



UGME Curriculum Renewal 2022

Report | Phase II **Longitudinal Leadership Curriculum Working Group**

University of Ottawa, Faculty of Medicine
Undergraduate Medical Education

Co-Chairs

Dr. Alykhan Abdulla & Dr. Craig Campbell

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Introduction

The second strategic priority identified during Phase 1 of the curriculum renewal project was to enhance horizontal and vertical integration of curricular content across all four years of the MD Program. This priority was identified by multiple working groups who recommended that curriculum renewal focus on the sequence, relevance and comprehensiveness of how educational activities are planned across disciplines or content areas within defined periods of time (such as a particular week or unit) and where topics are revisited on multiple occasions with increasing levels of difficulty. To address this challenge, the Curriculum Structure Working Group made the following recommendation (1):

"Develop and implement an educational design strategy to achieve enhanced vertical integration of current or future longitudinal curricula across all four years of the MD Program".

As part of Phase 2 of the curriculum renewal project, a longitudinal leadership curriculum working group was formed to review and propose recommendations to the current leadership curriculum.

Background

The Faculty of Medicine at the University of Ottawa launched a mandatory longitudinal Undergraduate Medical Education Leadership Curriculum (LC) in 2009 for all students in the anglophone and francophone streams. A description of the curriculum's goals and content can be found on the UGME web site.(2)

1. **Curriculum Goals.**

The current goals of the leadership curriculum are designed to provide medical students with:

- foundational knowledge and skills in healthcare leadership
- opportunities for enhanced leadership development for medical students that demonstrate particular interest and/or aptitude in healthcare leadership
- exposure to the importance of leadership in healthcare early in a physician's training.

2. **Leadership Curriculum Content.**

The content of the current leadership curriculum is organized in the following sessions.

Year 1

1. An Introduction to the Leadership Curriculum.

This large group session in the Introduction to the Profession Unit introduces the student to the concept of healthcare leadership and the Leaders for Life© pillars and prompts the student to reflect on his/her past leadership experiences and explore possible reasons for leadership success and failures.

2. Giving Effective Feedback

This large group session in Unit 1 is focused on how positive and negative feedback can be provided to enhance personal and professional development

3. Receiving Feedback and Goal Setting

All students participate in an anonymous formative multi-source feedback (MSF) exercise near the end of their first year to encourage students to identify perceived and unperceived strengths and development needs. Utilizing the feedback from the MSF exercise, this session in Unit 1 highlights how both positive and negative constructive feedback can be utilized for personal development. Students are asked to practically apply goal setting strategies to work toward an objective and measurable goal.

Year 2

4. Crucial Conversations and conflict management

This session exposes students to constructive approaches to conflict. Students are led through theory and case-based conflicts to generate strategies based on mutual respect that results in positive resolution.

5. Change management

This session introduces students to change management strategies and provides students with the opportunities to apply Kotter's Change Management paradigm to their relevant dilemmas in health care.

Year 3

The MSF exercise is repeated in the middle of clerkship to enable students to track progress in their leadership competencies since the first iteration of the MSF in year 1. Students are required to complete a formal reflection in response to their MSF results.

Year 4

6. Leadership Elective.

This elective was designed for students to further develop and enhance their leadership knowledge and skills. Students who choose to participate in the elective are required to complete:

- Two days of small group sessions at the beginning of the student's fourth year.
- A variety of assignments throughout the year which may include:
 - a) reviewing the Canadian Medical Association's (CMA's) modules on self-awareness;
 - b) running effective meetings;
 - c) creating short term wins for large projects;
 - d) time management; influencing others; and healthcare transformation.
- A project that is presented to other students completing the elective. The intent of the project is to demonstrate the practical application of the student's leadership skills.

Students who have successfully completed all the elements of the Leadership Curriculum including the Leadership Elective are awarded with a **Leadership Certificate of Achievement** at graduation.

3. Foundations in Leadership elective

In parallel with the main Leadership Curriculum, a student-led Foundations in Leadership elective (3) provides 20 first-year students with an opportunity to expand their knowledge and skills related to leadership prior to entering the clinical learning environment. This elective includes the following sessions:

Session 1: Introduction to Leadership in Medicine. // This session provides students with details on the content and themes taught throughout the program and the expectations for participants.

Session 2: Health Systems and Quality Improvement. // This session provides opportunities for students to engage in an interactive discussion on the systems and organizations that exist within the Canadian healthcare system and learn how physicians may navigate them effectively to lead change.

Session 3: Leadership OSCE Part 1. // During this session students rotate through four role-playing scenarios exploring a diversity of real-life contexts to enable them to practise effective communication, conflict resolution, problem-solving and other non-technical skills.

