree program to provide insight on program details, flag any	
	potential programmatic needs or issues, and ensure recommendations align with program	
	standards and accreditation.	
Working Groups	Leads from each of our working groups to provide insight on working group topics and subtopics,	
	share findings and points of concern, and collect thoughts on how to best steer working groups	
	as they work through their specific charge.	
Technology	Leaders from our technology teams to provide expertise and make connections between	
	ideas/recommendations and the technology required to implement.	
DEI	To provide a lens through which to think through all ideas and recommendations for the	
	transformation work, to ensure inclusion of varying community perspectives and consider	
	equitable access to ideas.	
EHC	To provide perspective from a clinical partner, brainstorm strategies on how EHC can support	
Administration	education, and identify points of synergy between education and the priorities of the healthcare	
	system.	

Steering Committee Members

- Vikas Sukhatme, Dean
- Carlos del Rio, Interim Dean
- Bill Eley, EAD
- Jada Bussey-Jones (Co-Chair)
- Eric Sundberg (Co-Chair)
- Marilane Bond
- Ulemu Luhanga
- Hugh A. Stoddard
- Douglas Ander
- Katherine S. Monroe
- Cecelia Bellcross
- Lauren Lichten
- George Fulk
- Erica Brownfield
- Ted Brzinski
- Maha B. Lund
- Tami Phillips
- Maria Aaron
- Philip Shayne
- Holly Gooding
- Jaimie Keough
- Sheryl Heron

- Marc Overcash
- Chad Ritenour
- Sharon Pappas
- Hughes Evans
- Jennifer Spicer
- Karen Law
- Jose M. Villalon-Gomez
- DeJuan T. White
- Martha Ward
- Richard Pittman
- Jeremy Amayo
- Gina Shannon
- Stacie Schmidt
- Henry Blumberg
- Yolanda Hood
- Nate Spell
- Linda Lewin
- Christen Hairston
- Heather Bonilha
- Rachel Sedlack-Prittie
- Pearson Smith

Process Overview and Timeline



Foundational Phase – Defining the Direction and Developing a Shared Understanding

Following the initial strategic planning, the purpose of the foundational phase was to define the direction of the education transformation process as well as to develop a shared understanding of what the education transformation aimed to achieve. The steering committee, comprised of a diverse group of stakeholders from across the Emory enterprise, had discussions over several meetings aiming to align ESOM values and needs.

Objectives of the Foundational Phase

Education / Level-Setting across ESOM

- Stakeholder Mapping provided an understanding of the various stakeholders within the education transformation ecosystem; ensured working groups were populated with the appropriate stakeholders related to their topics and subtopics to successfully approach their work.
- ESOM Degree Program Presentations provided an overview of each degree program including general facts, post-graduation highlights, milestones, existing opportunities and challenges, and desired outcomes aiming to be achieved through this process. Additionally, shared competency domains across programs were identified through a questionnaire provided to program directors.

Define Ideal Learners Development and Education Transformation Vision

- KSA Mapping Activity leveraged community feedback regarding skills and perspectives of the ideal ESOM graduate as a foundation. These knowledge, skills, and attitude ("KSA") were then mapped to the strategic goals of the Education Strategic Framework. Through this exercise, most frequently referenced KSA's were identified; providing working groups with choices on what areas to focus on to achieve desired outcomes.
- Education Transformation Visual encapsulated what we aim to achieve through the education transformation process.

Understand User Needs and Challenges

- Continuous Stakeholder Input ESOM community input was gathered from faculty, staff, learners regarding perceived challenges and opportunities. This raw data was sorted into high level themes to better understand the problems that need to be tackled in this process. Additionally, program presentations provided targeted perspectives on programmatic user needs and challenges.
- Periodic, focused engagement sessions will continue to be an integral component throughout this process to collect stakeholder voices along the way. Other sources of stakeholder input were collected and considered on an ongoing basis.

Objective 1: Education / Level-Setting across ESOM

One of the initial activities for the steering committee was to confirm and document the scope of the education transformation work.

Stakeholder Mapping

With the support of external facilitators from a design-thinking specialist team, steering committee members worked in pairs to complete a stakeholder map consisting of what their perceived primary, secondary, and tertiary stakeholders were within the education transformation ecosystem. This was referenced throughout the process and was updated based on additional knowledge gained throughout the process.



