

## DRAFT

### Faculty of Medicine Curriculum Refresh Working Group Recommendations

#### Instructions:

- Feel free to include other documentation(s) that would be helpful.
- In the “Recommendations” section, please use one form per recommendation, and copy and paste as many recommendation tables as needed.
- Please ignore questions that may not be relevant nor appropriate for your working group.
- Please prepare this document for the intended audience which may include unit heads, year committees, UMECC, UGME, etc.

#### Background

#### **Working group:**

Planetary Health

#### **Scope / Description of theme of working group:**

As a field of study, Planetary health is focussed on the human health impacts of the earth’s natural systems, including but not limited to climate change, pollution, food and water security, displacement, changing infectious disease burdens, and mental health. It is a growing area in the health sciences, with dedicated streams emerging in some faculties of health sciences in Canada. Equity is a central tenet of Planetary Health and there is a particular focus on the health of Indigenous peoples, given the centrality of land-based relationships for Indigenous health and knowledge systems worldwide. Lastly, the contribution of health care itself to the climate crisis is increasingly recognized as an area requiring education and action.

#### **Sources of information consulted (Include literature reviews, best practices, student evaluations, stakeholder group consultations, etc):**

An extensive review on Planetary Health and educational competencies in medical schools, including literature and consultations, was completed by the Canadian Federation of Medical Students Health and Environment Adaptive Response Task Force (HEART) in 2019. Feedback and suggestions were incorporated from experts including Dr. Courtney Howard, Canadian Association of Physicians for the Environment Board President; Dr. Lynne Madden, Associate Dean, Learning and Teaching at the School of Medicine, Sydney, The University of Notre Dame Australia; and Dr. Nick Watts, Executive Director of the Lancet Countdown: Tracking Progress on Health and Climate Change. A Dalhousie-specific review based on HEART’s evaluation criteria was led by medical student Jacqueline Mincer (Class of 2022). Faculty members Dr. Jennifer Hall and Dr. Ben Capps also participated in Dalhousie’s evaluation process. We have drawn on these two processes for our recommendations.

**Did the committee identify any gaps in the curriculum in relation to the working group's theme?**

Yes:  No:

**What would be the benchmarks for a successful implementation of the recommendations?**

A baseline analysis of Planetary Health in the curriculum currently exists. In the appendix to this report, we have identified specific areas of the curriculum where Planetary Health could be incorporated. Benchmarks will include the percentage increase in overall Planetary Health content; the number of tutorials that include Planetary Health objectives; and/or qualitative improvement in existing planetary health content.

## Recommendations

(Please use one form for each recommendation. Please prioritize your recommendations in order of implementation.)

### Recommendation

# 1

#### Identified gap in the curriculum

Despite increased awareness of the impacts that climate change, pollution and other environment stressors have on health and the health determinants, and particularly for vulnerable populations, there is limited attention to planetary health in the curriculum. Some content exists in Professional Competencies but is limited in scope (mostly focussed on air pollution).

#### Working group recommendation

Given the challenge of introducing new topics or units to the existing curriculum, we recommend integrating planetary health topics throughout the Med 1 and Med 2 curriculum. Specific subject areas and associated curriculum areas where these could be integrated are attached as Appendix 1. This can be achieved through integration of one Planetary Health learning objective into each tutorial.

#### Resources required for implementation

Content specialists to work with UGME faculty to integrate content into the various units.

#### Which Dal EPAs are affected by the recommendations? (List of EPAs provided at the end of the document.)

All, but predominately P,C,L

#### Is this a new objective or a modification of a current objective?

New objective(s)

#### Type of student assessment

Assessments will can vary from unit to unit. Planetary Health content would be integrated into existing assessments.

#### Which year(s) and unit(s) does this recommendation affect?

Med 1 and 2

#### Delivery format (i.e. lecture, tutorial, clinical skills, etc.)

Tutorials would be the primary method to introduce the new material.

#### Additional information:

Please see Appendix 1.