Session 4: Leadership in Medicine Panel. // This session engages students in discussions with a panel of leaders in medicine, from a diversity of settings and levels of training, to share perspectives on leadership roles and responsibilities that exist within medicine.

Section 5: Conflict Management and Resolution. // This session focuses on common communication pitfalls and how to employ strategies that facilitate meaningful conversations and conflict resolution.

Session 6: Introduction to Knowledge of Self. // This session provides students with opportunities to learn about the importance self-reflection and its value in their personal and professional lives. Students are assigned a qualitative multisource feedback activity, which they complete outside their formal elective time.

Session 7: Negotiation, Persuasion and Advocacy workshop. // This workshop provides students with an opportunity to learn about principles-based negotiation and the concepts for successful persuasion that create mutual benefit for all parties involved. Students practise negotiation and persuasion skills and strategies in small groups and create a proposal for a health advocacy project.

Session 8: Leadership OSCE Part 2. // The second OSCE session exposes students to a different set of four standardized patient-led scenarios that students are invited to complete using their newly gained knowledge and skills since the beginning of the program.

Session 9: Closing ceremony. // During this session students receive their certification for completion of the program and reflect on the lessons and skills learned with the members of the leadership team.

Longitudinal Leadership Curriculum Working Group

A longitudinal Leadership Curriculum working group was formed under the co-leadership of Dr. Jean Roy and Dr. Craig Campbell. The terms of reference developed for this working group included a mandate to:

1. Develop a longitudinal leadership curriculum, including any optional extracurricular components, across the 4 years of the MD Program.
2. Provide a detailed description of core concepts, issues, topics, competencies, and skills that would be taught in each year of the longitudinal leadership curriculum within the MD program.
3. Propose a pedagogical framework for how the content proposed for the longitudinal leadership curriculum could be effectively integrated and delivered to students in the MD Program.
4. Delineate the scope of the extracurricular leadership program – referred to as the ‘Foundations in Leadership’ program – as an option for students seeking additional leadership training.
5. Identify recommendations for the implementation of leadership training in undergraduate medical education based on published best practices and peer-reviewed medical education research.

Curriculum Purpose and Goal

Working Group Process

The working group met 7 times between January 11, 2022, and June 11, 2022. The working group began by using Menti to develop a word cloud to identify the key concepts for inclusion in a purpose statement and a goals statement for the longitudinal curriculum. The words or phrases proposed by working group members were integrated into statements that were reviewed and modified at subsequent working group meetings. The working group members approved the following two statements.

Purpose Statement

The UGME Leadership Curriculum will provide students with the resources, tools and practical interactive learning opportunities to enable them to acquire the knowledge, competencies, skills, and abilities to confidently and effectively demonstrate leadership in their clinical practice, as members of inter-professional teams and in the health systems in which they will work.

Goals Statement

The UGME Leadership Curriculum will prepare students to acquire the competencies to:

- Identify and help resolve conflicts;
- Reflect on feedback received and set goals to achieve personal growth;
- Provide effective feedback to patients, peers and colleagues;
- Effectively collaborate and communicate with members of inter-professional teams; and
- Lead by example in demonstrating the concepts that define effective leadership.

Following the formation of these two statements the working group members utilized a concept map strategy to review all current learning activities in the mandatory leadership curriculum and the Foundations in leadership elective. The concept map strategy was based on an analysis of the learning objectives to identify the core knowledge, concepts, competencies, and skills included within and across each of the learning activities. The group then used these descriptions to

- review and revise the sequence of learning activities proposed for each year of the MD Program;
- make recommendations on revisions to the learning objectives for specific sessions;
- propose revisions to the educational options based on feedback from students participating in the leadership elective; and
- propose strategies for assessment and the integration within the design of a spiral curriculum.(4)

A. Proposed Revisions to the Longitudinal Leadership Curriculum.

Recommendation 1: Integrate content domains included in the Foundations in Leadership elective into the mandatory leadership curriculum.

The ultimate goal of developing the student-led Foundations in Leadership elective was to integrate the content of the elective into the main leadership curriculum in future years. The successful implementation of this elective over the past 2 years resulted in working group members strongly endorsing the need to integrate all applicable content from the elective course into the mandatory leadership curriculum.

Recommendation 2: Redesign a Foundations in Leadership elective opportunity for students in year 1 of the MD Program for implementation during the 2022-23 academic year.

The integration of content from the Foundations in Leadership elective within the main longitudinal leadership curriculum provides an opportunity for students to redesign the purpose, content, and assessment strategies for a leadership elective for students in year 1. The Foundations in Leadership elective has proven to be a fertile environment for the quick conceptualization and implementation of new ideas, and will continue to serve as a source of recommendations for the main curriculum. The parking lot of topics or concepts identified during the concept mapping strategies will be explored for integration in a revised Foundations in Leadership elective.