ESOM Degree Program Presentations

From the onset of the education transformation process, the goal was always to envision curricula that would be highly interprofessional and inclusive of all ESOM learners. To promote a shared understanding of the breadth of our educational programs, all program directors were asked to provide a brief presentation on their degree program, including:

- General program facts (i.e., # of faculty, staff, learners, academic calendar, accreditation summary)
- Program highlights (i.e., postgraduation facts, clinical rotation facts, program milestones)
- Program landscape (i.e., instate/national trends) and perceived challenges and opportunities from faculty, staff, learner viewpoints
- Desired outcomes for education transformation



Following program presentations, the steering committee recognized intersectional areas of opportunity for potential shared learning. It was identified that each program's core curricula could be mapped to <u>eight</u> <u>competency domains of health education programs</u> developed by Robert Englander, MD, MPH and colleagues at the Association of American Medical Colleges in 2013.

As part of the Education Transformation process, program leads on the steering committee completed a questionnaire to assess the fit of 8 competency domains of health education programs. The purpose was to establish a common taxonomy of competency domains for all health professions programs at ESOM. The results showed that all programs identified all 8 competency domains as important to their curricula.

Results from the Questionnaire

Core Competency Domains	Anesthesiologist Assistant	Genetic Counselling	Medical Imaging	Physician Assistant	Physical Therapy*	Medical Doctor	Graduate Medical Education
Patient Care	Provide patient-centered care that is compassionate, appropriate, and effective for the treatment of health problems and the promotion of health.						
	\checkmark	\checkmark	\checkmark	✓	√	✓	✓
Knowledge for	Demonstrate knowledge of established and evolving biomedical, clinical, epidemiological, and social-behavioral sciences, as well as the application of this knowledge to patient care.						
Fractice	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark
Interpersonal & Demonstrate interpersonal and communication skills that result in the effective exchange information and collaboration with patients, their families, and health professionals.			exchange of				
Skills	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark
Professionalism	Demonstrate a commitment to carrying out professional responsibilities and an adherence to ethical principles.						
	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark
Practice-Based Learning &	Demonstrate the ability to investigate and evaluate one's care of patients, to appraise and assimilate scientific evidence, and to continuously improve patient care based on constant self-evaluation and life-long learning.						
Improvement	✓	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark
Systems-Based	Demonstrate an awareness of and responsiveness to the larger context and system of health care, as well as the ability to call effectively on other resources in the system to provide optimal health care.						
Practice	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark
Interprofessional	Demonstrate the ability to engage in an interprofessional team in a manner that optimizes safe, effective patient- and population-centered care.						
Collaboration	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark
Personal &	Demonstrate the qu	alities required	to sustain life	elong persona	al and profess	ional growtl	ז.
Professional Development	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark

*Additional competency domain for Physical Therapy: "Teaching and Learning: Inclusive of patients, families, colleagues, etc."

Objective 2: Define Ideal Learners Development and Education Transformation Vision

Early in the process, the broader ESOM community was asked to provide input and feedback regarding the skills and perspectives of the ideal ESOM graduate. In small group discussions, steering committee members leveraged community generated KSA's and mapped these to the goals of the education strategic framework. Through this exercise, the most frequently referenced KSA's were identified, providing working groups with choices on what areas to focus on to achieve desired outcomes.

MAPPING COMMUNITY-GENERATED KSAs to OUR GOALS



Objective 3: Understanding User Needs and Challenges

Community input was requested frequently throughout the transformation process. An input form was circulated among the ESOM community to better understand thoughts around what the ideal graduate may look like as well as perceived challenges and opportunities to developing and training these ideal graduates. This data was sorted into high level themes and color coded by applicable stakeholder group.

Initial Education Transformation Community Feedback

Color Coding : Black Text = Data Sources where all programs' stakeholders could provide feedback			
Blue Text = GME Red Text = MD Green Text = Health Professions Programs			
Themes	Challenges	Opportunities	
Learner Support Opportunity to enhance learner support	 Lack of learner specialists to assist struggling learners Lack of action/prioritization around mental health Lack of timely communication on expectations and required activities Need a proactive approach to prevent failures rather than reactive (early recognition) Lack of transparency of progress – no feedback on exam performance to improve for board exams 	 Empower students to speak up with ethical concerns; Create a role like an "ethics ombudsman" to serve as a resource for addressing ethical issues in real time More mental health and wellness support, psychological services, wellness center access Addition of learning specialists/academic counselors or advisors and tutoring services Improved mechanisms to place discovery students Expand career mentoring STEP advisors Physician mentors (outside small group advisors) Prioritized residency parking Enhance trainee support (compensation and parental leave policies); Appropriate employment benefits (paid time off during 1st year) More support and resources for student innovation Creation of a "mentor" or "navigator" role for 	
Educator Support Improved infrastructure for educators	 Lack of support for educators and time to create educational materials Need to determine which faculty should be responsible for education (based on needs of programs, types of patients/cases to be seen) 	 students Sharing of innovations among educators within and across departments and schools More collaboration between departments to support best teaching practices for clerkships, structure, and content Creation of a database of potential educators interested in teaching (non-Emory and Emory grads) in various specialties 	
Instructional Delivery Variety in instructional delivery	 Need to incorporate new learner-driven educational techniques and interactive strategies Lack of interdisciplinary teaching Lack of modeling interdisciplinary teamwork over spectrum of care Poor utilization of labs for HPP students Need more problem-based learning 	 Enhanced visual and interactive learning techniques Improved utilization of modern technology and modern thinking on how to teach Incorporate utilization of gold standard resources to support learning (World, Amboss, etc.) Intermix lectures & clinical activities; Utilize a range of methods and technology to deliver content Utilize technology to improve student experience and allow multiple options for learning (on demand lectures, traditional reading materials online, virtual classrooms, simulation, etc.) Develop opportunities for self-directed or individualized learning 	