**Recommendation**

**Identified gap in the curriculum**

Despite increased awareness of the impacts that climate change, pollution and other environment stressors have on health and the health determinants, and particularly for vulnerable populations, there is limited attention to planetary health in the curriculum. Some content exists in Professional Competencies but is limited in scope (mostly focussed on air pollution).

**Resources required for implementation**

Faculty with expertise in these areas to deliver lectures.

**Is this a new objective or a modification of a current objective?**

New

**Which year(s) and unit(s) does this recommendation affect?**

Med 1 and 2. Units to be determined

**Additional information:**

**# 2**

**Working group recommendation**

In addition to the integrated content recommended above, we also recommended identifying 1-3 curriculum blocks in Med 1 and 2 to incorporate full lectures on Planetary Health. Possibilities include epidemiology and/or public health. Specifically, at a minimum, one comprehensive lecture on climate change and health is recommended in each of the Med 1 and 2 years.

**Which Dal EPAs are affected by the recommendations?  
(List of EPAs provided at the end of the document)**

All

**Type of student assessment/evaluation**

Formal assessments/evaluations would not be incorporated per se, but this knowledge would be applied via the various tutorials with planetary health content, as indicated above.

**Delivery format (i.e. lecture, tutorial, clinical, etc.)**

Lectures.

**Recommendation**

**Identified gap in the curriculum**

Despite the increasing awareness of the negative impact that health care delivery can have on the environment, the impacts of our choices (i.e. metered dose inhalers, disposable surgical equipment, anaesthetic gases, etc) are not addressed.

**Resources required for implementation**

Content specialists to work with UGME faculty to integrate content into the various units.

**Is this a new objective or a modification of a current objective?**

New

**Which year(s) and unit(s) does this recommendation affect?**

Med 1 and 2.

**Additional information:**

See Appendix 1.

**# 3**

**Working group recommendation**

In conjunction with the integrated content recommended above (#1), we also recommend that some of the incorporated learning objectives specifically address health care's impact on climate. Specific subject areas and associated curriculum areas are also integrated in Appendix 1.

**Which Dal EPAs are affected by the recommendations?  
(List of EPAs provided at the end of the document)**

All

**Type of student assessment/evaluation**

Assessments will can vary from unit to unit. This recommendation would entail integrating planetary health content into existing assessments.

**Delivery format (i.e. lecture, tutorial, clinical, etc.)**

Tutorials would be the primary method to introduce the new material.

**Recommendation**

# 4

**Identified gap in the curriculum**

**Working group recommendation**

Planetary Health and the impacts of health care on the planet are emerging issues that could be augmented within the curriculum. PH working group is suggesting an increase in learning objectives that may be outside of the knowledge scope of current content creators.

Position a faculty member to facilitate integration of content and serve as a resource for content creators.

**Resources required for implementation**

**Which Dal EPAs are affected by the recommendations?  
(List of EPAs provided at the end of the document)**

Content specialist(s) willing to serve as a resource and ensure

All

**Is this a new objective or a modification of a current objective?**

**Type of student assessment/evaluation**

N/A

N/A

**Which year(s) and unit(s) does this recommendation affect?**

**Delivery format (i.e. lecture, tutorial, clinical, etc.)**

Med 1 and 2.