Year 1 – Understanding Self

Year 1 of the curriculum is focused on leadership at an individual level. During this first year, the longitudinal leadership curriculum will introduce students to foundational concepts and competencies of healthcare leadership, the importance of self-reflection for physician leaders and strategies to utilize feedback to identify personal strengths, areas for improvement and goals for professional improvement and personal growth.

Given the above focus, the members of the working group made the following recommendations related to the content that should be included in year 1 of the Longitudinal Leadership curriculum.

Recommendation 3: Retain and revise the lecture in the Introduction to the Professions Unit to include an overview of the purpose and goals for the leadership curriculum while retaining the current focus on effective leadership in a health care setting.

1. Content

This large group learning session provides students with a description of the longitudinal leadership curriculum and how this curriculum will be integrated within the transition to competency-based medical education. Students will have the opportunity to discuss the characteristics and competencies displayed by effective leaders in health care.⁽⁵⁾ This session will provide a forum for students to reflect on their past leadership experiences prior to entering medical school and their perceptions and assumptions on what defines effective leadership in a health care setting.

2. Session Title and Learning Objectives

<i>Title of the Session</i>	<i>Proposed Revisions to the Session Title</i>
<i>Health Care Leadership</i>	<i>The Longitudinal Leadership Curriculum</i>
<i>Current Learning Objectives</i>	<i>Proposed Revisions to the Learning Objectives</i>
114 Define leadership, reflect on your own experiences with leadership and describe the importance of leadership in health care.	Revise 114 Explain the importance and challenges to demonstrating authentic leadership in health care.
116 List and describe the Leaders for Life competences of the effective physician leader.	Revise 116 Describe the characteristics and competencies of an effective physician leader.
117 List the goals and elements of the uOttawa Leadership curriculum and identify resources available for medical students to further development leadership skills.	Revise 117 Describe the purpose and goals for the longitudinal leadership curriculum.
118 List and describe the traditional six styles of leadership and given examples of use; contrast these traditional definitions with newer concepts of level V leadership and authentic leadership.	Retire 118 Rationale. A discussion on the styles of leadership can be effectively integrated within learning objectives 114 and 116.
	New: Discuss how the longitudinal leadership curriculum will be integrated within competency-based medical education in the MD Program.

Recommendation 4: Replace the Giving Feedback session in Unit 1 with a session on the evidence for and processes and strategies that promote effective self-reflection for physician leaders.

1. Content

This large group session will explore self-reflection processes and strategies that enable physicians to identify personal strengths and areas for improvement.(6,7) This session will describe the evidence on the effectiveness and limitations of self-reflection (8) and emphasize

the importance of students knowing themselves. Students will use selected tools (9) to complete a self-assessment of their 'best selves' prior to this session and come prepared to discuss scenarios that illustrate the range of ways in which individuals, including patients, receive feedback.

2. *Session Title and Learning Objectives*

<i>Title of the Session</i>	<i>Proposed Revisions to the Session Title</i>
<i>Giving Feedback</i>	<i>Know thy Self: Importance of Self-Reflection for Physician Leaders</i>
<i>Current Learning Objectives</i>	<i>Proposed Revisions to the Learning Objectives</i>
11715 Appreciate how both negative and positive feedback can be given constructively and the value of both for personal and professional development.	Revise and transfer this learning objective to year 2 of the longitudinal leadership curriculum for the 2023-24 academic year.
Recognize the importance of reflection for a medical professional and its importance in the context of leadership.	New: Describe the evidence on the value and limitations of self-reflection for medical professionals in a health care context.
Identify one's strengths, weaknesses and their inter-relatedness.	New: Explain the importance of identifying both one's personal strengths and areas for improvement.
Learn how to self-reflect effectively using evidence.	New: Apply the evidence on effective self-reflection processes and strategies within an educational environment.

Recommendation 5: Integrate the educational objectives for the 'Receiving Feedback and Goal Setting' session in year 1 with relevant educational objectives proposed for year 1 of the EPA Achievement Course.

1. *Content*

This large group learning session will provide a session on how to use the feedback (10) provided by the Multi-Source Feedback exercise to enable students to identify their personal strengths

and areas of future improvement.(11) Students will be challenged to see feedback not as a test that they passed or failed but as a process to facilitating their professional development. Students will use the UGME Learning Plan (12) to create at least one professional development goal to enhance their achievement in a selected Entrustable Professional Activity (EPA).(13) Students will discuss the practical aspects of describing, implementing and monitoring a professional goal (14–16) including selecting appropriate learning resources, anticipating challenges or barriers, identifying what support requirements will facilitate the goal design or implementation and the criteria that will be used to determining success.