Themes	Challenges	Opportunities
Programming/	- Not engaging learners as partners	- Co-creation and working collaboratively with
Curriculum	- Lack of innovation in didactic and clinical	learners
Evolving our	education	- Directly naming how bias and prejudice impact our
programming	- Need education on substance abuse	patients' care, both inside and outside the hospital,
& curriculum	disorders and pain management	as cases are taught
	- Disjointed units, too much variety of	- Integrate/sharing curriculum across degree
	educators, too high level, too much content,	programs
	units don't build on background knowledge	- Physician advocacy training in preclinical years;
	- Pass/Fail has no clear objective data	Involvement in community organizations early to
	- Need to focus on competency development	better support decision-making of specialty, practice
	(too stuck on artificial time limits – need to	model and location later in their career
	flexible with remedial time/time	- Improved sequencing of content during classroom
	off/accelerated/extra time)	years
	- Need more clinical/patient interaction	- A dedicated palliative care curriculum interwoven
	- Lecture content in years 1 and 2 can be	into the first 2 years and/or a required palliative care
	found elsewhere	elective
	- Lack of appropriate preparation for STEP	- Common training for multiple disciplines within
	- Lack of resources impacts education and	UME
	assessment of students/programs	- Primary care track; Development of sub tracks
	- Need to define where education will occur	- Shorter psych rotation, longer neuro rotation
	and what residents/tellows will be responsible	- Longitudinal curriculum for point-of-care ultrasound
	tor	(POCUS) in the medical school
	- Residents/tellows need more elective	- More elective based options for non-traditional
	opportunities to develop careers	learners
	- Lack of priority for HPP clinical rotation	- Expand Discovery phase beyond research to
	placement	accommodate the variety of learner interests
		- Structured STEP preparation; Block exams with step
		Folyactional are provided as a strategic cost for
		- Educational programming as a strategic asset for
		Multidisciplinary GME training (patient safety
		- Multidisciplinary One training (patient safety,
		In vive simulation training opportunities (within
		bospital sites)
		- Incorporate team based training
		- Develop strategies to improve clinical rotation
		placements for HPP programs
Fxperience	- Need flexibility for summer research	- A break between M1 and M2
Enhancing the	α opportunities (between M1/M2) at other	- More heavily involved educators and students of
educational	instructions/organizations (4 th year discovery is	years above who have completed modules to review
experience	too late to build application for residency)	content of lectures to make sure appropriately
5.400.101.00	- Need more opportunities to work in the	sequenced, scoped and level
	community	- Opportunities to earn money/tuition support
	- HPP programs seen as second priority	(preclinical-pick up shifts to do basic patient
		care/shadowing nurses for interprofessional
		education)
		- Educational scholarship funding that is education-
		related and across specialties

Themes	Challenges	Opportunities
		- Multi-disciplinary training opportunities
		(interprofessional education with other healthcare
		professionals)
		- Access to tuition reimbursement for advanced
		professional development
		- Support for ACGME institutional-level accredited
		fellowship training programs
		- Onboarding skills training (1-2 week boot camps)
		- Standardized, advanced technology for enterprise-
		- Support for program coordinators and GME staff
		professional development
		- Ability to expand service-learning projects across
		UME/HPP programs (with additional resources)
		- Develop responsibilities and accountability grid for
		HPP (programs, departments, and SOM education
		office) to identify gaps and determine mechanisms
		for resolution
		- Consider synergies for shared resources across
		HPPs (marketing, admissions, clinical affiliation
		contract management, orientations, research grant
		management, community service-learning projects
		etc.)
Partnerships/	- Need alignment of goals for GME with	- Foster collaboration with industry partners –
Connectivity	hospital partners; need similar expectations	exposure to processes at corporate and government
Expansion of	across the enterprise	institutions that support organizational excellence
partnerships &		- Improved relationships with clinical partners to
enhanced		place students with stronger clinical rotations
connectivity		- Regular communication among partner hospital
		leaders and GME
		- Shared resources for trainees across partner
		hospitals (EPIC training, patient safety, reporting
		Standardization of administration requirements
		across hospitals (ID badge access etc.)
Accountability	- Lack of accountability and standards for	- Incentivized educational delivery, education
Ensuring	educators	work/value units (RVUs/EVUs)
accountability	- Need transparent teaching metrics assessing	
and high-	quality of instruction	
quality	- Need to incentivize outpatient preceptors	
standards for	(directly impacts the quality of preceptors)	
all stakeholders	- Lack of system wide strategies to incentivize	
	cinical teaching	
	directors to address learners who are not	
	meeting standards	