N/A

**Additional information:**

Dalhousie University – Entrustable Professional Activities		
<b>Professional</b>	<b>P1</b>	Demonstrate appropriate professional attitudes and ethical commitments
	<b>P2</b>	Demonstrate commitment to the well being of the patient
	<b>P3</b>	Promote health and provide healthcare equitably
<b>Community Contributor</b>	<b>C1</b>	Contribute to the improvement of healthcare institutions and systems
	<b>C2</b>	Use their professional role to promote the public good
	<b>C3</b>	Pay particular attention to identifying inequities and the needs of the most vulnerable
<b>Lifelong Learner</b>	<b>L1</b>	Be effective lifelong learners
	<b>L2</b>	Participate in the creation, dissemination, application, and translation of new knowledge
	<b>L3</b>	Participate in the systematic improvement of clinical practice
	<b>L4</b>	Raise questions and bring fresh perspectives to existing practice
<b>Skilled Clinician</b>	<b>S1</b>	Perform an accurate history and physical examination in diverse populations of patients
	<b>S2</b>	Develop and propose a differential diagnosis and appropriate plans for investigation and management
	<b>S3</b>	Provide safe, supportive and evidence-based care for patients, within their scope of training
	<b>S4</b>	Communicate and collaborate effectively and respectfully with patients, families, and colleagues in the team environment and across the continuum of care
	<b>S5</b>	Help patients navigate the illness and healing experience

**Summary of Recommendations**  
**(add more rows if needed)**

#	RECOMMENDATION
1	Given the challenge of introducing new topics or units to the existing curriculum, we recommend integrating planetary health topics throughout the Med 1 and Med 2 curriculum. Specifically, every tutorial should have at least one Planetary Health learning objective. Suggested subject topics and associated curriculum areas where these could be integrated are attached as Appendix 1.
2	In addition to the integrated content recommended above, we also recommended identifying 1-3 curriculum blocks in Med 1 and 2 to incorporate full lectures on Planetary Health. Possibilities include epidemiology and Public Health. Specifically, at least one comprehensive lecture on climate change and health is recommended.
3	Include topics specific to the health care impacts on climate. This would ultimately be incorporated into #1
4	Position an interested faculty member to serve as a resource to facilitate the integration of #1-3 into tutorial content.



## Planetary Health Curriculum Review: Appendix 1

Year	Unit	Topic
Med 1	Foundations	Introduction to Planetary Health and Climate Change
	Host Defense	Improper Antibiotic Disposal <ul style="list-style-type: none"> <li>- Effects on Nearby Ecosystems and Resistance Rates</li> </ul>
		CFMS' Competency 3 <ul style="list-style-type: none"> <li>- Vector-borne Diseases (eg. Effects Of Climate Change On Emerging Diseases)</li> <li>- Natural Disasters (eg Changes in food- and water-borne infections)</li> </ul>
	Metabolism 1	CFMS' Competency 2 Impacts of environment on food security + nutrition <ul style="list-style-type: none"> <li>- Price stability and food access (Exacerbate existing insecurity)</li> </ul> Similarly with fresh-water sources (eg Natural Disasters)
	Human Development	CFMS' Competency 10 Reproductive health and gender equality <ul style="list-style-type: none"> <li>- Population Growth, access to contraception, family planning, education</li> </ul>
	Professional Competencies	CFMS' Competency 4 Emergency Disaster Management <b>Existing: Environmental Health Lecture</b>
Med2	Neuroscience	CFMS' Competency 6 - Urban Planning and Dementia
		CFMS' Competency 6 - Mental Health
		CFMS' Competency 11 - OR Waste
	Metabolism II	CFMS' Competency 5 - Air Pollution <ul style="list-style-type: none"> <li>- Risk factor for many cardiorespiratory diseases</li> <li>- Disproportionately effects marginalized communities</li> </ul>
	MSK	
	Integration	
	Professional Competencies	
MED 3/4	PIERS	CFMS Competency 11 - Greening Healthcare
Overall	In all units	CFMS' Competency 1 and 9 - Marginalized Populations <ul style="list-style-type: none"> <li>- Climate change will disproportionate affect marginalized populations</li> <li>- Elderly/Children, Climate Refugees, Remote and Rural Communities</li> <li>- Indigenous Health (Competency 12)</li> </ul>
		CFMS Competency 11 Greening Healthcare/Hospital Waste Management Protocols <ul style="list-style-type: none"> <li>- Environmentally friendly vs patient/physician safety</li> </ul>
		CFMS' Competency 7 and 8 Health Advocacy and Ecological Health Promotion