2. *Title and Learning Objectives*

<i>Session Title</i>	<i>Proposed Revisions to the Session Title</i>
<i>Receiving Feedback and Goal Setting</i>	<i>Receiving Feedback and Setting Goals</i>
<i>Current Learning Objectives</i>	<i>Proposed Revisions to the Learning Objectives</i>
12701 Use feedback to identify perceived and unperceived strengths and weaknesses.	Revise 12701. Use the feedback from the Multi-Source Feedback exercise to identify personal strengths and areas for improvement.
12702 Recognize and practically apply a process that can be used to utilize feedback for improving performance.	Revise 12702 Describe a process to critically appraise and utilize feedback for professional growth and improvement.
12703 Generate goal setting strategies based on feedback.	Revise 12703 Utilize the UGME Learning Plan to create, implement and monitor one professional development goal based on the Multi-Source Feedback exercise.
12704 Discuss types of supports that can be used to help one effectively meet goals.	Retire 12704. Rationale: This objective is included in the process by which a professional goal is developed in objective 12702. The UGME Learning Plan goal development template asks students to identify what supports or resources they will require to design or implement the professional goal they intend to create.

Year 2 – Influencing Others

Year 2 of the longitudinal leadership curriculum will focus on leadership in a group setting. During this year, the focus will shift to the knowledge, skills and competencies required to give effective feedback and to identify, manage and resolve conflict as members of various groups or interprofessional teams. Students will learn how to respond during conflict and strategies to facilitate meaningful conversations.

Given the above focus, the members of the working group made the following recommendations related to the content that should be included in year 2 of the Longitudinal Leadership curriculum.

Recommendation 6: Transfer the Giving Feedback educational session in year 1 of the leadership curriculum to year 2.

1. Content

This large group session will focus on the evidence for how to effectively provide positive and constructive feedback that will enable personal and professional development in others. Given the transition to competency-based medical education, students will be receiving feedback from multiple sources, including their peers, coaches, mentors, faculty members and patients. Learning how to provide effective feedback to their peers (17) will contribute to the development of a growth mindset. Students will learn about how appreciative inquiry will facilitate their understanding of how individuals reason and make decisions to enhance our effectiveness in giving feedback (18).

2. Title and Learning Objectives

<i>Session Title</i>	<i>Proposed Revisions to the Session Title</i>
<i>Giving Feedback</i>	<i>No changes</i>
<i>Current Learning Objectives</i>	<i>Proposed Revisions to the Learning Objectives</i>
11715 Appreciate how both negative and positive feedback can be given constructively and the value for personal and professional development.	Revise 11715 Discuss strategies for how to provide feedback to support personal and professional development.
	New: Explain the processes individuals use to reason and come to decisions.

	New: Describe how the stages of appreciative inquiry can inform the process for giving effective feedback to others.
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Recommendation 7: Review and revise the content and learning objectives established for the Conflict and Conflict Management session in the main leadership curriculum.

1. *Content*

This large group session will focus on personal responses to conflict and provide students with opportunities to identify common sources of conflict (19) and approaches or strategies to mitigate the impact of conflict on a student’s personal or professional life. Students will use a conflict management framework to explore their perceptions of conflict in their daily life and develop a plan to manage these sources of conflict.(20)

2. *Title and Learning Objectives*

<i>Session Title</i>	<i>Proposed Revisions to the Session Title</i>
<i>Conflict and Conflict Management</i>	Personal Responses to Conflict
<i>Current Learning Objectives</i>	<i>Proposed Revisions to the Learning Objectives</i>
145 Define conflict and conflict management and provide examples of how conflict can be both constructive and destructive.	Revise 145 Describe strategies to identify common sources of conflict and provide examples for how conflict management can lead to constructive or destructive outcomes.
146 Systematically define sources of conflict.	Retire 146. Rationale: This objective was included in the revisions to learning objective 145 above.
147 List the elements of the Ladder of Perception and provide an example of how conflict can occur based on the same data and experience.	Revise 147 Discuss examples for how conflict can result based on differing perceptions of the same data and experience.
149 Explain the four-conflict management quadrants and identify which quadrant is your current conflict management style.	Revise 149 Identify one’s personal approach or strategies to mitigate the impact of conflict in one’s personal or professional life

151 Describe and practically apply a strategic framework for conflict management.	Revise 151 Utilize a conflict management framework to identify current areas of conflict in one’s daily life and develop a plan to manage these sources of conflict.
	New: Describe strategies to avoid assuming unwarranted responsibility for conflict.