Themes	Challenges	Opportunities
Physical	- Need shared workspace encouraging	- Design interactive educational buildings (small
Space*	collaboration across degree programs	group/collaboration space, clinical research lab,
Physical space	- Inadequate space and amenities for HPP	teaching kitchen, simulation facility, etc.)
that fosters intellectual curiosity and	programs	
collaboration		
Resource Allocation*		- Protected time for educators to develop educational materials
Resource considerations		- Provide support for residents/fellows to be educators (time/incentives)

Recommendation Phase – Developing a Plan to Support Ideal Learners

Launching the Working Groups

Six working groups launched in the first and second phases of the transformation process. The working groups individually convened to develop a set of recommendations pertaining to their unique topics of focus. During these subsequent phases, the steering committee met monthly to oversee progress and provide feedback on working group findings. Below are the high-level charge and final recommendations from each of the six working groups. Full working group membership is included in the appendix.

Forward-Thinking Educational Programming

Co Leads: Hughes Evans & Jennifer Spicer

High-Level Charge:

- Articulate high priority focus areas for new and modified educational programming that supports creativity and innovation; Identify resources needed to advance innovation & development within those high priority areas going forward.
- Outline opportunities of how interprofessional education & collaborative practice can be a driving force behind all education programming.
- Ensure quality & patient safety, principles of innovation, design-thinking, etc. are embedded in the continuum of learner development.

- 1. Center curricular content & structure around patients. As health professionals, our ultimate goal is to improve the health of our patients; therefore, our education should provide us with the knowledge and skills necessary to achieve those goals.
- 2. Promote the knowledge, skills, & attitudes necessary for lifelong learning. Medical knowledge is rapidly evolving, and health professionals need to be equipped with the knowledge, skills, and attitudes necessary for continued, lifelong learning.
- 3. Support learners by providing individualized education based on their needs and interests. There is a core set of foundational content that all learners must know for a profession. However, individuals also have special interests, and nurturing those interests can enhance self-motivation.
- 4. Teach learners how to work effectively within teams. Health care requires a team effort to provide effective patient care. We encounter teams every day in the health care environment. Those teams include individuals from other professions, disciplines, and social backgrounds. It is critical that learners can listen, elicit alternate perspectives, and communicate respectfully even when conflict arises.
- 5. Create explicit programming for professional development and wellness. Health professional students are in the process of being socialized into a professional culture. They need to learn the norms of the profession, make choices about their future careers, and learn how to be productive while maintaining personal and professional boundaries that protect their wellness.
- 6. Teach learners how to leverage technology in education and health care. Technology is now ubiquitous in medical education and health care. Health professionals use technology for their professional development (e.g., task management systems, email, etc.), in their teaching (e.g., PowerPoint, audience response systems, learning management systems, etc.), in patient care (e.g., electronic health systems, medical applications/calculators, etc.), and in research (e.g., citation

managers, database software, etc.). Moreover, newer forms of technology, like artificial intelligence and large interconnected databases, are becoming ubiquitous in health care, yet health professionals have limited understanding of their utility and advantages/disadvantages. Therefore, we believe that health professionals should have some exposure to these areas and learn how they can harness technology to deliver more effective and efficient patient care at the individual and population level.

Program Evaluation

Co Leads: Karen Law & Jose Villalon-Gomez

High-Level Charge:

- Adopt an evaluation framework
- Define the processes and procedures to support program specific evaluation and evaluation of overall education Transformation components
- Design the structure, processes, and practices to continuously improve the quality of education programs in the SOM and enhance effective monitoring of education programs' compliance with accreditation standards and in pursuit of desired learner outcomes