Recommendation 8: Transfer the ‘Conflict Management and Resolution’ session in the Foundations of Leadership elective into year 2 of the longitudinal leadership curriculum.

1. *Content*

Given the inevitability of disagreements and conflicts with peers, health professionals and patients, this session will introduce students to ways in which we frequently hinder communication and provide an opportunity for students to explore strategies that allow for meaningful conversations that promote resolution.(21) Students will learn how they can regulate their emotions, critically appraise a situation, and create an environment that is conducive to open dialogue by employing safety, self-awareness, realizing shared understanding and seeking compromise.

2. *Title and Learning Objectives*

<i>Session Title</i>	<i>Proposed Revisions to the Session Title</i>
<i>Conflict management and Resolution</i>	<i>Strategies to Resolve Conflict</i>
<i>Current Learning Objectives</i>	<i>Proposed Revisions to the Learning Objectives</i>
Identify crucial conversations and employ strategies to facilitate meaningful conversations.	New: Employ strategies to facilitate meaningful conversations that achieve mutual understanding and respect.
Recognize periods of conflict and identify strategies to achieve meaningful understanding and respect.	Retire: Rationale: This learning objective is part of the learning objective described in the row above
Learn how to create a safe space for open conversations during periods of conflict.	New: Describe how to create safe spaces to enable meaningful conversations during conflict.

Learn the Crucial Conversations approach to conflict management and employ the STATE model to share your perspective.	New: Employ the STATE model to facilitate engagement in crucial conversations as part of conflict management.
Understand areas of conflict in one’s daily life and reflect on ways to achieve productive discussion and conflict resolution.	Retire: Rationale: This learning objective is covered in several new learning objectives described above.

Year 3 – Creating change

Year 3 of the Longitudinal Leadership curriculum will build upon the foundation laid during year 1 and 2 by expanding to consider leadership within the institutional or organizational context. The three sessions proposed for year 3 will focus on the frameworks for change management; the role of physicians in leading change with other health professionals to achieve continuous quality improvement of our health systems and the health care provided to patients; and how to address and navigate specific challenges in health care using leadership skills and conflict-resolution techniques.

Given the above focus, the members of the working group made the following recommendations related to the content that should be included in year 3 of the Longitudinal Leadership curriculum.

Recommendation 9: Transfer the ‘Leading Through Change’ session in year 2 to year 3 of the Longitudinal Leadership curriculum.

1. Content

During this session, students will explore the process of change (22) and frameworks (23) that provide practical strategies to guide leaders in the implementation of change management strategies.

2. *Title and Learning Objectives*

<i>Session Title</i>	<i>Proposed Revisions to the Session Title</i>
<i>Leading Through Change</i>	<i>No changes proposed.</i>
<i>Current Learning Objectives</i>	<i>Proposed Revisions to the Learning Objectives</i>
12698 Describe Kotter’s Framework for change management.	No change
12699 Describe the process of change.	No change
12700 Identify common reactions to change and provide practical leadership strategies to guide people through change.	No change

Recommendation 10. Transfer the session on Health Systems and Quality Improvement in the Foundations in Leadership elective into year 3 of the Longitudinal Leadership curriculum.

1. *Content*

This session will enable students to explore physicians’ responsibilities for sustainability of healthcare organizations and systems. The session will review key concepts relevant to the functioning of the health care system, the processes and strategies to implement continuous quality improvement (24), the processes used to analyze culture in a health care setting (25), how to lead healthcare reform through multidisciplinary collaboration (26) and drive quality improvement (27) as physicians.

2. *Title and Learning Objectives*

<i>Session Title</i>	<i>Proposed Revisions to the Session Title</i>
<i>Health Systems and Quality Improvement</i>	<i>No changes proposed</i>
<i>Current Learning Objectives</i>	<i>Proposed Revisions to the Learning Objectives</i>
Cultivate an understanding of organizations and systems that deliver healthcare in Canada.	Retire: Rationale: Already covered in learning objective 12261 from SIM in year 1:

	“Describe key elements in the history, structure and operation of the Canadian Health Care System”
Recognize healthcare structures and the systems within which physicians must work in order to lead change.	New: Describe the structures and systems that enable physicians to lead change.
Develop a wider contextual awareness of the healthcare system to gain a deeper understanding of the physicians, allied healthcare workers, and other professionals they will need to work with in the future.	New: Discuss how different health professionals can collaborate to promote or lead change within health systems.
Explore how a strong understanding of the healthcare system can lead to improved quality of care for patients at the local, provincial, and federal level.	New: Describe the elements of health systems and how an understanding of these systems can help deliver a higher quality of care to patients at the local or provincial level.
Understand the process of continuous quality improvement and the fundamentals of quality implementation tools in healthcare, and how it integrates with the physician's role.	New: Explain the process of continuous quality improvement including the tools and strategies used to assess and implement quality improvement initiatives.
Recognize the importance of analyzing the culture in the healthcare setting within which one works.	New: Explain the process to analyze culture in health care settings.
Design approaches to create solutions to important health care problems.	New: Describe approaches to address important health care problems.
Understand the benefits and challenges of pursuing interprofessional quality improvement projects, and begin developing an approach to navigating these situations.	New: Discuss the benefits and challenges of pursuing interprofessional quality improvement projects in a clinical learning environment.

Recommendation 11: Transfer the ‘Leadership in Medicine’ panel session from the Foundations in Leadership elective into year 3 of the Longitudinal Leadership curriculum.

1. *Content*

During this panel session, students will interact with various leaders in medicine who will discuss their leadership roles and the obstacles and challenges they face in these roles. This panel will explore how they apply and employ conflict resolution skills (28) on a daily basis within these specific roles.

2. *Title and Learning Objectives*

<i>Session Title</i>	<i>Proposed Revisions to the Session Title</i>
<i>Leadership in Medicine Panel</i>	<i>No changes proposed.</i>
<i>Current Learning Objectives</i>	<i>Proposed Revisions to the Learning Objectives</i>
Identify and understand how leadership is portrayed in the context of the field of medicine.	Retire: Rationale: This objective can be integrated as part of learning objectives below.
Recognize the ways in which medical leadership is employed through different roles within the medical field.	Retire: Rationale: This objective can be integrated as part of learning objectives below.
Gain an insight into the various additional leadership roles, responsibilities and opportunities available within the field of medicine.	New: Discuss the scope of leadership roles, responsibilities, and opportunities available within medicine.
Understand the different perspectives that exist in medical leadership from various individuals in the medical field including Chief Residents, a community physician, and an academic hospital administrator.	New: Describe the perspectives of medical leaders with regards to the challenges and obstacles they faced and the leadership skills they required to perform their roles and responsibilities.
Learn how to address and navigate specific challenges within the medical field using various leadership skills and conflict-resolution techniques.	New: Explain how leaders in medicine use different leadership and conflict-resolution skills in navigating specific challenges they face daily.

Year 4 – Leaning into Leadership

Summary: working with uOttawa MBA, MHA, CMA Joule (Physician Leadership Institute) and CCFP

The fourth year of the Longitudinal Leadership curriculum is designed following the format of a clerkship elective experience and serves to further develop and enhance students' knowledge and skills in leadership. This elective has been completed by 4 – 10 students over the past 5 academic years. The elective includes a number of core elements including participation in formal educational sessions; completion of a series of selected modules; and the development of a project that enables students to demonstrate the application of leadership skills. Students who complete the elective are awarded with a **Leadership Certificate of Achievement** at graduation.

Based on the above description the members of the working group made the following recommendation.

Recommendation 12: Complete a review and revise, as appropriate, the current year 4 leadership elective.

The year 4 elective must align with the changes to the Longitudinal Leadership curriculum. This elective could support students considering pursuing further leadership training during residency education, promote scholarship in areas of leadership, and prepare students with a career path that includes serving in various leadership roles throughout their professional practice.

B. Educational Design Strategies

The following recommendations focus on the educational design strategies for the Longitudinal Leadership curriculum.

Recommendation 13: Utilize a flipped classroom model (29,30) where students are provided with eLearning resources, tools, strategies and self-reflection or self-assessment exercises to complete prior to scheduled sessions.

Flipped learning is an approach in which core teaching is delivered using online material viewed prior to face-to-face learning that is focused on application of knowledge gained from online material. This approach seeks to promote student-centred learning and promote more active learning during face-to-face sessions. Flipped classrooms may provide more efficient use of time

and facilitate the opportunity for students to come prepared and ready for discussions with peers on their understanding and application of core knowledge being presented.

Recommendation 14: Utilize a blended educational design that intentionally integrates large and small group educational sessions in year 1 and 2 with interactive virtual education in year 3.

The educational design strategies for the leadership curriculum should promote a case-based, interactive learning strategy that provides students with multiple tools and opportunities to self-reflect, practice skills, and explore strategies in an environment that is safe and supportive.

Recommendation 15: Adapt a team-based learning strategy to provide interactive case-based education for students in years 1 and 2.

Team-based learning (31) provides students with a resource effective, authentic experience of working in teams to solve real life clinical problems (32–34). Accordingly, the faculty will provide virtual education to students who are face-to-face in small groups and tasked with developing leadership approaches to complex scenarios, completing exercises in dyads or groups and sharing their experiences with the faculty and other small groups.