- Evaluations measure both traditional quantitative metrics and metrics on guiding principles. Employment of Guiding Principles allows a values-informed measurement of aspirational outcomes. Guiding Principles will facilitate evaluations processes that align with each program's mission and the mission of the School.
- 2. Principles of evaluation should be transparent, clearly described, and easily accessible. Principles of education evaluations should be posted for all stakeholders to review. New program/curricula leaders should review the evaluations principles and design evaluations alongside curriculum design. Use of a central, universal evaluations platform would facilitate data sharing, collaboration, and feedback between programs.
- 3. Programs and curricula should establish a timetable for evaluation reviews. A timetable for evaluations reviews should be set in advance to facilitate continuous improvement. The timetable will assist with ensuring evaluations review new and high-priority initiatives and limiting oversurveying through advance planning and component mapping.
- 4. Programs and curricula should regularly communicate updates made in response to evaluations. Evaluations should yield relevant data that is reviewed regularly and acted upon. Ongoing courses should communicate the ways in which the course was updated based on previous evaluations. Ongoing courses should regularly communicate any educational innovation efforts.

Holistic Learner Success

Co Leads: Martha Ward & DeJuan White

High-Level Charge:

- Outline a coherent and effective learner support system, from recruitment and admissions through graduation, which enhances the educational experience and contributes to holistic learner success
- Identify and articulate structures and processes required to foster a culture that is collaborative, supportive, inclusive, and compassionate
- Develop structures and processes in which learners have opportunities to raise concerns and provide feedback without fear of intimidation or retaliation
- Identify ways to support learner connectedness and community building

- Center learner wellness as a core consideration. All changes to curriculum should be viewed through the lens of improving overall wellbeing of learners. Often changes to one domain of the educational experience lead to a negative offset elsewhere. By focusing on learner wellness as a priority, we hope that the negative impact of change may be minimized.
 - a. Improve learner ability to engage in mental health care. Access to low cost (or no charge), insight-oriented therapy should be widely available. This may entail buying out of increased hours from private practice therapists.
 - b. Enact a zero-tolerance policy of student mistreatment. Learners and faculty must have a clear and anonymous method for reporting mistreatment. Lack of transparency in the process of addressing events of mistreatment may also result in lack of confidence in the institution and divert attention from learning. A standard algorithm for addressing such events may improve trust and instill a sense of safety.
 - c. DEI should be more than a curriculum. The SOM should seek to expand diversity of representation at all levels of faculty, both in the classroom and clinical sites. Case discussions, test questions, and other curricular material should be reviewed with a lens toward increasing representation of diverse backgrounds.
 - d. Create psychologically safe spaces for learners. Currently, there is insufficient space for all of the various groups of learners to meet and study within the SOM. Non-MD program learners have cited that they feel that preference is given to MD program learners (mainly small groups) in using space. This should be investigated and rectified.
 - e. Support personal development of learners. Curriculum should emphasize diverse opportunities for experiencing joy in practice. Learners within the school of medicine are selected based on a series of criteria honoring the unique aspects of themselves and leading them to attain acceptance to the SOM programs. Expanding opportunities for individualized curriculum, career counseling, and formal mentorship programs can assist allowing unique abilities to blossom.
- 2. Focus on improving the wellness of educators. Feedback obtained from learners and educators alike note that improvement in the wellness of educators can in turn lead to a better experience for learners. Educators must be given protected time to mentor, teach, and develop teaching materials.
- 3. Create a proactive, individualized learning center. A centralized resource for learning should be established. This may include learning specialists, tutors, study groups, and academic counseling.

Such a center should recognize and prepare learners for internal and external measures of academic success, including board exams.

Educational Experience and Instructional Delivery Co Leads: Jeremy Amayo, Richard Pittman, & Gina Shannon

High-Level Charge:

- Propose experiences on how to achieve curricular outcomes that includes a rich variety of experiences in our community, classrooms, and healthcare sites
- Suggest team-based care models and interprofessional practices in educational experiences to ensure learners understand the importance of teams to patient safety and patient-centered care

- 1. Provide students with clear objectives for all learning activities. We must ensure that students know exactly what they are expected to learn and at what level of detail/mastery.
- 2. Emphasize experiential learning through small group/peer-based teaching and problem-solving activities. These situations encourage active learning in a team setting, that nudge learners to embrace ambiguity and different perspectives. Some programs are doing this well already. These positive examples need to be studied, modeled, and replicated across our programs.
- Foster ongoing learning in an interprofessional setting by utilizing dedicated, trained interprofessional faculty. This recommendation extends the experiential, team-based learning concept from a "small group" of same discipline learners to a "medium-sized" group that includes learners across disciplines whose perspectives while add real-life flavor and context to patient-based learning.
- 4. Asynchronous delivery of didactic content (pre-readings, lectures, etc.). Identify core content that learners must have as a starting point and make it available for learners to consume during independent study hours. Existing high-quality content can be curated, limiting the need for novel creation. This will free up classroom time for problem-solving and deeper/nuanced thinking.
- 5. Prior knowledge checks to encourage pre-work and focus instructional time. These create an incentive for learners to interact with material before a learning activity. Learners have limited ability to apply material without prior exposure and study. Additionally, teachers can review trends of check responses to prioritize instructions towards areas of confusion or struggle.
- 6. Careful stewardship of in-person or virtual contact hours to apply foundational material. If core didactic content is provided asynchronously for learners to consume, arriving at required class time prepared with prior knowledge checks, then time can be spent applying knowledge rather than offering a first exposure to content. For example, in a nephrology section, learners having already studied glomerular cell types and key functions could spend class time discussing how medications or dysfunction of specific cells would affect glomerular functioning. This could be presented as cased-based examples students work through.
- 7. Formative assessments for specific, timely, and actionable feedback as opposed to just an "A". Formative assessments can serve as prior knowledge checks, described above, post-session checks, or pre-examination study guides. These lower stakes tools assist both teacher and learners know "if they got it" or if more study or instruction is required. Using assessment as feedback with clear actionable steps adds to the ongoing learning process, rather than a final high-stake grade result.

Additionally, a global deemphasis on test scores would enable students to focus less on a quantitative percentage grade (focused on performance) and consider their competency more qualitatively (focused on learning).

- 8. Restructure summative assessments to add evaluation of nonlinear thinking. Instead of focusing on the black/white correct answer with MCQs, consider the addition of other forms of assessment that evaluate students' clinical reasoning, skills, and attitudes. Some examples include open-ended written questions, oral examinations, direct observation, or simulation.
- 9. Explicit instruction on how to learn. Provide students with direct instruction on evidence-based learning strategies and metacognitive skills.

Connectivity and Partnerships

Co Leads: Henry Blumberg, Yolanda Hood, & Stacie Schmidt

High-Level Charge:

- Identify areas of opportunity to lead interprofessional education initiatives on collaborative practice with key partners
- Find synergies and make contributions through partnerships that support creativity and innovation such as engineering organizations, local businesses, public health nonprofits, healthcare professionals, and community organizations

- Inclusion of community leaders and Community-based organizations (CBOs) as stakeholders to codevelop community-facing interprofessional curricula that support community engagement to solve real-time health issues. Community leaders and/or CBOs must be recognized as part of any community-facing IPE core initiatives, and if they make substantial contributions to learners' education should be compensated for their time and efforts. Additionally, community leaders and/or CBOs should participate in curricula development.
- 2. Community engagement efforts from all Emory schools should be taken into consideration; we must be aware of where "Emory" is "working with community" across the University, because community partners do not always distinguish the health professional programs from other Emory entities.
- 3. Create an Office/Center for Community Engagement and Interprofessional Education in the SOM (and /or expand upon the current Office of Interprofessional Education and Collaborative Practice) dedicated to the training and education of faculty and learners on IPE dedicated towards addressing health inequities through collaborations and enhanced relationships with key local/state organizations and community stakeholders.
- 4. Aim to achieve Interprofessional Education that develops a set of values to ensure education of learners around engaging external partnerships under principles of mutual benefit and equity that avoids exploitative practices, and that ensures health inequities are addressed using a human rightsbased approach (HRBA) that teaches methods for promoting community empowerment and societal mobilization addressing structural racism, denial of access to care, poverty, and other issues affecting social determinants of health.
- 5. Recognize that interprofessional education must bridge MULTIPLE sectors to effect true societal change.

Faculty, Resident, Staff Growth, Development, and Scholarship Co Leads: Linda Lewin & Nate Spell

High-Level Charge:

- Outline the elements required for a comprehensive educator development program that facilitates the development of skills in the domains of teaching, instructional design, curriculum development, learner assessment, educational scholarship, leadership, and personal/professional development
- Articulate the skills, competencies, and experience types required to support the forward-thinking educational programming recommendations (e.g., design thinking/retrograde design, change management, entrepreneurship, and leadership).

- Establish an academic Department of Health Professions Education to serve as a home for professional educators and educational researchers and provide secondary appointments to those with significant educational responsibilities. The charge of this Department of Education would include 1) ensuring appropriate training of faculty, staff, and resident educators who teach students in any of the health professions programs; 2) supporting career development of faculty, staff, and trainee educators who wish to focus their careers on education; and 3) promoting and coordinating the education research portfolio.
- 2. Provide adequate resources to accomplish all goals by reviewing the current administrative functions of all the health professions programs and rolling them into the new department, as well as identifying additional resources such as PhD educators, instructional designers, necessary software and technical support and others needed to support all departmental functions.
- 3. Establish an educator fellowship program to formally train current faculty to become expert educators and to utilize those skills in support of innovation in the degree programs, growing the cadre of available resources. Work toward developing this into a master's degree program administered out of the department described above.
- 4. Establish a formal recognitions program for educators based on criteria that include selfdevelopment, service, and attainment of excellence. This program would parallel the academic promotion pathway but not supplant it. It would be peer-reviewed and could be administered by the above department in partnership with the Woodruff Health Educators Academy (WHEA).
- 5. Foster a sense of community among educators at all levels of health professions education. This community of practice could be built on the foundation of the Woodruff Health Educators Academy, the MD program small group advisors, the existing programs' curriculum committees and others.
- 6. Support the community through focused mentoring for educators, joint activities across programs, celebrations of educational excellence, and presentation of educational research at scientific meetings and peer-reviewed journals.