C. Assessment Strategies

Recommendation 16: Establish a process to review and propose revisions to the Multi-Source Feedback exercise in year 1 of the MD Program based on previous student feedback.

The Multi-Source Feedback (MSF) exercise is an entirely anonymous, formative exercise designed to provide students with feedback to identify their personal strengths and areas for improvement. The feedback from this exercise will serve as the basis for students to participate in the educational session on Receiving Feedback and Goal Setting in year 1 of this curriculum. Reviewing the MSF process and ensuring the content can provide meaningful feedback to students will support the ability of students to create a professional development goal using the UGME Learning Plan.

Recommendation 17: Integrate at least one of the Leadership OSCE stations developed for the Foundations in Leadership elective within the formative OSCE examinations in Year 2 and 3.

The leadership OSCE stations represent scenarios which encourage students to apply their knowledge gained from the longitudinal leadership curriculum to identify, de-escalate and resolve conflicts and/ or advocate for others. The leadership OSCE stations represent scenarios specific to healthcare leadership.

Recommendation 18: Develop a process to align the content of the Longitudinal Leadership curriculum with the program objectives and competencies of the MD Program and the national EPAs.

Recommendation 19: Integrate the content of the Longitudinal Leadership curriculum within the longitudinal assessment strategies that will support the transition to an integrated spiral curriculum.

D. Implementation Strategies

Given the proposed content, learning objectives and educational design strategies for the Longitudinal Leadership curriculum, the following recommendations are proposed for implementation.

Recommendation 20: Explore opportunities to integrate the concepts, skills, and competencies of the Longitudinal Leadership curriculum with other longitudinal curricula in competency-based medical education and social medicine.

The content of the Longitudinal Leadership curriculum aligns well with the purpose and goals of a number of longitudinal curricula including the EPA Achievement Course, the Health Systems component of the SIM curriculum, the Interprofessional Education curriculum and the Mindfulness curriculum. Integration will be achieved by, where feasible, by integrating the planning and delivery of specific objectives drawn from multiple longitudinal curricula within individual sessions.

Recommendation 21: Design a faculty development process to support the recruitment, training, and support of faculty to teach the concepts and content of the leadership curriculum.

Creating a faculty development program for educators who currently teach or who have taught in this curriculum will sustain the quality of the educational process and promote a continuous

review of the evolving concepts, skills and abilities relevant to leadership. A faculty development process should encourage engagement of other educators across health professions. Regular faculty development sessions, similar to those provided for ePortfolio coaches, could encourage the development of a community of practice for faculty interested in promoting leadership concepts throughout the curriculum.

Recommendation 22: Drawing from successes and challenges encountered through the delivery of the Foundations in Leadership elective, virtual platforms will be leveraged in situations that promote cost effectiveness and promote involvement of faculty who could not participate otherwise.

Whereas small-group sessions and interactions with peers are well-received by students when delivered in-person, certain situations – such as large group sessions, panels, or leadership OSCE evaluations – could be effectively and efficiently delivered virtually via Zoom. Utilization of technology to promote the delivery of a hybrid curriculum is encouraged.

Recommendation 23: Utilize the Foundations in Leadership elective as a platform for piloting new ideas for the Longitudinal Leadership elective curriculum.

This student-run initiative will collaborate in tandem with the faculty to provide complementary and supplementary leadership training to motivated first-year students. This elective will provide additional leadership opportunities and serve as a piloting platform from which the longitudinal leadership curriculum may draw ideas and strategies to maximize learning outcomes. The flexible nature of this elective will facilitate rapid implementation and review of new ideas, which can be considered for integration into the Longitudinal Leadership curriculum.

Conclusion

This longitudinal leadership curriculum has been revised to provide students with the resources, tools, and practical interactive learning opportunities to enable them to acquire the knowledge, competencies, skills and abilities to identify and manage multiple sources of conflict in their personal and professional lives. This curriculum will provide every student with opportunities to explore concepts of leadership and equip them to effectively demonstrate the concepts that define effective leadership as individuals or members of multiple interprofessional health care teams. Students will be equipped to receive and give feedback, set goals to achieve personal growth, and contribute to the leadership of healthcare organizations and systems in which they will work.