Consolidation Phase

After the working groups made their final recommendations, the Steering Committee and other key program representatives participated in two retreats with distinct objectives.

Retreat 1

Objective: To identify where there are opportunities for shared learning experiences and/or opportunities for shared resources across all ESOM programs.

The takeaways below represent the common themes prioritized by the participants at the first retreat. This served as the basis for establishing the operating principles.

- Program evaluation guiding principles that are transparent and clearly described; ideally these guiding principles are shared across all programs
- Asynchronous delivery of didactic content
- Emphasize experiential learning through small group/peer-based teaching and problem-solving activities
- Interprofessional Education that develops a set of values to ensure education of learners
- Partnership and alignment of goals with healthcare partner organizations
- Center learner wellness as a core consideration; create explicit programming for professional development and wellness
- Individualized learning/development of learners based on their needs
- Creation of a Department/Center of Health Professions Education

Retreat 2

Objective: To generate ideas and examples of models of interprofessional experiences within clinical, community, didactic, and simulation settings.

Below are examples of interprofessional education experience ideas created during the retreat. Pictures and copies of all the submissions from the retreat are included in the appendix.

Clinical

- Interdisciplinary Clinical Rounds: Involve any or all programs in clinical rounds to learn about the roles and responsibilities of all professions. This experience would foster collaboration among disciplines and allow learners to engage with other personnel in the clinical setting such as clinical managers.
- Interprofessional Grand Rounds: Prior to Grand Rounds, learners will learn about the specific condition (genetic) and consider how to provide care. In a large group room, learners will communicate with other professionals and explain their unique care aspects and discuss interactively a problem unique to the patient. Learners will develop an outline for their area of practice and then come together to create a shared infographic or handout for patient education.

Room/Virtual/Lab

• Managing Conflict Between Health Care Professionals: Scenarios will be developed prior to the simulation by faculty who will then serve as facilitators. The scenarios will involve learners from

any profession engaging in situations requiring conflict management techniques to care for a patient. These scenarios will allow learners to practice professionalism and develop advanced communication skills.

Simulation

 IP Escape Room: The goal is to identify unique strengths of each discipline and utilize those strengths to solve a problem. The escape room would involve several different rooms with various questions or problems that pertain to one overall case. In order to move on to the next room, the learners will have to solve the problem. This could involve learners from multiple professions.

Community

- Together, the ideas below represent one concept in which students decide if they want to participate in either urban or rural settings experiences.
 - Rural Emory Farmworker's Project (EFP) Expansion: The expansion of the existing EFP would involve increasing the number of learners, faculty, and interpreters. This would be required of learners and faculty and would have both classroom and clinical components. An example of this structure is a team spending the morning engaging with the farmworkers as a team and then coming together in a classroom setting in the afternoon to debrief and reflect.
 - Urban Initiative: Similar to the EFP, this experience would be required of faculty and learners and allow them to engage in both clinical and classroom time. Learners and faculty would spend half a day in a clinic setting and the other half in a virtual or in person classroom setting.

Appendix 1: Working Group Membership

Working Group Membership

Forward-Thinking Educational Programming

- Jennifer Spicer
- Hughes Evans
- Yelena Burklin
- Meredith Lora
- TJ Murphy
- Terri McFadden
- Kiran Hebbar
- Lisa Daniels
- Rishi Kamaleswaren
- Ravi Rajani

Program Evaluation

- Karen Law
- Jose Villalon-Gomez
- Vince Carter
- Marie Johanson
- Amber Davis
- Keenan Davis
- Shreya Ganguly
- Jacki Harmon

Holistic Learner Success

- DeJuan White
- Martha Ward
- Sarah Caston
- Alexander Kendall
- Gabrielle Blaylock
- Kari Esbensen
- Sherice Allen Henry

Educational Experience & Instructional Delivery

- Jeremy Amayo
- Richard Pittman
- Gina Shannon
- Veketa Smith
- Hillary Mendieta

- Judy Gichoya
- Will Bundy
- Erin Weinisch
- Areeba Abid
- Ben Rabin
- James Janopaul-Naylor
- Shub Agrawal
- Shannon Clute
- Steven Roser
- Kathy Kinlaw
- Sean Strickler
- Kate Garber
- Joanna Gao
- Jamie Mackelfresh
- Taiwana Mearidy
- Ann Schwartz
- Gbenga Shogbesan
- Justin Tu
- Claire Castellano
- Lauren Licthen
- Carla Haack
- Philip Shayne
- Joey Sharp
- Maxwell Cooper
- Janice Harewood
- Lisa Daniels
- Reggie Adams
- Kain Kim
- Stephen Gurley
- Jason Brown

- Jennifer Sharp
- Lissette Tiller
- Tyrese Hinkins-Jones

Connectivity and Partnerships

- Henry Blumberg
- Yolanda Hood
- Stacie Schmidt
- Rebecca Baggett
- Anne Mellinger Birdsong
- Maura George
- Jodie Guest
- David Holland
- Sarah Koumtouzoua

- Isabel Walker
- Lamiis Khalifa
- Roshan George
- Allen Lee
- Caleb Long
- Rebecca Philipsborn
- Tom Quinn
- Katie Ross-Driscoll
- Beth Ann Swan
- Christine Wiggins
- Joan Wilson
- Amy Zeidan

Faculty, Staff, and Resident Growth and Development

- Nate Spell
- Linda Lewin
- Laura Zajac-Cox
- Chandra Graves
- Reena Hemrajani
- Thomas Moore, Jr.
- Christine Stoltz

- Katie Davis Cowley
- Nancy DeSousa
- Rebecca Sanders
- Tracy Vettese
- Anurag Khanna
- Anna Beth West
- Greg Murray

Appendix 2: Retreat 2 Recommendations

Retreat 2 Interprofessional Education Experience Idea Submissions

Problem patient lab. - include students from all programs. - Attending choose a post cases usely - Do a certain # a senesder - writep thoughts & concern Could de mbine quality -Shared problem solving t directed arning Longitudinal tracks (area of possio any) Minors: Public Health, Education. Community Service, Disparities (reate classes king across schools (Business, Law) adjustice success of these Anatomy lab Learning Salon All propo learn togethe Include imaging too & after what do you this profession Heach Case presentations /TBL/PB from all view points Small discussions Repet-Preset presentationt call prastudent "consult case hased - acros TBL/ PBL SUSSIONS integrating other programs (eg. pids case of PAIND/quicti-case of PAIND/quicti-Discuss these cases togeth Serior students teaching One for prove & suior sudats from tack offer stat senior sudats from - Elead small grapher program discussion involved in training Partering matoring other Swants Share own stories - could be dove within groups the work togethe

CLINICAL Longitudinal - relationship upractitioner - follow pts throughout care -IT debrief as team -Observe/follow inpotient/outpatient transition -follow a topic through clinic CDET, clinical data systems) Student to student training Shadde other HCPS & team members Understand patient experience - stay with I patient through clinic & visits -help pts navigate financial programs -visit legal aid, finance office Create work study jobs where students are in clinic (scribe?) Show EHC how education mission improves pt satisfaction Carlos, Enca, Joe, Jen,





Required Curriculum of time RURAL-EFP expansion for faculty = Spore is curriculum JULY Team 1 Team Z Am \$**\$** \$ \$ \$ \$ \$ \$ \$ \$ pm 17 RAP Classroom - Debrief Classroom - Team Building - Debrief - Curriculum - Tean Buiding - Cunculum Preceptors + Learners - preceptors + beamers - Reflections Reflections - wellness - Wellness - peer teaching -Perterchife Advocacy, Research, innovative heath care modes + record system Longitudine - Summer fall, monthly brainstonic, actor planning, of IT innovation mobile unit PA Ner PANE Learners + Faculty

Required curriculum + time Undan Institution for Saciely + students = JULY space incuriculum 2222222 DA 27259 Oxc Clinic Am 00 Am Classroom (Virtuet wirtung or imperson Classrom pm pm Et Chinic & R. P. Curriculeon on classroom geer-teaching, Debrief, Team-building, curriculum, reflections, proceptors Afearners together well nest Longitudinal montaly clinics , weekend Chines , hotspotting , QI , Give pr pr med sont pert Bigshow Law Euro GA- GC Faculty

IPE Escape Room: A case of Malignant Hyperthermia Goals: I dentify unique strengths of each discipline. Utilize strengths to solve a problem together which Room 2 pre op solve posient Poom1 Clinic mayes do Rooms Op Room we need? to next location Crepeat, Patient tound to have Malighant huterhemia Zoomle Room 4 Potent at Room S PACU postop Conservice & will wep?

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