This report is submitted on behalf of the following members of the Longitudinal Curriculum Working Group (in alphabetical order)

- Alykhan Abdulla, MD FCFP McPL CCPE ICD.D
 - Lead, Leadership Curriculum, Undergraduate Medical Education
- Michael Aw
 - MD Candidate 2023, Faculty of Medicine, University of Ottawa
- Craig Campbell, MD FRCPC.
 - Director Curriculum, Undergraduate Medical Education; Working group co-lead
- Ramtin Hakimjavadi
 - MD Candidate 2024, Faculty of Medicine, University of Ottawa
- Katie Lemay
 - Academic Coordinator, Undergraduate Medical Education
- Jean Roy MD, FCMF
 - Department of Family Medicine. Working group co-lead
- Ahmed Shoeib
 - MD Candidate 2023, Faculty of Medicine, University of Ottawa
- Anika Spasov
 - MD Candidate 2024, Faculty of Medicine, University of Ottawa
- Emma Sypes
 - MD Candidate 2024, Faculty of Medicine, University of Ottawa

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Appendix A: Revised Longitudinal Leadership Curriculum Concept Map

Revised Leadership Curriculum Concept Map

Year 1 Themes	Core Concepts, Topics, Issues, Competences	Recommendations
Health Care Leadership	<ul style="list-style-type: none"> • Definition of leadership • Competences displayed by effective leaders • Goals for the leadership curriculum • Six styles of leadership • What constitutes authentic leadership 	<p>Maintain in the Introduction to the Professions Unit and include an introduction to the longitudinal leadership curriculum.</p>
Knowledge of Self	<ul style="list-style-type: none"> • Importance of self-reflection for physician leaders. • Strategies to identify personal strengths and weaknesses • Set personal goals for self-improvement and growth. • Appraisal and implementation of feedback. 	<p>Recommended for transfer from the Foundations in Leadership Curriculum to the longitudinal leadership curriculum.</p> <p>This session could include a focus on self-awareness</p> <p>Integration Options Good alignment with the goals of the EPA Achievement Course.</p>
Receiving Feedback and Goal Setting	<ul style="list-style-type: none"> • Using feedback to identify perceived and unperceived needs • Process to utilize feedback to improve performance. • Goal setting strategies 	<p>Integration Options Good alignment with the goals of the EPA Achievement and ePortfolio courses.</p>

360-degree assessment		Continue to be completed at the end of year 1
Year 2 Curriculum		
Giving Effective Feedback	<ul style="list-style-type: none"> • Positive and negative feedback • Value of feedback for personal and professional development 	<p>Recommended to be changed from year 1 to year 2.</p> <p>Integration Options Good alignment with the goals of the EPA Achievement and ePortfolio course.</p>
Conflict and Conflict Management	<ul style="list-style-type: none"> • Definition and sources of conflict • Perceptions and conflict • Approaches to conflict management • Application of a conflict management framework <p>From Foundations Course</p> <ul style="list-style-type: none"> • Identify and use strategies to facilitate meaningful conversation. • Recognition of and strategies to address conflict. • Safe spaces for open conversation during conflict. • Strategies to mitigate taking responsibility for conflict. 	<p>Consider combining the core concepts and competences included in the session “Conflict Management and Resolution” in the Foundations in Leadership program within this session. Integrate these core concepts in the third year of the curriculum.</p> <p>Integration options Possible integration in Unit 4 – Geriatrics block. Potential alignment with IPE</p>
Leading Through Change	<ul style="list-style-type: none"> • Kotter’s framework for change management • Process of change • Practical strategies to lead others through change. 	

Leadership OSCE		Explore if one or more of the OSCE stations could be integrated into the year 2 OSCE.
Year 3 Curriculum		
Health Systems and Quality Improvement	<ul style="list-style-type: none"> • Role of organizations, systems, and structures in health care delivery • Role of physicians and other health professionals in the provision of health care. • Health systems and in quality health care. • Process, fundamentals, and tools for continuous quality improvement. • Analysis of culture in health care settings. • Benefits and challenges of interprofessional quality improvement projects. 	Session was recommended to be transferred from the Foundations in Leadership curriculum
Conflict Management (part 2)	<ul style="list-style-type: none"> • Similar competences to the session in year 2 but with more complex cases; different contexts (within teams / between clinical services / between health systems) • Opportunities to practise skills. 	Integration Options Possible additional integration in one or more of the core clerkship rotations such as Family Medicine
Leadership in Medicine (panel)	<ul style="list-style-type: none"> • Leadership roles, responsibilities, and employment in medicine. • Perspectives on leadership skills and challenges in medicine. 	This session could be transferred from the Foundations in Leadership Curriculum

		and would be best included in year 3. Integration Options Integration with the Health Systems sub-domain within the SIM curriculum
Year 4 Curriculum		
Leadership Elective	No core competences described in ProfZone	
Additional Topics for Consideration		
<ul style="list-style-type: none"> ▪ Team building ▪ Emotional intelligence ▪ Reflection / Reflective Practice skills ▪ Patient Safety / Quality Improvement 		